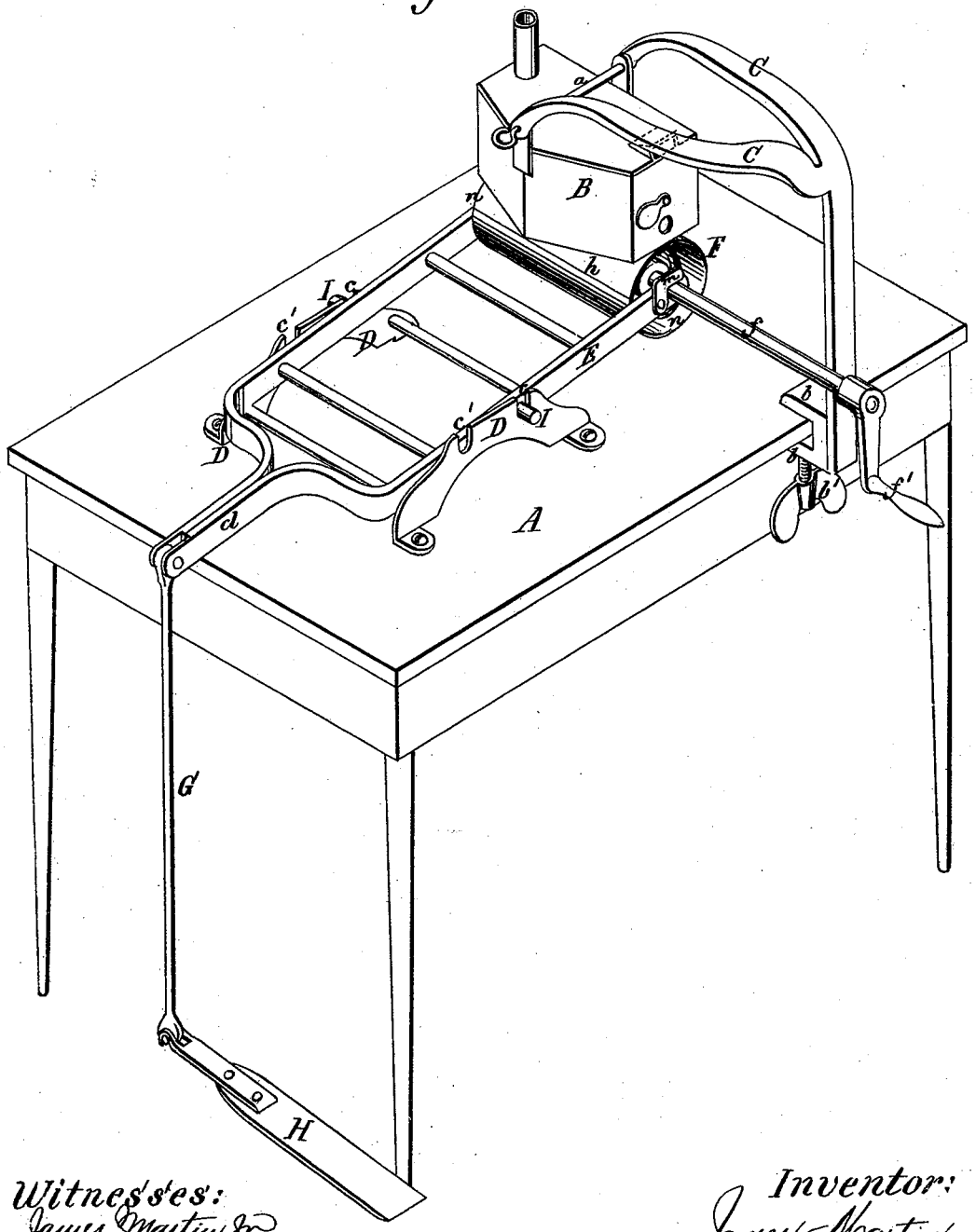
2 Sheets—Sheet 1.

J. MARTIN.

IRONING APPARATUS.

No. 180,047. Patented July 18, 1876.

Fig 1.



Witnesses:
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J. P. Theodore Lang

Inventor:
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2 Sheets—Sheet 2.

J. MARTIN.

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No. 180,047. Patented July 18, 1876.

Fig 2.

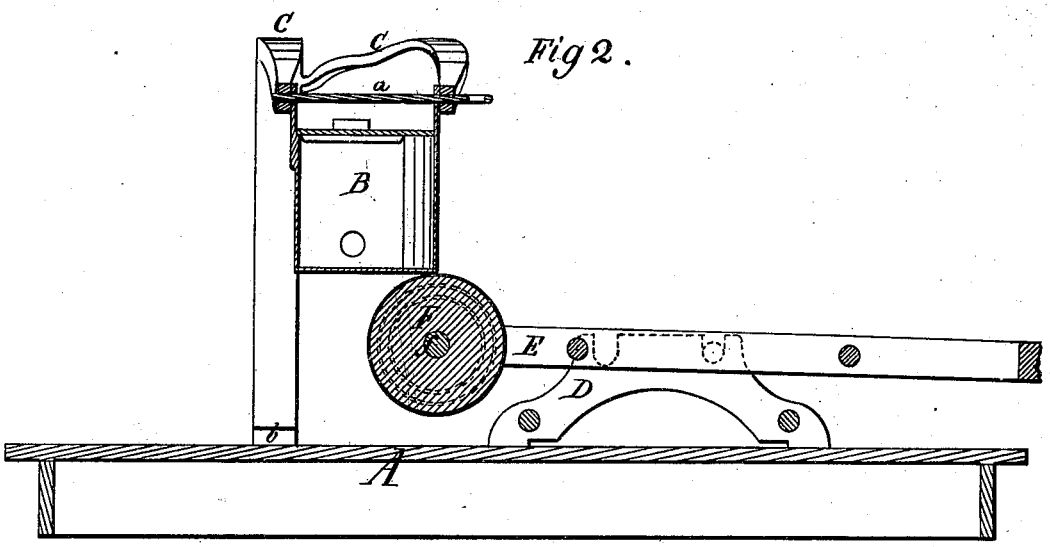

Fig 3.

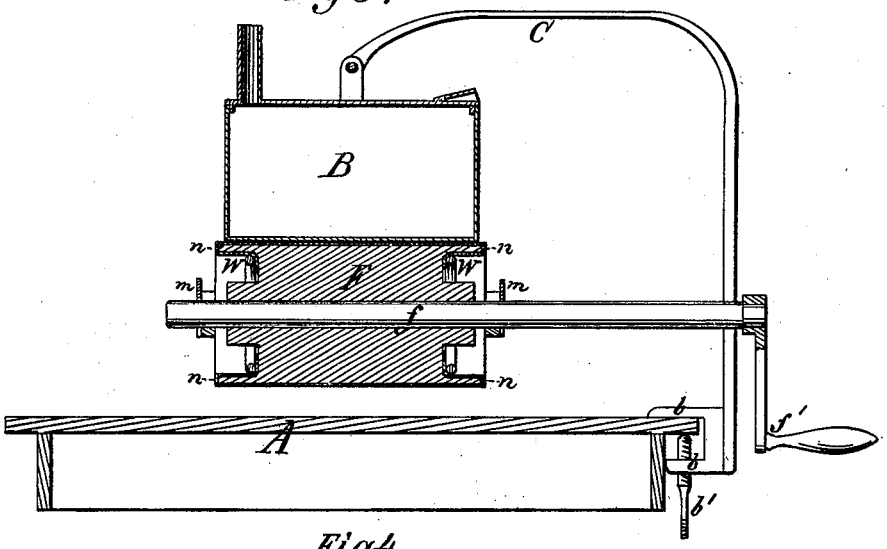

Fig 4.

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UNITED STATES PATENT OFFICE.

JAMES MARTIN, OF GOLIAD, TEXAS.

IMPROVEMENT IN IRONING APPARATUS.

Specification forming part of Letters Patent No. **180,047**, dated July 18, 1876; application filed July 8, 1876.

To all whom it may concern:

Be it known that I, JAMES MARTIN, of Goliad, in the county of Goliad and State of Texas, have invented a new and Improved Ironing-Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of my improved machine as adjusted for ironing garments having broad smooth surfaces. Fig. 2 is a longitudinal section of the machine as adjusted for ironing plaited and ruffled portions of a garment. Fig. 3 is a vertical transverse section of the machine. Fig. 4 is an elevation of one of the expansible rings of the ironing-roller.

The object of my invention is to produce a cheap portable ironing-machine, with which any capable person (and even children) can, with very little fatigue and labor, do the ironing for a large family in a very short time, and such machine to have its smoothing-iron heated by fuel placed and burned within it, or by the flame of gas-jets applied to it in any proper manner.

The nature of my invention consists, first, in an adjustable rotary ironing-bed in form of a roller, in combination with a smoothing-iron, this combination being such that the rotary bed is adjustable away from the smoothing-iron, so as to make room for the introduction of the garments between it and the iron, and toward the iron, for the purpose of securing the necessary pressure for carrying the garments through the machine, and for ironing them smooth.

It consists, second, in a rotary ironing-bed in form of a roller, applied in a frame, so as to be adjusted with its axis either near the point of the smoothing-iron or near the center of said iron, whereby the machine is adapted for ironing garments with either broad smooth surfaces or narrow plaited and ruffled surfaces, or with a curved outline.

It consists, third, in the combination of a swinging frame, adapted to be worked by a foot-treadle, and carying a rotary ironing-bed, provided with a crank-handle, by which it is turned; a portable standard for supporting the said swinging frame; and a portable bracket carrying a smoothing-iron, the whole constituting an improved ironing-machine adapted for attachment to any ordinary table.

It consists, fourth, in a rotary ironing-bed, formed of a solid roller-shaped core and a removable cloth surface, which is held in place upon the core by means of expansible rings and end flanges of the core, whereby is produced a rotary ironing-bed with a surface which, when worn out or soiled, can be readily removed, repaired, washed, and replaced, or substituted by a new surface or covering.

It consists, fifth, in adjustable clamps for holding the rotary ironing-bed in its bearings, in combination with the half-bearings of the shaft of the ironing-bed, and an ironing-bed formed of a solid core and a cloth surface, whereby facilities for removing the rotary bed for repairs, and for replacing it in position after repairs, are afforded.

To enable others skilled in the art to make and use my invention, I will proceed to describe one practical way of constructing the same; but I do not intend to be understood as limiting myself to the precise construction shown, as other equivalent constructions may be adopted without departing from the principle thereof.

In the accompanying drawings, A is intended to represent any suitable table or support, to which the machine may be attached. This is no fixed part of the machine. B is an ordinary hollow smoothing-iron with a draft-passage, movable top, and smoke or gas pipe. This iron is heated by charcoal or other suitable combustible material placed within it, or by jets of gas-flame applied to its sides or otherwise. The form of this iron is somewhat different from ordinary self-heating irons, being made broader than usual, in order that it may extend from one end of the ironing-bed to the other. C is a curved overhanging forked bracket, and to the upper end of this bracket the smoothing-iron is attached by means of a pivot, *a*, passed transversely through the prongs of the bracket and brackets at the top of the iron. The smoothing-iron is hung in a balance on its pivot, and always adjusts itself to a horizontal position when unrestrained. The bracket C is made

with a slight spring between its ends, and has ordinary clamping-jaws *b b*, and a set-screw, *b'*, at its lower end, by which it is fastened to the table A. The spring in the bracket permits the smoothing-iron to yield slightly whenever necessity requires during the ironing operation. D is a standard, with screw-holes in the flanges of its legs, in order that it may be fastened to the top of the table. This standard has two pairs of half-bearing notches, *c c'*, in the top of its side pieces.

E is a swinging or vibrating frame, carrying a rotary ironing-bed, F, on its rear end, and having an arm, *d*, on its forward end, by which it is connected to a treadle movement, G and H. This frame has bearing-journals I I on its side pieces, and these rest in one or the other pair of half-bearing notches *c c'*, as circumstances require.

If the ironing-bed is to have its axis under the center of the iron, as in Fig. 1, in order to iron wide and plain garments, the shaft rests in the notches *c;* but if the axis of the ironing-bed is to be under the point of the iron, in order to iron narrow, plaited, and ruffled garments, as in Fig. 2, then the shaft rests in the notches *c'*.

The adjustment from one set of notches to the other is effected by lifting the frame, with its ironing-bed, out of the notches *c*, and moving it forward to the notches *c'*. The weight of that end of the frame which carries the roller preponderates over that of the opposite end, and, therefore, the ironing-bed always falls away from the iron when not restrained.

The ironing-bed F is composed of a bearing-shaft, *f*, with a crank-handle, *f'*, on one of its ends, a solid core, *g*, in form of a roller, and a cloth surface or covering, *h*. The shaft rests in half-bearings of the frame E, and is confined or clamped in place, so as to turn by means of pivoted elbow-pieces *m*. The covering of the ironing-bed is rolled around the core, and its ends turned in against flanges *n n*, formed on the ends of the core, and fastened securely by expansible cut rings *w*, which are placed within the flanges in a contracted state, and allowed to expand against the turned-in ends of the cloth covering.

In case it is necessary to remove the covering *h*, it can be done by lifting the shaft out of its half-bearings, (which is allowed by turning up the pieces *m*,) and withdrawing the cut rings; and when this is effected the covering may be removed for repair, washing, or other purpose, and by repeating the operation of setting and confining the shaft in position, and fastening the repaired, cleansed, or new covering of the ironing-bed to its core, the machine will be again ready for use.

The operation, which is very simple, is as follows: The iron being properly heated, and the rotary bed allowed to drop away by its gravity from the iron, the clothes are, piece by piece, passed through the machine, and during the passage of the pieces the operator presses his foot down upon the treadle, and turns the crank-handle. The treadle pressure and rotary motion together insure the proper ironing and feed of the clothes through the machine.

It might be more convenient, with the machine as represented, to have one person turn the crank and another operate the treadle; but in constructing the machine on a large scale, the treadle and crank will be placed in such convenient relation to one another that one person can operate both.

Instead of having the rotary ironing-bed swing on a pivot, it might be raised in a straight line; but I prefer to have it swing, as it is far more simple and convenient for operating.

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

1. The combination of a smoothing-iron, the front of which diverges from a central point to the side ends of the iron, and a rotary and vertically adjustable ironing-bed, substantially as herein described.

2. A rotary ironing-bed applied in a frame, which is adjustable horizontally back and forth under a smoothing-iron, substantially as and for the purpose described.

3. The combination of a swinging frame, adapted to be worked by a foot-treadle, and carrying a rotary ironing-bed, provided with a hand-crank for turning it, a standard for supporting the said frame and its ironing-bed, and a portable bracket carrying a smoothing-iron, substantially as described.

4. The rotary ironing-bed, constructed substantially as described, and having its outer cloth covering or surface fastened by expanding cut rings, for the purpose set forth.

5. The adjustable clamps for holding the rotary ironing-bed in place, in combination with the half-bearings of the shaft of the ironing-bed, and an ironing-bed formed as described, all for the purpose set forth.

Witness my hand in the matter of my application for a patent for an ironing-machine this 8th day of July, 1876.

JAMES MARTIN.

Witnesses:

JAMES MARTIN, Jr.,

J. P. THEODORE LANG.