

Nov. 18, 1924.

1,515,763

J. H. WHEELOCK

SAW JOINTER

Filed Dec. 26, 1922

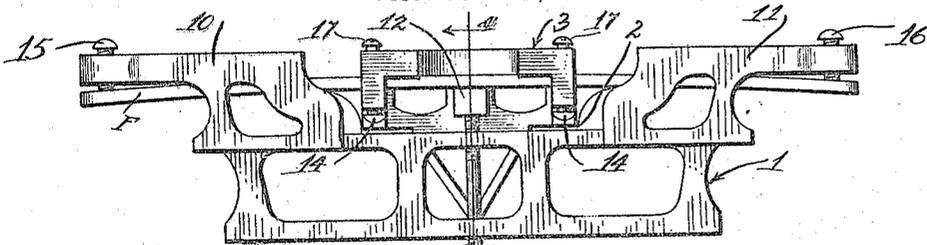


Fig. 1.

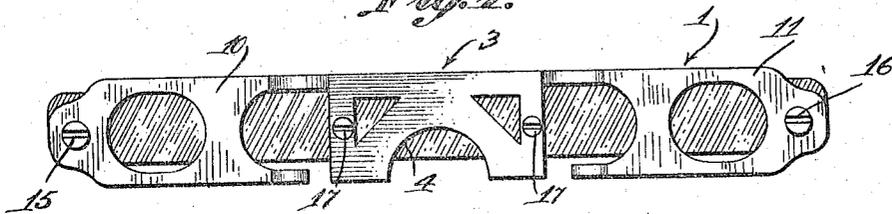


Fig. 2.

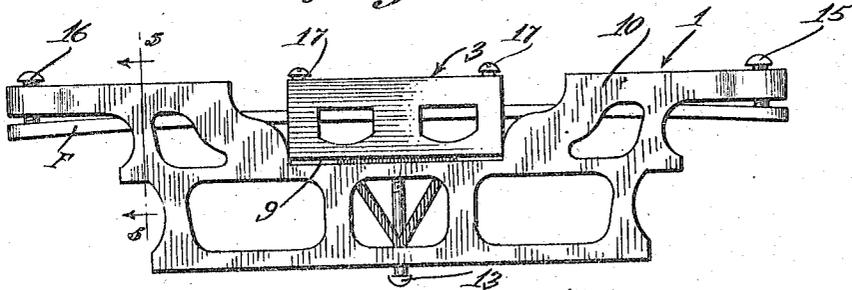


Fig. 3.

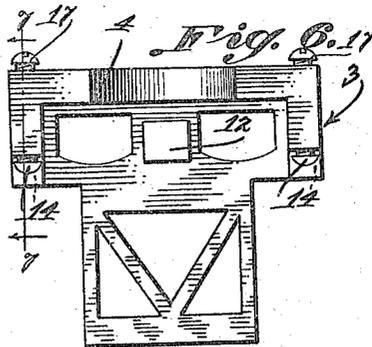


Fig. 4.

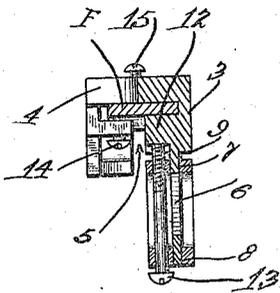


Fig. 5.



Fig. 6.

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UNITED STATES PATENT OFFICE.

JOHN H. WHEELOCK, OF HAMILTON, WASHINGTON.

SAW JOINTER.

Application filed December 26, 1922. Serial No. 608,971.

To all whom it may concern:

Be it known that I, JOHN H. WHEELOCK, a citizen of the United States, residing at Hamilton, in the county of Skagit and State of Washington, have invented a new and useful Saw Jointer, of which the following is a specification.

This invention relates to saw filing tools and more particularly to saw jointers.

The object of the invention is to provide a jointer of this character constructed to true up and joint the cutting teeth of cross cut saws to an even length, and a gradual arc or curve.

Another object is to provide an implement of this character so constructed that the file may be adjusted to various curves especially adapting the jointer for use on compound curves such as are frequently found in cross cut saws.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings:—

Figure 1 represents a side elevation of the jointer embodying this invention with a file shown in operative position therein.

Fig. 2 is a top plan view thereof.

Fig. 3 is a side elevation taken from the side opposite on which Figure 1 is taken,

Fig. 4 is a transverse section taken on the line 4—4 of Fig. 1.

Fig. 5 is a transverse section taken on the line 5—5 of Fig. 3,

Fig. 6 is a detail perspective view of the clamping member or slide constituting a part of the jointer, and

Fig. 7 is a detail sectional view taken on the line 7—7 of Fig. 6.

In the embodiment illustrated, a main frame 1 is shown in the form of a light skeleton casting preferably constructed of aluminum and which has a centrally disposed seat or recess 2 to receive a vertically movable clamp 3. This clamp 3 has a file seat formed under the top or upper face 4 thereof, the lower wall of which is slotted as shown at 5 to permit the saw teeth to pass

up into engagement with the file F in a manner presently to be described.

An apron in the form of a plate 6 extends from the lower edge of the front face of the member 3 and is designed to be mounted for vertical sliding movement in the pockets 7 and 8 formed in the front wall of the main frame 1. At the base of the apron 6 is a laterally extending shoulder 9 which is designed to rest on the upper edge of the frame 1 in the recessed portion 2 thereof, the width of the member 3 above said shoulder being such that when the slide is in position resting on the frame, the upper surface thereof will be flush with the end portions 10 and 11 of said frame, see Fig. 1.

The clamping member 3 has a laterally extending lug 12 on the inner face of its front wall just above the connection therewith of the apron 6 against the lower face of which is designed to abut an adjusting screw 13 which is operable through the front wall of the frame 1 at the rear of the pockets 7 and 8 therein and is designed to adjust the clamp vertically in its seat and to hold it in adjusted position.

Extending upwardly through the bottom of the clamping member 3 at the ends thereof are a plurality of screws 14, four being here shown, two at each end and which are designed to form fulcrums for the file F when it is being adjusted to conform to the curvature of the teeth to be jointed. This is accomplished by means of set screws 15 and 16 carried by the ends 10 and 11 of the frame 1 and screws 17 carried by clamp 3. These screws bear against the upper faces of the opposed ends of the file F.

The end members 10 and 11 have file seats 17 which register with the seats in the clamping member 3, the file F being inserted longitudinally in these seats below the upper faces of the member 1 and frame 3. Slots as 18 open longitudinally through the bottom walls of the seats 17 and are arranged to aline with the slots 6 of the clamps 3 to permit the implement to be mounted over the saw teeth to be jointed.

From the above description it will be obvious that the clamping member 3 having been adjusted through the screw 13 to the desired point and the file F placed in the jointer as shown in the drawings, the device is ready for use and is operated as follows: The jointer is placed on a set of cutting teeth

nearest the center of the cross cut saw, the file having been sufficiently tensioned to parallel the curve of the teeth. Should one or more teeth which are arranged below the file be of uneven length, the device with the file already resting on the points of such teeth is reciprocated back and forth a distance of about three-eighths of an inch until all of the teeth in the three or four seats will have the same true curve corresponding to that of the file, thereby providing a true arc for the centering of the saw to begin with.

The operator then faces the saw and takes the jointer in his right hand, lifting it just enough to clear the file from the cutting teeth and passes it on until the center of the file is directly over the next set of cutting teeth at the left of the center of the saw. If one or more teeth in this set are uneven in length, the jointer is reciprocated back and forth in the same manner as that above described. Care must be taken to never trim any other teeth than those directly under the center of the jointer until the same is moved to the next set of teeth to be treated. This operation is repeated until the end of the saw at the left is reached, and when this is accomplished one half of the saw teeth will have been jointed or trued.

The saw is then changed end for end in the clamp or rack which holds it and the procedure above described is repeated working to the left until the end of the saw is reached. Both of the outer ends of the file are used as a guide only to prevent either end of the device from dipping and they are not intended to be used for cutting except on the last set of teeth at either end of the saw. This device might be termed a sectional and not a gliding jointer owing to the fact that the teeth of the saw are treated in sections.

Should the saw being jointed have a compound curve, it will be necessary to change the tension of the file probably several times during the jointing operation to adapt it to conform to such changing curves. A ten

inch planer bit file is shown in the device herein illustrated, and operates as a tester as well as a cutting instrument in perfecting a true and gradual curve in the saw.

It will be observed that the screws with which this jointer is fitted have the bearings thereof spaced equidistant lengthwise of the file so as to impart to the file as true a curve as is practicable when in operation.

I claim:—

A main frame having a centrally disposed seat or recess, a vertically movable clamp mounted in said seat, said clamp having a file seat formed under its top or upper face, the lower wall of said file seat being slotted to permit the saw teeth to pass up into engagement with the file, an apron depending from the lower edge of said clamp at the front face thereof, said main frame having pockets in its front wall in which said apron is mounted for vertical sliding movement, a laterally extending shoulder at the base of said apron to rest on the upper end of the main frame in the recess portion thereof, the width of the clamp above said shoulder being such that when the slide is in position on the main frame the upper surface will be flush with the end portion of said frame, a laterally extending lug on the inner face of the front wall of said clamp above its connection with the apron, an adjusting screw operable through the front wall of the frame abutting against said lug to adjust the clamp vertically in relation to the saw teeth and hold it in adjusted position, and fulcrumed at the end of said clamp for the file to be used to adapt it to conform to the curvature of the teeth to be jointed, and cooperating screws carried by the ends of the main frame and the clamp to assist in the adjustment of the file.

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

JOHN H. WHEELLOCK,

Witnesses:

E. BEAUCHAMP,
M. H. HENRY.