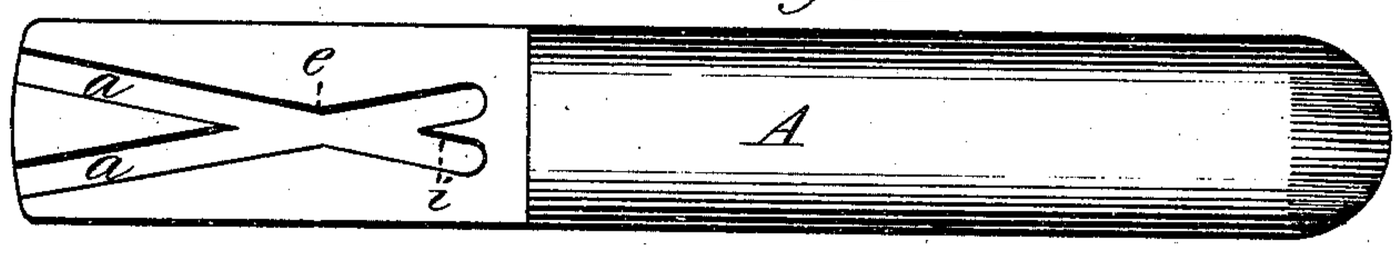
G. W. MILLER.

TOOL-HANDLE.

No. 169,367. Patented Nov. 2, 1875.

Fig. I



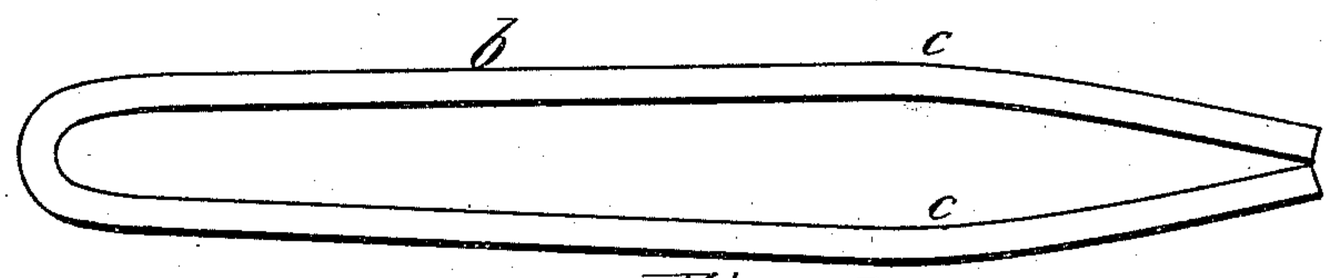


Fig. II

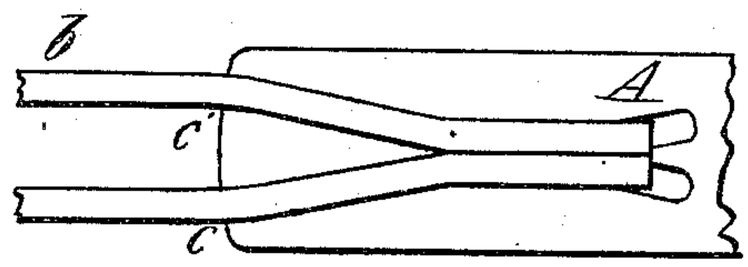


Fig. III

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UNITED STATES PATENT OFFICE.

GEORGE W. MILLER, OF MERIDEN, CONNECTICUT.

IMPROVEMENT IN TOOL-HANDLES.

Specification forming part of Letters Patent No. **169,367**, dated November 2, 1875; application filed June 25, 1875.

To all whom it may concern:

Be it known that I, GEORGE W. MILLER, of Meriden, in the State of Connecticut, have invented a new and useful Improvement in Tool-Handles; and that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making a part of this description and specification.

The object of my invention is to secure wire implements in their handles, so that they will not come out either by the shrinkage of the handle or from any other cause; and to this end my invention consists of a handle having two holes made in the end at such an angle as that the holes will intersect each other at some point between their outer and inner ends, into which the wire, bent at the end, is driven with such force as to again bend the wire back again slightly at the inner end.

In the drawings, Figure I represents the handle of a wire stove-lid lifter cut away at the end, showing the direction and relative position of the holes into which the wire is driven. Fig. II is a view of the bent wire ready to be inserted in the holes; and Fig. III is a longitudinal section of a portion of the handle, showing the position of the wire after being secured.

A represents a wooden handle of a stove-lid lifter cut away at the end, in which two holes, *a*, are made at the end at such an angle as to intersect each other at *e*, and these holes should be of such size that the wire will fit snugly therein. The wire *b* is then bent midway, and the two ends brought nearly together and their ends bent at *c*, so that their extreme ends may nearly or quite touch each other. The ends of the wire are then inserted in the holes *c*, and forced in as far as possible, and the wire is then secured firmly in a vise, or otherwise securely held, and the handle is driven on with a mallet, or hammer, or otherwise forced on until the extreme ends of the wire reach the point *i* of the holes. In being thus forced into place, when the extreme ends of the wire reach the point *e* at the intersection of the holes, they are forced with great power against each other, and being forced farther in, the point *e*, each side of the holes, crowds or bends the wire inward as it passes in, so that when the extreme ends of the wire reach the point *i* the wire is in the form shown in Fig. III, being bent in two places, and cannot, of course, be withdrawn from the handle.

This method of securing implements in handles is applicable to very many of the utensils commonly used for housekeeping and other purposes when the implements are made of wire or of wrought-iron, and the handles may be made of wood or metal, or of other material.

Implements commonly used about a kitchen-stove—as, for example, the stove-lid lifters—are very often carelessly left upon the stove, and when the handles are made of wood they become heated and shrink, and very soon the iron implement falls out of its handle.

This invention obviates all that difficulty, as the wood cannot shrink so that the wire will not remain firm in its place, and not only will not fall out, but it cannot be pulled out by any ordinary force that can be brought to bear upon it.

Having thus described my invention, what I claim as new is—

The method of securing implements in handles, substantially as herein described—that is to say, by making two holes, *a*, in the end of the handle, in such relative position and inclination to each other that the said holes shall intersect at some point between their inner and outer ends, and forcing the implement therein, as set forth.

GEORGE W. MILLER.

Witnesses:
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