J. Sterrart,

Tool Handle.

No. 81,308. Patented Aug. 18, 1868.

Fig 1

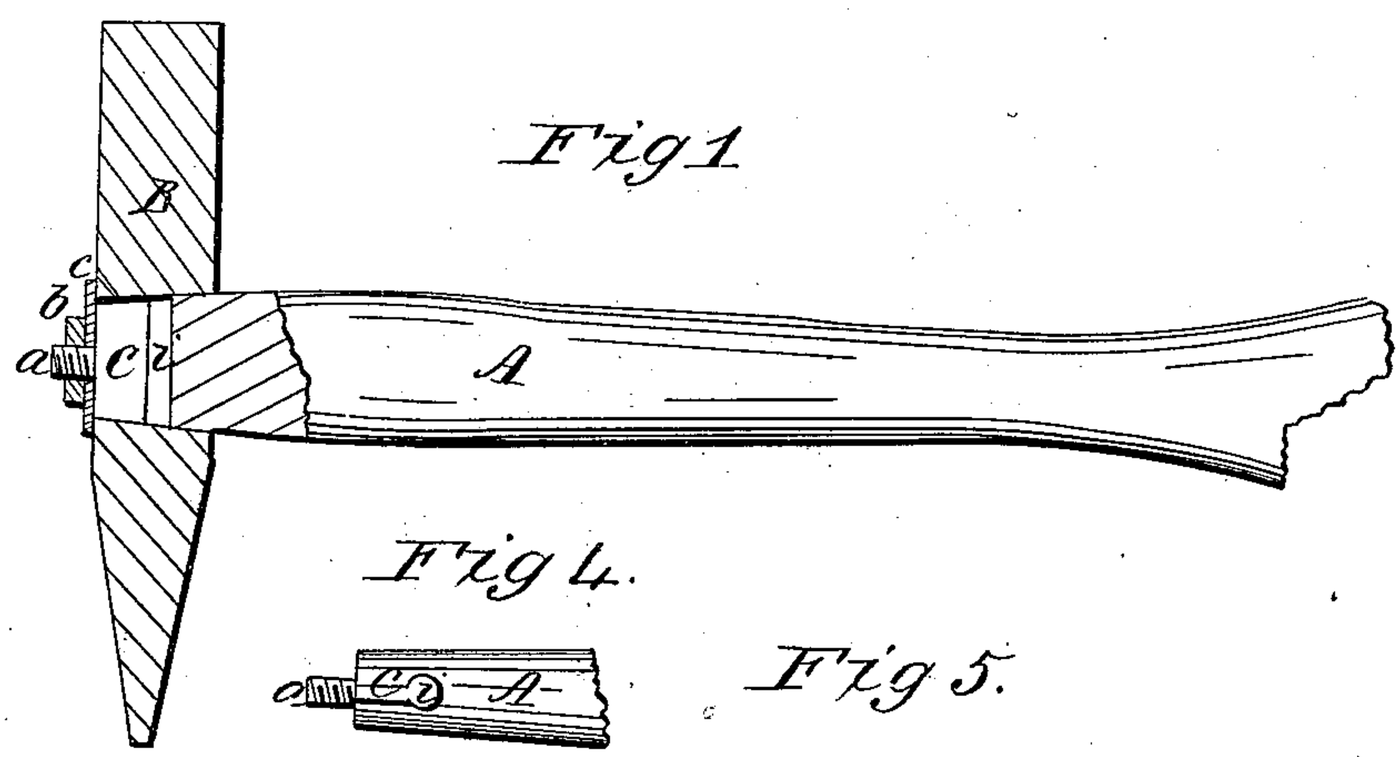


Fig 4.

Fig 5.

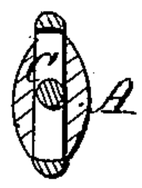


Fig 2.

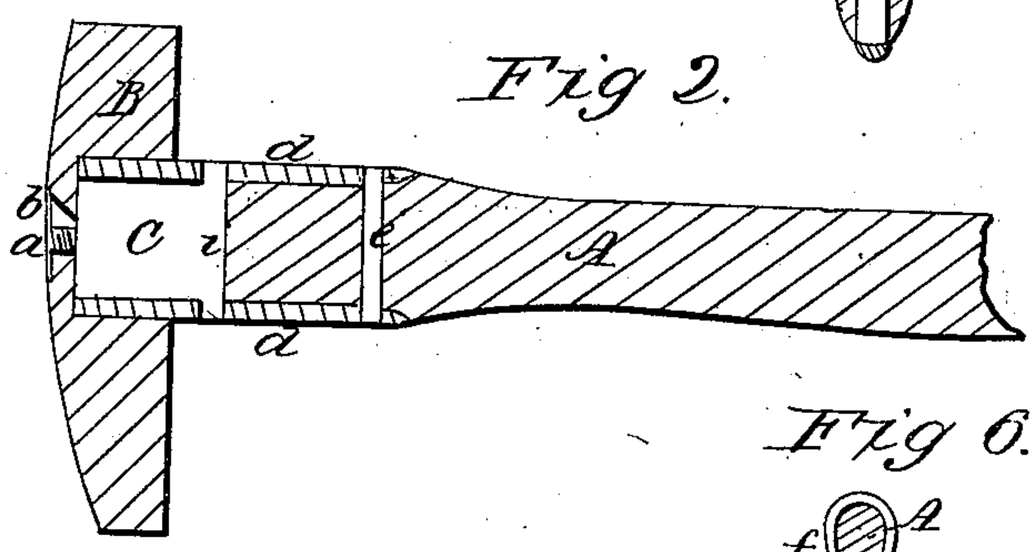


Fig 6.

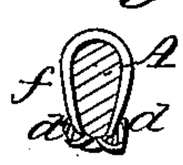
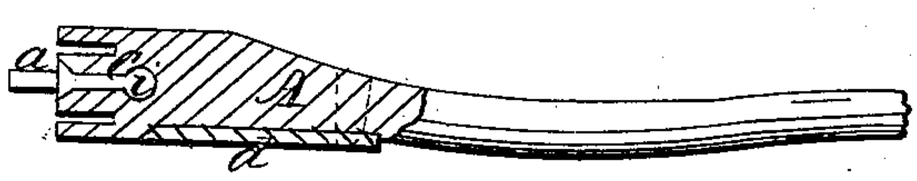


Fig 3.



Witnesses:

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JAMES STEWART, OF ST. CLOUD, MINNESOTA.

Letters Patent No. 81,308, *dated August* 18, 1868.

IMPROVEMENT IN FASTENING HANDLES TO AXES, PICKS, &c.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JAMES STEWART, of St. Cloud, in the county of Stearns, and in the State of Minnesota, have invented certain new and useful Improvements in Mode of Fastening Handles of Axes, Hammers, &c.; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the mode of fastening handles to tools, by means of a tongue inserted into and forming part of the handle, and which is so constructed that when the handle is inserted into the eye of the tool, the wood presses so firmly on either side of said tongue, that it cannot be displaced by use.

It is well known that in fastening handles to tools in the usual way, by wedging, they become loose after comparatively short usage, and then old nails or broken spikes are generally driven into the handle through the eye, which, in turn, fail to effect a fastening, to say nothing of the bungling appearance of tools thus fastened.

My device, on the contrary, presents a nice finish and ornament to the tool, is simple, and quickly inserted into the handle, and, in case of a broken handle, that portion remaining in the eye can be almost instantly removed, giving place for a new one, obviating the necessity of burning out the old handle, thereby spoiling the temper of the tool, or of boring it out, spoiling a bit, as is now generally done.

Especially will these advantages be seen in stone-cutters' tools, that frequently have to be removed from the handle to be sharpened.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation, referring to the annexed drawings, which form a part of this specification, and in which—

Figure 1 is a side section, showing the tongue inserted from the edge of the handle.

Figure 2, the same, with two straps attached to the handle.

Figure 3, the same, with only one strap attached.

Figure 4 is an edge view of the fastening, shown in fig. 1.

Figure 5, an end view of the fastening, shown in fig. 2; and

Figure 6 is a cross-section, showing the band holding the strap in fig. 3.

A represents the handle, B the tool or implement to which the handle is fastened.

C is a metal tongue, with a rounded or circular projection, *i*, on its lower end, which is inserted into a groove or slot, cut for that purpose, in the end of the handle, and extends clear through the same, either from side to side or from top to bottom edge, and is of such length that when the handle is inserted into the eye of the tool, the tool will cover the whole length of the tongue, including the circular projection *i*.

The manner in which I prepare the handle for the tongue is by boring a hole, at a suitable point, for the circular projection *i*, then cutting a groove or slot through from the end of the handle into said hole. The upper corners of said groove are bevelled outwards, to suit the projections on the upper end of the tongue, as plainly seen in fig. 3. The tongue C extends from these projections beyond the end of the handle, forming a screw-bolt, *a*. When the tongue C has been pressed into this, the edges thereof will be exactly even with the surface of the handle. The handle is then put into the eye of the tool, and a nut, *b*, placed on the screw-bolt, which holds the handle securely.

It will be seen that, from the peculiar construction of the tongue C, it cannot by any means slip out of the handle, as the tool itself presses or binds the wood tightly around the circular projection *i*, and the projections at the upper end of the tongue give sufficient size and strength to the bolt *a* for the nut.

The outer side of the tool is provided with a countersink, into which the nut *b* is sunk, when on the bolt *a*, so as to give a perfectly smooth and even surface to the tool, as shown in fig. 2, or a washer, *c*, may be put on between the tool and the nut, as shown in fig. 1, and in this case, if desired to give a smooth surface to the tool, I make the washer hat-shaped, with a hole through the crown for the bolt *a* to pass through, placing the crown into the eye of the tool, with the brim resting upon and projecting a little over the eye, the bolt *a* projecting

through the top or crown on a line with the outside of the tool, which is now ready for the nut, this latter being in size the same as the inside of the hat-washer. This will leave the surface perfectly smooth, with the exception of the brim of the washer, which, however, can do no injury to any timber or lumber in drawing nails, &c.

In case it should be necessary, the tongue C may be provided with two or more bolts, instead of one, in which case, the washer, of course, would have a corresponding number of holes; and the washer may be provided, on its under side, with one or more wedges, which are to drive into the handle. This is, however, immaterial. I only insert this here, as I may make my fastenings with more than one bolt, and with one or more wedges, if desired.

Instead of using a nut on the bolt *a*, the said bolt may be riveted on the outside of, or in a countersink on, the tool.

To strengthen the handle, and prevent it from splitting, I place a metal strap, *d*, on one or both of the top and bottom edges of the handle, the forward ends of these straps extending into the eye of the tool, and they (the straps) are fastened either by a bolt or screw, *e*, as shown in fig. 2, or by a band, *f*, passing around the handle, and its ends riveted in a hole on the strap, as shown in fig. 6.

If the tongue C is placed in the handle from edge to edge, the circular projection *i* may extend above the same, and a hole made in the strap *d* for it to pass through, when it is then riveted thereon, as shown in fig. 2.

These fastenings and straps, thus described, may be used, and I reserve to myself to use them, on any tool, implement, or machinery where applicable.

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

The metal tongue C, constructed as described, and provided with a circular projection, *i*, on its lower end, and one or more bolts, *a*, on its upper end, when used for the purpose of fastening handles to tools, substantially as herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand and seal, this 29th day of May, 1868.

JAMES STEWART. [L. S.]

Witnesses:

J. H. HOLLABAUGH,

J. R. LOWELL.