

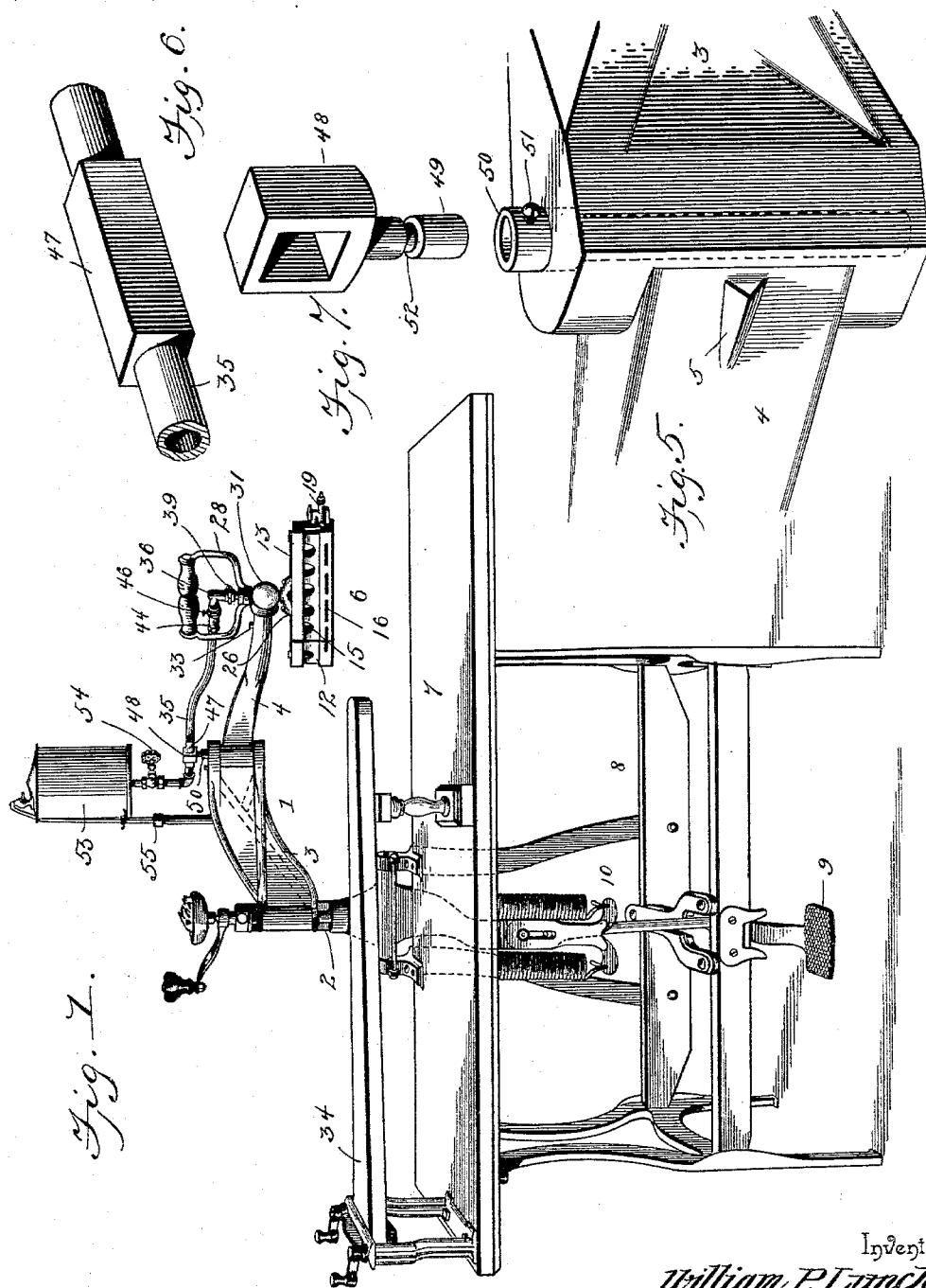
(No Model.)

2 Sheets—Sheet 1.

W. P. LYNCH.
IRONING MACHINE.

No. 597,322.

Patented Jan. 11, 1898.



Inventor
William P. Lynch,

Witnesses

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By *his* Attorneys,

Ca Snow Geo.

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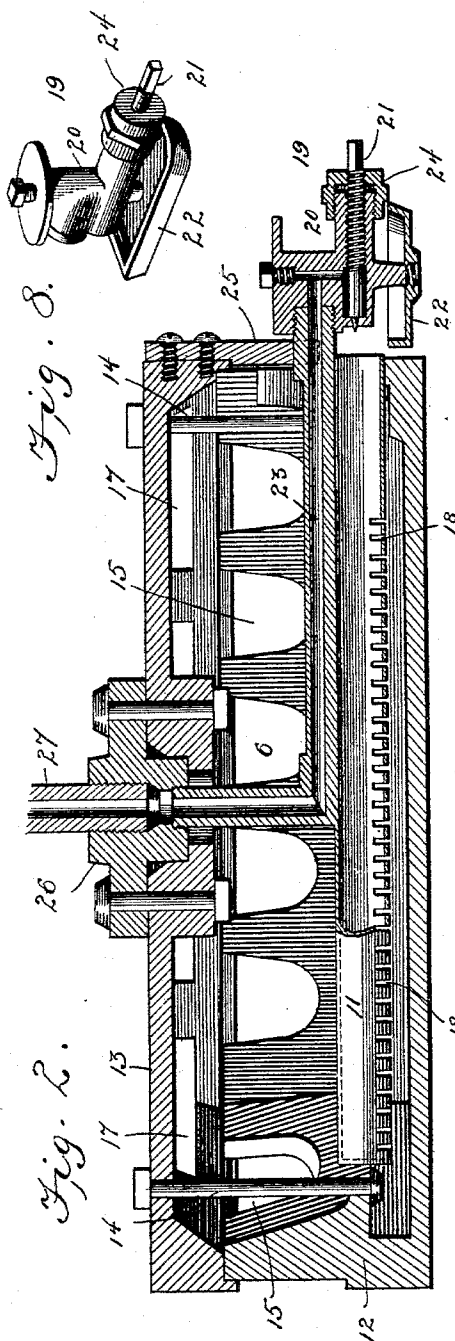


Fig. 2.

Fig. 3.

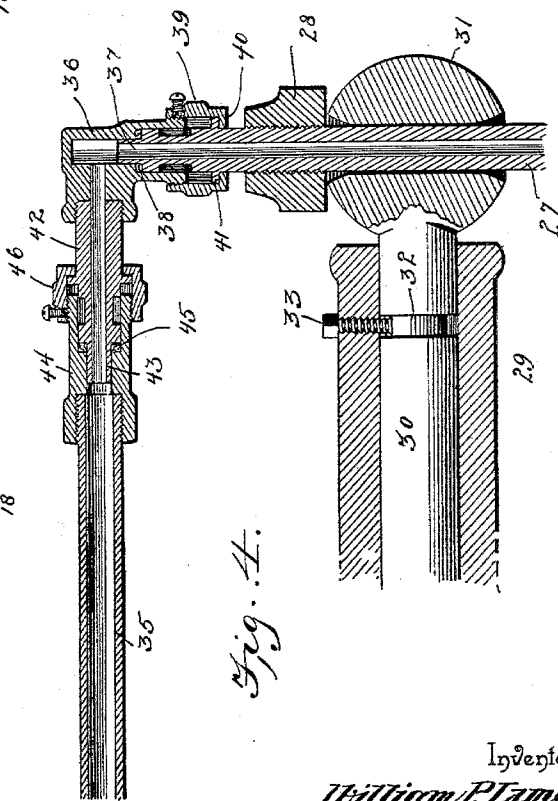
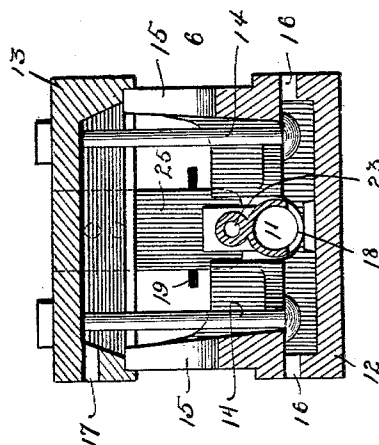


Fig. 4.

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UNITED STATES PATENT OFFICE.

WILLIAM PATRICK LYNCH, OF CANTON, NEW YORK.

IRONING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 597,322, dated January 11, 1898.

Application filed September 24, 1896. Serial No. 606,853. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM PATRICK LYNCH, a citizen of the United States, residing at Canton, in the county of St. Lawrence and State of New York, have invented a new and useful Ironing-Machine, of which the following is a specification.

The invention relates to improvements in ironing-machines.

10 The object of the present invention is to provide for that class of ironing-machines adapted to be employed in laundries and in tailoring establishments for pressing clothes and the like simple and effective means for heating the iron by gasolene and for affording a continuous supply of the latter without the reservoir or pipe connections between the same and the iron interfering with the free use of such iron.

20 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

25 In the drawings, Figure 1 is a perspective view of an ironing or pressing machine provided with heating means constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the iron. Fig. 30 3 is a transverse sectional view of the same. Fig. 4 is a sectional view illustrating the construction of the swivel connections at the elbow-joint of the supply-pipe. Fig. 5 is a detail perspective view of the joint of the swinging arm. Fig. 6 is a detail perspective view of the polygonal portion for the supply-pipe. Fig. 7 is a similar view of the swiveled sleeve or support of the same. Fig. 8 is a detail perspective view of the gas-generator.

40 Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a swinging arm of an ironing or pressing machine which is adapted to be used in laundries and in tailoring establishments for pressing goods and for similar operations, and the swinging arm, which is mounted on a tilting standard or lever 2, is composed of inner and outer sections 3 and 4, hinged at their adjacent ends, and the outer section is provided at the rear side of the joint with a stop 5 to limit the independent swing of

the outer arm, which carries an iron 6. The tilting standard or lever 2 is pivoted or fulcrumed on a table 7 of a main frame 8, a treadle 9 being connected with the lever or standard for the purpose of forcing the iron 6 downward. The iron is lifted and normally maintained elevated by a pair of springs 10, connected with the standard or lever 2 and with the table of the supporting-frame.

The iron 6, which is swiveled to the outer end of the swinging arm 1, consists of a hollow casing receiving a burner 11 and composed of a body portion 12 and a separate top portion 13, which is secured to the body portion by vertical bolts 14. The vertical bolts 14 have their heads arranged at their lower ends and engaged with lugs arranged on the interior of the body portion 12, and the upper ends of the bolts pass through perforations of the top 13 of the iron and are provided with exteriorly-arranged nuts. The body portion of the iron is provided at opposite sides with upper openings 15 and having lower slots 16, and the top 13 is provided with openings 17. These openings 15, 16, and 17 permit the necessary access of air to the interior of the iron for the purpose of supporting combustion.

80 The burner 11, which is provided at its bottom with transverse slots 18 to throw the flame against the bottom of the iron, has its front end closed and its rear end open, and a gas-generator, which is arranged at the back of the burner, consists of a valve-casing 20, an adjusting-screw 21, and a pan 22, which is located beneath the valve-casing and is adapted to receive a quantity of gasolene in the usual manner before the burner is lighted for the purpose of heating the generator. The valve-casing 20, which is arranged at the back of the iron, screws onto the rear end of an L-shaped branch or section 23 of the supply-pipe and is provided with a longitudinal passage-way for the screw 21, which is provided with a needle-point arranged in a perforation disposed opposite the open end of the burner 11. The pan 22, which is detachable, is provided with a threaded opening and screws on a threaded stud which depends from the casing with which it is formed integral. The upper portion of the casing is provided with vertical and horizontal pas-

sage-ways extending from the rear end of the supply-pipe to the longitudinal passage-way in which the screw is mounted. The screw engages a threaded perforation of a collar 24, and its outer end is squared for the reception of a key which enables the screw to be manipulated to regulate the flow of the gas and the consequent heating power of the burner.

The L-shaped branch 23 of the supply-pipe, which is located within the iron 6, extends from the center of the top thereof to the rear end of the same. It is preferably secured to or formed integral with the burner, and it is supported at its rear end by a plate 25, which has its lower end bifurcated and straddling the rear end of the branch 23 of the supply-pipe. The upper end of the branch 23 is secured to a coupling-plate 26, attached to the top of the iron by bolts and provided with a central opening. The lower portion of the central opening of the coupling-plate 26 receives the branch 23, and the upper portion of the said opening receives a vertical branch or section 27, which forms a pivot for the iron and to which the handle 28 of the iron is attached.

The outer end of the swinging arm 1 is provided with a longitudinal socket 29, receiving a swiveled pin 30, which is provided at its outer end beyond the arm with a head 31, having an opening through which passes the pivot-section 27 of the supply-pipe. The pin 30 is provided with an annular groove 32 and is engaged by a screw 33, which is mounted in a threaded perforation of the outer section 4 of the swinging arm and which projects into the groove 32.

The handle 28, which consists of a substantially rectangular open frame, is provided at its top with a handle-piece and has a central perforation at its bottom to receive the pivoted section 27, to which it is fixed, whereby the handle is rigidly connected with the iron and is adapted to manipulate the same. The iron is adapted to be moved forward and backward longitudinally of an ironing-board 34. Owing to the horizontally-swinging jointed arm 1, it is capable of a horizontal rotary movement on the vertical pivoted section 27 and a tilting movement on the horizontal swiveled pin 30, and it is also adapted to be moved upward and downward by the machine.

The upper end of the pivot-section 27 is connected with a substantially horizontally disposed section 35 of the feed-pipe by an elbow 36, swivel-joints being provided at the ends of the elbow to permit the supply-pipe to conform to the movements of the iron without leaking.

The upper end 37 of the pivot or male section 27 is reduced to form an exterior shoulder and the lower portion of the vertical arm or female section of the elbow has its bore enlarged to form an interior shoulder. The reduced upper end 37 of the male section fits in the smaller portion of the bore or opening of the vertical arm of the elbow or the female

section of the swivel-joint, and the adjacent portion of the pivot branch or section 27 is arranged in the enlarged lower portion of the bore or opening. A packing 38 is interposed between the exterior shoulder of the pivot-section 27 and the interior shoulder of the vertical branch of the elbow. The lower end of the elbow is exteriorly threaded and engaged by a collar 39, which is interiorly threaded at one end and which is provided at its other end with an inwardly-extending flange 40 for engaging an exterior flange or shoulder 41 of the pipe-section 27. A clamping-screw is mounted on the collar 39 and engages the elbow to prevent the parts from accidentally unscrewing.

The swivel-joint at the horizontal arm of the elbow is constructed in substantially the same manner as the one just described. The horizontal arm of the elbow is provided with an extension 42, which has its outer end 43 produced upon the exterior shoulder and is received within a coupling 44, having its bore or opening centrally reduced to receive the said end 43, and a packing-ring 45 is interposed between the shoulders of the coupling and the arm of the elbow. The coupling 44 is secured to the arm of the elbow by a collar 46, interiorly threaded at one end to receive the exteriorly-threaded end of the coupling, and provided at its other end with an inwardly-extending flange which engages with a corresponding annular flange or shoulder of the extension-arm 42 of the elbow. The collar is also provided with a clamping-screw arranged to engage the coupling to prevent the parts from unscrewing. By this construction the elbow is swiveled to the adjacent horizontal and vertical branches of the supply-pipe and perfect oil-tight joints are provided, and the elbow is arranged within the handle and does not interfere with the operator in grasping the same.

The substantially horizontally disposed branch 35 of the supply-pipe is provided with a polygonal portion 47, preferably rectangular in cross-section, arranged within a corresponding sleeve or support 48, the polygonal portion 47 being adapted to slide in the sleeve or support 48 sufficiently to permit the necessary play of the feed-pipe. The swiveled sleeve or support 48 is provided with a depending pin 49, arranged in a vertical socket 50 of the pivot or pintle of the jointed arm 1, and the pin is retained in the vertical socket of the jointed arm by a screw 51, which engages an annular groove 52 of the pin or stem 49.

The polygonal sleeve or support and the polygonal portion of the supply-pipe prevent the supply-pipe from turning and enable the same to support a reservoir 53. The reservoir 53 is mounted on a vertical branch or extension of the section 35, and a cock 54 is provided to regulate the flow of the gasoline and shut the same off when the iron is not in use.

An air-pump 55, similar to those employed for inflating bicycle-tires, is connected with the reservoir to obtain the necessary pressure for driving the gasoline through the feed or supply pipe, but such pressure is not applied to the reservoir until after the pan of the generator has been used.

It will be seen that the reservoir and the pipe connections between the same and the iron are out of the way and that the pipe connections are adapted to yield to the movements of the iron and have perfectly oil-tight joints.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

What I claim is—

1. In a machine of the class described, the combination of a horizontally-swinging arm hinged at its inner end, and composed of inner and outer sections hinged at their adjacent ends and adapted to be arranged at an angle to each other, an iron mounted on the outer end of the said arm and provided with an interior burner, a feed or supply pipe mounted on and extending longitudinally of the outer section of the swinging arm to the said burner, and having a vertical portion constituting the pivot of the iron to permit the same to swing horizontally, a reservoir mounted on the inner end of the feed or supply pipe and located above the hinge-joint of the inner ends of said sections, and a support receiving the inner portion of the feed or supply pipe, and pivotally mounted in the same vertical plane as the said hinge-joint of the sections, substantially as described.

2. In a machine of the class described, the combination of a horizontally-swinging jointed arm, an iron mounted on the outer end of the arm, provided with an interior burner and capable of a horizontal and vertical pivotal movement, a supply-pipe extending along the outer section of the jointed arm to the burner and provided with movable joints to permit the play of the iron, said supply-pipe being provided at the joint of said arm with a polygonal portion and having an upwardly-extending branch, a reservoir mounted on the upwardly-extending branch, and a polygonal sleeve or support swiveled to the arm at the joint thereof, receiving the polygonal portion of the supply-pipe and permitting the same to slide therein, substantially as and for the purpose described.

3. In a machine of the class described, the combination of a horizontally-swinging jointed arm, an iron mounted on the outer end thereof, provided with an interior burner and capable of horizontal and vertical pivotal movement, and a supply-pipe comprising a substantially horizontally disposed branch extending along the outer section of the jointed arm, a vertical branch connected with

the burner, and an elbow connected with the two said branches and provided with vertical and horizontal swivel-joints, substantially as described.

4. In a machine of the class described, the combination of a horizontally-swinging jointed arm, an iron mounted on the outer end thereof, provided with an interior burner and capable of horizontal and vertical pivotal movement, a supply-pipe comprising a substantially horizontally disposed branch extending along the outer section of the jointed arm, a vertical branch connected with the burner, and an elbow connected with the two said branches, vertical and horizontal swivel-joints connecting the elbow with the said branches each swiveled joint consisting of a female section having the outer portion of its bore enlarged, a male section having its end reduced to fit in the smaller portion of said bore and provided with an exterior annular shoulder, and an interiorly-threaded collar screwing on the female section and provided with an inwardly-extending annular flange engaging the annular shoulder of the male section, substantially as described.

5. In a machine of the class described, the combination of a horizontally-swinging jointed arm provided at the top of its joint with a vertical socket, an iron mounted on the outer end of the jointed arm and provided with a burner, a supply-pipe extending along the arm, communicating with the burner of the iron, and provided adjacent to the joint of said arm with a polygonal portion, a sleeve or support receiving and conforming to the configuration of the polygonal portion of the supply-pipe, and provided with a depending stem having an annular groove fitting in the vertical socket of said arm, a fastening device engaging the groove of the stem and swiveling the same in the said socket, and a reservoir supported by the inner end of the supply-pipe, substantially as described.

6. In a machine of the class described, the combination of a horizontal swinging arm, an iron mounted on the same and provided with a burner, a support carried by the horizontal arm, a supply-pipe mounted to slide a limited longitudinal distance in the support and having a vertical and a horizontal portion connected by vertical and horizontal swivel-joints, the vertical joint permitting the iron to swing horizontally and the horizontal joint facilitating a tilting movement of the iron, and a reservoir mounted upon the inner or rear end of the supply-pipe, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM PATRICK LYNCH.

Witnesses:

A. TRACY MARTIN,
H. L. WALLACE.