

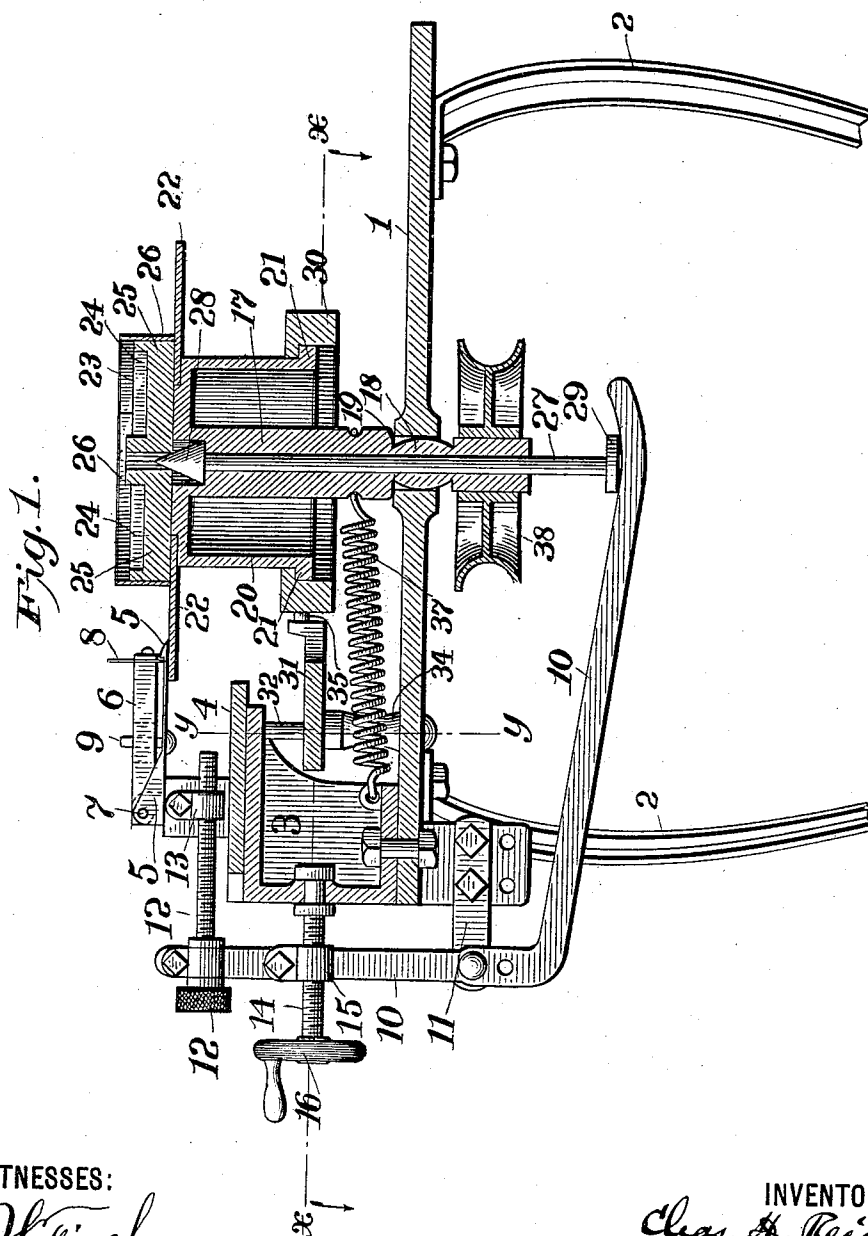
(No Model.)

2 Sheets—Sheet 1.

C. H. REID.
HAT ROUNDING MACHINE.

No. 473,238.

Patented Apr. 19, 1892.



WITNESSES:

J. Finch.
S. Williamson.

INVENTOR

Chas. H. Reid

BY

H. C. Smith Jr.

ATTORNEY

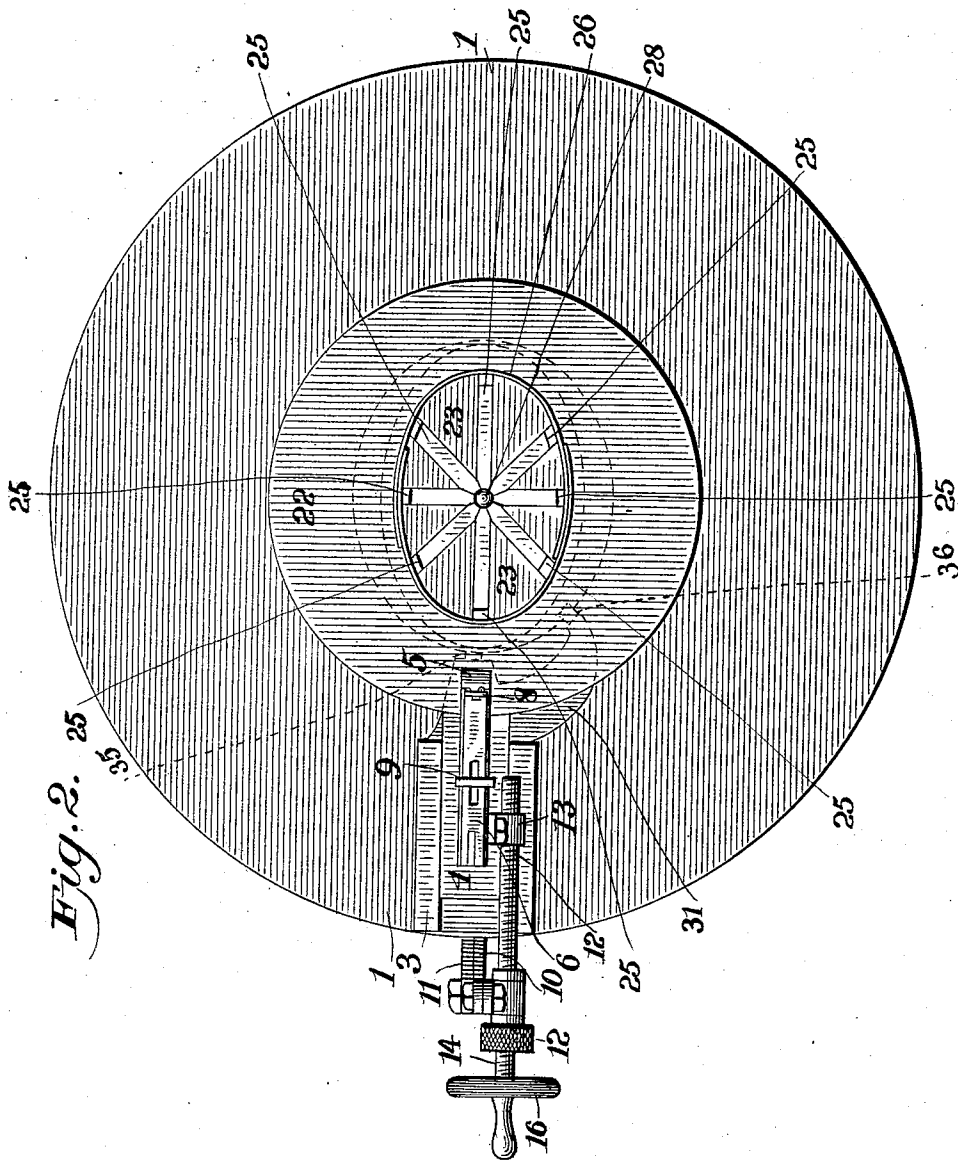
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UNITED STATES PATENT OFFICE.

CHARLES H. REID, OF DANBURY, CONNECTICUT.

HAT-ROUNDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 473,238, dated April 19, 1892.

Application filed June 8, 1891. Serial No. 395,551. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. REID, a citizen of the United States, residing at Danbury in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Hat-Rounding 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.

My invention relates to hat-rounding machines, but particularly refers to the mechanism for actuating the hat clamping and cutting devices.

In the accompanying drawings, Figure 1 is a sectional elevation of my improved machine; Fig. 2, a plan view.

Similar reference characters denote like parts in both figures of the drawings.

1 is the bed of the machine, supported by legs 2.

3 is a platform bolted to the bed, and 4 a sliding carriage on said platform. Upon this carriage is mounted the finger 5, to which latter the knife-bar 6 is pivoted at 7.

8 is the knife secured in the forward end of the bar 6.

Since the construction of the finger and bar and the operation of the knife and finger are the same as in the majority of hat-rounding machines, I will enter into no further description of these parts, but will merely state that in rounding a hat the bar is raised, so that the brim may extend between the finger and knife, and said bar lowered and secured by the usual thumb-piece 9.

10 is an L-shaped lever pivoted at or about its knee to an extension 11 from the bed. 12 is a thumb-screw swiveled through the upper end of this lever and engaging with a nut 13 on the carriage 4, by means of which screw the normal adjustment of the carriage may be effected in order that the initial position of the knife may be determined.

14 is a screw swiveled to the platform 3 and engaging with a nut 15, carried by the lever 10, and 16 is a hand-wheel by which said screw is operated to elevate or lower the inner end of said lever for the purpose presently explained.

17 is a vertical shaft having a ball-bearing 18 journaled within the bed 1, so that said shaft will be capable of a rocking movement. 19 is a shoulder on said shaft, by which the latter is supported on the bed. 20 is a head integral with the upper end of this shaft and having a flange 21 at the bottom. 22 is the rounding-table supported on said head, and 23 the crown-block surmounting the head and table. Within this block are radial channels 24, in which are fingers 25, while around the lateral circumference of the block is an expansible steel band 26.

27 is a spindle, which extends through the shaft 17 and has a free independent movement therein, said spindle terminating at the top in a cone 28 and at the bottom in a head 29, which latter is supported on the lower end of the lever 10. The apex of the cone extends normally between the inner ends of the fingers 25, so that it will be clearly understood that when the wheel 16 is operated to elevate the inner end of the lever 10 the cone will be raised, thereby forcing the fingers outward and extending the band 26. This last-described mechanism constitutes the clamp whereby the crown of a hat is firmly held during the rounding of the brim.

30 is the form secured on the flange 21 of the head 20, and 31 is a shoe secured around the pin 32, so as to have a free vertical adjustment thereon. This pin depends from the platform 3 and is threaded at the lower end, whereby a nut 34 on said end may be operated to adjust the normal elevation of the shoe for the purpose presently explained. This shoe bears against the form 30 at two points 35 36, as shown in dotted lines at Fig. 2, said points constituting an end and a lateral bearing, respectively.

37 is a spring secured at the ends to the bed 1 and shaft 17, respectively, whereby the form is always drawn against said bearing-points.

The shape of the form is the same as is commonly exemplified in all hat-rounding machines—namely, elliptical—the lengthwise diameter being the same throughout the height of the form, while the diameter crosswise increases from the top to the bottom of the form.

38 is the power-pulley secured on the lower end of the shaft 17.

The operation of my improvement is as follows: A hat is placed in position with the crown on the block and the brim on the rounding-table. The cutting-knife is normally adjusted to a predetermined distance from the crown of the hat and the brim inserted between the finger and knife. Power is now communicated to the shaft, and the rounding-table is thereby revolved. As the form revolves it will of course be drawn toward the knife or forced away therefrom, according as said form at its various diameters revolves against the shoe, and this variable movement toward and away from the knife is regulated by the shape of the form. The knife will thus cut a predetermined oval to the hat-brim.

I claim—

1. In a hat-rounding machine, the combination of the pivoted L-shaped lever 10, the

knife-carriage to which the upper end of said lever is connected, the spindle 27, supported on the lower end of said lever and having on its upper end a cone, the hat-clamping mechanism, and means, as a screw, for operating said lever, substantially as set forth.

2. In a hat-rounding machine, the combination, with the knife-carriage and the hat-clamping mechanism, of a pivoted L-shaped lever whose extremities are connected, respectively, with said carriage and mechanism, and means for rocking said lever on its pivotal point, whereby said carriage and clamping mechanism are operated simultaneously, substantially as set forth.

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

CHARLES H. REID.

Witnesses:

GEORGE WALLEMAN,
J. S. FINCH.