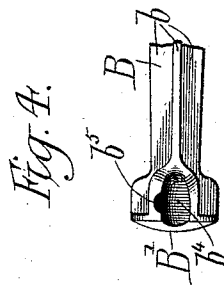
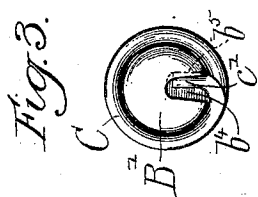
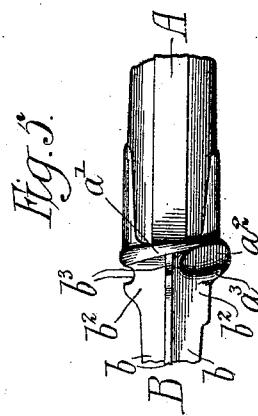
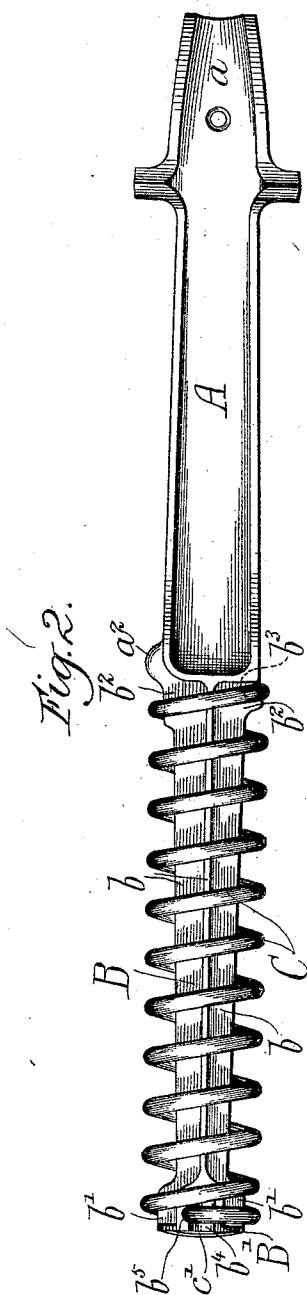
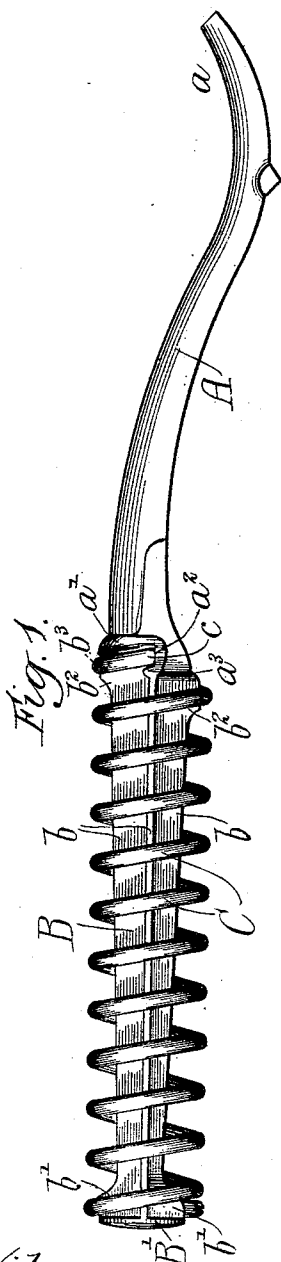


(No Model.)

G. W. WARNER.
HANDLE FOR STOVE LID LIFTERS, &c.

No. 496,587.

Patented May 2, 1893.



Witnesses:
Wm. J. Fleming
J. M. Rheem.

Inventor:
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by Dayton, Cook & Brown
his Attorneys

UNITED STATES PATENT OFFICE.

GEORGE W. WARNER, OF FREEPORT, ILLINOIS.

HANDLE FOR STOVE-LID LIFTERS, &c.

SPECIFICATION forming part of Letters Patent No. 496,587, dated May 2, 1893.

Application filed June 27, 1892. Serial No. 438,157. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. WARNER, of Freeport, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Handles for Stove-Lid Lifters and other Implements; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in handles for stove-lid lifters, shovels and other like articles of the type wherein an extension of the shank is surrounded by a coiled wire to form a handle proper, and refers more particularly to improved means for securing said coiled wire in position upon the extension of the shank of the implement.

The invention consists in the several novel features and details of construction herein-after described and more particularly pointed out in the appended claims.

In the accompanying drawings in which my invention is shown as embodied in a stove-lid lifter, Figure 1 is a side view of said lifter. Fig. 2 is a bottom plan view thereof; and Figs. 3, 4 and 5 are details showing the means for securing the coiled wire to the extension of the shank.

As shown, said lifter comprises a shank, A, the end, a , of which is adapted to engage a suitable hole in or suitable projections upon a stove lid, in the usual manner, and a handle. The handle comprises an extension B of the shank A, and a coiled wire, C, surrounding said extension of the shank; the extension B of the shank being here shown as of cross-shape in cross-section, it consisting of four radially projecting ribs, b ; said extension of the shank may, however, be of any desired or convenient shape. The coiled wire, C, is supported about the extension B of the shank at its ends only, the intermediate portions thereof not touching said extension of the shank. The means for supporting said coiled wire comprise extensions, b' , of the ribs b , at the outer or rear end thereof and other extensions, b^2 , at the inner end thereof, certain of said extensions b^2 being notched, as clearly shown at b^3 , in Fig. 5, to

receive the wire of the coiled wire C. The distance between the outer edges of the opposite extensions b' and b^2 at the bottoms of the notches b^3 where said notches occur is equal to the interior diameter of the coiled wire C, while between said extensions said ribs are smaller than the exterior diameter of said coiled wire. Thus when in position the only points of contact between said coiled wire C and the extension B of the shank will be at the extreme ends thereof, as illustrated.

The coil C is secured in position in the following manner: At the point of juncture between the shank A and the extension B thereof, a spiral flange, a' , is formed, which is, practically, of the same pitch as the pitch of the coiled wire C and against which the inner coil of said coiled wire will bear when in position. At the end of the flange a' is a stop or shoulder, a^2 , against which the extreme end, c , of the coiled wire C bears when said coiled wire is in position upon the extension B of the shank of the implement. The flange, a' , and the shoulder a^2 are thus adapted to prevent both longitudinal and spiral movement of said coil in the direction of the shank A. At its rear or outer end the extension B of the shank terminates in a disk or button, B' , having a radial slot, b^4 , adapted to receive the end c' of said coiled wire, said end being turned so as to project inwardly in a practically radial direction relative to the coiled wire C. On one side of said slot b^4 a notch, b^5 , is formed with which the end c' of the coiled wire is caused to engage after being inserted into the slot b^4 . The length of the coil C relative to the extension B of the shank A is such that when the inner end c of the coil C bears against the shoulder a^2 , the inwardly turned portion c' at the opposite end of the coiled wire will be at a distance from the slot b^4 , so that it can only be inserted therein by bringing a torsional strain upon said coiled wire C. A torsional strain thus applied to said coiled wire will cause a shortening thereof whereby the end c' will be drawn within the slot b^4 when opposite the same, and will cause said end c' to engage the notch b^5 in the side thereof, as described. The coiled wire will thus be held firmly in position upon the said lifter or other article. The notches b^3 on the extension b^2 of the ribs and a lug, a^3 , at the end of

the shoulder a^2 prevent longitudinal movement of said coiled wire necessary to remove the same from the extension of the shank A, thereby insuring against accidental displacement thereof. It will be obvious that while the notches b^3 and the notch b^5 as well as the lug a^3 will be useful in retaining the coil C in proper position upon the extension of the shank, and while this is the preferred construction, as shown, either the notch b^5 , or the notches b^3 and the lug a^3 may be omitted if desired. It is also obvious that to disengage the coil C from the extension B of the shank it will be necessary to again give the coil a torsional strain before the end c' of the coil will free itself from the slot b^4 .

I claim—

1. In a handle for a lid-lifter, shovel or other like article, comprising an extension of the shank and a coiled wire surrounding the same, the combination of a stop or shoulder to support the end of the inner coil of the coiled wire, a slot at the opposite end of the shank extension, and an inwardly turned end of the coil adapted to engage said slot, whereby the wire may be retained in position by its own tension, substantially as described.

2. In a handle for a lid-lifter, shovel or other like article, comprising an extension of the shank and a coiled wire surrounding the same, the combination of a flange to support the inner coil, a shoulder to support the end of said coil, a slot at the opposite end of the shank extension, the inwardly turned end of the coil adapted to engage said slot, and notches in the extension of the shank adapted to receive the coiled wire, whereby the wire may be retained in position by its own tension, substantially as described.

3. In a handle for a lid-lifter, shovel or other like article, comprising an extension of the shank and a coiled wire surrounding the same, the combination of a flange to support the inner coil, a shoulder to support the end

of said coil, a radial slot at the opposite end of said shank extension, the inwardly turned end of the outer coil, a notch in the side of said slot with which the end of the coil is adapted to engage, said coil being subjected to a torsional strain whereby the end of said coil is maintained in engagement with the notch, and notches in the extension of the shank, adapted to receive the coiled wire, substantially as described.

4. In a handle for a lid-lifter or other like implement, comprising an extension of the shank thereof and a coiled spring surrounding the same, the method of uniting and securing said spring to the said shank which consists in first placing said coiled spring upon said extension, then engaging its forward end against a shoulder or flange and a stop both located upon said extension, then subjecting said coil to a torsional strain and then engaging the outer or other end of said coil in a suitable slot at the outer end of said extension in such manner that a portion only of the torsional strain of said coil is retained after the coil is thus in position which strain tends to hold the coil in its operative position, substantially as described.

5. In combination with the handle of a stove-lid lifter, shovel or other like implement, a grip or hand-hold formed of a coiled rod or strip of spring metal surrounding said handle, the respective ends of said coil engaging notches, lugs or other suitable means so located in or on said handle as to maintain a torsional strain in said coil, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

GEORGE W. WARNER.

Witnesses:

TAYLOR E. BROWN,
GEORGE W. HIGGINS, Jr.