No. 667,041. Patented Jan. 29, 1901.

L. C. SOMERVILLE.

IRONING MACHINE.

(Application filed Mar. 27, 1900.)

(No Model.) 2 Sheets—Sheet 1.

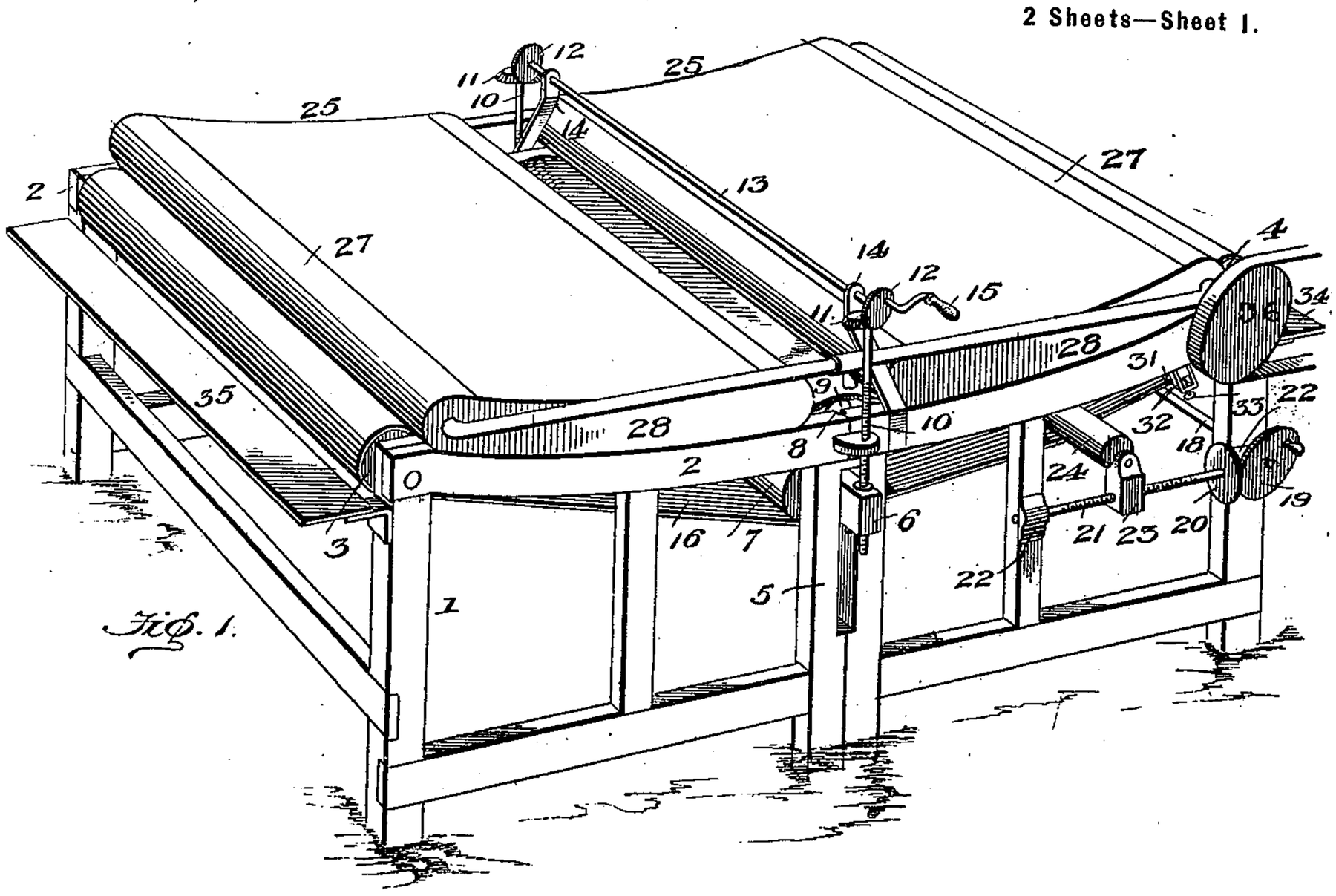
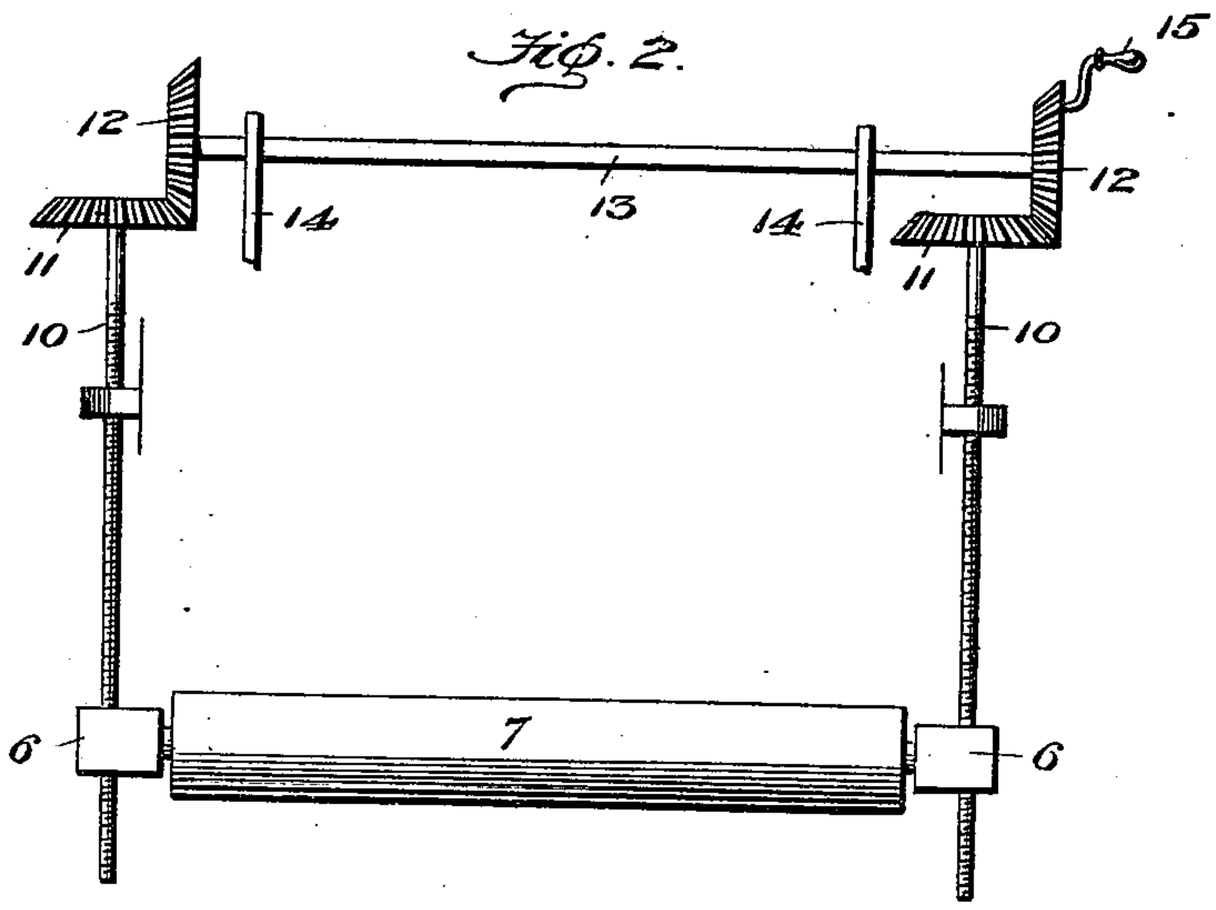


Fig. 1.

Fig. 2.



Witnesses
"
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2 Sheets—Sheet 2.

Fig. 3.

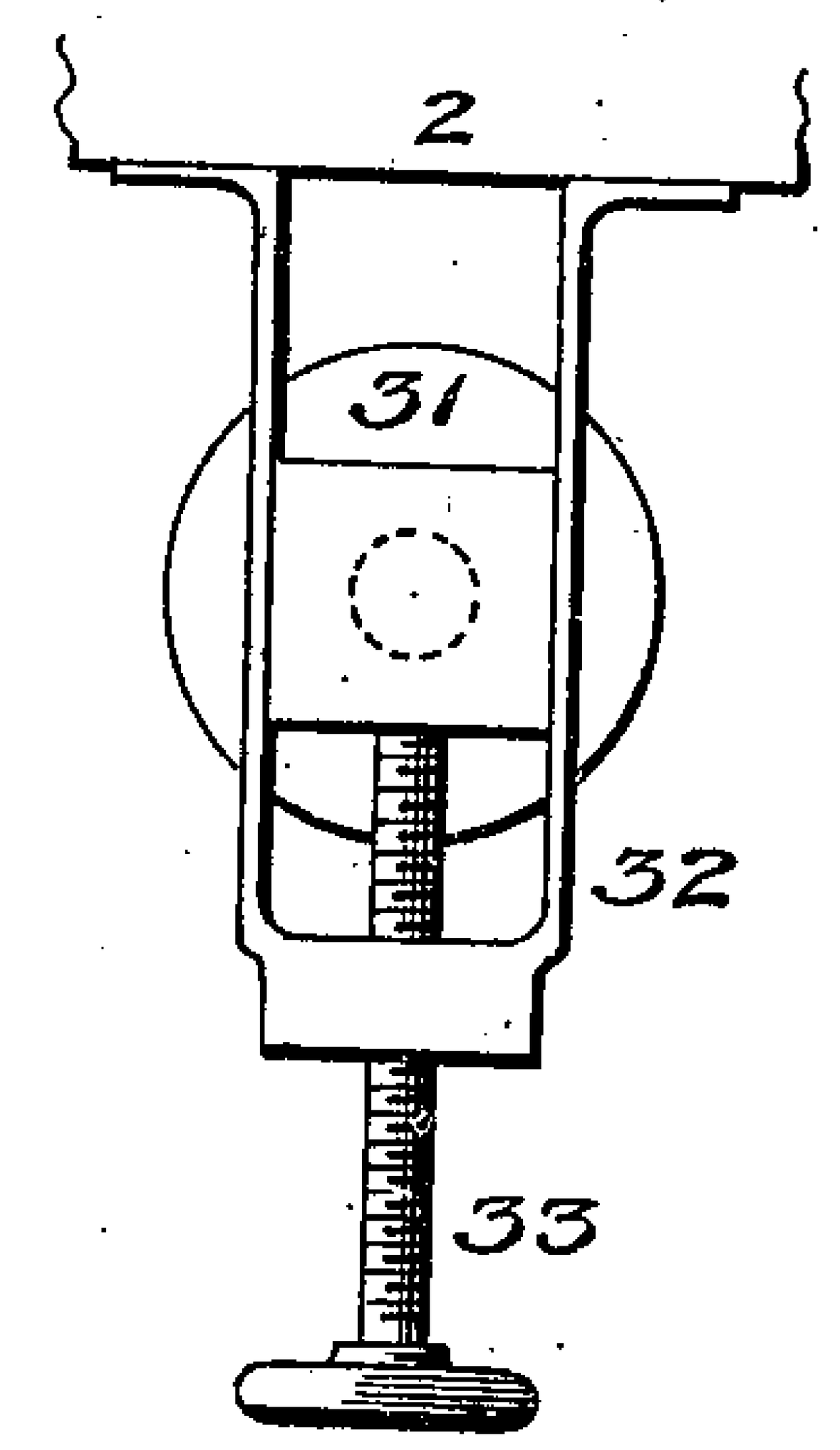


Fig. 4.

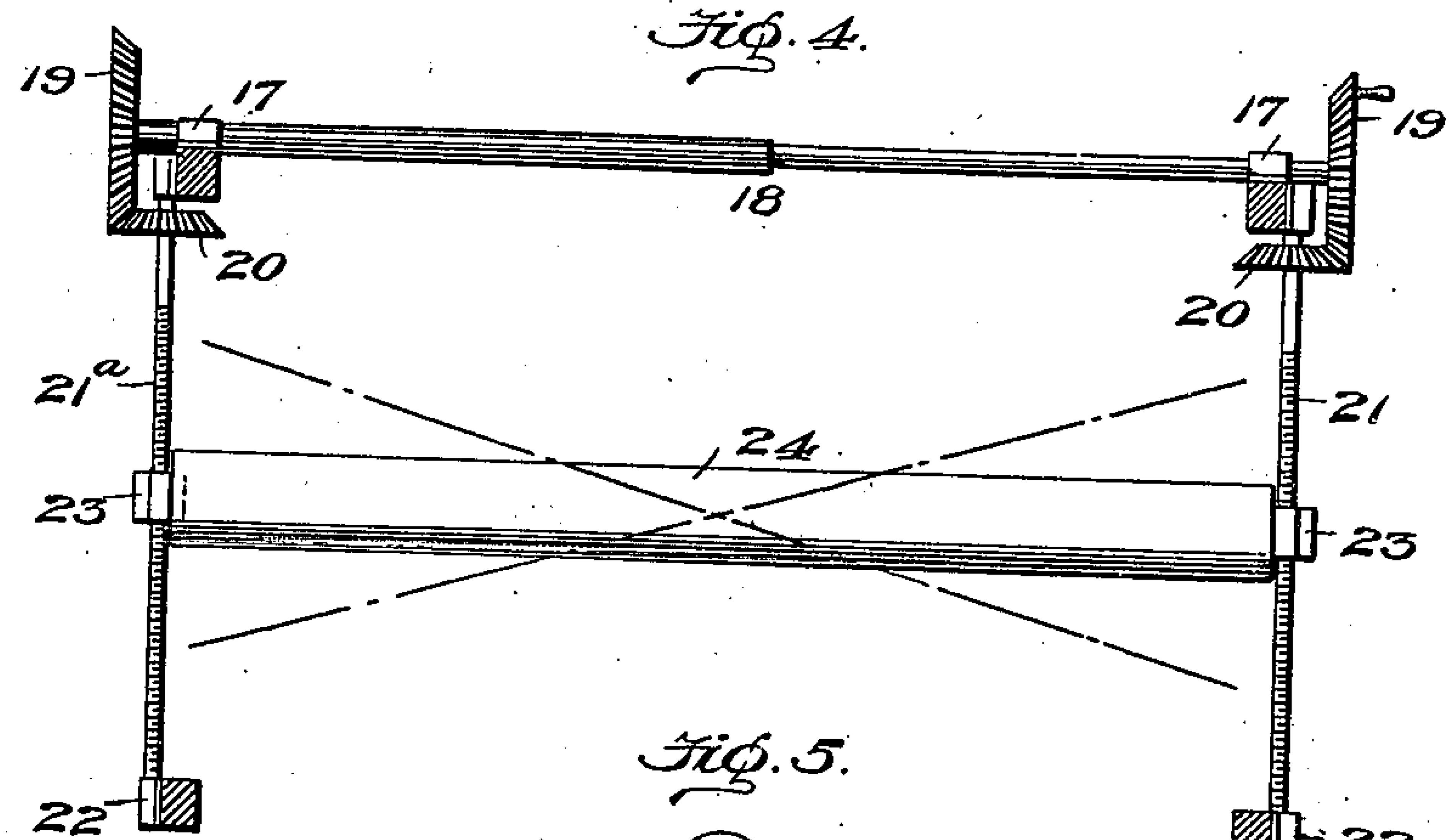
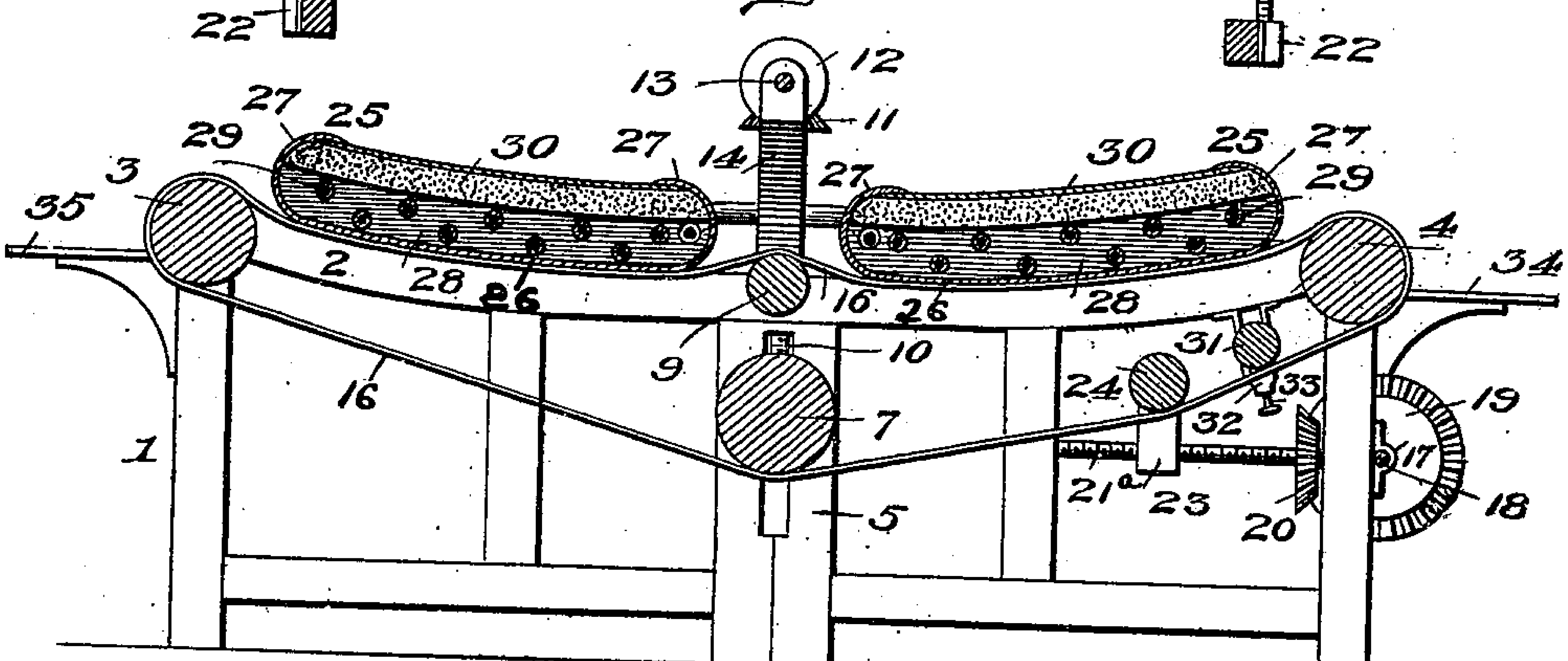


Fig. 5.



Witnesses

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Lawson C. Somerville.

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UNITED STATES PATENT OFFICE.

LAWSON C. SOMERVILLE, OF NEWPORT, RHODE ISLAND.

IRONING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 667,041, dated January 29, 1901.

Application filed March 27, 1900. Serial No. 10,365. (No model.)

To all whom it may concern:

Be it known that I, LAWSON C. SOMERVILLE, a subject of Her Majesty the Queen of Great Britain and Ireland, residing at Newport, in the county of Newport and State of Rhode Island, have invented certain new and useful Improvements in Ironing-Machines, of which the following is a specification.

My invention relates to improvements in ironing-machines; and the main object of my invention is the provision of a machine which is easily heated and by means of the construction any pressure can be exerted upon the articles to be ironed.

Another object of my invention is the provision of a very light machine which can be easily transported from place to place, which is easily operated without danger to the operator, and which is the embodiment of simplicity, durability, and inexpensiveness, thus producing a very useful and practical ironing-machine.

To attain the desired objects, my invention consists of an ironing-machine embodying novel features of construction and combination of parts, substantially as disclosed herein.

In the drawings, Figure 1 is a perspective view of the machine in its entirety. Fig. 2 is a view of the apron-tightener. Fig. 3 is a view of the adjustable pressing-roll, showing its connections to the main frame of the machine. Fig. 4 is a detached view of the guide-roller, and Fig. 5 is a vertical central sectional view of the machine.

Referring by numerals to the drawings, the numeral 1 designates the main frame, having the curved side pieces 2 mounted upon the upper portion thereof and having the main rollers 3 and 4 mounted in the ends thereof between the side pieces. Secured to the side pieces and also to the lower portion of the frame intermediate of the length are the slotted standards or supports 5, in which are slidably mounted the bearings 6 of the tightening-roller 7, and journaled in the bearings 8 of the side pieces directly above the roller 7 is the roller 9. Passing through the bearings 6 of the roller 7 are the feed-screws 10, mounted upon the outside of the frame, and each having a bevel gear-wheel 11, which are adapted to mesh with the bevel gear-wheels 12 of the horizontal shaft 13, mounted in the upright bearings 14, and this shaft is further provided with a crank 15, so that it may be revolved to raise or lower the tightening-roller to exert a tension upon the continuous band or apron 16, which is adapted to pass around and over the end rollers, over the roller 9, and below the roller 7. Mounted in the bearings 17 upon the upright standards at the front of the main frame is a horizontal axle or shaft 18, upon whose outer ends are carried the bevel gear-wheels 19, which are adapted to mesh with the bevel gear-wheels 20, mounted upon the feed-screws 21 and 21ª, which are journaled in the bearings 22, secured to the main frame. Movably mounted upon these feed-screws are the bearings or boxes 23 for the axle of the guide-roller 24, and these feed-screws are so operated as to allow the roller to be moved and held at any desired angle or incline, as indicated by dotted lines, Fig. 4, the apron being passed below this roller, as shown.

Secured to the upper side of the side pieces are the hollow heating-boxes 25, which are constructed of the curved sheet-metal casings 26, having the bent sides 27, and the metal ends 28 are secured to the ends of the casings, said ends of the casings nearly surrounding the metal ends 28. Placed within these casings and extending from end to end are the series of steam-pipes 29, through which steam is adapted to be passed to heat the heating-boxes, and to hold the heat in said boxes and cause it to be forced downward toward the apron, which passes below the boxes, I employ the asbestos covering 30, which fits the upper sides of the boxes and is located over the steam-pipes, forming a top covering therefor. In order that the article to be ironed will be brought into close proximity to the heating-box at the forward end of the machine, I employ an auxiliary and adjustable pressing-roller 31, which is mounted in the slotted bearings 32, secured to and depending from the under side of the side pieces of the frame, and to render the roller adjustable the screws 33 are employed, allowing the roller to be raised or lowered to press the apron, which passes upon the under side of this roller, downward.

Upon the front upper portion of the machine I secure the feeding-shelf 34, and at the rear is a receiving-shelf 35.

From the foregoing description, taken in connection with the drawings, the operation of my machine will be readily understood and its numerous advantages fully appreciated; but the operation, briefly stated, is as follows: The heating-boxes are first heated to the desired heat, and by reason of the thinness of the metal they heat very quickly. Then the apron is set in motion through any power-transmitting means, which is connected to the wheel 36. The proper pressure is then exerted upon the apron and the article to be dried, pressed, and ironed is passed between the apron and the first heating-box, where it is dried and pressed and passed to the next heating-box to be finished and passed out of the machine.

It is evident that I provide a very light, simple, durable, and inexpensive ironing-machine which is thoroughly efficient in every particular and therefore very useful and practical.

I claim—

1. In an ironing-machine, the combination of a frame having curved upper side pieces, main rollers journaled in the ends thereof, a small intermediate roller journaled at the center of the curved pieces, an adjustable roller located in the frame below the small intermediate roller, a guide-roller located between the adjustable roller and one of the main rollers below the curved sides, an apron passing around the main rollers, above the intermediate roller and below the other rollers, and two segmental sheet-metal casings having heating-pipes located therein, and having a heat-non-conducting cover for forcing the heat downward upon the apron, said casings being supported upon either side of the intermediate roller on the side pieces.

2. In an ironing-machine, the combination of a frame having curved side pieces and two intermediate legs, main rollers journaled in the upper ends of the frame, a small intermediate roller journaled in said frame above the intermediate legs, an adjustable roller located in the frame below the small intermediate roller, a guide-roller located between the adjustable roller and one of the main rollers, an apron passing around the main rollers above the intermediate roller and below the other rollers, and two segmental casings, each comprising a piece of sheet metal having an open top and ends, ends nearly surrounded by said sheet metal, heating-pipes located in said casing and extending from end to end, and a heat-non-conducting covering placed in said casing above the pipes.

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

LAWSON C. SOMERVILLE.

Witnesses:

J. STACY BROWN,

G. F. COZZENS.