

H. E. MORTON.
SHAPER TABLE SUPPORT.

APPLICATION FILED JAN. 19, 1912. RENEWED APR. 12, 1913.

1,063,934.

Patented June 3, 1913.

2 SHEETS-SHEET 1.

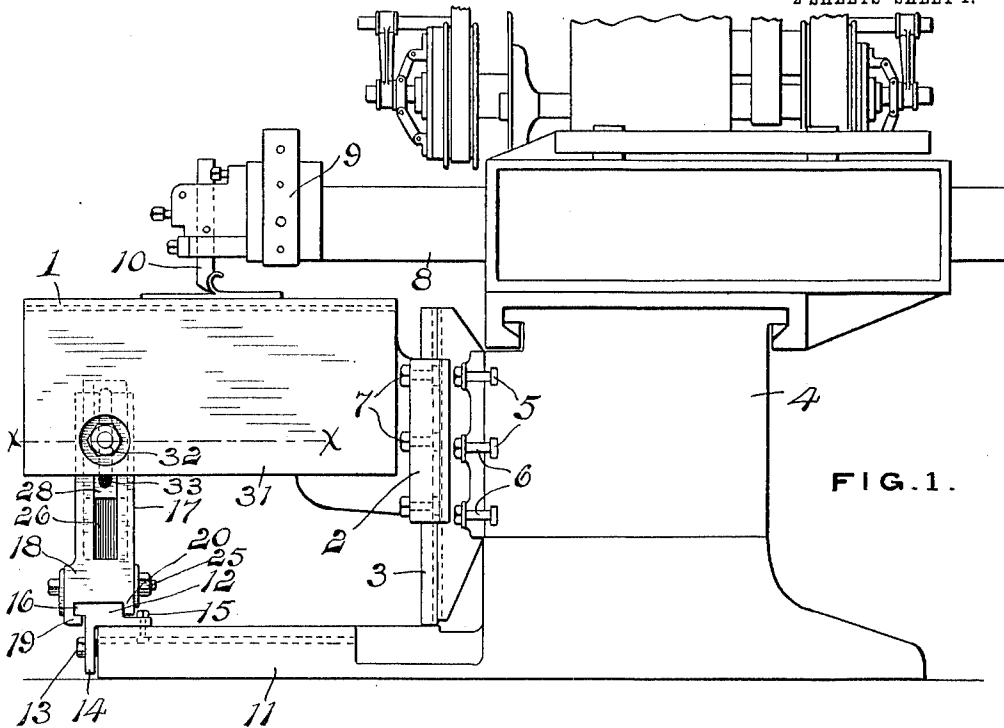
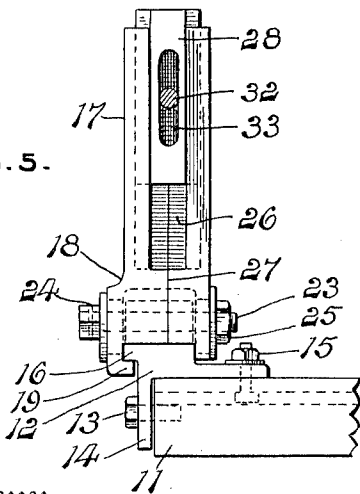


FIG. 5.



Witnesses
Chas. W. Stauffer
A. M. Shannon

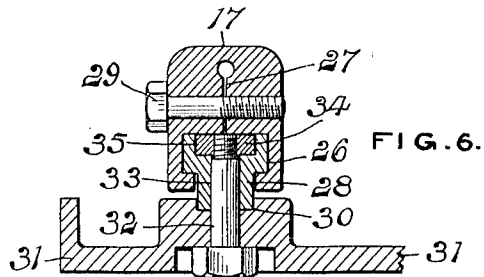
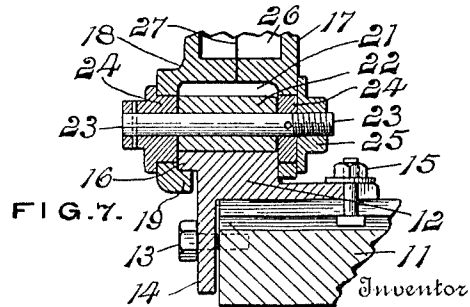


FIG. 7.



Henry E. Morton

334 Lewis E. Sanders
Attorney

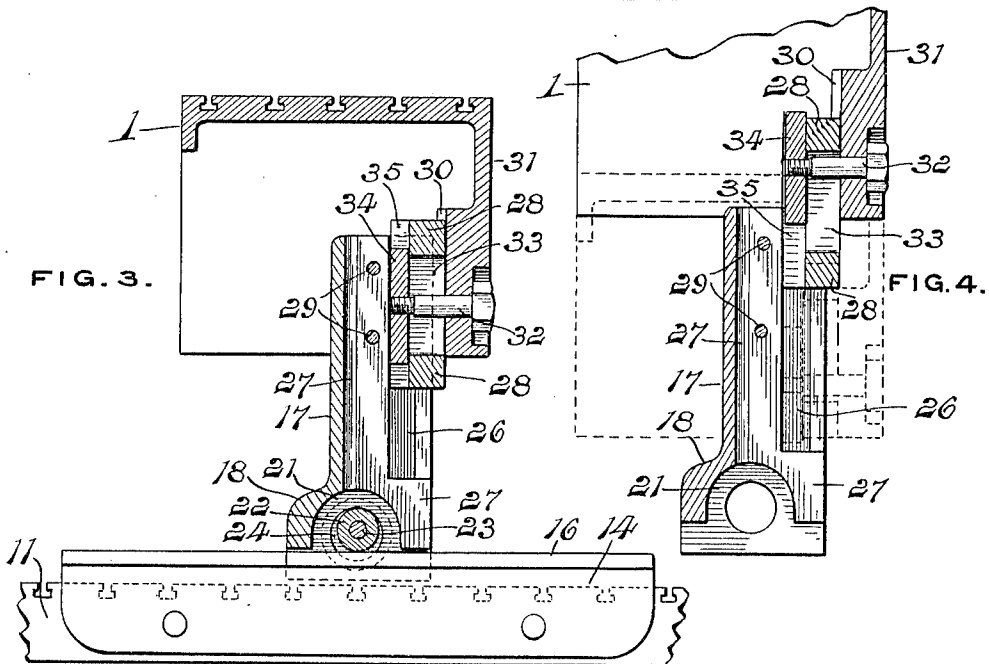
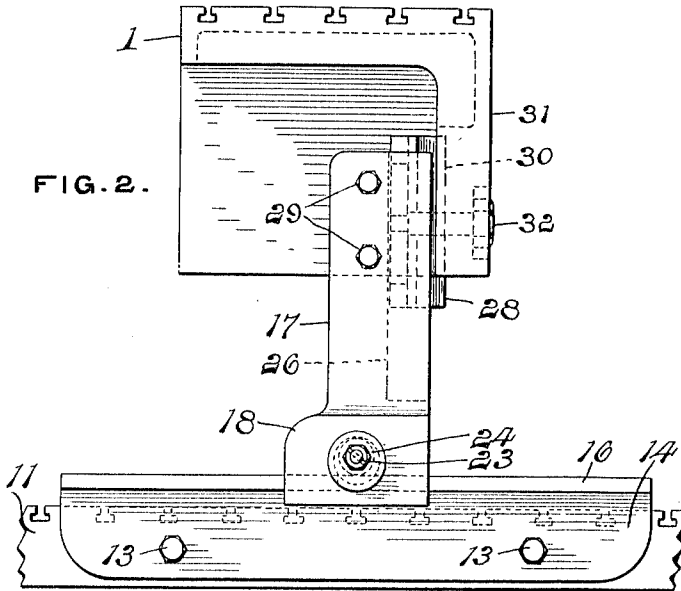
H. E. MORTON.
SHAPER TABLE SUPPORT.

APPLICATION FILED JAN. 19, 1912. RENEWED APR. 12, 1913.

1,063,934.

Patented June 3, 1913.

2 SHEETS-SHEET 2.



Inventor

Henry E. Morton

Witnesses

Chas. W. Stauffer

A. M. Shannon

By

Lewis E. Flanders

Attorney

UNITED STATES PATENT OFFICE.

HENRY E. MORTON, OF MUSKEGON, MICHIGAN.

SHAPER-TABLE SUPPORT.

1,063,934.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed January 19, 1912, Serial No. 672,198. Renewed April 12, 1913. Serial No. 760,817.

To all whom it may concern:

Be it known that I, HENRY E. MORTON, a citizen of the United States, residing at Muskegon, in the county of Muskegon and State of Michigan, have invented certain new and useful Improvements in Shaper-Table Supports, of which the following is a specification.

This invention relates to improvements in draw-cut shaper table supports, and its object is to provide a device which may be quickly and conveniently adjusted both vertically and horizontally, and is so constructed as to give a wide range of vertical adjustment, and rigidly hold the table in any position to which it may be adjusted.

To this end the invention consists in the matters hereinafter set forth and more particularly pointed out in the claims, reference being had to the accompanying drawings in which—

Figure 1 is a side elevation of a draw cut shaper and showing its table provided with a support embodying the invention; Fig. 2 is an end elevation of the support in operative position; Fig. 3 is a vertical section through the same; Fig. 4 is a sectional detail of the support detached and showing the parts shifted, to illustrate the operation; Fig. 5 is a side elevation of the support detached; Fig. 6 an enlarged sectional detail on the line $x-x$ of Fig. 1; and Fig. 7, an enlarged vertical section through the lower part of the support.

It will be understood that this invention may be applied to any of the ordinary forms of shaper tables, but for convenience of illustration, the invention is shown as applied to a shaper having a table 1 secured by means of a bracket 2 to a vertical plate 3 which is attached to the side of the shaper base 4 by means of bolts 5 engaging horizontal slots 6 in the side plate of the base. The bracket 2 is attached to the plate 3 by means of bolts 7 in such a manner that it may be adjusted vertically upon said plate, and thus the table is supported in such a manner that it may be adjusted both vertically and horizontally. The particular shaper shown in the drawing in outline, has a reciprocable tool carrying ram 8 provided with a head 9 carrying a cutting tool 10 movable over the table, said ram being reciprocated in any suitable manner (not shown).

The bed 11 of the shaper extends out-

ward beneath the table 1 and is provided with the usual T-slots in its upper surface to receive bolts for securing parts in place thereon. A track bar 12 is secured to the outer edge of the bed by bolts 13 extending through a downwardly projecting flange 14 and into the end of the base. The track bar may be further secured in place by bolts 15 engaging the slots in the bed and extending through a horizontal flange on the bar. At its outer side the track bar is formed with a laterally extending rib 16 and a supporting post 17 has a base portion 18 formed with a downwardly extending and inturned flange 19 to engage beneath the rib 16 on the track bar. The opposite side of the base portion of the post is formed with a downwardly extending flange 20 to engage the inner side of the track bar and hold the post in place thereon.

The base 18 of the post is formed with a recess 21 for a roller 22 adapted to run upon the upper surface of the track bar, and this roller is mounted to turn freely upon a shaft 23 which is secured at its ends in eccentric bearing blocks 24 adjustably secured within openings in the sides of the base, by a nut 25 on one end of the shaft. The roller supports the post upon the track bar and thus the post may be moved along the bar with little resistance. By mounting the roller upon eccentric bearings, said roller may be moved toward the track by adjusting the bearings to take up any play there may be between the flange on the post and the rib on the track bar. The post is also provided with a vertical T slot 26 in one side extending downward from its upper end, and the post is also split or divided inwardly from the inner side of the T-slot as shown at 27, cutting the post nearly through, transversely, from the side in which the T-slot is cut. Fitting within this T-slot to slide freely therein, is a T-bar or slide 28. This slide may be clamped within the T-slot of the post by means of bolts 29 extending freely through openings in that portion of the post lying at one side of the cut 27 and having screwthreaded engagement with the portion of the post at the other side of the cut so that by turning up the bolts, the two sides or halves of the post are drawn toward each other to clamp the slide between them.

The slide 28 is adjustably secured to the shaper table 1 by forming a groove 30 to receive the slide, in one side of a downwardly

extending flange 31 on the table, and providing a securing bolt 32 extending through a longitudinal slot 33 in the slide. The inner end of this bolt is screwthreaded to engage
 5 a screwthreaded opening in a plate 34 which lies within a longitudinal groove 35 in the face of the slide. The slide 28 may thus be adjusted vertically in relation to the table by loosening the bolt 32, the slot 33 and
 10 groove 35 permitting the slide to be moved upon the bolt, and when the bolt is again turned up, it will, by reason of its screwthreaded engagement with the plate 34, draw said plate into frictional engagement
 15 with the slide and in turn said plate will seat the slide in the groove 30, thus firmly clamping the slide to the table in the position to which it is adjusted. The slide may thus be adjusted to form an extension of
 20 the post, as it may be adjusted downward upon the table and upward upon the post, and a short post wholly beneath the table and which will not interfere with fully lowering the table, may be used. By this arrangement the support is given a wide range
 25 of vertical adjustment and at the same time the parts will have a long firm bearing upon each other to give rigidity and strength.

Having thus fully described my invention what I claim is:—

1. The combination with a shaper table and a bed extending beneath said table, of a track secured to the bed having a longitudinally extending projection, a supporting
 35 post adjustably attached to the table, a member on the post engaging beneath the projection on the track, a member engaging the upper side of the track, to raise the post and bring the member thereon into engagement
 40 with the projection on the track to clamp the post to the track, and means for adjusting said member engaging the track.

2. The combination with a shaper table and a bed extending beneath said table, of a
 45 track secured to the bed and having a laterally extending rib, a post adjustably attached to the table and having a flange engaging beneath the rib on the track, a roller for supporting the post upon the track, eccentric bearing members on the post for the

roller, and means for adjusting the bearing members.

3. The combination of a shaper table having a downwardly extending flange provided with a vertical groove, a supporting post
 55 with its upper end beneath the table and having a vertical slot, an extension slide beneath the table having a slot and engaging the slot in the post and the groove in the table flange, means for adjustably securing
 60 the slide in the slot of the post, and a bolt extending through the table flange and engaging the slot in the slide to adjustably secure the slide to the table.

4. The combination with a shaper table,
 65 of a supporting post beneath the table having a vertical T-slot and a cut extending inward from the bottom of said slot, a slide within said slot, bolts extending through the post for drawing its sides toward each other
 70 to clamp the slide within the slot, a downwardly extending flange on the table having a groove to receive the slide, said slide being provided with a longitudinal slot, a member in the slot of the post, and a bolt extending
 75 through the flange on the table and the slot in the slide and having screwthreaded engagement with said member.

5. The combination with a shaper table and a bed extending beneath the table, of a
 80 track bar secured to the bed, a supporting post beneath the table having engagement with the track bar, a roller journaled upon the post to support the same upon the track bar, a slide adjustable vertically upon the
 85 post and provided with a longitudinal slot and a groove in one side, a flange on the table having a vertical groove to receive the slide, a plate in the groove of the slide adjustable longitudinally therein and having
 90 a screwthreaded opening, and a bolt extending through the flange and the slot in the slide and engaging the screwthreaded opening in the plate.

In testimony whereof I have affixed my
 95 signature in presence of two witnesses.

HENRY E. MORTON.

Witnesses:

LEWIS E. FLANDERS,
 G. E. McGRANN.