May 21, 1935. J. C. LEDBETTER 2,002,185

GARMENT OR IRONING PRESS

Filed June 26, 1930 3 Sheets-Sheet 1

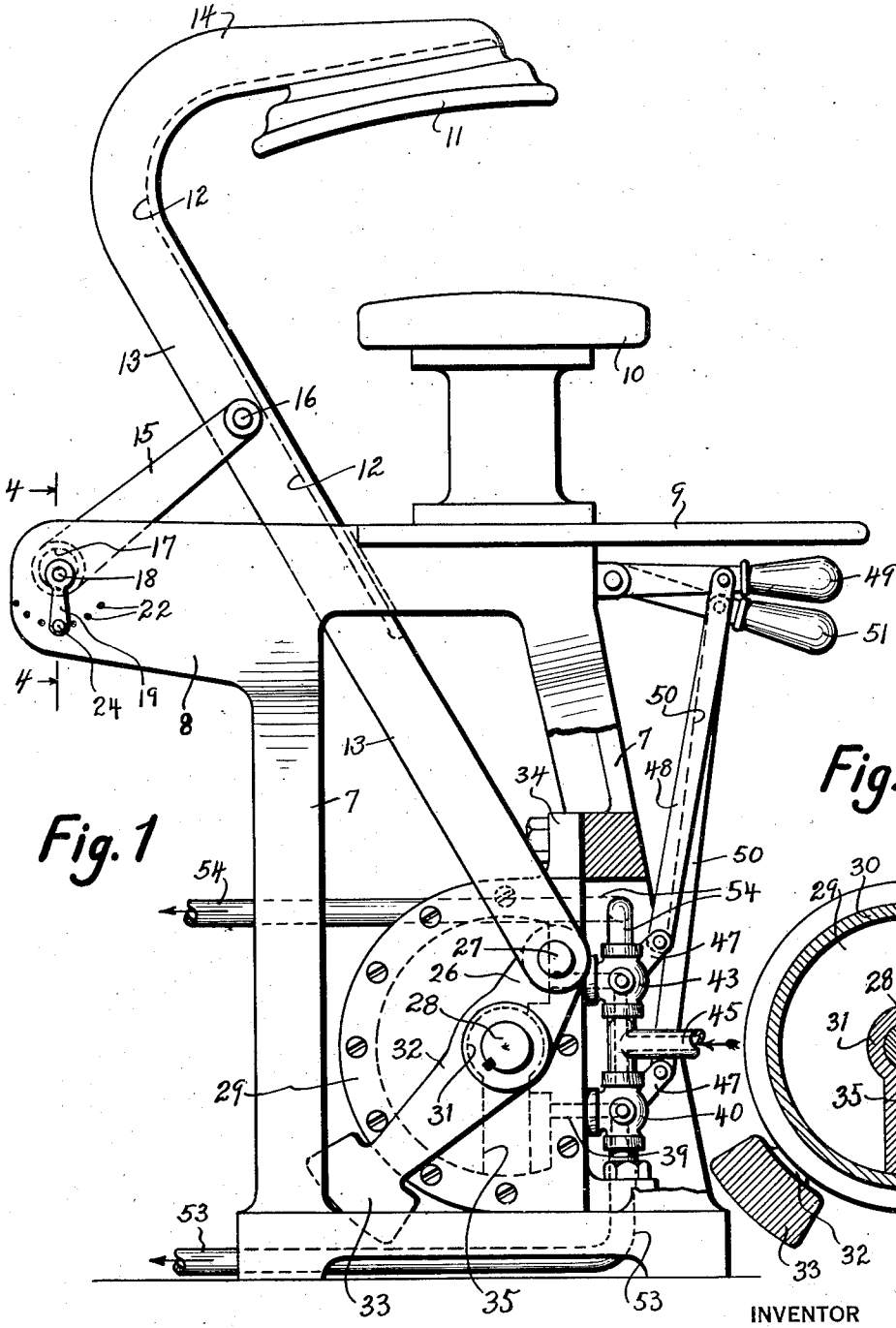

Fig. 1

Fig. 2

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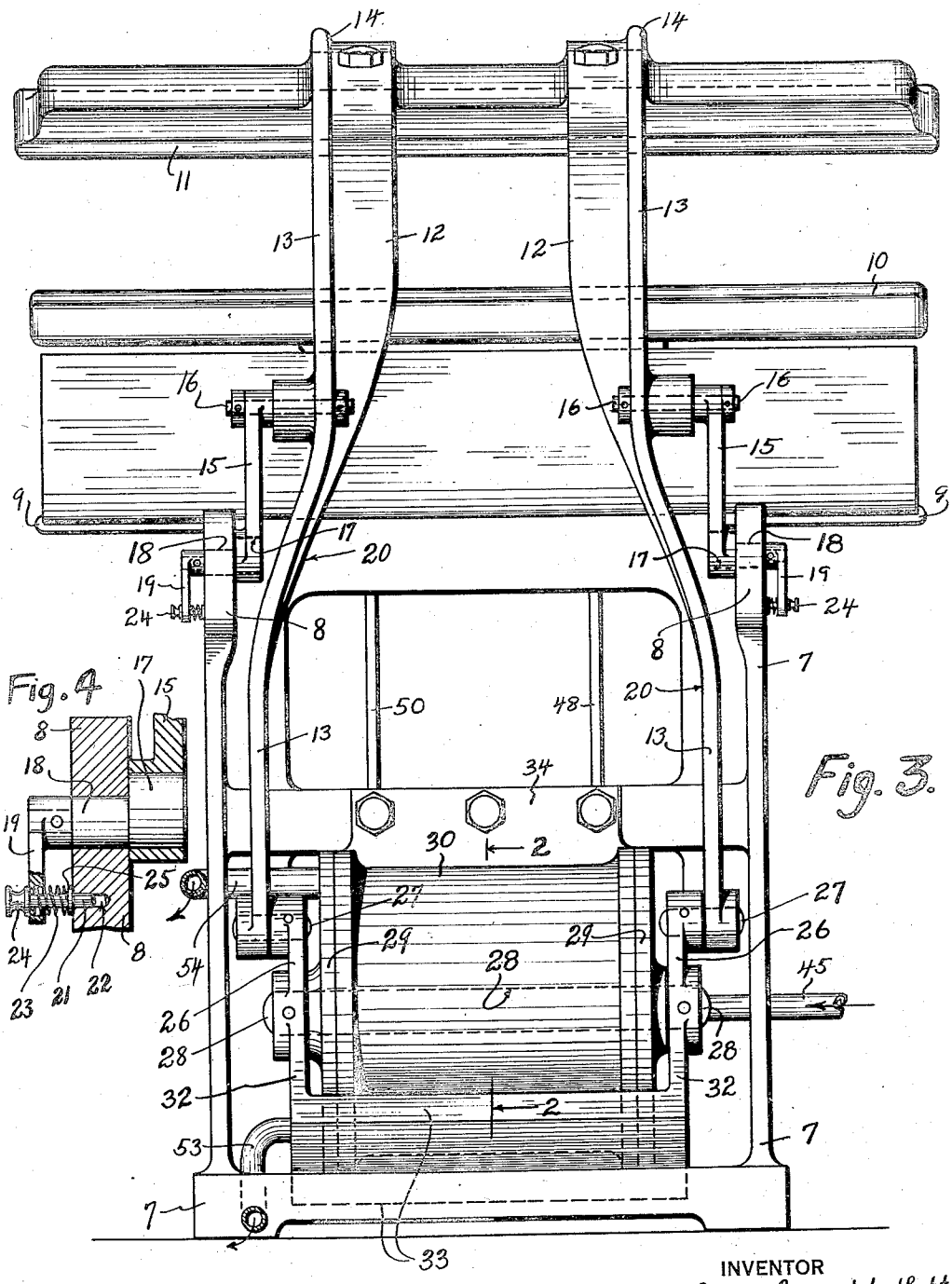

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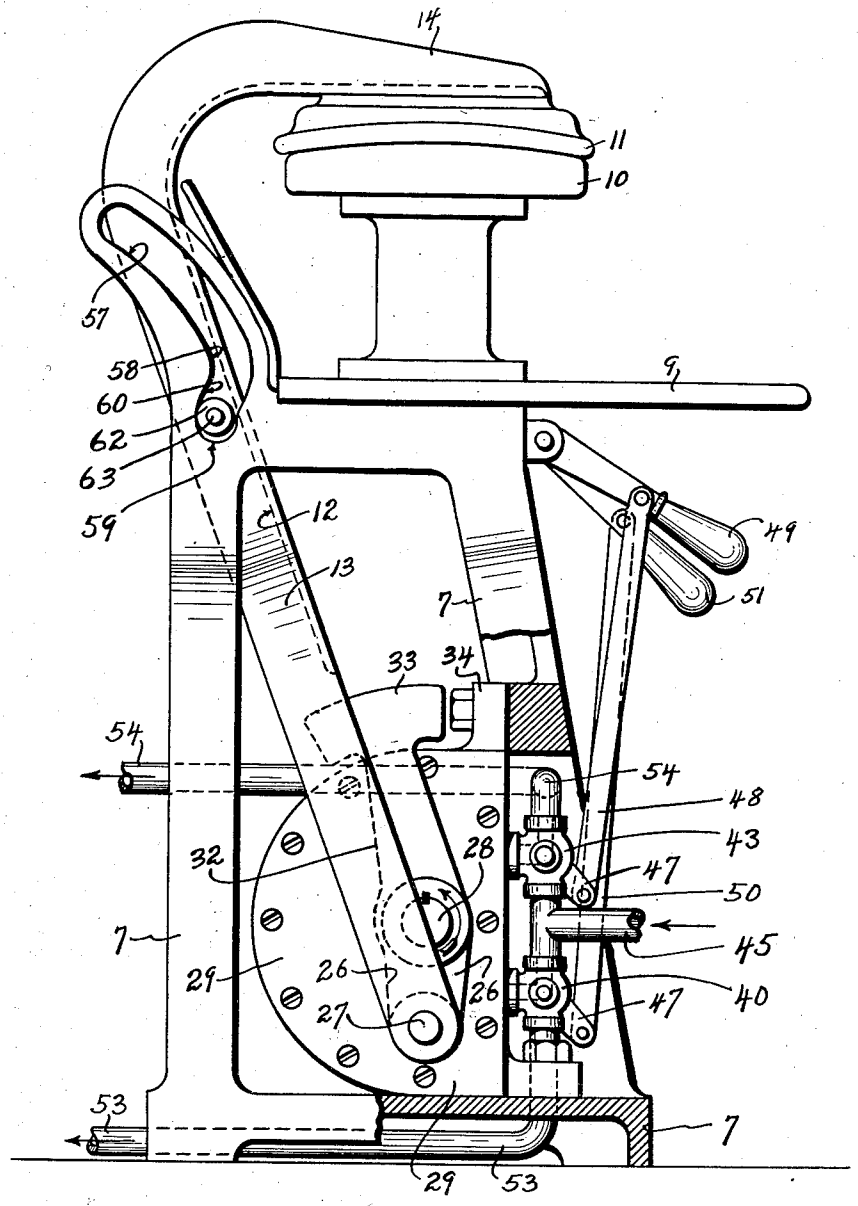

Fig. 5

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2,002,185

GARMENT OR IRONING PRESS

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Application June 26, 1930, Serial No. 463,850

17 Claims. (Cl. 68—9)

This invention relates to garment or ironing presses and has for its general object that of producing a new pressing machine of simple and compact structure and particularly a new jaw-operating means.

Among others, an important object is to produce improvements in operating means for one of the jaws of a garment or ironing press wherein the upper jaw, ordinarily called the pressing or ironing head, is actuated back and forth in relation to the lower jaw or buck by actuating the upper jaw through a compound motion including a vertical and lateral direction, whereby the ironing head is moved upwardly and rearwardly from closed to opened position to fully expose and clear the buck and thus render it convenient to the operator in laying and smoothing out the work on the lower stationary buck and removing it therefrom.

A further object of the invention is to produce improvements in motor means for garment and ironing presses and particularly improvements in fluid-pressure motor means.

Other objects are also in view and are carried out in the examples of the invention illustrated in the accompanying drawings, wherein:—

Figure 1 is a side elevation of the ironing press with the pressing or ironing head in upwardly limited position to fully expose and clear the work on the buck.

Figure 2 is a detailed cross-sectional view taken, for example, on the line 2—2 of Figure 3 to show a detail view of an improved fluid-pressure motor constituting part of the press-jaw-operating means.

Figure 3 is a rear elevation of the ironing press with its head in uppermost and open position, and showing the motor means from the rear.

Figure 4 is a cross sectional detailed view developed on the section line 4—4 of Figure 1, and shows a jaw-alignment adjustment means with a lock device therefor by which the edges of the coacting press jaws are brought together evenly in perfect registry or alignment so that the front edges, for example, of the head and buck are adjusted to meet in alignment or out of alignment depending on the desire of the operator and the work to be done.

Figure 5 is a side elevation of a slightly modified form of ironing press, the same being shown in closed position and a cam-and-roller means being employed to guide the head carrying upright member or lever instead of radius-link means, as disclosed in the former views.

In accordance with the principles of this invention, there are provided improvements in motor means for swinging the press or ironing head to opened and closed position as well as for producing high jaw compression, improvements in press or ironing-head-carrying means, together with novel radius link and compound-motion-support means to actuate the head-carrying member through a bodily-swinging motion in relation to the frame, improvements in frame construction, as well as improvements in jaw-alignment-adjustment means, and other features.

Any suitable form of press or ironing machine frame 7 may be adopted and preferably a rear extension 8 is formed on the upper end thereof and it is usual to provide a work table 9 in machines of this kind. A stationary press buck or lower jaw 10 is carried on the frame and a press or ironing head comprising an upper jaw 11 is adapted to be actuated back and forth in relation to the head 10 to press and iron the work between the coacting jaws 10 and 11. The press jaws 10 and 11 are ordinarily heated, but that is the usual practice and hence is omitted from this disclosure.

A jaw carrier member is provided in the form of an upright arm or lever having a lengthwise downwardly directed portion 13 which extends into the frame and an upper horizontal extension 14 which is attached to the ironing head 11. This swingable upright may comprise two spaced members as shown in the rear view or in some forms of construction it comprises a broad one piece plate member, its flanges or webs 12 integrally adjoining each other to stiffen and brace the upright means. This upright jaw carrier 13 is indirectly pivoted in the frame by improved radius-link means which operate to swing the upright carrier 13 and its head 11 throughout a compound movement. To this end, an upper pair of long radius links 15 are spaced apart and have one end thereof pivotally attached at 16 to the head carrier 13. The links 15 move into horizontal position at the instant the head 11 engages the buck 10 which avoids any slipping or frictional action of the head on the buck to wrinkle or displace the lay of the work.

The other ends of the radius links 15 are pivotally mounted on cams 17 which are made on or fixed to shafts 18 and said shafts 18 are journalled in the frame extension 8. A handle 19 is fixed to the outer end of each shaft 18 by which to rotate the shaft in the frame 8 and hence adjustably rotate the cam 17 thereby altering the position of the link 15 in relation to the frame 7. There is

provided any suitable form of lock means to hold the cam 17 to its adjusted position and one example, as shown, comprises a plunger 21 carried by the handle 19 and adapted to project into any one of a number of sockets 22 formed in the frame portion 8. A spring 23 presses the locking plunger 21 into the socket 22, thereby locking the handle 19 in fixed relation to the frame 8. A release button or thumb piece 24 may be fixed to the outer end of the plunger 21 by which the operator can withdraw the plunger 21 from the socket 22 against the expansive force of the spring 23. The spring 23 is interposed between the arm 19 and a collar or flange 25 fixed on the plunger 21.

The foregoing cam-lock means and its spring 23 continuously urges the locking plunger 21 towards the frame 8 and the locking plunger 21 readily drops into any one of the sockets 22 formed in the frame extension 8 on a radius described from the center of the shaft 18 to which the handle 19 is attached. The position of the cam 17 may, therefore, be adjusted in relation to the frame 7 by unlocking the plunger 21 from its socket and then swinging the handle 19 in either direction. The throw of the cams 17 may be pointed toward the press buck 10 by swinging the handles 19 to the left in Figure 1; and in this way the front edge of the movable jaw 11 may be finely adjusted to register with the edge of the jaw 10. On the other hand, if it is desired, the edges of the jaws may be altered to work out of register whereby a portion of the work or goods to be pressed is not engaged by the head 11 when it goes down upon the work. It is noted that by swinging the handles 19 to the right in Figure 1 that the radius links 15 are shifted to the left to move the front edge of the jaw 11 out of register with the front edge of the press buck 10. In this way, a margin or portion of the work on the buck is not engaged by the press head, but ordinarily the jaw edges are adjusted to accurate eveness or alignment.

With further reference to the head carrying upright 13, it is observed that it comprises two spaced members 13, the upper portions of which may be flanged as at 12 to strengthen the uprights particularly where they curve forwardly at the upper end to carry the head 11. Viewing the two head-carrying parts 12—13 from the rear as in Figure 3, it is noted that the upper flanged extremities of the uprights are arranged relatively close together and that the flange 12 of each upright forms a seat or flat rest to abut the upper surface of the head 11 for the purpose of attaching the head to the swingable upright means.

The flange or web 12 forms a convenient means for attaching the heads to the uprights as well as strengthening or stiffening it. The two spaced uprights extend downwardly into the frame and may preferably be widened or spread apart as observed at 20 which designates a gradual outward curve formed in the uprights as they extend into the frame. The lower extremities of the uprights 13 may to advantage be spaced apart so as to embrace an improved motor means shown here as a fluid-pressure motor which connects with the upright means 13 to actuate the head to and from the buck 10.

While two cam-adjusting handles 19 may be employed, as observed from the rear view Figure 3, it is to be appreciated that one adjustment handle 19 and may be utilized and a single means 18 be journaled in the frame, if desired. In this way, a single shaft 18 may span the distance between the two frame extensions 8 and a handle 19 may be attached at one or both ends of a single shaft as desired. In any event, the adjustment handles 19 or some similar means may be disposed on the frame 7—8 or may be mounted on the upright carrier 13 depending upon preferred or equivalent means in manufacture. It is to be noted that the pair of upper spaced and long radius links 15 move into a substantially horizontal position when the press head 11 has reached pressing position against the buck 10. As the pivots 16 swing upwardly and describe an arc about the frame cam pivot 17, it is noteworthy that the press head 11 not only moves vertically but laterally away from the buck 10 to clear the work and remove the hot head 11 away from the operator for added comfort and safety in working on this pressing machine.

Coming now to a description of means for guiding the lower end of the upright swingable carrier 13, it is observed that a pair of short radius links 26 are spaced apart in the lower portion of the frame 7 under the buck 10 and have their upper ends pivotally attached at 27 to the lower ends of the swingable upright 13. The lower ends of the short radius links 26 are anchored by key, pin or otherwise to a motor-driven shaft 28 which is journaled in a motor housing 29—30 which is itself anchored to the frame 7. The motor shaft 28 rotates in the housing 29 and hence in the frame 7 in a horizontal position. In this way, the short radius links 26 are disposed in the frame 7 somewhat below the longer radius links 15. This relationship of upper long and lower short radius-link means 15 and 26 causes a rapidly tilting lateral movement of the head 10 when the head carrier 13 is raised and lowered by motor means. It is also observed that the horizontally disposed motor-driven shaft 28 is disposed parallel to the longitudinal axis of the jaws. The arrangement of the jaw-operating mechanism in the frame simplifies design and reduces the number of moving parts.

The motor housing shown in the drawings is one example of construction and other forms may be used. The particular motor housing shown may include two ends or closure plates or cylinder heads 29 sealing a cylinder means 30 at its ends, the axis of which is defined by the motor-driven shaft 28 heretofore described. The cylinder 30 is mounted in a horizontal position and journals the shaft 28 therein, and the radius links 26 are fixed on shaft 28 at each end of the cylinder 30 adjacent its heads 29. In other words, the short radius links 26 revolve about the axis of the cylinder 30 and are adapted to be driven by the shaft 28.

As a matter of fact, the shaft 28 carrying a radius link 26 at each end and the pivot 27 at each upper end of the radius links 26, all together constitute a crank means 26—28 adapted to operate what amounts to a connecting rod means 13 to reciprocate the press head 11 by this simple jaw-operating means. I have utilized a simple fluid-pressure motor means to oscillate the shaft 28 but any suitable motor means may be employed therefor.

Each radius link or crank arm 26 is extended in the form of an arm 32 and reaches in a direction opposite the pivot points 27. A novel counter balancing arrangement is presented as a part of this invention and includes a counterbalance weight 33 carried on the outer ends of the spaced arms 32. It is observed that the counter

weight 33 is adapted to swing about the axis of the cylinder 30 and is mounted parallel to the cylinder 30 and reaches from one arm 32 to the other arm 32. In other words, the counter weight 33 and its two supporting arms 32 may well be made integral in construction and straddle, so to speak, the motor cylinder 30 or the motor may be arranged in between the crank arms 26.

As noted from the rear view, the short radius links or crank arms 26 are merely formed as an extension of the weight carrying arms 32 and this forms, in effect, a lever means in that the arms 26—32 form a lever with the motor shaft 28 as a fulcrum therefor, the uprights 13 being carried on one end of the lever 26—32 and the weight 33 on the other end thereof. The head 11 and weight 13 may balance each other to provide a smooth running mechanism.

The improved motor means comprises the cylinder 30 with heads 29 and the cylinder portion may be formed on a base 34 which is anchored to the frame 1. The cylinder means 30 does not necessarily constitute a complete cylinder and instead of carrying a cylindrical type of reciprocating piston of the ordinary form, I have provided a fluid-pressure responsive member in the form of an oscillating pressure vane or piston plate 35, the inner edge of which is anchored to the motor shaft 28 and the outer edge of which brushes the inner face of the cylinder means 30. A contact brush 36 is spring pressed outwardly to form an air pressure or steamtight fit between the oscillating plate 35 and the cylinder wall 30.

The inner end of the fluid-responsive vane 35 is designed in the form of a cylinder hub 31 and has a running fit with a seat 37 formed in the motor base 34. The seat 37 and brush 36 provide a fluid-pressure tight fit between all portions of the oscillating plate 35 and stationary motor housing 29—30. Fluid pressure applied against the piston vane 35 is adapted to rotate the motor shaft 28 to operate the pressing machine as will fully appear. By admitting fluid pressure to the motor or particularly to the cylinder 29, 30 on one side of the oscillating plate 35 and exhaust the pressure from the other side, the motor shaft 28 is turned with great force.

The base 34 is provided with an inlet and exhaust port 39 to which an inlet valve 40 is attached. Fluid pressure, in the form of air, steam or liquid, admitted by valve 40 into the cylinder 30 behind the oscillating plate 35 forces the latter to rapidly swing about its axis 28 and hence swing the radius links 26 downwardly thereby pulling downwardly on the uprights 13 to rapidly close the head 11 against the buck 10. Since the head 11 is balanced by the weight 33, a high speed and smooth operation is attained with minimum fluid pressure consumption.

The motor base 34 is also provided with a port 42 located above the other inlet port 39 just described. The two fluid-pressure ports 39 and 42 are designed to alternately admit and discharge fluid pressure from the cylinder 29, 30 in the operation of this new type of motor means for ironing presses. A valve 43 connects with the upper port 42 and controls the admission and discharge of fluid pressure to and from the cylinder 29, 30 in a manner similar to the operation of the lower valve 40. Fluid pressure admitted through valve 43 against the piston vane 35 actuates the latter in a counter-clockwise direction and hence lifts the radius links 26 upwardly to open the press by raising the head 11.

Both valves 40 and 43 are connected to the feed or inlet pipe 45 which is shown as a fluid pressure supply. Fluid pressure, air or steam, is admitted through pipe 45 to both valves 43 and 40 for the purpose of raising and lowering the pressing head 11 by power whereas it is ordinarily the practice to close the press head by motor means and open it by spring tension means or counter weights. It is to be understood that spring or weight means 33 may be employed to over weight the press head 11 and hence open the press by mechanical means if desired, although I have shown here the motor means operative in both directions to both open and close the press.

Each valve 40 and 43 is provided with an arm 47 to rotate the valve core for opening and closing the fluid passages or ports 42 and 39 to and from the motor. A link 48 connects the upper valve 43 with a left-hand control handle 49; and a longer link 50 connects the lower valve 40 with a right-hand control handle 51. In this way, a two-hand control is provided with a left and right handle 49 and 51 for simultaneously actuating the two fluid-control valves 40 and 43 to set them in opposite directions whereby one valve is closed when the other is open.

The lower valve 40 is connected with an exhaust pipe 53 and the upper valve 43 is connected with its exhaust pipe 54. The lower exhaust pipe 53 is adapted to exhaust fluid pressure from the lower portion of the motor or cylinder 29, 30 from behind the piston plate 35 when the latter swings counter-clockwise downwardly to open the press, as shown in Figure 1. On the other hand, the upper exhaust pipe 54 is adapted to exhaust the fluid pressure from the upper portion of the motor or cylinder and from in front of the oscillating piston plate 35 when the latter swings clockwise upwardly to close the press head. These two actions are carried out by proper setting of the handles 49 and 51. The inlet pipe 45 supplies fluid pressure through one valve 40 and the other valve 43 to open and close the press, while the two exhaust pipes 53 and 54 alternately exhaust fluid pressure from behind or in front of the piston plate 35, as the case may be, during the time fluid pressure is flowing into the other side of the piston plate through motive-fluid feed pipe 45.

The two valves 43 and 40 are in effect three way valves so that either valve may be set to transmit fluid pressure to the cylinder from intake line 45 or exhaust it therefrom through either exhaust pipe 53 or 54. The setting of the valves in Figure 1 conforms to Figure 2 position of the motor in that valve 40 is set to connect the exhaust pipe 53 with the lower portion of the motor and consequently it cuts off the pipe 45 from said motor; and the upper valve 43 is set to connect the intake pipe 45 with the upper portion of the cylinder 29, 30 whereupon the oscillating piston plate 35 has been driven downwardly in a counter-clockwise direction as shown and hence the upper valve 43 is set to cut off the exhaust pipe 54 from the cylinder 29, 30. The position of each valve is outlined in dotted lines, and it is seen in Figure 1 that the feed pipe 45 is connected with the upper cylinder portion and is cut off from the lower portion.

To open the press, the operator has set the two handles 49 and 51 to the position shown in Figure 1 which means that the fluid pressure is feeding through pipe 45, through valve 43 and is applied against the left side of the piston plate 35 to hold the press open. To close the press, the operator pushes down on both handles 49 and 51

and sets them in the position shown in Figure 5 which latter position simply reverses the valves 40 and 43 and connects the intake pipe 45 with the lower portion of the cylinder and applies pressure to the righthand face of the piston plate 35 to drive the same in counter-clockwise direction upwardly which similarly rotates the radius links 26 to close the press and hold it closed by maintaining fluid pressure thereagainst or to hold the pressure closed by a locking toggle action as desired depending somewhat upon the desired form of construction.

In Figure 5, the crank arms or radius links 26 are shown in downwardly limited locked position in that the crank and upright pivot connection 27 has traveled past the axis 28 with the result that a locking action has occurred. In this respect, it must be observed that the parts 13 and 26 function as a toggle and the over-straightening locking action may be availed of if desired. On the other hand, suitable adjustment or the placing of thick work in between the jaws stops the pivot 27 before it passes the dead center 28 and fluid pressure maintained against the piston plate 35 is adequate to hold the press closed under resilient fluid pressure.

Referring to Figure 5 in its modified design, the structure is the same throughout as heretofore described for Figures 1 and 2 with the exception that Figure 5 shows an upwardly extended cam slot 57 which runs upwardly and rearwardly somewhat below and to the rear of the buck 10. The same reference characters otherwise are applied throughout to the parts shown in Figure 5 as in the former views with the exception of this novel cam and roller feature now to be described. The cam 57 extends downwardly and forwardly towards the plane of the ironing press table 9 and is made with a sharp turn 58 at a point just above the bottom 59 of the cam. Between the sharp turn 58 and bottom 59 of the cam there is formed a rearwardly extending camway 60 which curves rearwardly from the sharp turn 58 and gradually reaches a vertical direction until it joins the bottom portion 59 of the cam.

The peculiar shape cam 57 with its back turn 60 carries a roller or follower 62 mounted on a pin 63, which is anchored to the upright 13. This cam and roller means 57—62 is employed in Figure 5 construction instead of the radius link 15 shown in the earlier views and is simply another form of compound-motion pivot means availed of between the press head 11 and the cranks 26 to guide the upright throughout its characteristic compound motion.

When fluid pressure is admitted to the motor means 29—30, the radius links 26 swing the lower ends of the uprights 13 through an arc about the axis 28 during a portion of the travel of the oscillating piston plate 35. That swinging motion of the lower ends of the upright levers or arms 13 also occurs about the axis of the pins 63 in Figure 5 and likewise about the axis of the pivots 16 in Figures 1 and 2. This swinging action of the upright lever or head-carrying member 13 about either axis 63 or 16 tends to frictionally slide the ironing head 11 on the buck 10 and thus produce a rubbing friction upon the work which is satisfactory insofar as ironing wash goods is concerned and hence is a desirable feature in ironing washed goods. That frictional motion of the head 11 in relation to the buck 10 occurs twice each pressing or ironing operation. As the head 11 closes, it slides forwardly and as it opens, it slides rearwardly, thereby imparting a sheen or ironed finish.

In case it is desired to eliminate that ironing frictional action and to avoid sliding motion of the head 11 against the buck 10, the cam and slot means 57—62 may be resorted to because the back turn 60 and quick turn 58 in effect neutralize or compensate for the sliding action of the head 11 and tends to hold it stationary against the buck 10 during that portion of the movement of the radius links 26 which occur at its lowermost position. The back turn camway 60 shifts the axis 63 forwardly at the same rate, as the head 11 would otherwise slide rearwardly and the two motions neutralize and the press head remains at rest while the crank 26 swings the few degrees incident to reaching or leaving bottom position.

I have shown two forms of guide and support means to attach the upper portion 14 of the head-carrying upright or lever 13 to the frame 7 and either form of construction may be employed. The radius link means 15 guides the head 11 through about the same direction as the cam slot 57 insofar as up and open position is concerned. The cam slot and roller means 57—62 may be resorted to in case it is desired to minimize the frictional motion of the head 11 on the buck 10 during the time the two jaws are being brought together under high compression and that feature or mode of operation is desired in garment press for pressing woolen suits and top coats. It is the ironing press for wash goods which may employ frictional jaw pressure.

What is claimed is:

1. In a garment or ironing press, a frame and coacting press jaws thereon, operating means therefor including an upright one end of which is attached to one jaw, a crank having one end thereof attached to the other end of the upright, motor means connected with the crank, means disposed intermediate the upright ends and above the motor means and swingably mounting the upright in the frame for bodily shiftable motion therein to actuate the attached jaw vertically and laterally in relation to the other jaw, said crank including a balancing arm extending out from the motor means, and a counter weight carried on the outer end of the balancing arm beyond the crank to equalize the weight of the upright and the movable press jaw.

2. In a garment or ironing press, a frame, a coacting press head and buck, operating means therefor, including an upright disposed to the rear of the frame and having an upper short horizontal portion directed forwardly over and attached to the press head, a longer portion of the upright being directed downwardly into the frame and forward at an angle whereby its lower end terminates under the buck, said upright being formed of spaced portions at its lower end, motor means installed in the frame under the buck between the lower spaced portions, a crank operatively connected thereto and to the upright, and weight counterbalance means operatively connected to the upright and motor means.

3. In a garment or ironing press, a frame, a coacting press head and buck, operating means therefor, including an upright disposed to the rear of the frame and having an upper short horizontal portion directed forwardly over and attached to the press head, a longer portion of the upright being directed downwardly into the frame and forward at an angle whereby its lower end terminates under the buck, said upright being formed of spaced members, arms pivoted inter-

mediate their ends to the frame and pivoted at one end to each spaced member of the upright, said arms being spaced apart and disposed in parallel relation, motor means disposed between the spaced parallel arms and between the spaced members of the upright and operatively connected with the arms to swing the same and actuate the press, and counterbalance means including a lengthwise weight substantially as long as the space between the upright members and carried upon the opposite ends of the arms from the connection with the upright.

4. In a garment or ironing press, a frame, a coacting press head and buck, operating means therefor, including an upright disposed to the rear of the frame and having an upper short horizontal portion directed forwardly over and attached to the press head, a longer portion of the upright being directed downwardly into the frame and forward at an angle whereby its lower end terminates under the buck, said upright being formed of spaced members, counterbalance means including a lengthwise weight spanning the space between the spaced members of the upright, an arm at each end of the weight, a horizontal shaft journaled in the frame on which the arms are anchored intermediate their ends to oscillate with the shaft, the lower ends of the upright pivotally connected to the arms, and prime-mover means to oscillate the shaft to actuate the upright up and down.

5. In a garment or ironing press, a frame, a coacting press head and buck, operating means therefor, including an upright disposed to the rear of the frame and having an upper short horizontal portion directed forwardly over and attached to the press head, a longer portion of the upright being directed downwardly into the frame and forward at an angle whereby its lower end terminates under the buck, said upright being formed of spaced members, motor means mounted in the frame and including a semi-cylindrical housing having a horizontally disposed operating shaft, operating connections between the shaft of the motor means and the spaced upright members, a counterbalance weight about equal in length to the semi-cylindrical member and mounted closely thereto, and an arm at each end of the weight pivoted on the shaft of the semi-cylindrical member to swing the weight in an arc about the semi-cylindrical member when the motor means actuates the upright.

6. In a garment or ironing press, a frame, a coacting press head and buck, operating means therefor, including an upright disposed to the rear of the frame and having an upper short horizontal portion directed forwardly over and attached to the press head, a longer portion of the upright being directed downwardly into the frame and forward at an angle whereby its lower end terminates under the buck, said upright being formed of spaced members, a horizontal shaft journaled in the frame below the buck, a pair of spaced crank arms fixed on the shaft, motor means disposed between the crank arms and operatively connected with the shaft to oscillate the shaft and crank arms, the upright being pivotally connected to the free ends of the arms, and counterbalance means connected to the arms at the other ends thereof.

7. In a garment or ironing press, a frame, a coacting press head and buck, operating means therefor, including an upright disposed to the rear of the frame and having an upper short horizontal portion directed forwardly over and attached to the press head, and a downwardly directed portion extending from the rear end of the horizontal portion, motor means below the buck including a horizontal shaft which oscillates substantially 180°, operating connections from the shaft to the upright, a motor, motor control means to actuate the motor to move the shaft in one direction to open the press and in the other direction to close the press, and counterbalance arms fixed to the horizontal shaft and extending rearwardly from the motor.

8. In a garment or ironing press, a frame, coacting jaws including a press buck supported on the frame and a movable press head thereabove, an upright at the rear of the jaws extending downwardly into the frame below the jaws and having spaced members, the upright carrying the press head, spaced projections on the frame at the rear of the jaws extending rearwardly beyond the upright, operating means below the jaws between and connected with the spaced members of the upright to actuate the latter to open and close the press, spaced radius-link means behind the jaws pivoted on the frame projections and reaching forwardly and pivotally connected to the upright, said radius-link means moving into horizontal position at the instant the press head closes on the buck, and axial adjustment means at that end of the radius-link means which is pivoted on the frame projections to bodily shift said radius-link means in relation to the frame to line up the press head with the buck for precise operating registry of the jaws.

9. In a garment or ironing press, a frame, coacting press jaws, operating means therefor, including a jaw-supporting member attached to one jaw to actuate the same, radius-link means pivoted on the frame and connected with the jaw-supporting member, cam-adjustment means journaled in the frame and on which the radius-link means is pivoted, and handle means operatively connected with the cam-adjustment means for adjustably turning said cam-adjustment means to bodily shift the radius-link means to set the movable jaw in registry relation to the other jaw.

10. In a garment or ironing press, a frame, coacting press jaws including a head and buck, spaced portions forming a head-supporting member to open and close the press, motor means to actuate the press head, including a housing disposed between the spaced portions, a shaft journaled in the housing, a pressure responsive vane anchored to the shaft and adapted to oscillate in the housing under pressure of motive fluid admitted to first one side of said vane to close the press and then to the other side thereof to open the press, and means operatively connecting the shaft with the head supporting member to swing the same.

11. In a garment or ironing press, a frame, coacting jaws thereon, a jaw-actuating means including a member attached to one jaw, means operatively mounting the jaw-actuating means in the press frame; and a fluid-pressure motor means, including a housing, a horizontal shaft journaled in the housing and each end of the shaft projecting from each end of the housing, a fluid-pressure responsive plate anchored to the shaft in the housing and adapted to turn the shaft, and an operating connection from each shaft end to the jaw-actuating means.

12. A pressing machine comprising a frame, coacting press jaws, motor means to actuate the press including a cylinder means of semi-cylin-

drical form mounted in the frame under the press jaws, a motor shaft journaled in a horizontal position in and projecting from each end of the cylinder means, a lever fixed intermediate its ends on each projecting end of the motor shaft, an operating connection from one end of the levers to one of the jaws, a counter weight carried on the other ends of the levers and bridging the space between the levers, an oscillating piston plate working in the cylinder means and attached to the shaft, and control means to admit fluid pressure to the cylinder means to oscillate the piston plate.

13. A pressing machine comprising a frame, coacting press jaws, motor means to actuate the press including means of semi-cylindrical form mounted in the frame under the press jaws, a motor shaft journaled in a horizontal position in and projecting from each end of the semi-cylindrical means, said motor shaft being mounted parallel to the longitudinal axis of the press jaws, a connection between the motor shaft and one of the jaws, and means to rotate the motor shaft.

14. In a garment or ironing press, a frame and coacting press jaws one of which is movable to open and close the press and the other stationary on which to lay the work, an upright with its upper end attached to the movable jaw and its lower end extending into the frame, means to swing the lower end of the upright in an arc, a pin and slot connection between the upright and frame and which includes a cam way leading rearwardly and upwardly to similarly guide the upright and hence the movable jaw, and the lower portion of the slot being formed to impart a compensating motion to the movable jaw as the lower end of the upright starts its arcuate swing to eliminate the lateral motion of the jaw when the latter is in contact with the work to avoid disturbing the smooth lay thereof.

15. In a press, a frame and cooperating press jaws, operating means therefor to move one jaw including a swingable member carrying the movable jaw and having spaced pivots on the swingable member for mounting it in operative position in the frame, a shaft operatively connected with the spaced pivots to move the latter up and down in the frame, a casing in which the shaft is journaled for rotation, a pressure responsive member fixed to the shaft and slidably engaging the casing to turn the shaft, and fluid pressure inlet and exhaust control means to alternately admit and discharge fluid pressure from first one side and then the other side of the pressure responsive member.

16. In a press, a frame and cooperating press jaws and operating means therefor to move one jaw, a swingable member, means mounting it in the frame including spaced pivot means, a shaft mounted in the frame means operatively connecting the shaft with the spaced pivot means to work the latter up and down in the frame, and motor means mounted between the spaced pivot means and operatively connected with the shaft to turn the latter.

17. In a press, a frame and press jaws mounted thereon, an oscillatable vane motor means placed in the frame beneath the jaws and including a motor shaft disposed horizontally and which projects from each end of a semi-cylindrical casing, an upright swingable support attached to one of the jaws and having spaced bearings, and means operatively connecting the spaced bearings of the upright to the motor shaft on each side of the casing.

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