W. MILLSPAUGH.
Tool-Handle.

No. 209,704. Patented Nov. 5, 1878.

Fig. 1.

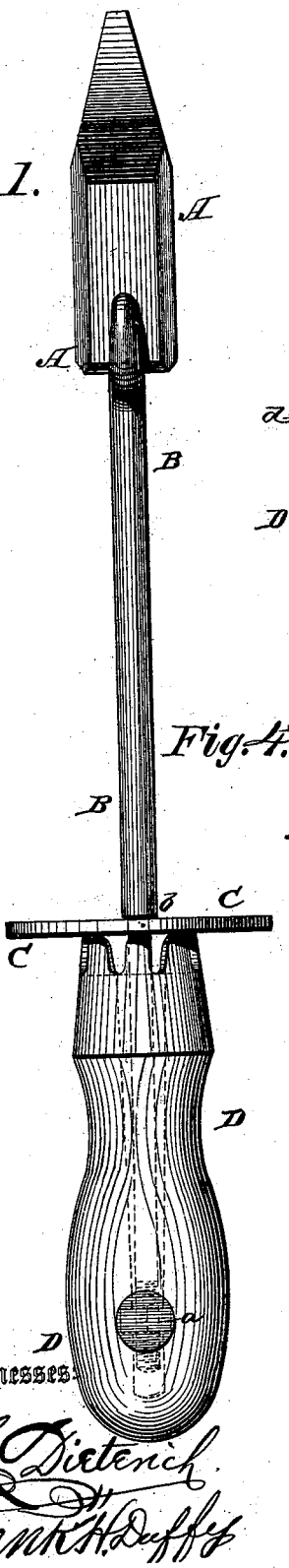


Fig. 2.

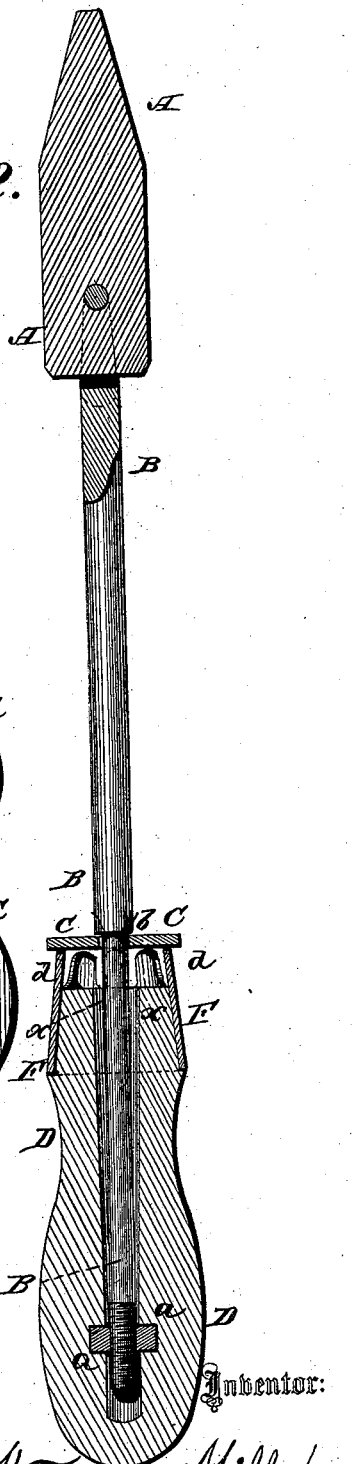


Fig. 3.

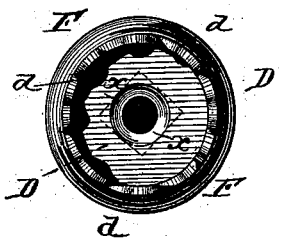
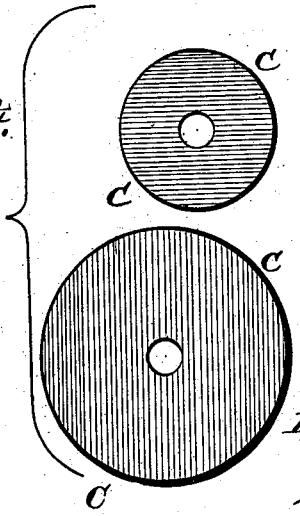


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM MILLSPAUGH, OF MIDDLETOWN, NEW YORK.

IMPROVEMENT IN TOOL-HANDLES.

Specification forming part of Letters Patent No. **209,704**, dated November 5, 1878; application filed October 14, 1878.

To all whom it may concern:

Be it known that I, WILLIAM MILLSPAUGH, of Middletown, in the county of Orange and State of New York, have invented certain new and useful Improvements in Tool-Handles; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to an improved method of fastening the shank or tang of soldering-irons in their handles or the shanks of other tools when such shank is liable to become heated; and it consists in the construction and combination of parts, as will be hereinafter more fully set forth, and pointed out in the claims.

In the annexed drawing, to which reference is made, and which fully illustrates my invention, Figure 1 is a side view of a soldering-iron with handle embodying my invention. Fig. 2 is a longitudinal section. Fig. 3 is an end view of the ferrule on the handle. Fig. 4 shows loose washers.

A represents the soldering-iron, provided with the shank or tang B, on the extreme end of which are screw-threads. At a suitable point on the shank B is formed a circumferential shoulder, *b*, by reducing the diameter of the end of the shank; or the same object may be accomplished by simply passing a pin through the shank at a proper point, as, in either case it is only to form a stop for a washer or collar, C.

D represents the wooden handle, in which is inserted a nut, *a*, into which the end of the shank or tang B is to be screwed. This nut may be inserted in the handle from the side, as shown, or it can be let in at the end of the handle if desired.

The opening in the handle through which the shank passes to the nut is made tapering and at all points larger in diameter than the diameter of the shank, so as to form an air-chamber around the shank, as shown at *x*, and that the shank will be entirely free from contact with the wood.

Around the end of the handle D is secured a metal ferrule, F, which projects a suitable distance beyond the end of the handle. This projecting portion of the ferrule is slotted, pointed, or scalloped, or otherwise made open, and forming a series of bearing-points, *d*, which, when the parts are put together, bear against the loose collar or washer C.

The collar or washer C may be made of any desired size, according to the tool with which it is used, and it is placed on the shank or tang B up to the shoulder or stop *b*, forming a guard for the hand, when said shank is inserted in the handle, and said handle then, by means of the nut *a*, screwed on the end of the shank, as shown, until the points *d* of the ferrule press against the washer.

By tightening the handle it will be seen that the tool is held firmly in the handle by the stop on the shank, the washer, the open ferrule, and the nut, and the shank is in no place in contact with the handle. This is a matter of great importance, especially in soldering-irons or other tools that have to be heated, because very often the shank gets so hot as to scorch and burn the wooden handle, which therefore soon becomes useless.

In my invention it will be noticed an air-chamber is formed around the shank in the handle, and, the ferrule being open, there is a constant circulation of air around the shank in the handle, thus obviating all liability of the handle becoming burned from the shank.

The shanks or tangs can be made of standard sizes, so that the same handle will fit all sizes of irons or tools.

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

1. In combination with a tool-handle, a pointed, slotted, or scalloped ferrule, substantially as and for the purposes herein set forth.

2. The handle provided with a fastening device and enlarged opening, in combination with the shank and open, scalloped, or pointed ferrule, substantially as and for the purposes herein set forth.

3. A tool-handle having an air-chamber, *x*, formed around the shank in the handle, in combination with devices, substantially as described, for holding the shank in the handle, constructed to allow air to circulate around the shank, as herein set forth.

4. The combination of the shank with shoulder, the loose washer, open ferrule, and handle with fastening device and air-chamber, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM MILLSPAUGH.

Witnesses:

JAMES SPARTEN,

HOMER SMITH.