(No Model.)

J. D. COLBY & J. F. LUTHER.

STORE TONGS.

No. 316,524. Patented Apr. 28, 1885.

Fig. 1.

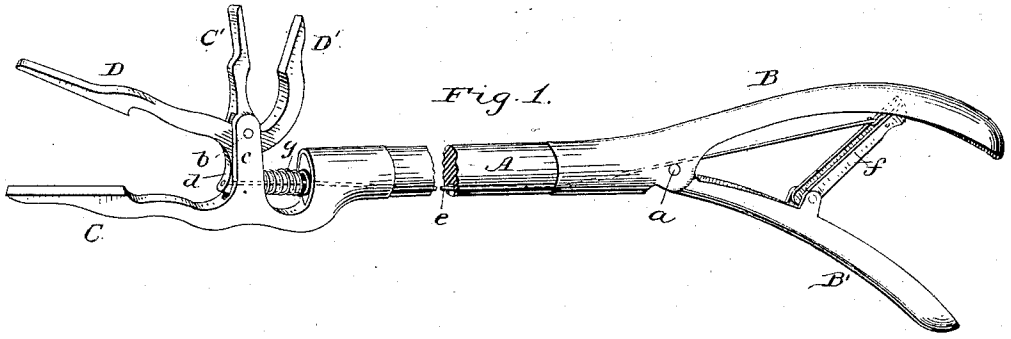


Fig. 2.

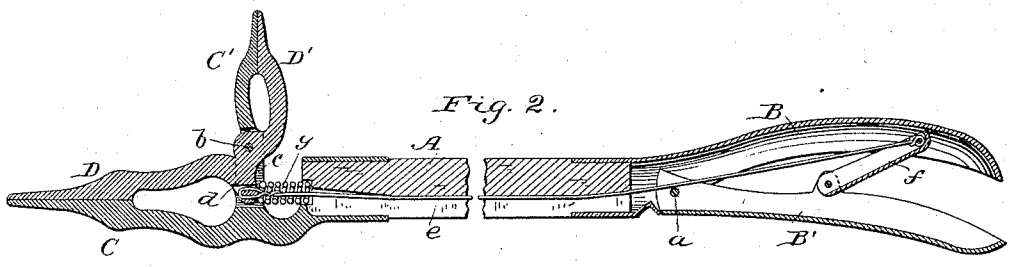
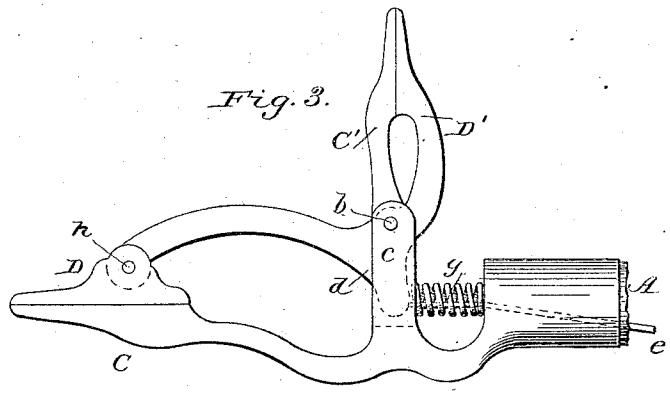


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN D. COLBY AND JOHN F. LUTHER, OF LOWELL, MASSACHUSETTS.

STORE-TONGS.

SPECIFICATION forming part of Letters Patent No. 316,524, dated April 28, 1885.

Application filed September 25, 1884. (No model.)

To all whom it may concern:

Be it known that we, JOHN D. COLBY and JOHN F. LUTHER, of Lowell, in the State of Massachusetts, have invented a certain new and useful Improvement in Store-Tongs, of which the following is a specification.

Our invention is directed to what are called "store-tongs" or "window-tongs," designed, principally, for shop use, and intended to enable the salesman to reach goods beyond reach of the hand.

The instrument in which our improvement is embodied consists of a handle, of any desired length, carrying at one end normally-open spring-controlled jaws, which are adapted to be operated from the other end of the handle by the same hand that grasps the handle. Tongs possessing these general characteristics, and employing as a means for closing the jaws a wire or rod connected at one end to the movable jaw and at the opposite end to means by which it can be pulled by the same hand which grasps the handle, have been in common use for some time, and are not broadly claimed by us.

Our invention consists in improvements on an instrument of this kind, which can be best explained and understood by reference to the accompanying drawings, in which—

Figure 1 is a perspective view of the instrument with the jaws open. Fig. 2 is a longitudinal central section of the same with the jaws closed. Fig. 3 is a view of a modified construction of the jaws.

The handle is of any desired length, and can be made of any preferred material. In the drawings it is represented as made of a central stem, A, of wood, carrying at one end the jaws and at the other end a divided handle. This divided handle consists of a fixed part, B, attached to the stem A, and a movable part, B′, which is hinged at *a* to its fellow part, so that it may have movement to and from the other, both parts being so shaped that they together form a handle which can conveniently be grasped by the hand. The movable part B′ stands open normally, and is closed up toward the other part when occasion requires by pressure of the hand which grasps the handle. This movement of the divided handle we avail of to operate the jaws.

The jaws are mounted on the front end of the stem A. We have represented in the drawings two pairs of jaws, one pair standing at right angles to the other, and both pairs operated by one and the same instrumentality. The instrument, however, can be made with only one pair of jaws, if desired.

Of the main pair of jaws, the fixed jaw C is fastened to the handle or stem A, and the movable jaw D is pivoted at *b* between ears *c*, formed on the fixed jaw at a suitable point. The movable jaw has the shape of an elbow-lever, and its shorter arm *d*, which works between the ears *c*, is connected to a wire or rod, *e*, which passes back through a suitable passage formed for it in the stem and handle, and is attached to the free end of a lever, *f*, pivoted to the movable handle part B′. This lever is set so that it inclines rearwardly from its pivot, with its free end working against the inner face of the stationary part B of the handle.

The jaws are kept normally open by a spring, the preferred arrangement being to place the spring *g* (a coiled spring) so that it shall be confined between the arm *d* of the jaw D and the front end of the stem A around the wire or rod *e*, which thus steadies the spring and prevents its lateral displacement. The spring acts by expansion, and tends to throw open the jaw D, as well as the movable handle part B′. When the divided handle is pressed together, the effect is to force back the intermediate lever, *f*, thus drawing on the wire *e*, compressing the spring, and causing the movable jaw to close. As soon as the handle is relieved from pressure the spring expands and opens the handle and jaws.

Manifestly the lever *f* can be hinged either to the part B or the part B′. The latter arrangement, however, is to be preferred.

In the use of these tongs it is frequently necessary to reach for articles which cannot conveniently be grasped by jaws arranged, as are the jaws C D, in the line of the handle. To provide against any such contingency, we make use of a second or auxiliary set of jaws, C′ D′, which are placed at right angles to the main pair. The stationary jaw C′ is formed by a prolongation of the ears *c*, and the movable jaw D′ is carried by or formed in one with

the movable jaw D. These jaws C′ D′ stand open normally. They move with the jaws C D, and both pairs of jaws are operated by one and the same mechanism. The arrangement is simple, compact, and very convenient.

It may be found desirable in some cases to hinge or swivel one jaw of the pair so that its acting face may adjust itself to the article taken hold of. This it could not otherwise do were the article of any considerable thickness. Such an arrangement is represented in Fig. 3, where the grasping portion of the movable jaw D is represented as swiveled or hinged at *h* to the shank of the jaw. This feature may be applied to any one of the jaws.

Having described our improvements and the best way known to us of carrying the same into effect, what we claim as new and of our own invention is—

1. The combination of the normally-open pivoted spring-controlled jaws, the stem, the divided handle consisting of a stationary part fixed to the stem and a movable hinged part, the intermediate lever jointed to one of the parts with its free end working against the opposite part, and the wire or rod connecting the movable jaw with the lever, substantially as and for the purposes set forth.

2. In store-tongs, the combination of two pairs of jaws placed at right angles, or thereabout, to one another, and connected so that they move bodily and together, a supporting stem or handle, and jaw-actuating mechanism operated by the hand which grasps the handle, substantially as and for the purposes hereinbefore set forth.

3. The combination of the fixed double jaw C C′, the movable double jaw D D′, the stem, and divided handle B B′, the spring *g*, the wire or rod *e*, and the lever *f*, all constructed and arranged substantially as hereinbefore set forth.

In testimony whereof we have hereunto set our hands.

JOHN D. COLBY.
JOHN F. LUTHER.

Witnesses:
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