C. L. JOHNSON.

SAW TOOL.

APPLICATION FILED NOV. 3, 1908.

946,048. Patented Jan. 11, 1910.

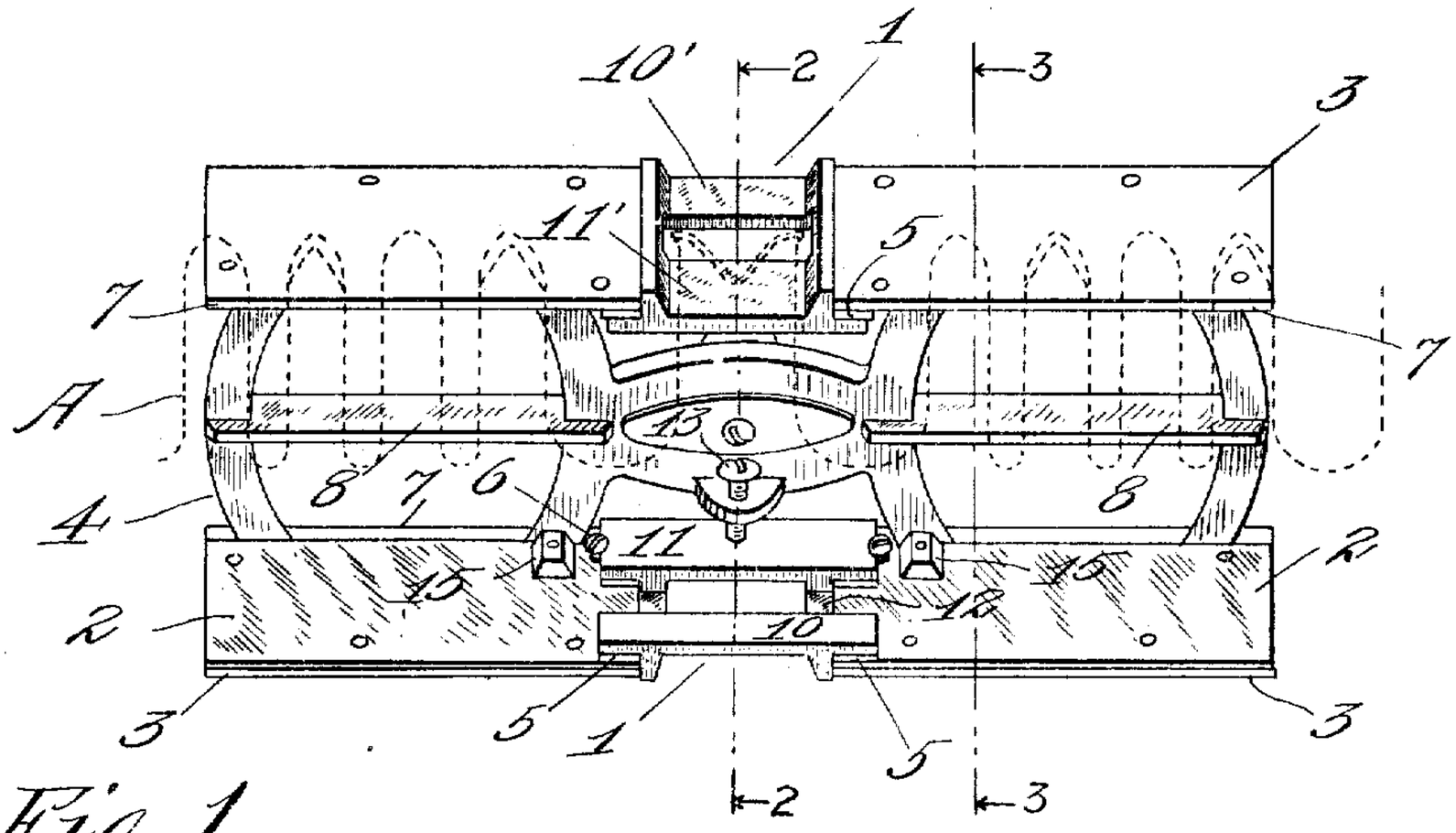
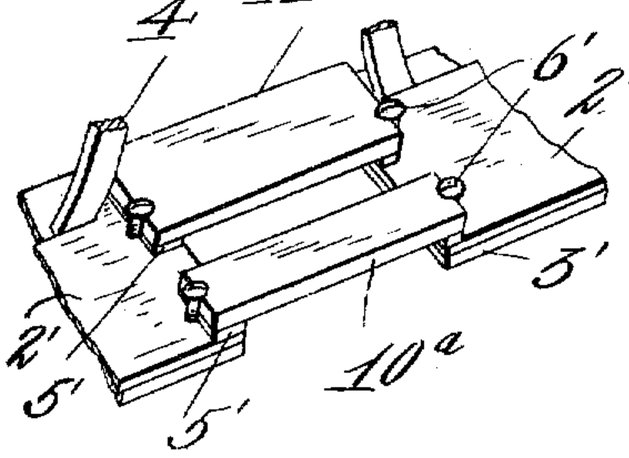


Fig. 1

Fig. 5



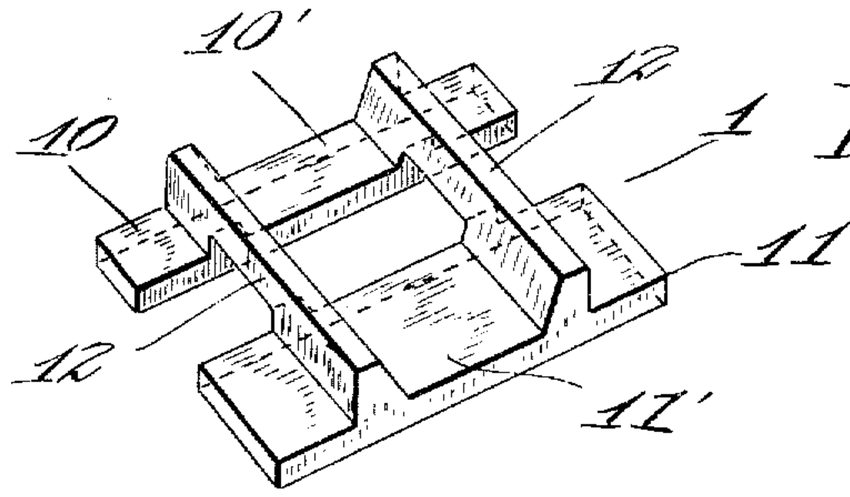
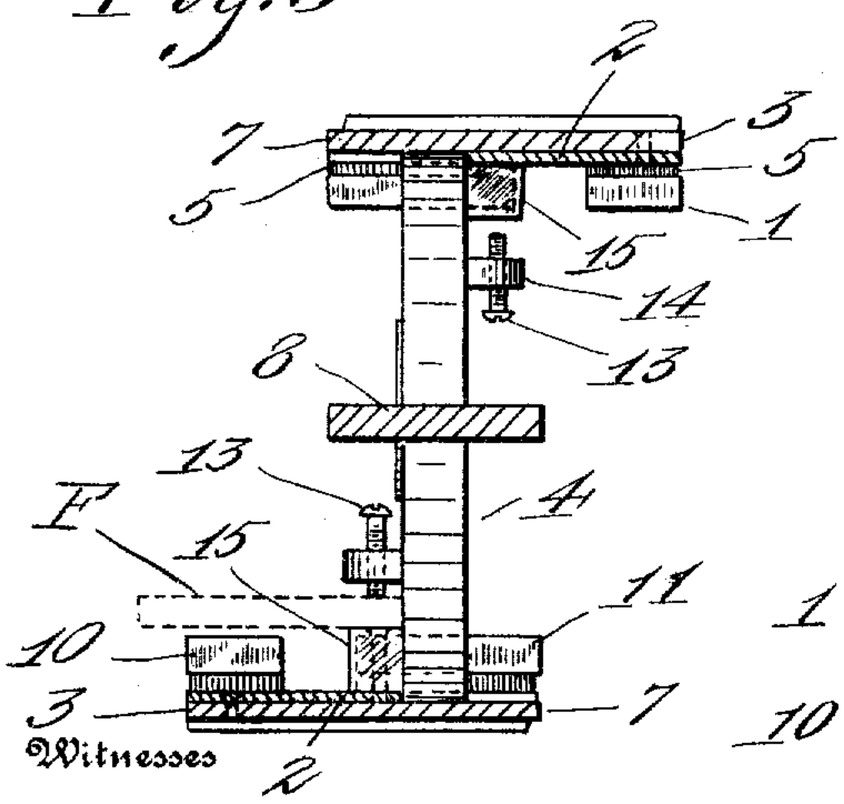


Fig. 4

Fig. 3

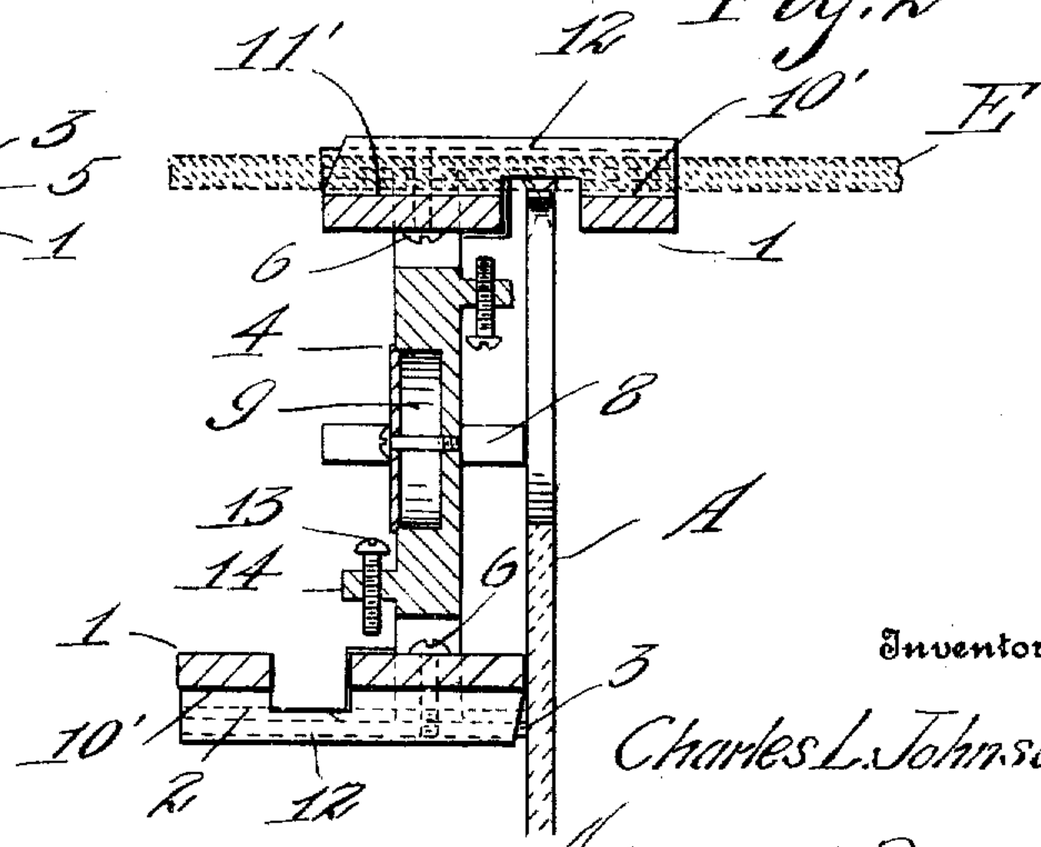


Witnesses

E. W. Cressman

Arlita Adams

Fig. 2



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UNITED STATES PATENT OFFICE.

CHARLES L. JOHNSON, OF SEATTLE, WASHINGTON.

SAW-TOOL.

946,048. Specification of Letters Patent. **Patented Jan. 11, 1910.**

Application filed November 3, 1908. Serial No. 460,916.

To all whom it may concern:

Be it known that I, CHARLES L. JOHNSON, a citizen of the United States of America, and a resident of the city of Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Saw-Tools, of which the following is a specification.

The primary object of my invention is to facilitate the jointing of cross cut saws, and the aim thereof is to provide an improved tool for jointing the cutting teeth and simultaneously presenting the rakers for breasting.

Further objects and advantages will be set forth as the description progresses and those features on which I desire protection, defined in the claims.

In the accompanying drawing, in which I have shown a preferred embodiment of my invention:—Figure 1 is a perspective view illustrating the tool in position on a saw to present a raker for jointing or breasting. Fig. 2 is a transverse section of the tool on line 2—2 of Fig. 1 and illustrates the operation of jointing a raker. Fig. 3 is a similar section taken on line 3—3 of Fig. 1. Fig. 4 is a perspective view of one of the gaging devices removed, and Fig. 5 is a perspective view of a modified form of the same.

In the present embodiment I have disclosed the features of my invention in a combination tool including two sets of jointing and gaging members, each set comprising a gaging device 1 and companion jointers 2, 2 extending from opposite sides of the gage and conveniently consisting of hardened steel plates or strips riveted to respective flanges 3 of a suitable frame, as 4. Jointers 2, 2 at one edge of the frame project and face in an opposite direction to those at the opposite edge, as clearly shown in the drawing.

Each device 1 comprises a pair of parallel bars, as 10 and 11, overlapping the faces of adjacent jointers to provide an unobstructed passage-way, for the teeth of a saw, from one jointer to the other. Extending over the space between the gage bars, are indicators 12, 12, see Fig. 4, conveniently in the form of ribs spaced apart to receive a file therebetween and formed integral with said bars. These indicators or bridging parts 12 are spaced from the plane of the gaging faces 10′ and 11′ of the bars so that their under faces will lie substantially even with the active faces of adjacent jointers 2, when the parts of the tool are properly assembled, and thereby indicate the proper spacing of the gage bars from the jointers, which spacing is effected by placing gaged shims or washers, as 5, between the overlapping portions of the gage bars and their respective jointers.

Reference numeral 6 indicates cap screws having screw threaded connection, each with a respective flange 3 and engaging adjacent bars 10 to secure the gaging devices 1 in position.

The spacing of the indicators 12 relatively to the gaging surfaces 10′ and 11′ should be such as to indicate the greatest proper clearance of the points of the rakers relatively to the points of the cutting teeth of the saw to be operated upon. This clearance should be less in saws intended for "felling" than in those for "bucking" and I therefore provide the two gaging devices 1 of the hardest metal obtainable, one arranged to give proper clearance for the rakers of felling saws and the other to give proper clearance for the rakers of bucking saws.

In connection with frame 4 I have shown guides 7 and 8 for engaging the side face of the saw, as A, in operating the tool, as indicated in Figs. 1 and 2, the guides 7 constituting edge extensions of the flanges 3 and the guides 8 consisting of ribs projecting from opposite faces of the frame. Intermediate the guides 8, a recess or pocket, as 9, may be provided in the body of frame 4 to receive extra shims or washers 5.

As it may be desirable at times to use a file for jointing the cutting teeth, as for example when the points of the teeth are extremely out of line, I provide set screws 13, carried by lugs 14 of frame 4 for clamping the jointing file F, see Fig. 3, at either side of the tool against lugs 15, provided on the jointers 2.

The tool, engaged with the saw as shown in Figs. 1 and 2, is operated by sliding it along the blade with the cutting teeth engaging the adjacent jointers, and stopping at each raker to present the same between the gage bars for jointing by means of a file, as E, thus jointing the rakers and light jointing the cutting teeth of crosscut saws simultaneously in one operation. The unobstructed passage-way also adapts the tool for use on hand saws or any practically straight breasted saw with or without rak-

ers. The size, form and spacing of the rakers presents no difficulties for the tool. The hardened gaging plates and jointers and gaged washers or shims give the greatest degree of stability and accuracy possible in adjustment.

In the modification shown in Fig. 5, the indicators are omitted and the gage bars 10^a and 11^a secured in position by screws 6′ and spaced by washers 5′ from the jointers 2′ carried by flanges 3′ of frame 4′.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent of the United States, is:

1. A saw tool comprising a body portion, spaced jointing members thereon, and a gaging device extending between said jointing members from beneath the adjacent end portions thereof and comprising a pair of spaced members extending lengthwise of the space between said jointing members, and cross connecting means for said pair of spaced members formed to have its lower surface substantially even with the under faces of said jointing members.

2. A saw tool comprising a body portion, spaced jointing members thereon, a gaging device extending between said jointing members comprising a pair of longitudinally disposed members spaced apart throughout their length and having their end portions overlapping said jointing members, spaced file guides connecting said pair of spaced members and having bearing against the adjacent end faces of said jointing members, and means supporting said gaging device for outward adjustment relatively to said jointing members.

3. A saw tool comprising a body portion, spaced jointing members thereon, a gaging device comprising a pair of members spaced apart for their entire lengths and extending between said jointing members and having their end portions overlapped thereby, and securing means engaged with the end portions of the spaced members of said gaging device and with the under faces of said jointing members.

4. A saw tool comprising a body portion, spaced jointing members thereon, a gaging device comprising a pair of members spaced apart for their entire lengths and extending between said jointing members and having their end portions overlapped thereby, and means for adjustably supporting said gaging device comprising headed screws mounted in said jointing members and depending from the under faces thereof and having their heads engaging over the edges of the spaced members of said gaging device.

Signed at Seattle, Washington this 15th day of October 1908.

CHARLES L. JOHNSON.

Witnesses:

JULIUS L. BALDWIN,

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