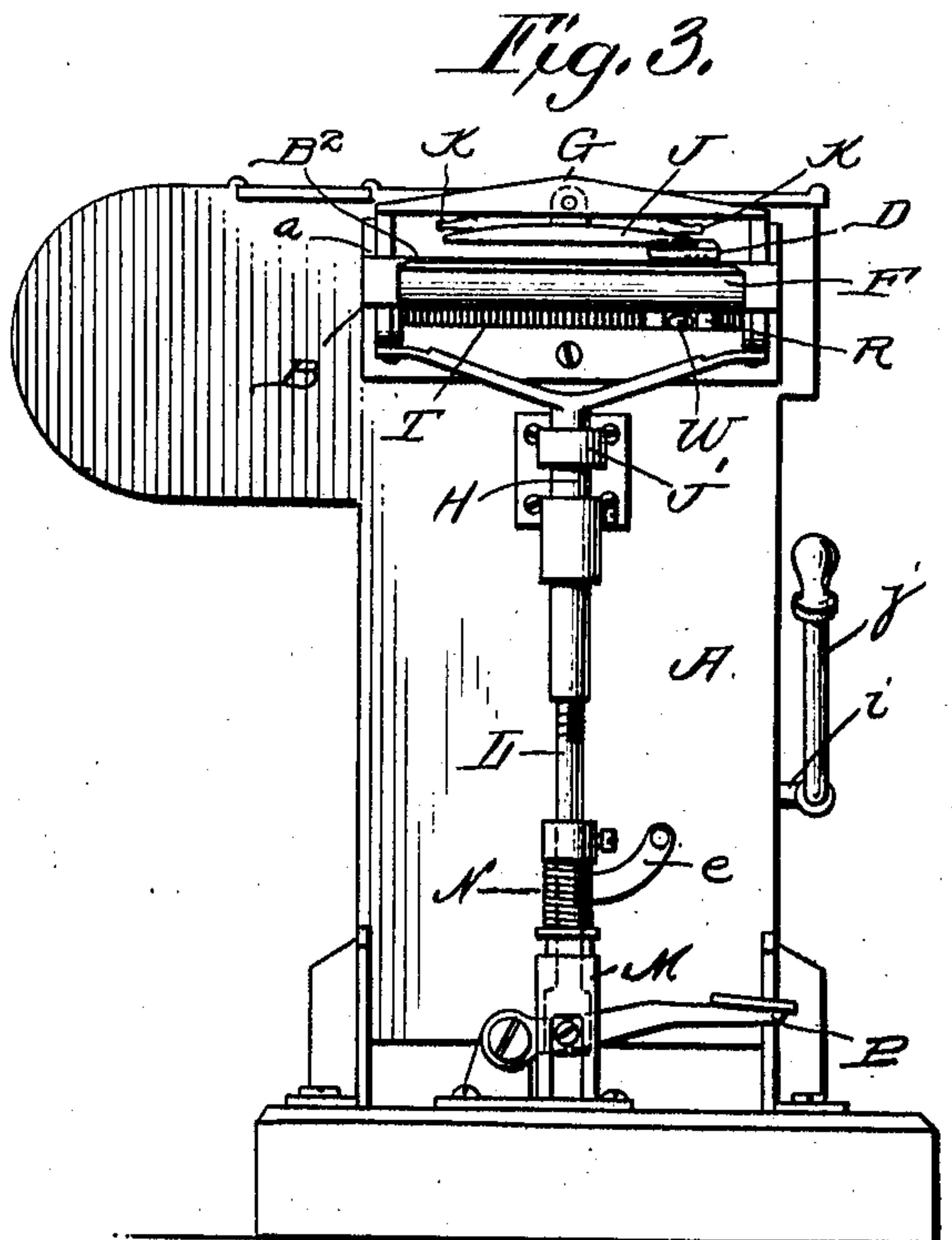
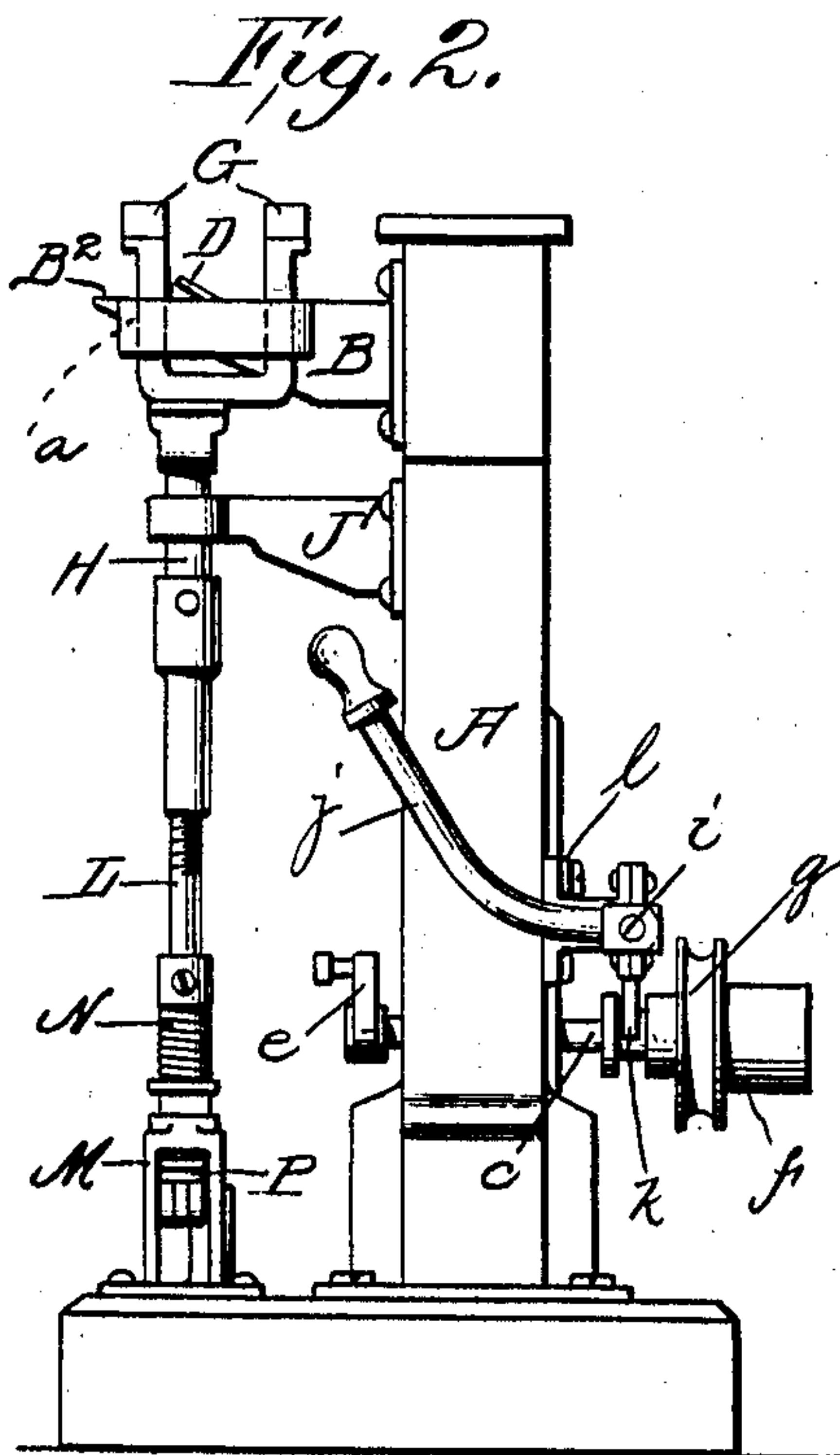
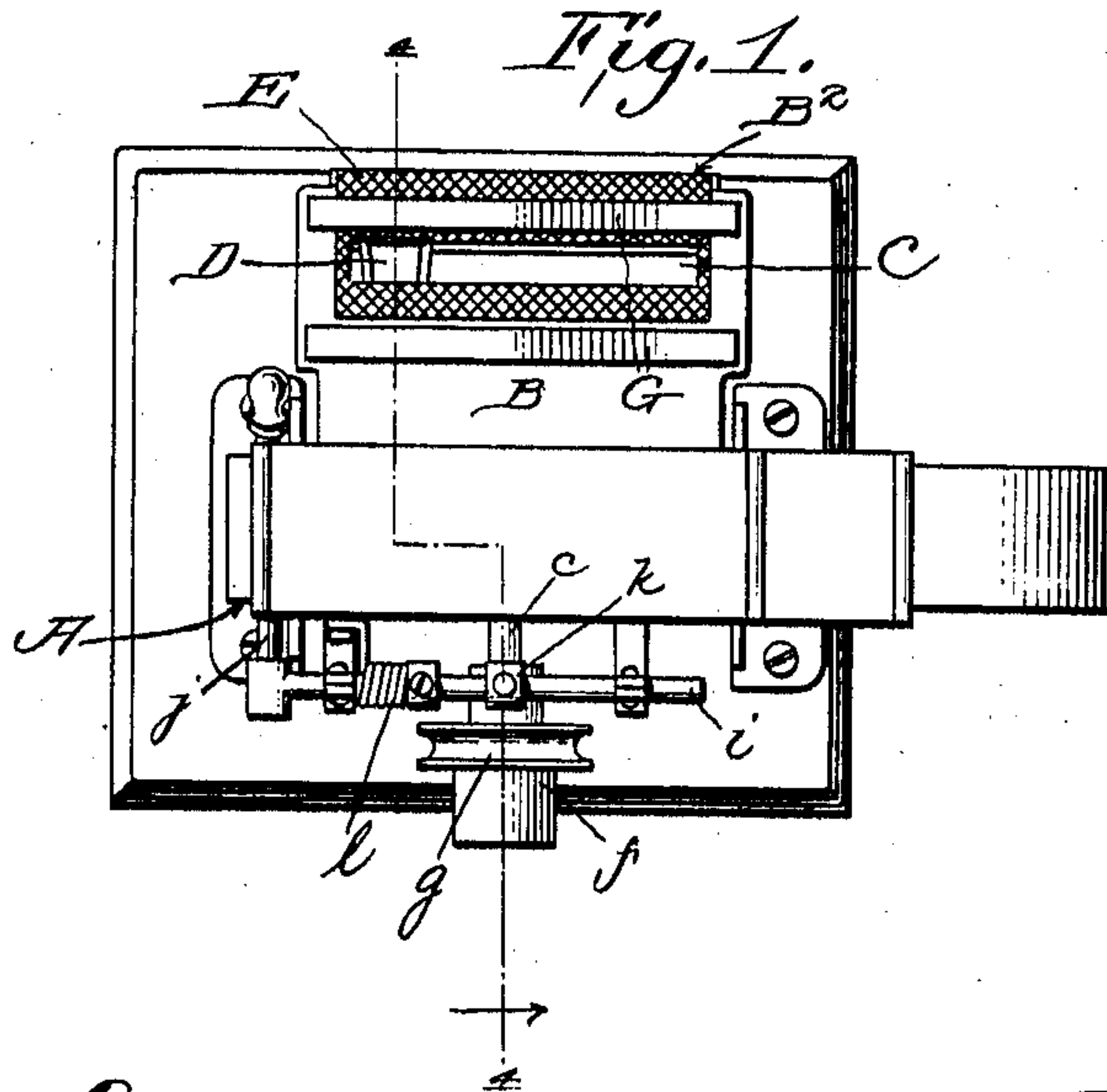


W. DENNISON.
MACHINE FOR BEVELING SHOE SOLES.
APPLICATION FILED OCT. 6, 1909.

958,374.

Patented May 17, 1910.

2 SHEETS—SHEET 1.



Inventor

Witnesses

Oliver H. Holmes
W. C. O'Keefe

By

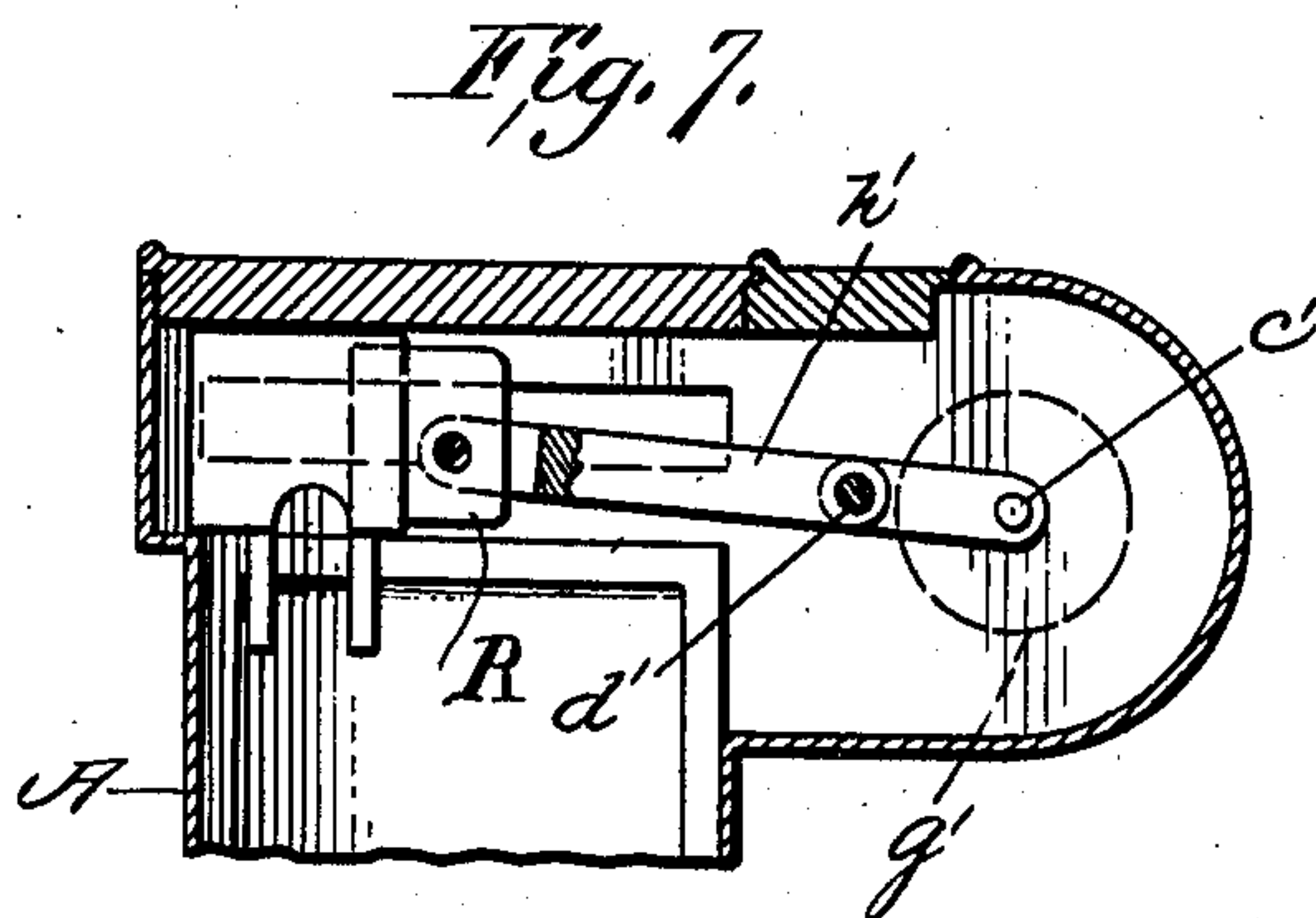
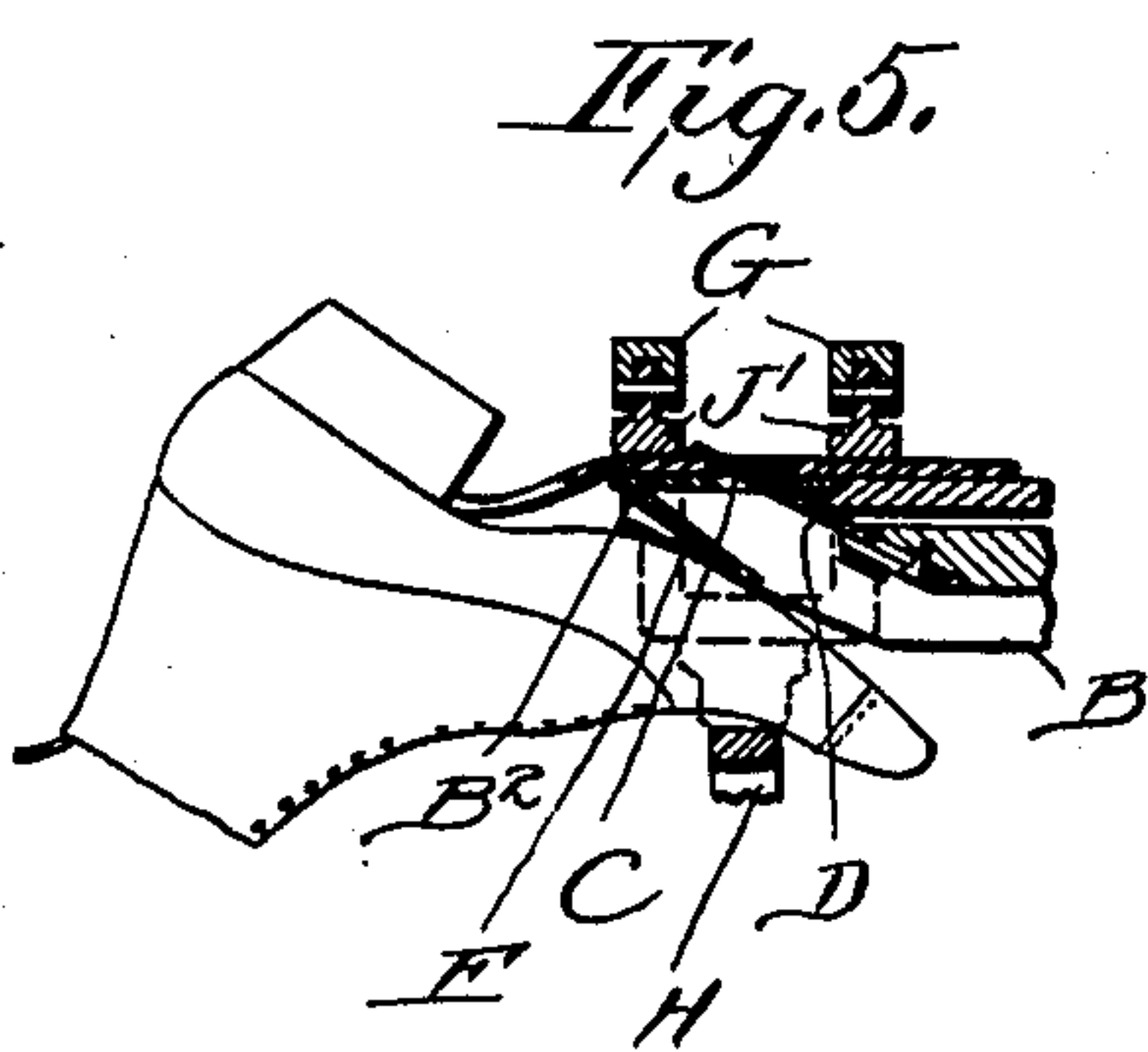
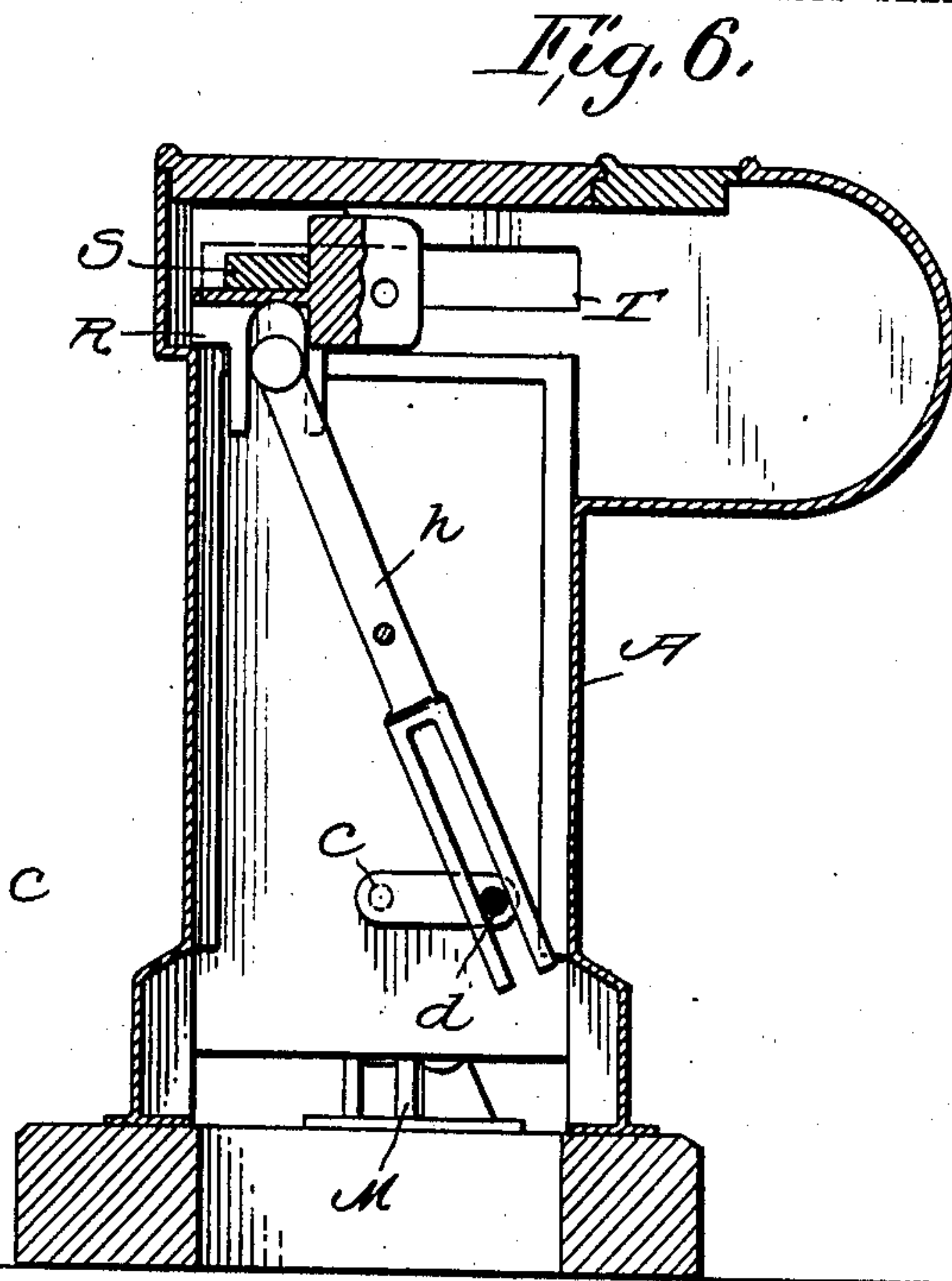
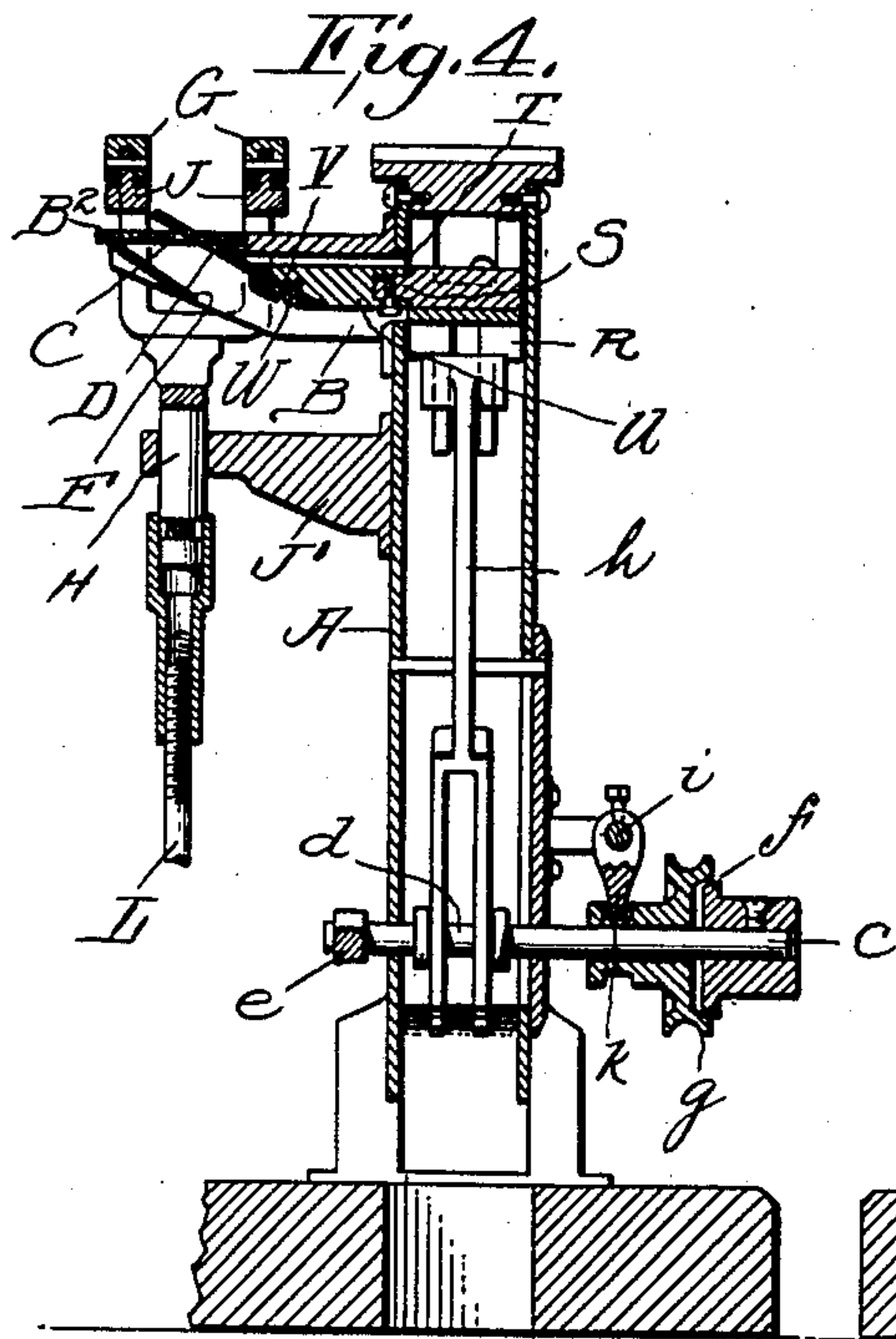
William Dennison
James Shuey
Attorney

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

WILLIAM DENNISON, OF NEW ORLEANS, LOUISIANA.

MACHINE FOR BEVELING SHOE-SOLES.

958,374.

Specification of Letters Patent.

Patented May 17, 1910.

Application filed October 6, 1909. Serial No. 521,349.

To all whom it may concern:

Be it known that I, WILLIAM DENNISON, citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented new and useful Improvements in Machines for Beveling Shoe-Soles, of which the following is a specification.

My invention has to do with the beveling of shoe soles to adapt the same for the neat application of half-soles; and it contemplates the provision of a machine constructed with a view of expeditiously and accurately effecting such beveling, and this with but little effort on the part of the operator of the machine.

With the foregoing in view, the invention will be fully understood from the following description and claims when the same are read in connection with the drawings, accompanying and forming part of this specification, in which:

Figure 1 is a plan view of the machine constituting the best practical embodiment of my invention that I have as yet devised. Fig. 2 is an end elevation of the same. Fig. 3 is an elevation of one side of the machine. Fig. 4 is a vertical cross-section, taken in the plane indicated by the line 4-4 of Fig. 1, with the reciprocatory knife-carrier in position ready to make its forward stroke. Fig. 5 is a detail transverse section showing by full lines a shoe clamped in proper position to have the forward portion of its outer sole cut off and the forward end of its rear portion beveled. Fig. 6 is a detail, longitudinal vertical section illustrative of the means for transmitting motion from the drive shaft to the reciprocatory knife-carrier. Fig. 7 is a similar view showing a modified drive shaft and driving connection for reciprocating said carrier.

Referring by letter to the said drawings, and more particularly to Figs. 1 to 6 thereof: A is the main frame of the machine which is preferably in the form of a hollow stand, as shown. The said frame is provided adjacent its upper end with a lateral work-support B, having a detachable throat-plate B² which, in turn, has a vertically-disposed slot C for the play of the beveling knife D, and also has a roughened upper surface E, the latter to enable it to more securely hold the work against casual movement during the cutting and beveling operation. At the under side of its outer portion, the work

support B is provided with a transversely inclined guard F, the office of which is to protect the insole and vamp portions of a shoe from the knife D by holding said portions away from the path of said knife.

Movable vertically through suitable guide apertures *a* in the end portions of the work support B is a frame having parallel top bars G and also having a depending stem H, guided in an arm J' of the main frame, Figs. 1-3, and arranged below and pivoted to the top bars G are clamping members J, disposed at opposite sides of the slot C, and designed to hold a shoe sole against the roughened surface of the throat-plate B². Springs K are interposed between the end portions of the clamping members J and their respective top bars G, as best shown in Fig. 3, in order to yieldingly maintain said members J in a horizontal position and enable the same to better engage the sole to be clamped. The stem H of the vertically movable frame is connected in a swiveled manner to a plunger L, mounted in a stand M, and interposed between the upper end of the said stand and an enlargement on the plunger L is a coiled spring N which has for its function to return the vertically-movable frame and the clamping members J to the raised position illustrated. A foot lever P is fulcrumed on the stand M and connected to the lower end of the plunger L, and it will be readily understood that when said lever P is depressed, the clamping members J will be depressed and held under pressure to securely hold a shoe sole between them and the throat plate B².

Suitably supported in the main frame A is the horizontal, reciprocatory knife-carrier R which has a lateral arm S extending through and movable in a slot T in one wall of the frame, and detachably fixed to the said arm S is a knife-holder U having an inclined socket V and a set screw W; the said socket being designed to receive the stem of the knife D, and the set screw to bear against and hold said stem. The under side of the throat plate B² at one side of the slot therein is beveled as shown to suit the inclination of the knife D; and the throat plate B², and the knife holder U are preferably detachable as stated in order that they may be replaced with another throat-plate and another knife-holder according to the angle of the bevel that it is desired to produce.

By preference both edges of the knife D are sharp, and hence it will be manifest that when a shoe is arranged as shown by full lines in Fig. 5, and the forward portion of its outer sole is clamped between the clamping members J and the upper surface of the throat-plate B², the said forward portion of the outer sole will, upon reciprocation of the knife-carrier R and knife D, be neatly cut off, and the edge left at the forward end of the rear portion of said sole will be neatly beveled to adapt it for the neat application of a half-sole. It will also be readily understood that when the foot lever P is relieved of pressure, the coiled spring will raise the vertically-movable frame and the clamping members J, and the shoe may then be withdrawn from the work-support B.

For the purpose of reciprocating the knife-carrier R, the means illustrated in Figs. 1 to 6, or any other suitable means may be employed without involving departure from the scope of my invention as claimed. The said means of Figs. 1 to 6 comprises a transverse shaft *c* journaled in the main frame A and having cranks *d* and *e* and a clutch member *f*, a pulley *g* loosely mounted and movable sidewise on the shaft *c* and having a clutch portion complementary to the clutch member *f* and designed to be connected through a belt with a suitable motor (not shown), a vertically-swinging lever *h* fulcrumed at an intermediate point of its height in the frame A and having its lower arm connected with the crank *d*, and its upper arm connected with the carrier R, a rock-shaft *i* journaled in bearings at one side of the frame A and having arms *j* and *k* the latter of which is connected to the pulley *g*, and a spring *l* coiled about the rock-shaft *i* and arranged to normally hold the pulley *g* out of engagement with the clutch member *f*. The spring *l* normally holds the pulley *g* out of engagement with the clutch member *f*, and in this position of the parts the knife will be idle so that the work may be positioned and clamped on the work-support B, in the manner before described.

When the work is properly secured, the arm *j* is drawn toward the operator who stands at the pedal, whereupon the pulley *g* will be moved into engagement with the clutch member *f*, and the shaft *c* will be rotated and the knife-carrier R will be reciprocated in the manner and for the purpose before stated. The crank *e* is provided upon the shaft *c* in order that said shaft may, if desired, be operated by foot-power through the medium of conventional or other means (not shown) connected to said crank.

In Fig. 7. I show a modified means for reciprocating the knife-carrier R, which

means comprises a shaft *c'* having a pulley *g'* and a crank *d'*, and a pitman *h'* interposed between and connecting the said crank and the carrier.

The constructions herein illustrated and described constitute the best practical embodiments of my invention of which I am cognizant, but it is obvious that in the future practice of the invention such changes in the form, construction and relative arrangement of parts may be made as do not involve departure from the scope of my invention as defined in the claims appended.

Having described my invention, what I claim and desire to secure by Letters-Patent, is:

1. A machine for beveling shoe-soles, comprising means having a surface against which the sole may be placed, a knife extending at opposite sides of said means and disposed at an angle to the surface thereof, and a suitably-supported guard arranged in front of the knife, at the opposite side of the said means with reference to the said surface thereof.

2. A machine for beveling shoe-soles, comprising a frame having a work-support in which is a slot, means for securing a shoe-sole against the surface of the support, a reciprocatory carrier movable in the frame and parallel to said slot and having a lateral arm disposed below the work-support, and a knife carried by said arm and extending upwardly through the slot and disposed at an angle of inclination to the upper surface of the work-support.

3. A machine for beveling shoe-soles comprising a main frame having a lateral work-support in which is a slot, a reciprocatory carrier movable in the frame and parallel to said slot and having a lateral arm disposed below the work-support, a knife carried by said arm and extending upwardly through the slot and disposed at an angle of inclination to the upper surface of the work-support, a vertically-movable frame guided by the work-support, clamping members carried by the frame and disposed above the work-support and at opposite sides of the slot therein, a spring for yieldingly maintaining said vertically-movable frame in a raised position, means for lowering said frame against the action of the spring, and means for reciprocating the knife-carrier.

4. A machine for beveling shoe-soles, comprising a main frame on which is a work-support having a slotted throat-plate beveled on its under side at the inner side of the slot, a knife-carrier movable in the frame and having an arm-movable below the work-support and in which is a socket inclined correspondingly to the bevel of the throat-plate, and a knife secured in said socket and extending upwardly through the

slot and disposed at an angle of inclination to the upper surface of the throat-plate.

5. A machine for beveling shoe-soles, comprising a main frame on which is a work-support having a slotted throat-plate beveled on its under side at the inner side of the slot, and roughened at its upper side, a knife-carrier movable in the frame and having an arm movable below the work-support and in which is a socket inclined correspondingly to the bevel of the throat-plate, a knife secured in said socket and extending upwardly through the slot and disposed at an angle of inclination to the upper surface of the throat-plate, means for reciprocating said carrier, a vertically-movable frame guided in the work-support, clamp members pivoted to said frame and disposed at opposite sides of the slot, springs interposed between the end portions of the clamps and said frame, a spring for yieldingly maintaining the frame in a raised position, means for lowering said frame, and an inclined guard disposed in front of the said slot.
6. In a machine for beveling shoe soles,

the combination of a frame having a slotted work-support, a knife-carrier movable in the frame at one side of the slot in the support, a knife movable with said carrier and extending through said slot, and a guard depending from the portion of the support at the opposite side of the slot, with reference to the knife-carrier.

7. A machine for beveling shoe-soles, comprising a work-support, in which is a slot, means for securing a shoe sole against the surface of the support, a knife extending upward through the slot and disposed at an angle of inclination to the surface of the support, means for moving the said knife with respect to the support, and a suitably supported guard arranged below the work-support and in front of the knife.

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

WILLIAM DENNISON.

Witnesses:

H. P. LABALUT, Jr.,
JNO. M. SHERIDAN.