

No. 607,796.

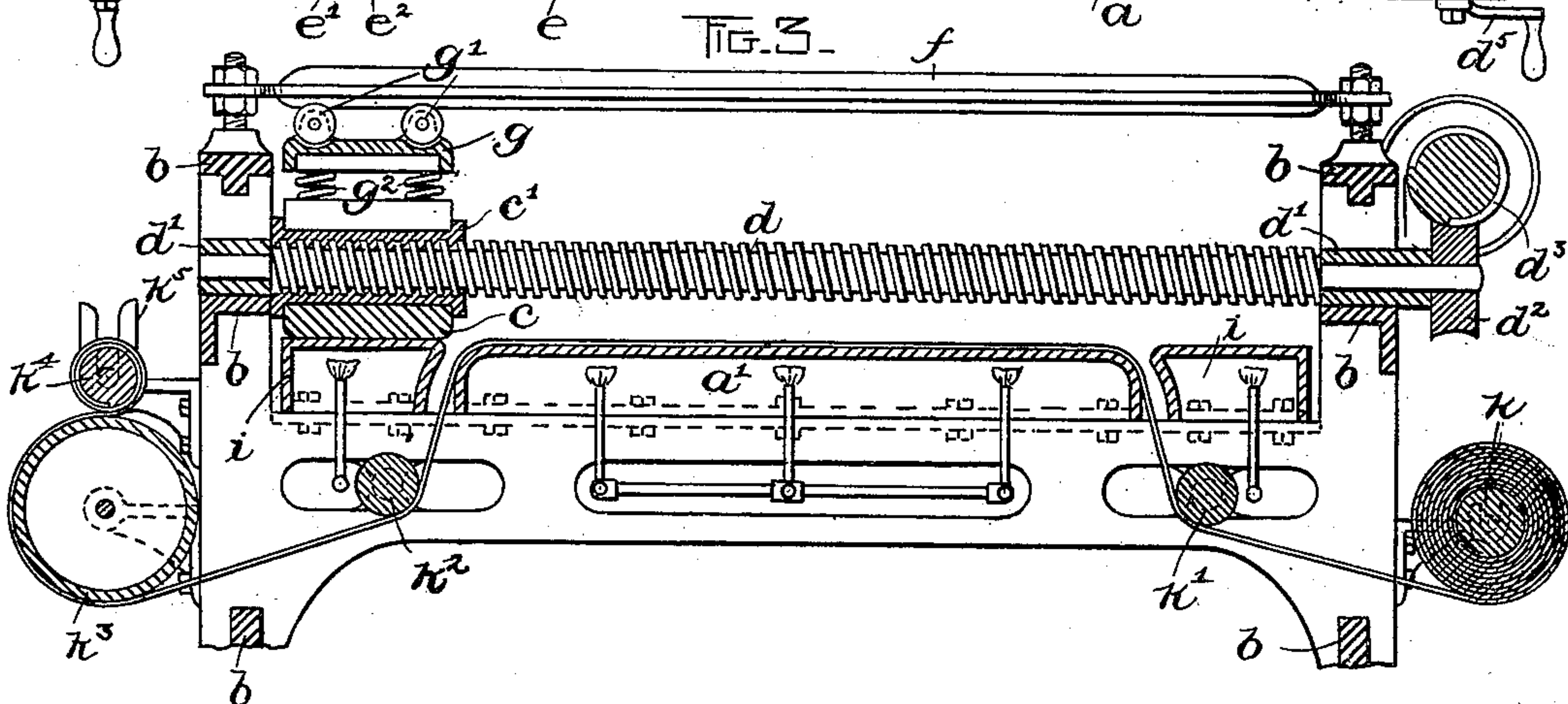
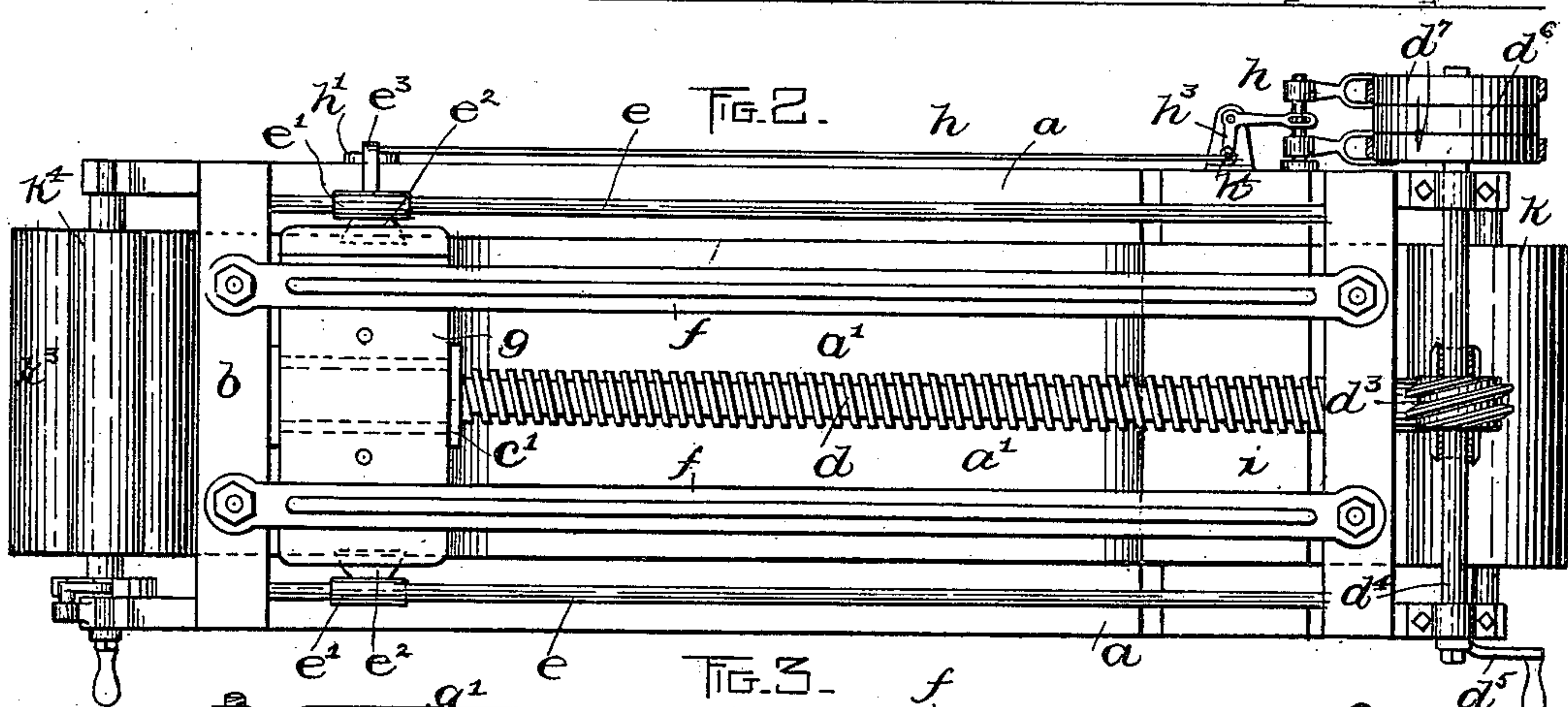
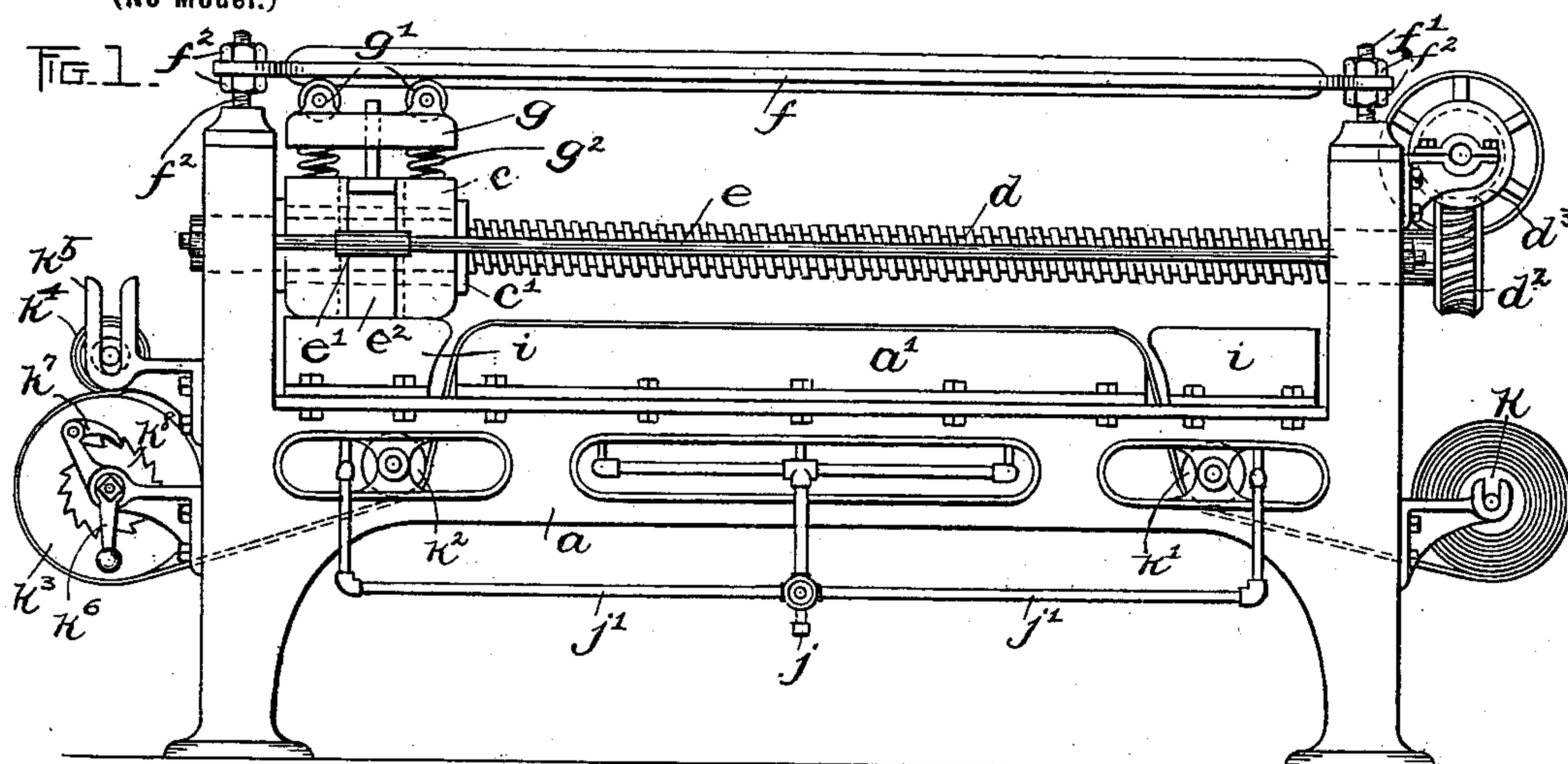
Patented July 19, 1898.

W. HEDDON.

MACHINE FOR PRESSING CLOTH OR FABRIC.

(Application filed July 27, 1897.)

(No Model.)



WITNESSES:
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UNITED STATES PATENT OFFICE.

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MACHINE FOR PRESSING CLOTH OR FABRIC.

SPECIFICATION forming part of Letters Patent No. 607,796, dated July 19, 1898.

Application filed July 27, 1897. Serial No. 646,066. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HEBDON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Machines for Pressing Cloth or Fabric, of which the following is a specification.

This invention has for its object to provide certain improvements in machines for pressing cloth or fabric whereby the latter may be pressed without danger of being wrinkled or creased and either in a cool, warm, or highly-heated condition; and it consists in the novel features of construction and relative arrangement of parts hereinafter fully described in the specification, clearly illustrated in the drawings, and particularly pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this application, in which like characters indicate like parts in all of the figures.

Figure 1 represents in side elevation a machine of the character specified equipped with my improvements. Fig. 2 is a plan view of the same. Fig. 3 is a longitudinal vertical section of the machine.

In carrying out my improvement I employ a frame comprising side standards *a a*, suitably connected by cross-braces *b b*. Upon the side bars *a a* is supported a concavo-convex bed *a'*, lengthwise of which the roll of cloth may be drawn by suitable means, such as those to be described.

Upon the top of the bed are placed a layer of felt and a layer of pressing-paper, upon which the cloth is placed face downward. The pressing or smoothing device consists of a metallic body *c*, extending entirely across the bed *a'*, which is of sufficient width to receive a strip of cloth of any desired width and into which is secured a nut *c'*, through which a screw-shaft *d* passes. The said shaft is arranged longitudinally of the machine and is mounted in vertically-movable bearings *d' d'*, mounted in the ends of the main frame. The said pressing device is guided longitudinally of the machine by two guiding-bars *e e*, arranged at the sides of the machine, and two collars *e' e'*, which are connected with slides

e² e², operated in vertical dovetailed grooves in the said pressing device, which permit the said device to move vertically relatively to the said bars *e e*, although it is guided longitudinally of the machine thereby. To hold the said device firmly against the cloth upon the bed, I arrange two or more bars *f f* above the device and secure their ends adjustably upon screws *f' f'*, projecting upwardly from the cross-braces *b* of the frame. Lock-nuts *f²* are employed to hold the said bars at any desired height or to adjust one end of the same relatively to the other. The carriage *g*, having rollers *g' g'* bearing against the said bars *f f*, is placed above the pressing device, and between them are inserted strong spiral springs *g²*, so that the carriage *g* and the bars *f* act as an abutment for the springs *g²* to force the smoothing device with a yielding pressure downward against the cloth upon the bed *a'*.

The shaft *d* is provided on its end with a worm-wheel *d²*, which is driven by a worm *d³*, mounted upon a shaft *d⁴*. The said shaft may be either turned by hand by means of a crank *d⁵* on one end thereof or else by power through the medium of a belt-wheel *d⁶*, rigidly secured to the other end. Loose oppositely-rotating belt-wheels *d⁷* are mounted upon the opposite side of the belt-wheel *d⁶*, so that by shifting the belts from their respective wheels to the fast wheel *d⁶* the screw-shaft *d* may be driven in either direction.

A suitable shipper is indicated conventionally at *h* and may be automatically operated at each end of movement of the pressing device by means of a pin *e³*, projecting out from one of the collars *e'*. At one end of the movement of the pressing device the pin *e³* strikes against a lever *h'*, which is connected by a rod *h²* with the bell-crank lever *h³* of the belt-shifting device, and at the other end of the movement of the said pressing device the pin *e³* strikes against a pin projecting up from the said bell-crank lever.

At each end of the machine and beyond the ends of the bed *b'* is arranged an extension of the bed or a separated end thereof, which is also a heating device consisting of a metallic rest *i* of a size adequate to receive

the pressing device after it has left the bed, there being a suitable space left between the ends of the bed and the heating device for the cloth to pass over the bed and outward therefrom, as shown in Fig. 3. A pipe *j*, having suitable branches with burners thereon, is passed under the bed *a'*, the burners being so arranged that when gas is passed through the pipes they will heat the bed evenly to a predetermined degree of temperature. Other branches *j' j'* conduct the gas to burners arranged beneath the heating device *i*, so as to maintain them also at relatively high temperature. The cloth is passed from the roll *k* at one end of the machine under an idler-roller *k'* at that end of the machine over the bed *a'* and is connected to an apron and passed under the idler-roller *k''*, partially around the winding-roller *k''*, and finally to the receiving-roller *k''*, mounted in a suitable bracket *k''*, secured to the frame. Then, the pressing device having been heated to the required temperature, the screw-shaft is actuated to cause the pressing device to travel from one end of the heating device over the bed *a'* to the other end of the machine. Then by means of a crank *k''* the winding-roller *k''* is turned to draw the cloth or fabric over the bed to present fresh cloth to the action of the pressing device when it travels to the opposite end of the bed, there being a pawl and ratchet *k'' k''* to prevent the roll *k''* from unwinding against the strain of the pressing device *c* in traveling over the goods. There may be also a suitable device for the roll *k*, if desired.

Thus from the foregoing it will be seen that the cloth may be pressed expeditiously while in the open width and that any desired finish can be obtained without the least stretching of the cloth. The fabric can be pressed either hot, warm, or cold, as desired, by regulating the flow of gas through the burners beneath the bed and the heating device. The winding-drum *k''* may, if desired, be of a size to draw the fabric a sufficient distance along the bed at a single revolution.

Of course it will be understood that I do not limit myself to the precise details of construction which I have above described, for the machine may be constructed in various ways without departing from the spirit and scope of my invention.

Having thus explained the nature of my invention and a simple way of constructing and using the same, though without attempting to set forth all of the modes of its use or all of the ways in which it can be embodied, I now declare that what I claim is—

1. A machine for pressing cloth, comprising a bed upon which the cloth may be placed, a pressing device movable back and forth over the bed to press the cloth thereon and movable into inoperative position out of engagement with the fabric, and means for drawing a continuous strip of fabric over the bed.

2. A machine for pressing cloth in open width, comprising a bed adapted to receive the cloth, a pressing device extending entirely across said bed and movable into inoperative position, a power device for moving said pressing device lengthwise of the said bed and means for drawing the fabric over the bed.

3. A machine for pressing cloth, comprising a bed having extensions at its ends, a pressing device adapted to travel across the said bed and rest upon either of said extensions, means for reciprocating the said pressing device, means for heating said device and means for drawing the fabric across said bed between said extensions.

4. A machine for pressing cloth comprising a bed having a main body portion over which the cloth is drawn and end portions or extensions, a pressing device movable from one end or extension to the other across the main portion of the bed and arranged to rest upon said end or extension, and means for drawing the fabric over the main portion of the bed.

5. A machine for pressing cloth, comprising a stationary bed having a main portion over which the fabric passes and the separated extensions, a pressing device movable back and forth over said bed, so as to press the cloth thereon, and means for drawing a strip of cloth across the main portion of said bed, said means comprising a roll at each end of the bed, so that the cloth may be wound from one roll to the other.

6. A machine for pressing cloth, comprising a suitable bed to receive the fabric, a pressing device, means for moving said device over said bed, a heating device arranged beyond each end of said bed whereby said device may be heated in the intervals between its being passed over the bed and means for drawing fabric over the said bed while the pressing device is being heated.

7. A machine for pressing cloth, comprising a bed over which the cloth may be drawn in a continuous strip, a pressing device, means for moving said pressing device longitudinally over the said bed, a tension device for causing said pressing device to bear against the cloth on the said bed with a yielding pressure and a guide against which said tension device presses as the pressing device travels over the bed.

8. A machine for pressing cloth comprising a traveling pressing device, a table having a central main portion to receive the fabric, and end portions to receive and support the pressing device while the fabric is being shifted, and means for heating the main and end portions of said table.

9. A machine for pressing cloth, comprising a frame, a bed secured to said frame on which the cloth may be pressed, a traveling pressing device having vertical dovetailed grooves in its sides, means for moving said

device across the said bed, guide-bars mounted upon the said frame, and slides mounted in the grooves in the said pressing device and having collars sliding on the said guide-bars.
5

In testimony whereof I have signed my name to this specification, in the presence of

two subscribing witnesses, this 10th day of February, A. D. 1897.

WILLIAM HEBDON.

Witnesses:

A. D. HARRISON,
R. M. PIERSON.