

No. 651,416.

Patented June 12, 1900.

C. A. ELMSTRÖM.  
TOOL HANDLE FASTENING.

(Application filed Jan. 26, 1900.)

(No Model.)

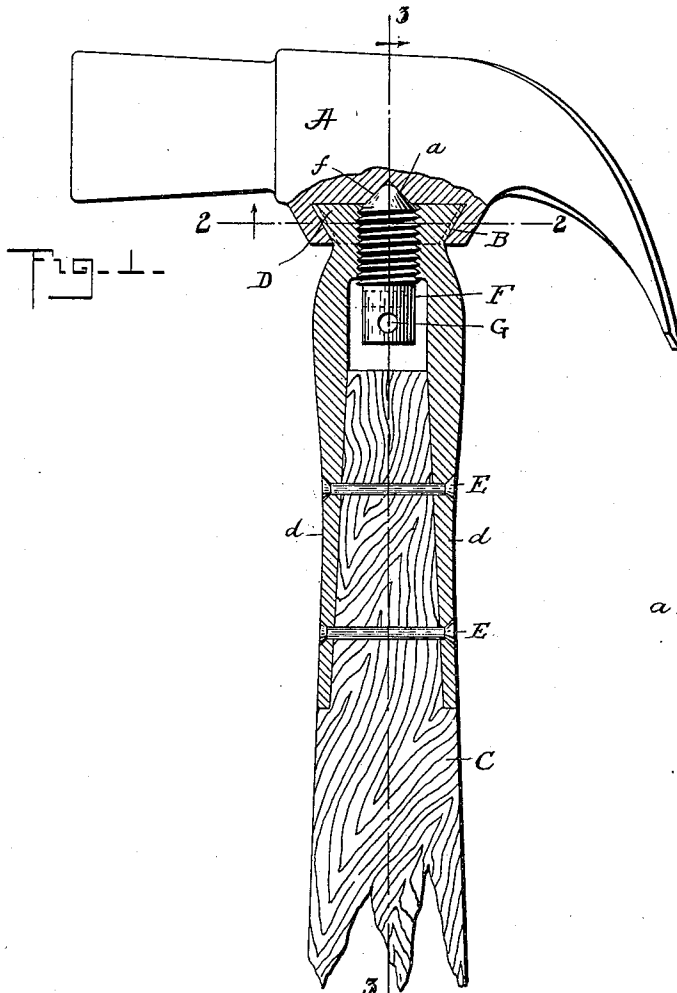
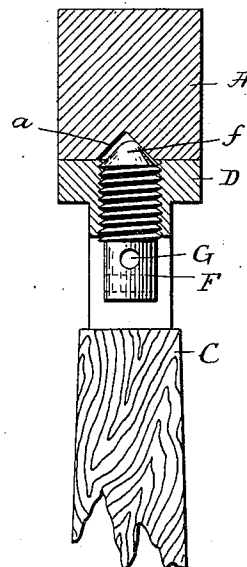
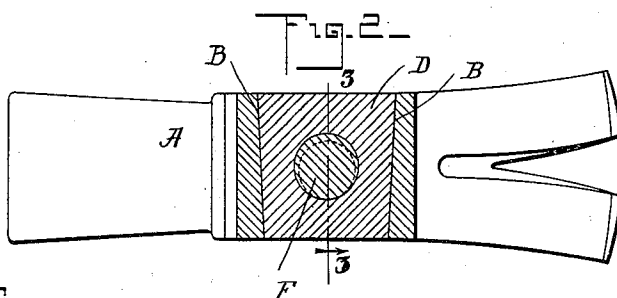


Fig. 3-



Witnesses:

Charles F. Logan.  
Samuel J. Goodhue

Inventor:

Carl A. Elmström.  
by Allan Gudrien  
his attorney.

# UNITED STATES PATENT OFFICE.

CARL A. ELMSTRÖM, OF EVERETT, MASSACHUSETTS.

## TOOL-HANDLE FASTENING.

SPECIFICATION forming part of Letters Patent No. 651,416, dated June 12, 1900.

Application filed January 26, 1900. Serial No. 2,881. (No model.)

*To all whom it may concern:*

Be it known that I, CARL A. ELMSTRÖM, a citizen of Sweden, residing at 41 Plymouth street, Everett, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Hammers and Similar Tools, of which the following is a specification.

This invention relates to improvements in the manner of securing the head of a hammer or similar tool—such as, for instance, an ax, adz, pick, sledge, &c.—to the handle without making a perforation in the tool-head and weakening the latter, as will hereinafter be more fully shown and described, reference being had to the accompanying drawings, wherein—

Figure 1 represents a longitudinal section of my invention shown as applied to a hammer. Fig. 2 represents a horizontal section on the line 2 2 shown in Fig. 1, and Fig. 3 represents a cross-section on the line 3 3 shown in Figs. 1 and 2.

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 hammer or other similar tool, which is provided on its under side with a transverse dovetailed recess B, which is slightly tapering from one end to the other, as shown.

C represents the tool-handle, to the upper end of which is firmly attached the transversely-dovetailed lock-plate D, adapted to fit the correspondingly-dovetailed recess B in the tool-head, as shown. The said dovetailed lock-plate D is slightly tapering in a horizontal direction corresponding with the tapering recess in the head of the tool, as shown.

In practice I prefer to make in one piece with the lock-plate D a pair of shanks *d d*, secured to the handle C by means of rivets E E or equivalent fasteners, as shown in Fig. 1.

In case the handle of the tool is made of metal the lock-plate D is preferably made integral with such handle.

F is a set-screw which is screwed through a screw-threaded perforation in the lock-plate D and having its upper end made conical or tapering, as shown at *f* in Figs. 1 and 3, and adapted to be forced into a corresponding tapering or conical recess *a* in the tool-

head A, as shown in the drawings. By means of such set-screw the lock-plate D is firmly secured to the tool-head A and prevented from being detached therefrom, except when so desired by the operator, in case the tool is to be sharpened or repaired or interchanged by another one, as may be desired.

In practice I prefer to make the recess *a* in the under side of the head A a little to one side of the central line of the set-screw F, as shown in Fig. 3, so as to cause the dovetailed lock-plate D to be wedged firmly into the dovetailed recess B when the set-screw F is tightened, as shown in said Fig. 3.

In practice I provide the lower portion of the set-screw F with transverse perforations G G, through which a pin or nail may be inserted, by means of which the said screw may be turned for the purpose of securing the handle to the head of the tool or removing it therefrom, as may be desired. By this my arrangement I provide a simple, strong, and durable attachment between a tool-head and its handle without perforating or weakening the tool-head.

Certain tools—such as picks, bricklayers' hammers, &c.—require to be pointed or sharpened from time to time, and this operation is facilitated by my invention, as the head of the tool may readily be disconnected from its handle and forged, hardened, ground, or shaped as may be desired.

A single handle of this description is made interchangeable with various kinds of tool-heads.

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

A tool-head A, having on its under side a tapering dovetailed recess B, combined with a detachable handle, provided at its upper end with a correspondingly-shaped tapering dovetailed lock-plate D, and a fastening-screw F, screwed through said lock-plate, and having a conical or tapering end adapted to fit into a similar recess in the tool-head substantially as and for the purpose set forth.

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

CARL A. ELMSTRÖM.

Witnesses:

ALBAN ANDRÉN,  
ERNEST W. EMERY.