

*A. Wilson,
Soldering Iron.*

N^o 34,799.

Patented Mar. 25, 1862

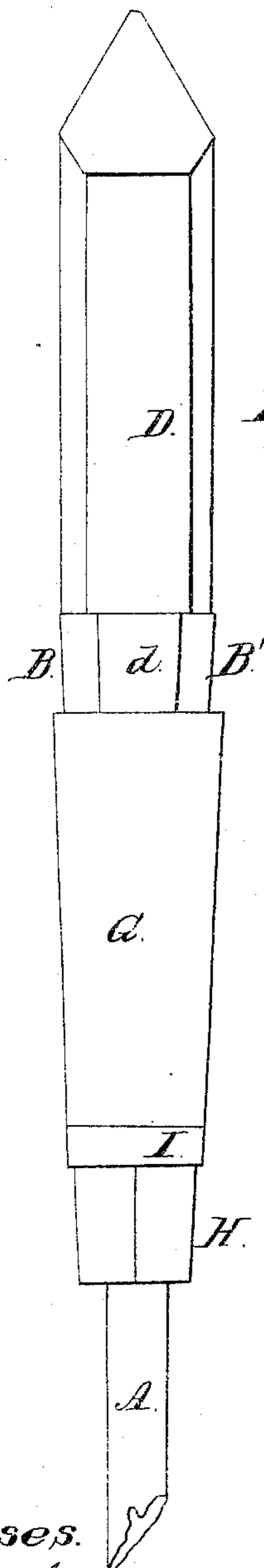


Fig. 1.

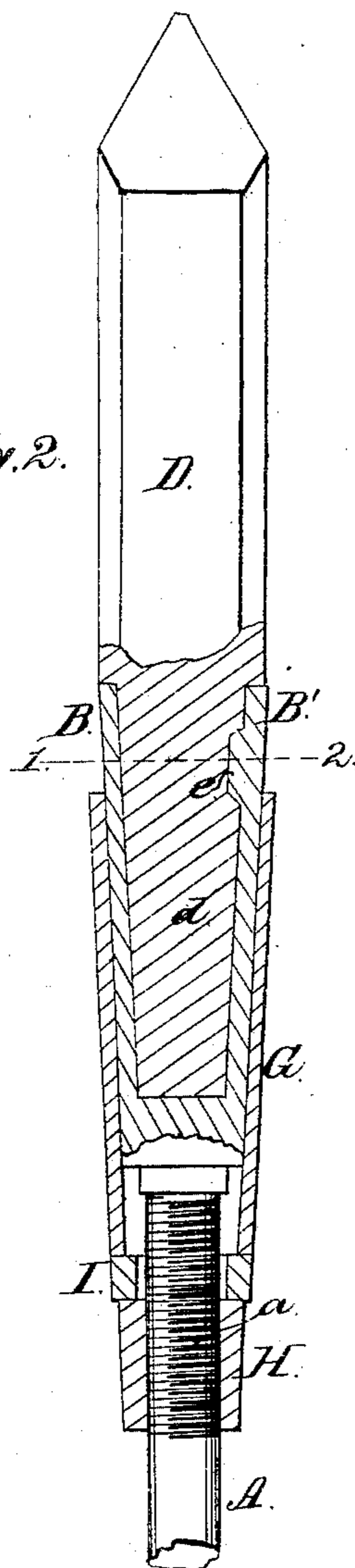


Fig. 2.

Fig. 3.



Witnesses.

*Charles E. Foster
Charles Howson*

Inventor

A. Wilson

Henry Howson Atty

UNITED STATES PATENT OFFICE.

ABEL WILSON, OF FRANKFORD, PENNSYLVANIA.

IMPROVEMENT IN SOLDERING-IRONS.

Specification forming part of Letters Patent No. 34,799, dated March 25, 1862.

To all whom it may concern:

Be it known that I, ABEL WILSON, of Frankford, Philadelphia, Pennsylvania, have invented an Improvement in Soldering-Irons; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists of a device (fully described hereinafter) for so securing the copper bar to the stem of a soldering-iron that the said bar can be readily tightened when it becomes loose, and readily attached to and detached from the stem.

In order to enable others to make and use my invention, I will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is an exterior view of my improved soldering-iron; Fig. 2, a view partly in section; and Fig. 3 a, transverse section on the line 1 2, Fig. 2.

Similar letters refer to similar parts throughout the several views.

One end of the metal stem A of my improved soldering-iron is provided with the usual wooden handle, (not shown in the drawings,) and on the opposite end of the stem are the jaws B and B', which are thin enough to have a slight elasticity, and so arranged as to grasp the tapering shank *d* of the copper bar D. The jaws B and B' are concave on the inside, so as to fit to the convex edges of the shank *d*, (see Fig. 3,) and the exterior of the jaws is of the tapering form represented in Fig. 2, so as to fit snugly to the inside of the ferrule G, which is of a corresponding tapering form.

On the portion *a* of the stem A are cut the threads of a screw, adapted to the internal threads of a nut, H, between which and the smaller end of the ferrule G intervenes a suitable washer, I, so that on turning the nut in

one direction the ferrule will be forced over the tapering jaws, which being thus contracted will firmly grasp the shank of the copper bar. On turning the nut in the opposite direction, however, and partially withdrawing the ferrule from the tapering jaws, the latter may be expanded and the copper bar released.

In order to prevent the possibility of the shank of the copper bar being withdrawn longitudinally from the jaws, one of the latter is provided on the inside with a projection, *e*, which fits into a notch in the shank *d*.

In constructing ordinary soldering-irons it is usual to rivet the copper bar to a forked stem. By constant use the bar becomes loose and consequently inconvenient to handle. In my improved soldering-iron, however, if the bar should become inconveniently loose it can be readily tightened by simply turning the nut, and thereby forcing the ferrule tighter onto the jaws.

My improvement has the further advantage of affording the means of more readily withdrawing and replacing the bar than the ordinary soldering-irons, in which riveting is necessary to secure the copper bar, which cannot be removed from the stem without first withdrawing the rivets.

I claim as my invention and desire to secure by Letters Patent--

The tapering jaws B and B', adapted to receive the tapering shank *d* of the copper bar, and secured to or forming a part of the stem A, in combination with the tapering ferrule G, and the nut H, or its equivalent, the whole being constructed and arranged substantially as and for the purposes herein set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ABEL WILSON.

Witnesses:

HENRY HOWSON;
JOHN WHITE.