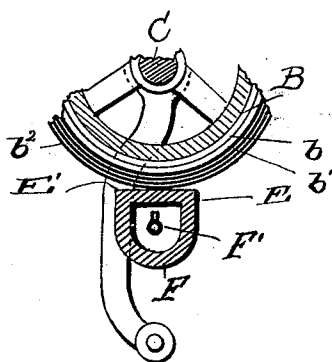
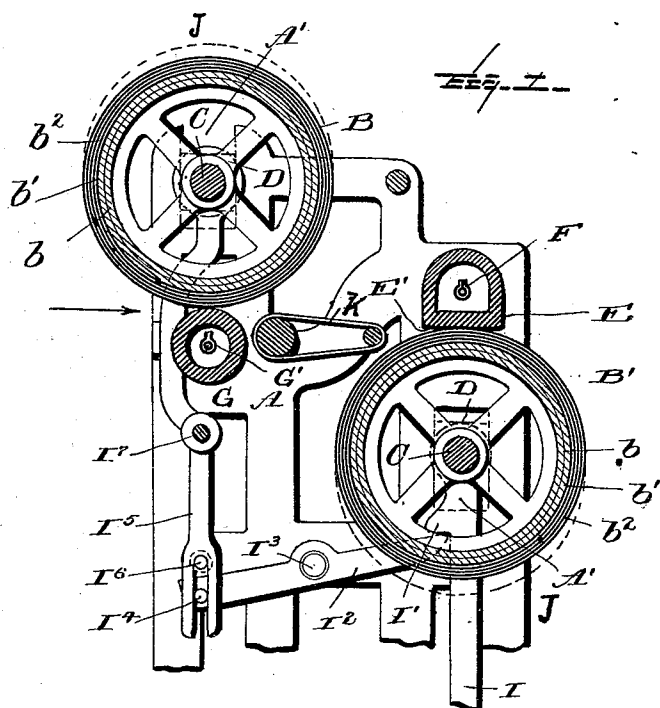


(No Model.)

M. E. WENDELL.
IRONING MACHINE.

No. 514,049.

Patented Feb. 6, 1894.



Witnesses:

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UNITED STATES PATENT OFFICE.

MENZO E. WENDELL, OF TROY, NEW YORK.

IRONING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 514,049, dated February 6, 1894.

Original application filed May 9, 1892, Serial No. 432,322. Divided and this application filed July 26, 1893. Serial No. 481,481. (No model.)

To all whom it may concern:

Be it known that I, MENZO E. WENDELL, a citizen of the United States, residing at Troy, in the county of Rensselaer, State of New York, have invented certain new and useful Improvements in Ironing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has relation to machines for ironing collars, cuffs, and other starched articles and it may be employed with advantage in ironing other goods or articles which are unstarched.

One of the principal objects of this invention is to produce by mechanical ironing devices, the characteristics and quality of work produced by hand-operated sad-irons or ironing devices.

Machine ironed goods invariably, to a practical extent, exhibit to an expert, a surface, whether lustrous or not, consisting of flattened and blended threads and whenever there are stitches they too are flattened, pressed out of shape and indistinct. On the other hand, a nicely hand-ironed article presents a surface, whether lustrous or not, whereon are clearly and distinctly displayed, the natural meshes of the woven fabric and the true, regular and perfect stitches of any sewing, seams, hems or bindings thereof. These practical characteristics of hand-work have never, to my knowledge, been preserved in machine-ironed goods prior to my invention and its embodiment in a practically-operated and successful machine.

Further objects and advantages of the invention will be set forth in the following description and the novel features thereof will be particularly pointed out in the claims.

Figure 1 represents a central, vertical section of the principal elements of a machine embodying my invention. Fig. 2 is a detail of a modification.

This is a divisional application the subject matter of which is taken from my application Serial No. 432,322, filed May 9, 1892.

Like letters of reference refer to like parts throughout the drawings.

A represents any suitable framework for the fixed and movable parts of the machine.

B and B' are two clothed drums preferably of the usual construction which involves a metal cylinder *b* which may or may not have a rubber covering *b'* but which is provided with an outer clothing *b²* of woolen and other fabrics. A more particular description of the clothing of the drum may be found in United States Patent No. 177,908, granted May 23, 1876, to Thomas S. Wiles. The drums B B' are mounted on shafts C, each of which is mounted in sliding boxes D that ride in guides or ways A' formed in the framework A.

E represents a hollow ironing bar that is rigidly connected, in any suitable, manner with the frame A. This ironing bar may be heated by steam, or otherwise, but I have shown within the bar a gas-burner F for heating the same. This burner may be of any usual well known construction. The working face E' of the bar E may be either flat or other form adapted for the ready entrance and exit of goods, the principal purpose being that the surface contact between the bar and the drum shall be practically an extended one in contra-distinction to that extent of surface existing between a cylindrical ironing roller G and its co-operating bed or drum. This latter roller is provided with a burner G'. This ironing roller G may be of any approved form and mounted for rotation in the usual manner. When a bar of the character described is held stationary and a moving drum is pressed against the working face of the bar, an extended ironing surface is presented to the goods and incidentally, although not necessarily, the more or less elastic clothing of the drum presents a flat surface, that is the normally covered surface of the clothed drum is temporarily flattened, while it is in contact with a flat-faced bar and thus the goods while being ironed are exposed to an extended ironing surface just as with hand irons, and without undue compression or undue strain they pass with the drum in contact with the heated iron and emerge therefrom with all the characteristics of hand work. Practically the same effects are produced with a stationary ironing bar having a slightly convex working face.

I deem it proper to state that if the working face of the stationary ironing bar be too

convex or rounded, its surface contact would be diminished and it would curl or give a curved or cylindrical contour to articles and also fail to give the desired hand-work finish to their surfaces.

In my invention instead of reciprocating the ironing devices I utilize the rotary motion of a drum and am enabled to produce the desired effect by reason of the extended surface of the stationary ironing bar at the working point of the machine. I also avoid the complexity and unsatisfactory characteristics always present in reciprocative machinery.

The ironing device for each drum may be, one of them stationary and the other rotary or both stationary—see Fig. 2—depending whether a hand-ironed finish is to be produced on one or both sides of the article. However in ironing very thin goods a rotary ironing device is preferable as the passage of the article is more positive.

The details of construction for the carrier K as well as the gearing for giving the drums the necessary rotation are matters not essential to my invention and are known to all mechanics skilled in this art and I therefore have not shown the same. It is, however a practical advantage to provide means for temporarily and at will separating the clothed drums and the heated devices of the machine and I have shown one well known form of means for this purpose. It includes a treadle rod I which is connected with the shaft C of the drum B' and has a projection I' which takes upon a lever I² pivoted at I³ to the framework from which a guiding pin I⁴ projects into a slot in a link I⁵ which is connected with and depends from the shaft C of the drum B.

I⁶ is a stud projecting from the link I⁵ and rests upon the lever I² and I⁷ is a rod which connects the lever I² with a mate; there being

two of the lifting levers I⁵, one upon and near each end of the shaft of the drum H and two treadle rods I, one upon and near each end of the shaft of the drum B'. It is customary to hang weights upon the rods I' to determine the pressure that the drum B shall exert upon the bar E and roller G.

Suitable and additional means may be provided to determine the pressure of the drum B' against the stationary heated bar E.

The dotted circles J adjacent to the drums in the drawings indicate the position which each drum will occupy when separated from its co-operating heated ironing device.

By working or ironing face disposed in a single plane as stated in my claims I do not confine myself to an ironing face that is perfectly flat as it may be either slightly concave or convex as hereinbefore stated.

What I claim is—

1. An ironing machine comprising two inversely-arranged ironing mechanisms comprising clothed drums and heated ironing devices, one of which is stationary and has its working or ironing face disposed in a single plane.

2. An ironing device comprising two inversely-arranged ironing mechanisms, each of which comprises two elements one of which is in each case a clothed drum, the other being in one case a stationary heated ironing device having its working or ironing face disposed in a single plane and in the other case a rotary heated ironing device, and an interposed active feeding device.

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

MENZO E. WENDELL.

Witnesses:

THOMAS CALDWELL,
CHAS. F. WILES.