

(No Model.)

D. GESSNER.  
CLOTH PRESSING MACHINE.

No. 387,288.

Patented Aug. 7, 1888.

Fig. 1.

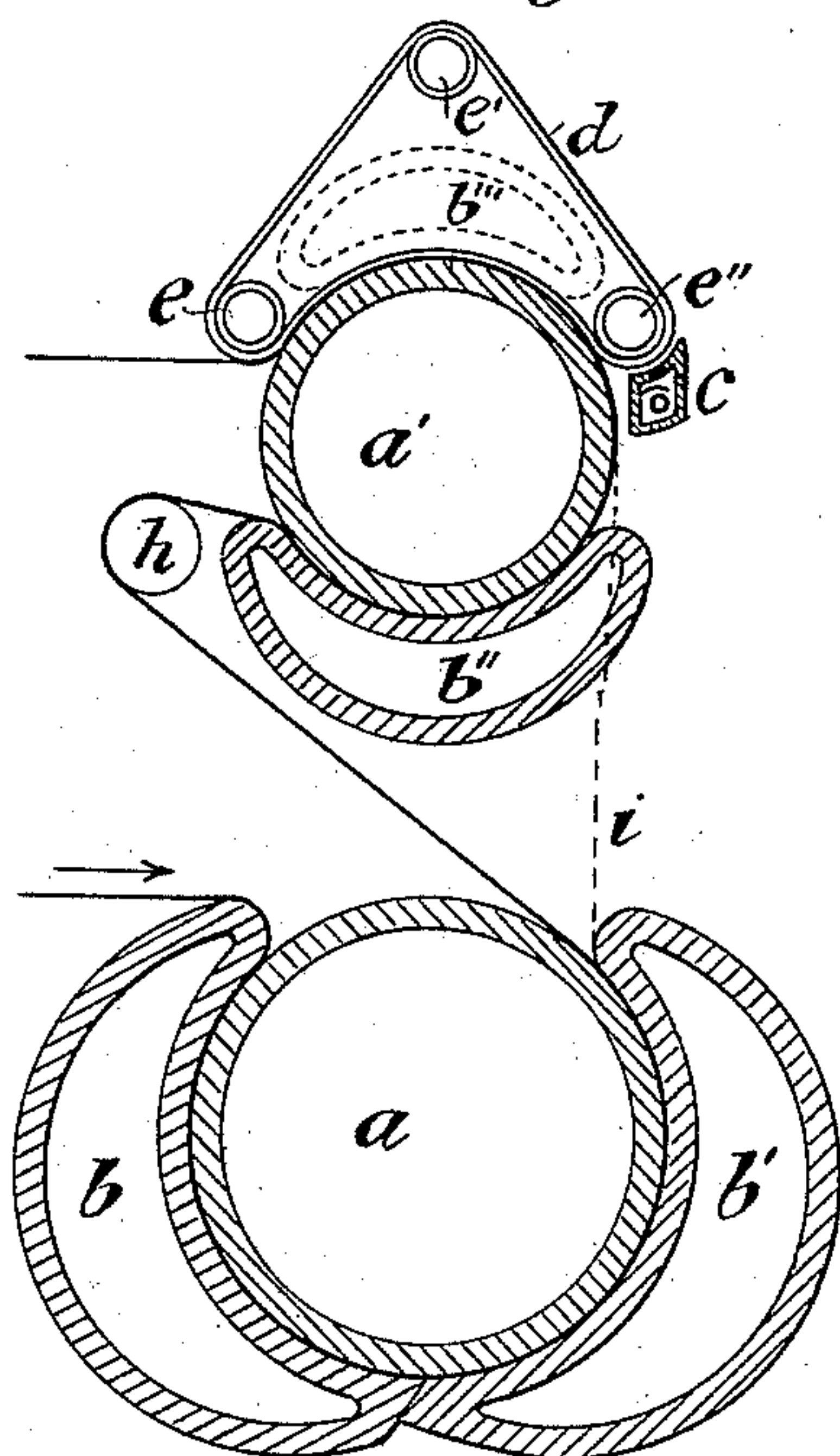
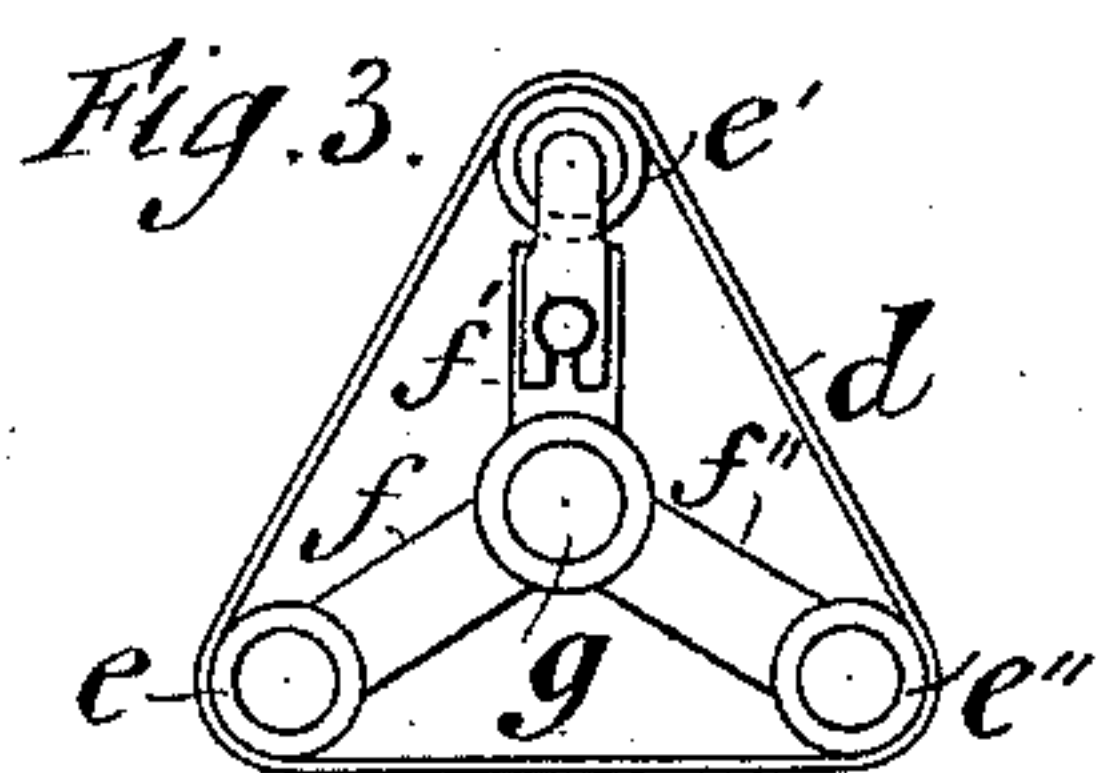
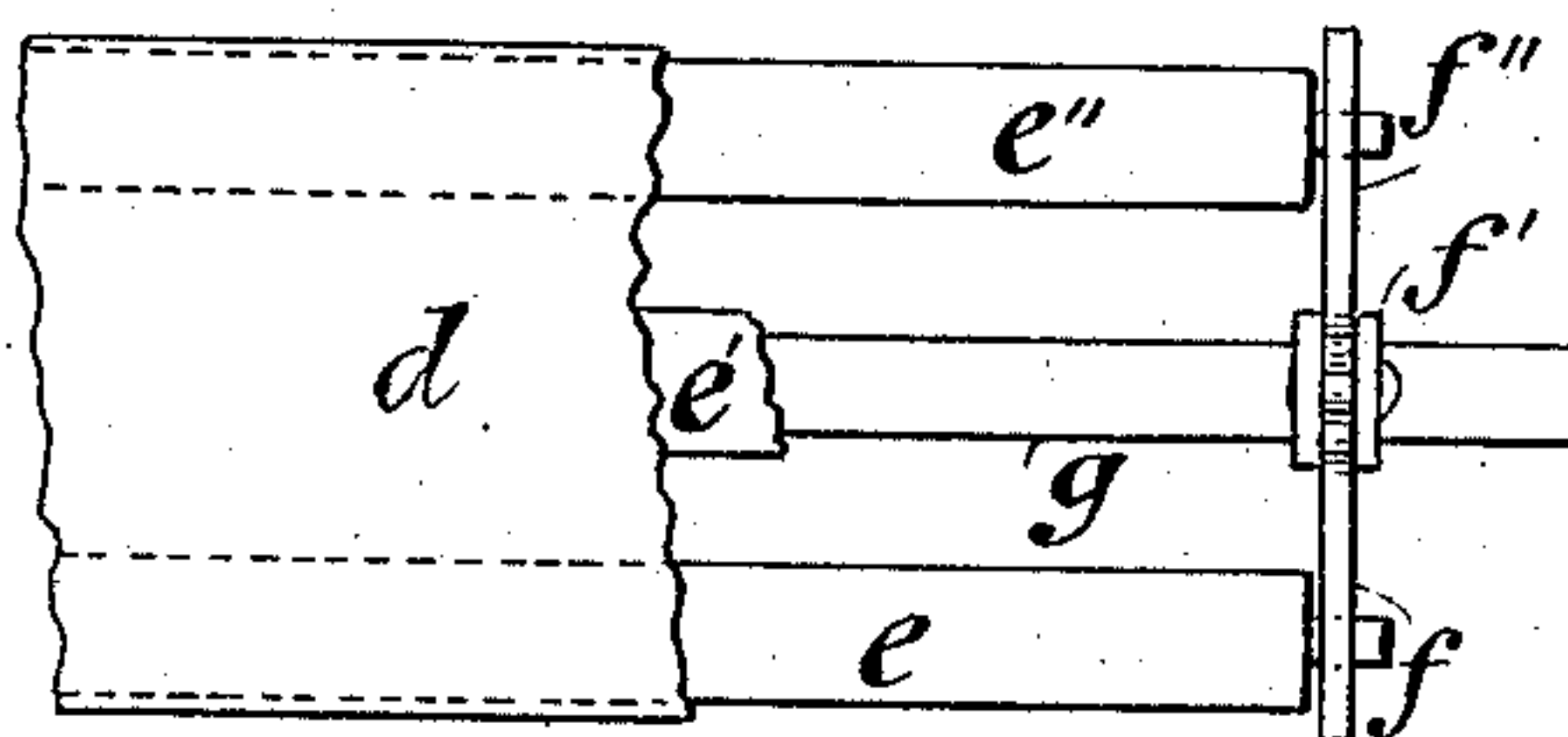


Fig. 2.



WITNESSES:

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DAVID GESSNER, OF WORCESTER, MASSACHUSETTS.

## CLOTH-PRESSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 387,288, dated August 7, 1888.

Application filed December 27, 1887. Serial No. 258,998. (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  
5 Cloth-Pressing Machines, of which the following is a specification.

In my application filed September 4, 1886, Serial No. 212,702, I have described a machine for pressing cloth, and it will be understood that the parts which are the subject of  
10 this application may be used in that machine, and the pressing appliances will be operated by mechanism similar to that therein described.

15 In the drawings, Figure 1 is a sectional view through the cylinders, rolls, apron, steamer, and bed-plates. Figs. 2 and 3 are detail views showing the arrangements for the support of the apron. Fig. 4 shows a modification.

20 *a* and *a'* are two pressing-cylinders, each provided with an internal steam-chamber for heating it.

*b b'* are two bed-plates which press the cloth against the cylinder *a*. These bed-plates are  
25 also chambered, so as to be heated by steam.

*b<sup>2</sup>* is a bed-plate arranged below the cylinder *a'*, to press the cloth against said cylinder. This bed-plate is also chambered, so as to be heated by steam. In use the surfaces of these  
30 cylinders and bed-plates are dry, so that the pressure exerted by them is a dry pressure.

*d* is an apron, preferably of felt, which runs upon the rollers *e e' e<sup>2</sup>*. These rollers are journaled at the extremities of the arms *f f' f<sup>2</sup>* of  
35 a frame (one for each end of the rollers) which is mounted upon a central shaft, *g*.

The arm *f'* is provided with means of adjustment, whereby it may be lengthened or shortened, so as to increase or diminish the  
40 tension upon the apron *d*. This adjustment is shown in Fig. 3 as a set-screw and slot.

*e* is a steamer, which is arranged to moisten the apron *d* just before it comes in contact with the cloth being pressed.

45 *h* is a stretcher-roll of ordinary construction. It will be understood that the various bed-plates are provided with journals, as described in my said former application, and that the said journals and the journal of the shaft *g* are  
50 all mounted in suitable supports whereby each may be moved to and from its pressing-

cylinder, so as to press or release pressure as required.

The cloth enters in the direction of the arrow, Fig. 1, passes successively under the  
55 pressure of the bed-plates *b b'*, thence over the stretcher-roll *h*, whereby its proper width is maintained, thence between the cylinder *a'* and bed-plate *b<sup>2</sup>*, and thence around the cylinder *a'* and between it and the moistened apron  
60 *d*. Rollers *e e<sup>2</sup>* and the tension of the apron between them will create a pressure upon the cloth between the apron and the bed-plate *a'*, and, if desired, the rollers *e e<sup>2</sup>* may be hollow and heated by steam. If it is desired to in-  
65 crease the pressure between the apron and the cylinder *a'*, an additional bed-plate, *b<sup>3</sup>*, may be used, as shown in dotted lines in Fig. 1.

Sometimes it may be thought desirable to omit the bed-plate *b<sup>2</sup>*, and in such case the  
70 cloth may be conducted directly from the cylinder *a*, in the course of the dotted line *i*, to the point at which it enters between the cylinder *a'* and the apron *d*.

I do not confine myself to the details of construction nor to the presence of all of the elements or mechanisms described, as I am aware that the construction may be varied in certain portions of the apparatus, and some elements may be used without others while still obtain-  
80 ing the benefit of my invention to a greater or less extent.

Instead of steamer *e*, (shown in Fig. 1,) I may employ an equivalent, as the device shown in Fig. 4, where the apron *d* is moistened by the  
85 cloth-covered roller *j*, which in turn is moistened by being partly submerged in hot or boiling water contained in a trough, *k*. The roller *l* acts as a squeezer to prevent the cloth on roller *j* from being too wet, as in a sizing  
90 apparatus.

I claim—

1. In a cloth-pressing machine, a dry pressing-surface provided with a heating-chamber, and an apron arranged successively along the  
95 path in which the cloth travels, means whereby the cloth is pressed against said pressing-surface and said apron, and means for moistening said apron, substantially as described.

2. In combination, the cylinder, a pressing-  
100 surface, an apron, means whereby the apron is pressed upon the cloth between it and the



cylinder, and means whereby the apron is moistened, substantially as described.

3. In combination, a cylinder, a press plate, a moisture-absorbing apron, a steamer for  
5 moistening said apron, and mechanism whereby said apron is pressed in contact with the cloth against the cylinder, whereby the cloth, after receiving pressure from the press-plate, is again pressed in contact with the moistened  
10 apron, substantially as described.

4. In combination, the cylinder and apron, means whereby the apron is pressed upon the cloth between it and the cylinder, and a steamer or moistener arranged to deposit moist-  
15 ure on the face of the apron which comes next the cloth, substantially as described.

5. In combination, a cylinder, an endless apron, the rollers  $e\ e'\ e^2$ , supporting said apron, arms  $f\ f'\ f^2$ , and a central shaft,  $g$ , substan-  
20 tially as described.

6. In combination, two cylinders, one or more bed-plates arranged to press the cloth against one of said cylinders, and the endless apron arranged to press the cloth against the other of said cylinders, and means whereby 25 the apron is pressed upon the cloth, and the steamer arranged to deposit moisture upon the said apron, substantially as described.

7. In combination, the cylinder  $a$ , one or more bed-plates operating therewith, the cyl- 30 inder  $a'$ , the bed-plate  $b''$ , the endless apron  $d$ , and means for supporting said apron, substantially as described.

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Witnesses:

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