May 14, 1935. E. DAVIS 2,001,128

GARMENT OR IRONING PRESS

Filed June 14, 1930 3 Sheets-Sheet 1

Fig. 7.

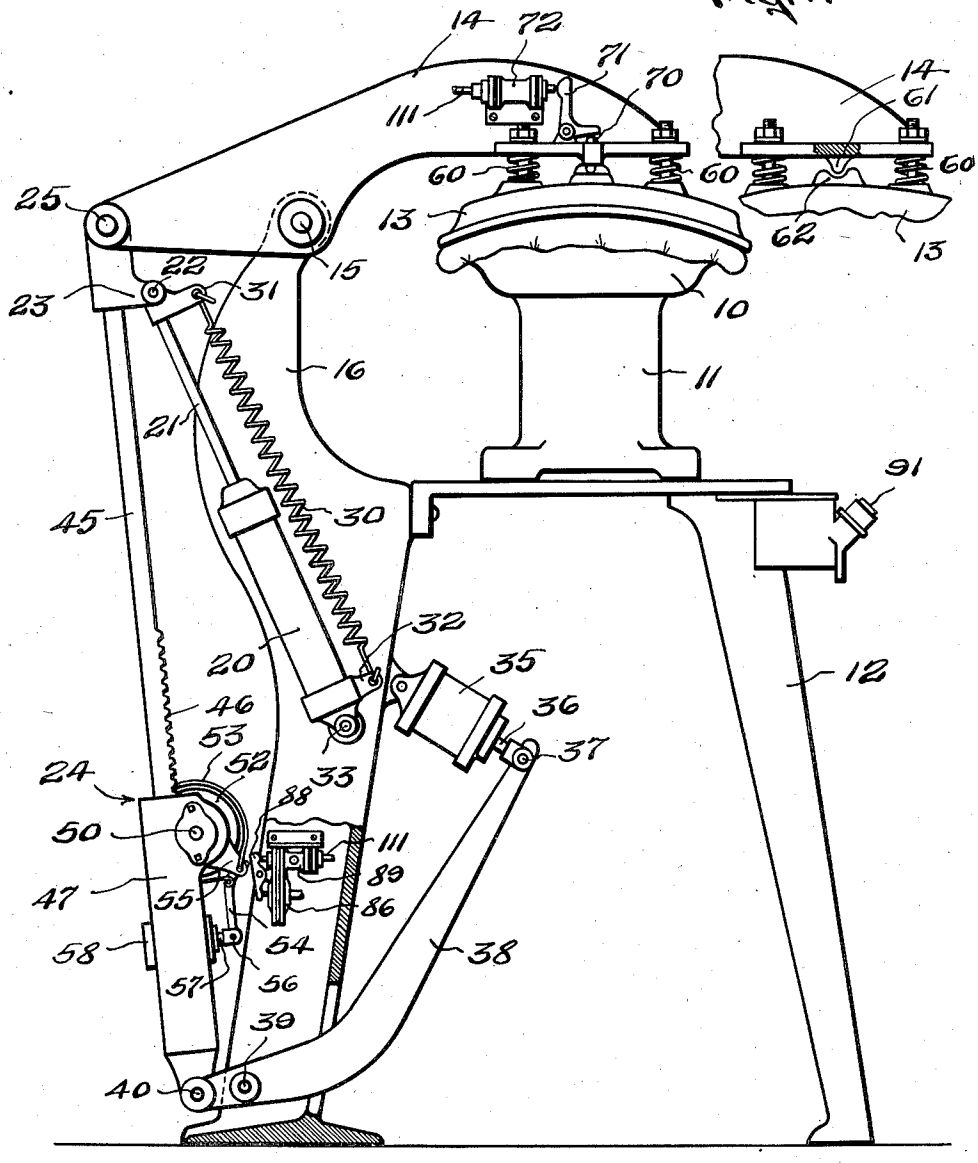


Fig. 1.

INVENTOR.
Ernest Davis
BY
Bodell & Thompson.
ATTORNEYS.

May 14, 1935. E. DAVIS 2,001,128

GARMENT OR IRONING PRESS

Filed June 14, 1930 3 Sheets-Sheet 2

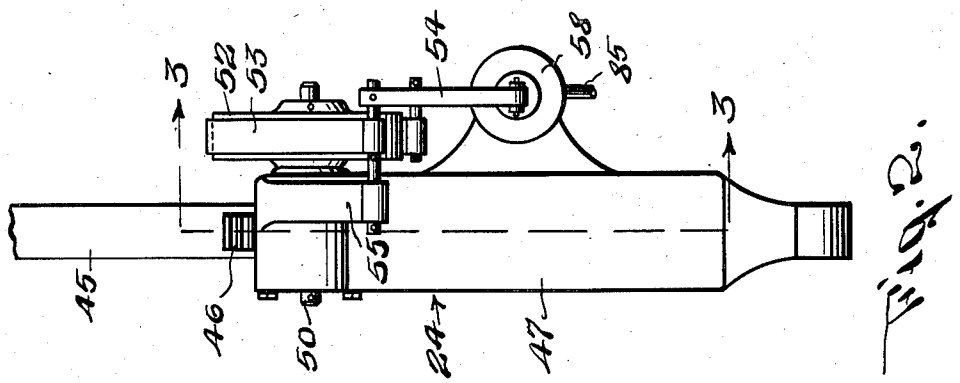


Fig. 2.

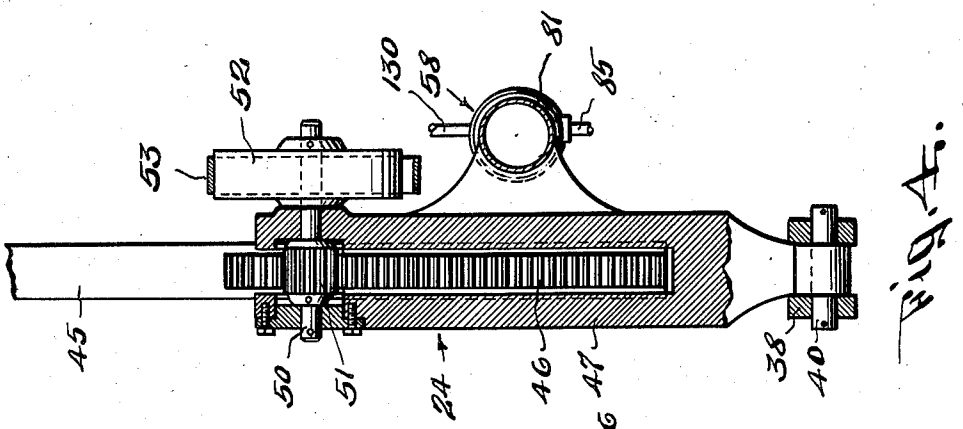


Fig. 4.

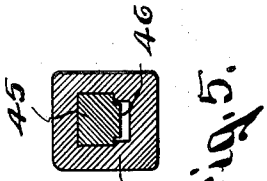


Fig. 5.

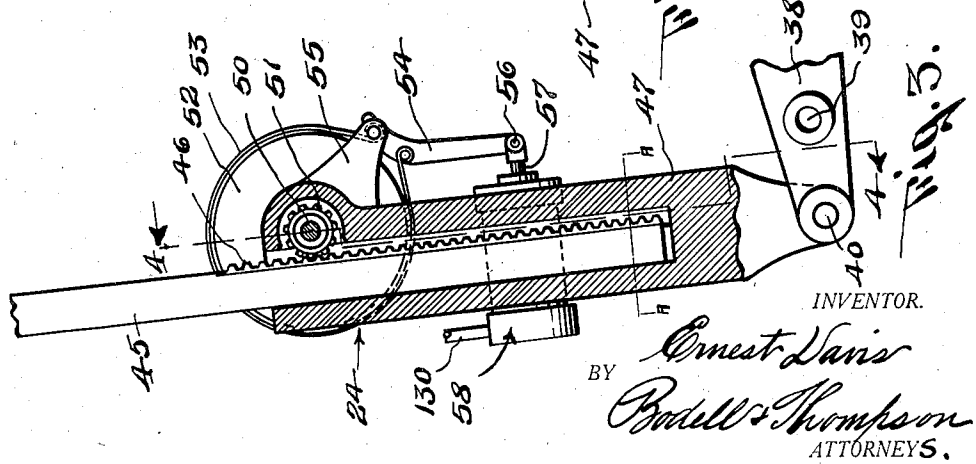


Fig. 3.

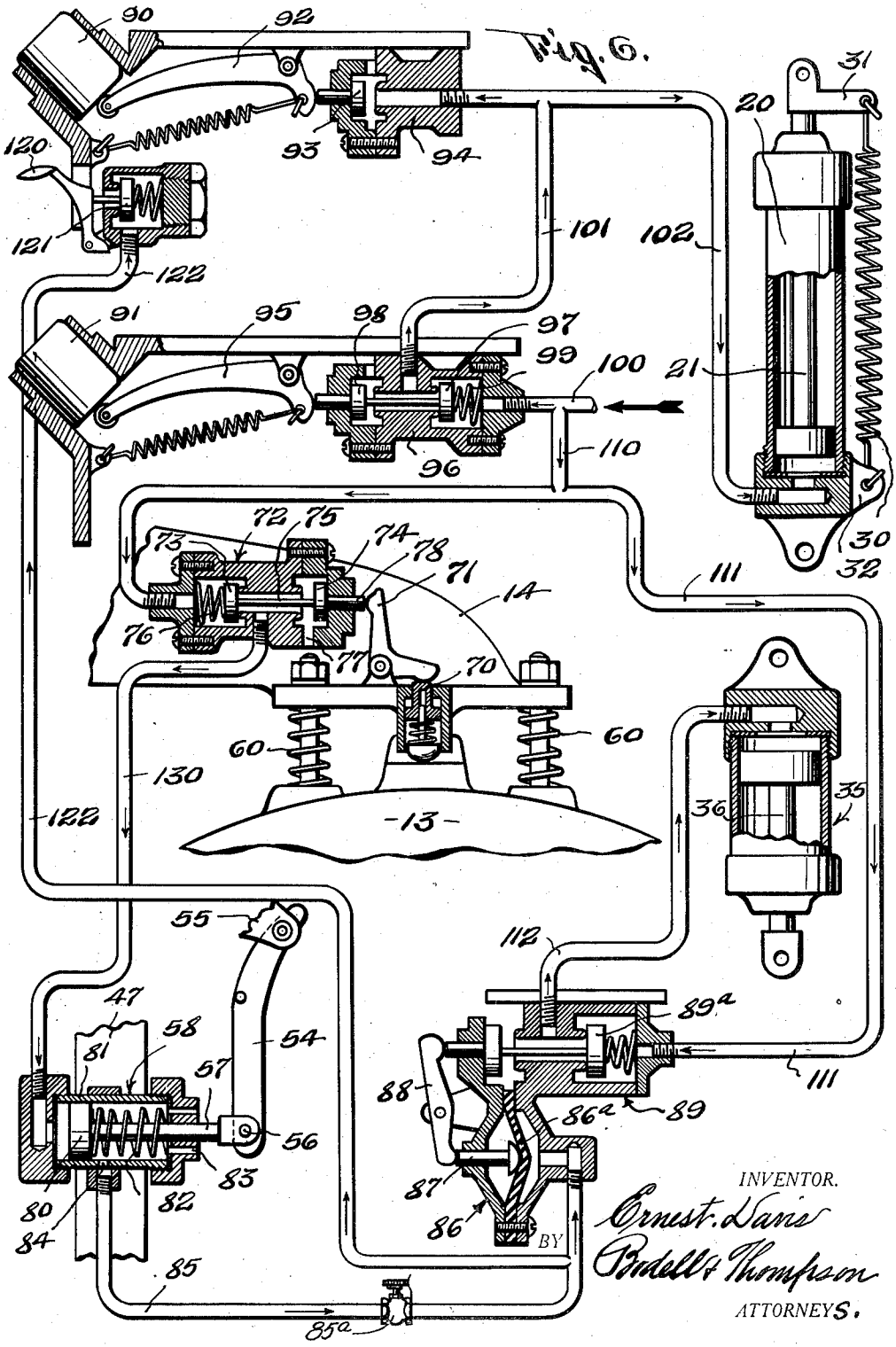
INVENTOR.
Ernest Davis
BY
Bodell & Thompson
ATTORNEYS.

May 14, 1935. E. DAVIS 2,001,128

GARMENT OR IRONING PRESS

Filed June 14, 1930 3 Sheets-Sheet 3

Fig. 6.



INVENTOR.
Ernest Davis
Bidell & Thompson
ATTORNEYS.

Patented May 14, 1935 2,001,128

UNITED STATES PATENT OFFICE

2,001,128

GARMENT OR IRONING PRESS

Ernest Davis, Syracuse, N. Y., assignor to The Prosperity Company, Inc., Syracuse, N. Y., a corporation of New York

Application June 14, 1930, Serial No. 461,105

16 Claims. (Cl. 68—9)

This invention relates to pressing machines such as garment or ironing presses and the like.

An object of the invention is the provision of a lever actuating mechanism for closing the press, one of the links of the actuating mechanism being extendible and provided with means for locking it against further extension or contraction when extended a desired amount, to effect successive ironing operations of uniform pressure on the work regardless of variations in thickness of said work or the thickness of the buck pad on which the work is supported.

A further object of the invention is to provide a link in the actuating mechanism for closing a pressing machine, such link being extendible and provided with means for automatically locking it in the extended position occupied at the time the pressing elements come together under initial light pressure.

A further object of the invention is to provide a pressing machine having actuating means for closing the press under initial light contact or pressure, and having means for exerting final heavy pressure through an actuating link which is extended during the initial closing of the press and locked in extended position when the press has closed under said initial light contact or pressure, and before the application of final heavy pressure.

Further objects and advantages of the invention will be pointed out and will become apparent as the description proceeds.

The invention consists in the novel features and in the combinations and constructions hereinafter set forth and claimed.

In describing this invention, reference is had to the accompanying drawings in which like characters designate corresponding parts in all the views.

Figure 1 is a diagrammatic side elevation of a pressing machine showing my invention applied thereto.

Figure 2 is a front elevation of a portion of the extendible link shown on the pressing machine of Figure 1.

Figure 3 is a section through the extendible link taken along the line 3—3 of Figure 2.

Figure 4 is a section through the extendible link taken in a different plane from the section of Figure 3, along the line 4—4 of Figure 3.

Figure 5 is a cross section through the extendible link and taken along the line A—A, of Figure 3.

Figure 6 is a fragmentary diagrammatic view, mostly in section, showing the relation of the various operating and control means applied to the machine shown in Figure 1.

Figure 7 is a fragmentary view, partly in section, showing the connection between the yoke and head of the pressing machine shown in Figure 1.

The machine shown in Figure 1 comprises a fixed pressing element, jaw or buck 10 mounted on a suitable supporting neck 11, which is secured to a frame 12, a movable pressing element, jaw or head 13 is resiliently mounted on a yoke 14 having a pivotal connection at 15 with an upstanding back leg 16 of the pressing machine frame 12.

The press is closed under initial light pressure preferably by a suitable motor, such as a low power fluid motor 20 having a piston rod 21 pivotally connected at 22 to an arm 23 of the extendible link 24. The extendible link 24 is pivotally connected at 25 to the yoke 14. The motor 20 is means connected with the movable jaw 13 to extend the force-transmitting extensible mechanism 24 and to move the movable jaw 1 against the other jaw 10 with light pressure.

A spring 30 secured at one end to an arm 31 extending from the piston rod 21, and at its other end to an arm 32 extending from the head of the cylinder of the fluid motor 20, draws the piston rod 21 into the cylinder to open the press when the working fluid is allowed to exhaust from the fluid motor 20. The pivotal connection 33 between the head of the fluid motor 20 and the frame 12 of the pressing machine permits the fluid motor 20 to oscillate when the press opens and closes.

Final heavy pressure is applied to the pressing elements by means such as the fluid motor 35 having a piston rod 36 pivotally connected at 37 to the lever 38. The lever 38 is pivotally connected to the pressing machine frame at 39 and to the extendible self-adjusting member 24 at 40. This lever 38 and motor 35 provide a high power motor leverage for applying final heavy jaw compression between the press jaws 10 and 13.

When the fluid motor 20 is operated to close the press under initial pressure, the extendible force-transmitting link or the bodily shiftable force-transmitting extensible mechanism 24 will extend in length, thus permitting the lever 38 and fluid motor 35 to remain stationary. The extendible link 24, comprising the two relatively slidable members 45 and 47 is then locked in its extended position, in a manner later to be described. Final pressure is applied to the pressing machine by operating the fluid motor 35 to

move the lever 38 and transmit a force to the yoke 14 through the extendible link or sliding connection 24 which is now locked in its extended position. The telescoping member 45, 47 is designed to transmit the force generated by the motor means 35 to the press jaws and in this instance is shown as a thrust or push link, but may otherwise be used to transmit a force in either direction.

The construction and operation of the sliding connection or extendible self-adjusting or compensating link 24 will be best understood by reference to Figures 2 to 5. The extendible link comprises a slidable member or upper rack link portion 45 provided at its lower end with a rack 46 on the front face thereof. A lower relatively stationary member or link section in the form of a sleeve 47 is provided with a suitable hollowed out interior portion forming a guide into which the rack 46 may telescope, as shown in the drawings. The invention provides means for self-adjustment in length of the force-transmitting member 24 to always give the same uniform jaw pressure and thus eliminate all necessity for a manual adjustment on an ironing press.

A pinion shaft 50 is revolvably mounted in the lower link section 47, and a pinion 51, meshing with the rack 46, is rigidly secured to the pinion shaft 50.

The pinion shaft 50 extends through the lower link section 47 at one side a suitable distance to receive a brake drum 52 which is rigidly secured to the pinion shaft 50. A brake band 53 surrounds the brake drum 52 and is operated by a brake operating lever 54. The brake operating lever 54 is pivotally mounted at one end on a bracket 55 provided by an extension of the lower link section 47. The other end of the brake operating lever 54 has a pivotal connection 56 to the piston rod 57 of the brake operating motor 58. The brake described constitutes means for locking the members of the sliding connection against relative movement.

With the parts in the position shown in Figure 3, the brake band will be released and the pinion shaft 50 free to turn. When the brake operating motor 58 is operated to push the piston rod 57 to the right, the brake operating lever 54 will tighten the brake band 53 about the brake drum 52, thus locking the pinion shaft 50 against rotation.

From the description of the extendible link just given, it is obvious that when the brake band 53 is released so that the pinion shaft 50 is free to rotate, the gear rack 46 may be moved into or out of the lower sleeve link section 47, and the pinion 51 and brake drum 52 will rotate during such movement. When the brake band 53 is tightened to prevent rotation of the pinion shaft 50 and the pinion 51 which is rigidly secured to the shaft, the link 45 will be locked against movement relative to the lower sleeve link section 47, and the rack portion 45 and lower link section 47 must necessarily move as a single rigid link.

In the preferred embodiment of my invention, as shown in the drawings, the locking means or, specifically, the brake operating motor 58 is operated automatically from the pressing head when the press closes or the pressing jaws come into contact with each other under initial light pressure.

The automatic means for operating the brake operating motor will be readily understood by reference to Figures 6 and 7. The head 13 is normally held spaced from the yoke 14 by suitable springs 60 which provide a lost-motion connection in the means which initially closes the movable jaw with light pressure against the other jaw and extends the extensible mechanism. When the press closes under initial pressure or light contact, the yoke 14 will compress the springs 60 to bring the fulcrum point 61, see Figure 7, into contact with the bearing surface 62. It is obvious therefore, that when the press closes under initial light pressure, there will be a relative movement of the yoke 14 with respect to the pressing jaw or head 13.

Referring to Figure 6, a plunger 70 slidably mounted on the yoke 14 rocks a bell crank 71 when the yoke 14 moves with respect to the pressing head 13.

A valve casing 72 contains a normally closed intake valve 73, a normally open exhaust valve 74 connected together by a stem 75 and held in their normal position by a spring 76. An exhaust port 77 is provided in the valve casing 72 as indicated. The bell crank 71 operates the valves through a stem 78 extending from the exhaust valve through the valve casing.

When the valves in valve casing 72 are operated to open the intake valve and close the exhaust valve, fluid, such as air, will be supplied, as will be described later, to the brake operating motor 58.

The brake operating motor 58 comprises a piston 80 contained in a cylinder 81 and operating a piston rod 57 which is pivotally connected at 56 to the brake operating lever 54, a spring 82 acts on the piston 80 to normally hold it in brake releasing position. Air ports 83 are provided in one end of the cylinder 81 to prevent back pressure behind the piston 80 during its operating stroke.

A port 84 in the side of the cylinder 81 is uncovered by the piston 80, after the same has completed a portion of its stroke, to permit air to pass from the cylinder 81, through the pipe 85 and the restricted opening formed by the needle valve 85a to the diaphragm chamber 86. Obviously, the flow of motive fluid through the pipe 85 cannot be restricted too greatly, else the pressure in the cylinder 81 will not drop sufficiently to enable the spring 82 to return the piston 80 to its initial position when the exhaust valve 121 is actuated to open the press. When air under pressure is admitted to the diaphragm chamber 86, the diaphragm 86a will be forced to the left in Figure 6 to force the plunger 87 to actuate the rocker arm 88 which operates the valves in the valve casing 89. These valves control the admission of air to the heavy pressure fluid motor 35 and are of the same type as are used to control the flow of air to the fluid motor 20 which valves will be presently described. This mechanism comprises a connecting means between the locking means and the heavy pressure means which prevents the operation of the heavy pressure means until the locking means has been actuated.

The machine is operated by the manually controlled push buttons 90 and 91. The push button 90 operates a bell crank 92. When the push button 90 is depressed, the bell crank 92 will close the exhaust valve 93 in the valve casing 94 to prevent escape of air from the valve chamber.

When the push button 91 is depressed, it actuates a bell crank 95 to operate the valves in the valve casing 96. These valves are of the conventional type, such as used on pneumatically operated pressing machines. An intake valve 97

and exhaust valve 98 are connected by a stem so as to operate as a unit. A spring 99 normally holds the valves in position so that the intake valve is closed, and the exhaust valve open as shown in Figure 6. When the valves in valve casing 96 are operated by the bell crank 95, the intake valve 97 will be opened and the exhaust valve 98 will be closed. Fluid, such as air, may then pass from the supply line 100, through the valve casing 96 into the pipe 101. If the exhaust valve 93 is opened, air from the pipe 101 will escape through the valve casing 94. If the exhaust valve 93 is closed, air from the pipe 101 will pass down the pipe 102 to operate the fluid motor 20 in the conventional manner. The control means for the valves above described forms no part per se of the present invention, but is the conventional two-hand control commonly used on air operated pressing machines.

The operation of the machine is as follows:—

Referring to Figure 1, the pressing machine is closed under light pressure by any suitable means, as by admitting fluid to the fluid motor 20 to actuate the piston rod 21, arm 23, and yoke 14 to bring the movable pressing element or jaw 13 into contact with the fixed pressing element in the conventional manner.

While the press is closing under influence of the fluid motor 20, the rack portion 45 of the extendible link 24 will be drawn up into the position shown in Figure 1 and thus adjust and set itself to the thickness of the back pad and work resting thereon. This movement will cause the rack 46 to rotate the pinion 51, and through the pinion the pinion shaft 50 and brake drum 52 are also rotated. The only movement of the lower sleeve link section 47 during this extending of the link will be a slight rocking about the pivot point 40 due to the change of position of the pivotal connection 25. The rack portion 45 is so mounted in the lower link section 47 that the link 24 slides longitudinally so as to always maintain the rack portion 45 and lower link portion 47 in a straight line.

When the press jaws engage under initial pressure, the plunger 70 (see Figure 6) will be pressed upwardly to rock the bell crank 71 and operate the valves 73 and 74 in the valve casing 72, as previously described. The operation of these valves causes a supply of fluid, such as air, under pressure to enter the braking or locking cylinder 81 and move the piston 80, and through it the piston rod 57 and brake operating lever 54 to tighten the brake band 53 and hold the brake drum 52 against rotation. When the brake drum 52 is locked against rotation, the pinion shaft 50 and pinion 51 will be also locked, due to the rigid connection between these parts, and sliding movement of the rack portion 45 in the lower link section 47 is prevented by the interengagement of the teeth on the locked pinion 51 and the teeth on the rack 46.

From the above description, it is obvious that the two-part force-transmitting link 24 is locked in self-adjusted extended position automatically when the pressing elements come together under initial pressure and that it is thus set or conditioned to transmit, for example by thrust, the movement of the motor through the lever 38 to the ironing head 13.

When the piston 80 completes a portion of its stroke, it will uncover the port 84 and admit air through the pipe 85 to the diaphragm chamber 86 and operate the valves in the valve casing 89. The opening of the intake valve 89a permits air from the supply line 100 to flow through the pipes 110, 111, valve casing 89, and pipe 112 to operate the fluid motor 35 which enforces heavy jaw compression between the closed pressing elements 10 and 13.

It is important that the fluid motor 35 should not be operated until the brake operating lever 54 has moved into position to apply the brake and lock the extendible link in extended position. To prevent operation of the fluid motor 35 before the application of the brake, the port 84 is located some distance from the end of the cylinder 81. Thus the piston 80 will have traveled some distance and moved the brake operating lever 54 sufficiently far to begin applying the brake by the time the piston 80 uncovers the port 84.

After the piston 80 uncovers the port 84 air will flow to the diaphragm chamber 86, as above described, to operate the valves and admit working fluid to the motor 35. By the time the air has actuated the diaphragm 86a, and the other members operated thereby, to supply working fluid to the motor 35, the piston 80 will have moved far enough to apply the brake and lock the extendible link in extended position. At the time the piston 80 passes the port 84 the brake operating lever 54 has not moved far enough to apply the brake with sufficient force to hold the brake drum against rotation.

From the above description, it is obvious that the brake operating motor 58, after it has completed a portion of its stroke, automatically operates a valve or valves to energize and cause the fluid motor 35 to apply final heavy pressure. It should also be noted that the two-hand control buttons 90 and 91 must be held depressed until the press jaws 10, 13 are under initial light pressure and the valves 73 and 74 operated, otherwise the press will open upon release of one or both buttons.

Heavy jaw pressure is applied to the work to be ironed between the pressing elements by automatically energizing the fluid motor 35 which actuates the lever 38 and through it exerts an upward pressure on the lower link section 47. Since the rack portion 45 and lower link section 47 are locked against sliding movement relative to each other, the upward thrust at the pivot point 40 will be transmitted through the extendible link 24 to the yoke 14 to put the pressing elements under final heavy pressure.

The very great variation in the thickness of the work or the pad on the buck does not change the position of the motor 35 or its piston within the cylinder thereof because there is constant self-adjustment or compensation between the two force-transmitting members 45 and 47 to take up or give out length for pad wear and depression or for a new thick pad installed on the buck 10. This leads to economy in power inasmuch as the motor 35 always undergoes a short power stroke and there is no lost space in its cylinder to waste air pressure.

When the operator wishes to open the press, he pulls upwardly on a handle 120 which opens an exhaust valve 121 and allows air to escape through the pipe 122 from the diaphragm chamber 86 so that the valves in the valve casing 89 will return to normal position with the intake valve 89a closed and the exhaust valve open so that air will exhaust from the fluid motor 35 through pipe 112 and the exhaust port of the valve casing 89. The air in the fluid motor 20 will have previously escaped through the pipe 102 and the ports of either of the exhaust valves

93 or 98 when the operator permitted the push buttons 90 or 91 to rise. When the exhaust valve 121 is open, air from the cylinder 81 escapes through the port 84, pipe 85, and pipe 122. Even though air is still flowing from the pipe 130 to the cylinder 81 at the time the exhaust valve 121 is first opened, the escape of air through the port 84 and pipe 85, as above described, causes the pressure in the cylinder 81 to drop sufficiently to permit the spring 82 to actuate the piston 80 to the left in Figure 6. This movement of the piston 80 causes the brake operating lever 54 to partially release the brake so that the spring 30 can start the opening movement of the press. The remaining air in the cylinder 81 escapes back through the exhaust pipe 130 and port 77 when the pressing jaw 13 retracts from the buck 10.

As soon as the yoke 14 has moved enough with respect to the pressing head 13 to permit the plunger 79 to move back to its normal position, the bell crank 71 will permit the spring 76 to return the exhaust valve 74 and intake valve 73 to normal position. Air may then escape from the cylinder 81 of the brake operating motor, through the pipe 130, valve casing 72 and exhaust port 77.

In connection with the operation above described, it should be noted that it is necessary that the pipe 85 be of small inside diameter, or be provided with a throat or needle valve 85*a*, so that air cannot be supplied through the pipe 85 as fast as it exhausts through the pipe 122. This is necessary because the press must begin to open before the supply of air to the diaphragm chamber 86, and from the pipe 111, through the valve casing 89, and pipe 112, to the fluid motor 35, is cut off.

From the foregoing it will be apparent that I have devised a pressing machine having an extendable actuating link with means for automatically locking this link in extended position when the pressing elements come together under initial pressure. I have further provided locking means for the extendable link which, upon operation, will automatically control the means for applying final heavy pressure to the pressing elements.

While I have illustrated the preferred embodiment of my invention, various changes and modifications may be made therein without departing from the spirit of the invention as set forth in the appended claims.

What I claim is:

1. A garment of ironing press comprising cooperative pressing elements, one of which is movable toward and from the other; actuating means for the movable pressing element including an extendible link having sections slidable relative to one another; means for locking the link sections against relative sliding movement; controlling means for the locking means, and means operated by the pressure between the pressing elements for effecting the operation of the controlling means.

2. A garment or ironing press comprising coacting jaws, one of which is movable towards and from the other to close and open the press; means for effecting heavy pressure between the press jaws; a bodily shiftable force-transmitting extensible mechanism comprising two relatively slidable members, one of said members being connected with the movable jaw and the other with the heavy pressure means, and means for locking the two members against sliding movement; means connected with the movable jaw to extend the mechanism and to move the movable jaw with light pressure against the other jaw; means operative by the light pressure between the pressing jaws for operating the locking means and the heavy pressure means.

3. A garment or ironing press comprising coacting jaws, one of which is movable towards and from the other to close and open the press; motor means for effecting heavy pressure between the press jaws; a bodily shiftable force-transmitting extensible mechanism comprising two relatively slidable members, one of said members being connected with the movable jaw and the other with the motor means, and means for locking the two members against sliding movement; means connected with the movable jaw to extend the mechanism and to move the movable jaw with light pressure against the other jaw; means operative by the light pressure between the pressing jaws for operating the locking means; and means to control the actuation of the motor means.

4. A garment or ironing press comprising coacting jaws, one of which is movable towards and from the other to close and open the press; motor means for effecting heavy pressure between the press jaws; a bodily shiftable force-transmitting extensible mechanism comprising two relatively slidable members, one of said members being connected with the movable jaw and the other with the motor means, and means for locking the two members against sliding movement; means connected with the movable jaw to extend the mechanism and to move the movable jaw with light pressure against the other jaw; a lost-motion connection in the aforesaid locking means; means operative upon the movement of said lost-motion connection by the light pressure between the pressing jaws for operating the locking means; and means controlling the actuation of the motor means.

5. A garment or ironing press comprising coacting jaws, one of which is movable towards and from the other to close and open the press; motor means for effecting heavy pressure between the press jaws; a bodily shiftable force-transmitting extensible mechanism comprising two relatively slidable members, one of said members being connected with the movable jaw and the other with the motor means, and means for locking the two members against sliding movement; means connected with the movable jaw to extend the mechanism and to move the movable jaw with light pressure against the other jaw; means operative by the light pressure between the pressing jaws for operating the locking means; and means controlled by the locking means after it has locked the slidable members against relative movement and connected with the motor means for controlling the actuation of the latter.

6. A garment or ironing press comprising coacting jaws, one of which is movable towards and from the other to close and open the press; motor means for effecting heavy pressure between the press jaws; a bodily shiftable force-transmitting extensible mechanism comprising two relatively slidable members, one of said members being connected with the movable jaw and the other with the motor means, and means for locking the two members against sliding movement; means connected with the movable jaw to extend the mechanism and to move the movable jaw with light pressure against the other jaw; means operative by the light pressure between the pressing jaws for operating the locking means; and means operative after the locking means has been actuated and connected with the

motor means to control the actuation of the latter.

7. A garment or ironing press comprising coacting jaws, one of which is movable towards and from the other to close and open the press; a jaw carrying means for the movable jaw; means mounting the movable jaw on the jaw carrying means for movement relatively thereto when the jaws close under light pressure; motor means for effecting heavy pressure between the press jaws; a bodily shiftable force-transmitting extensible mechanism comprising two relatively slidable members, one of said members being connected with the jaw carrying means and the other with the motor means, and means for locking the two members against sliding movement; means connected with the jaw carrying means to extend the mechanism and to move the movable jaw with light pressure against the other jaw; means operative by the relative movement between the movable jaw and the jaw carrying means for operating the locking means; and means operative after the locking means has been actuated and connected with the motor means to control the actuation of the latter.

8. A garment or ironing press comprising coacting jaws, one of which is movable towards and from the other to close and open the press; a jaw carrying means for the movable jaw; means mounting the movable jaw on the jaw carrying means for movement relatively thereto when the jaws close under light pressure; motor means for effecting heavy pressure between the press jaws; a bodily shiftable force-transmitting extensible mechanism comprising two relatively slidable members, one of said members being connected with the jaw carrying means and the other with the motor means and means for locking the two members against sliding movement; means connected with the jaw carrying means to extend the mechanism and to move the movable jaw with light pressure against the other jaw; means operative by the relative movement between the movable jaw and the jaw carrying means for operating the locking means; and control means connected with the motor means and controlled by the aforesaid means and the locking means after the latter has been actuated to control the actuation of the motor means.

9. A garment or ironing press comprising coacting jaws, one of which is movable towards and from the other to close and open the press; motor means for effecting heavy pressure between the press jaws; a bodily shiftable force-transmitting extensible mechanism comprising two relatively slidable members, one of said members being connected with the movable jaw and the other with the motor means, and means for locking the two members against sliding movement; means connected with the movable jaw to extend the mechanism and to move the movable jaw with light pressure against the other jaw; means operative by the light pressure between the pressing jaws for operating the locking means; control means connected with the motor means; and means operated by the locking means to actuate the control means to energize the motor means.

10. A garment or ironing press comprising coacting jaws, one of which is movable towards and from the other to close and open the press; motor means for effecting heavy pressure between the press jaws; a bodily shiftable force-transmitting extensible mechanism comprising two relatively slidable members, one of said members being connected with the movable jaw and the other with the motor means, brake means for locking the two members against sliding movement, and a fluid pressure motor operatively connected with the brake means; means connected with the movable jaw to extend the mechanism and to move the movable jaw with light pressure against the other jaw; means operative by the light pressure between the pressing jaws for operating the fluid pressure motor for the locking means; control means connected with the motor means; and means operated by the actuation of the locking means to actuate the control means to energize the motor means.

11. A garment or ironing press comprising coacting jaws, one of which is movable towards and from the other to close and open the press; motor means for effecting heavy pressure between the press jaws; a bodily shiftable force-transmitting extensible mechanism comprising two relatively slidable members, one of said members being connected with the movable jaw and the other with the motor means, gear means connecting the two relatively slidable members together, and means for locking the gear means against relative movement; means connected with the movable jaw to extend the mechanism and to move the movable jaw with light pressure against the other jaw; means operative by the light pressure between the pressing jaws for operating the locking means; and control means connected with the motor means and operable to energize the latter after the locking means have been actuated.

12. A garment or ironing press comprising coacting jaws, one of which is movable towards and from the other to close and open the press; motor means for effecting heavy pressure between the press jaws; a bodily shiftable force-transmitting extensible mechanism comprising two relatively slidable members, one of said members being connected with the movable jaw and the other with the motor means, a rack carried by one of said slidable members, a pinion carried by the other slidable member and meshing with the rack, and brake means for locking the pinion against rotation; means connected with the movable jaw to extend the mechanism and to move the movable jaw with light pressure against the other jaw; means operative by the light pressure between the pressing jaws for operating the brake means; control means connected with the motor means; and means controlled by the locking means to actuate the control means to energize the motor means.

13. A garment or ironing press comprising a frame; coacting jaws, one of which is movable towards and from the other to close and open the press; a lever pivoted between its ends to the frame under the jaws; motor means for effecting heavy pressure between the press jaws operatively connected to one end of the lever; a bodily shiftable force-transmitting extensible mechanism comprising two relatively slidable members, one of said members being connected with the movable jaw and the other with the other end of the lever, and means for locking the two members against sliding movement; means connected with the movable jaw to extend the mechanism and to move the movable jaw with light pressure against the other jaw; means operative by the light pressure between the pressing jaws for operating the locking means; control means connected with the motor means; and means controlled by the locking means to actu-

ate the control means to energize the motor means.

14. A garment or ironing press comprising a frame; coacting jaws, one of which is movable towards and from the other to close and open the press; a lever pivoted between its ends to the frame under the jaws; motor means for effecting heavy pressure between the press jaws operatively connected to one end of the lever; a bodily shiftable force-transmitting extensible mechanism comprising two relatively slidable members, one of said members being connected with the movable jaw and the other with the other end of said lever, and means for locking the two members against sliding movement; means connected with the movable jaw to extend the mechanism and to move the movable jaw with light pressure against the other jaw; control means connected with the motor means; and means operative by the light pressure between the pressing jaws for operating the locking means and actuating the control means to energize the motor means.

15. A garment or ironing press comprising a frame; coacting jaws, one of which is movable towards and from the other to close and open the press; a lever pivoted between its ends to the frame under the jaws; a first motor means for effecting heavy pressure between the press jaws operatively connected to one end of the lever; a bodily shiftable force-transmitting extensible mechanism comprising two relatively slidable members, one of said members being connected with the movable jaw and the other with the other end of said lever, means for locking the two members against sliding movement and a second motor means for actuating the locking means; means connected with the movable jaw to extend the mechanism and to move the movable jaw with light pressure against the other jaw; control means connected with each motor means; means operative by the light pressure between the pressing jaws for first operating the control means for the second motor means and thereafter operating the control means to energize the first motor means.

16. A garment or ironing press comprising coacting jaws, one of which is movable towards and from the other to close and open the press; motor means for effecting heavy pressure between the press jaws; a bodily shiftable force-transmitting extensible mechanism comprising two relatively slidable members, one of said members being connected with the movable jaw and the other with the motor means, and means for locking the two members against sliding movement; motor means connected with the movable jaw to extend the mechanism and to move the movable jaw with light pressure against the other jaw; means operative by the light pressure between the pressing jaws for operating the locking means; operator actuated control means connected with the light pressure motor means; control means connected with the heavy pressure motor means; and means controlled by the locking means to actuate the control means to energize the heavy pressure motor means.

ERNEST DAVIS.