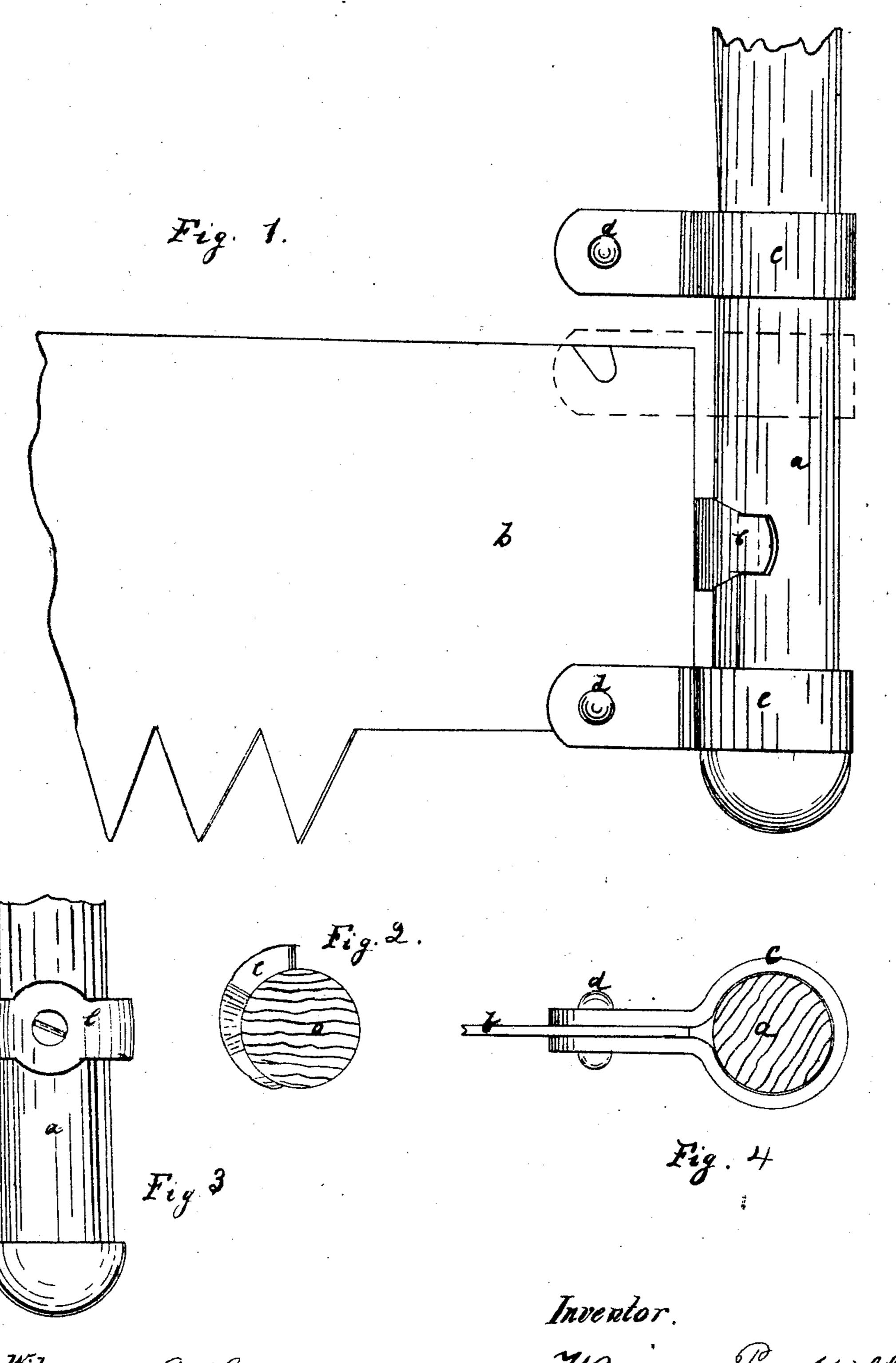
## M.P.Miller.

Attaching Sans to Their Handles.

Nº 76228 Patented Mar. 31, 1868.



Witnesses. In F. modrand. David M. Ediall. Warren T. Miller

# Anited States Patent Pffice.

### WARREN P. MILLER, OF NEW YORK, N. Y.

Letters Patent No. 76,228, dated March 31, 1868.

#### IMPROVEMENT IN ATTACHING CROSS-CUT SAWS TO THEIR HANDLES.

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

#### TO ALL WHOM IT MAY CONCERN:

Be it known that I, WARREN P. MILLER, of the city, county, and State of New York, have invented a new and improved Mode of Attaching Handles to Saws; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to letters of reference marked thereon.

The nature of my invention consists in providing the handle with two circular collars, made of suitable strips of metal, the two ends of which are bent out from the circle so as to stand at parallel lines, and are connected by a pin. Said pins or rivets are for the purpose of engaging the saw. An eccentric, forming the segment of a circle, is attached to the handle central between the two collars, and is made to act against the end of the saw by revolving the handle, thus pressing the pins firmly into the notches in the saw-plate, thereby rendering the handle firmly fixed to the saw.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction

and operation.

I turn the handle round, of convenient shape and size, the lower end of which is provided with a shoulder to prevent the collars from falling off. I make the collars of iron, one-eighth by three-fourths inch, bend the strips of iron around a mandrel, turn the two ends out at right angles from the ring, so that they stand at parallel lines, and distant from each other the thickness of a saw-plate. Punch or drill holes in the ends of the collars and insert rivets. The collars must be put on to the handles befor the rivets are secured. Cast eccentrics of malleable iron, the inner circle of which must be the same as that of the handle, and in length, half the circumference, pierce the centre, place it central between the two collars, and attach it with a screw. File notches in each edge of the saw-plate, distant from the end, so that when the pins in the ends of the collars are dropped into them, the thin end of the eccentric will have room to pass between the saw and the handle. Turn the handle so as to force the eccentric, and it will become rigidly fixed to the saw. To remove the handle, turn it in the opposite direction.

Figure No. 1 is a side view of the saw with the handle attached.

Figure 2 is a section of a handle and the eccentric.

Figure 3, section of the handle, showing how the eccentric is attached.

Figure 4, a cross-section of the handle, collar, and saw.

Like letters refer to like parts on the drawings.

Letters aa a are the handle; letters b b, the saw-plate; letters c c c, the collars; letters d d d, the rivets or pins; letters e e e, the eccentrics.

Claim.

What I claim as my invention, and desire to secure by Letters Patent, is-

The collars c c, pins d, fitting in notches in saw, and the eccentrics e c, when constructed, applied, and operating for the purposes as shown and described.

WARREN P. MILLER.

Witnesses:

JNO. S. WOODWARD, DAVID M. EDSALL.