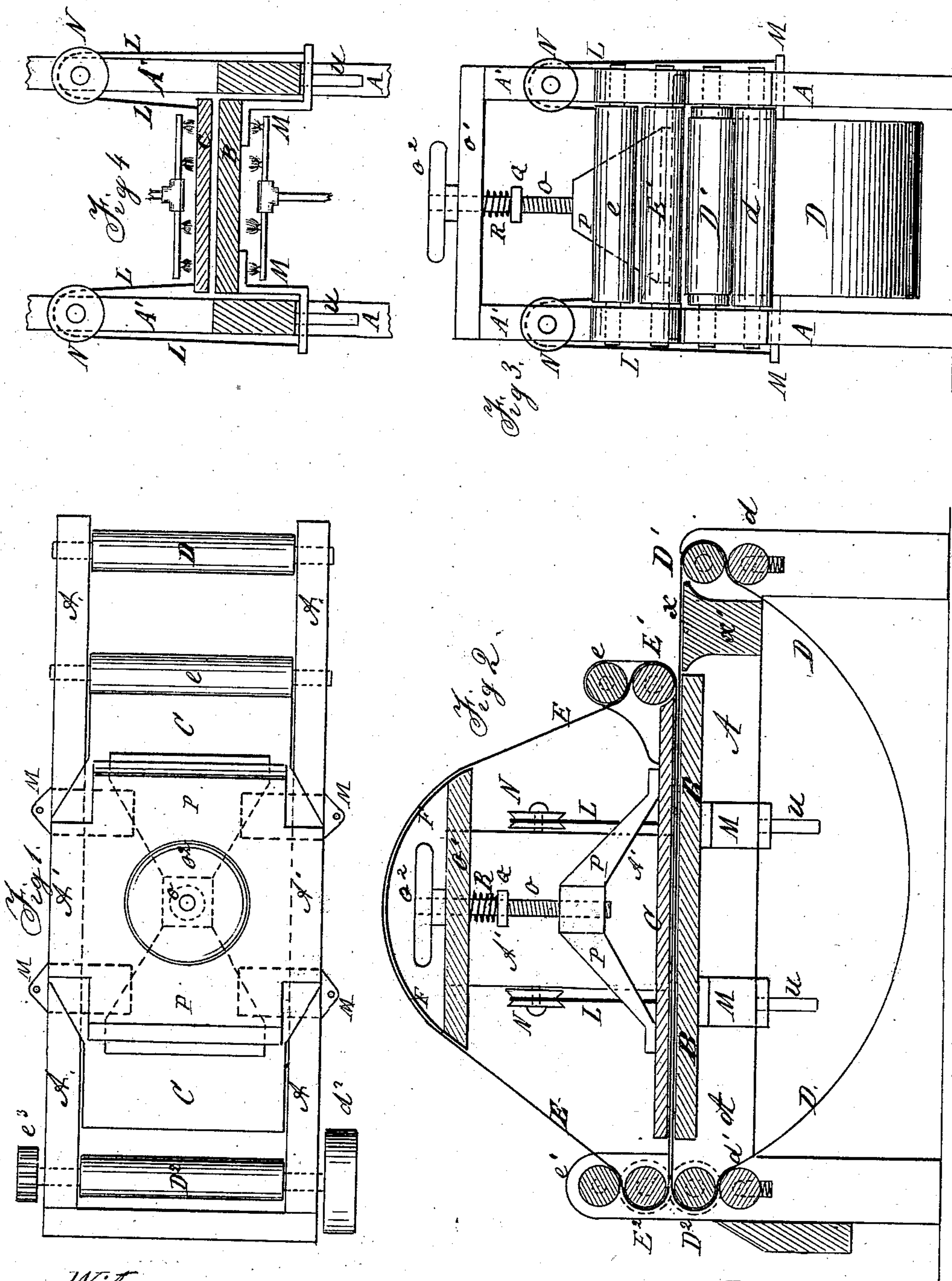


M. STEINBOCK.  
Ironing-Machine.

No. 225,176.

Patented Mar. 2, 1880.



Witnesses.  
Albert H. Hook.  
Thos Crocker

Inventor.  
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# UNITED STATES PATENT OFFICE.

MORRIS STEINBOCK, OF NEW YORK, N. Y.

## IRONING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 225,176, dated March 2, 1880.

Application filed September 24, 1879.

*To all whom it may concern:*

Be it known that I, MORRIS STEINBOCK, of the city, county, and State of New York, have invented an improved machine for ironing or hot-pressing articles of various descriptions, such as cloth, silks, laces, ribbons, &c., which invention is fully set forth in the following specification, reference being had to the annexed drawings.

My invention is an improvement in the class of ironing-machines in which the clothes or goods to be pressed are carried between heated rollers or plates by means of endless traveling aprons.

I adopt such a construction and arrangement of parts that the heated plates may be quickly and conveniently adjusted in a vertical direction and simultaneously to bring them nearer each other or to separate them more widely, for the purpose of graduating the effect of the heat on the goods as conditions may require.

In the drawings, Figure 1 is a plan view of my machine, the two endless aprons and certain other parts being removed. Fig. 2 is a vertical longitudinal section, of the machine. Fig. 3 is an end view, and Fig. 4 a vertical transverse section, thereof, the latter showing only the manner in which the two heated plates are connected together.

In the drawings, A indicates the frame which supports the operative mechanism, and B and C two metal plates, which are, in practice, made of a length and width suitable for the articles that the machine is designed to press. These plates, or at least one of them, B, are to be heated by any convenient means, such as gas-jets or steam. I show in Fig. 4 a suitable arrangement of gas-burners for this purpose.

A pair of endless aprons, D and E, travel through the space between the two heated plates B C, and carry between them the articles to be pressed or ironed. The lower endless apron, D, runs on two rollers, D' and D<sup>2</sup>, having their bearings at the respective ends of frame A, and one of them, D<sup>2</sup>, is furnished at one end with a band-pulley, d<sup>2</sup>, or other means for driving it. The upper apron, E, passes over a pair of rollers, E' and E<sup>2</sup>, the latter, E<sup>2</sup>, having its bearings also in frame A, but the former one, E', may have its bearings attached

to frame A, or to the front end of the plate C. The upper portion of apron D runs over the plate B, while its lower or returning portion hangs slack under the same, as shown in Fig. 2. The lower portion of the apron E runs under the plate C, and the upper portion runs over a curved metal shield, F, affixed to any convenient part of the frame, in order to prevent it from contact with the top of the hot plate C.

To give a certain tension to the working or carrying parts of the two aprons—namely, those parts between the plates B and C—I employ friction-rollers d d' and e e', which may either bear against the apron-carrying rollers D' D<sup>2</sup> and E' E<sup>2</sup> to the degree of their own gravity or be forced against them by springs.

The rollers D<sup>2</sup> and E<sup>2</sup> are geared together by cog-wheels e<sup>3</sup>, which are of equal diameter, so as to insure an equal motion of both aprons. The press-plates B and C are suspended and connected by four cords or chains, L, one end of each being fastened to the top side of the upper plate, C, and the other to an arm, M, which extends laterally from the bottom of the lower plate. Each of these cords runs over a sheave or pulley, N, attached to the frame A. Thus the two plates B and C are held parallel in all positions, and the position of each plate is necessarily governed by the position of the other, as will be readily apparent.

The desired adjustment is effected—that is to say, the plates are raised and lowered—by a vertical screw, O, which is connected with the upper plate, and has a bearing in a cross-bar, O', of the frame A, and is rotated by a handle or hand-wheel, O<sup>2</sup>. The lower end of the screw works in a yoke, P, bolted to the upper plate, C. By turning the said screw either one way or the other, the upper plate, C, is either raised or lowered correspondingly, and the lower plate, by means of its cord-connection with the upper one, is moved in the opposite direction simultaneously—that is to say, it is raised when the upper plate is lowered, and lowered when the upper one is raised.

The position of the two plates determines the degree of pressure that the goods receive between the aprons, and this obviously depends on the adjustment of the screw O; but in order to make this pressure yielding a spiral



spring, R, is placed around the shank of the screw, so as to act between the collar Q and the cross-bar O'.

5 The lower endless apron, D, extends out at the front end beyond the upper apron, E, and thus forms a feed-table, supported by a cross-bar, on which the goods to be pressed can be arranged and straightened before being intro-

10 The goods to be pressed, after being straightened and arranged on the projecting part of the lower apron, pass between the aprons and are carried through between the two heated plates B and C without being brought in ac-

15 tual contact with a rubbing or friction surface. The machine is particularly adapted for pressing or ironing figured goods of uneven surfaces without crushing or unduly flattening out the raised portions of the goods.

20 What I claim is—

1. In a hot-pressing or ironing machine, the combination of the plates and the devices for heating them, the endless aprons which pass between them, and cords or equivalents connecting said plates, and pulleys for guiding 25 said cords, and the supporting-frame, substantially as shown and described, whereby the plates may be simultaneously adjusted for bringing them nearer or removing them farther from each other, as specified. 30

2. In a hot-pressing or ironing machine, the combination of the screw and yoke with the upper and lower plates, the supporting-frame, and the connecting-chains, as shown and described.

MORRIS STEINBOCK.

Witnesses:

ALBERT H. HOOK,  
THOS. CROCKER.