

(No Model.)

N. T. HAIL.
SAW JOINTER.

No. 512,469.

Patented Jan. 9, 1894.

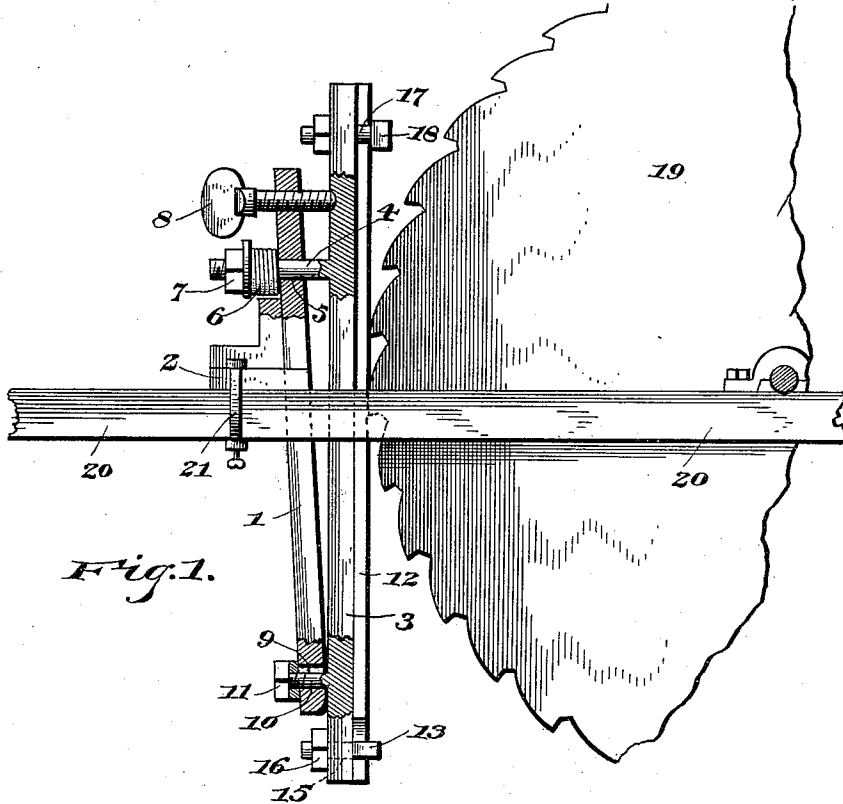


Fig. 1.

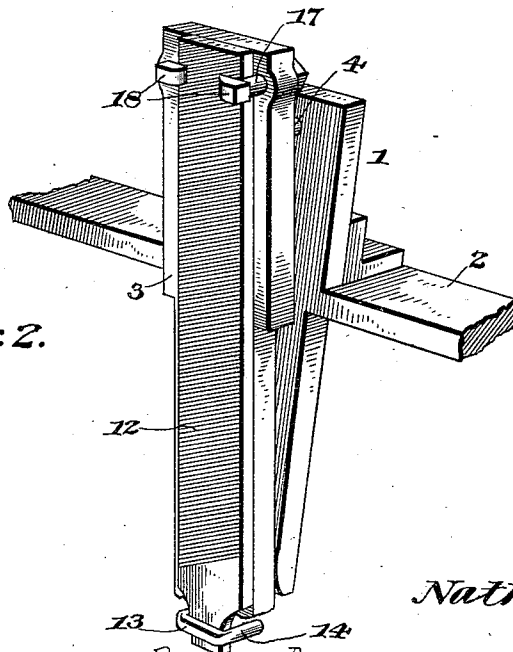


Fig. 2.

Witnesses

B. H. Ober

O. E. H. Coffey

Inventor

Nathan T. Hail,

By his Attorneys.

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

NATHAN T. HAIL, OF FLORA, ILLINOIS.

SAW-JOINTER.

SPECIFICATION forming part of Letters Patent No. 512,469, dated January 9, 1894.

Application filed September 27, 1893. Serial No. 486,621. (No model.)

To all whom it may concern:

Be it known that I, NATHAN T. HAIL, a citizen of the United States, residing at Flora, in the county of Clay and State of Illinois, have invented a new and useful Saw-Jointer, of which the following is a specification.

My invention relates to a device for jointing and dressing circular saws, and has for its object to provide a simple and efficient appliance adapted to be secured to the saw-guide and capable of adjustment to secure a uniform dressing of the teeth to produce a longitudinally rounded and transversely squared set.

Further objects and advantages of my invention will appear in the following description and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a side view of a device embodying my invention applied in the operative position to a circular saw. Fig. 2 is a perspective view of the apparatus partly in section.

Similar numerals of reference indicate corresponding parts in both the figures of the drawings.

1 designates a supporting bar which is provided at an intermediate point with a horizontal transversely disposed bracket 2 which is preferably formed integral with the supporting bar, and 3 designates an adjustable file-carrying bar which is connected, at a point near its lower end, to the supporting bar by a hinge joint.

4 represents a guide-rod which is fixed to the file-carrying bar, extends through a perforation 5 in the supporting bar and is fitted upon the rear side of the latter with a coiled retraction spring 6, the tension of which is adjustable by means of a nut 7 which is threaded upon the extremities of the guide-rod. A feed screw 8 is threaded in the supporting bar at its upper extremity and bears at its terminal against the rear surface of the file-carrying bar, to regulate the interval between the upper ends of the supporting bar and file-carrying bar, or the deflection of the latter from the former.

The hinge joint is constructed as follows:

The front face of the supporting bar, at its lower extremity, is rounded to bear against the rear surface of the file carrying bar and is provided with a longitudinally elongated opening 9 through which extends a hinge-bolt 10 which is fixed to the file-carrying bar and is engaged at its extremity by a securing nut 11. The elongated opening allows the file-carrying bar to be adjusted angularly without binding or straining the hinge-bolt. The file 12 is secured to the file-carrying bar, at its lower end, by a clip 13 provided with parallel arms 14 engaging perforations 15 in the bar, one of said arms being threaded and engaged by a nut 16, and at its upper end by the headed securing bolts 17 having lateral heads 18 which engage the side edges of the file.

19 represents a circular saw and 20 the usual guides upon which the transverse bracket 2 rests and is secured by means of a clamp 21, of any preferred construction.

In operation, after the apparatus, as described, is secured to the saw guides, and the file carrying bar is adjusted, by means of the adjusting screw, to bring the file to the desired position with relation to the saw teeth, the saw is rotated, thus causing those teeth which exceed the proper gage to come in contact with the surface of the file. The rotary motion of the saw causes the teeth to be rounded longitudinally and the flat surface of the file squares the teeth transversely, and at the same time sharpens them at their cutting points. The retraction spring tends to return the file carrying bar to its normal position in a plane parallel with the supporting bar, whereby any lost motion or looseness caused by or due to the adjusting screw is taken up and the operator is enabled to adjust the file accurately.

Various changes in the form, proportion and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus described my invention, I claim—

1. In a device of the class described, the combination of a supporting bar provided

- with a transverse bracket 2, which projects laterally beyond opposite sides of the supporting bar and is adapted to rest upon the saw-guides, a file-carrying bar hinged at one end to the supporting bar and carrying suitable file-engaging devices, and means for adjusting the file-carrying bar to bring the file in operative relation with a saw, substantially as specified.
2. In a device of the class described, the combination, of a supporting bar and means to secure the same to a saw guide, a file-carrying bar provided near its lower end with a hinge bolt engaging an elongated opening in the supporting bar, and held in place by a securing nut, the lower end of the supporting bar being rounded to engage the rear surface

of the file-carrying bar, a guide-rod fixed to the file carrying bar and extending through a guide-opening in the supporting bar, a retraction spring coiled upon the guide rod in rear of the supporting bar and held in place by an adjusting nut, and an adjusting-screw threaded in the supporting bar and engaging the file-carrying bar, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

NATHAN T. HAIL.

Witnesses:

WILLIAM G. SMITH,
THOMAS J. GOLDEN.