

(No Model.)

L. STEETS.  
TUNING HAMMER.

No. 342,051.

Patented May 18, 1886.

fig. 3.

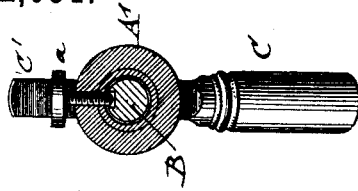
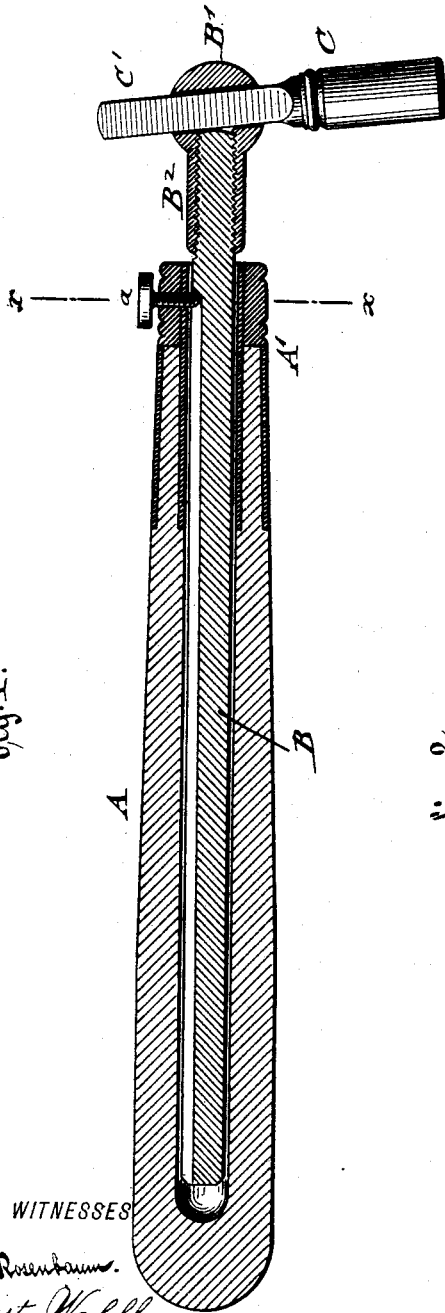


fig. 1.



WITNESSES

*F. V. Rosenbaum.*  
*Ernst Wolff.*

fig. 2.

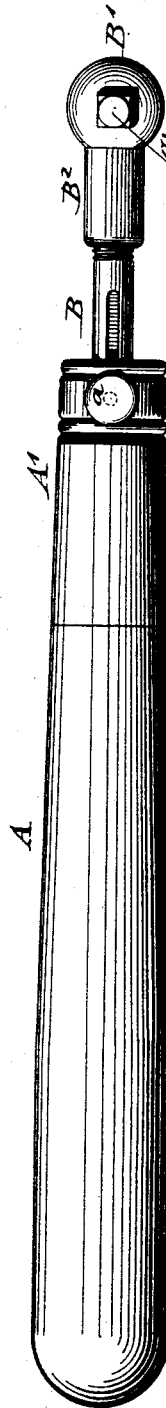


fig. 4.

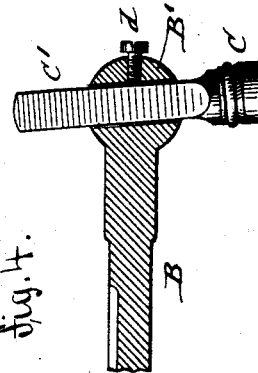
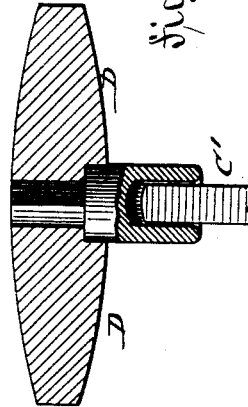


fig. 5.



INVENTOR  
*Louis Steets*  
By *his* Attorneys  
*James Rayner*

# UNITED STATES PATENT OFFICE.

LOUIS STEETS, OF NEW YORK, N. Y.

## TUNING-HAMMER.

SPECIFICATION forming part of Letters Patent No. 342,051, dated May 18, 1886.

Application filed May 1, 1885. Serial No. 164,677. (No model.)

*To all whom it may concern:*

Be it known that I, LOUIS STEETS, of the city, county, and State of New York, have invented certain new and useful Improvements in Tuning-Hammers, of which the following is a specification.

This invention has reference to an improved tuning-hammer, by which the tuning-pins of grand, square, and upright pianos can be conveniently operated for tuning; and the invention consists of a tuning-hammer the shank of which is provided at its outer end with a head having a square recess and a tuning-socket with a square shank, which latter is guided in said head and adjusted higher or lower in the same, so as to readily reach the tuning-pins.

In the accompanying drawings, Figure 1 represents a vertical longitudinal section of my improved tuning-hammer. Fig. 2 is a top view; Fig. 3, a vertical transverse section on line *x x*, Fig. 1. Fig. 4 is a detail section showing a modified construction of the adjustable tuning-socket, and Fig. 5 is a detail section showing the tuning-socket detached and applied to a common handle.

Similar letters of reference indicate corresponding parts.

A in the drawings represents the hollow handle of my improved tuning-hammer, which handle guides a longitudinally-grooved shank, B, having an enlarged circular head, B', for the shank C' of the tuning-socket C. The shank B is capable of adjustment in the handle A by means of a set-screw, *a*, that passes through a metallic ferrule, A', at the end of the handle and engages the longitudinal groove of the shank B. The enlarged head B' has a square recess that is slightly inclined toward the axis of the shank B, said recess serving to support the square shank C' of the tuning-socket C. The socket C can be adjusted higher or lower in the recessed head B', according to the position of the tuning-pins to be operated upon.

When the shank C' has been adjusted to its position in the head B', it is rigidly secured

to the head by turning the same and screwing up its interiorly-threaded socket B<sup>2</sup> on the threaded outer end of the shank B, as shown in Fig. 1, whereby the shank B presses on the shank C' and clamps the same rigidly to the recessed head B'.

In place of attaching the head B' by a screw-socket, B<sup>2</sup>, to the shank B, it may be made integral with the shank B, in which case the shank of the socket C is secured in position by a clamp-screw, *d*, as shown in Fig. 4, or by any other suitable clamping device.

When replacing a broken string by a new one, the tuning-pin is turned by the socket C, the shank of which is inserted into a socket of a common handle, D, as shown in Fig. 5. When the string has been wound up sufficiently on the tuning-pin, the tuning of the same is completed by using the socket C in connection with the shank B and handle A, as by the greater leverage of the same greater force can be exerted on the pin.

By means of the adjustability of the main shank B and of the socket-shank C' the tuning-hammer may be readily adjusted to different lengths and depths, so as to reach the tuning-pins with great facility, whatever be their position. The adjustment is accomplished quickly and reliably without the use of a screw-driver, and thereby the work of tuning expedited and facilitated.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination of a hollow handle, a main shank secured adjustably to said handle, and having a threaded outer end, an enlarged and recessed head having an adjustable screw-socket, and a tuning-socket having a square shank secured adjustably to said head, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

LOUIS STEETS.

Witnesses:

PAUL GOEPEL,  
SIDNEY MANN.