

Hand-Saws.

Patented September 23, 1873.

A technical drawing of a screw joint. A screw with a hexagonal head is shown passing through a cylindrical part labeled 'A'. The screw head is secured by a lock washer, which is a circular disc with a central hole and a raised rim. The lock washer is positioned between the screw head and a cylindrical part labeled 'B'. The lock washer is secured by a small pin or clip labeled 'h' at the top and 'f' at the bottom. The cylindrical part 'B' has a hole labeled 'm' on its side. The screw is labeled 'a' at its base.

Thomas S. Weston
By his Attyys.
Howson and Son

UNITED STATES PATENT OFFICE.

THOMAS S. DISSTON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND HENRY DISSTON & SONS, OF SAME PLACE.

IMPROVEMENT IN HAND-SAWS.

Specification forming part of Letters Patent No. **143,128**, dated September 23, 1873; application filed August 21, 1873.

To all whom it may concern:

Be it known that I, THOMAS S. DISSTON, of Philadelphia, Pennsylvania, have invented an Improvement in Hand-Saws, of which the following is a specification:

The object of my invention is to readily connect the blade of a hand-saw to, and as readily disconnect it from, the handle, and to adjust the handle on the blade to suit the requirements of the operator.

These objects I attain by means of a handle, B, having a slot to receive the blade, a bolt, *a*, passing through the same, and set-screws *b b*, adapted to nuts *d*, and bearing against the end of the blade, all as shown in the side view, Figure 1, part of which is in section, and in the sectional plan, Fig. 2, on the line 1 2. The handle B has in front a rounded projection, *e*, but is otherwise of the usual form, the front edge of the handle being slotted to receive a portion of the blade, through which and through the projection passes the bolt *a*, the nut *f* of the latter being let into one side of the handle, and the head of the bolt fitting into a metal socket, *h*, let into the opposite side of the handle, as shown in the sectional plan, Fig. 2, so that on screwing the bolt tight the blade will be securely embraced by and between the slotted portion of the handle.

It will be observed that the set-screws *b b* are so arranged as not to interfere with the proper manipulation of the handle, the nuts of these screws consisting of simple cylindrical pins *m*, driven into transverse holes in the handle, as shown in Fig. 2.

By the adjustment of these screws the handle may be adjusted to different positions in respect to the blade, to suit the requirements of the operator, the slot permitting this adjustment, which is an important feature in hand-saws, for there is a difference of opinion among those who use these tools as to the proper rel-

ative arrangement of handle and blade. The most important end attained by my invention, however, is the facility which it affords for the attachment to one and the same handle of different blades.

The carpenter or other worker in wood, instead of carrying about with him two or three different complete hand-saws, as usual, has as many blades only, and but one handle, to any of which the blade may be readily applied.

Wood-workers are frequently compelled to fit blades to handles—a rather difficult operation for the inexperienced, when the handles are provided with the usual fastenings; but in applying a new blade to the handle above, all that is necessary is to punch a hole in the blade for receiving the bolt *a*, and then attach to it the handle in the manner which needs no description.

In my patent for crosscut-saw handle, dated January 3, 1871, there appeared set-screws for securing the handle to the blade and adjusting the former in respect to the latter in a manner similar to that described in my present application; hence I do not claim these set-screws, but restrict my claim to such a combination of parts as renders my former invention applicable to panel-saws—that is to say, I claim—

The saw-handle having set-screws *b b*, adapted to nuts fitted transversely into the handle, in combination with a bolt, *a*, passing through the slotted front end of the handle and through the blade, all as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS S. DISSTON.

Witnesses:

WM. A. STEEL,
HARRY SMITH.