H. C. HOTING.

PRESSING MACHINE.

APPLICATION FILED NOV. 4, 1918. RENEWED OCT. 31, 1921.

1,416,829. Patented May 23, 1922.

5 SHEETS—SHEET 1.

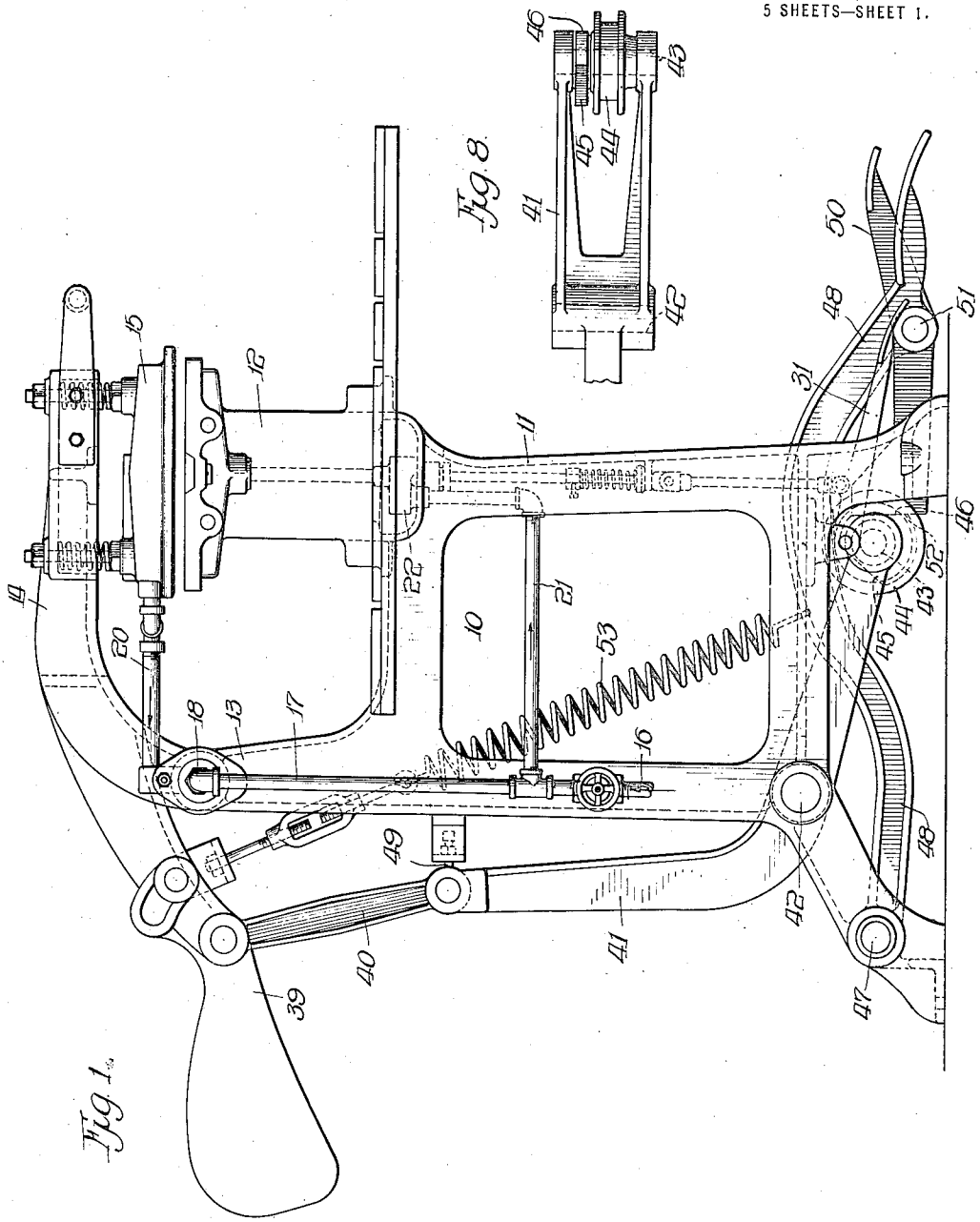


Fig. 8.

Fig. 1.

Witnesses:
Geo. C. Morrison
Chas. L. Byron

Inventor:
Hans C. Hoting
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5 SHEETS—SHEET 2.

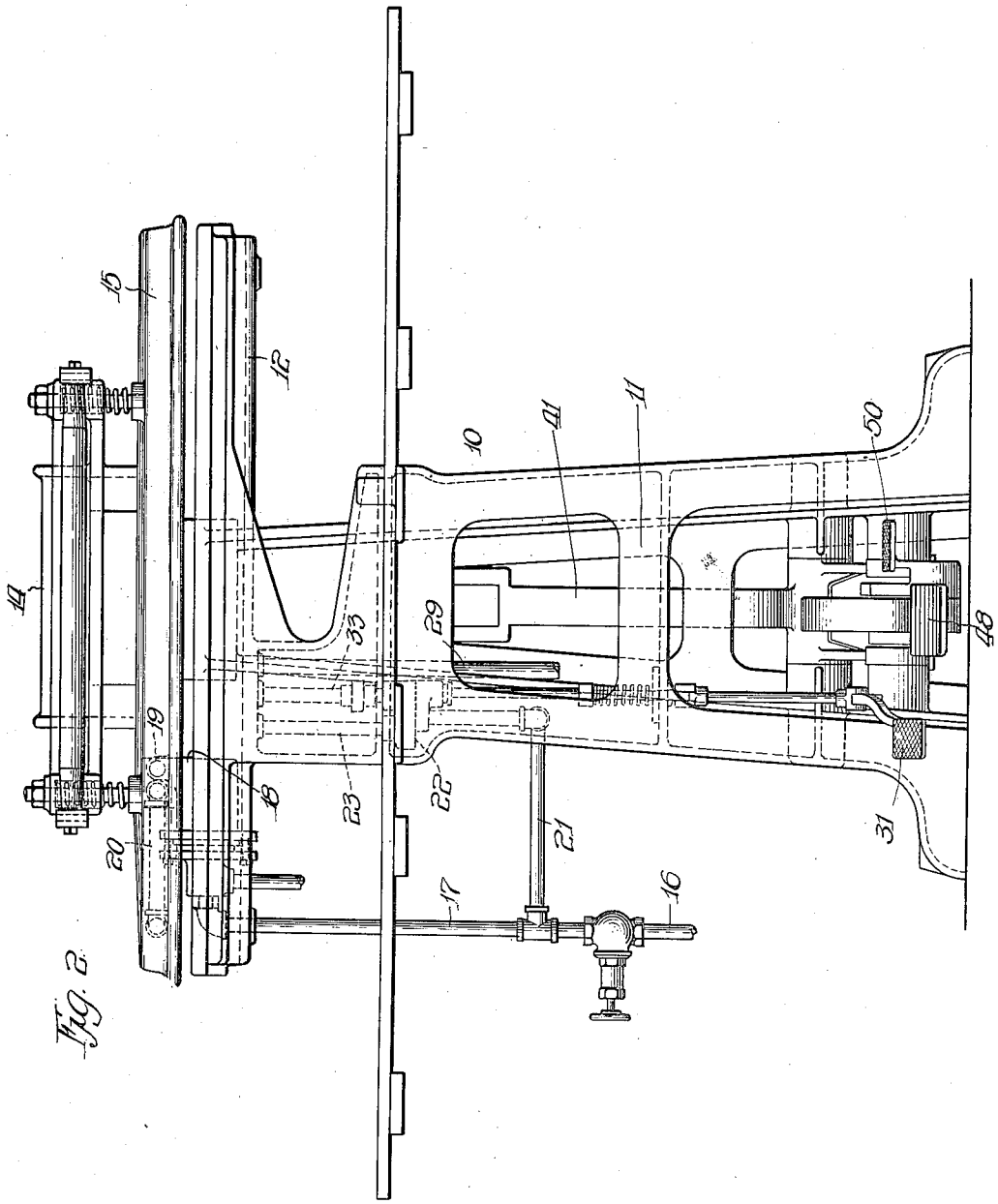


Fig. 2.

Witnesses:
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5 SHEETS—SHEET 3.

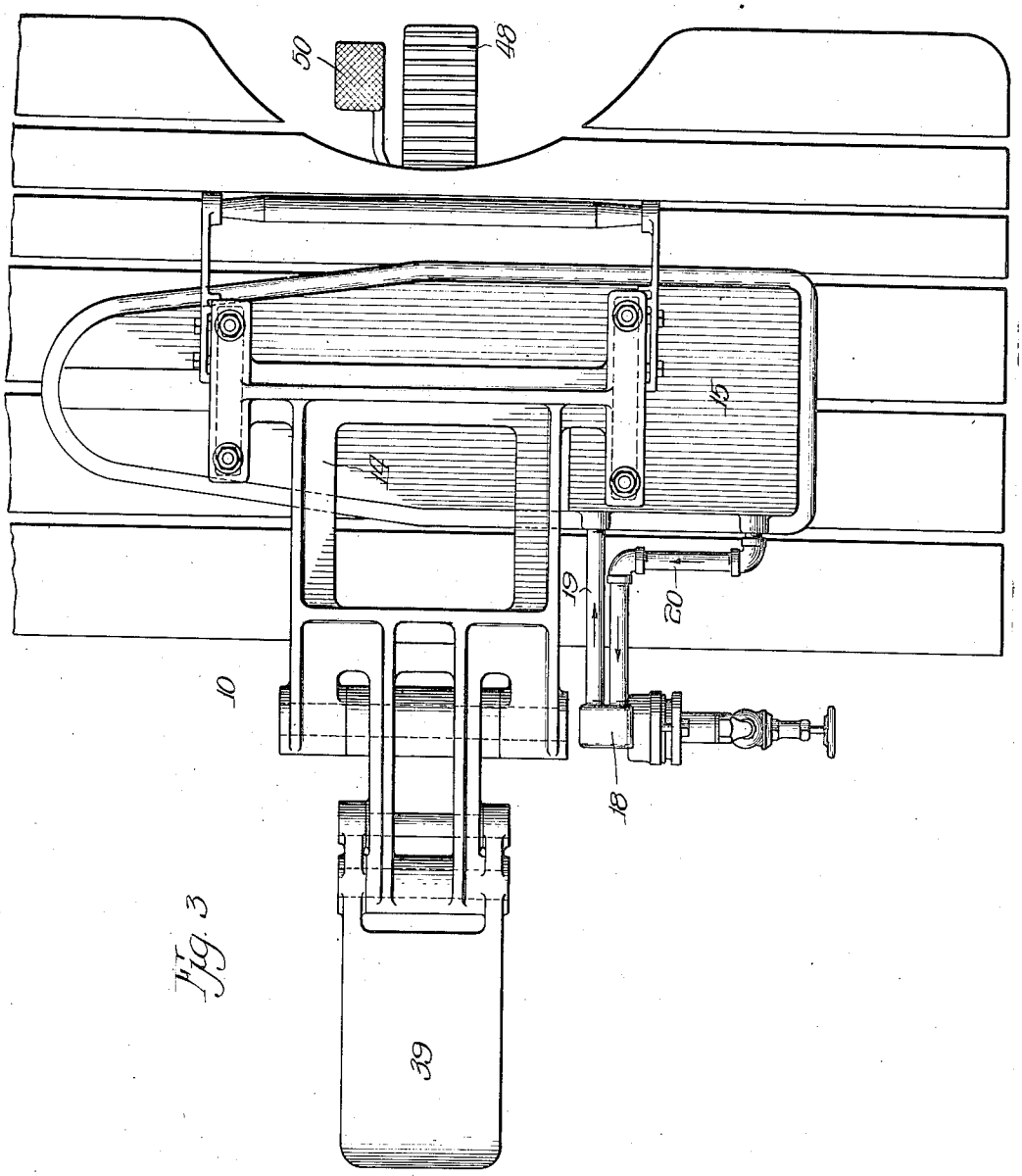


Fig. 3

Witnesses:
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H. C. HOTING.

PRESSING MACHINE.

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1,416,829. Patented May 23, 1922.

5 SHEETS—SHEET 4.

Fig. 5

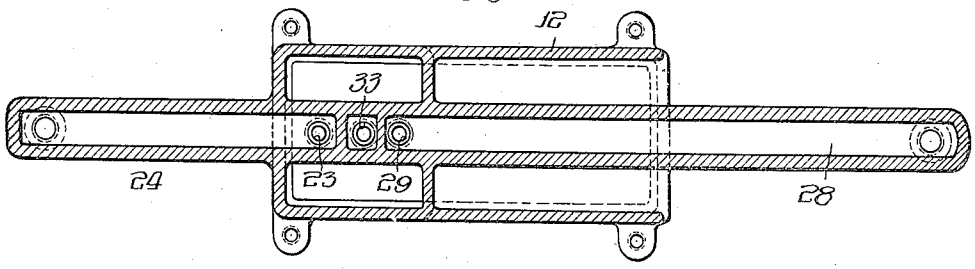


Fig. 4

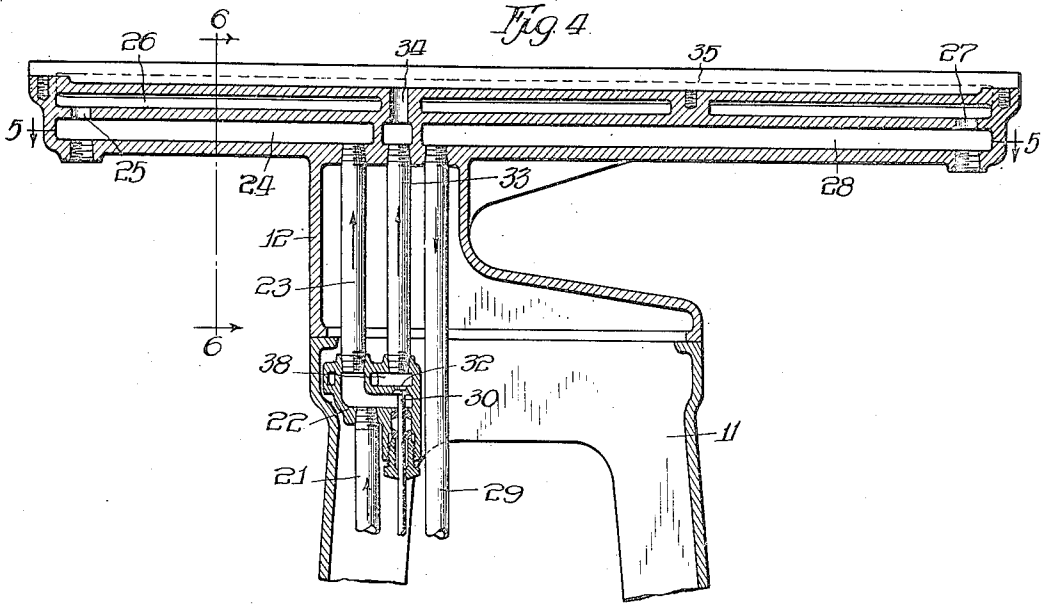


Fig. 7

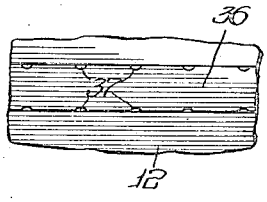
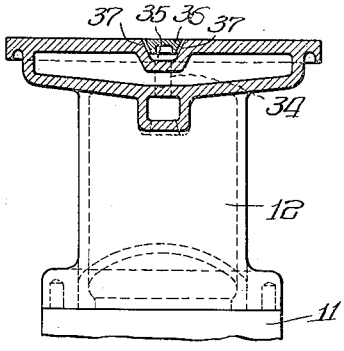


Fig. 6



Witnesses:

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1,416,829.

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5 SHEETS—SHEET 5.

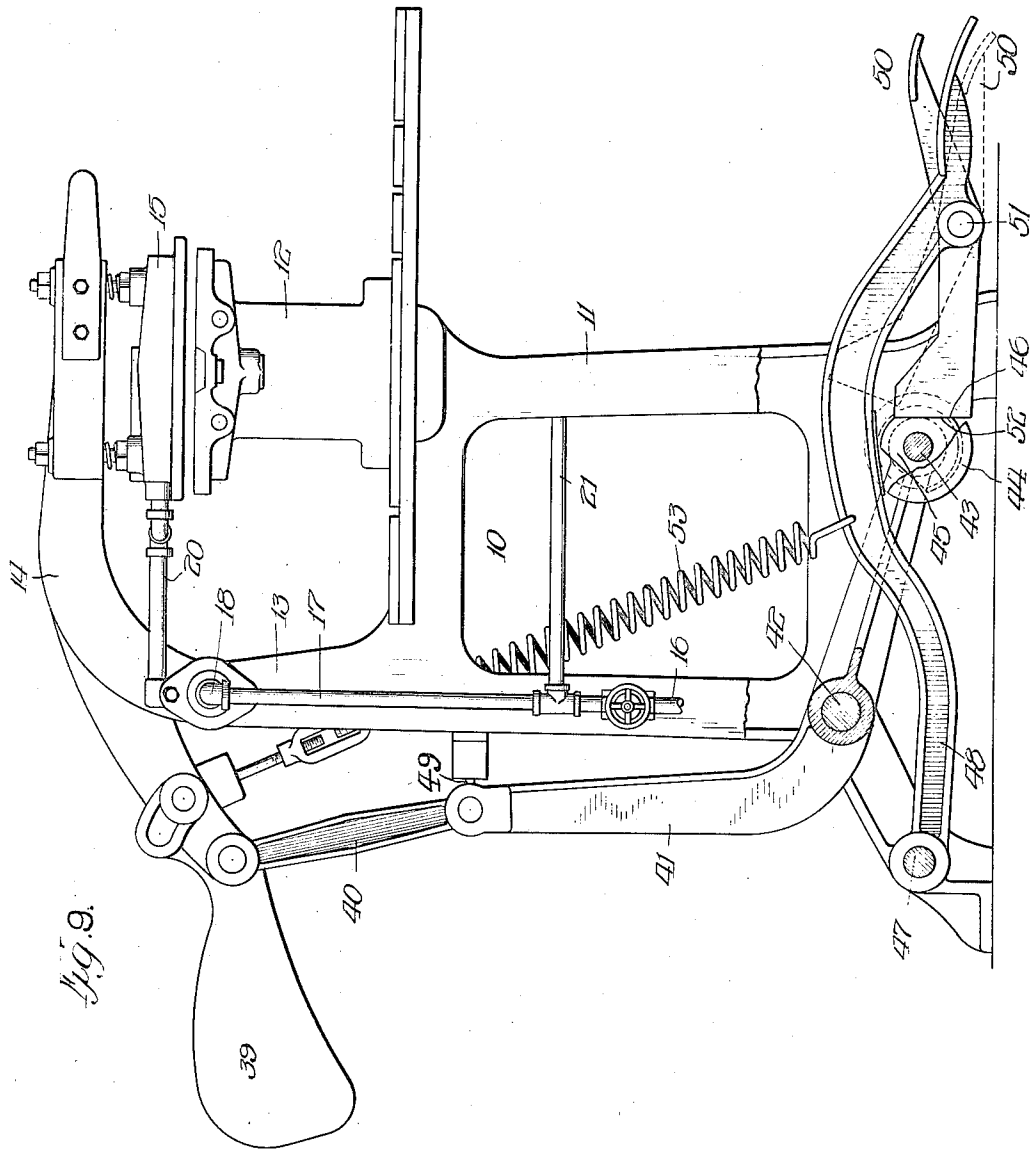


Fig. 9.

Witness
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Inventor:
Hans C. Hoting
By Wickersham & Hurley
Attys.

UNITED STATES PATENT OFFICE.

HANS C. HOTING, OF NEUSS, GERMANY, ASSIGNOR TO TROY LAUNDRY MACHINERY CO. LTD., OF CHICAGO, ILLINOIS, A CORPORATION OF NEW YORK.

PRESSING MACHINE.

1,416,829. Specification of Letters Patent. Patented May 23, 1922.

Application filed November 4, 1918, Serial No. 261,118. Renewed October 31, 1921. Serial No. 511,843.

To all whom it may concern:

Be it known that I, HANS C. HOTING, a citizen of the United States, residing at Neuss, Rhineprovinz, Germany, have invented certain new and useful Improvements in Pressing Machines, of which the following is a specification.

This invention relates to pressing machines.

One of the objects of this invention is to simplify and improve the operation and control of pressing machines.

Another object is to automatically lock the pressing machine in a given or pressing position, without manual adjustment, regardless of the variation in the thickness of the material being pressed.

Another object is to provide a pressing machine wherein the parts cooperate in a novel manner to meet all of the requirements for successful commercial use.

These and other objects are accomplished by means of the arrangement disclosed on the accompanying sheets of drawings, in which—

Figure 1 is a side elevation of a garment pressing machine embodying my invention;

Figure 2 is a front elevation of the same machine;

Figure 3 is a plan view of said pressing machine;

Figure 4 is a detail sectional view showing the steam supply arrangement for the buck of the pressing machine;

Figure 5 is a sectional view taken in the plane of line 5—5 of Figure 4;

Figure 6 is a sectional view taken in the plane of line 6—6 of Figure 4;

Figure 7 is a detail fragmentary plan view of the buck showing the arrangement of the steam apparatus; and,

Figure 8 is a detail view of a portion of the lever control mechanism shown in side elevation in Figure 1.

Figure 9 is a side elevation of the machine with portions broken away showing the operative features for locking the presser in pressing position.

The various novel features of my invention will be apparent from the following description and drawings and will be particularly pointed out in the appended claims.

Referring to the figures of the drawings, it will be noted that I have shown a garment pressing machine 10, including a main frame 11 supporting a buck 12. Pivotally connected to the upper arm portion 13 of the main frame is a frame 14 which carries a pressing shoe 15. Live steam is supplied to the shoe 15 for maintaining the latter in a heated condition, from a supply pipe 16, through pipe 17, swinging joint 18, and pipe 19, the steam passing through the upper half of the shoe and returning through the lower half thereof, and out through pipe 20 and through the return passage of the swinging joint 18. Live steam is supplied to the buck from the steam source 16 through a pipe 21 into a valve casing 22 (see Figures 1 and 4), the steam for heating the buck passing therefrom through a pipe 23 into the lower passageway 24 of the buck, the steam traveling longitudinally of the buck and up through an aperture 25 into the upper passageway 26 of the buck, the steam then traveling longitudinally in an opposite direction through the passageway 26 to and through an aperture 27, the steam then flowing longitudinally in a second lower passageway 28 of the buck and exhausting through a pipe 29. The steam thus traced is used for heating the buck. If it is desired to steam the material being pressed, a valve 30 operated by a pedal 31 is opened, permitting steam to pass from the valve casing 22 up through the valve opening 32, through pipe 33, buck passageway 34, and into the longitudinally extending groove 35 in the upper surface of the buck, which receives a plate 36 provided with two series of apertures 37 for the passage of live steam through the material placed on the buck for steaming purposes. In this connection it will be noted that if for any reason steam in the steam pipe 33 condenses and drips down into a pocket 38 in the valve casing 22, the water of condensation will again be changed into steam for the reason that the steam passing through the casing 22 will maintain it at such a temperature that it is impossible for water, as such, to remain within the pocket 38.

The rear end of the shoe carrying frame 14 is provided with a counterweight arm 39, to which is pivotally connected a link 40, the other end of which link is pivotally connected to a lever 41 pivoted at 42 in the frame 11 of the machine. The free end of this lever 41 is bifurcated and receives between its arms a rod 43 supporting a roller

44 and a loosely mounted cam member 45 having a flat locking face 46 to be referred to later. Pivotally connected to the rear of the frame at 47 is an operating lever 48 extending to the front of the machine, said lever resting upon the roller 44 so that when the lever 48 is depressed the bifurcated end of lever 41 will be depressed for moving the pressing shoe 15 into a pressing position, in which position the link 40 and lever 41, forming a toggle, are thrown into a line with the dead center and into engagement with an adjustable stop member 49. When the shoe is in off, or non-pressing position, the toggle members comprising link 40 and lever 41 are thrown to the other side of the critical center, and the under side of a lever 50, pivotally connected at 51 to the lever 48 near the front end thereof, rides upon the loose cam 45. However, when the lever 48 is depressed and the shoe 15 is moved toward a pressing position, the rear end of lever 50 gradually moves relatively to the cam locking face 46 until the straight front face 52 of the lever 50 falls from its position on top of the cam 45 down into a position engaging the locking face 46 of the cam 45, causing the pressing shoe 15 and the toggle to be locked in pressing position. This locking lever 50 will fall into a locking position with respect to the locking cam 45 automatically, regardless of the variation in the thickness of the materials being pressed, for the reason that the pivotal center 51 of the locking lever 50 moves on the arc of a circle which is larger than the arc on which the center of the locking cam 45 moves. That is to say, the radius from pivotal point 47 to the pivotal point 51 of the lever 50 is greater than the radius from pivotal point 42 to the center of the locking cam 45. Accordingly, as the lever 48 is depressed, the pivotal center 51 of the locking lever 50 recedes from the center of the locking cam 45 and will continue to recede the further the lever 48 is depressed, and regardless of the variation of the thickness of the material being pressed, within certain reasonable limits, the locking cam and locking lever will assume a locking relationship for holding the pressing shoe in a pressing position. To release the pressing shoe from locking position, the lever 50 is depressed, whereupon the locking face 52 thereof moves out of engagement with the locking face 46 of the cam 45, it being understood that the cam 45 is free to rotate on its support. As soon as the locking lever 50 is moved out of locking position, the pressing shoe 15 will be moved upwardly out of pressing position and the toggle comprising link 40 and lever 41 will be broken as a result of the action of spring 53, one end of which is connected to an intermediate point of lever 48, the other end of which is operatively and adjustably connected to the rearwardly extending arm of the shoe carrying frame 14.

By means of this operating and control arrangement a simple and effective pressing machine is provided adapted to meet the various requirements for successful commercial use.

It is my intention to cover all modifications of the invention falling within the spirit and scope of the following claims.

I claim:

1. In a pressing machine, a pressing member, a lever operatively connected to said pressing member, a second lever for actuating the first lever to move the pressing member into a pressing position, a locking member carried by said first lever, and a locking member carried by said second lever for cooperating with the other locking member to lock the pressing member when said position is reached.

2. In a pressing machine, a pressing member, a lever operatively connected to said pressing member, a second lever for actuating the first lever to move the pressing member into a given position, a locking member carried by said first lever, and a locking member carried by said second lever for cooperating with the other locking member to lock the pressing member in a given position when said position is reached.

3. In a pressing machine, a pressing member, a toggle connected thereto, a lever operatively connected to said toggle for actuating said pressing member, and locking means carried by said lever and cooperating with a member carried by said toggle for locking the toggle in a given position.

4. In a pressing machine, a pressing member, a toggle operatively connected thereto including a lever, a locking member carried by said toggle member, a second lever for operating said toggle and pressing member, and a third lever carried by the second lever cooperating with said locking member for locking the toggle and pressing member in pressing position and by means of which the locking condition may be changed.

5. In a pressing machine, a movable pressing member, an intermediately fulcrumed press operating lever connected with said pressing member and having a free end through which it is moved, an actuating lever bearing upon said free end to control the press operating lever, a locking cam carried by said free end, the coacting parts of said operating lever and actuating lever moving on different radii, and a locking lever carried by the free end of the actuating lever and coacting with said locking cam.

Signed at Chicago, Illinois, this 31 day of October, 1918.

HANS C. HOTING.