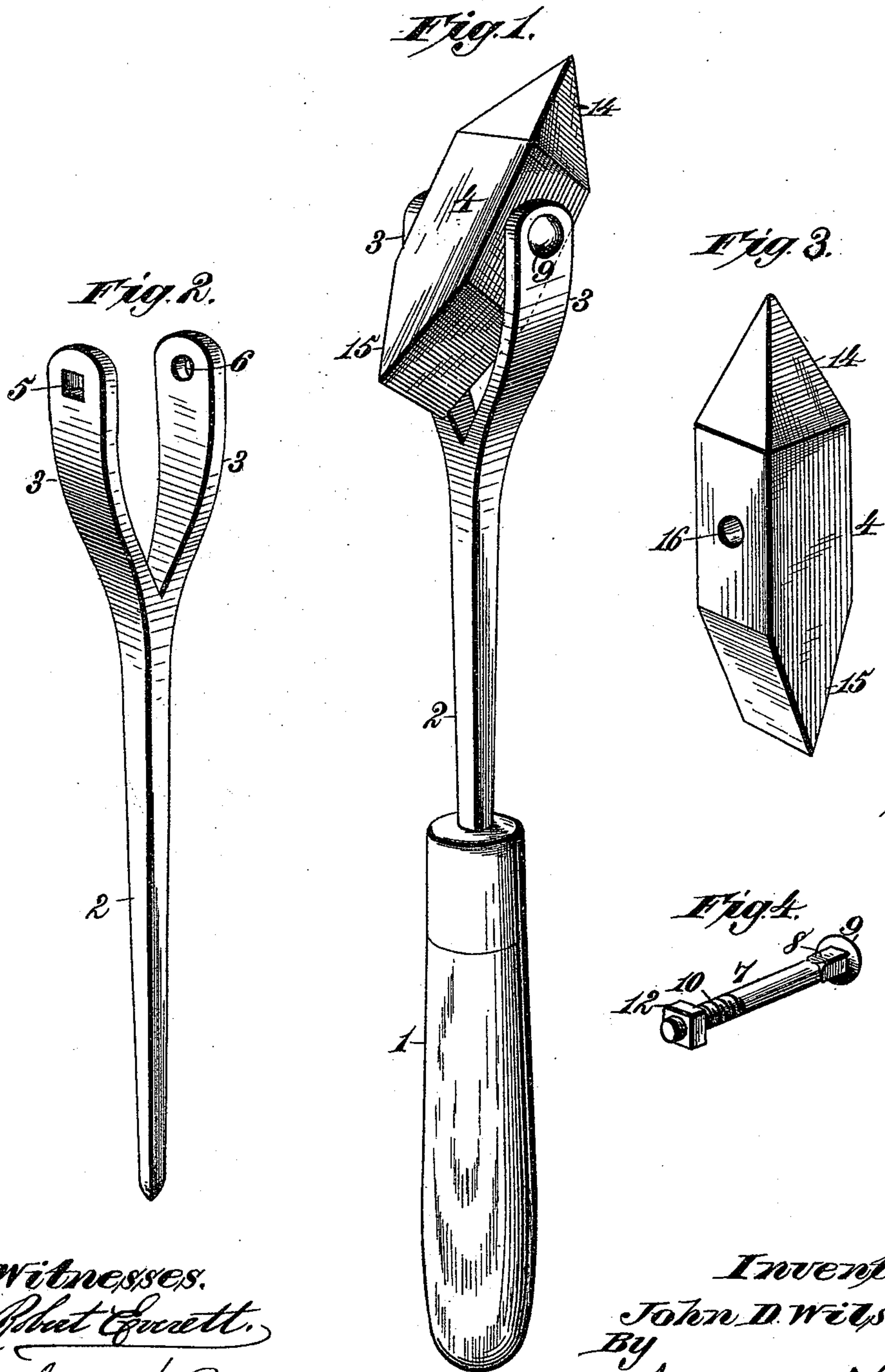


(No Model.)

J. D. WILSON.
REVERSIBLE SOLDERING IRON.

No. 438,458.

Patented Oct. 14, 1890.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN D. WILSON, OF NEW BEDFORD, MASSACHUSETTS.

REVERSIBLE SOLDERING-IRON.

SPECIFICATION forming part of Letters Patent No. 438,458, dated October 14, 1890.

Application filed July 31, 1890. Serial No. 360,546. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. WILSON, a citizen of the United States, residing at New Bedford, in the county of Bristol and State of Massachusetts, have invented new and useful Improvements in Soldering-Irons, of which the following is a specification.

This invention relates to the reversible soldering-iron for which Letters Patent No. 305,618 were issued to N. B. Mayhew September 23, 1884; and the objects of the present invention are to improve the former construction, to provide a novel construction whereby the screw embedded in the copper head is dispensed with, to provide novel means whereby the efficiency of the fastening-screw is not affected by the repeated heating of the copper head, and to provide novel means whereby the reversible copper head can be rotated on a non-rotating bolt or screw-rod and be rigidly clamped between two elastic arms or jaws of the soldering-iron shank or handle.

To accomplish all these objects my invention involves the features of construction, the combination or arrangement of devices, and the principles of operation hereinafter described and claimed, reference being made to accompanying drawings, in which—

Figure 1 is a perspective view of the improved soldering-iron. Fig. 2 is a detail perspective view of the handle with its bifurcated shank. Fig. 3 is a similar view of the reversible copper head. Fig. 4 is a similar view of the non-rotating bolt for clamping the copper head in a fixed position.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawings, where—

The numeral 1 indicates a wooden or other handle of any suitable or desired construction or form, having a metallic shank 2, which is bifurcated at its outer extremity to form two diverging arms or jaws 3, co-extensive in size and of sufficient elasticity to enable them to move to a limited degree toward and from each other for the purpose of gripping and releasing the copper head 4. The extremity of one elastic arm is provided

with an angular bolt-hole 5, and the extremity 50 of the other elastic arm is provided with a circular bolt-hole 6. The bolt-holes are in alignment for the passage therethrough of a cylindrical bolt 7, having at one end portion an angular portion 8 in juxtaposition to its 55 head 9, and at the opposite end portion a screw-thread 10, with which engages a screw-nut 12, which may or may not be of the type known as a "thumb-nut."

The reversible copper head 4 is provided 60 with two working ends 14 and 15, and its body portion, which is square or similar shape in cross-section, is provided with a central transverse bolt-hole 16, adapted to receive the cylindrical portion of the bolt and to rotate 65 thereupon.

When the parts are in the position shown in Fig. 1, the angular portion 8 of the bolt engages the angular bolt-hole 5, in consequence of which the bolt cannot turn axially; but if 70 the screw-nut 12 be loosened the copper head can be rotated for reversing it end for end, or for adjusting either end into any position desired in a circular line, after which the screw-nut is tightened and the elastic arms thereby 75 caused to rigidly grip or clamp the copper head in the position to which adjusted.

Inasmuch as the bolt is not a rigid fixture of the copper head the repeated heating of the latter does not effect the durability of the 80 bolt or its efficiency in clamping the copper head through the medium of the elastic arms. In this respect my invention is an improvement on the construction described and shown by the patent hereinbefore alluded to, in that 85 I avoid the screw embedded in the copper head, which is liable to work loose by reason of the frequent heating of such head.

The elastic clamping-arms also provide for securing the copper head more firmly, rigidly, 90 and substantially in its position of adjustment, while the durability of the tool is materially increased.

Having thus described my invention, what I claim is—

A soldering-iron consisting of a handle having a shank provided with two clamping-arms containing bolt-holes, one of which is angular,

a cylindrical clamping-bolt having an angular portion engaging the angular bolt-hole to prevent axial rotation of the bolt and the reversible copper head angular in cross-section
5 and centrally journaled and revolving on the non-rotating bolt between the clamping-jaws, said jaws being clamped on the flat sides of the copper head centrally between its ends

by the non-rotating bolt for reversing it end for end, substantially as described. 10

In testimony whereof I have affixed my signature in presence of two witnesses.

JOHN D. WILSON.

Witnesses:

THOS. J. GIFFORD,

H. C. MATHUME.