July 25, 1950 G. L. BJORK 2,516,176

MACHINE FOR TRIMMING THE EDGES OF STRIPS OF WOOD OF VARIABLE WIDTHS

Filed July 3, 1946 2 Sheets-Sheet 1

FIG. 1

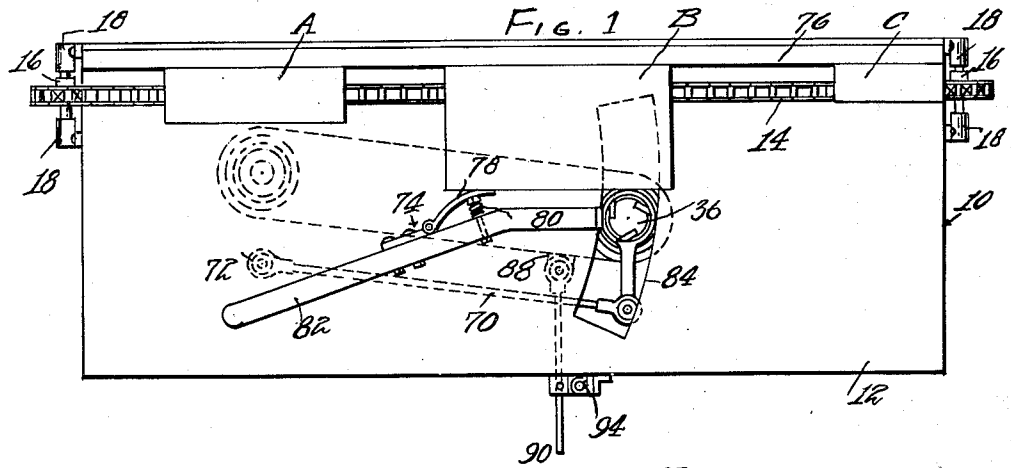


FIG. 2

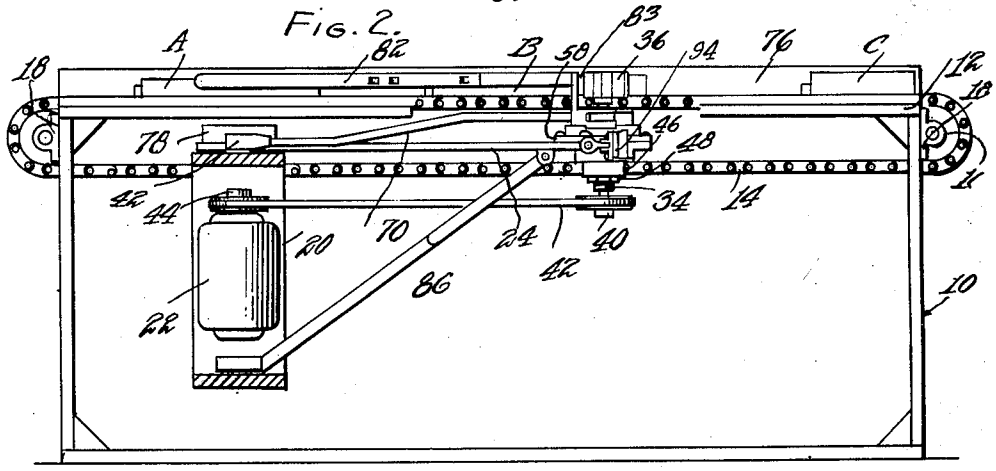
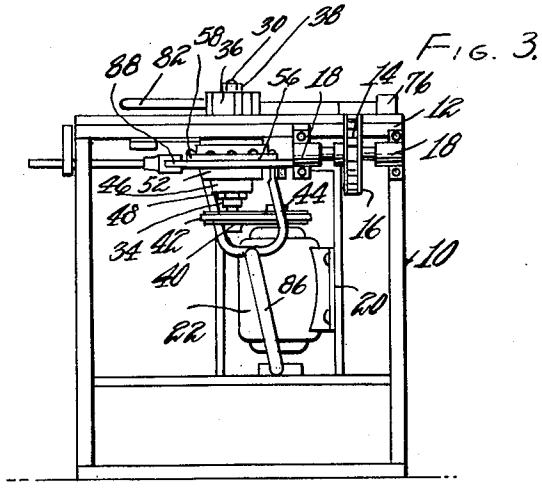


FIG. 3



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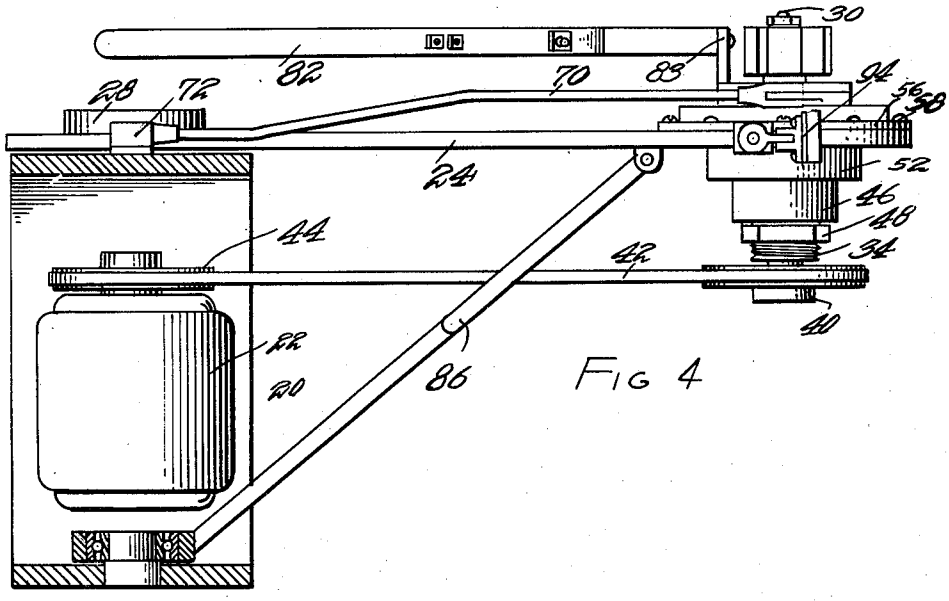


FIG 4

FIG. 5.

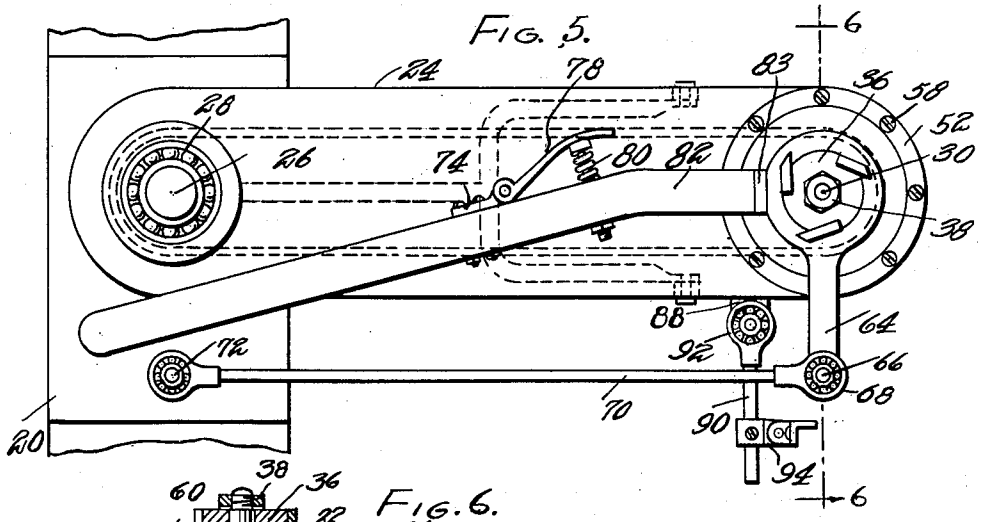
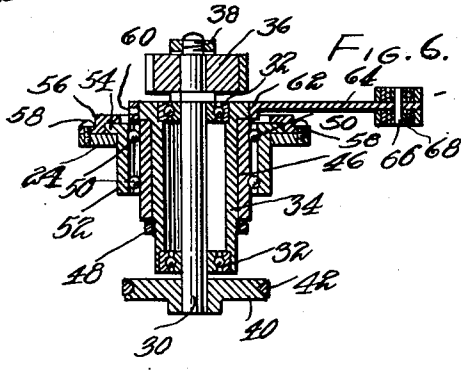


FIG. 6.



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UNITED STATES PATENT OFFICE

2,516,176

MACHINE FOR TRIMMING THE EDGES OF STRIPS OF WOOD OF VARIABLE WIDTHS

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Application July 3, 1946, Serial No. 681,240

2 Claims. (Cl. 144—117)

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This invention relates to a movable cutter head adapted for use with a machine for jointing shingles and box material.

An object of this invention is to provide a movable cutterhead that is designed to plane edges on lumber or shingles, varying in width from three to sixteen inches.

Another object of this invention is to provide a movable cutterhead that is mounted on a single pivoted bracket with the operating motor for the cutterhead in the center of the pivot for the bracket, thus as the bracket pivots the same tension is provided on the drive belt at all times.

With the above and other objects and advantages in view, the invention consists of the novel details of construction, arrangement and combination of parts more fully hereinafter described, claimed and illustrated in the accompanying drawings in which:

Figure 1 is a top plan view;

Figure 2 is a side view thereof;

Figure 3 is an end view thereof;

Figure 4 is a side view of the movable cutterhead;

Figure 5 is a top plan view thereof and

Figure 6 is a sectional view on the line 6—6 of Figure 5.

Referring more in detail to the drawing, the reference numeral 10 designates generally the machine on which an embodiment of the invention is mounted. The machine comprises the bed 12 over which the work feeding chain conveyor 14 travels longitudinally thereof, and the chain is mounted on sprockets 16, the axles of which are journalled in bearings 18 secured to the ends of the machine 10.

Mounted on the machine 10 is a bracket 20 for mounting the motor 22, and the pivot 26 for the arm 24 and a ball-bearing race 28 permits free movement of the arm on the pivot 26. At the outer end of the arm 24, the spindle 30 is mounted in ball-bearing races 32 in the tubular spindle bearing housing 34, and the spindle is provided at its upper end with the cutterhead 36 secured thereon by the nut 38, and at the lower end with a V-pulley 40 having a belt drive connection 42 with the V-pulley 44 on the drive shaft of the motor 22.

The housing 34 is mounted in the tubular member 46 retained thereon by the nut 48 and the member 46 is mounted by bearings 50 in the collar 52 having the annular flange 54 which is engaged by a circular flanged member 56 which secures the assembly previously described to the arm 24 by fasteners 58. Secured to the housing 34 by a

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set screw 60 is the ring portion 62 of the lever arm 64, having a pivot 66 on the outer end thereof, having a ball-bearing 68 thereon for mounting the rod 70, which at the other end is mounted by means of the ball-bearing pivot 72 on the bracket 20, and this rod holds the guide 74 and cutterhead 36 in parallel relation to the straight edge 76 along the outer longitudinal edge of the bed 12.

The guide 74 comprises the curved hinged arm 78 which is tensioned by the spring 80, and the arm and spring are secured to the handle 82 secured to the bracket 83 on the lever arm 64, and the handle controls the movement of the cutterhead. The arm 78 forces the spring 80 toward the handle when the work A, B or C is passing through the machine and the edges contacting the guide are not parallel. It will be noted that movement of the cutterhead by the handle 82 is accomplished by means of the arcuate slot 84 in the bed 12. The arm 24 and the cutterhead assembly are supported by the Y-shaped brace 86 secured to the arm at its forked end and to the bracket 20 at its opposite end. The arm 24 has a bracket 88 thereon for mounting the locking arm 90 in the ball-bearing pivot 92 and the arm is received in the cam locking means 94, on the machine, for locking the arm and cutterhead in fixed relation to the line of travel of the work during the operation of the machine, and the lock may be released to move the arm as desired for various widths of work.

During operation, the cutterhead is moved with relation to the straight edge 76, and locked in place by means of the rod 90, then as the work passes over the bed 12, carried by the chain conveyor 14, the cutter engages the work for the planing thereof. Each time the work varies in width, the position of the cutterhead is changed and the guide 78 engages the edge of the work being planed.

It is believed that the operation and construction of this invention will be apparent to those skilled in the art, and it is to be understood that changes in the details of construction, arrangement and combination of parts may be resorted to, provided they fall within the spirit of the invention and the scope of the appended claims.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. In a machine for trimming the edges of strips of wood of variable widths, means for supporting a bed plate which is provided with an elongated, arcuate aperture for receiving there-

through a cutter head, bracket means mounted beneath the bed plate, a driving motor supported by the bracket means, with its shaft disposed vertically, an elongated arm pivoted on the bracket means, coaxially with the motor shaft, a cutter head supported at the remote end of the elongated arm, in position to extend through the arcuate aperture in the bed plate, conveyor means driven by the motor for continuously feeding work pieces over the aperture in the bed plate, in position for edge trimming by the cutter head, a fixed workpiece guide mounted on the bed plate along one longitudinal edge thereof, an adjustable workpiece guide supported on an extension of the means for supporting the cutter head, in position to cooperate with an opposite edge portion of the work piece, and means for securing the adjustable workpiece guide in one of a plurality of positions of adjutment.

2. The combination of claim 1 wherein the cutter head is driven by the motor through a conventional belt drive.

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