

H. LINTON.

MACHINE FOR CALENDERING PAPER OR OTHER MATERIAL.

No. 555,385.

Patented Feb 25, 1896.

Fig. 2.

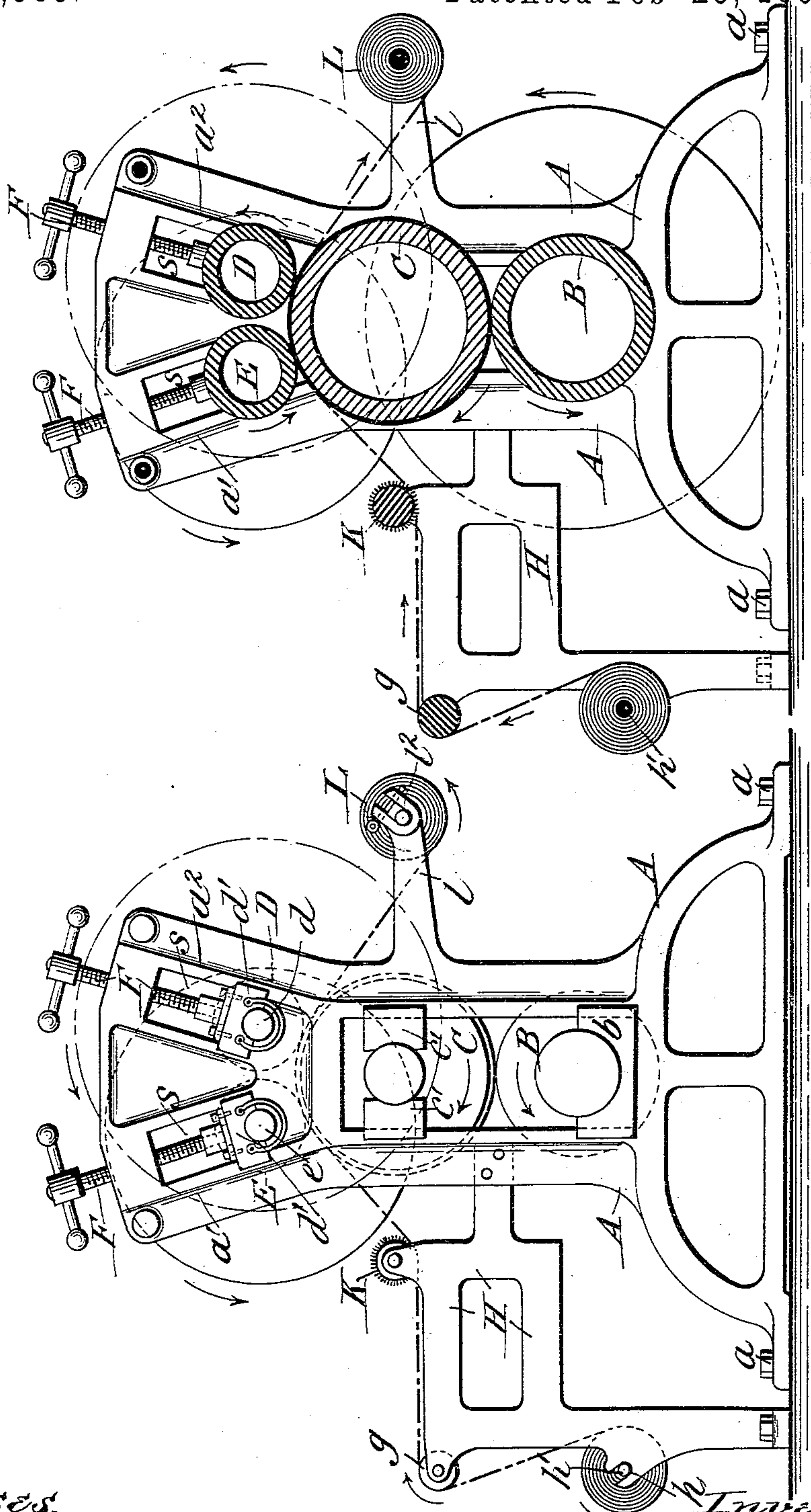


Fig. 1.

Witnesses:

Charles Hannigan.
Edward W. Stodgett

Inventor:

Hugh Linton
by E. W. Stodgett

Att'y.

(No Model.)

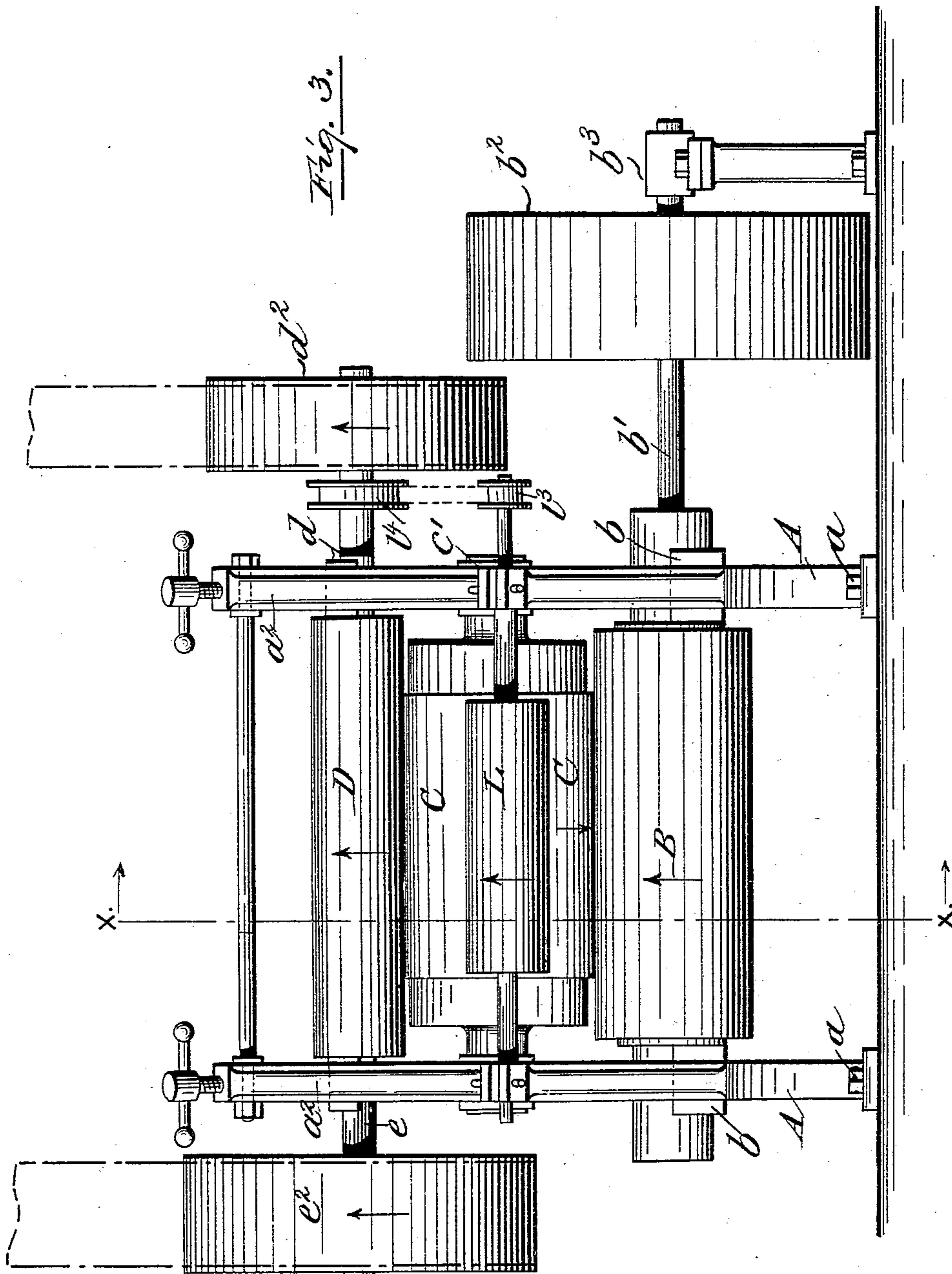
2 Sheets—Sheet 2.

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Witnesses:

Charles Lammigan.
Edward W. Dodge

Inventor.

Hugh Linton
By E. W. Blodgett
Att'y.

UNITED STATES PATENT OFFICE.

HUGH LINTON, OF PAWTUCKET, RHODE ISLAND.

MACHINE FOR CALENDERING PAPER OR OTHER MATERIAL.

SPECIFICATION forming part of Letters Patent No. 555,385, dated February 25, 1896.

Application filed June 12, 1893. Serial No. 477,360. (No model.)

To all whom it may concern:

Be it known that I, HUGH LINTON, a citizen of the United States, residing at Pawtucket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Machines for Calendering Paper or other Material; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The object of my invention is to provide a calendering-machine, and I accomplish this by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a machine embodying my invention; Fig. 2, a vertical cross-section on line $x x$, Fig. 3; and Fig. 3, a front elevation.

Similar letters refer to similar parts throughout.

In Fig. 1, A designates a suitable frame, secured to the floor by bolts $a a$. B designates a metal cylindrical roll, mounted in journal-boxes $b b$, constructed in the side of the frame and terminating in a shaft b' , upon which is mounted the tight pulley b^2 , said shaft revolving in the journal-box in the post b^3 , secured in any proper manner to the floor. This roll is a friction-roll, imparting its motion to the cylindrical roll C, of metal, mounted in journal-boxes $c' c'$.

D and E designate two metal cylinders, preferably of equal face, mounted as follows: a' and a^2 designate similar branching arms of the frame A, converging at the same angle to the face of the cylinder C. At $d' d'$ journal-boxes are constructed on these arms, in which revolve the respective shafts d and e of the cylinders D and E. These journal-boxes are adjustable within the longitudinal slots $s s$ of said arms $a a$ by means of the large screws F. This adjustment is employed to force the rolls against the calendering-roll at any pressure required.

By reference to Fig. 3 it will appear that my machine is preferably supplied with three tight pulleys marked, respectively, $b^2 d^2 e^2$, constructed with diameters respectively proportioned to the speed required of the respective cylinders. The pulleys d^2 and e^2 are re-

spectively mounted upon opposite sides of the frame on the extensions of the shafts d and e , respectively. By reference to Fig. 3 it will also be seen that I preferably set these cylinders one in front of the other in such a manner that the cylinder farthest from the delivery-roll will have the greatest speed.

H designates a suitable framework attached to the main frame A and secured to the floor, being adapted to receive the roll of material and deliver the same to the calendering-cylinder, as follows: in a slotted recess h on the front of the frame rests the bar h' , upon which the material is rolled. From this bar, in the direction indicated by the arrow-head, the end of the roll is carried over the loose roll g , revolving in an arm of the frame; thence to and under a brush-roll K, mounted and revolving in suitable bearings in the side of the frame; thence between the cylinder D and the calendering-roll C. Thence the material is carried, by the revolutions of the pressing-rolls D and E and calendering-roll C revolved in the direction indicated by the arrow-heads, Fig. 2, to the receiving-roll L, mounted upon an arm l of the frame in journal-boxes l^2 , Fig. 1, and adapted to be revolved in its bearings by the pulleys l^3 and l^4 and take up the material as fast as delivered.

The pulley e^2 I have preferably made larger than the pulley d^2 that the speed of the roll E may be slower than that of D.

The manner of using my machine is as described above, the material to be treated being mounted in a roll at h' , passed over the pulley g , under the brush-roll K, between the pressing-rolls and the calendering-roll, and thence to the receiving-roll L.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a calendering-machine, a frame having slotted arms, a calendering-cylinder mounted in the frame, a journal-box in each slotted arm, a plurality of calender-rolls mounted in the journal-boxes, an adjusting-screw threaded into each arm and bearing against its respective journal-box, and a friction-roll mounted in the frame and bearing against the calendering-cylinder, substantially as set forth.

2. In a calendering-machine, the combina-

tion of two or more rolls, D, E, provided with pulleys, d^2 , e^2 , mounted and revolving in adjustable journal-boxes, f , f' , a calendering-cylinder, C, mounted beneath said rolls in a
5 frame, A, the friction-roll, B, mounted in said frame, provided with a pulley, b^2 , means for delivering the material to be treated between said rolls D, E, and the cylinder, C, and means for receiving said material when delivered,

all substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of subscribing witnesses.

HUGH LINTON.

In presence of—

WM. MCGREGOR,

EDWARD W. BLODGETT.