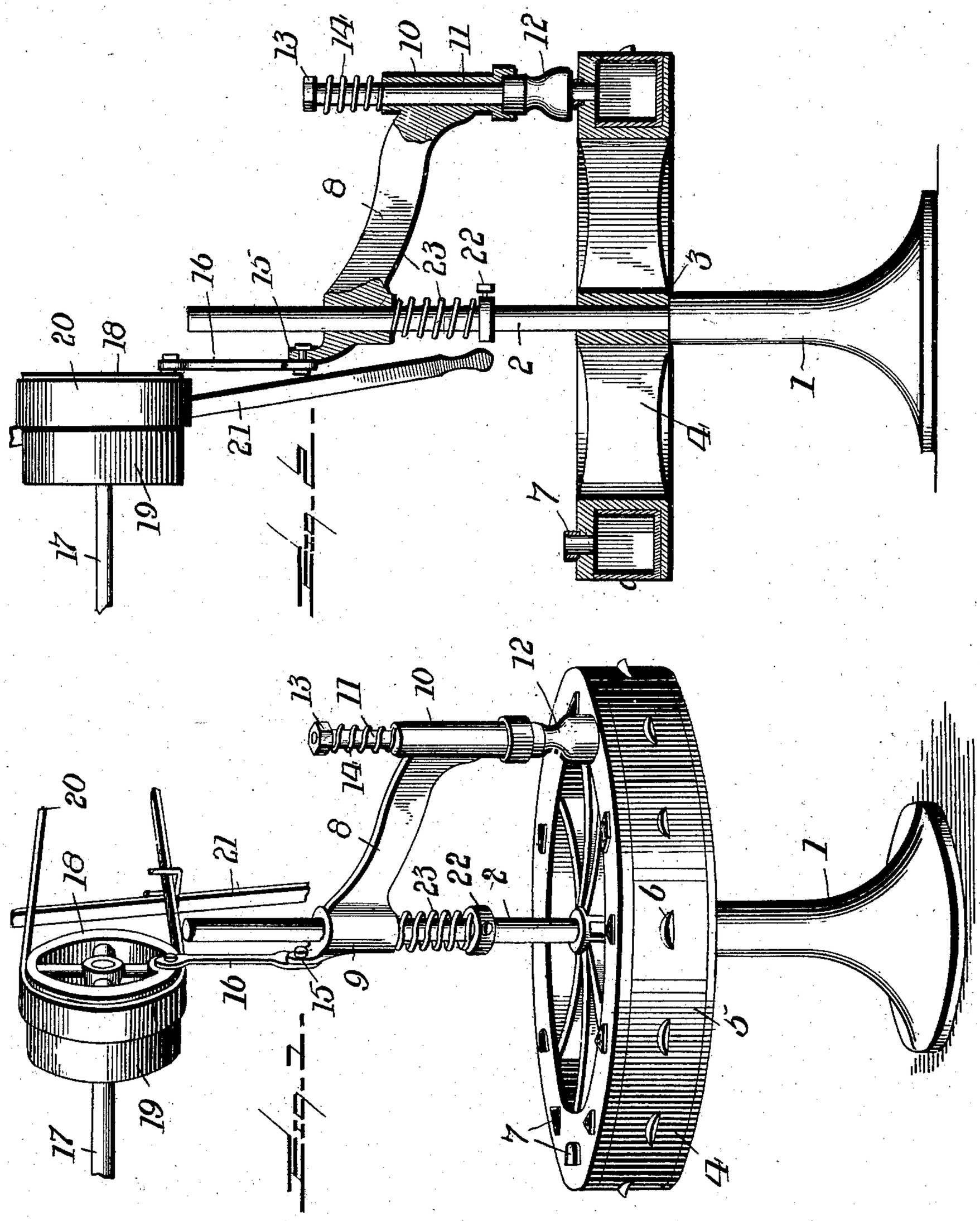
No. 741,960. PATENTED OCT. 20, 1903.

N. M. FRIIS.

HEEL LIFT CUTTING MACHINE.

APPLICATION FILED JUNE 12, 1901. RENEWED JULY 29, 1903.

NO MODEL.



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No. 741,960. Patented October 20, 1903.

UNITED STATES PATENT OFFICE.

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HEEL-LIFT-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 741,960, dated October 20, 1903.

Application filed June 12, 1901. Renewed July 29, 1903. Serial No. 167,519. (No model.)

To all whom it may concern:

Be it known that I, NIELS M. FRIIS, having applied to be a citizen of the United States of America, residing at Brockton, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Heel-Lift-Cutting Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain new and useful improvements in heel-lift-cutting machines, and has for its primary object the production of such a machine as can be operative by simple means, which shall be comparatively cheap to manufacture, and highly efficient in use.

Briefly described, the invention consists in a rotatable table having a number of dies secured to the top thereof, beneath which dies are located a series of drawers adapted to receive the lifts after the same have been cut by the dies. A bracket-arm is secured to the central shaft and has motion imparted thereto by means of a pitman secured to the bracket-arm and to a pulley. This bracket-arm is adapted to receive the mallet at one end, which mallet operates on the upper face of the leather and depresses the same to engage the dies, thereby cutting the lift.

With these and other objects in view my invention further consists in the novel details of construction and combination of parts to be clearly described in the following specification, and fully set forth in the claims.

Referring to the accompanying drawings, forming part of this specification, and in which like characters of reference indicate similar parts throughout both views, Figure 1 is a perspective view of my improved machine; and Fig. 2 is a central vertical sectional view thereof, showing the rotatable table and bracket arm partly in section.

In the drawings the reference-numeral 1 indicates the base; 2, the vertical shaft secured thereto, forming a shoulder, as at 3, which is adapted to receive the rotatable table.

4 indicates the rotatable table, in which is a series of drawers 5, provided with handles 6. On the upper face of this table 4 is a series of cutting-dies 7, which may be struck up from the upper face of the table 4 or may be made independent and secured to the upper face of the table by any suitable means. These cutting-dies 7 are of different shapes, conforming to the successive lifts, which when placed in proper position form a complete heel for the shoe.

8 indicates a bracket-arm, which is movably secured to a shaft 2 by means of a sleeve made integral with the said arm, as at 9. At the other end of said bracket-arm is a second sleeve 10, provided with an opening adapted to receive the rod 11, having the mallet 12 secured at one end thereof. A nut 13 is carried by the other end of the rod 11, which is adapted to secure the spring 14, which also rests on the sleeve 10. A lug 15 is made integral with the sleeve 9 and is adapted to have the pitman 16 pivotally secured thereto. Shaft 17 has a pulley 18 and loose pulley 19 mounted thereon, the said pulley 18 having a belt connected thereto, which is driven by steam or other suitable power. (Not shown.)

21 represents a shifting-rod adapted to shift the belt from pulley 18 to the loose pulley 19, and vice versa. The pitman 16 is also pivotally connected to the pulley 18, which in turn imparts movement thereto. A collar 22 is adjustably secured on the shaft 2 and has a spring 23 interposed between said collar and the sleeve 9.

The operation of my device is as follows: The bracket-arm 8 being given motion by the pitman 16 and pulley 18 will have a reciprocatory movement. The table 4 is rotated by hand until one of the dies is in position beneath the mallet 12, when the operator places a piece of leather to be cut into lifts upon the die 7. When the mallet 12 descends, it will impress the leather down upon the die 7 and sever the same from the piece of leather. If the operator desires to cut a number of pieces of leather of the same shape, he simply allows the table to remain in the same position and places the piece of leather upon the dies 7 until the hammer descends and cuts the lift therefrom. When a different-shaped lift is to be cut, the operator turns the table until the desired die is in position beneath the mallet 12, when the same operation is again performed. It will be noted

that each successive lift will cause the lift in the die previously cut to descend into the drawer 5, where they can be very conveniently removed.

It will be noted that various changes may be made in the details of construction and combination of parts without departing from the general spirit and scope of my invention.

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

1. In a device of the character described, a rotatable table, a series of cutting-dies mounted thereon, a shaft, a bracket secured to said shaft, a mallet secured to said bracket, means connected to the bracket for holding the mallet normally out of engagement with the dies, and means connected to the bracket for giving the same a reciprocating motion, substantially as described.

2. In a device of the character described, a base having a shaft secured thereto, a rotatable table mounted on said shaft, dies mounted on the upper face of said table, drawers located beneath said dies, a bracket-arm connected to said shaft, a mallet connected to said bracket-arm, a pulley, and means connected to said pulley and to said bracket-arm for reciprocating the latter, substantially as described.

3. In a device of the character described, a base, a shaft secured thereto, a rotatable table mounted on said shaft, dies made integral with the upper face of said table, a bracket-arm movably secured to said shaft, a sleeve carried by one end of said bracket-arm, a rod mounted in said sleeve, a mallet mounted on one end of said rod, a spring mounted on said rod, a pulley, and a pitman connecting the said pulley with the said bracket-arm, substantially as described.

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

NIELS M. FRIIS.

Witnesses:
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