

J. B. Blakslee & S. S. Middlebrook.

Felting Mach.

N^o 26744.

Patented Jan. 10. 1860

Fig. 1.

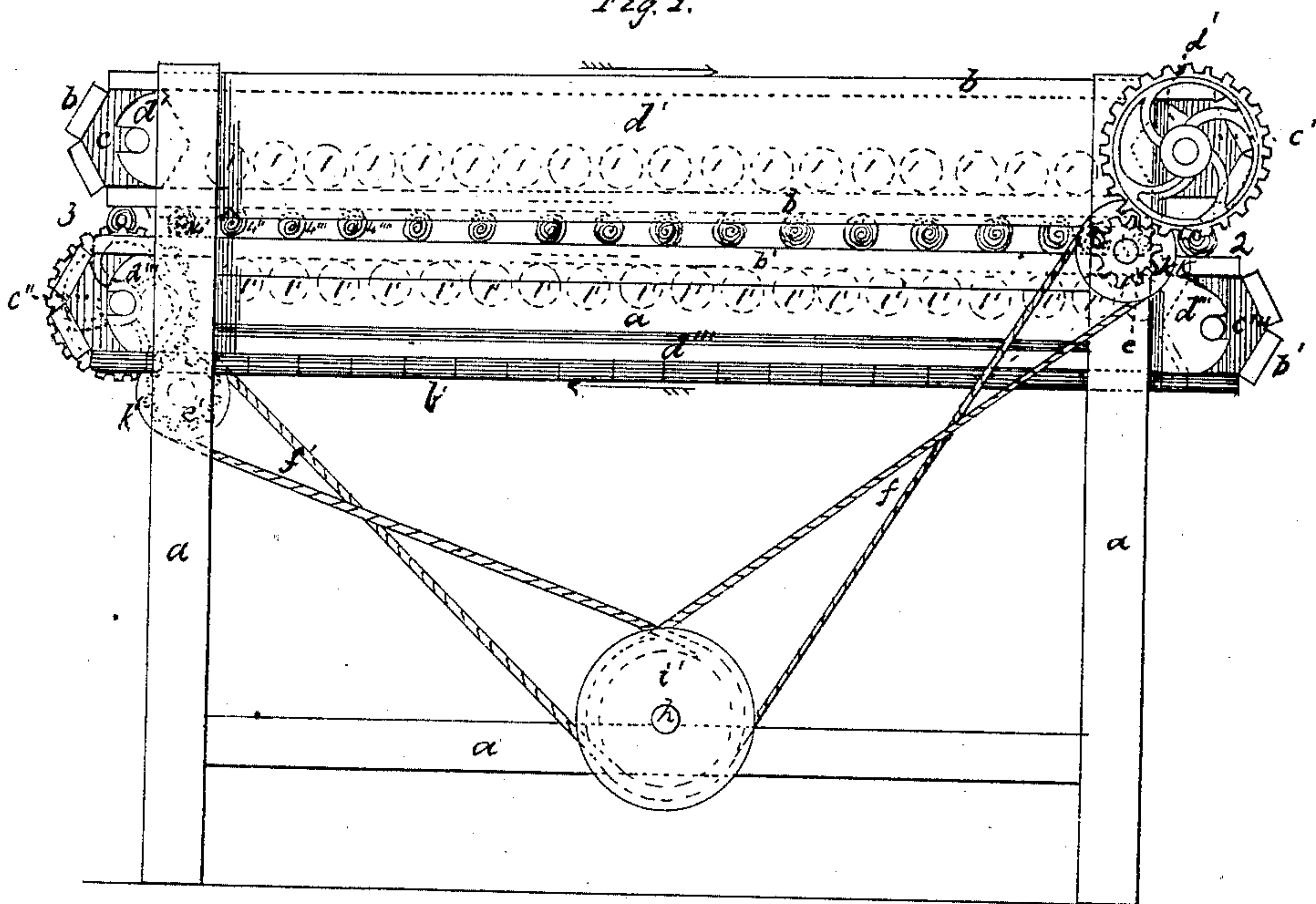
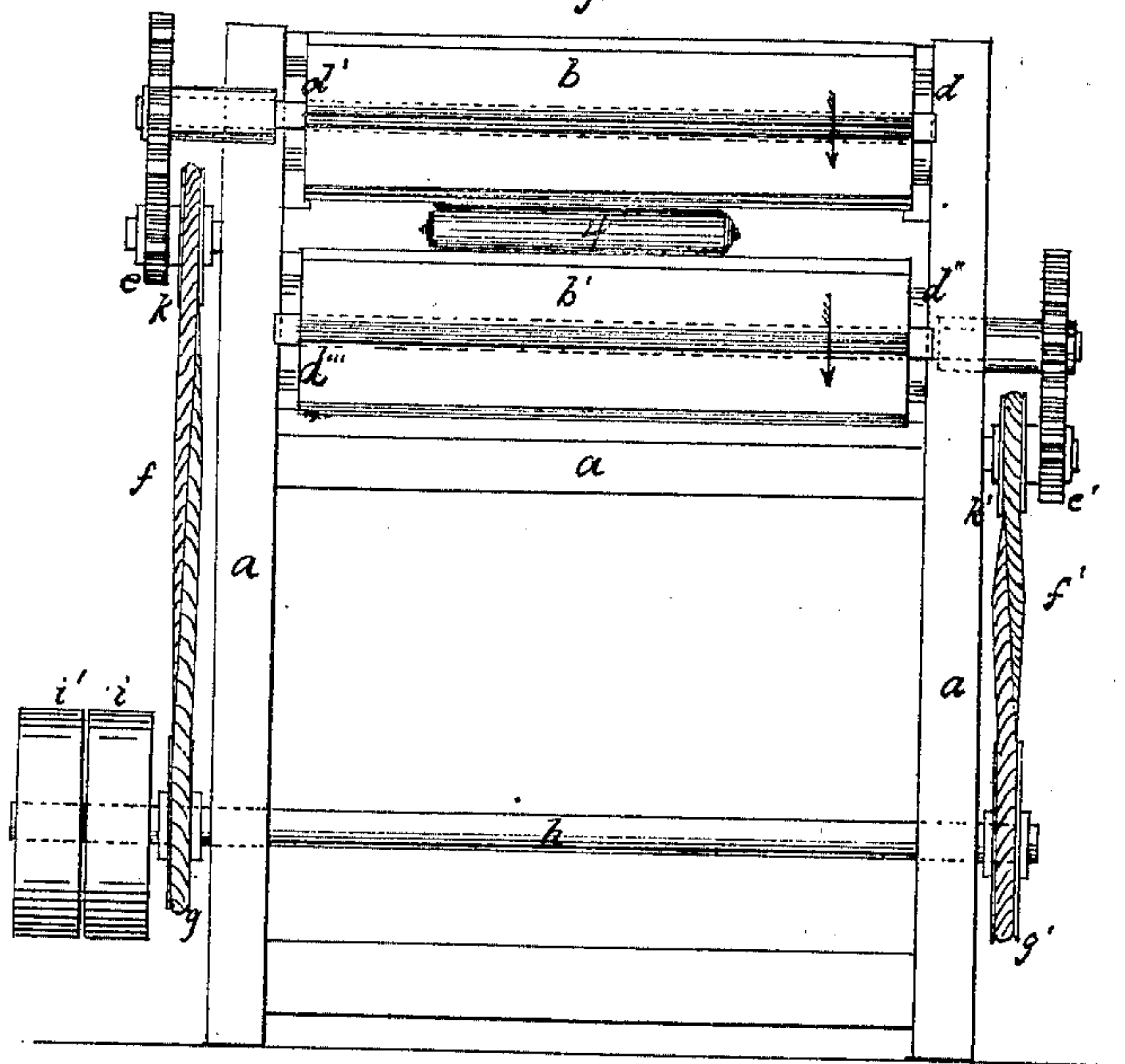


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

J. B. BLAKSLEE AND S. S. MIDDLEBROOK, OF NEWTOWN, CONNECTICUT.

MACHINERY FOR FELTING HAT-BODIES.

Specification of Letters Patent No. 26,744, dated January 10, 1860.

To all whom it may concern:

Be it known that we, JAMES B. BLAKSLEE and SIDNEY S. MIDDLEBROOK, of Newtown, in the county of Fairfield and State of Connecticut, have invented a new and Improved Mechanism for Felting Hat-Bodies; and we do hereby declare that the following is a full and exact description thereof, to wit.

The nature of our invention consists in so combining moving and arranging two endless platforms or aprons, in relation one to the other, that when a number of hatbodies are placed between the said platforms, they (the hatbodies) shall receive a pressing rotary motion, which is also progressive, whereby they become properly felted.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1, represents a side elevation, and Fig. 2, an end elevation, or view, of our said mechanism.

Similar letters of reference indicate corresponding parts in both figures.

(a) is the rectangular frame supporting the working parts; (b) and (b') are two endless revolving platforms or aprons, which we construct either of wooden hats attached to endless chains or bands, as represented in this instance in the drawings, or, we use as an equivalent two endless bands or belts made of a solid flexible material such as stiff, stout, canvas in several thicknesses, india-rubber belting, or other substances of an analogous nature; the platforms (b) and (b') have their operating sides supported on the back by a series of friction rolls indicated in dotted lines in Fig. 1, and severally marked (1) and (1'), in order to enable them to exert the required pressure while operating on the hatbodies.

The platforms (b) and (b') are stretched each on two hexagonal or round rollers (c), (c'), (c'') and (c'''), the journals of these rollers are supported in suitable bearings in the side pieces (d), (d'), (d'') and (d''') which are suspended in the frame (a). These side pieces also support the friction

rolls (1) and (1'). On one side of the shaft that carries roller (c') and likewise on one end of the shaft of roller (c'') are secured gear wheels which are driven respectively by pinions (e), and (e') affixed to the frame (a). These pinions have band wheels attached (h) and (h') that receive motion by means of bands (f) and (f') from two other band wheels (g) and (g') which are keyed on the driving shaft (h) running in suitable bearings in the lower part of frame (a). (i) and (i') are respectively fast and loose pulleys by which power may be transmitted from any convenient motor.

The operation of our mechanism is as follows: When a hatbody, or a number of them wrapped into a covering cloth, is to be felted, we place the same between the rotating platforms at (2) where a coil of hatbodies is represented as just entering the machine; the peculiar varying motion imparted to the mechanism will cause the platforms (b) and (b') to progress or rotate in opposite directions, as indicated by arrows in the drawing Fig. 1; the relative speed of the platforms (b) and (b') is so regulated that while the coil or coils of hatbodies receive a revolving motion on their own axis, they are at the same time carried slowly toward the opposite end of the machine at (3) Fig. 1, where they are discharged. It is obvious that our purposes can likewise be accomplished, though in an imperfect manner, by arranging and driving one platform or band within the other, or by running one endless platform or band over supporting rollers and forming chambers with two additional rollers on the outside of said band or platform, in which the coil of hatbodies can be made to rotate; but such modes we consider inferior to our arrangement as shown. It is equally obvious that by changing the size of the gear wheels, or driving pinions, or bandwheels, the relative speed of the platforms may be varied, or that the same end may be attained with other known devices without altering the essential nature of our invention. A great number of rolls or coils of hat bodies can be operated upon by our mechanism at one and the same time, as illustrated in Fig. 1 at (4), (4'), (4''), (4''') etc.

We do not claim any of the parts separately considered.

What we claim as our invention and desire to secure by Letters Patent, is—

- 5 The combination of the endless rotating platforms (*b*) and (*b'*) when the same are arranged so as to move in opposite directions

and at varying speeds in the manner and for the purpose as herein fully set forth.

J. B. BLAKSLEE,
S. S. MIDDLEBROOK.

Witnesses:

D. H. BELDEN,
FREDERICK BELDEN.