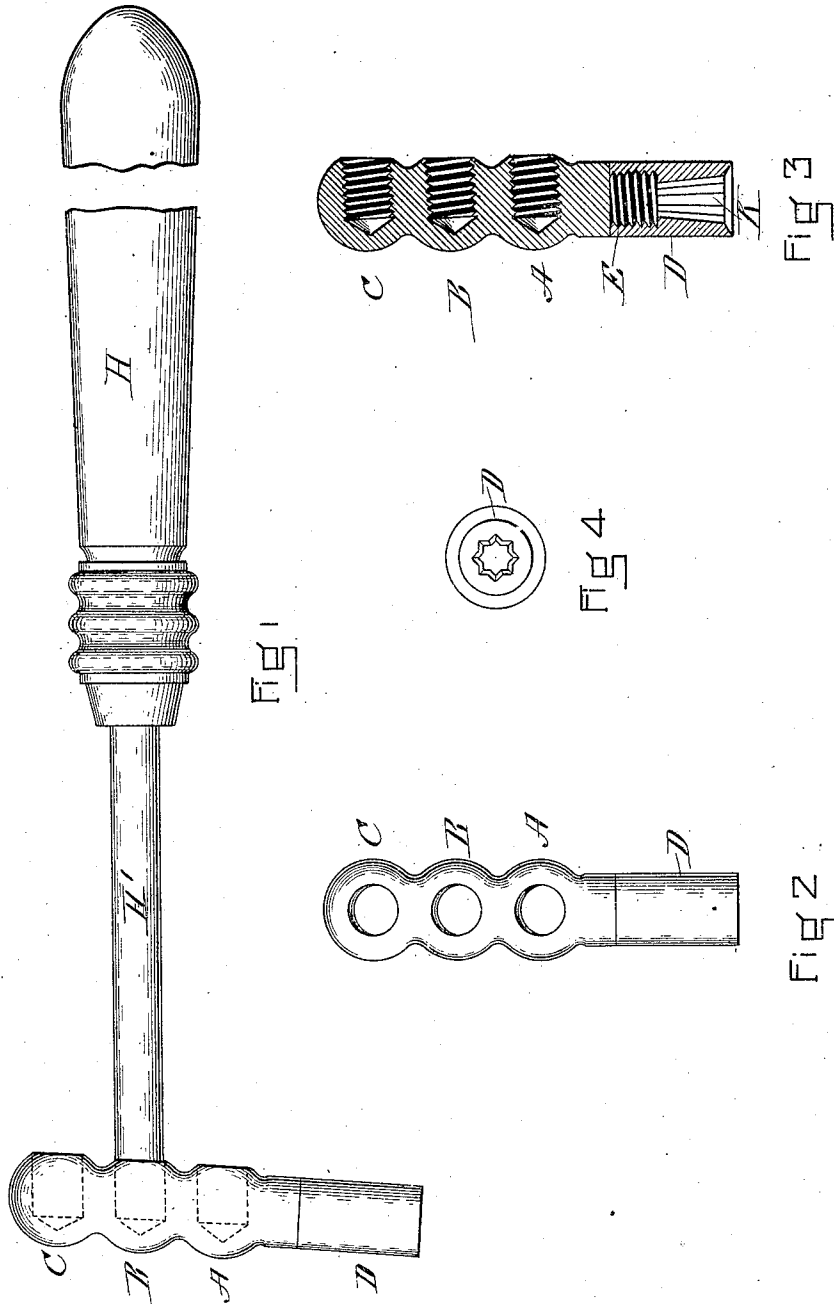


No. 834,468.

PATENTED OCT. 30, 1906.

A. L. HALE.
TUNING HAMMER.
APPLICATION FILED MAY 26, 1905.



WITNESSES
Adolph G. Kaiser.
Arthur M. Conroy.

INVENTOR
Albert L. Hale

UNITED STATES PATENT OFFICE.

ALBERT L. HALE, OF CAMBRIDGE, MASSACHUSETTS.

TUNING-HAMMER.

No. 834,468.

Specification of Letters Patent.

Patented Oct. 30, 1906.

Application filed May 26, 1905. Serial No. 262,502.

To all whom it may concern:

Be it known that I, ALBERT L. HALE, a citizen of the United States, residing at Cambridge, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Tuning-Hammers, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to that class of instruments that are usually termed "tuning-hammers;" and it consists in the peculiar construction of the same, which may be best understood by inspection of the description and drawings.

The object is to combine in one instrument of very few parts the advantages usually only obtainable in several different instruments. This object I attain by means of the mechanism shown in the accompanying drawings, in which—

Figure 1 is a view showing all of the parts of the instrument. Fig. 2 is an elevation of the hammer-head. Fig. 3 is a vertical section taken through the center of the hammer-head. Fig. 4 is a plan view of the lower end of the hammer-head.

The handle H and shank H' of this instrument are made as shown or in any of the usual approved styles. These parts need not be particularly described, as they are not new.

The hammer-head consists of two parts, the upper part having three members A, B, and C, each member being partly globular and provided with a screw-socket, as shown in Figs. 2 and 3. The screw-sockets are located one above another, so that what part of the hammer-head is below the shank or handle may be changed to suit the convenience of the user. This construction enables the tuner, although he has but a single hammer-head, to have the full advantage that he would have if he had three separate hammer-heads each of a different length. He thus saves the expense of the several heads, as well as the additional trouble of carrying them.

The lower part D of the hammer-head is detachable, as shown. The upper end of the part D is provided with a hollow screw, which engages with a corresponding screw-thread cut on the lower end E of upper part of the hammer-head. The lower end of the part K is hollow and fluted, as shown in Figs. 3 and

4. It is observed that the part D is, in fact, as a whole, a hollow cylinder or sleeve having an opening extending entirely through it. This fact is important, as it is necessary to temper this fluted part its entire length and still leave the threaded portion soft, for if the upper end were also hardened the screw-threads would endanger threaded portion marked E.

In tempering the part K the hollow cylinder permits the water to be forced immediately up the desired fluted portion. This is easily and evenly done. As all steel articles are liable to contain flaws, so this detachable part occasionally breaks. The peculiar construction of same leaves less liability of flaws remaining undetected, and in the event of its breaking the parts may be quickly detached. In the style now in common use the breaking of this detachable portion is frequently the source of much trouble and expense, as the intersecting threaded part must be milled or chipped out. This often results in ruining the threads of the head, causing the loss of the entire tool. In my invention this is impossible.

I claim—

1. A tuning-hammer comprising a handle and a hammer-head said hammer-head having a plurality of screw-sockets, each socket being at a different distance from the tip, for the reception of the shank of the handle; substantially as and for the purpose set forth.

2. A tuning-hammer consisting of a handle and a hammer-head, the said hammer-head comprising an upper and a lower part, the upper part constructed to receive and hold the handle and having a screw-threaded nipple at its lower end; and a lower part tubular in form, one end of said tube having an internal screw-thread whereby it may be attached to the nipple of the lower part of the hammer-head, and the lower part of said tube being fluted substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 18th day of February, A. D. 1905.

ALBERT L. HALE.

Witnesses:

ADOLPH C. KAISER,
ARTHUR M. COMEY.