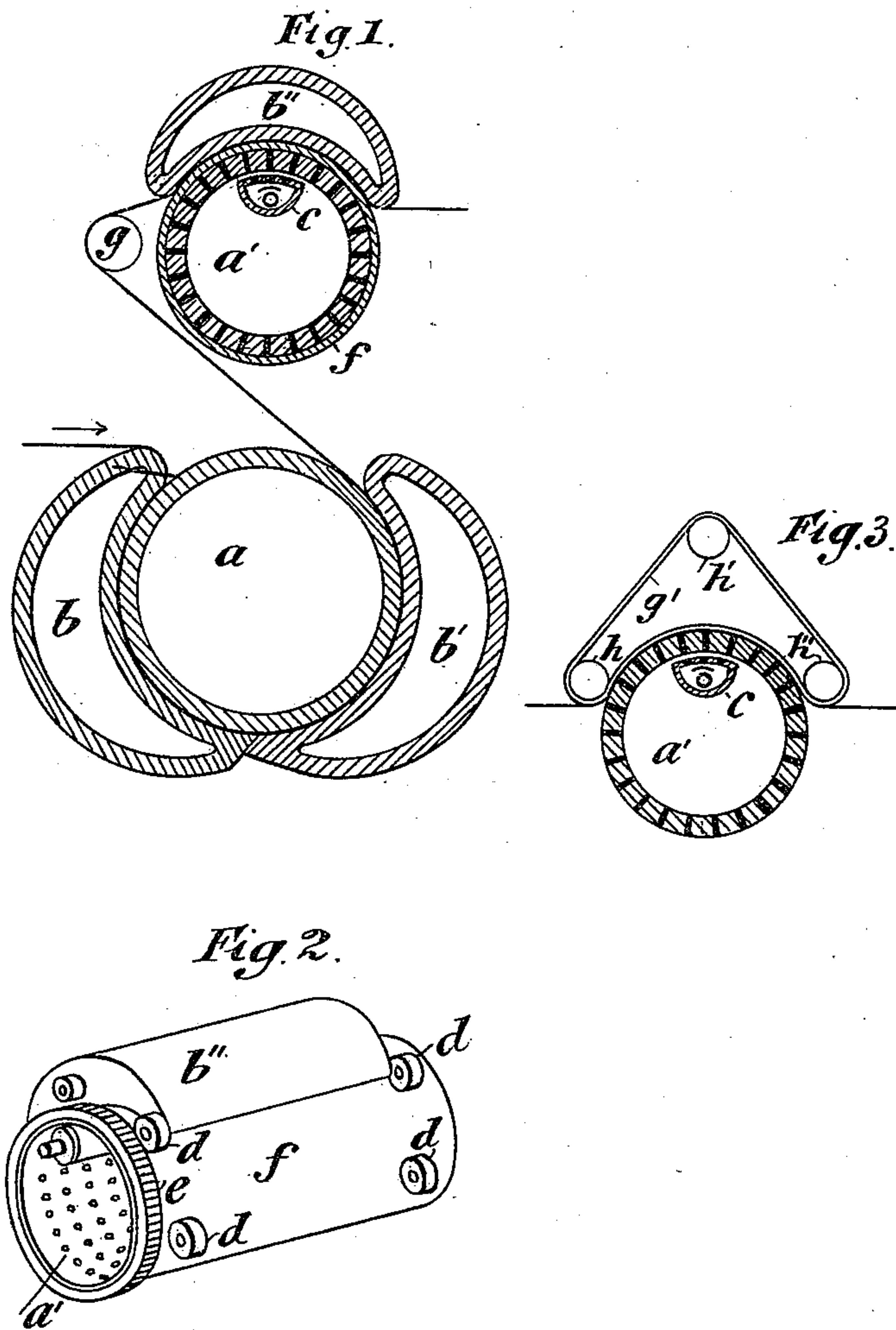


(No Model.)

D. GESSNER.  
CLOTH PRESSING MACHINE.

No. 438,774.

Patented Oct. 21, 1890.



WITNESSES:  
*Geo. Wadman*  
*H. A. Raban*

INVENTOR  
*David Gessner*  
BY *Gifford & Brown*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

DAVID GESSNER, OF WORCESTER, MASSACHUSETTS.

## CLOTH-PRESSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 438,774, dated October 21, 1890.

Application filed December 27, 1887. Serial No. 258,997. (No model.)

*To all whom it may concern:*

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

In my application, Serial No. 212,702, filed September 4, 1886, I have shown a machine to which the parts shown and described in the present application may be applied in place of the cylinders and pressing devices in said application.

Figure 1 shows the cylinders, press-plates, steamer, and stretcher in section. Fig. 2 is an isometric view of the upper cylinder and its bed-plate. Fig. 3 is a modification.

$a$  is a cylinder of the usual construction, provided with an internal chamber heated by steam.

$b b'$  are the bed-plates, by which the cloth is pressed against the cylinder  $a$ .  $b''$  is a bed-plate for pressing the cloth against the cylinder  $a'$ . All of these bed-plates are chambered, so as to be heated by steam.

$a'$  is a cylinder, which is different from the ordinary construction. It is hollow and open at both ends. It is filled with perforations, as shown in the drawings, and is mounted between rollers, as  $d d d d$ , Fig. 2, which run upon its circumference. Power to communicate rotation to it is transmitted through the gear  $e$ , fastened to the shell of the cylinder. The surface of this cylinder  $a'$  is preferably covered with a close-fitting moisture-absorbing jacket  $f$ . Within the cylinder  $a'$  is placed the steamer  $c$ , arranged so as to throw steam upward through the perforations in the cylinder as they in turn come above it and into the felt jacket. This steamer  $c$  is arranged at or near the top of the vertical diameter of the cylinder  $a'$ . The bed-plate  $b''$  is arranged above the cylinder  $a'$ , so that the cloth as it passes between this bed-plate and the cylinder  $a'$  will be in contact with that portion of the jacket which is being moistened by steam passing out from the steamer  $c$ .

$g$  is a stretcher of ordinary construction.

The cloth coming in the direction of the arrow, Fig. 1, passes between the bed-plates  $b b'$  and the cylinder  $a$ , thence around the stretcher  $g$ , and thence between the bed-plate  $b''$  and the jacketed perforated cylinder  $a'$ .

While the cloth is passing around the cylinder  $a$  it receives a dry hard pressure in contact with the metallic surfaces of the cylinder and bed-plates. It is then stretched by the stretcher  $g$ , so that its width is maintained, and then it is submitted to the action of the moistening or steaming by the jacket  $f$  under the pressure of the bed-plate  $b''$ .

I do not confine myself to the details of construction shown, nor to the presence of all the elements in combination, since I am aware that any of the elements may be used to advantage without others, and that the form of some may be changed to a greater or less extent.

Instead of the bed-plate  $b''$ , I may employ the endless felt apron  $g'$ , (shown in Fig. 3,) which is supported on the rollers  $h h' h''$ , and may be pressed against the surface of the perforated cylinder by the rollers  $h h''$ .

It is not always necessary that the bed-plate  $b''$  or the rollers  $h h''$  should press the cloth against the opposite surface. The more essential function which these parts perform is to guide the cloth onto the opposite surface, so as to insure its running in contact with that surface, the edges of the bed-plate  $b''$  in this guiding operation operating substantially like the rollers  $h$  and  $h''$ .

I claim—

1. In combination with the cylinder  $a$  and its co-operating pressing-surface, a moisture-absorbing fabric arranged to travel in contact with the cloth after it is pressed upon the cylinder  $a$ , the steamer  $c$ , the perforated surface arranged between the steamer and the cloth and traveling with the cloth, and means whereby the cloth is directed over said perforated surface, substantially as described.

2. In combination with the cylinder  $a$  and its co-operating pressing-surface, a moisture-absorbing fabric arranged to travel in contact with the cloth after it is pressed upon the cylinder  $a$ , the steamer  $c$ , the perforated surface arranged between the steamer and the cloth and traveling with the cloth, and a co-operating pressing-surface whereby the cloth is pressed toward the perforated surface, substantially as described.

3. In combination, the cylinder  $a$  and its co-operating bed-plate, the perforated cylinder  $a'$ , the bed-plate co-operating therewith,



and the stationary steamer *c*, arranged within the perforated cylinder to supply moisture to the cloth through said perforations, substantially as described.

- 5 4. In combination, a cylinder provided with perforated walls, a stationary steamer arranged within said cylinder at or near the top of the vertical diameter thereof, the said steamer being provided with perforations at

its top whereby the steam is discharged upwardly onto the cloth as it is passing over the perforated cylinder, substantially as described.

DAVID GESSNER.

Witnesses:

GEO. S. TAFT,

BRADFORD L. ESTEN.