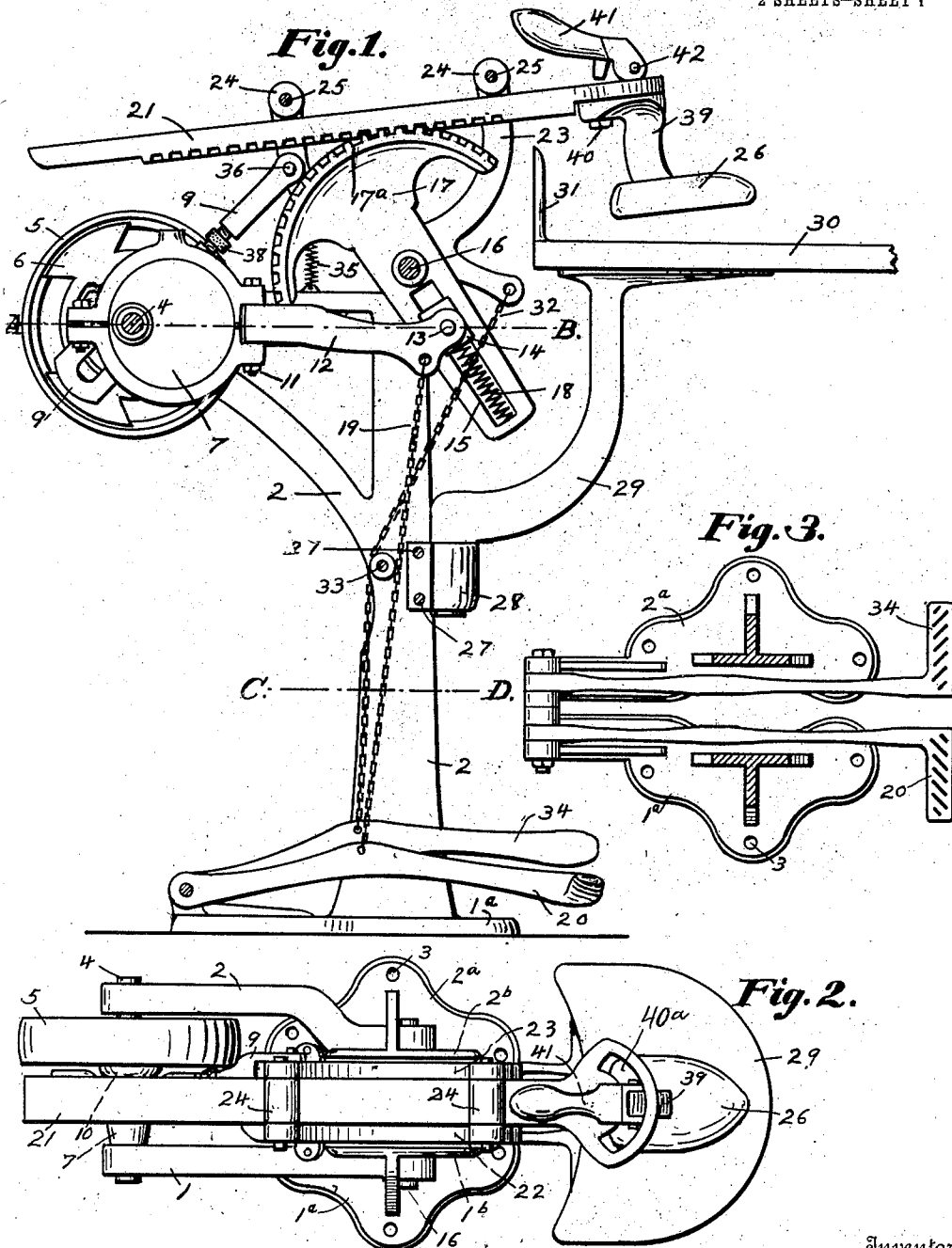


C. M. APPELEGET.
IRONING MACHINE.
APPLICATION FILED FEB. 27, 1912.

1,046,936.

Patented Dec. 10, 1912.

2 SHEETS—SHEET 1



Witnesses

W. H. Needham

Inventor

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Max A. Schmidt

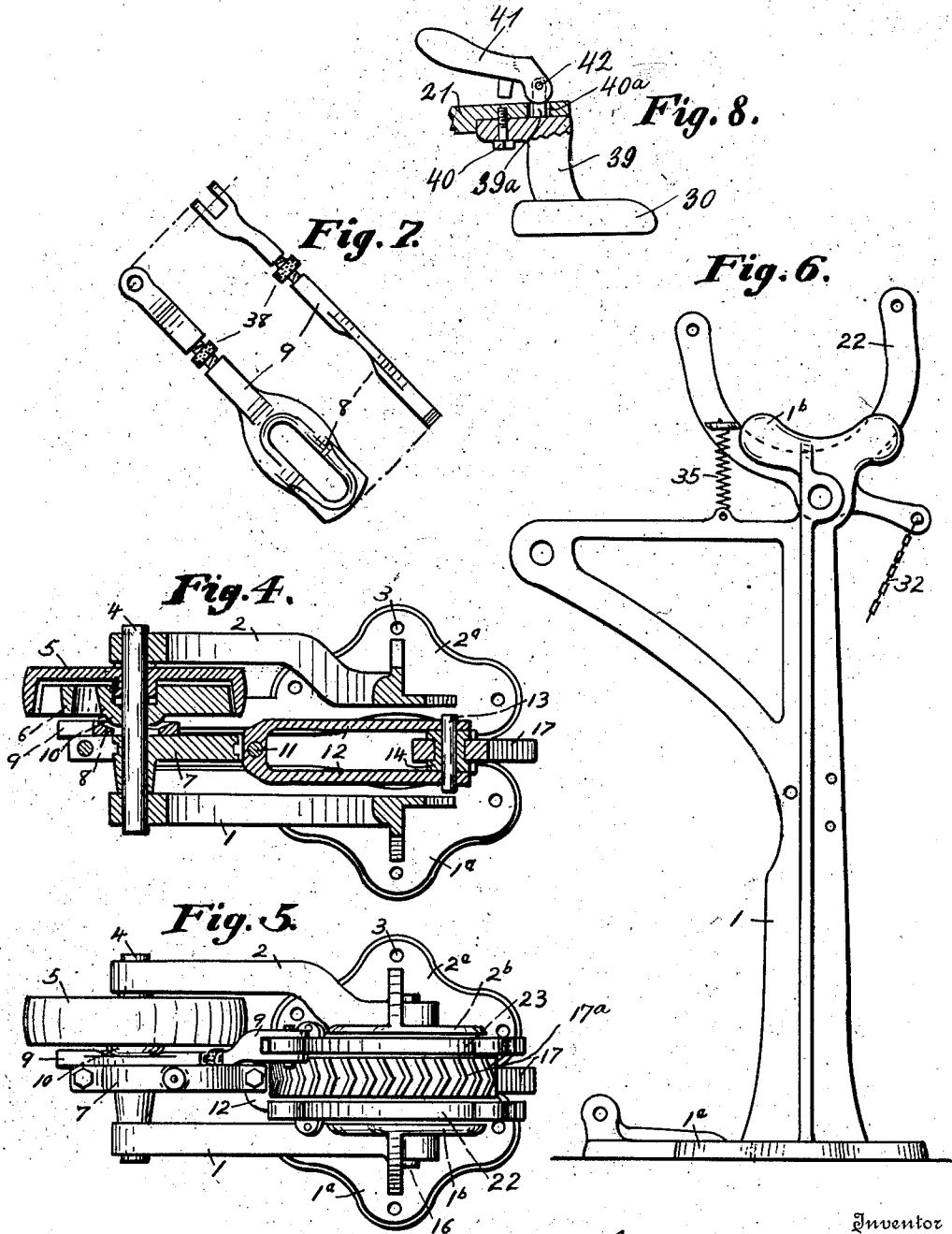
Attorney

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Witnesses

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UNITED STATES PATENT OFFICE.

CYRUS M. APPEGET, OF NORTH YAKIMA, WASHINGTON, ASSIGNOR OF ONE-FOURTH TO O. L. YOUNG AND ONE-FOURTH TO F. J. DONOVAN, BOTH OF NORTH YAKIMA, WASHINGTON.

IRONING-MACHINE.

1,046,936.

Specification of Letters Patent.

Patented Dec. 10, 1912.

Application filed February 27, 1912. Serial No. 680,355.

To all whom it may concern:

Be it known that I, CYRUS M. APPEGET, a citizen of the United States, residing at North Yakima, in the county of Yakima and State of Washington, have invented certain new and useful Improvements in Ironing-Machines, of which the following is a specification.

My invention relates to improvements in ironing machines in which an iron is caused to move over a stationary or adjustable ironing table; and the objects of my invention are, first, to start and stop the operation of the ironing machine by means of a treadle operated by one foot; second, to lower and raise the iron from the ironing table, and also to regulate the pressure of the iron on the ironing table by means of the pressure brought to bear on the above-mentioned treadle; third, to control the length of the stroke of the iron over the ironing table by means of the pressure brought to bear on a second treadle, operated by the other foot; fourth, to adjust the time the iron starts moving over the ironing table to the height of the iron above said table, or the pressure of the iron bearing on said table, by adjusting the length of a pitman operating a clutch for starting and stopping the machine; fifth, to adjust the ironing table horizontally under the iron, by pivoting the arm which carries it so that the table can be moved in a radius around said pivot; and, sixth, to adjust the direction in which the iron points by means of a construction and arrangement of parts to be hereinafter described. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the machine with the supporting frame, rocker, and spring shown in Fig. 6 removed; Fig. 2 is a top view of the machine, showing it complete with the exception of the ironing table, which latter is no part of the present invention; Fig. 3 is a plan and section on the line C—D of Fig. 1; Fig. 4 is a plan and section of the machine on the line A—B of Fig. 1, with the arm which carries the ironing table removed; Fig. 5 is a view of the machine from above with the reciprocating rack and parts associated therewith removed; Fig. 6 is an elevation of the portion of the machine removed from Fig. 1; Fig. 7 shows two views of the pitman to be hereinafter

described; and Fig. 8 is a sectional view showing the connection between the iron and the rack-bar.

Referring specifically to the drawings, the framework of the machine is in two parts, 1 and 2, part 2 differing from part 1 in that the arm supporting a shaft 4 is set out to have room for the drive pulley 5 of said shaft. The sections of the frame have bases 1^a and 2^a, respectively, with bolt holes 3 for securing to the floor the frame proper; and the guards 1^b and 2^b. Connecting and extending between the two arms of frame 1 and 2, which act as bearings, is the shaft 4 on which turns the loose pulley 5, in which operates a friction clutch member 6, its object being to start and stop the operation of the machine.

Supported by the shaft 4, and secured to it, is an eccentric 7 which works in conjunction with the friction clutch member 6, the latter being forced over in contact with the clutch rim of the pulley 5 by an incline 8 on one side of the pitman 9, shown more clearly in Fig. 7. The movement of the pitman 9 along its length in the direction of the connection 36, causes the incline 8 to push against the turned projection 10 on the clutch member 6, thus forcing the latter over in contact with the clutch rim of the pulley 5, and setting the machine in motion. The operation of the pitman 9 will be hereinafter explained. Connecting the eccentric 7 by a pin 11 is an arm 12 which connects by a pin 13 to a slide 14, which latter moves in a guide 15.

Connecting the frames 1 and 2, and extending between them, is a shaft 16 which is the bearing for a lever 17 having at one of its ends a sector gear 17^a. The other end of the lever has a slot which forms the guide 15 in which the slide 14 moves. Within the guide slot 15, and connected to the lower end of the lever 17 and to the slide 14, is a coiled spring 18 which tends to hold the slide 14 near the upper end of the guide slot 15, unless counteracted by tension on a chain, or other connection, 19 which connects the arm 12 to a treadle 20 mounted on the base 1^a.

Into the teeth of the sector gear 17^a are meshed the teeth of a rack bar 21, carrying the iron 26 to be hereinafter described, said bar 21 being held in place laterally by the arms of rockers 22 and 23, to be hereinafter

described. The rack bar 21 is held in contact with the sector gear from above by rollers 24 which turn on pins 25 that extend between and connect the two rocker arms. The rollers 24 and the sector gear 17^a also serve to hold the bar 21 in the same tangential line with respect to the axis of the rockers 22 and 23.

In the mechanism above described the action is as follows: The shaft 4 rotates the eccentric 7, which causes a reciprocating motion of the arm 12. This reciprocating motion is transmitted to the lever 17 by the pin 13 and the block 14, thus causing the lever 17 to swing on its pivot and through the sector gear reciprocating the rack bar 21, which latter thus gives the backward and forward stroke to the iron 26. If pressure is brought to bear on the treadle 20, the slide 14 is pulled downward in the guide slot 15 through the connection previously described, thus increasing the distance of the pin 13 from the shaft 16. The length of stroke of the arm 12 being constant, the length of the leverage between pins 13 and 16 now being longer, the sector gear and the lever 17 will thus swing through a smaller arc of a circle, causing the stroke of the iron 26 to be shorter. Hence, the length of stroke of the iron 26 is regulated by the pressure brought to bear on the treadle 20. Bolted between the two parts of frame 1 and 2, by bolts 27, is a bearing 28, carrying the ironing table arm 29, which arm can thus be moved in a radius about the bearing 28. To the arm 29 is secured an ironing table 30, with a guard 31 for keeping goods from the machine. The ironing table 30 forms no part of the present invention. Pivoted on the shaft 16, which passes through them, are the rockers 22 and 23 before mentioned, each having an arm to which a chain, or other connection, 32 is attached. The chain 32 passes over a suitable pulley 33 and is connected to a treadle 34 mounted on the base 2^a. On pressure being applied to the treadle 34, the rockers 22 and 23 are swung together on their pivots, which tilts the rack bar 21 about the shaft 16, thus bringing the iron 26 down on the ironing table 30, the pressure of the iron on the table being determined by the pressure on the treadle 34. When the pressure on the treadle 34 is released, the iron is lifted from the ironing table by the rockers being swung back around the shaft 16 through the medium of springs 35 attached to a lug on each rocker and to a corresponding lug on the frame below. (See Figs. 1 and 6.) Connected to the rocker 23, by a pin 36, is the pitman 9, the latter having an adjustment 38, for lengthening and shortening it. (See Fig. 7.) When the rocker 23 is swung by means of pressure on the treadle 34, as previously explained, the pitman 9 is caused to move in

conjunction with the rocker, which causes the incline 8 on the pitman to move the clutch member 6 over in contact with the clutch rim of the pulley 5, as previously explained, thus starting the machine. Hence, the pressure on the treadle 34 starts and stops the machine. Since the iron 26 and the pitman 9 must always move in conjunction with each other, and since a certain position of the incline 8 on the pitman 9 against the clutch member 6 will always throw the machine in motion, the machine will always start when the iron 26 is brought to within a fixed distance of the table top 30. By means of the adjustment 38, the relative height of the iron 26 above the ironing table 30, with respect to the starting position of the incline 8, can be varied; hence, the height of the iron 26 above the ironing table 30 for the starting position can be varied, by means of the adjustment 38. Supporting the iron 26 is a shank 39 which can be moved around the pivot 40 with a part 39^a of the shank 39 extending up through an arcuate slot 40^a in the rack bar 21 (see Fig. 2). To the upper end of the shank is attached a handle 41 by a pivot pin 42. Thus the handle 41 can be moved in a vertical plane about the pin 42 and by the eccentric placing of said pin in the end of the handle, the latter forms a clamp for holding the shank stationary when in the position shown in Figs. 1 and 2.

I claim:

1. In an ironing machine, a table, a reciprocatory iron-support, means for reciprocating the iron support, said means including a drive-shaft, a clutch controlling said shaft, means for moving the iron-support toward the table, and a clutch-actuating device connected to the last-mentioned means.

2. In an ironing machine, a table, a reciprocatory iron-support, rocker-arms having means engageable with the iron-support for swinging the same toward the table, actuating means for the rocker-arms, means for reciprocating the iron-support, a clutch controlling the last-mentioned means, and an actuating connection between the clutch and the aforesaid rocker-arms.

3. In an ironing machine, a table, an iron-support having a rack, a sector gear in mesh with the rack, actuating means for the sector gear, a clutch controlling said actuating means, rocker-arms having means engageable with the iron-support for swinging the same toward the table, actuating means for the rocker-arms, and an actuating connection between the clutch and the rocker-arms.

4. In an ironing machine, a table, a reciprocatory iron-support, rocker-arms having means engageable with the iron-support for swinging the same toward the table, actuating means for the rocker-arms, means for re-

reciprocating the iron-support, a clutch controlling the last-mentioned means, and an adjustable actuating connection between the clutch and the aforesaid rocker-arms.

5 5. In an ironing machine, a table, an iron-support having a rack, a sector gear in mesh with the rack, actuating means for the sector gear, a clutch controlling said actuating means, rocker-arms having means en-
10 gageable with the iron-support for swinging the same toward the table, actuating means for the rocker-arms, and an adjustable actuating connection between the clutch and the rocker-arms.

15 6. In an ironing machine, a table, a reciprocatory iron-support, means for reciprocating the iron-support, said means including a drive-shaft, a clutch controlling said

shaft, means for moving the iron-support toward the table, and an adjustable clutch-actuating device connected to the last-mentioned means. 20

7. In an ironing machine, a table, a reciprocatory iron-support, means for reciprocating the iron-support, said means including 25 a drive-shaft, a clutch controlling said shaft, means for moving the iron-support toward the table, and means controlled by the last-mentioned movement of the iron-support for actuating the clutch. 30

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

CYRUS M. APPLEGET.

Witnesses:

DON HAYS,
J. H. NEEDHAM.