Nov. 25, 1947. K. M. SHENK 2,431,431

JOINTER

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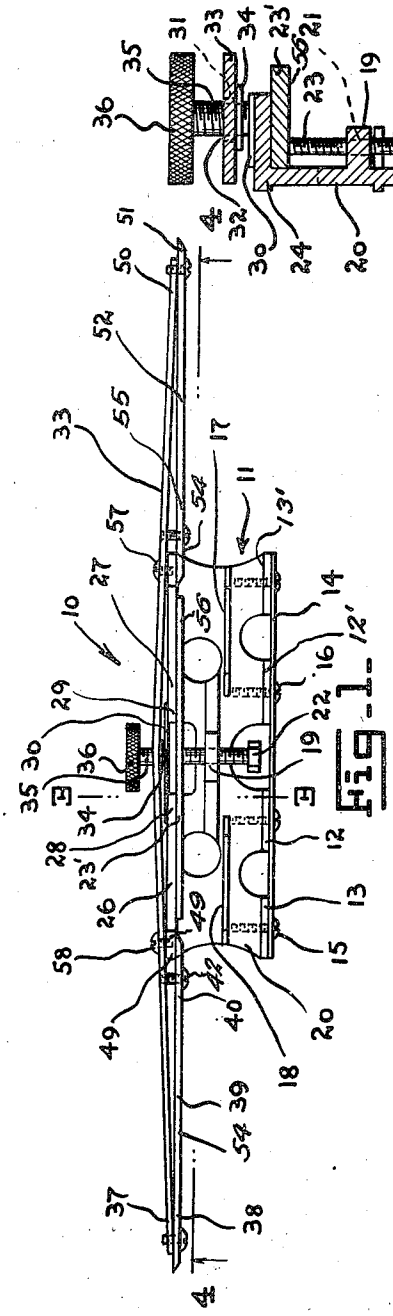


Fig. 1.

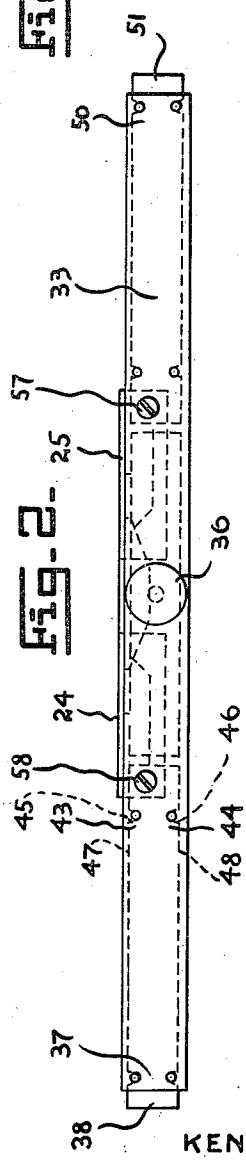


Fig. 2.



Fig. 3.

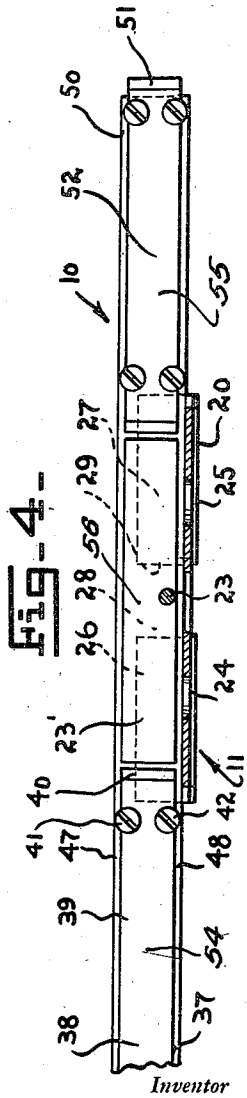


Fig. 4.

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JOINTER

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1 Claim. (Cl. 76—47)

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My invention as described herein, and illustrated in the accompanying drawings, consists of a saw jointer, an object of which is to provide a jointer for felling and bucking saws, the arc of which may be instantly adjusted to that of any such saw through the action of a single set screw.

Another object of my invention is to provide a jointer having a flexible gauge for describing an arc.

A further object of this invention is to provide a jointer through means of which absolute uniformity of all teeth on a bucking or felling saw is provided.

Other features and advantages will become more readily apparent from the following description and the accompanying illustrative drawings in which:

Figure 1 is an elevational view of my jointer,

Figure 2 is a plan view thereof,

Figure 3 is a sectional view taken on line 3—3 of Figure 1, and

Figure 4 is a longitudinal sectional view on line 4—4 of Figure 1, certain parts being broken away.

While one embodiment of my invention is illustrated in the above referred to drawings, it is to be understood that they are merely for the purpose of illustration and that various changes in construction may be resorted to in the course of manufacture in order that the invention may be utilized to the best advantage according to circumstances which may arise, without in any way departing from the spirit and intention of my device, which is to be limited only in accordance with the appended claims. And while I have stated the primary field of utility of my invention it remains obvious that it may be employed in any other capacity wherein it may be found applicable.

In the accompanying drawings, and in the following specification, the same reference characters are used to designate the same parts and elements throughout and in which 10, refers to my invention and 11, indicates a frame which is a casting, to the bottom angular feet 12 and 13, of which is fixed a strap 14, and through which strap and feet are threaded guide screws 15 and 16, which co-act with right angular flanges 17 and 18, aligned with said feet, which flanges and screws provide means for slidable connection with a saw clamp guide (not shown).

Centrally of and above the flanges 17 and 18, is another and heavier flange 19, projecting from the wall 20, of the frame 11, and through a threaded aperture 21, in which is threaded an adjustment bolt 22, the upper end 23, of which impinges the longitudinal center of a file 23', to hold the same in proper position for filing down teeth to a common arc.

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From the upper edges 24 and 25, of the frame are inturned right angular flanges 26 and 27, which are centrally spaced apart and against the under sides of which the file 23', is held. Straddling the inner ends 28 and 29, of flanges 26 and 27, is a flexible plate 30, the function of which will shortly be stated.

Operating through a bore 31, in the center 32, of an elongated slightly flexible strap 33, and threaded through a nut 34, welded to the under side of the strap is an adjustment set screw 35, having a knurled (or winged) head 36. To one terminal 37, of the strap 33, is secured to the under side thereof, one end 38, of a runner 39, the other end 40 of which is held spaced from the strap 33, and suspended upon screw heads 41 and 42, the screws of which are threaded into the opposite sides 43 and 44, of the plate 33, from the under side thereof, said end 40, having inclined slots 45 and 46, extending in from its edges 47 and 48, whereby relative movement between said strap and runners may be had. A rubber or other flexible pad 49, is seated between the end 40, of the runner and the strap.

To the end 50, of the strap 33, is secured the end 51, of another runner 52, which is a duplicate of runner 39, and is suspended at its inner end in the same manner. Both of these runners are made of case hardened steel and while they are not files their under surfaces 54 and 55 are sufficiently rough to smooth off or perfectly align the arcuate upper edges of saw teeth cut to equal height by the file 23. The surfaces 54 and 55, of the runners and the under cutting surface 56, of the file align with one another and all of which surfaces seat upon the teeth of a saw being jointed. Screws 57 and 58 project through bores in the strap 33, and are threaded into the flanges 26 and 27, whereby the strap is attached to the frame 11.

As felling and bucking saws have the teeth formed on an arc of from 10° to 15° the screw 35 is adapted to bear upon plate 30, whereby the strap 33, and the runners 39 and 52, may be quickly adjusted to the arc of a particular saw merely by the operation of said screw, the flexibility of plate 30 providing gradual flexing of the members. When the jointer is adjusted to a saw and seated thereon the teeth engaging surfaces of the runners and file will show at a glance if the saw needs jointing and if so, exactly when

properly jointed, whereby unnecessary cutting down of the teeth may be avoided, thus greatly lengthening the life of a saw.

It is thought that persons skilled in the art to which the invention relates will be able to obtain a clear understanding of the invention after considering the description in connection with the drawings. Therefore, a more lengthy description is regarded as unnecessary.

Changes in shape, size and rearrangement of details and parts such as come within the purview of the invention claimed may be resorted to, in actual practice, if desired.

Having now described my invention, that which I claim as new and desire to procure by Letters Patent is:

The combination of a saw jointer including a frame body having spaced angularly extending supporting teeth and a strap secured thereto forming a slidable connection for securing the jointer to a saw clamp guide, spaced inwardly extending guide flanges on said frame, a file disposed beneath and in contact with one of said flanges, a flange underlying said first mentioned guide flanges, a locking screw extending through said underlying flange engageable with said file for clamping the same in fixed position, a connecting plate disposed between said guide flanges,

an adjusting set screw threadably supported in said frame body, an elongated flexible strap mounted centrally of its length upon said adjusting set screw, spaced runners secured under said strap and at their outer ends to the outer ends of said strap being horizontally alignable with said file, flexible pads between the inner ends of said runners and said strap, and means connecting the inner ends of said runners with said spaced guide flanges.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,314,729	Anderson	Sept. 2, 1919
1,481,818	Anderson	Jan. 29, 1924
1,487,679	Hanson	Mar. 18, 1924
1,703,980	Anderson	Mar. 5, 1929
1,741,850	La Bare	Dec. 31, 1929
977,233	Stecker	Nov. 29, 1910
1,586,661	Dougan	June 1, 1926
1,330,042	Knizek	Feb. 3, 1920
1,392,261	Anderson	Sept. 27, 1921