

(No Model.)

2 Sheets—Sheet 1.

D. GESSNER.
CLOTH PRESSING MACHINE.

No. 536,686.

Patented Apr. 2, 1895.

Fig. 2.

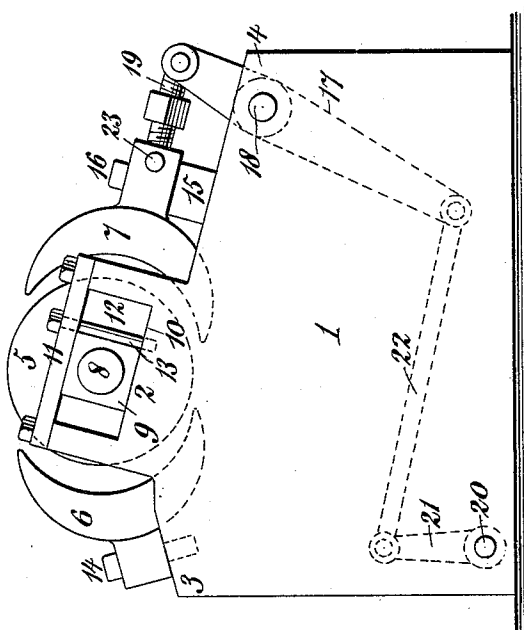
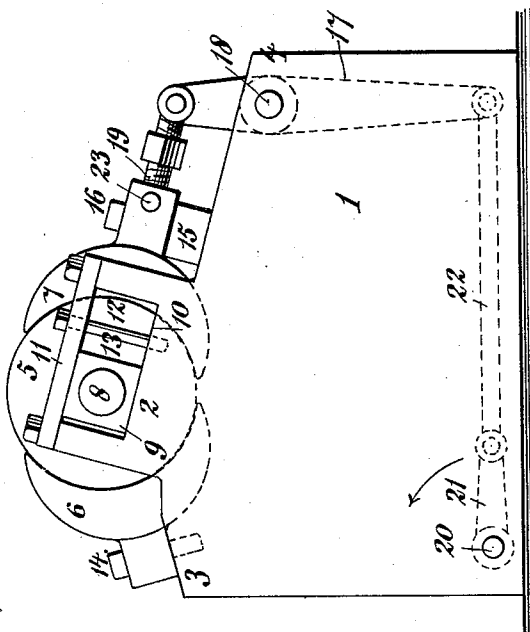


Fig. 1.



Witnesses:-

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by Lifford & Bull
Attys.

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2 Sheets—Sheet 2.

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Fig. 3,

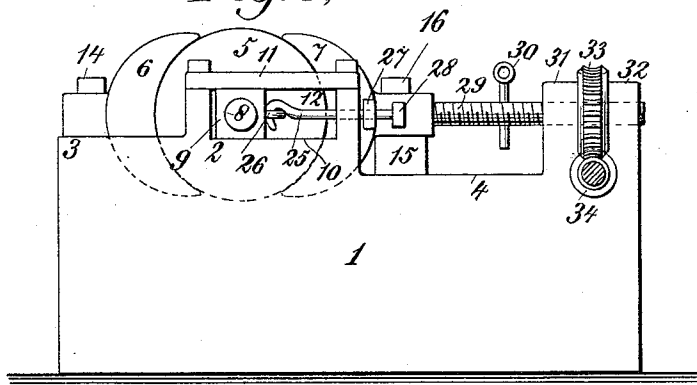


Fig. 4,

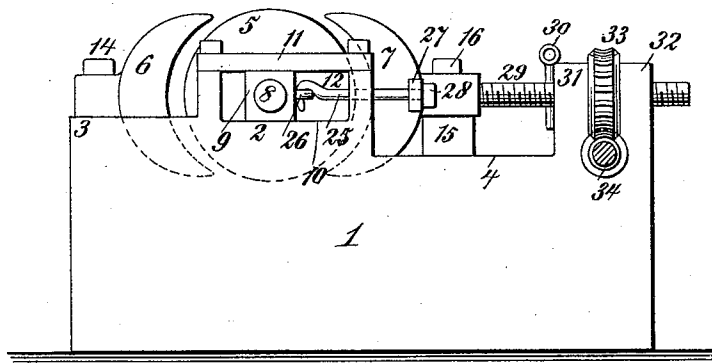
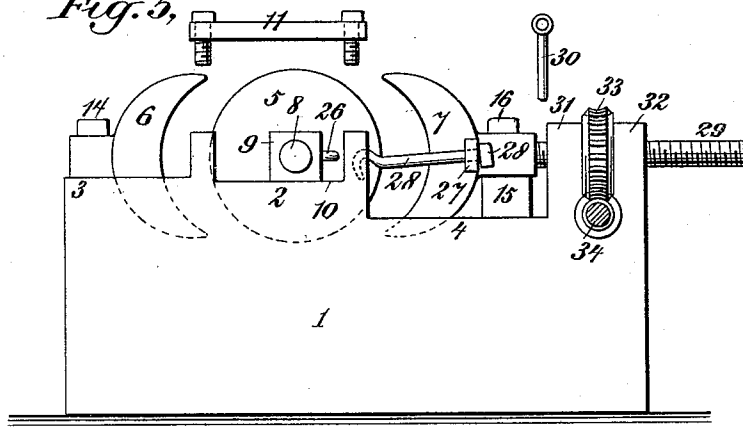


Fig. 5,



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UNITED STATES PATENT OFFICE.

DAVID GESSNER, OF WORCESTER, MASSACHUSETTS.

CLOTH-PRESSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 536,686, dated April 2, 1895.

Application filed September 8, 1894. Serial No. 522,496. (No model.)

To all whom it may concern:

Be it known that I, DAVID GESSNER, of Worcester, Massachusetts, have invented a new and useful Improvement in Cloth-Pressing Machines, of which the following is a specification.

Figure. 1 of the accompanying drawings is an end view of the machine, showing the parts in the position where the bed plates are pressed against the cylinder. Fig. 2 is an end view of the same, showing the bed plates and cylinder separated from each other. Figs. 3, 4 and 5 show a modification.

1 is one end of the frame of the machine. It is provided with an upward extension 2 to carry the bearings of the cylinder. On one side of this upward projection, provision is made at 3 on the frame for the attachment of one of the bed plates. On the other side of the projection 2 the frame is provided with a slide at 4 to receive one of the carriages of the other bed plate.

5 is the cylinder.

6 and 7 are the bed plates.

8 is the journal of the cylinder.

9 is a bushing upon the journal.

10 is a slide on the frame slightly downwardly inclined, as shown, upon which slide rests the bushing 9.

11 is the cap provided with a slide opposed to 10 so that between the two exists the oblong opening or bearing 12.

13 is a pin extending down through the cap 11 and across the opening 12, as shown.

14 is a bolt by which the bed plate 6 is fixed to the frame.

15 is a carriage resting on the slide 4 to support one end of the bed plate 7 to which carriage the bed plate is secured by the bolt 16.

17 is a lever pivoted to the frame at 18 and shackled to the back of the bed plate 7 by the shackle 19, which is provided with right and left hand screws for lengthwise adjustment.

20 is a rock shaft to which is fixed the arm 21, the free end of which is connected with the long arm of the lever 17 by link 22.

It is to be understood that a similar construction to that shown in the drawings exists at both ends of the cylinder and bed plates for the support and operation of the same; the same shaft 20 connecting with the arms 21 at opposite ends, so that the mechanism at

opposite ends shall be moved in unison by the operation of the shaft 20.

The operation is as follows: In the position shown in Fig. 1, the parts are in pressing position. When it is desired to release the pressure, the rock shaft 20 is turned by any suitable means in the direction of the arrow Fig. 1 and the bed plate 7 is drawn backward positively on its carriage 15. As it is drawn back, the cylinder 5 will follow it, by reason of the tendency of the bushing 9 to slide down the incline 10, until it is arrested by the stop pin 13. This movement of the cylinder will cause its separation from the bed plate 6, as shown. As soon as the bushing 9 is arrested by the stop pin 13, the farther backward movement of the bed plate 7 will produce the separation between the bed plate 7 and the cylinder 5 shown in Fig. 2. The distance to which the cylinder may be thus separated from the bed plate 6, and to which the bed plate 7 may be separated from the cylinder can be regulated by the constructor by the position of the stop pin 13 and by the throw of the rock shaft 20.

The mechanism shown may be utilized to secure ample movement for not only releasing the pressure between the pressing surfaces, but also for breaking contact, and if necessary for the lateral or upward removal of the sheet metal facings or linings of the bed plates. Furthermore, the mechanism shown will enable the cylinder to be removed laterally upward without dismounting the bed plates. A convenient way to accomplish this will be to remove the shackle pin 23 and shove the bed plate 7 and its carriage 15 as far back on the guide 4 as may be necessary, then remove the cap 11 and stop pin 13 so as to permit the bushing 9 to slide as much farther down the slide 10 as may be necessary.

In the modifications shown in Figs. 3, 4 and 5 a different means is employed in lieu of the inclined guide way 10 for causing the cylinder to follow the bed plate 7. Here the guide way may be horizontal and a hook 25 engages with an eye 26 on the bushing 9. The shank of this hook is movable longitudinally through a hole in the lug 27 attached to bed plate 7. On the end of the shank is a nut 28 which acts as a stop, so that when the bed plate 7 has moved back far enough for the nut 28 to strike the lug 27, the farther movement of the bed

plate pulls the cylinder along with it, and separates the cylinder and the bed plate 6.

In the modification shown in Figs. 3, 4 and 5, the mechanism for moving the bed plate also is different. Here it consists of the screw shaft 29 revolvably connected with the bed plate 7 and mounted in the upward projections from the frame 31 and 32 between which is the worm wheel 33 threaded to the shaft 29 and actuated by the worm 34. The pin 30 may be used to fix the extent to which the shaft 29 may be ordinarily moved, but by removing this pin the carriage may be moved far enough back of the guide way 4 for the removal of the cylinder without dismounting the bed plates.

In a patent, No. 387,293, granted to me August 7, 1888, I described a rotary cloth pressing machine in which a cylinder rested on top of a stationary bed plate below and a movable bed plate rested on top of the cylinder, there being vertical guide ways in the frame for the cylinder and the top bed plate, and the cylinder when both bed plates were in use having no support in the frame but being supported in pressing position by the lower bed plate and in non-pressing position by the actuating mechanism of the upper bed plate. I do not intend to claim such an arrangement in this application. In the construction shown in this application the frame is given an added function, namely, it substantially supports the cylinder when both bed plates are in use. Thus, in Fig. 1, in pressing position, the stationary bed plate, 6, does not support the cylinder but the cylinder is substantially supported by the guide ways 10 on the frame; the downward inclination of the guideways not being sufficient to deprive the bed plate of substantial support by the frame. In Fig. 2 in non-pressing position, the cylinder is still substantially supported by the guide way 10. Thus also, in Figs. 3, 4 and 5, the cylinder is supported by the guide way 10, both in pressing and non-pressing position.

I claim—

1. In a rotary cloth pressing machine in combination, a cylinder, two bed plates, one on each side of the cylinder, a frame to which one bed plate is secured on one side of the cylinder and having a guideway for the other bed plate on the opposite side of the cylinder, and also provided with an intermediate sliding bearing for the cylinder constituting a substantial support for the weight of the cylinder both in pressing and non-pressing position, and means whereby the cylinder is caused to follow the retreating bed plate, substantially as described.

2. In a rotary cloth pressing machine in combination a cylinder, sliding bearings therefor, two bed plates, a stop on the frame sup-

porting one bed plate against the pressure of the cylinder, actuating mechanism connected with the other bed plate whereby the pressure is thrown on or off and means whereby the cylinder is caused to follow the retreating bed plate; said sliding bearings constituting a substantial support for the weight of the cylinder both in pressing and non-pressing position, substantially as described.

3. In a rotary cloth pressing machine in combination a cylinder, sliding bearings therefor, two bed plates, a stop on the frame supporting one bed plate against the pressure of the cylinder, actuating mechanism connected with the other bed plate whereby the pressure is thrown off or on; said sliding bearings constituting a substantial support for the weight of the cylinder both in pressing and non-pressing position, and inclining downwardly toward the bed plate with which said actuating mechanism is connected, substantially as described.

4. In a rotary cloth pressing machine, in combination, a cylinder, sliding bearings therefor, two bed plates provided with sheet metal facings, a stop on the frame supporting one bed plate against the pressure of the cylinder, actuating mechanism connected with the other bed plate whereby the pressure is thrown on or off, sliding bearings for said other bed plate; said cylinder sliding bearings constituting a substantial support for the weight of the cylinder both in pressing and non-pressing position; and said cylinder bearings and said bed plate bearings being of sufficient length to permit of separation between the cylinder and the bed plates to permit of the upward removal of the sheet metal facings of the bed plates without dismounting said bed plates or said cylinder, substantially as described.

5. In a rotary cloth pressing machine, in combination a cylinder, sliding bearings therefor, two bed plates, a stop on the frame supporting one bed plate against the pressure of the cylinder, actuating mechanism connected with the other bed plate whereby the pressure is thrown on or off, sliding bearings for said other bed plate; said cylinder sliding bearings constituting a substantial support for the weight of the cylinder both in pressing and non-pressing position; and said cylinder bearings and said bed plate bearings being of sufficient length to permit of separation between the cylinder and the bed plates to permit of the upward removal of the cylinder without dismounting said bed plates, substantially as described.

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