

(No Model.)

W. MITCHELL.
ELECTRICALLY HEATED WRISTBAND IRONER.

No. 459,070.

Patented Sept. 8, 1891.

Fig. 1.

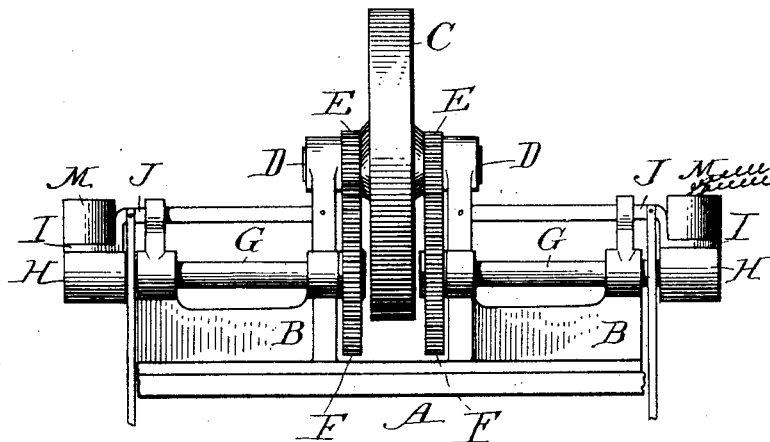


Fig. 2.

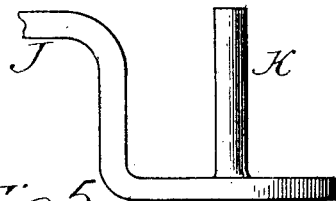


Fig. 3.

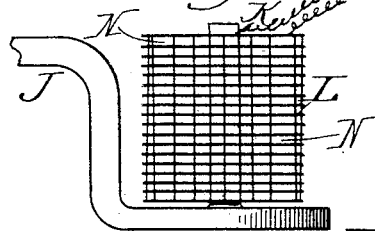


Fig. 5.



Fig. 4.

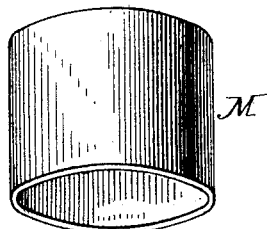
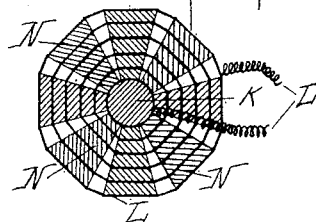


Fig. 6.



WITNESSES

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ELECTRICALLY-HEATED WRISTBAND-IRONER.

SPECIFICATION forming part of Letters Patent No. 459,070, dated September 8, 1891.

Application filed November 29, 1890. Serial No. 373,036. (No model.)

To all whom it may concern:

Be it known that I, WILLIS MITCHELL, a citizen of the United States, residing at Malden, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Electrically-Heated Wristband-Ironers; 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.

This invention relates to machines for ironing wristbands and other articles of the kind employing a rotary cylinder, in combination with a stationary device for heating and pressing the article to be laundered.

The said invention consists, chiefly, in the combination of a fixed heating-plate having a stem with a coiled wire, and its inclosing casing sleeved on said stem and supported by said plate, the said wire forming part of an electric circuit and heating said plate.

In the accompanying drawings, Figure 1 represents a perspective view of a machine embodying my invention. Fig. 2 represents a detail view, in side elevation, of one of the heating-plates and its stem. Fig. 3 represents a similar view of the said plate and stem and the heating devices surrounding the latter. Fig. 4 represents a similar view of the casing for said wire. Fig. 5 represents an enlarged perspective detail view of the stem of said plate broken away with the first winding of wire thereon, and Fig. 6 represents a detail cross-section through the heater.

A designates the base or bed plate of the machine; B, the frame thereof; C, the driving-wheel turning with a short driving-shaft D, mounted in said frame; E, two pinions on said shaft at opposite sides of said driving-wheel, and F two gear-wheels meshing, respectively, with said pinions. Each of these wheels F is on a shaft G, also mounted in said frame, and carrying a wristband supporting and smoothing cylinder H. The two shafts G and their cylinders are counterparts, as are also the fixed heating devices, hereinafter described. The foregoing devices are old and need no further description.

Above each cylinder is a flat plate I on a rigid bent arm J, extending from the side of

frame A. A short stem K extends upward from the middle of said plate. A wire L, forming part of an electric circuit and coated with insulating material or otherwise insulated, is wound in successive layers around this stem, the first winding of said wire being directly on said stem, as shown in Fig. 5, and each successive winding being upon interposed separating-strips N, preferably of asbestos, these strips being arranged in successive layers, so that the heating device as a whole has the form of a drum, as shown in Fig. 3, and consists of concentric helices of continuous wire separated by said strips and surrounding the said stem as a core. A tubular casing or sleeve M rests on the said plate surrounding and protecting the said wire. The current sent through the said wire generates heat in said casing and stem, especially the latter, and this is communicated by conduction to the plate I. The garment or fabric passing between the cylinder H and the said plate is heated and smoothed by the lower face of the latter, while the upper face of said plate receives and supports the wire and casing aforesaid.

A machine such as described is arranged for ironing two articles at once; but this of course is quite immaterial, and the same devices may be used in a machine for ironing one article only at a time. The wire stem and plate, with or without the casing, may also be used for general calorific purposes without the cylinder and the other devices hereinbefore described. The stem K, though very advantageous, is not absolutely necessary.

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

1. In combination with a cylinder and mechanism for rotating the same, a fixed plate provided with a stem and arranged in proximity to said cylinder, and an electric heating device consisting of a wire forming part of an electric circuit and wound in successive concentric helices about the said stem, insulating strips or layers being interposed between said helices, substantially as set forth.

2. In a smoothing-machine, the combination of a flat plate I, having a stem K on the side away from that which applies the heat,

with a heating-drum surrounding the said stem and composed of alternating layers of wire and insulating material, the wire being continuous and forming part of an electric
5 circuit, substantially as set forth.

3. In combination with plate I, having stem K on its upper side, a heating-drum composed of a continuous wire forming part of an electric circuit and wound in helices first about
10 the said stem and afterward about successive

layers of strips of insulating material, and a removable cap M, inclosing the said heater and resting on the said plate, substantially as set forth.

In testimony whereof I affix my signature in 15
presence of two witnesses.

WILLIS MITCHELL.

Witnesses:

L. L. PARSONS,
W. P. CUTLER.