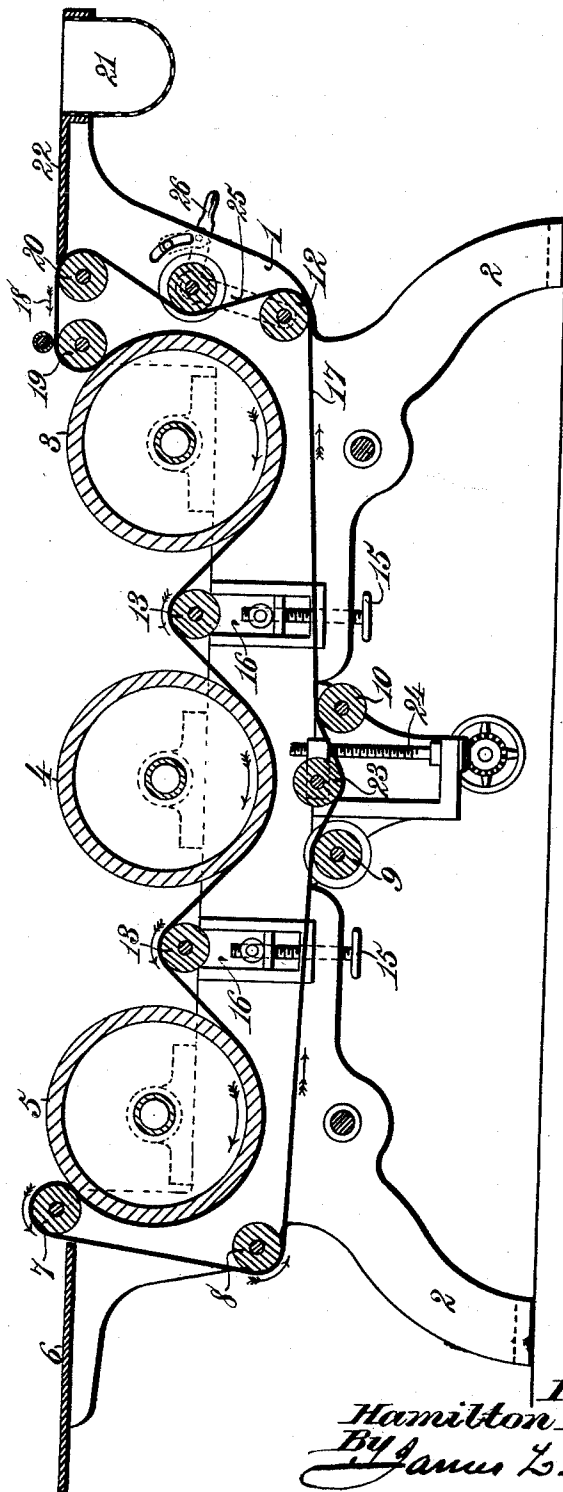


(No Model.)

H. E. SMITH.
IRONING MACHINE.

No. 519,974.

Patented May 15, 1894.



Witnesses.
Robert Emmett,
D. W. Rea.

Inventor.
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UNITED STATES PATENT OFFICE.

HAMILTON E. SMITH, OF NEW YORK, N. Y.

IRONING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 519,974, dated May 15, 1894.

Application filed January 15, 1894. Serial No. 496,903. (No model.)

To all whom it may concern

Be it known that I, HAMILTON E. SMITH, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Ironing-Machines, of which the following is a specification.

My invention relates to that type of ironing machines or mangles wherein an endless apron supported by suitable rollers is arranged to extend partially round a heated, ironing or smoothing cylinder, in such manner that articles or goods delivered to the cylinder and carried round between the same and the apron are ironed or smoothed and dried.

The object of my invention is to provide new and improved means for raising or lowering the arched portions of the apron between the peripheries of the ironing cylinders to increase the efficiency and adaptability of the machine.

To accomplish this object my invention consists in the features of construction and the combination or arrangement of devices hereinafter described and claimed, reference being made to the accompanying drawing, in which the figure is a longitudinal sectional view of an ironing-machine embodying my invention.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawing, wherein—

The numeral 1 indicates a frame supported by legs 2, and constructed in any suitable manner to support the journals of a series of ironing or smoothing cylinders 3, 4 and 5. The frame is provided in proximity to the delivery table 6 with an apron-supporting-roller 7, the axis of which is slightly above the level of the delivery table. At a point on the frame considerably below the axes of the ironing cylinders are arranged a series of apron-supporting-rollers 8, 9, 10 and 12, and at points between the cylinders are arranged a series of vertically movable apron-supports 13, which are susceptible of being raised or lowered through the medium of screw-shafts 15, suitably engaged with the vertically slidable boxes 16 in which the supports 13, which are composed of rollers, are journaled.

The endless apron 17 is composed of any material ordinarily used for the purpose and extends around the several rollers above mentioned, and at the end of the frame opposite the delivery table 6, a part of this apron is arranged to travel in a horizontal plane, or approximately so, for the purpose of constituting a moving or traveling feed-section or table by which the articles or goods to be ironed or smoothed are moved in the direction of the arrow 18. In order to properly support the apron so that a part thereof always travels in a horizontal plane as above stated, I provide two separate rotary supports 19 and 20 having their axes preferably arranged in a plane coincident with the axis of the roller 7.

The end of the frame 1, opposite the delivery table 6, is constructed to receive and support a clothes-basket 21, preferably perforated for the admission of air to facilitate the drying of the clothes contained therein. The clothes-basket is arranged some distance from the rotary support 20, and between the said basket and that part of the apron which travels horizontally between the rotary supports 19 and 20, is arranged a non-moving feed table 22, composed of a flat board or plate secured in a fixed position to the frame 1 by any suitable means, in such manner that the top surface of the feed board or plate lies level with that part of the endless apron which travels horizontally. By this arrangement I provide a stationary feed board or table, and a traveling or moving feed section composed of a part of the endless apron which passes partially round the ironing cylinders, and consequently the attendant can lift the articles or goods out of the clothes-basket 21, and spread them out flat upon a stationary object from which they are delivered to a traveling feed section which carries them direct onto the ironing cylinder 3 and between the latter and the endless apron. The articles or goods are carried by the apron from one cylinder to the other and are finally delivered from the roller 7 onto the delivery table 6.

The vertically adjustable rollers 13 render it possible for the attendant at any time, or as occasion may demand, to more or less raise the arched portions of the apron at points between the ironing cylinders, for the purpose

of placing the apron in the most effective or best position, or to suit the conditions required in ironing heavy or light goods or articles. In a working machine there is a considerable distance between the rollers 13 and the ironing cylinders, and while light goods or articles will readily follow the arched portions of the apron when adjusted to their highest position and pass into engagement with the cylinders, heavy goods or articles are liable to improperly pass into engagement with the cylinders 4 and 5, and sometimes bunch or build up between said cylinders, for which reason it is advisable to lower the rollers 13, and thus reduce the elevation of the arched portions of the apron for operating on heavy goods or articles.

The intermediate vertically adjustable rollers 13 are not merely to tighten the apron, but are particularly designed to more or less raise the arched parts of the apron between the ironing cylinders, and therefore I provide special apron tighteners, preferably two, one of which is arranged between the rollers 9 and 10 beneath the cylinder 4 and is composed of a roller 23 which can be raised or lowered by a screw-shaft 24 operated in any suitable manner. The other apron tightener

is composed of the roller 12 which is mounted in a bell-crank lever 25 having a handle 26 so arranged as to be conveniently manipulated by the attendant standing at the clothes-basket 21.

I do not deem it necessary to further describe the apron tightening devices as they constitute no part of the claims in the present case.

Having thus described my invention, what I claim is—

In an ironing machine, the combination with a series of ironing or smoothing cylinders, and an endless apron passing partially round the cylinders, of vertically adjustable rollers supporting the apron in arches between the cylinders, and means for vertically adjusting said rollers to vary the elevation of the arched parts of the apron, substantially as and for the purpose described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HAMILTON E. SMITH.

Witnesses:

ALBERT H. NORRIS,
J. A. SAUL.