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PATENTED AUG. 20, 1907.

J. H. THOMPSON & J. MURPHY.

MANGLE.

APPLICATION FILED MAY 9, 1906.

2 SHEETS—SHEET 2.

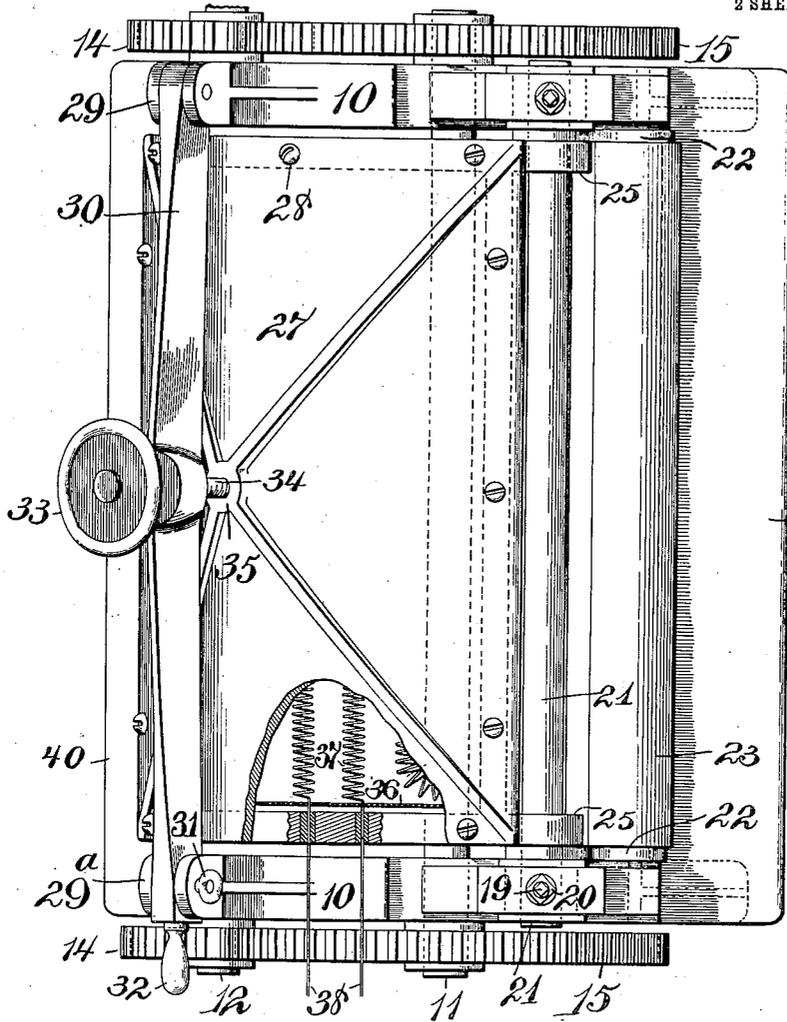


Fig. 2

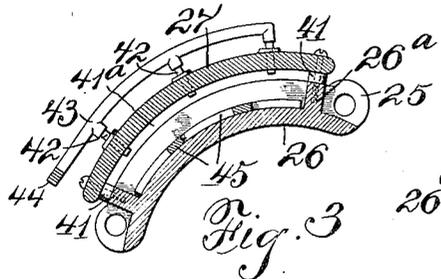


Fig. 3

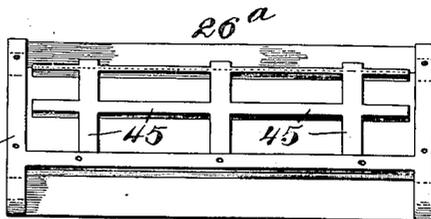


Fig. 4

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# UNITED STATES PATENT OFFICE.

JOSEPH H. THOMPSON AND JOHN MURPHY, OF PASSAIC, NEW JERSEY.

## MANGLE.

No. 863,671.

Specification of Letters Patent.

Patented Aug. 20, 1907.

Application filed May 9, 1906. Serial No. 315,877.

*To all-whom it may concern:*

Be it known that we, JOSEPH H. THOMPSON and JOHN MURPHY, citizens of the United States, residing at Passaic, in the county of Passaic and State of New Jersey, have invented certain new and useful improvements in Mangles; and they 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to an ironing machine or mangle, and is particularly designed as a machine to iron handkerchiefs.

The particular object of the invention is to provide a smoothing plate that is pivotally arranged in the machine, so that the plate can be thrown up away from the ironing roll to allow the plate to be waxed on the surface adjacent to the roll, and also to provide a means for regulating the pressure of the plate on the roll, this pressure regulating means being also arranged to be quickly withdrawn.

A further object of the device is to provide a smoothing plate that can be heated evenly and smoothly, and that can be either used as electrically heated or heated by gas.

The invention is illustrated in the accompanying views, in which

Figure 1 is a central vertical section of the machine. Fig. 2 is a top view with the smoothing plate partly broken away at the top to show a heating means. Figs. 3 and 4 are a section and an uncovered end view respectively, of a smoothing plate of a modified form.

The machine is supported by suitable standards 10 arranged on each side of the machine, and suitable bearings are arranged to receive the shaft 11. A counter shaft 12 is also journaled on the frames 10 and carries a drive pulley 13, and a pair of gears 14 that are in mesh with, and drive a pair of gears 15 on the shaft 11. These gears are arranged on each side of the machine so that the shaft 11 is supplied with an even power on each end. A suitable ironing roll 16 is fastened to the shaft 11, and has a suitable covering of cloth 17 as is customary in this class of machine. Arranged on top of each side frame 10 is a housing 18, in which slides the box 18<sup>a</sup> which is regulated by means of the screw 19, and the lock nut 20. In the box is journaled on

each end, a shaft 21 and a pair of links 22 on either side pivotally support a roll 23. This roll maintains the evenness of the handkerchief as it proceeds toward the smoothing plate after it has been stretched out, and fed on the roll 16 from the feeding platform or shelf 24. On this same shaft 21 are swung the ears 25 of the smoothing plate 26, the bottom surface of which is in contact with the ironing roll, and on the opposite surface are the marginal projecting rims 26<sup>a</sup> to which in turn is securely fastened the top plate 27 by means of the screws 28. This structure provides a smoothing plate that is pivotally arranged on the machine, and can be swung up on the shaft 21 to expose the surface in contact with the ironing roll to allow it to be cleaned or waxed.

On top of one of the frames 10 are the ears 29, between which is pivotally supported a bar 30 that extends across the machine between the ears 29<sup>a</sup> on the other frame 10, and a pin 31 holds the bar in place. When the pin 31 is withdrawn, the bar can be swung away from the machine, and a handle 32 is provided for that purpose. When the bar is fastened by the pin 31, a screw 34 operated by the wheel 33 bears down on a lug 35 on the top of the plate 27 to regulate the pressure of the smoothing plate on the roll. This structure of smoothing plate forms a hollow receptacle, and in that can be placed an insulated lining 36 to contain an electric heater 37, and the terminal wires 38 can be led out at any suitable point. In this ironing machine, this variable pressure on the smoothing plate is a very desirable feature, and it is also quickly removed. A receiving table or shelf 40 receives the ironed pieces.

When it is desired to heat the ironing plate by gas, it is arranged as in Figs. 3 and 4, and suitable lugs 41 are inserted between the marginal rims 26<sup>a</sup> and the upper plate 27 to provide the spaces 41<sup>a</sup> to allow combustion. Through the plate 27 are arranged the gas burners 42 which are fed from the pipe 43, the end of which can be provided with a coupling for a flexible tube to allow the smoothing plate to be raised. The flame from the burners 42 impinge, on the strips 45, preferably made of brass, to better transmit the heat equally to the iron plate 26, and the brass being hardened and better able to resist heat has a longer life.

Having thus described our invention, what we claim is:—

1. An ironing machine comprising side frames, an ironing roll journaled in the side frames, a transverse shaft on the machine and adjustable in relation to the roll, a

curved smoothing-plate pivoted at one end to the shaft, a bar pivoted in one side frame and detachably secured to the other frame, and means on the bar for exerting a pressure on the free end of the smoothing-plate.

- 5 2. An ironing machine comprising side frames, an ironing roll journaled in the frames, a shaft adjustably arranged in the frames above the roll, a smoothing roll, links pivotally connecting the smoothing roll to the shaft, a smoothing plate pivoted on one end to the shaft, said
- 10 smoothing plate being hollow, a bar pivoted on one end on one of the frames, means on the other frame for detach-

ably securing the free end of the bar, a manually operated screw arranged on the bar to exert pressure on the smoothing plate, and a heating medium in the smoothing plate.

In testimony, that we claim the foregoing, we have here- 15 unto set our hands this 5th day of May 1906.

JOSEPH H. THOMPSON.  
JOHN MURPHY.

Witnesses:  
E. A. PELL,  
WM. H. CAMFIELD.