Dec. 12, 1939. A. HAAS 2,183,190

JOINTER FENCE AND THE LIKE

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Fig. 1

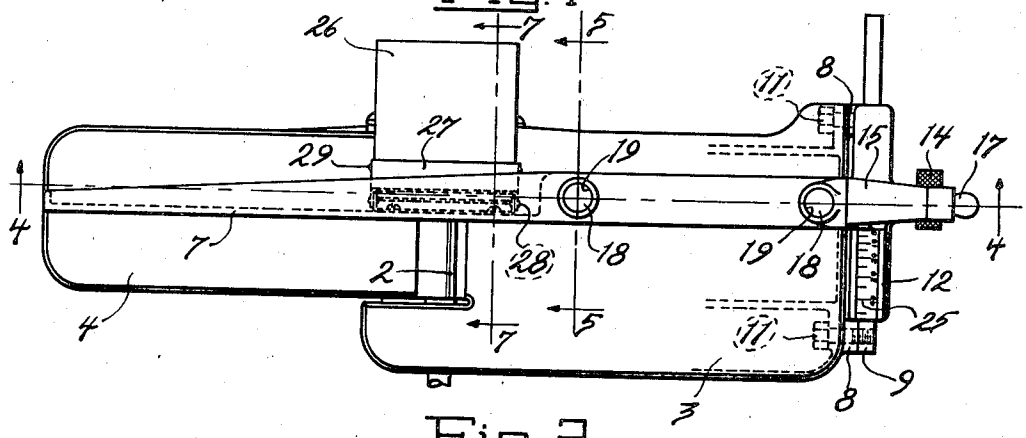


Fig. 2

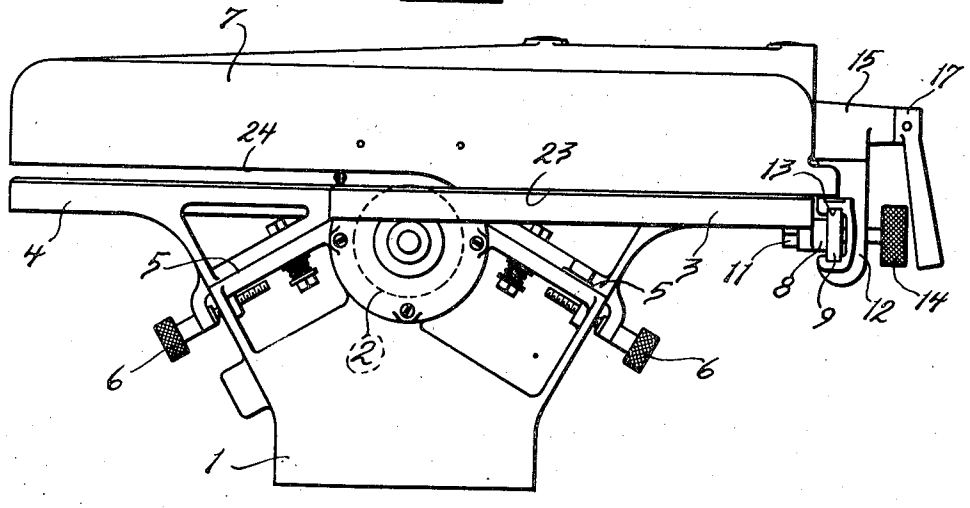
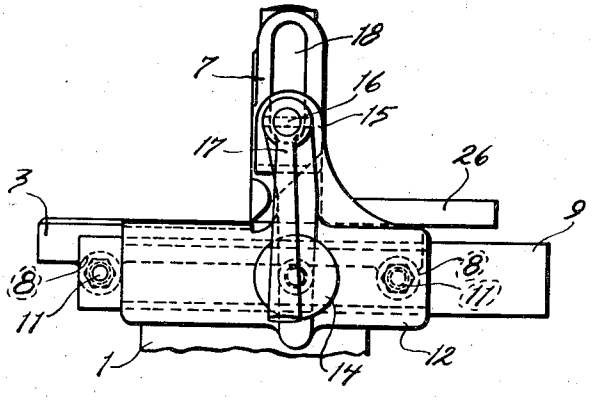


Fig. 3



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Fig. 4

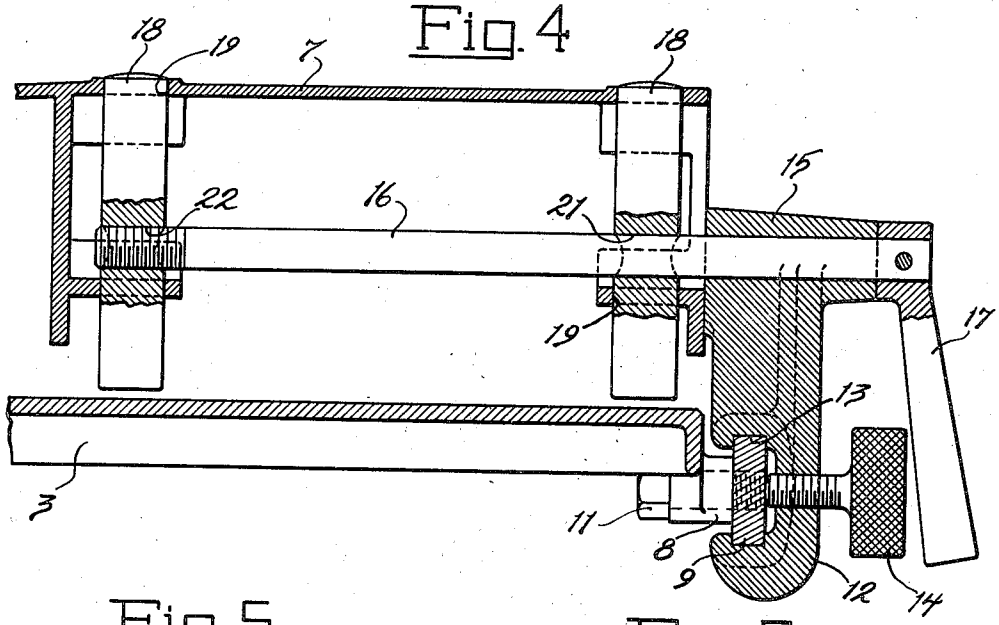


Fig. 5

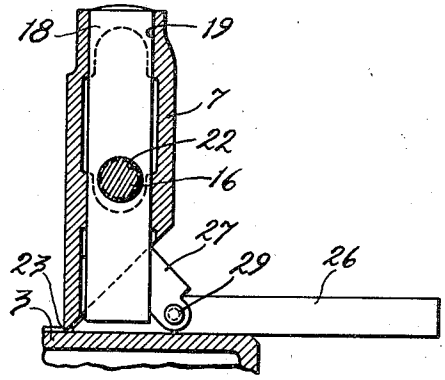


Fig. 6

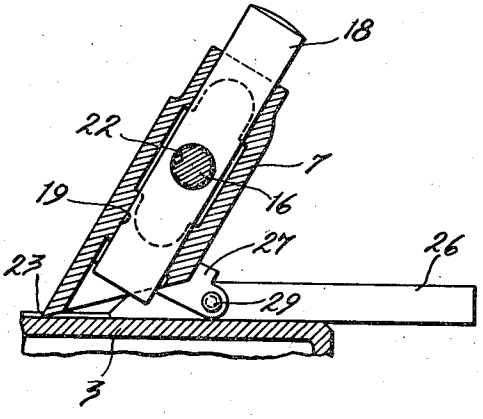
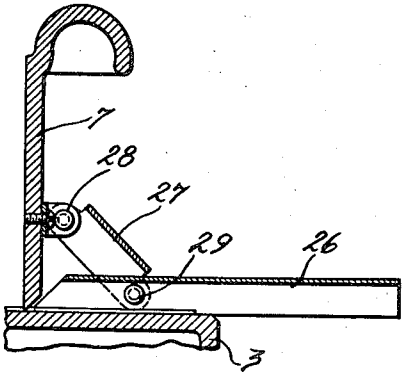


Fig. 7



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Patented Dec. 12, 1939 2,183,190

UNITED STATES PATENT OFFICE

2,183,190

JOINTER FENCE AND THE LIKE

Alvin Haas, Peru, Ill.

Application November 15, 1937, Serial No. 174,673

3 Claims. (Cl. 144—253)

My invention relates particularly to jointers for woodworking although not limited to this use alone.

One feature of my invention resides in the provision of a novel and desirable adjustable fence or work guide structure which is particularly adapted for woodworking jointers, the invention contemplating ease and convenience of adjustment and structure well adapted to its purposes.

With this feature in view my invention consists in certain features of novelty in the construction, combination, and arrangement of parts by which the said feature and certain other features, hereinafter appearing, are effected all as fully described with reference to the accompanying drawings and more particularly pointed out in the appended claims.

In the said drawings—

Figure 1 is a top plan view of a jointer embodying my invention;

Figure 2 is a side elevation of the same;

Figure 3 is a partial front elevation of the same;

Figure 4 is a partial section substantially on the line 4—4 of Figure 1;

Figure 5 is a partial sectional view substantially on the line 5—5 of Figure 1;

Figure 6 is a view similar to Figure 5 but showing parts in different positions; and

Figure 7 is a partial section substantially on the line 7—7 of Figure 1.

Referring to the drawings, 1 designates a base, and a power driven rotary cutter 2 is rotatably mounted on this base in a usual manner. A front work table 3 and a rear work table 4 are slidably mounted on inclined ways, as designated at 5, for independently adjusting the tables with reference to the cutter 2 for depth of cut and cutting diameter of the cutter, the adjustment of the tables being effected by screw adjustment devices 6, all as is more or less usual. See Figures 1 and 2.

A fence or work guide 7, extending transversely of the cutter 2, and over the work tables 3 and 4 is adjustably mounted for bodily adjustment axially of the cutter and for angular adjustment with reference to the upper or work surfaces of the work tables and in an axial plane of the cutter in the following manner:

Spaced bosses 8 are formed integrally with the front work table 3 and are disposed below the work surface of this table and project outwardly beyond the front edge thereof. See Figures 1 to 4. A support bar 9 is secured against the projecting ends of these bosses by means of headed screws 11, and, as so secured with the front table, extends along the front edge of this table in spaced relation therewith and is disposed below the work surface of this table and projects above and below the bosses 8.

A support bracket 12 is provided with an undercut channel 13 which is slidably engaged on the support bar 9 for adjustably positioning the support bracket laterally of the work tables, and a clamping screw 14, screwthreaded on the support bracket is engageable with the support bar to releasably secure the support bracket in adjusted position on the support bar.

The support bracket 12 extends upwardly from the support bar 9 and the planes of the support surfaces of the work tables with a bored bearing formation 15, and a shaft 16 is journaled for rotation in this bearing formation and extends above the work surfaces of the work tables in parallelism therewith and normal to an axial plane of the cutter 2. A handle 17 is secured on the front end of the shaft 16 for manual rotation of the shaft and engages against the front end of the bearing formation 15 to provide an axial bearing for the shaft opposing rearward axial movement of the shaft.

Two parallel stud members 18 are spaced along the shaft 16 and are slidably engaged in spaced interrupted bores 19 in the fence or work guide member 7 on opposite sides of the shaft 16, which bores are spaced along and disposed in parallelism with the work guide surface of the work guide.

The stud members 18 are provided with transverse bores disposed intermediately of the lengths thereof, which bores are rotatably engaged on the shaft 16, the bore of the front stud member being slidable along the shaft, as designated at 21, and the bore of the rear stud being screwthreaded on the rear end of the shaft, as designated at 22.

The fence or work guide member 7 is thus carried on the support bracket 12 for angular adjustment with reference thereto and for both bodily adjustment and angular adjustment with reference to the work tables and cutter, said bodily adjustment being effected by adjustment of the support bracket 12 along the support bar 9.

The lower edge of the fence or work guide rests on the work surface of the front table 3, as designated at 23, and the slide bearing engagement between the work guide and stud members 18 affords engagement of said lower edge of the work guide with this work surface in the various angular adjustments of the work guide, as shown in Figures 5 and 6. The portion of the lower edge

of the work guide which overlies the rear work table 4 and cutter 2 is relieved, as designated at 24, to accommodate for vertical adjustment of the work tables. The bracket 12 is provided with a scale 25 for facilitating desired angular adjustment of the work guide.

The front end of the fence or work guide 7 engages against the bearing formation 15 of the bracket 12, and, by reason of the screwthread engagement of the shaft 16 with the rear stud 18, rotation of this shaft releasably secures the work guide in angularly adjusted position.

A cutter guard 26 of channel form is arranged on the off side of the work guide and overlies the cutter 2 for protection therefrom and is movable therealong, this guard resting on the work surface of one of the work tables. A connecting link 27 also of channel form has its channel side portions pivotally connected at spaced points with the work guide 7, as designated at 28, and with the cutter guard, as designated at 23, to cause the cutter guard to follow adjustment of the work guide. See particularly Figures 5, 6 and 7.

Having thus described my invention, I do not wish to be limited to the precise details described as changes may be readily made without departing from the spirit of my invention, but having thus described my invention, I claim as new and desire to secure by Letters Patent the following:

1. In a device of the character described, the combination with a support, of a guide member, and means carrying said guide member on said support for angular adjustment relative thereto comprising a shaft mounted on said support and forming the axis of said angular adjustment and at least one stud member having longitudinal slide bearing engagements with said guide on opposite sides of said shaft and provided with a transverse bore disposed intermediately of the length thereof and engaged on said shaft.

2. In a device of the character described, the combination with a support, of a guide member, means carrying said guide member on said support for angular adjustment relative thereto comprising a shaft mounted for rotation on said support and forming the axis of said angular adjustment and at least one stud member having longitudinal slide bearing engagements with said guide on opposite sides of said shaft and provided with a transverse bore disposed intermediately of the length thereof and screwthreaded on said shaft, and axial bearing means operative between said shaft and support and cooperating with said screwthread engagement to releasably clamp said guide in adjusted position on said support with angular movement of said shaft.

3. In a device of the character described, the combination with a support, of a guide member, means carrying said guide member on said support for angular adjustment relative thereto comprising a shaft mounted for rotation on said support and forming the axis of said angular adjustment and a plurality of parallel stud members spaced along said shaft and having longitudinal slide bearing engagements with said guide on opposite sides of said shaft and provided with transverse bores disposed intermediately of the lengths thereof and rotatably engaged on said shaft and the bore of one of said stud members being screwthreaded on said shaft, and axial bearing means operative between said shaft and support and cooperating with said screwthread engagement to releasably clamp said guide in adjusted position on said support with angular movement of said shaft.

ALVIN HAAS.