

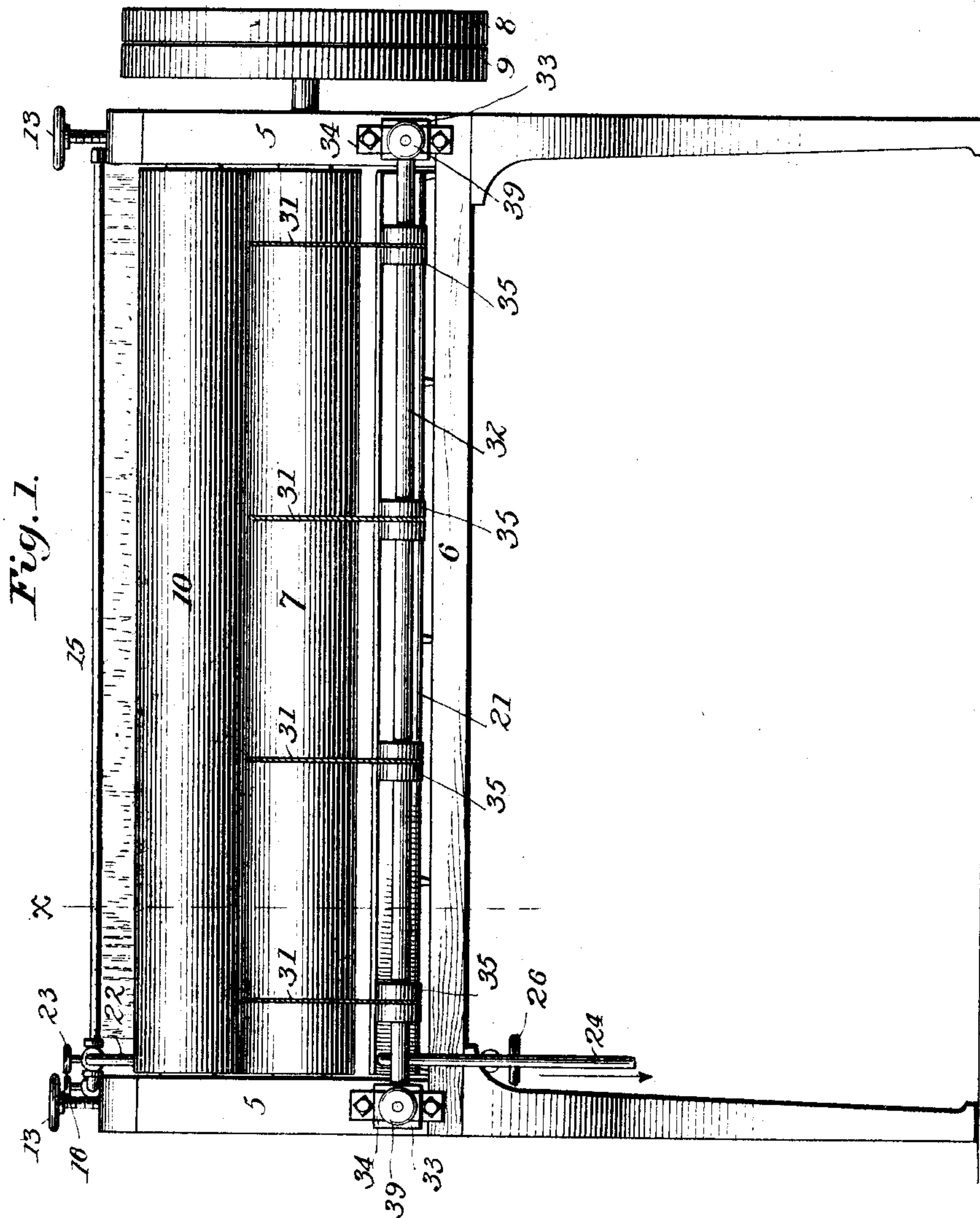
(No Model.)

3 Sheets—Sheet 1.

A. S. SIMONS.
CLOTHES DAMPENING MACHINE.

No. 547,689.

Patented Oct. 8, 1895.



Witnesses
John G. Hinkel
P. E. Hart Stevens

Inventor
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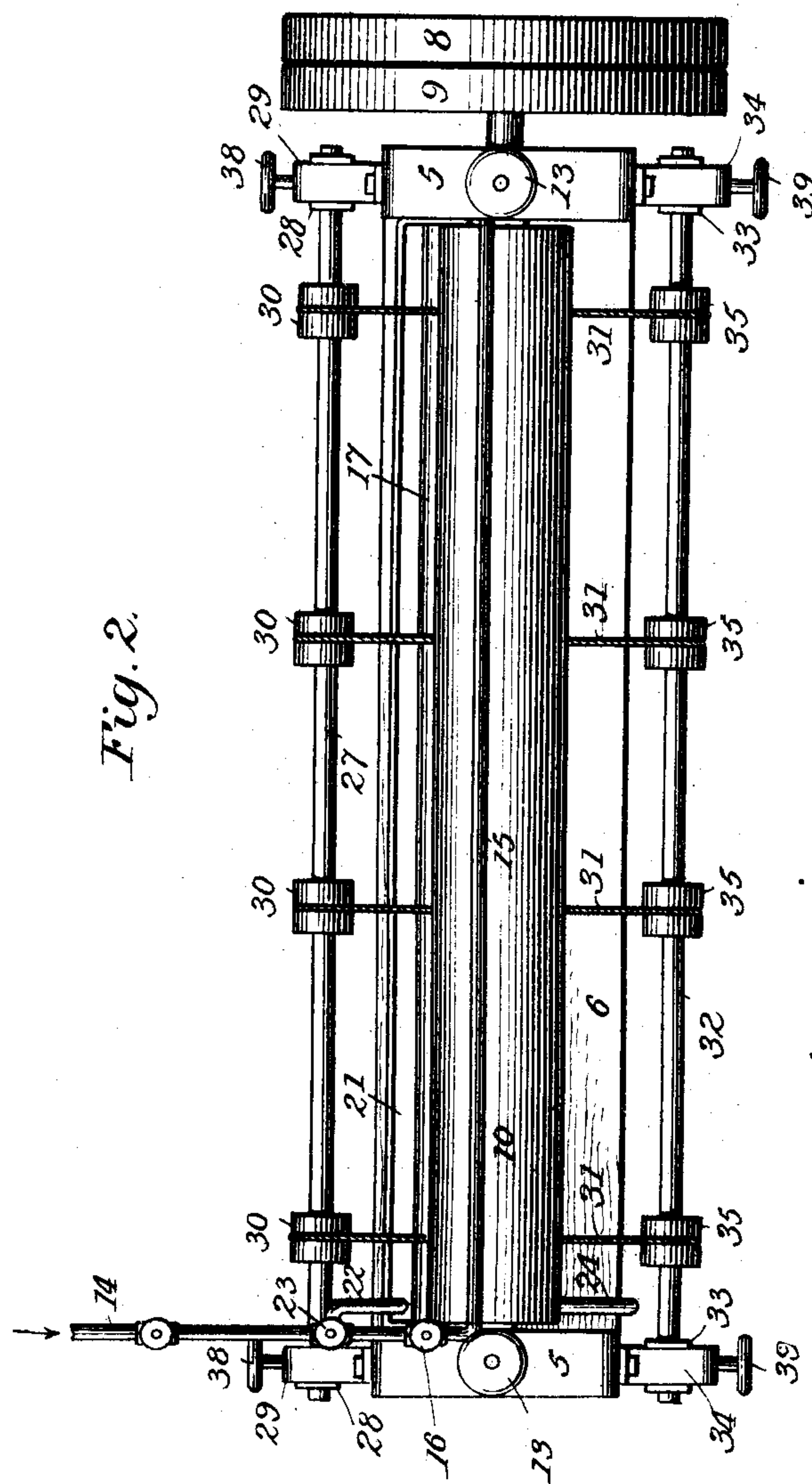
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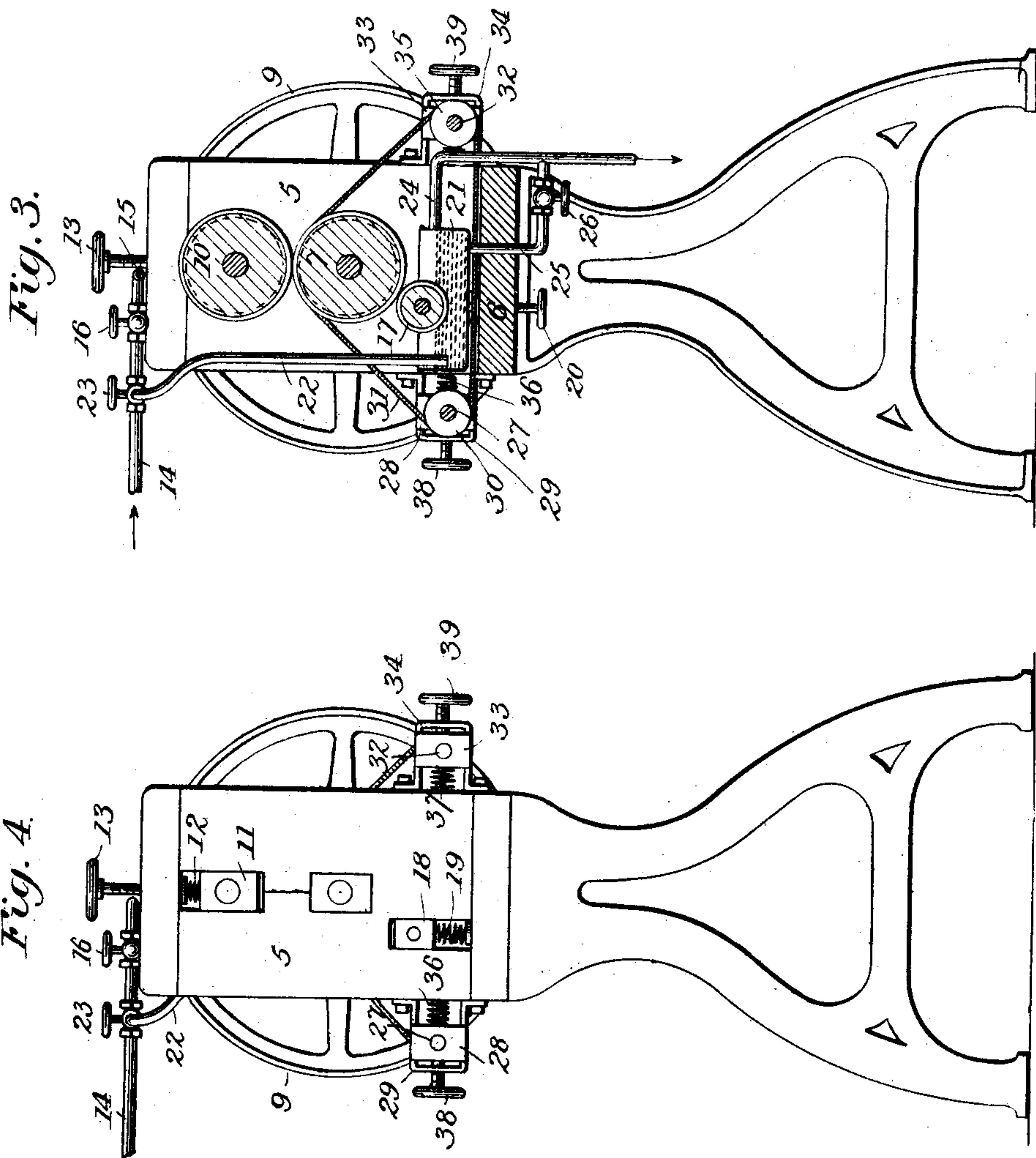
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CLOTHES DAMPENING MACHINE.

No. 547,689.

Patented Oct. 8, 1895.



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UNITED STATES PATENT OFFICE.

ALFRED S. SIMONS, OF PORT CHESTER, NEW-YORK.

CLOTHES-DAMPENING MACHINE.

SPECIFICATION forming part of Letters Patent No. 547,689, dated October 8, 1895.

Application filed March 14, 1895. Serial No. 541,684. (No model.)

To all whom it may concern:

Be it known that I, ALFRED S. SIMONS, a citizen of the United States, residing at Port Chester, in the county of Westchester and State of New York, have invented a new and useful Improvement in Clothes-Dampening Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of a clothes-dampening machine according to my invention. Fig. 2 is a top or plan view of the same. Fig. 3 is a transverse vertical section at line x, Fig. 1. Fig. 4 is an end view of the machine.

This invention relates to machines adapted exclusively to dampening the clothes preparatory to their being ironed; and its object is to provide mechanical means for feeding the clothes to and from the dampening-rollers, means for delivering the dampening water evenly upon the clothes and for forcing the water into the fabric of the clothes, and means for dampening or moistening the clothes from either or both the upper and under sides thereof.

To this end my invention consists in the construction and combination of parts forming a "clothes-dampening machine" herein-after described and claimed, reference being had to the accompanying drawings, in which—

5 represents the end portions, and 6 the bed of the frame.

7 is the main roller covered with hard rubber and journaled in the end portions 5 and provided with a driven pulley 8, which may receive motion directly from a main-shaft driving-pulley, and with an idler-pulley 9 for the driving-belt when the machine is not in service.

10 is the upper dampening-roller covered with hard rubber and journaled in boxes 11, which are fitted to slide up and down freely in the end portions 5, and 12 represents springs bearing on the journal-boxes and provided with hand-screws 13, by means of which their tension or pressure upon the boxes may be regulated.

14 is the water-supply pipe provided with an arm 15, which extends across the machine over the roller 10 and is perforated at its lower side throughout its length as a sprinkler.

16 is a stop-cock, by means of which the supply of water to the sprinkler 15 may be regulated or cut off.

17 is the lower dampening-roller journaled in boxes 18, which are fitted to slide up and down in the end portions 5 and provided with pressure-springs 19 and tension-screws 20, whereby the pressure of the roller 17 up against or toward the driving-roller 7, may be regulated.

21 is a drip-pan located beneath the roller 7 to catch any water that has not been soaked into the clothes and drops from the said roller, and the roller 17 is mounted so that its lower portion enters the water in the drip-pan and its upper side rolls against the roller 7 when in service.

22 is a branch of the main supply-pipe 14, leading into the pan 21 and provided with a stop-cock 23, whereby the pan may be provided with a constant supply of water.

24 is an overflow-pipe entering the drip-pan 21 near its top to discharge all surplus water therefrom, and 25 and 26 represent a discharge-pipe and stop-cock, respectively, whereby the drip-pan may be completely emptied.

27 is a roller-shaft journaled in boxes 28, which are fitted to slide in brackets 29 of the end portions 5, and 30 represents a series of wooden rollers mounted upon the said shaft, each roller being circumferentially grooved opposite to a corresponding groove in the main roller 7 for string or cord belts 31 to travel in. On the opposite side of the machine and in the same horizontal plane as the roller-shaft 27 is a mate 32 thereto, journaled in boxes 33, fitted to slide in brackets 34 of the end portions 5.

35 represents a series of grooved wooden rollers mounted on the shaft 32, around which the aforesaid string-belts 31 travel.

36 and 37 represent springs acting against the boxes 28 and 33, respectively, to hold them outward against the string-belts 31 to hold them distended with a yielding pressure, and 38 39 are hand-screws, whereby the distance that the boxes 28 and 33 may be moved outward is positively limited.

In laundry-work it is very necessary that metals that will rust, such as iron and steel, be kept beyond contact with the clothes and

the water that is used to dampen them. To this end I construct the two end pieces 5, the bed-piece 6, and the rollers 30 and 35 of wood. The water-pipes and the bearing-boxes, screws, and springs are preferably made of brass; but the legs, being beyond the reach of water, may be made of any suitable material. The three rollers 7, 10, and 17 are metal bodies covered with hard rubber, and the drip-pan is of galvanized iron.

The operation is as follows: First open the cocks 16 and 23. Then when the roller 7 has been set in motion it will continually revolve the strings 31 around it and the rollers 30 and 35. Now, if sheets, shirts, pillow-slips, shams, or other work to be dampened be placed upon the strings 31 at the in-feeding side, such articles will be drawn between the rollers 7 and 10 and be carried out at the delivery side on the same strings 31. It will be seen that the rollers 30 and 35 extend entirely beyond the bed of the machine, so that sheets, &c., may be fed through automatically from a basket or truck at one side to a basket or truck at the other side after each piece is started in on the strings 31. In the meantime the sprinkler-pipe 15 has been sprinkling water evenly throughout the length of the roller 10 on its upper side, and by the time that roller 10 revolves far enough to bring the water in contact with the work the water has spread evenly on the roller, and is consequently delivered in an even sheet upon the work, the thickness of that sheet or the amount of water delivered being regulated by the stop-cock 16, so that the work, properly speaking, is evenly dampened throughout the breadth and length of each piece, the evenness of the dampening being further aided by the pressure of the rollers upon the work at the instant of dampening. The lower roller 17 acts as an accessory to the upper roller 10 by carrying water up from the trough 21 in an even sheet to the under side of the main roller 7, whereby the under side of thick goods is dampened; but the chief merit of this lower roller is that in transmitting to the main roller 7 no more water than is taken up

by its lower portion running in water it may be used without the aid of the sprinkler 15 to dampen very thin and delicate goods, which would be soaked by the least delivery that could be given to pipe 15 throughout its length. The main roller 7 is the only one which is directly driven, and that is by a common belt, not strong enough to draw in the hand of an operator. There is no positive gearing which would endanger even a careless operator. The grooves for the strings 31 are important, not merely for keeping the twisted cords in place, but to permit the rollers 7 and 10 to come close together upon the thinnest work without impressing the cords into it. If the string-belts 31 were mounted on unyielding rollers, the bands would be broken or stretched by sudden loads applied; but the springs 36 and 37 maintain an equal tension on them.

Having thus fully described my invention, what I believe to be new, and desire to secure by Letters Patent, is the following:

In a clothes dampening machine, a pair of dampening rollers journaled one above the other, the lower one being circumferentially grooved; a series of grooved rollers mounted on two shafts journaled at the sides of the machine in a horizontal plane below the dampening rollers and belts in the grooves of the first and second named grooved rollers; a water pipe perforated in its under side and located above the dampening rollers; a drip-pan below the rollers and another roller journaled to revolve in the pan and against the lower of the said dampening rollers substantially as described, whereby the clothes may be carried through the machine and be dampened either on their upper or under side, or both, at one operation, as may be required.

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

ALFRED S. SIMONS.

Witnesses:

WILLIAM H. SCOFIELD,
FRANK H. BROWN.