May 3, 1927. 1,626,792

J. DENEMARK

PRESSING MACHINE

Filed May 8, 1926 4 Sheets-Sheet 1

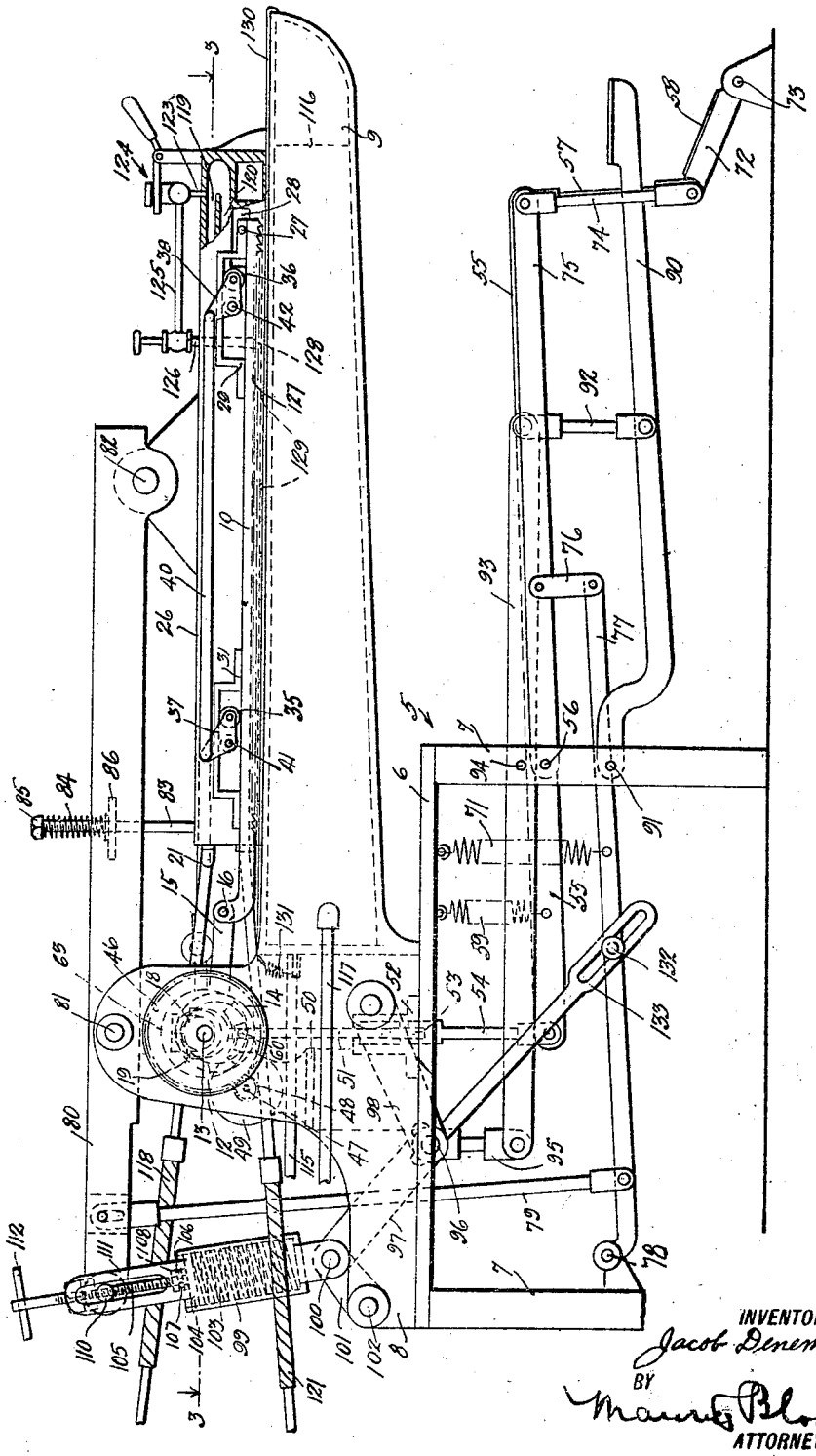


FIG. 1.

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Fig. 2.

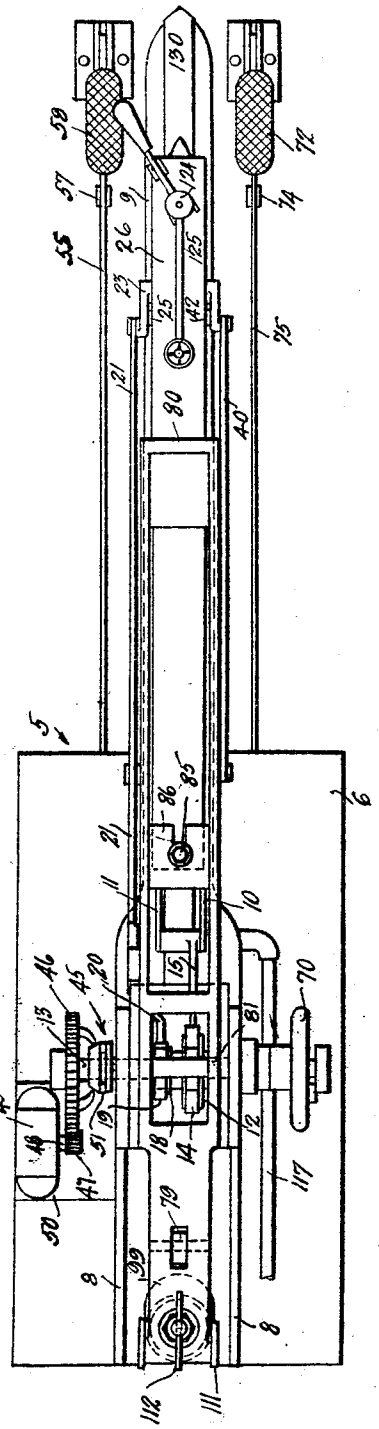
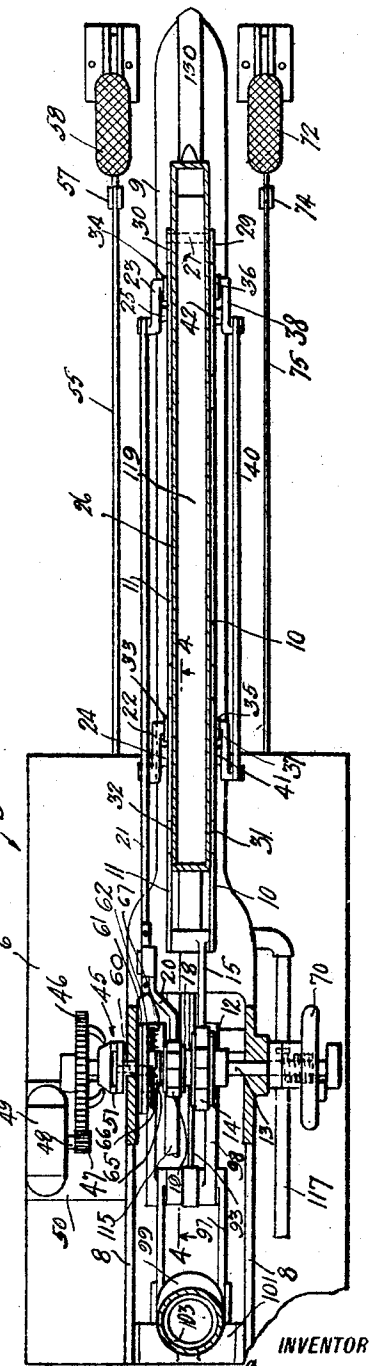


Fig. 3.



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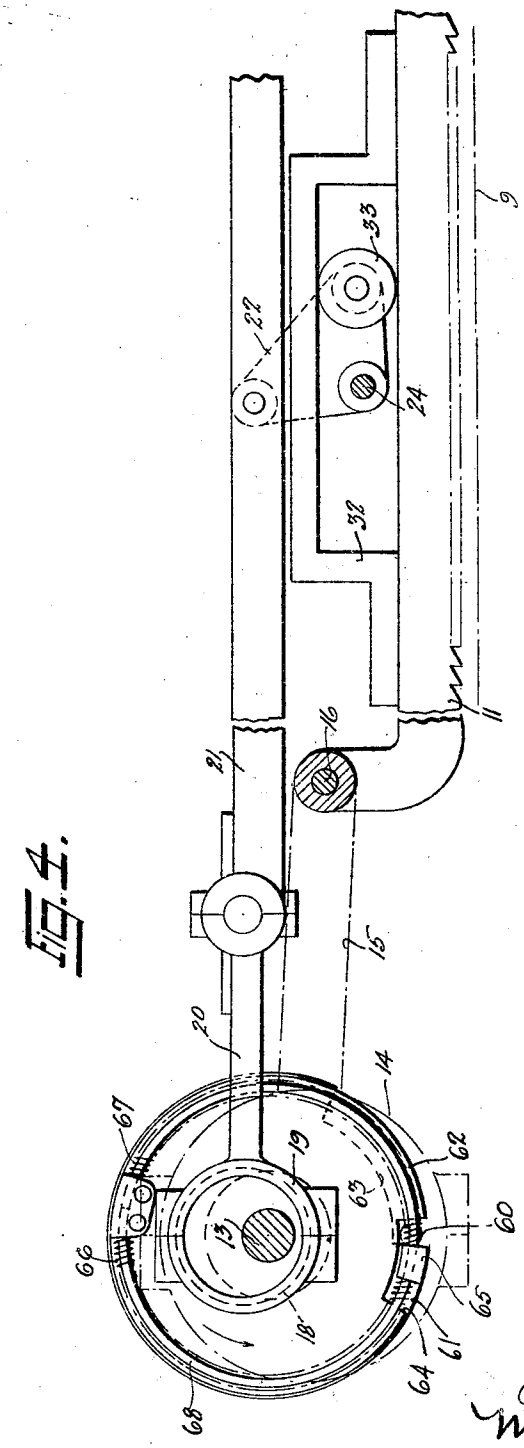


Fig. 4.

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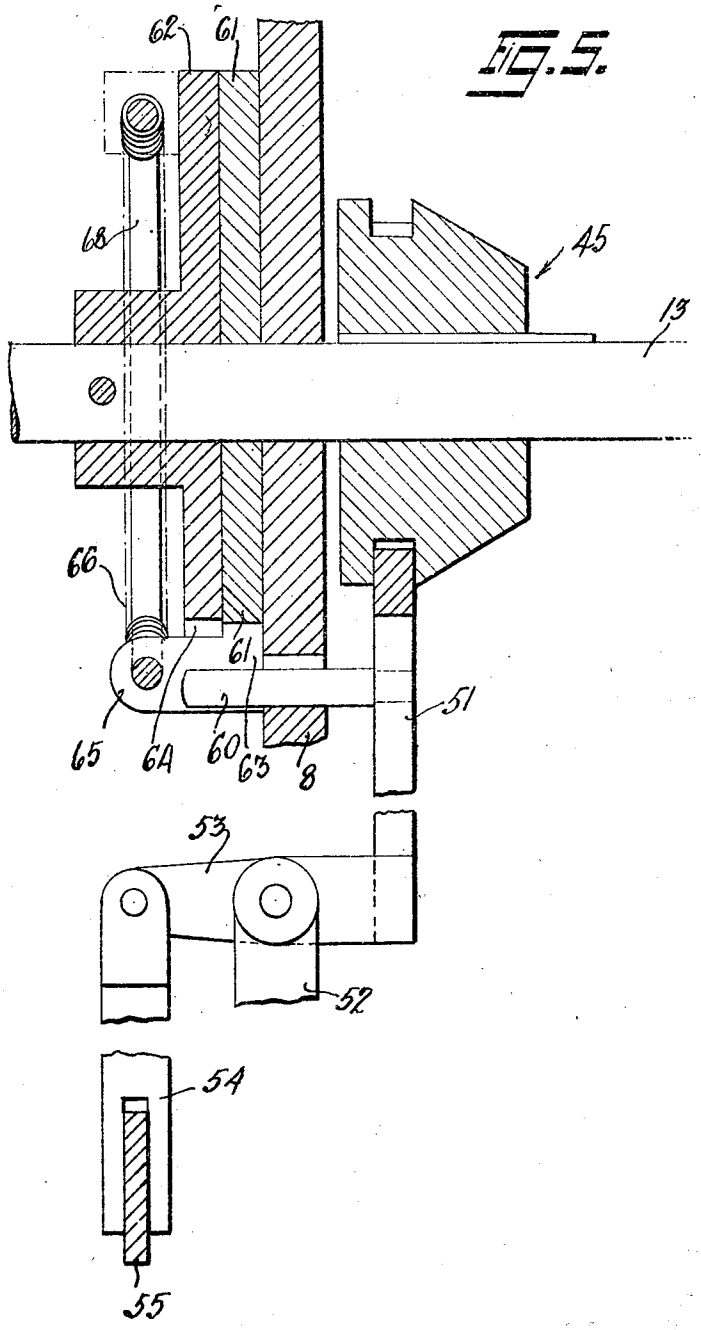
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Fig. 5.



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UNITED STATES PATENT OFFICE.

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PRESSING MACHINE.

Application filed May 8, 1926. Serial No. 107,559.

This invention relates to pressing machines and particularly to a machine used in the pressing of seams during the process of clothing manufacturing.

An object of the invention is to provide a machine which will feed the goods to be pressed between two steam irons, one fixed and the other pivoted, the pivoted iron being adapted to have a pressure applied thereto and to steam and dry the goods during the pressing operation.

Another object of the invention is the provision of extra pressure applying means in a machine of this character to be applied when extra heavy material is being pressed.

A further object of the invention is to raise the feed bars off the surface of the goods being pressed when the machine is brought to rest.

Other objects and novel features of the invention will become apparent and will be fully described as the specification proceeds.

Referring to the drawings, wherein I have illustrated a preferred embodiment of my invention;

Figure 1 is a side view in elevation of a machine constructed in accordance with my invention;

Figure 2 is a top plan view of the machine as seen in Fig. 1;

Figure 3 is a top plan view partly in section taken on line 3—3 Fig. 1,

Figure 4 is an enlarged view in section taken on line 4—4, Fig. 3, showing the cloth feeder operating mechanism, and

Fig. 5 is an enlarged sectional view looking from the right of Fig. 1, showing the stop pin operating mechanism when the machine is in stopped position.

Referring to the drawings in detail, 5 indicates a table comprising a top 6 and supporting legs 7. Supported on the table top 6 and having extending side walls 8 is a hollow anvil shaped presser table 9 upon which the material to be pressed is fed by means of toothed feeders 10 and 11 operated forwardly and rearwardly by an eccentric cam 12 on a power shaft 13. The cam 12 operates in an eccentric strap 14 terminating in an arm 15 connected to the feeders 10 and 11 by a rod 16 at the rear of said feeders. For bringing the feeders in contact with the material they are rocked in an up and down direction by an eccentric cam 18 on the shaft 13, the said cam 18 operating in an eccentric strap 19 having an arm 20 pivotally connected to a link 21 connected to levers 22 and 23, pivoted at 24 and 25 at one side of the machine in a wall of a pressing iron 26. The feeders are connected at the front by a rod 27 passing through an opening 28 in the iron and secured in the ends of guide members 29 and 30 fast to the front portions of the said feeders. The guide members 29 and 30 at the front and like guide members 31 and 32 at the rear of the feeders engage rollers 33, 34 on the levers 22 and 23, and rollers 35 and 36 on levers 37 and 38 connected by a link 40, the said levers 37 and 38 being pivoted at 41 and 42 respectively, in line with and at the opposite wall of the iron 26. It will be seen that as the link 21 is operated by the eccentric 18 to rock the levers 22 and 23 about their pivots the rollers 33 and 34 will cause the feeder 11 to be depressed and raised and carry with it the feeder 10 to which it is connected by the rods 16 and 27, thus causing both feeders to operate in unison both in an up and down direction as well as forwardly and rearwardly. Normally the levers 37, 38, the connecting link 40, and the guides 29 and 31 operate idly, inasmuch as the feeders 10 and 11 are connected at 16 and 27, but in case of any wear between the eccentric strap 14 and the cam 12, these feeders would tend to twist laterally, that is transversely of the iron and would not feed properly. It will be seen that the rollers 35 and 36 on the levers 37 and 38 operating in the guides 29 and 31 will prevent any such tilting or twisting of the feeders. The shaft 13 extends beyond the walls 18 and has mounted at one end thereof a clutch mechanism 45 and a gear 46 in mesh with a pinion 47 secured to the motor shaft 48 of a motor 49 secured to a platform 50 fast to the table 6. The clutch mechanism 45 is operated by a lever 51 pivoted in a bracket 52 secured to the table 6. The lever 51 has an arm 53 connected by means of a link 54 to a lever 55 pivoted at 56 and connected by a link 57 to a foot lever 58 operated against the tension of a spring 59 to start the machine. To make sure that the machine will always stop in the same position, that is, with the feeders raised above the surface of the goods being pressed, a pin 60 is operated by the clutch lever 51 when the foot lever 58 is released and comes into the path of a disc 61 provided with a cutout 63 and loosely mounted on the shaft 13. As the foot lever 58 is released the pin

60 will be pressed inwardly by the lever 51 through a cut out 64 in a disc 62 secured to the shaft 13 and will protrude through rear wall 8 into the path of a projection 65 on the disc 61 to stop the machine. Spring 66 and 67 mounted on a curved rod 68 and interposed between the loosely mounted disc 61 and the securely mounted disc 62 act as buffers to take up any jar from the pin 60 and prevent the shearing or breaking of same due to the momentum of the disc. The shaft 13 has mounted thereon and on the opposite end to the clutch mechanism, a fly wheel 70 adapted to be used for turning the shaft over by hand.

The pressing iron 26 which normally rests on the table 9 is adapted to be raised against the pressure of a spring 71 from the said table by depressing a foot lever 72 pivoted at 73 and connected by a link 74 to lever 75 having a depending link 76 connected to a lever 77 pivoted at 78 and having a rod 79 connected at one end to the said lever 77 and at its opposite end to an arm 80 pivoted at 81 in the walls 8, the said arm 81 having the pressing iron 26 pivoted to same at 82. A bolt 83 in the iron 26 having a spring 84 exerting a pressure between a nut 85 on the bolt and a wall 86 in the arm 80 acts as adjusting means to keep the iron 26 level.

If it is desired to press extra heavy goods in the machine, extra pressure is applied to the pressing iron 26, by depressing a foot lever 90 pivoted at 91 in the front legs 7 and connected by a link 92 to a lever 93 pivoted at 94 and connected by a link 95 connected at its upper end by means of a pin or rod 96 passing through forked levers 97 and 98 forming a raising frame work for a pressure spring container 99 mounted on a pin 100 passing through the lever 97 and a supporting arm 101 pivoted at 102 in the side walls 8.

Normally, the pressure exerted by the iron on the table is that due to its own weight and the force of spring 71. To increase the pressure, a spring 103 within the casing or container 99 exerts a tension when compressed against a circular member 104 slidingly mounted within the container and having an adjusting screw 105 revolubly mounted therein, the said screw having a groove 106 in engagement with a pin 107 in a boss 108 and being threaded through a connecting pin 110 passing through the lever arm 80 and slotted ears 111 in the spring container 99. The tension of said spring is adjusted by turning the screw 105 by means of a handle 112 in the upper portion of the said screw 105.

It will be seen that when the spring container is lifted up by depressing the foot lever 90, the spring 103 will be compressed thus exerting a greater pressure against the arm 80 and consequently against the pressing iron 26 which is pivotally connected to the said arm 80.

Steam is admitted into the table 9 through an inlet pipe 115 and after passing around one side of a partition or wall 116 within the table 8, it passes around the other side of the said wall and out through an outlet pipe 117. Likewise steam is admitted into the pressing iron through an inlet pipe 118 and after passing through a compartment 119 in the upper portion of the pressing iron 26, it passes through the lower compartment 120 and out through an outlet pipe 121. The front of the iron at the top thereof is provided with a vertical pipe 123 which extends into the upper compartment 119 and carries a valve 124 at the upper end thereof which controls the flow of steam through a pipe 125 leading into a pipe 126 projecting into a wall 127 and opening into a channel 128. When the valve 124 is opened steam will be permitted to enter the channel 128 and thence will escape through opening 129 in the bottom of the iron on to the cloth to dampen same while being pressed. A strip of fabric 130 forming a pressing pad is fastened to the table at the front thereof and stretched across the top of the table and has a spring 131 at the rear of the table to take up any stretching in the fabric.

The extra pressure applying means are reset by depressing the foot lever 72 which will cause a stud 132 to pull down on the end of a slotted arm 133 connected at its upper end to the spring container raising frame and draw the same down to its normal operating position.

From the foregoing, it will be seen that I have provided an efficient pressing machine, which will handle goods of different weights at high speed and which will guard against damage of the goods when the machine stops or when the material is being withdrawn from the machine as the toothed feeders are so timed as to be above the surface of the goods when the machine is stopped. Also I have provided extra pressure applying means when extra heavy materials are being pressed.

Having described my invention what I claim as new is:

1. A pressing machine comprising a hollow table, a steam inlet, a steam outlet for the said table, an iron adapted to normally rest on the table, an arm pivotally connected to said iron, means for raising the iron from the table, a feeder on each side of the iron operating above said table, means for operating said feeders in a vertical and longitudinal direction to feed the goods through the machine and means for raising the feeders above the surface of the material pressed when the machine is brought to a stop.

2. In a pressing machine, a table, an arm pivoted on the table, a pressing iron nor-

mally resting on the table suspended from one end of the arm, feeders on each side of the iron operating above the table to feed goods longitudinally through the machine, means for exerting a normal pressure on the iron, and means for exerting an extra pressure on the iron when extra heavy material is being fed through the machine.

3. In a machine of the nature described, a table, an arm pivoted on said table, an iron pivotally mounted at one end of the arm and normally resting and exerting a pressure on the table, a spring at the opposite end of the arm, a toggle, a foot lever connected to the toggle, and means in operative engagement with the spring and toggle whereby the spring is compressed to augment the pressure of the iron when the foot lever is depressed.

4. In a machine of the nature described, a table, an arm pivoted on said table, an iron pivoted at one end of said arm, means for exerting a normal pressure on the iron, a pin at the opposite end of the arm, a screw threaded through the pin, a spring container suspended from the pin, a member on the screw slidingly mounted in the container, a spring in the container bearing against the sliding member and means connected to the container for actuating the spring to exert an additional pressure on the iron.

5. In a pressing machine, a table, an arm pivoted on the table, an iron pivoted on the arm, feeders on each side of the iron adapted to feed material to be pressed, means for operating said feeders in a longitudinal direction comprising a power shaft, an eccentric mounted on the shaft, connecting means on the eccentric associated with the feeders and guiding means associated with the feeders to guide the said feeders horizontally.

6. In a pressing machine, a table, an arm pivoted on the table, an iron pivoted on the arm, feeders on each side of the iron adapted to feed the material to be pressed between the table and the iron, connecting means between the feeders, means for operating the feeders in a longitudinal and vertical direction comprising a power shaft, an eccentric mounted on the shaft, levers pivoted on each side of the iron, guiding members on the feeders, connecting means between the eccentric and the levers on one side of the iron, a link connecting the levers on the other side of the iron rollers on the levers extending into the guiding member adapted to raise and lower the feeders, a second eccentric on the power shaft and an eccentric strap on the second mentioned eccentric connected to the feeders to operate the said feeders in a longitudinal direction.

7. In a pressing machine, a table, an arm pivoted on the table, an iron pivoted on the arm, feeders on each side of the iron adapted to feed the material to be pressed between the table and the iron, connecting means between the feeders, a power shaft, means for operating the feeders in a vertical and longitudinal direction, a clutch mechanism on the shaft, a loosely mounted disc on the shaft, a disc secured to the shaft resiliently associated with loosely mounted disc and a pin operated by the clutch mechanism to stop the machine with the feeders above the surface of the material.

8. In a pressing machine, a table, an arm pivoted on the table, an iron pivoted on the arm, feeders on each side of the iron adapted to feed the material to be pressed between the table and the iron, connecting means between the feeders, means for vertically and longitudinally operating the feeders, and means co-operating with the feeder operating means to stop the machine with the feeders above the surface of the material.

9. In a pressing machine, an iron, feeders to feed material to be pressed by the iron, means to connect the feeders to each other at one end, means for operating the feeders horizontally operatively connected to the feeders at the opposite end, means for operating the feeders in a vertical direction, comprising a power shaft, a cam on the shaft guide members on one of the feeders, a set of levers pivotally mounted on the iron, a roller on each of the levers extending into the respective guide members, means for connecting the levers to each other, and means for connecting the levers to the cam.

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