

No. 635,185.

Patented Oct. 17, 1899.

J. W. REGAN.
AX OR SIMILAR TOOL.
(Application filed Apr. 28, 1899.)

(No Model.)

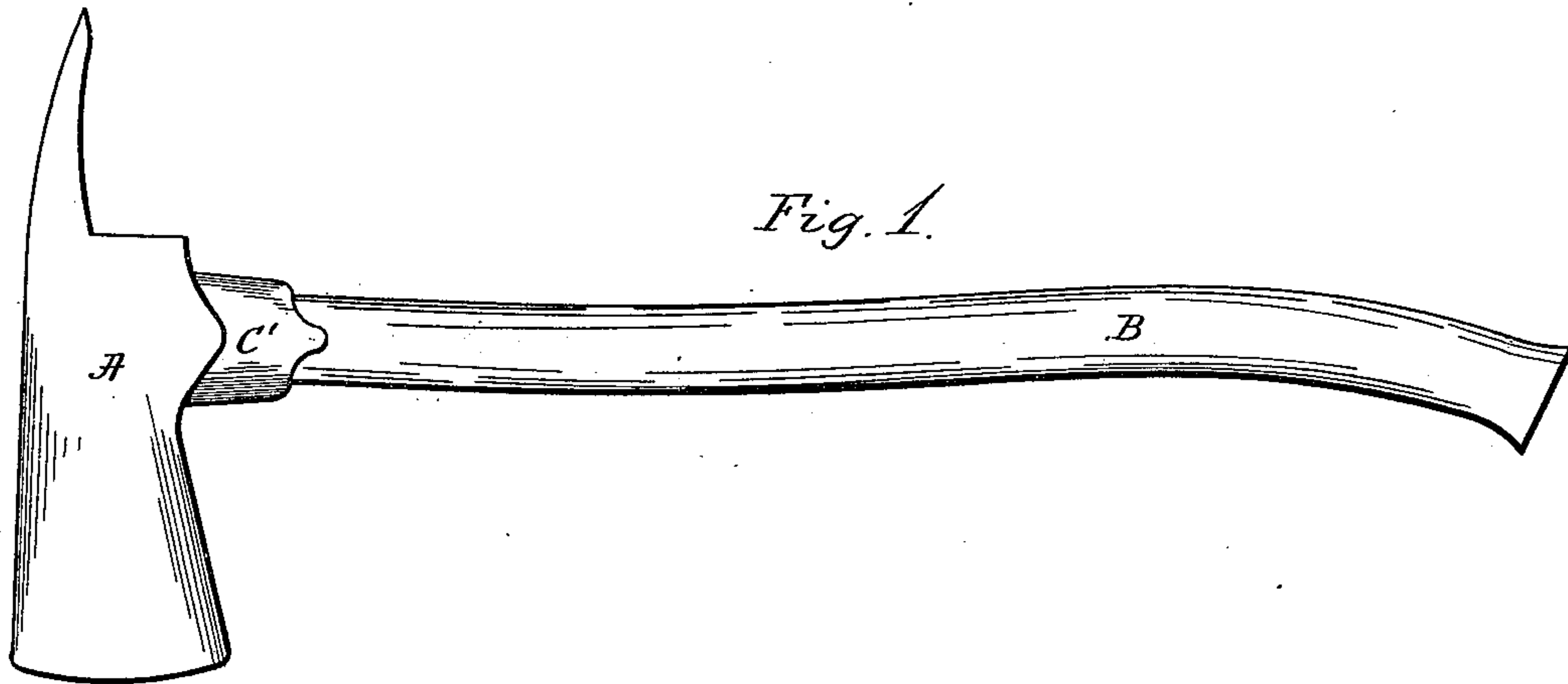


Fig. 1.

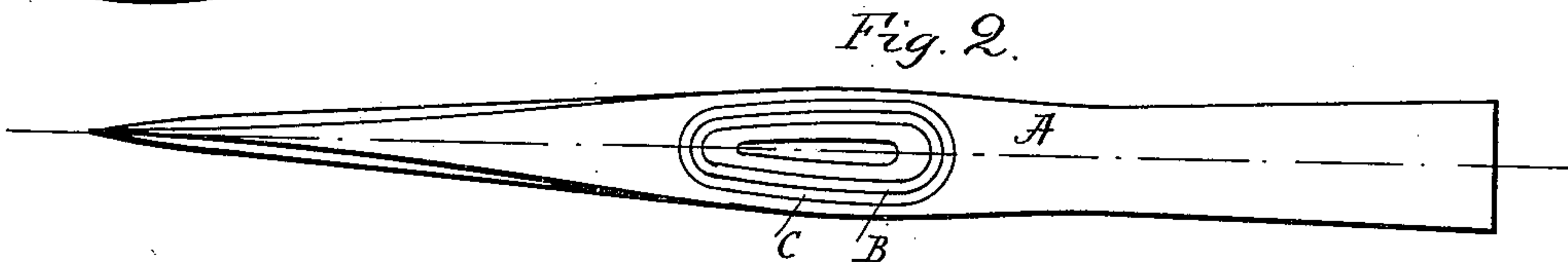


Fig. 2.

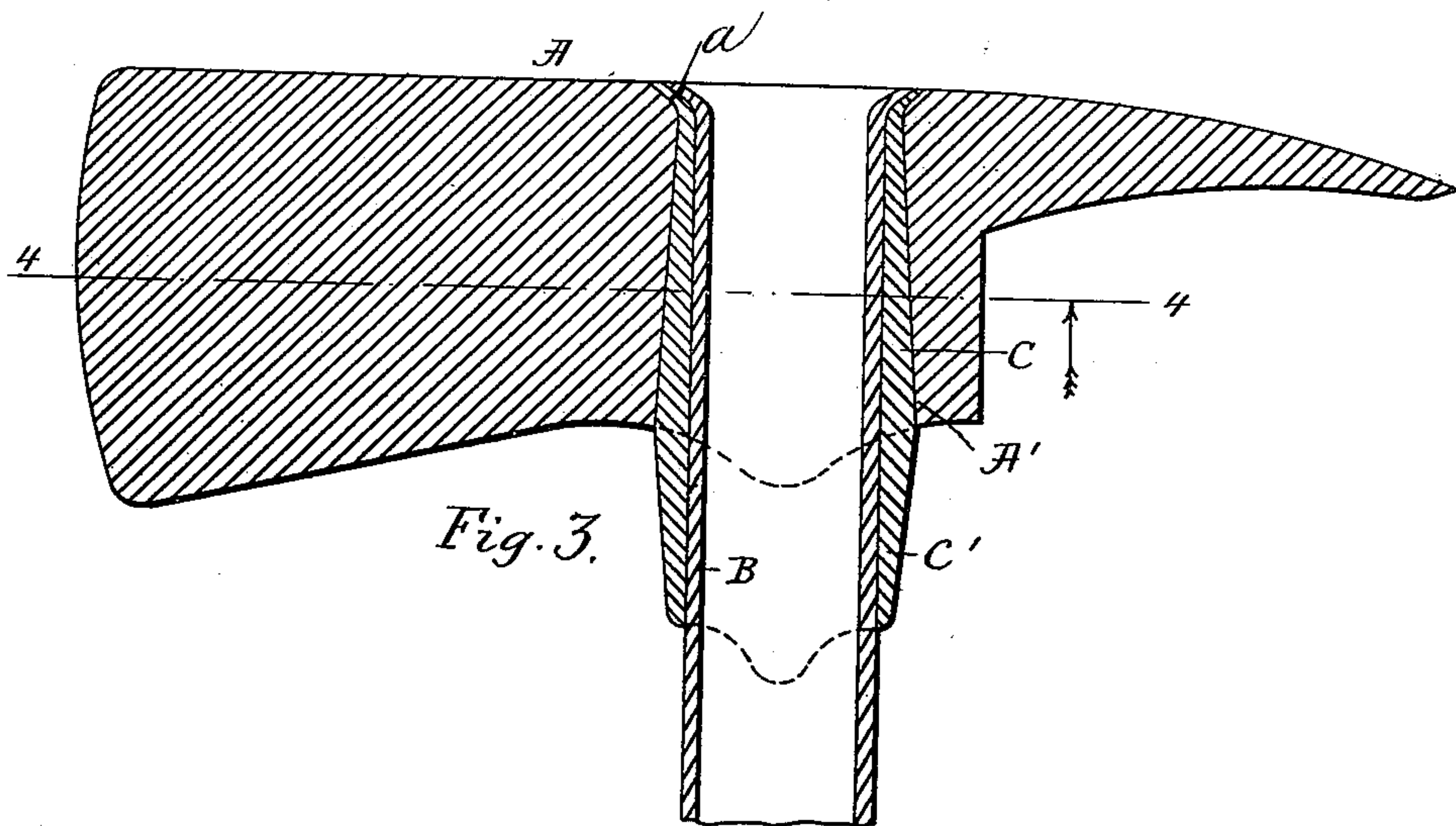


Fig. 3.

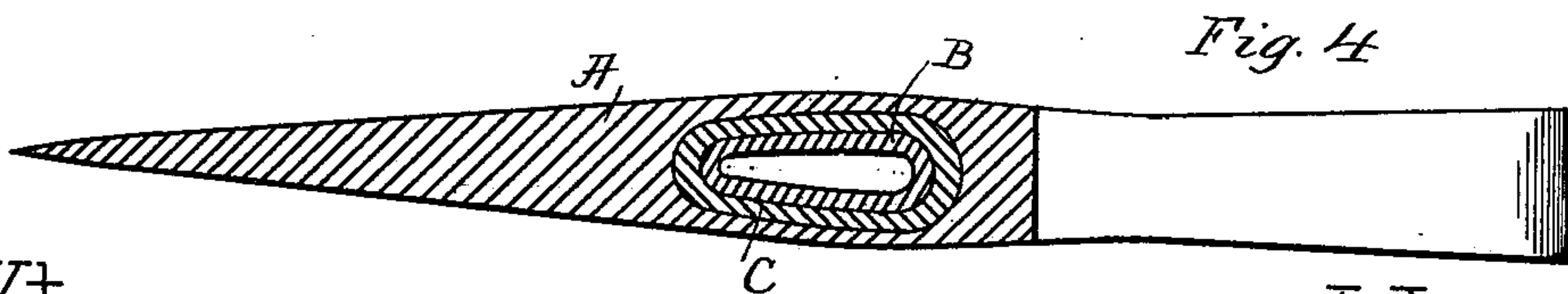


Fig. 4.

Witnesses:
Karl A. Andren.
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UNITED STATES PATENT OFFICE.

JOHN W. REGAN, OF BOSTON, MASSACHUSETTS.

AX OR SIMILAR TOOL.

SPECIFICATION forming part of Letters Patent No. 635,185, dated October 17, 1899.

Application filed April 28, 1899. Serial No. 714,838. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. REGAN, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Axes or Similar Tools, of which the following is a specification.

This invention relates to improvements in axes and similar tools—such as adzes, hammers, picks, &c.—having an eye to which the handle is secured; and it consists of a tubular metallic handle, preferably provided with a reinforcing-sleeve, which is firmly attached to the upper end of the handle and secured within the eye of the ax or similar tool, as will hereinafter be more fully shown and described, reference being had to the accompanying drawings, wherein—

Figure 1 represents a side elevation of my improved ax or tool. Fig. 2 represents an enlarged top plan view of the same. Fig. 3 represents a vertical section of the ax and portion of the tubular metallic handle; and Fig. 4 represents a cross-section on the line 4 4, shown in Fig. 3.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In the drawings, A represents the head of an ax or similar tool—such as an adze, hammer, pick, &c.—having an eye A', as is common in devices of this kind. To such head is secured the metal handle B, which is made tubular, as shown.

For the purpose of strengthening the handle at or near the place where it is attached to the head A, I surround such upper end of the handle with a metal reinforcing-sleeve C, which is brazed or otherwise firmly secured to the upper end of the handle, as shown.

The eye A' is slightly tapering, as usual,

and is countersunk in its upper portion, as shown at *a*. I make the reinforcing-sleeve C correspondingly tapering, so as to properly fit the said eye, as represented in Fig. 3. The said reinforcing-sleeve C projects a proper distance below the head A, as shown at C' in Figs. 1 and 3, for the purpose stated.

I secure the reinforcing-sleeve and the handle in the head A by riveting or upsetting the upper ends of said sleeve and handle in a manner similar to that of affixing boiler-tubes to the ends of steam-boilers, so that they shall lie in the countersunk portion *a*, as shown in the drawings.

By making the handle of tubular metal instead of wood I render it fireproof, thus making it particularly useful for axes, hammers, picks, &c., used by firemen. I also obtain by this construction great strength of the handle combined with lightness, and by reinforcing the handle where it passes through the eye of the tool I strengthen it very materially at this its weakest part.

What I wish to secure by Letters Patent and claim is—

An ax, or similar tool, having an eye tapering upwardly and countersunk in its upper portion, combined with a hollow tubular metal handle B having secured to it a reinforcing-sleeve correspondingly tapered and fitting snugly in said eye and secured in the head of the tool by having its upper end and the end of said handle upset, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN W. REGAN.

Witnesses:

ALBAN ANDRÉN,
WILLIAM W. LUMMUS.