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R. L. HALL & T. C. MARTIN:

SEAM IRONING MACHINE.

APPLICATION FILED JULY 17, 1905.

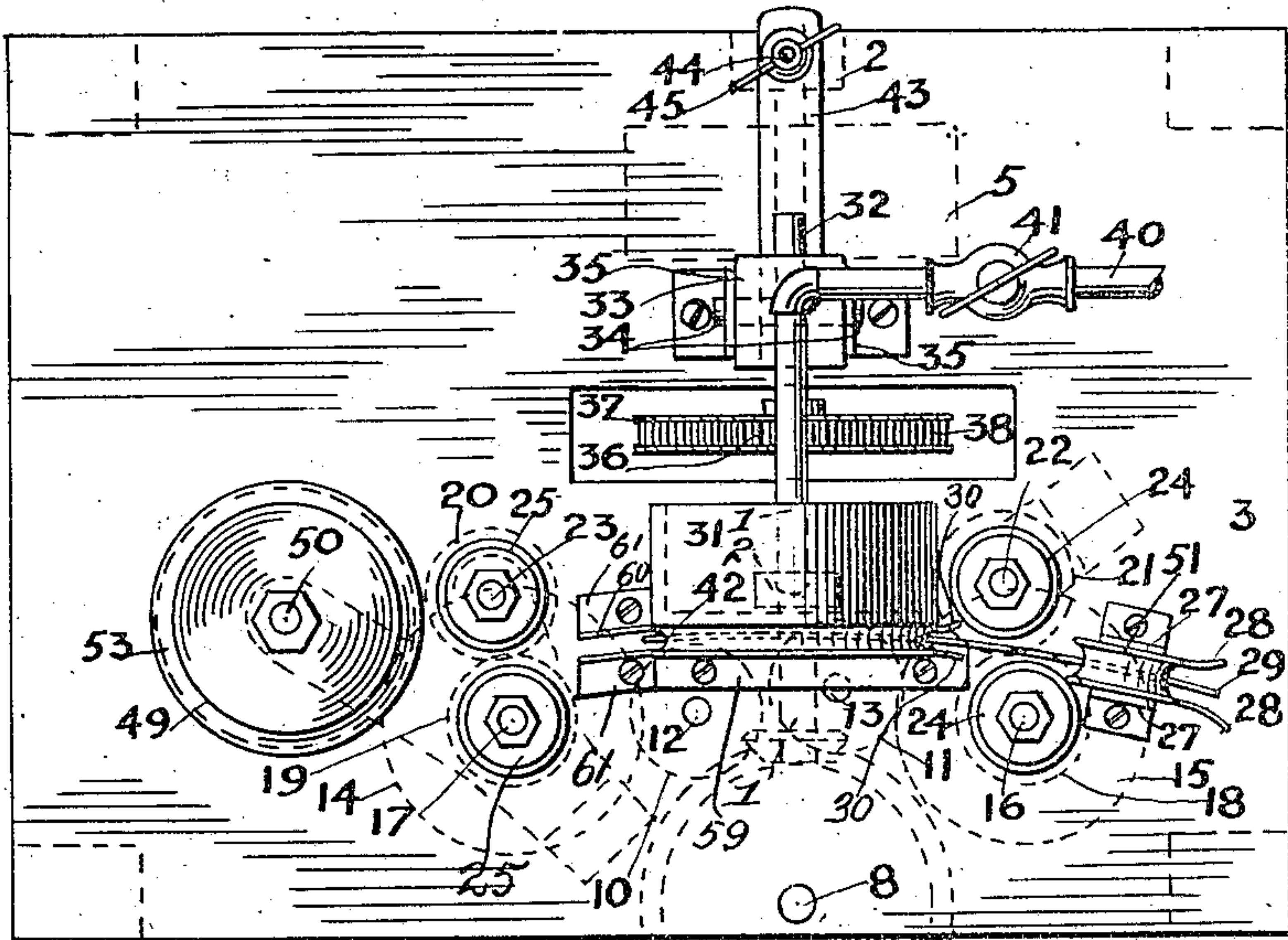


FIG. 1

FIG. 2

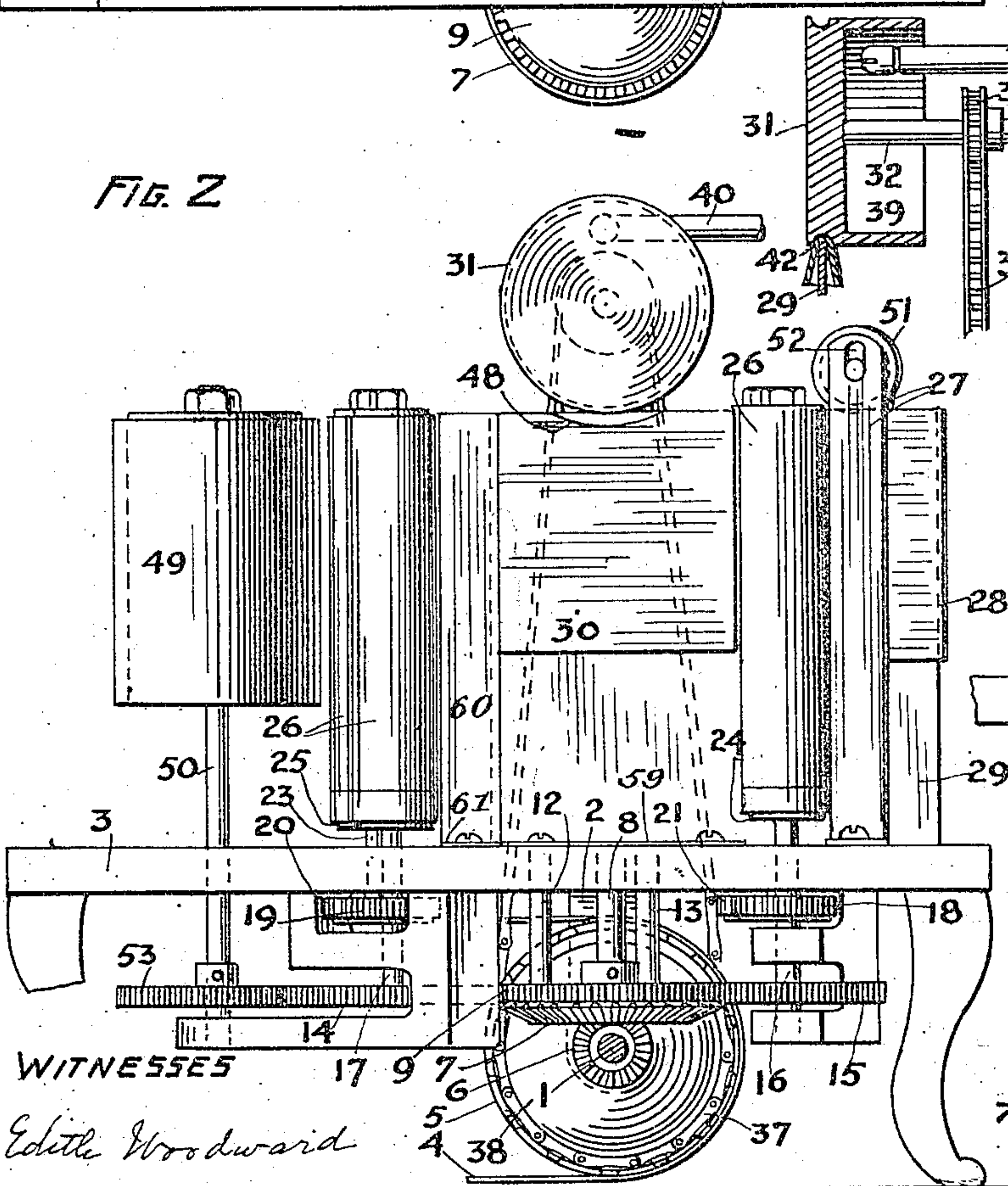
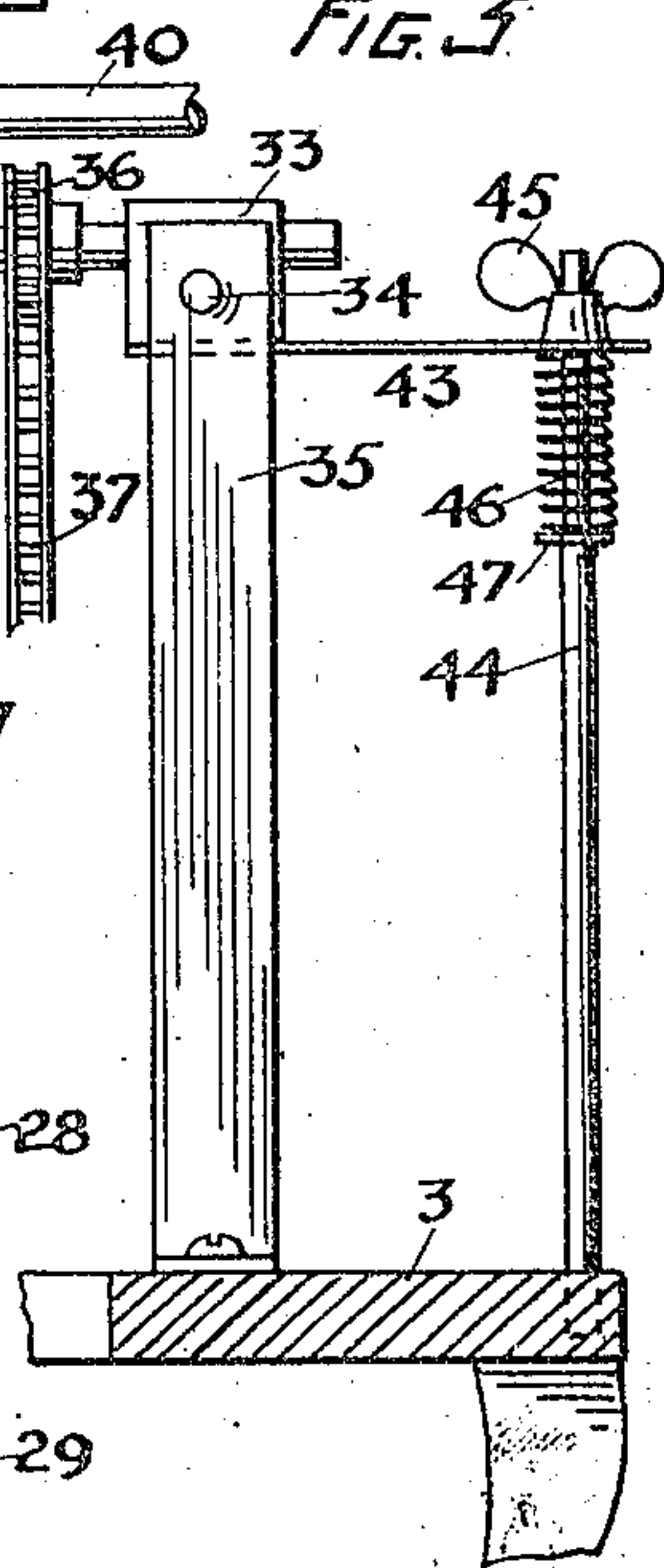


FIG. 3



WITNESSES

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UNITED STATES PATENT OFFICE.

RALPH L. HALL AND THOMAS C. MARTIN, OF OAKLAND, CALIFORNIA.

SEAM-IRONING MACHINE.

No. 819,698.

Specification of Letters Patent.

Patented May 1, 1906.

Application filed July 17, 1905. Serial No. 269,986.

To all whom it may concern:

Be it known that we, RALPH L. HALL and THOMAS C. MARTIN, citizens of the United States, residing at Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Seam-Ironing Machines, of which the following is a specification.

This invention relates to a machine for ironing the seams of turn-down collars.

The object of the invention is to provide a machine of this character which shall be cheap and simple in construction and operation.

In the accompanying drawings, Figure 1 is a plan view of the machine. Fig. 2 is a front view thereof. Fig. 3 is a broken vertical section of a portion of the machine.

Referring to the drawings, 1 represents a main driving-shaft supported in front and rear bearings 2, depending from a table 3, said shaft being driven by a belt 4 and pulley 5 from any suitable source of power. Upon said shaft is secured a beveled pinion 6, which meshes with a beveled gear-wheel 7 on a vertical shaft 8, said wheel having formed therewith a gear-wheel 9, which meshes with two small intermediate gear-wheels 10 11 on vertical shafts 12 13, said wheels meshing in turn with large gear-wheels 14 15 on vertical shafts 17 16, upon which shafts are also mounted gear-wheels 19 18, which mesh with gear-wheels 20 21 upon vertical shafts 23 22. Said vertical shafts thus form two pairs—a pair of shafts 16 22 at the feed end of the machine and a pair 17 23 at the delivery end thereof. The first pair of shafts carry feed-rollers 24, and the second pair carry delivery-rollers 25, all having rubber-covered surfaces 26. Upon brackets 27 are supported guide-plates 28, between which is supported a vertical curved shaper-plate 29, supported upon the table 3 by a flange 59 and extending beneath the groove 42 of the iron roller 31, hereinafter described, and the collar to be operated upon is placed upon the upper edge of said shaper-plate. When the collar is placed on the shaper-plate 29 and is passed between said guide-plates 28, its advancing edge passes between the pair of rollers 24, which, by reason of the motion imparted thereto from the main driving-shaft, feed said collar forward still supported upon the edge of the shaper-plate. The collar thus moving on the edge of the shaper-plate 29 passes between a second pair of guide-plates

30, supported by posts 60, secured by flanges 61 to the table, one on each side of the shaper-plate 29, and is thus fed underneath an ironing-roller 31, mounted upon a shaft 32 in a bearing 33, said bearing being supported by trunnions 34 between standards 35, secured upon the table. Said shaft 32 is driven by means of a sprocket-wheel 36 thereon, a sprocket-chain 37, and a sprocket-wheel 38 upon the main shaft 1. Said roller 31 is formed with a cylindrical shell constituting a heating-chamber 39, into which extends a gas-pipe 40, controlled by a valve 41, the flame from the burner of said gas-pipe heating said roller to produce the ironing effect. The circumference of said roller, near its extreme edge, is formed with a circular groove 42, which rests upon the collar and shapes the same.

In order to render the ironing-roller self-adjusting in regard to its pressure, there is secured to the flat under side of the bearing 33 for the shaft 32 a plate 43, through the other end of which passes a rod 44, rigidly secured at its lower end to the table and screw-threaded at the upper end and having a thumb-nut 45, screwed on the upper end and bearing down upon the free end of the plate, pressing it against a coiled spring 46, the lower end of which is supported by a cross-pin 47 in the rod. An upward pressure upon the ironing-roller will evidently cause a downward movement of the end of the plate, which will be resisted by the coiled spring. Said coiled spring thus provides a resilient support for the ironing-roller, opposing its upward movement.

The upper edges of the guide-plates 30 are formed with concave recesses 48 to correspond with the circular form of said roller and immediately thereunder. Upon passing from between the second pair of guide-plates the collar passes between the delivery-rollers 25, which carry the collar therethrough against the surface of a bending-roller 49, which is upon a vertical shaft 50, driven by a gear 53, meshing with the gear-wheel 14 upon the shaft 17. When the collar impinges against the surface of this bending-roller, it is caused to be deflected and curved to the proper shape.

In order to hold the collar down onto the shaper-plate, there is provided a roller 51, the axle of which moves vertically in slots 52 in the upper ends of the brackets 27. These slots allow a vertical movement of the roller

to permit it to rise when the end of the collar in which the buttonhole is formed passes thereunder. In some collars this end is given an elevation above the plane of the main portion of the collar, and it is to prevent undue pressure upon the elevated edge of the terminal portion of the collar that these slots are provided.

We claim—

10 1. In an apparatus of the character described, the combination of a pair of guide-plates, an ironing-roller supported thereover having an annular groove immediately over the space between the guide-plates, means
15 for heating said ironing-roller, a shaper-plate for supporting a collar and means for feeding said collar between the guide-plates, substantially as described.

20 2. In an apparatus of the character described, the combination of a pair of guide-plates, an ironing-roller supported thereover having an annular groove immediately over the space between the guide-plates, a resilient support for said ironing-roller resisting

its upward movement, means for heating 25 said ironing-roller, a shaper-plate for supporting a collar and means for feeding said collar between the guide-plates, substantially as described.

3. In an apparatus of the character de- 30 scribed, the combination of a pair of guide-plates, an ironing-roller supported thereover having an annular groove immediately over the space between the guide-plates, means independent of a movement of the collar for 35 rotating said ironing-roller, means for heating said ironing-roller, a shaper-plate for supporting a collar and means for feeding said collar between the guide-plates, substantially as described. 40

In witness whereof we have hereunto set our hands in the presence of two subscribing witnesses.

R. L. HALL.
T. C. MARTIN.

Witnesses:

F. M. WRIGHT,
REGINA A. ERWIN.