

(No Model.)

G. L. BIGELOW.
AUTOMATIC WEDGE SHAVING MACHINE.

No. 585,375

Patented June 29, 1897.

Fig. 1.

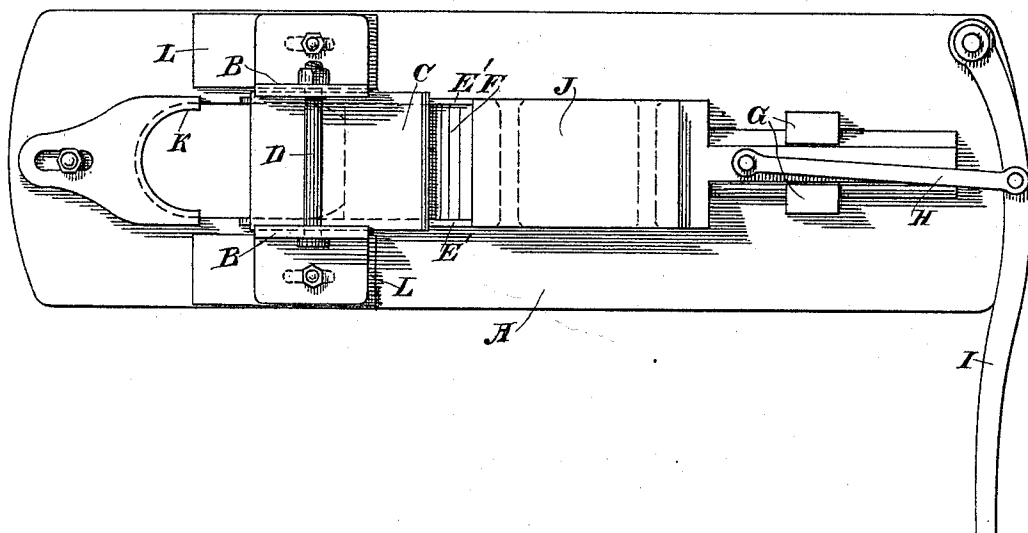
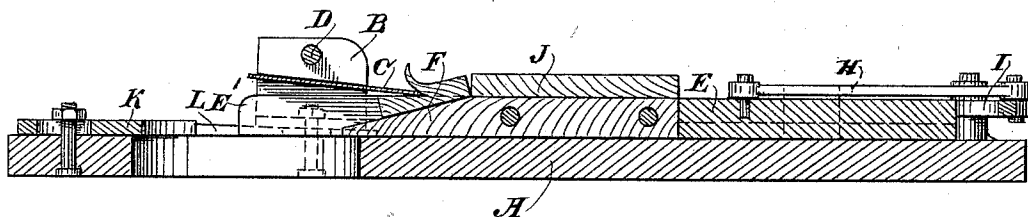


Fig. 2.



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UNITED STATES PATENT OFFICE.

GIDEON L. BIGELOW, OF SAN JOSÉ, CALIFORNIA.

AUTOMATIC WEDGE-SHAVING MACHINE.

SPECIFICATION forming part of Letters Patent No. 585,375, dated June 29, 1897.

Application filed February 19, 1897. Serial No. 624,095. (No model.)

To all whom it may concern:

Be it known that I, GIDEON L. BIGELOW, a citizen of the United States, residing at San José, county of Santa Clara, State of California, have invented an Improvement in Automatic Wedge-Shaving Machines; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a device which is especially adapted for shaving wedges, such as are used in fixing the spokes of wagons and similar vehicles, or for other purposes.

It consists, essentially, of a stationary adjustable knife with means for regulating it, a reciprocating carrier movable beneath the knife having an inclined surface upon which the block is placed to be shaved, and a pressure-plate by which the block is moved beneath the knife so as to shave it into its tapering or wedge form, and in details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a plan view of my device. Fig. 2 is a longitudinal section of the same.

A is a base-plate of any suitable construction and material having mounted upon it the clamping-plates B, between which plates the knife C is fixed. These clamping-plates are grooved or otherwise formed to hold the sides of the knife-blade firmly in place. The plates B are secured upon the base, and above the knife is a screw-bolt D, having a nut by which the upper edges are drawn together, so as to clamp the knife firmly in its position, allowing the cutting edge to project sufficiently in front of the clamping-plates.

E is a slide composed of parallel side plates E', having fixed between them an inclined wedge-shaped bottom F. The angle and taper of this bottom are the same as it is desired to make the wedges. The front end of the sides E' passes between the knife-supporting plates B below the knife, and this serves to guide this end of the slide. At the rear end the slide passes between any suitably formed or constructed guides G.

In the present case I have shown the rear end of the slide E as made narrower and having the upper surface beveled or V-shaped, and the guides between which it slides are made with similar beveled surfaces, so that

this portion of the plate is held snugly against the base upon which it slides. The slide is connected by a link or pitman H with a lever or handle I, by which it is caused to reciprocate. The upper edges and the side plates E' move closely beneath the knife, which prevents this end of the slide from rising, and it is thus caused to move smoothly upon the bed-plate and beneath the cutting-knife. At the top of the inclined surface between the side plates E' of the slide is a pushing-block J, the end of which is adapted to abut against the piece of wood from which the wedge is to be cut after the latter has been laid upon the inclined surface, and by moving the lever the slide E is forced forward, the block J pushing the piece which is to be shaved so that it slides beneath the knife and is shaved as it moves into a wedge-shaped form by reason of the inclined surface upon which it lies.

The end of the slide E is arrested by the stop K just as the knife reaches the pushing-block J, and this block being soft protects the knife.

The stop K may be slotted longitudinally, so that it can be adjusted to exactly coincide with the end of the pushing-block J and stop the slide E just as the block J reaches the knife.

In order to regulate the knife, I have shown inclined wedges L, resting upon the base-plate A, and upon these wedges the flanges of the side plates B rest.

The wedges may be slotted or have perforations made through them, so that they can be pushed along and raise or depress the knife, as may be desired.

The operation will then be as follows: The pieces from which the wedges are to be made are made of a width which will allow them to lie upon the inclined surface between the side plates E' and abut against the pushing-plate J. By moving the lever and pushing the slide forward it carries the piece to be cut beneath the knife and the knife commences to cut, making the thickest end of the wedge at the beginning of the cut and tapering it until the pushing-plate J has reached the edge of the knife, when the wedge will be completed and may be pushed out through the open space to the rear of the knife. The pieces can thus be put in and shaved auto-

matically and exactly as fast as the machine can be operated. In working the machine the wedge is removed or dropped out when the slide is thrown back.

5 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A device for shaving tapering wedges consisting of an inclined carrier to receive
10 the piece to be shaved, a pushing-plate by which it is advanced and a slide upon which these parts are carried with mechanism to reciprocate them, said slide having side plates
15 extending forwardly and serving to guide the forward end of the slide, and a fixed blade or cutter beneath which the slide and carrier are movable, substantially as described.

2. A device for shaving tapering wedges consisting of an inclined support fixed to a
20 reciprocating slide, a pushing-plate carried by a slide and abutting against the end of the piece to be cut, guides between which the rear portion of the slide is confined and movable, a lever and connecting-pitman whereby
25 the slide is caused to reciprocate, opposing clamping-plates projecting above the base and between which the blade or cutter is held, the forwardly-extending side plates of the slide passing between said clamping-plates,
30 and a cutting-blade fixed between said clamping-plates with its edge presented toward the

reciprocating slide and piece carried thereby whereby the piece is shaved into a wedge-shaped form by being passed beneath the knife.

3. A device for shaving tapering wedges consisting of a base-plate, a guided slide and a lever and pitman whereby it is reciprocated upon the base-plate, an inclined surface adapted to receive the pieces to be shaved, a
40 pushing-block against which the ends of said pieces abut whereby they are formed forward simultaneously with the movement of the slide, side plates fixed upon each side of the slide forming guides between which the front
45 end of the slide is movable, wedges whereby said plates are raised or depressed, a knife-blade the sides of which are fitted to grooves between said side plates, a clamping-bolt by
50 which the knife is adjusted and locked between the plates with its edge presented toward the reciprocating slide and the piece carried thereby, whereby the block is shaved to a tapering form, and a stop against which
55 the rear end of the slide is arrested when the shaving is complete.

In witness whereof I have hereunto set my hand.

GIDEON L. BIGELOW.

Witnesses:

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