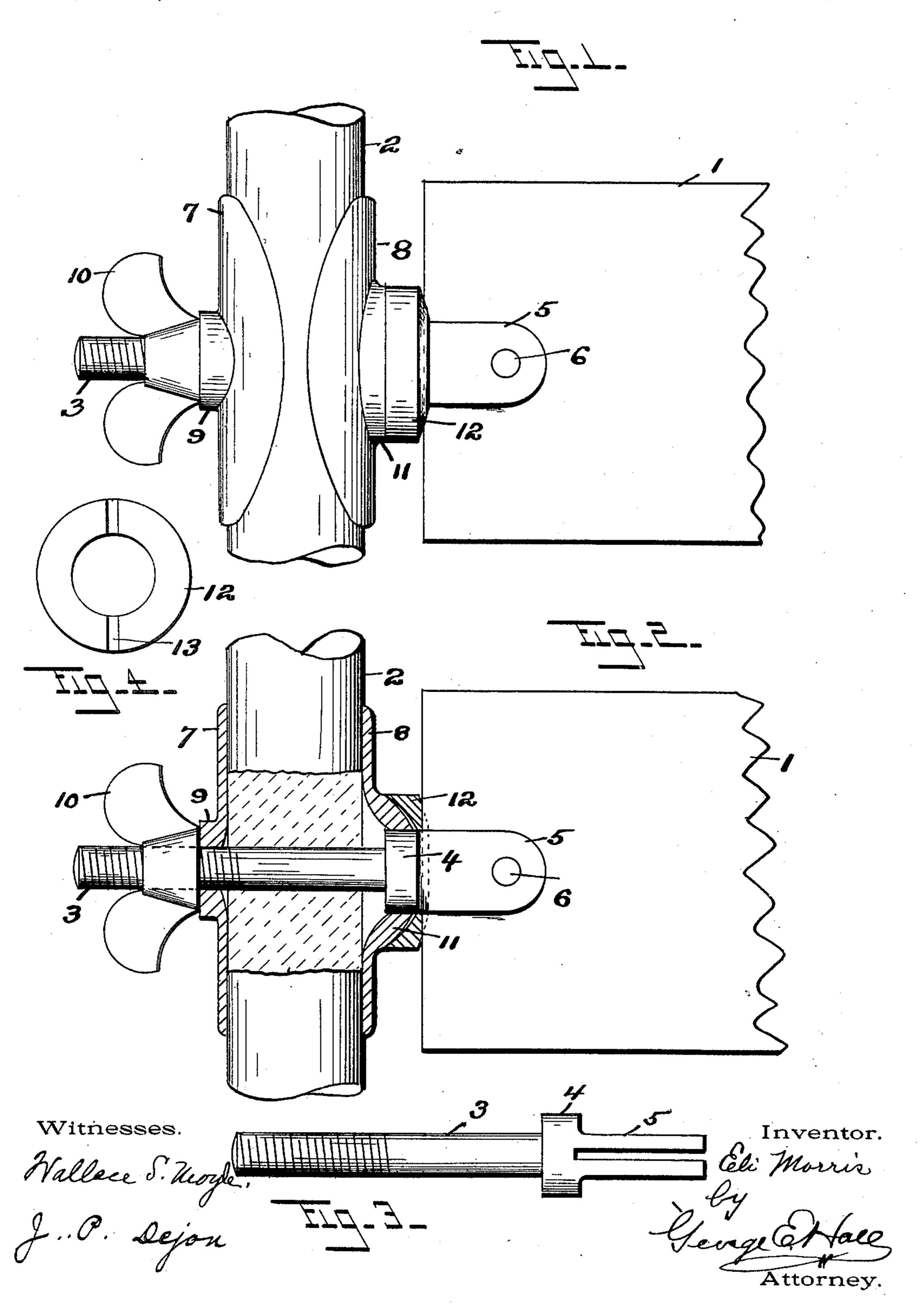
## E. MORRIS.

## DEVICE FOR SECURING HANDLES TO SAW BLADES.

(Application filed Mar. 8, 1901.)

(No Model.)



## UNITED STATES PATENT OFFICE.

ELI MORRIS, OF NEW HAVEN, CONNECTICUT, ASSIGNOR OF ONE-HALF TO GEORGE E. MORRIS, OF NEW HAVEN, CONNECTICUT.

## DEVICE FOR SECURING HANDLES TO SAW-BLADES.

SPECIFICATION forming part of Letters Patent No. 686,750, dated November 19, 1901.

Application filed March 8, 1901. Serial No. 50,322. (No model.)

To all whom it may concern:

Be it known that I, ELI MORRIS, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Con-5 necticut, have invented certain new and useful Improvements in Devices for Securing Handles to Saw-Blades, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in devices for securing handles to crosscut-saws; and its object, among other things, is to so design and arrange the parts that the handle can be adjustably secured in any position about

15 the axis of the saw-bolt.

To this and other ends my invention consists in the device having certain details of construction and combination of parts, as will be hereinafter described, and more particu-

20 larly pointed out in the claim.

Referring to the drawings, in which like numerals designate like parts in the several figures, Figure 1 is an elevation of my invention with the handle secured parallel with the 25 blade, only fragmentary portions of the handle and saw-blade being shown. Fig. 2 is a sectional view thereof. Fig. 3 is a view of the saw-bolt, and Fig. 4 is an elevation of the blade-washer.

In the crosscut-saws heretofore made the handles can only be adjusted to a limited number of positions in relation to the sawblade, and for some classes of work this accomplishes all that is desired, but it also lim-35 its the usefulness of a crosscut-saw. I have therefore invented a device to secure the handle to the saw so as to permit of its adjust-

ment about the axis of the saw-bolt.

In the accompanying drawings the numeral 40 1 designates the blade of a crosscut-saw, and 2 the handle thereof, which blade and handle of course can be of any preferred construction common to the art. Extending through the handle 2 in the usual manner is the saw-bolt 45 3, having a collar 4 and a forked head 5 upon one end, to which the saw-blade is secured, preferably by a pin or stud 6. Upon either side and partly surrounding the handle are the clips 7 and 8, the clip 7 having a boss 9 50 thereon and the clip 8 having the round-face boss 11. The saw-bolt 3 is supported in the clips 7 and 8, with the collar 4 rotatably fitted in the boss 11. Between the boss 11 and saw-

blade 1 and surrounding the saw-bolt 3 is the blade-washer 12, having a concaved rear face 55 and a slot 13 in its front face for the reception of the saw-blade 1.

I prefer, but do not limit myself thereby, to have the rear face of the washer 12 of sufficient depth to permit only the outer edges 60 thereof to engage the face of the boss 11, (see Fig. 2,) so that the collar will have a greater purchase upon the boss, and thus prevent its slipping. A flat face upon both the washer and boss or the reverse of the construction 65 shown can be used, if desired—that is, have a concave face upon the boss and the face of the washer convex—any of these forms being adapted to my invention.

A new position of the handle 2 is acquired 70 by unloosening the thumb-nut 10 and rotating the handle about the saw-bolt 3 until the new position is obtained, and then by tightening the nut 10 the saw-blade, with its end in the slot 13, draws the washer 12 against 75 the boss 11 and the clips 7 and 8 against the handle 2, and all of the parts are held rigid against movement in relation to each other.

This device forms a convenient means for securing the handle to the blade so as to per- So mit of its adjustment to any position about the axis of the saw-bolt.

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

The herein-described device whereby a handle is held at any desired angle to a saw-blade, comprising a bolt having a collar and a forked head, a washer having a concaved inner face fitting over the head and collar of the bolt, 90 a clip having an abutment with an opening therethrough, said opening surrounding the collar of the bolt, and the abutment being contacted by the inner face of the washer, another clip fitting upon said bolt, a handle 95 mounted upon the bolt between the clips, a pin to connect the forked end of the bolt to a saw-blade, and a thumb-nut connected to the outer threaded end of the bolt for compressing all the parts together.

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

ELI MORRIS.

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Witnesses:

GEORGE E. HALL, HENRY E. BEACH.