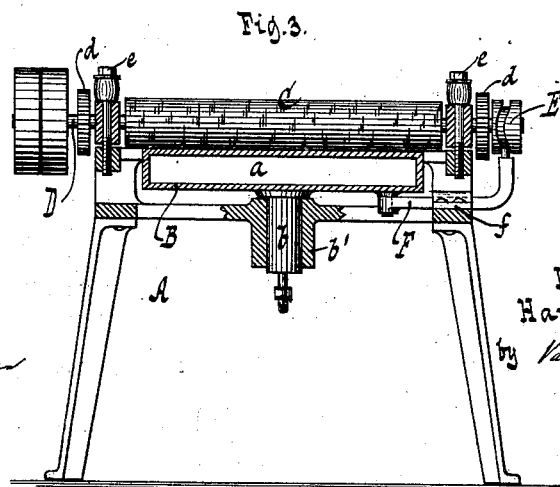
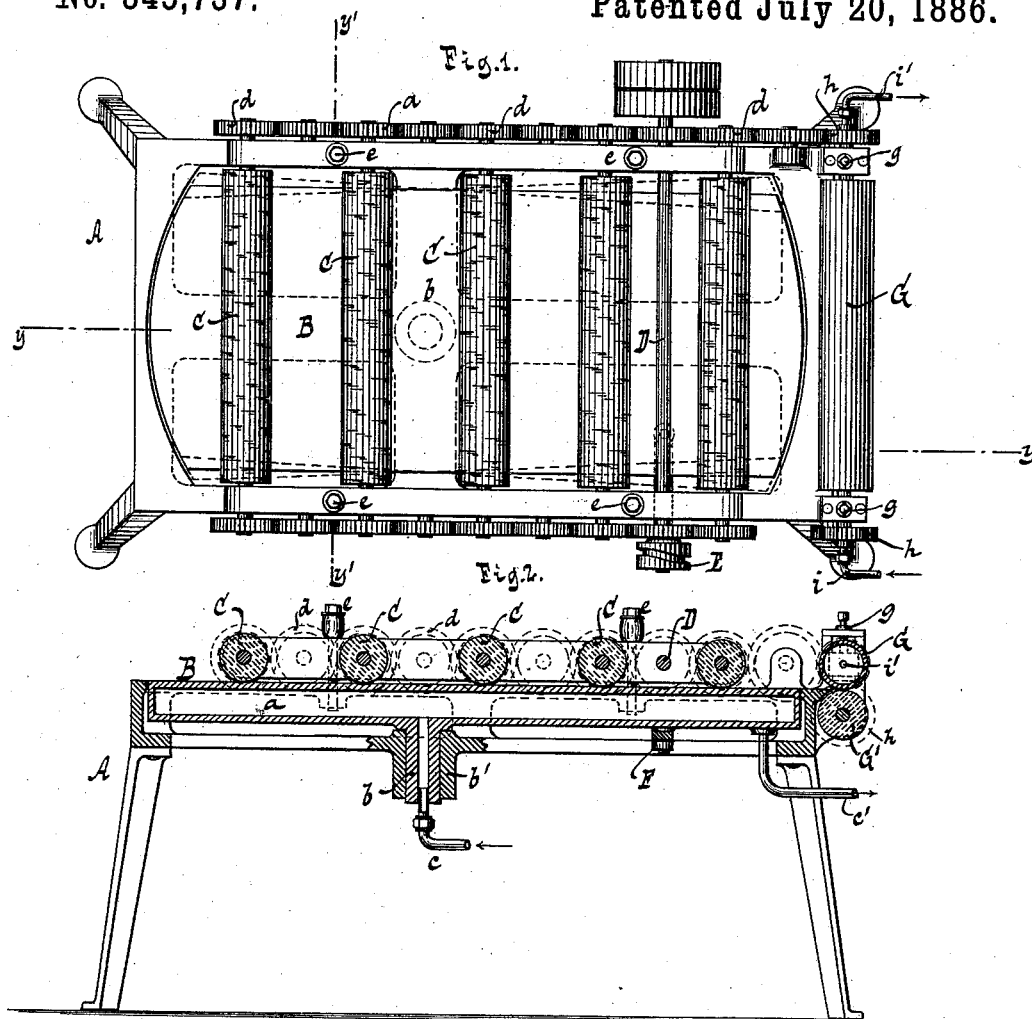


(No Model.)

H. E. SMITH.
IRONING MACHINE.

No. 345,737.

Patented July 20, 1886.



Witnesses
Otto Stufeland
William Miller

Inventor
Hamilton E. Smith
by Van Santvoord & Clark
his att'ys.

UNITED STATES PATENT OFFICE.

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

IRONING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 345,737, dated July 20, 1886.

Application filed April 16, 1885. Serial No. 162,479. (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 and State of New York, have invented new and useful Improvements in Ironing-Machines, of which the following is a specification.

This invention relates to ironing-machines; and it has for its object to provide a novel and efficient machine, especially adapted for ironing collars and cuffs, and which will rapidly and satisfactorily perform its work without liability of damaging the fabric.

To such end the invention consists in the combination of devices hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a plan or top view of my improved ironing-machine. Fig. 2 is a vertical longitudinal section of the same in the plane $y y$, Fig. 1. Fig. 3 is a vertical transverse section in the plane $y' y'$, Fig. 1.

Similar letters indicate corresponding parts.

In the drawings, the letter A designates the frame of the machine, and B is the polishing bed-plate, which is cast hollow, so as to form a chamber, a , therein, into which steam or other suitable agent is introduced to heat the bed-plate, but by preference I use steam for the latter purpose. The polishing bed-plate is mounted on a trunnion, b , which has a suitable bearing, b' , in the frame A, said trunnion being made hollow to allow the introduction of the heating agent into the chamber a , and the heating agent is conducted to the chamber by a supply-pipe, c , and led off by the exit-pipe c' , Fig. 2.

C are the pressure-rollers, having suitable bearings in the frame, and provided with a fabric, such as muslin. These pressure-rollers are provided at their ends with gear-wheels d , which mesh into intermediate gears secured to the frame, motion being given to one pair of the said intermediate gear-wheels by the shaft D, provided with a loose and tight pulley. The rollers bear upon the polishing-bed B, and the pressure of the same thereon can be varied by means of the set-screws e . These rollers C serve to carry forward the goods from the hands of the operator over the heated bed-plate B, to which

an oscillating motion is imparted by means of a curved arm, F, which is pivoted to the bed B at some distance from the trunnion b , and engages with a groove in the cam E, mounted on the shaft D, whereby motion is imparted to said arm for oscillating the bed-plate on its vertical axis. The arm passes through a box, f , in the frame, sufficient room being left on both sides to allow free play of the arm. The oscillating motion given to the bed-plate B imparts a fine polish to the face side of the article—such as collars or cuffs—while passing between the same and the pressure-rollers C. Since the rollers C are somewhat soft, and the bed B polishes the front or face side of the cuff, the hem is necessarily forced into the fabric of the rollers C, so that it stands out.

G G' are the polishing-rolls, having suitable adjustable bearings, g , in the frame A, which are rotated by gears h , connecting by intermediate gear-wheels with one of the gears on the shaft D. The upper roller, G, is made hollow, and is heated by means of steam or other heating agent, which is introduced through one of its hollow journals by a pipe, i , and led away through its other journal by the pipe i' . The lower roller, G', is made of a shaft covered with fabric—such as muslin—and in passing through this pair of rollers the cuff or collar is polished on the opposite side or back, and the hem as distorted by the bed A is forced back into its proper place. By using steam as the heating agent a sufficient degree of heat requisite for the purpose can be obtained, while at the same time an overheating of the rollers and bed to such a degree as to injure the fabric is impossible under the conditions.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the pressure-rollers, of an oscillating polishing bed-plate and the polishing-rollers G G', substantially as shown and described.

2. The combination, in an ironing-machine, of a frame, pressure-rollers journaled thereon, polishing-rollers at one end of the frame, a hollow automatically-oscillated bed-plate, and a conduit for introducing steam into the bed-plate, substantially as described.

3. The combination, with a suitable frame, of the bed-plate swiveled to the frame, the steam-chamber formed therein, the steam supply and exit pipes connected therewith, the rotary shaft and its cam, the arm attached to the bed and engaging the cam, the pressure-rollers, and the polishing-rollers, one of the latter being hollow and heated, substantially as shown and described.

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

HAMILTON E. SMITH.

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.