

(No Model.)

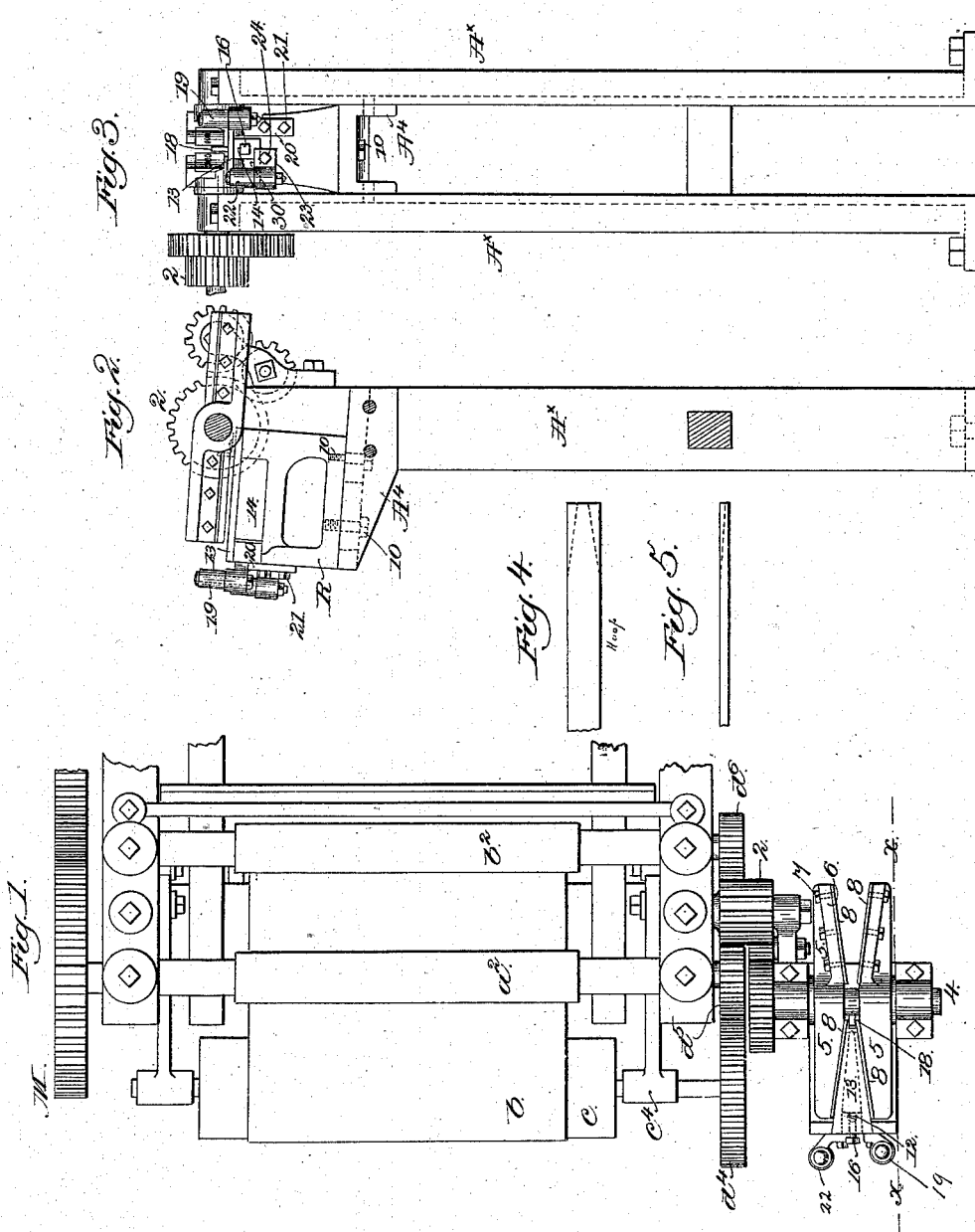
2 Sheets—Sheet 1.

H. F. CAMPBELL.

MACHINE FOR LAP SHAVING HOOPS.

No. 293,224.

Patented Feb. 12, 1884.



Witnesses.

John F. C. Reigert
Arthur Lippert

Inventor:

Henry F. Campbell
by Crosby & Gregory
attys.

(No Model.)

2 Sheets—Sheet 2.

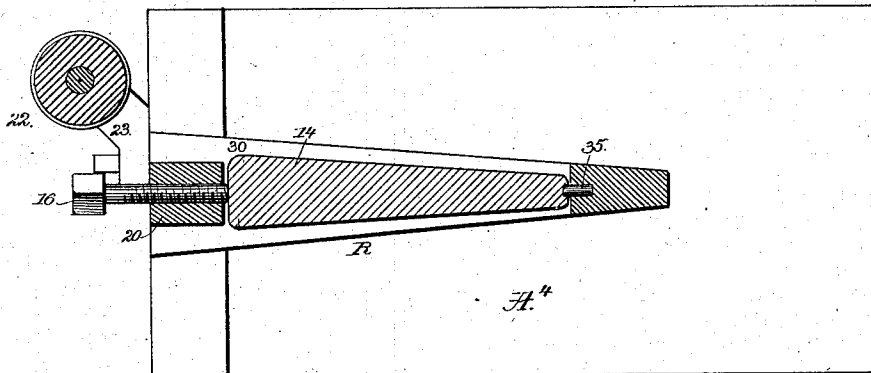
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Fig. 6.



Witnesses.

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UNITED STATES PATENT OFFICE.

HENRY F. CAMPBELL, OF CONCORD, NEW HAMPSHIRE.

MACHINE FOR LAP-SHAVING HOOPS.

SPECIFICATION forming part of Letters Patent No. 293,224, dated February 12, 1884.

Application filed August 20, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. CAMPBELL, of Concord, county of Merrimac and State of New Hampshire, have invented an Improvement in Machines for Lap-Shaving Hoops, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object the production of an organized machine for lap-shaving hoops, especially that class of hoops known as "bark" or "round" hoops, such hoops as made by a machine described in a patent heretofore granted to me, No. 248,021, the machine herein described being adapted for factory use, as an adjunct to my planing, crimping, and splitting machines.

My improved machine comprehends and consists in the combination, substantially as hereinafter set forth and claimed, of rotary cutters, a table to support the hoop while being pointed by such cutters, a block fast to the framing and supporting such table, and a V-shaped gage beneath said table, and adjustably held in said block to make a variable V-shaped pocket between said block and one of the cutters, to bevel the hoop.

Figure 1 represents my present improvements incorporated with or added to a planing and crimping machine substantially such as represented in an application filed by me March 19, 1883, for Letters Patent; Fig. 2, a section of only the lap-shaving device of Fig. 1 on the dotted line *x x*; Fig. 3, a partial front view of the machine; Fig. 4, an end of a piece of hoop to be tapered as represented in dotted lines; Fig. 5, the end of a piece of hoop to be beveled as in dotted lines, and Fig. 6 is an enlarged detail of the wedge or guide for the hoop while being beveled.

The rolls *a*² *b*², belt *b*, gears *d*¹ *d*⁵, and the gear herein marked *d*⁶ on the shaft or roller *b*² are the same as those referred to by like letters in my said application. The said application shows a thin gear which acts as an intermediate between the gears *d*⁵ and *d*⁶. In this my present invention, instead of the said thin gear, I employ a long gear, 2, and by the said long gear 2 in engagement with the gears *d*⁵ *d*⁶, I drive the main shaft 4 of the lap-shaving attachment. The shaft 4, mounted in

boxes on the frame-work *A*^x, has adjustably secured to it two arms, 5, extended from the shaft in opposite directions, and provided with webs 6 to receive bolts 7, by which to attach the said webs and arms the blades or cutters 8, each arm, as herein shown, having two cutters, the opposite cutters at the same side of the shaft 4 occupying angular positions with relation to the axis of the said shaft, so as to cut the hoop and leave it with a pointed and tapered end. The shaft 4 is rotated, and the cutters also rotate with it. The frame-work is provided with a cross-piece, *A*¹, on which the block *R* is firmly bolted by the bolts 10. This block, preferably of cast metal, has a table, 13, attached to its upper end by a screw, 12, the said table being preferably a plate of steel, the narrowest end of the said plate being extended nearly to the axis of the shaft 4, carrying the cutters 8, so that the end of a hoop with its flat or dressed side placed upon the said table will be cut by the cutters 8 as designated by the dotted lines in Fig. 4, thus producing a pointed end corresponding substantially in shape with the said table or the space between opposite cutters. The end of the hoop having been pointed, it must be beveled from one face to the other, to enable one end of the hoop to pass under the other end to be fastened. To produce the bevel, the same cutters are used; but only one operates, instead of two, as when the hoop was pointed.

The block *R* is provided below the table with an adjustable wedge or V-shaped gage, 14, narrower than the table, so as to form below the edge of the table a V-shaped pocket, 30, or a recess for the reception of the end of the hoop to be beveled. The narrow front end of the wedge or gage is pivoted, as represented in Fig. 6, on a pin, 35, and its thicker rear end is acted upon by a screw, 16, and by moving the rear end of the said wedge in one or the other direction while the front end of the same is pivoted, the size of the pocket or recess 30 may be increased or diminished to make the pocket or recess referred to taper more or less toward the front of the table, and also the wall of the said wedge may be inclined more or less from a vertical or right-angular position with relation to the table, so that the end of a hoop inserted into the said pocket or between the face of the wedge and the under

side of the table may have its bark side cut away, leaving one side of the hoop beveled, the cut inclining from the bark side toward the planed side, as in dotted lines, Fig. 5.

5 As the hoop is being beveled, its lower edge is supported by a shoulder of the block R.

At the front end of the table 13 I have placed a stop or gage, 18, it being attached to the block R. This stop arrests the end of the
10 hoop preparatory to the action upon it of the cutters.

At one side of the table 13 is a roller, 19, mounted on a stud held by the bracket 20, attached to the block R by screws 21. This
15 roll acts as an edge-gage for the hoop to be tapered. The roller 22 on a stud of a bracket, 23, held by screw 24 on the block R, acts as a gage for the bark side of the hoop as the same is inserted into the pocket or recess to
20 be beveled.

I claim—

1. The combination, substantially as shown and described, in a barrel-hoop machine, of rotary cutters, a table to support the hoop
25 while being pointed, a block fast to the framing and supporting such table, and a V-shaped gage beneath said table, and adjustably held in said block, to make a variable V-shaped pocket between said block and one of the cut-
30 ters, to bevel the hoop, as set forth.

2. In a lap-shaving machine, a block provided with a rest for one edge of the hoop to be beveled, a table to support the hoop while being pointed, and a cutter, combined with the pivoted and adjustable wedge-shaped gage 35 14, substantially as shown and described, and for the purpose specified.

3. In a lap-shaving machine, a block provided with a rest for one edge of the hoop to be beveled, a table, and a cutter, combined 40 with an adjustable gage to enable the pocket between the said rest and table to be made more or less tapering from edge to edge, substantially as described.

4. In a lap-shaving machine, the combina- 45 tion, substantially as shown and described, of a block provided with a rest for one edge of the hoop to be beveled, a table to support the hoop while being pointed, cutters, a pivoted and adjustable wedge-shaped gage, and guide- 50 rollers to direct the stuff while being pointed and beveled, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY F. CAMPBELL.

Witnesses:

G. W. GREGORY,
B. J. NOYES.