

No. 684,098.

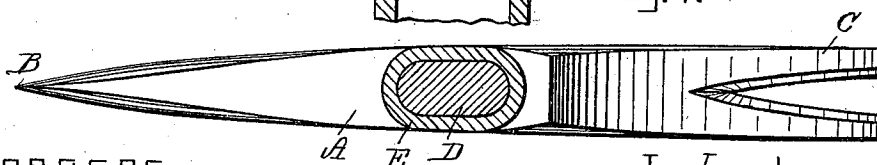
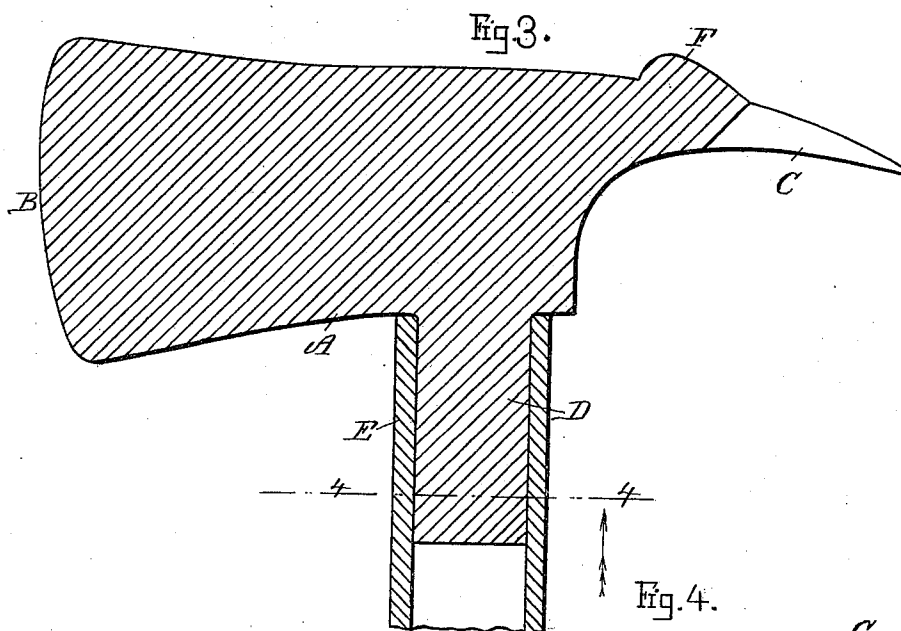
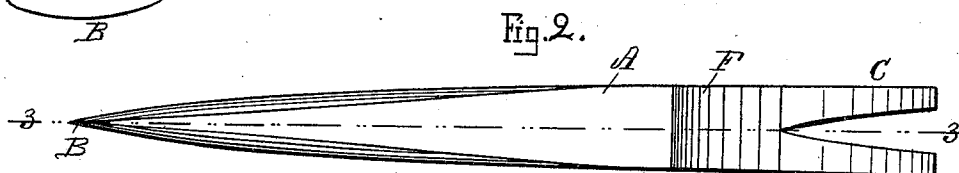
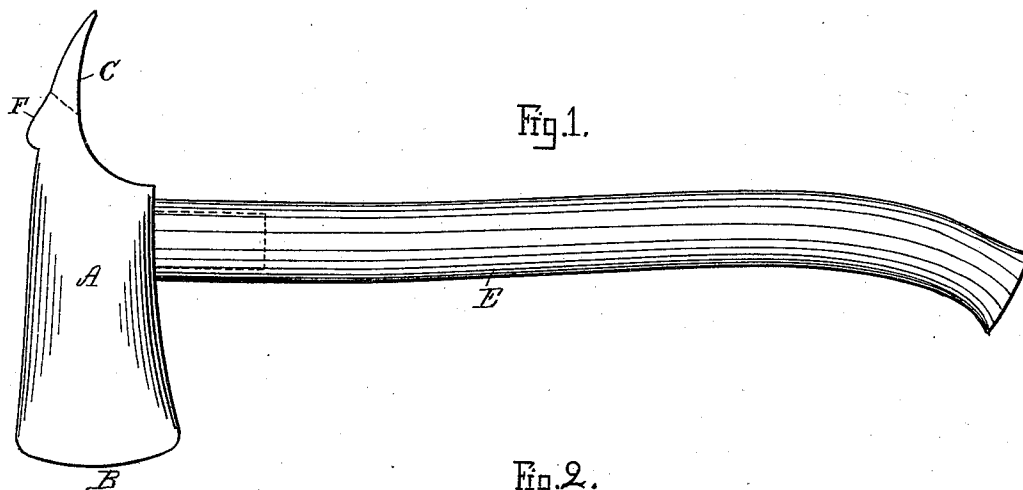
Patented Oct. 8, 1901.

J. W. REGAN.

AX.

(Application filed Feb. 19, 1901.)

(No Model.)



Witnesses.

Lauritz N. Mollen.  
Richard C. Ellrich

Inventor.

John W. Regan.  
by *Wm. Andrew* his atty.

# UNITED STATES PATENT OFFICE.

JOHN W. REGAN, OF BOSTON, MASSACHUSETTS.

## AX.

SPECIFICATION forming part of Letters Patent No. 684,098, dated October 8, 1901.

Application filed February 19, 1901. Serial No. 47,935. (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, of which the following is a specification.

This invention relates to improvements in axes, and it is carried out as follows, reference being had to the accompanying drawings, wherein—

Figure 1 represents a side elevation of my improved ax. Fig. 2 represents an enlarged top plan view of the same. Fig. 3 represents a vertical section on the line 3 3 shown in Fig. 2, 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 the ax, having a cutting edge B in its forward end and having at its rear portion a forked claw or pick C, as shown.

In one piece with the head A is made a substantially elliptical-shaped handle-shank D, adapted to receive the upper end of the tubular metallic handle E, which is secured to said shank, preferably by shrinking it thereon.

On the upper side of the head A, near the claw or pick end C, I make a fulcrum projection F, as shown in the drawings, which renders the device particularly useful as a

fireman's ax for breaking in doors, prying off locks, lifting or ripping up floors, drawing up spikes, or for similar purposes.

By having the projection F on the outside of the head of the ax in close proximity to the claw or pick end C, I obtain a quick and powerful leverage in using the device for the purposes above mentioned.

By having the ax-head A made integral with the handle-shank D and connected to a hollow metal handle E, as above described, I make the head of the tool of the strongest possible construction and without the usual eye, which is liable to weaken it.

The invention is particularly well adapted as a fireman's ax or tool, although it may also be useful for the purpose of tearing down buildings, repairing railway-tracks, or for other similar purposes to which it may be applicable.

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

An ax consisting of a head, an elliptical-shaped shank formed integral therewith and a tubular metallic handle shrunk upon said shank.

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

JOHN W. REGAN.

Witnesses:

ALBAN ANDRÉN,  
LAURITZ N. MÖLLER.