(No Model.)

A. NILES.

IRONING MACHINE.

No. 342,221. Patented May 18, 1886.

Fig. 1.

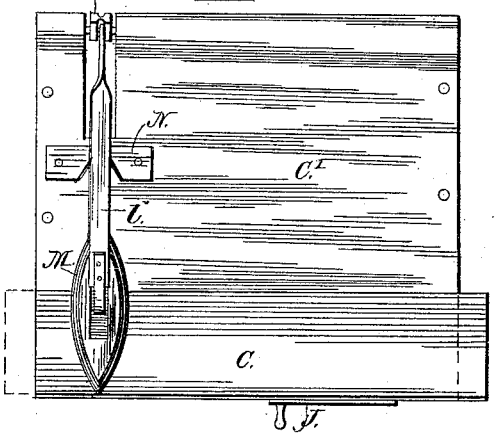

Fig. 2.

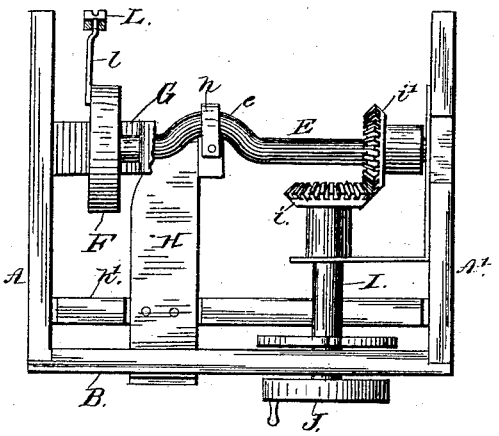

Fig. 3.

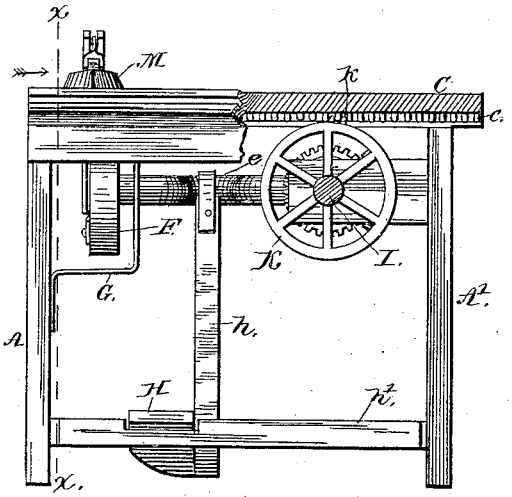

Fig. 4.

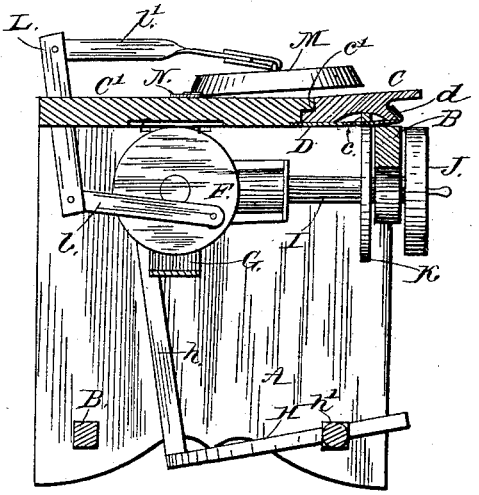

Fig. 7.

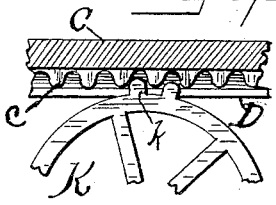

Fig. 5.

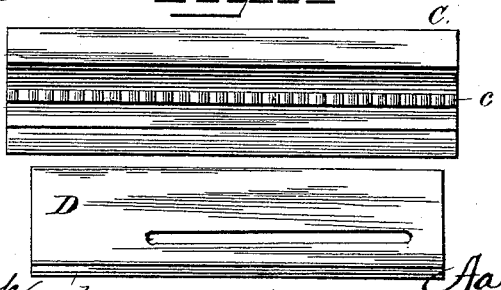

Fig. 6.

WITNESSES:

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UNITED STATES PATENT OFFICE.

AARON NILES, OF MANSON, IOWA.

IRONING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 342,221, dated May 18, 1886.

Application filed December 23, 1885. Serial No. 186,518. (No model.)

To all whom it may concern:

Be it known that I, AARON NILES, a citizen of the United States, residing at Manson, in the county of Calhoun and State of Iowa, have invented certain new and useful Improvements in Ironing-Machines; and I do 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 the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to ironing-machines; and it has for its object to improve and simplify the mechanism whereby the iron is reciprocated and a positive feed given to the ironing-table. A further object is to combine with the ironing-table a spring-support to normally hold it out of the path of the intermittently-feeding mechanism, to prevent the ironing of an article on one place, when by the application of a slight pressure the table will be thrown within the path of its feeding devices and mechanically moved in the desired direction. A still further object consists in combining with the machine a stop, and in so proportioning the operating mechanism that at or a little before the ironing-table is actuated the iron contacts with the stop, and a continued motion elevates its front or forward end clear of the table, thereby avoiding any gathering or puckering of the article to be ironed.

With these ends in view the invention consists in the novel features of construction shown, and in the combination of parts, more fully hereinafter set forth and claimed.

In the drawings, Figure 1 is a plan view of my machine. Fig. 2 is a similar view with the cover removed. Fig. 3 is a front elevation with a portion broken away. Fig. 4 is a section on the line *x x* of Fig. 3, looking in the direction of the arrow. Fig. 5 is a bottom plan view of the ironing-table. Fig. 6 is a plan view of the spring detached. Fig. 7 is an enlarged detail view of the mutilated gear in engagement with the toothed rack.

The frame of the machine consists of sides A A′, braced by suitable cross-bars, B, which support a table composed of two parts, C C′, the latter being fixed and the former movable relative thereto. The forward edge of the part C′ is rabbeted, leaving a longitudinal ledge, *c′*. The adjacent edge of the ironing-table proper, C, is correspondingly rabbeted to fit the part C′, and its outer lower edge is outwardly projected to fit into the space formed by bending the outer edge, *d*, of the spring-plate D upward and inward. This plate is secured at its inner edge to the part C′, and is bent slightly upward to support and normally hold the ironing-table C at an elevation. A shaft, E, is journaled between the sides of the frame below the table, and has a disk, F, keyed to one end, which is supported in a bracket, G. This shaft is preferably provided with a crank, *e*, which is connected by a pitman, *h*, to a treadle, H, supported by the shaft *h′*. A shaft, I, is journaled in the frame at right angles to the shaft E, and has a bevel-gear, *i*, on its inner end, to mesh with a corresponding bevel-gear, *i′*, on the shaft E. The outer end of the shaft I is provided with a crank or hand wheel, J. An intermittent feeder or mutilated gear, K, is keyed to the shaft I, and has teeth *k*, which are designed to intermittently engage a toothed rack, *c*, depending from the ironing-table, and feed the same in the desired direction. A lever, L, pivoted between its ends in a slot in the rear side of the part C′, is arranged to vibrate about its pivot and at right angles to the movement of the part C of the table in a vertical direction. The lower end of the lever is connected eccentrically to the disk F by a link, *l*, and a link, *l′*, extending from its upper end, connects with an iron, M, which is preferably formed with converging ends, the rear one of which engages a correspondingly-shaped stop, N.

It will be seen that the shaft E may be rotated either by hand or foot, or both, as desired. Motion being imparted to the shaft, the iron M will receive a to-and-fro motion at right angles to the ironing-table C. At each backward movement of the iron it will contact with the stop N, and its forward end be elevated, as shown, simultaneously with the elevating of the forward end of the iron, or a moment thereafter, and while it is elevated

the teeth *k* of mutilated gear K will be in a position to engage the toothed rack on the table and feed the latter; but as this contacting only takes place when the table is depressed, which may be obtained by a slight pressure from the hand of the operator, it is evident that an article may be ironed at any one point as long as desired; also, that when depressed the table will only be moved when the iron is elevated, thus avoiding puckering of the article ironing.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination of the ironing-table composed of the fixed and movable parts, the reciprocating iron, an intermittent feeder for the movable part, and a spring-support normally holding the movable part of the table out of the path of the feeder, substantially as and for the purpose set forth.

2. The combination, with the table, the iron, and mechanism, as described, for reciprocating the iron, of a stop to engage the iron in its traverse and elevate its forward end, substantially as described, and for the purpose specified.

3. The combination, with a table composed of a fixed part and an intermittently-moved part, and an iron reciprocated across the latter at nearly right angles to its intermittent movement, of a stop on the fixed part to contact with the iron at its backward movement and elevate the front end of the iron clear of the movable part during the movement of the latter, substantially as set forth.

4. The combination of a table consisting of a fixed part and a movable part, a spring-support for the movable part to normally hold it at a slight elevation, a rack attached thereto, a crank-shaft journaled beneath the table, a feed-shaft journaled at right angles to the crank-shaft and geared to rotate therewith, a mutilated gear keyed to the latter shaft to engage the rack on the table, an iron, levers connecting the iron with the crank-shaft, and a stop located on the fixed part of the table, all constructed to operate substantially in the manner hereinbefore set forth.

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

AARON NILES.

Witnesses:
H. J. GRISWOLD,
EDWARD WILSON.