

No. 784,467.

PATENTED MAR. 7, 1905.

C. BRAUNSCHWEIGER.
JAR OPENER OR CLOSER.
APPLICATION FILED FEB. 1, 1904.

Fig. 1

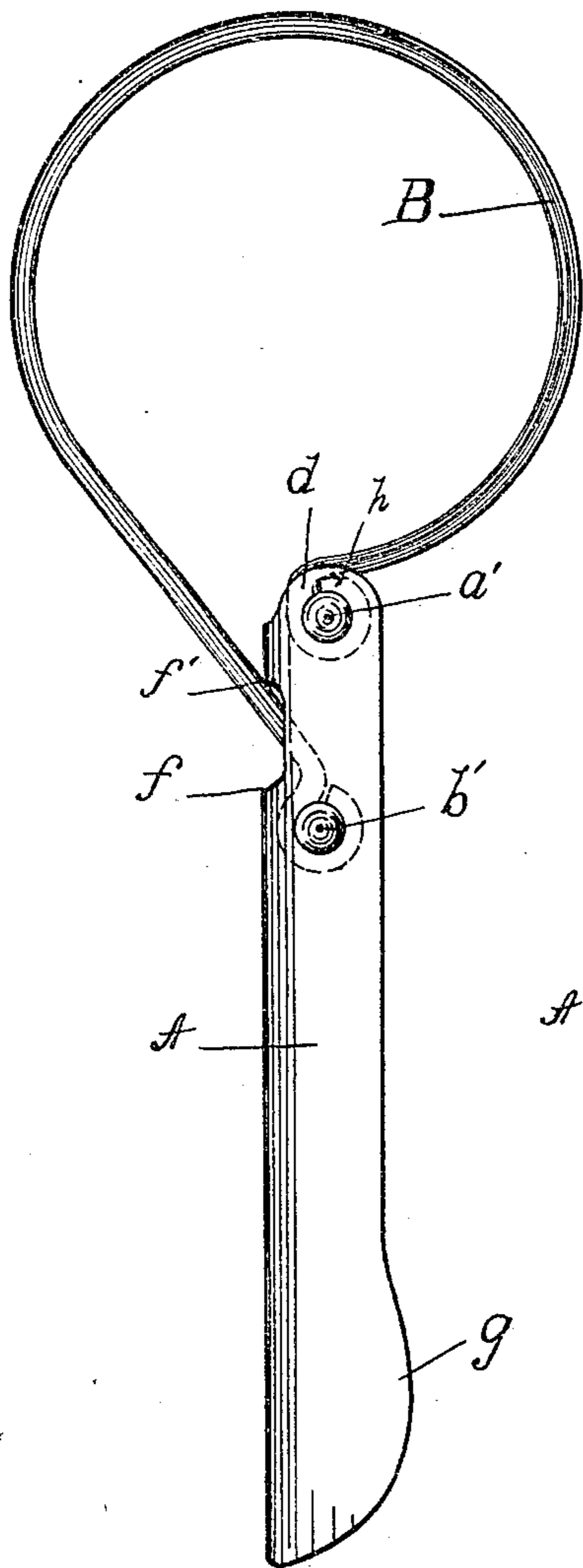


Fig. 2.

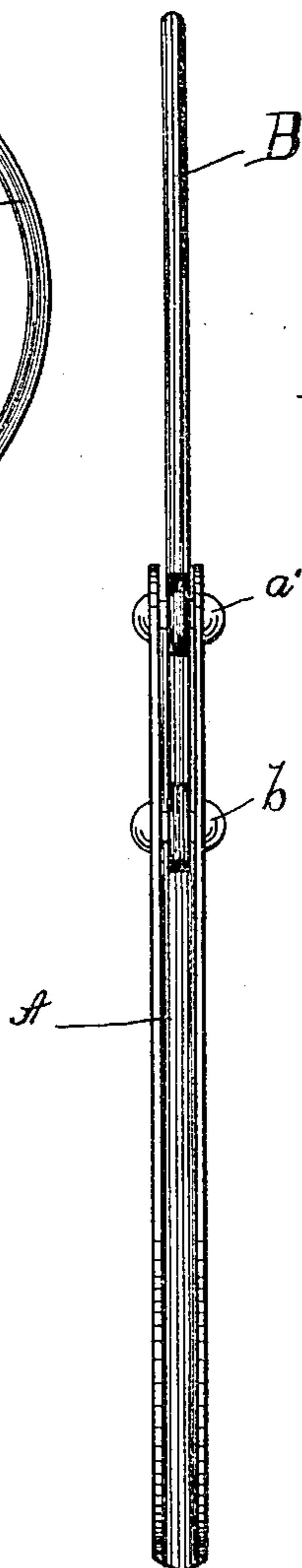


Fig. 4.

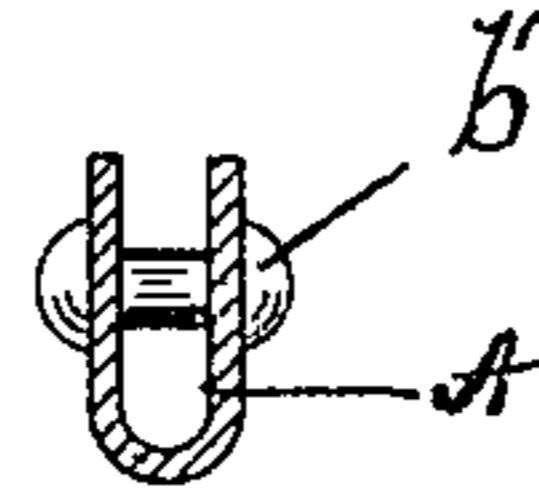
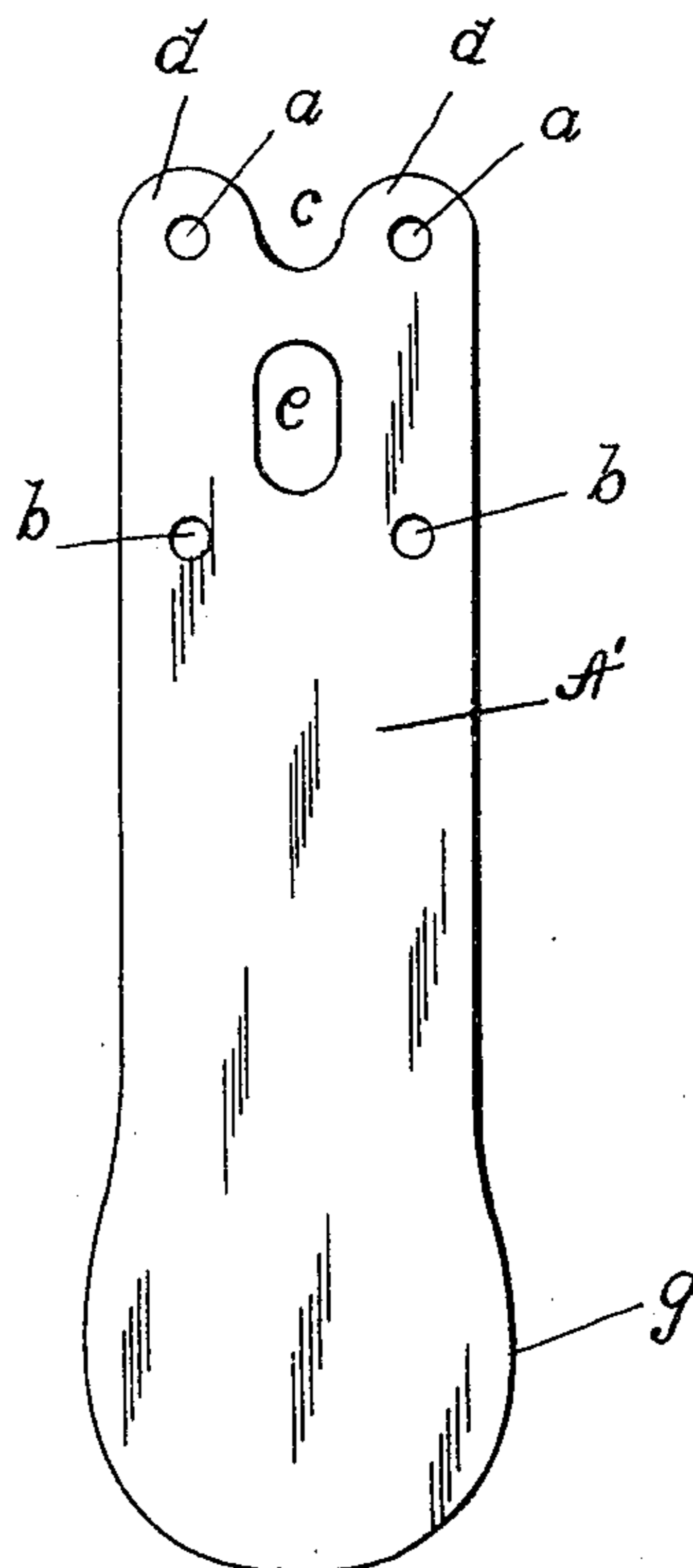


Fig. 3.



WITNESSES.

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UNITED STATES PATENT OFFICE.

CHRISTIAN BRAUNSCHWEIGER, OF TOLEDO, OHIO, ASSIGNOR OF ONE-HALF TO JOHN BRAUNSCHWEIGER, OF TOLEDO, OHIO.

JAR OPENER OR CLOSER.

SPECIFICATION forming part of Letters Patent No. 784,467, dated March 7, 1905.

Application filed February 1, 1904. Serial No. 191,468.

To all whom it may concern:

Be it known that I, CHRISTIAN BRAUNSCHWEIGER, a citizen of the United States, and a resident of Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Jar Openers or Closers; and I hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in the class of tools used for opening or closing the screw covers or stoppers of fruit-jars or other analogous articles; and it has for its object to simplify and cheapen the manufacture of devices of this class and to make certain improvements in the construction thereof whereby their efficiency is increased and their operation made easier.

The invention is fully described in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a side view of the device comprising my invention; Fig. 2, a rear view thereof, showing the U-groove in the handle. Fig. 3 is a plan view of the blank used in the formation of the lever-handle thereof, and Fig. 4 is a cross-section of the lever-handle.

Referring to the drawings, A represents a lever-handle which is formed from sheet metal and made U-shaped in cross-section to form a longitudinal groove or socket therein for receiving the ends or bearings of the spring-wire loop B, as shown in Figs. 3 and 4. The blank A', from which the lever-handle A is formed, is provided near one of its ends with two sets of horizontally-aligning apertures *a a* and *b b*, said two sets of apertures being a short distance apart and each set being so spaced as to adapt them when the handle has been formed to axially align to receive the pivots *a'* and *b'*, respectively.

The end of the blank A' adjacent to the apertures *a a* is cut away at *c* to form the tongues *d d*, in which said apertures are centrally dis-

posed, and said blank is also cut away at a point between the apertures *a a* and *b b* in longitudinal axial alinement with the aforesaid cut-away portion *c* to form the slightly-elongated slot *e* therein. When the blank A' has been longitudinally bent upon itself to form the U-shaped handle A, the slot *e* forms a mutilated or chamfered portion on the back of said handle, having the shoulders *f* and *f'* at either end thereof, the shoulder *f'* being disposed between said slot and the tongues *d d*. The blank A' is also shown as being provided with a bulged or enlarged portion *g* at its opposite end to form a gripping-surface on the handle A for the hand.

The loop B, which is formed from spring metal or wire and adapted to encircle the jar cover or stopper to be opened or tightened, has bearing-loops provided at each end, one of which is inserted between the tongues *d d* in the handle A and retained therein by the pivot *a'*, which is passed through and has its ends headed on the outer sides of the apertures *a a*. The end *h* of said bearing-loop passes entirely around the pivot *a'* and forms a wedge between the adjacent portions of the loop B and the pivot *a'*, thus rigidly elevating that portion of the loop B above the pivot. The bearing-loop at the other end of the loop B is passed diagonally through the slot *e* to a point between the apertures *b b*, where it is retained by the pivot *b'*, which is mounted in and has its ends headed on the outer sides of said apertures.

The tension of the loop B is such as to adapt it to remain normally closed or in engaging position with its rearwardly-pivoted end bearing against the shoulder *f'*, its opening movement being limited by the rear shoulder *f* of the slot *e*. This normally closed feature of my device is obtained by so forming the loop B with relation to the lever-handle A as to have the center thereof in substantial alinement with an axial line drawn longitudinally of said handle, thus causing the lower arc of the circle formed by the loop B to intersect the end of the lever A at substantially a right angle thereto. The advantage derived from this feature of my device is apparent, as the

loop will be adapted to normally engage the cover to be operated on, and thus obviate the necessity of holding the loop by hand to prevent a movement thereof while the lever is being oscillated to take up the slack.

A further advantage is derived from the arrangement of the parts above set forth, inasmuch as the power generated in the loop B by the operation of the lever A is evenly distributed about the same, the contiguous end of the lever being adapted to draw tangentially on the loop and engaged cover instead of being pushed inwardly against the same as the other end of the wire is drawn around by the operation of the lever, thus causing the loop and lever to have a twisting instead of a crushing effect on the cover.

It will be obvious that such changes in the form, proportion, and minor details of construction of the parts as fairly fall within the scope of my invention may be made without departing from the spirit or sacrificing any of the advantages thereof.

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

As a new article of manufacture, a jar opener and closer, comprising a sheet-metal handle bent into substantially U-cross-sectional shape, a pin extending across the channel formed by the handle and secured in the side walls of the same, a second pin secured at its ends in the flat sides of the handle and extending across the channel provided by the same and separated a distance from the first pin, said handle having an elongated slot in the back thereof between the two pins, and a resilient strand bent at one end around the first-named pin extending therefrom in looped formation and having its opposite end passed through said elongated slot into the space between the two sides of the handle and secured about the second pin, the loop normally assuming a contracted position, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHRISTIAN BRAUNSCHWEIGER.

Witnesses:

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MARY I. SHAY.