E. C. ATKINS.

Saw-Handles.

No. 139,756.

Patented June 10, 1873.

Fig. 1.

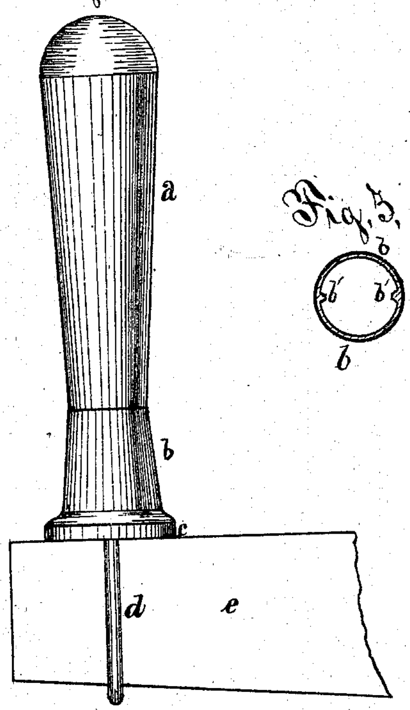
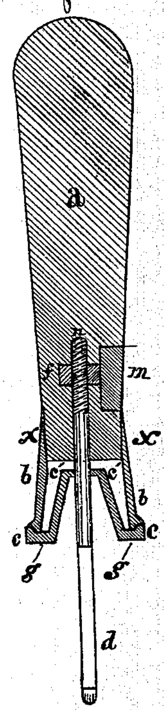


Fig. 2.



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UNITED STATES PATENT OFFICE.

ELIAS C. ATKINS, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN SAW-HANDLES.

Specification forming part of Letters Patent No. **139,756**, dated June 10, 1873; application filed September 16, 1871.

To all whom it may concern:

Be it known that I, ELIAS C. ATKINS, of Indianapolis, county of Marion, State of Indiana, have invented certain new and useful Improvements in Saw-Handles; and I do declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings which form a part of this specification.

This invention relates to handles for saws; and it consists in the construction and combination of certain of its parts, as will be more fully described hereinafter.

In the drawings, Figure 1 is a view of my improved handle attached to a cross-cut saw blade. Fig. 2 is the same in longitudinal section. Fig. 3 is a cross-section of the ferrule at *x x*, where it has contact with the wooden handle. *a* is a wooden handle dressed to a seat at *x x* for the reception of the metal ferrule *b*. It is also bored out beneath for the reception of the shank *n* of the looped bolt *d*. A nut *f* sits into a recess, the opening of which is filled by the block *m* dressed flush with the surface of the handle. The ferrule *b* is enlarged in diameter from the top downward, so as to form a broad firm bearing upon the washer C, and is pivoted at the bottom with an annular recess which receives the shoulder *c* on the extreme rim of the washer. The washer C has a surface at the base *g*, broad enough to give it a firm bearing upon the top edge of the saw-blade *e*, and to furnish a secure seat for the ferrule to rest in. From the inner surface of its base or seat where it rests upon the saw it is extended upward, in the form of a frustum of a cone, nearly to the lower end of the wooden handle, at which point it is provided with a head or disk, through an aperture in which the shank of the looped bolt *d* passes freely, but which fills it so nearly that it forms a support for said shank at that point, so that upon the slightest yielding of the handle in use, it shall aid the ferrule *b* in preventing any movement upon the washer or upon the saw. When the handle is turned so as to run the nut *f* down upon the bolt *n*, the handle is soon firmly and rigidly attached; but in using the saw the action of the hand upon the wooden portion *a* is such as will constantly tend to loosen the nut *f*. The broad base given to the ferrule and the locking action of the shoulder setting into the annular recess at the bottom preclude the possibility of loosening at this joint. The wood, however, being of a yielding and compressible nature, is liable to work loose at the shank *x x* so that the action of the hand in sawing will cause it to turn, and in thus turning to run the nut *f* off the bolt *n*. I therefore provide the ferrule on the inside along the portion *x x* with elongated sharpened ribs or projections *b' b'*, Fig. 3, which embed themselves firmly in the handle *a* and obviate this difficulty.

I do not propose to claim, broadly, the combination of the above described parts to form detachable saw-handle irrespective of the peculiar construction of the washer and ferrule, as somewhat similar elements have heretofore been combined for the same purpose.

By letting the ferrule project some distance beyond the end of the handle to form a chamber or recess for the reception of the convexity of the washer, and fitting the lower end of the ferrule snugly to the rim of the washer, the two are so connected together when the handle is applied to a saw-blade that they will prevent any lateral movement of the handle, being in this respect a great improvement upon the handles otherwise like mine, but differing therefrom by having flat surfaces of contact between the ferrule and washer.

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

The open-ended ferrule *b* projecting beyond the end of the handle, the notched frustum-shaped washer C fitted to the end of the ferrule, entering its projecting end and thus forming a support for the shank, in combination with the handle *a*, slotted bolt *n*, and nut *f*, substantially as and for the purpose set forth.

ELIAS C. ATKINS.

Witnesses:
W. D. ELLIOTT,
JAMES MILLESAN.