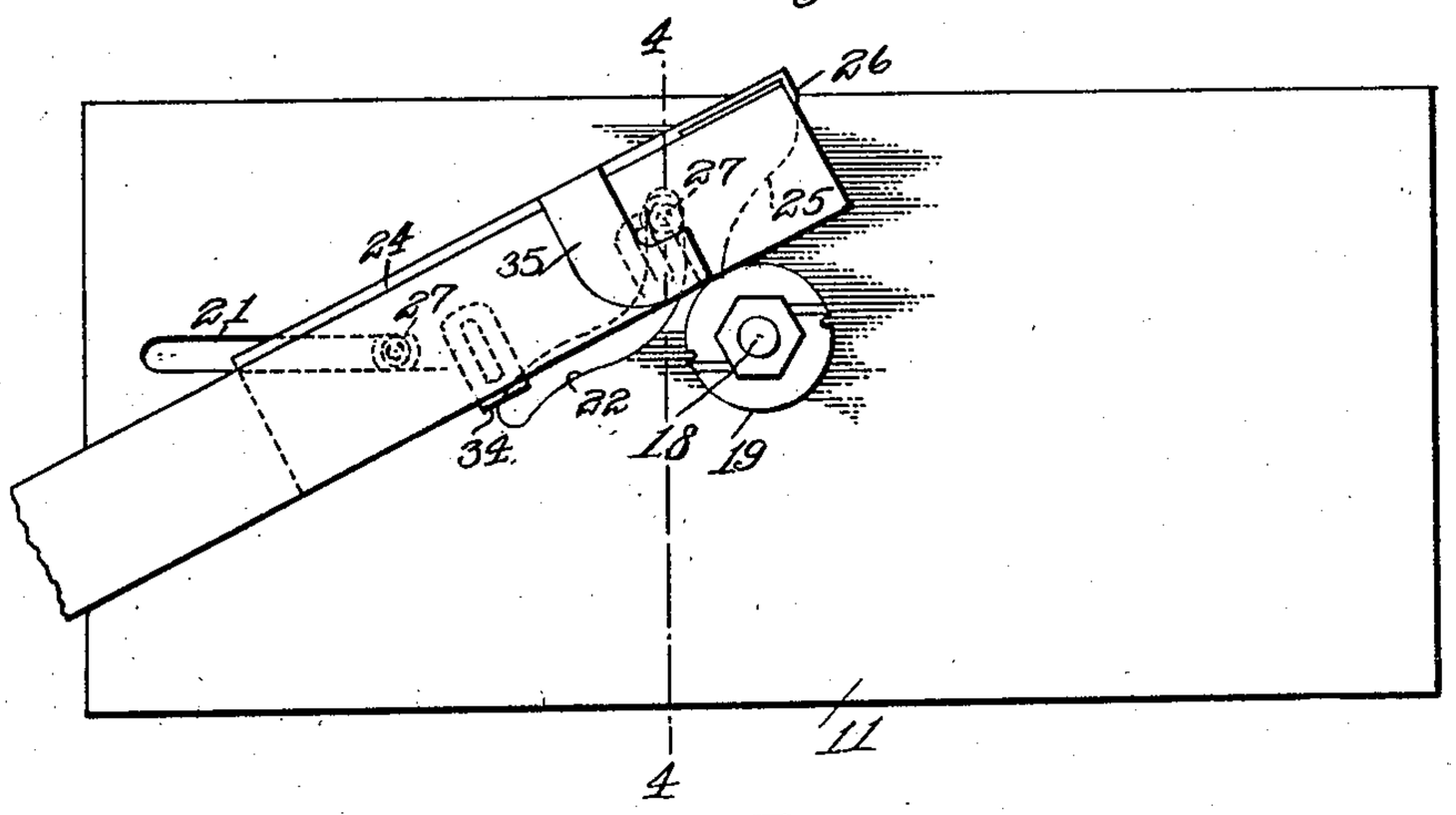
Nov. 18, 1924. 1,516,353

J. C. STUTZ

OGEE CUTTING MACHINE

Filed Sept. 12, 1923

Fig. 1.



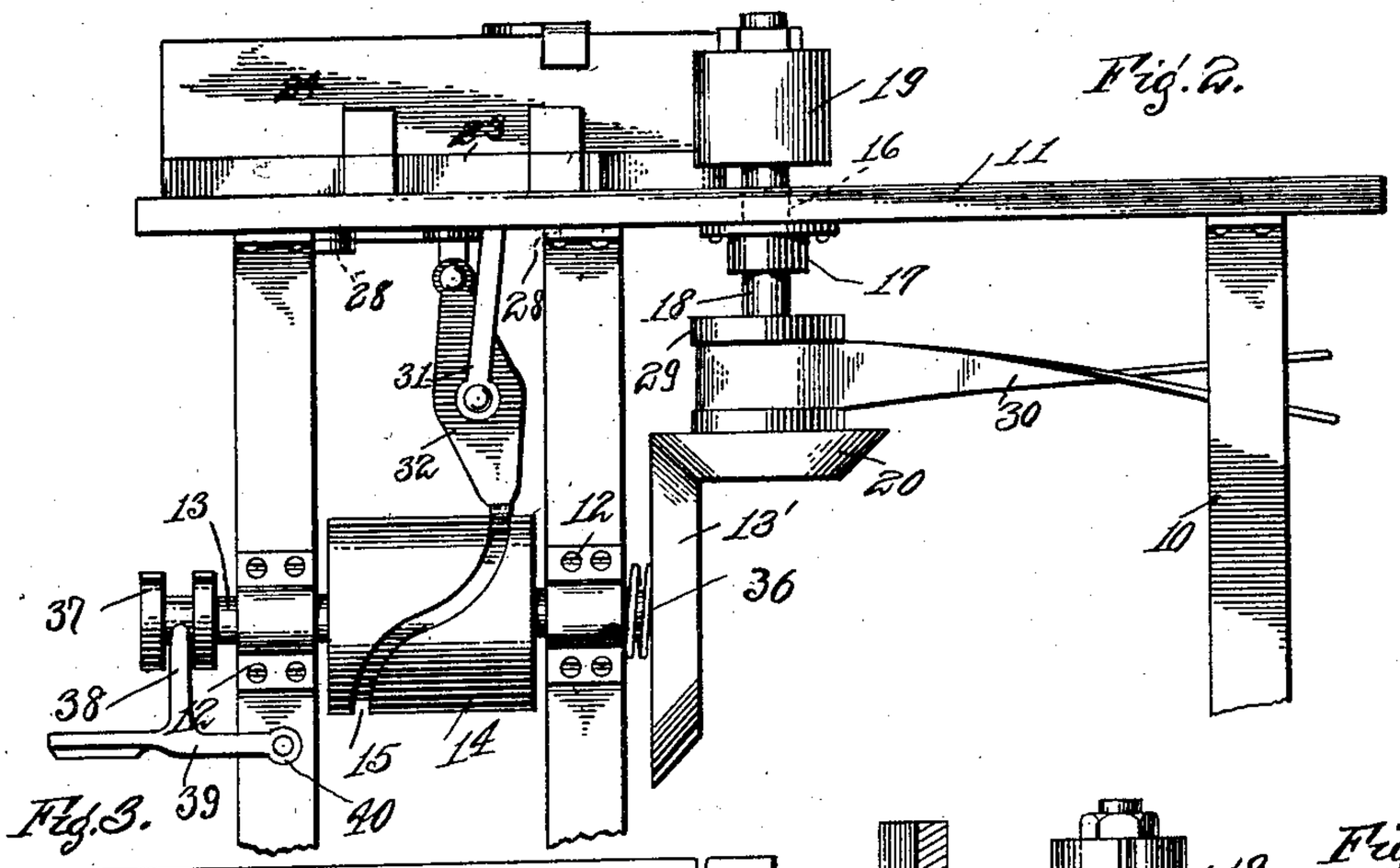
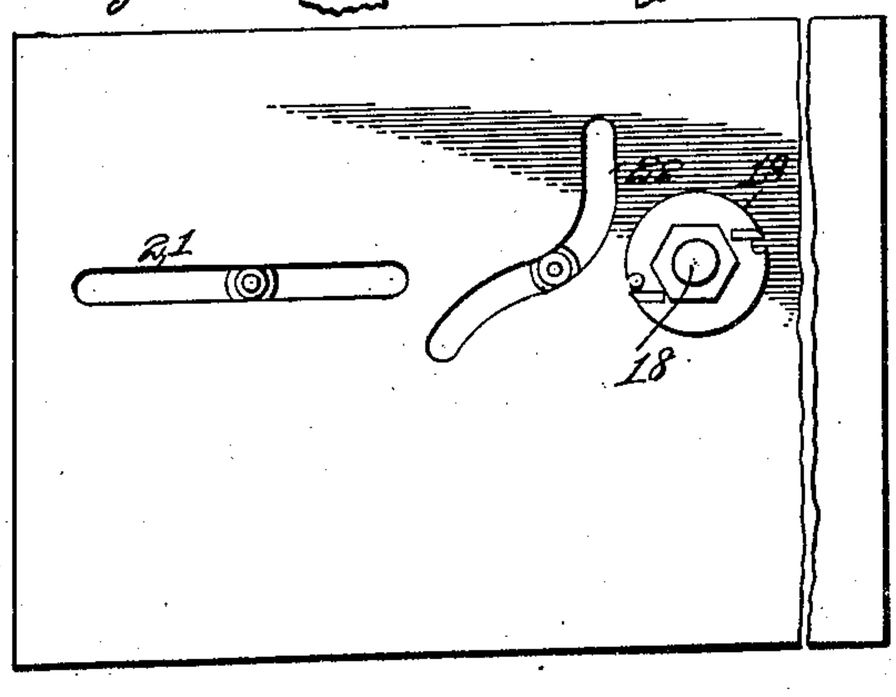


Fig. 2.

Fig. 3.



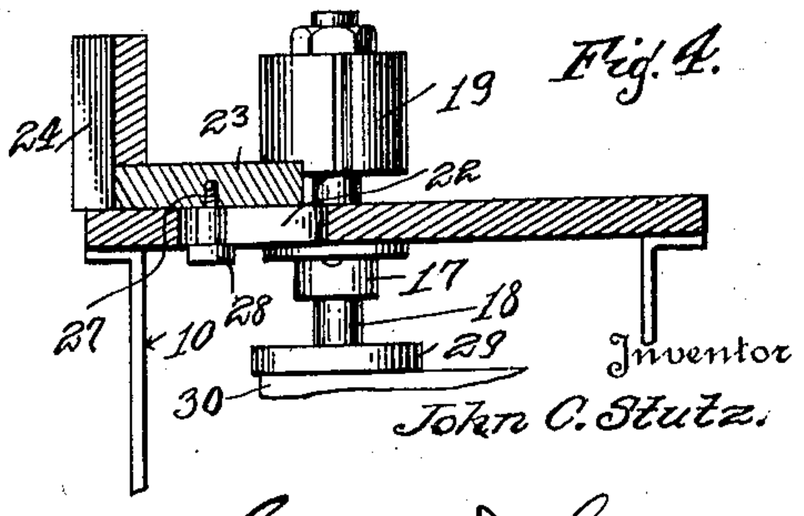


Fig. 4.

Inventor
John C. Stutz.

By Grace C. Hundley

Attorney

Patented Nov. 18, 1924. 1,516,353

UNITED STATES PATENT OFFICE.

JOHN C. STUTZ, OF ALBUQUERQUE, NEW MEXICO.

OGEE-CUTTING MACHINE.

Application filed September 12, 1923. Serial No. 662,290.

To all whom it may concern:

Be it known that I, JOHN C. STUTZ, a citizen of the United States, residing at Albuquerque, in the county of Bernalillo, State of New Mexico, have invented certain new and useful Improvements in Ogee-Cutting Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in wood working machines.

The principal object of the invention is to provide a machine by means of which an ogee lug may be easily and accurately cut on the upper end of a side stile of a window sash.

Another object is to provide a machine of this character which includes interchangeable forms whereby ogees may be cut which have different contours.

Another object is to provide a work holder by means of which the work may be properly and accurately guided against the cutter, whereby the desired contour of the ogee may be cut.

Other objects and advantages will be apparent from the following description when taken in connection with the accompanying drawing.

In the drawing:

Figure 1 is a top plan view of a machine made in accordance with the present invention.

Figure 2 is a side elevation of the same.

Figure 3 is a top plan view of the work table, the form being removed to reveal the slots.

Figure 4 is a vertical longitudinal central sectional view on the line 4—4 of Figure 1.

Referring particularly to the accompanying drawing, 10 represents a stand on which is mounted the table top 11. Supported in suitable brackets 12, carried by the stand, is a horizontal drive shaft 13, having a bevel friction drive wheel 13′, on one end, and a peripherally grooved drum 14, intermediate its length, the groove 15 extending spirally around the face of the drum, as seen in the drawing. In the table top, directly above one of the brackets 12, is an opening 16, and mounted on the lower face of the top, below this opening, is a bearing bracket 17. Supported rotatably in the bracket 17, and in the bracket 12 therebelow, is a vertical shaft 18, the upper end of which carries a rotary cutter 19, extending through the said opening 16, above the surface of the table top. On the lower portion of the vertical shaft 18 there is fixed a bevel friction wheel 20 which engages with the wheel 13′. On the shaft 13, between the friction wheel 13′, and the adjacent portion of the stand 10, is a coil spring 36, which normally urges the wheel into contact with the wheel 20. The other end of the shaft 13 is formed with a peripherally grooved head 37, within which is engaged the forked arm 38, of the pedal lever 39, which is pivotally supported on the stand 10, at 40.

In the table top, adjacent one end, there is formed a longitudinal slot 21, and adjacent the inner end of this slot, and between the slot and the opening 16, there is formed a transverse approximately **S**-shaped slot 22, although the shape and size of this may be varied in accordance with the character of the work to be performed. Disposed on the table top, over the slots 21 and 22, is a plate 23 which has a longitudinal side wall 24. The end of the plate, adjacent the cutter 19, is cut, as shown at 25, in the exact shape as that of the slot 22, and secured in the inner face of the adjacent end of the side wall 24, is a hook 26, which is arranged to engage with the end of the stile to hold the same against forward movement, toward the cutter, and independently of the plate 23. Disposed through the slots 21 and 22, and engaged in the bottom of plate 23, are the screws 27, the heads of which bear against the lower face of the table top, while rollers or sleeves 28 are disposed on the stems of the screws, for movement in said slots. The vertical shaft 18 is provided with a belt wheel 29, which may be driven by the belt 30, from any suitable source of power. Depending from the lower face of the table top is a bracket 31, and centrally pivoted on the bracket is a lever 32, which has its lower end engaged in the spiral groove 15, of the drum 14. The upper end of the lever 32 is pivotally connected with the plate 23, through a slot in the table top.

The plate 23 has on its upper face the adjustable angle plate 34, for clamping the window sash stile thereon, while a spring arm 35, secured to the upper face of the side wall 24, has its free end engaged in the mortise or dado of the sash stile, whereby to prevent movement of the stile, relative to

the plate 23, in a direction away from the cutter.

From the foregoing it will be seen that when the sash stile is placed on the plate 23, and the angle plates 34 adjusted thereagainst, the forward end of the stile placed against the hook detent 26, the setting of the friction wheels, in proper contact will cause the drum 14 to rotate, and thereby actuate the lever 32, with the result that the plate 23 will be moved gradually toward the right end of the table, as viewed in Figure 1, while the right end of the plate, and the stile thereon, will be moved through a path corresponding to the outline of the slot 22, with the result that the adjacent end of the sash stile will be presented to the rotating cutter, and said end of the stile cut to the form of an ogee.

What is claimed is:

1. In a wood working apparatus, the combination of a fixed support having a longitudinal slot and a compound curved slot, the latter slot extending obliquely with respect to the longitudinal slot, and a work holding carriage movable on the support and having pins movable respectively in the longitudinal and compound curved slots, and driving means operatively connected with the carriage whereby to produce simultaneous rotational and translational movements of the carriage.

2. In a wood working apparatus, the combination of a fixed support having a longitudinal straight-edged slot and a compound curved slot, the latter slot extending obliquely of one end of the longitudinal slot, a work holding carriage movable on the support and having pins movable in said slots, a rocker mounted on the support, and connected with the work holding carriage, and means operatively connected with the rocker for translating movement to the carriage.

3. In a wood working apparatus, the combination of a fixed support having a longitudinal straight-edged slot and a compound curved slot, the latter slot extending obliquely with respect to one end of the straight slot, a work holding carriage on the support and having pins movable in said slots, a rotary cutter, driving means for the cutter, and driving means for the carriage driven by the cutter driving means.

4. In a woodworking apparatus, the combination with a fixed support, of a work holding carriage on the support, the support having a longitudinal straight-edged slot and a compound curved slot, the latter slot extending obliquely with respect to one end of the straight slot, a rotary cutter, driving means for the cutter, and driving means for the carriage driven by the cutter driving mechanism, said work holding carriage being operatively engaged with said slots.

In testimony whereof, I affix my signature, in the presence of two witnesses.

JOHN C. STUTZ.

Witnesses:

G. L. SCHNIDER,

R. ROBISON.