

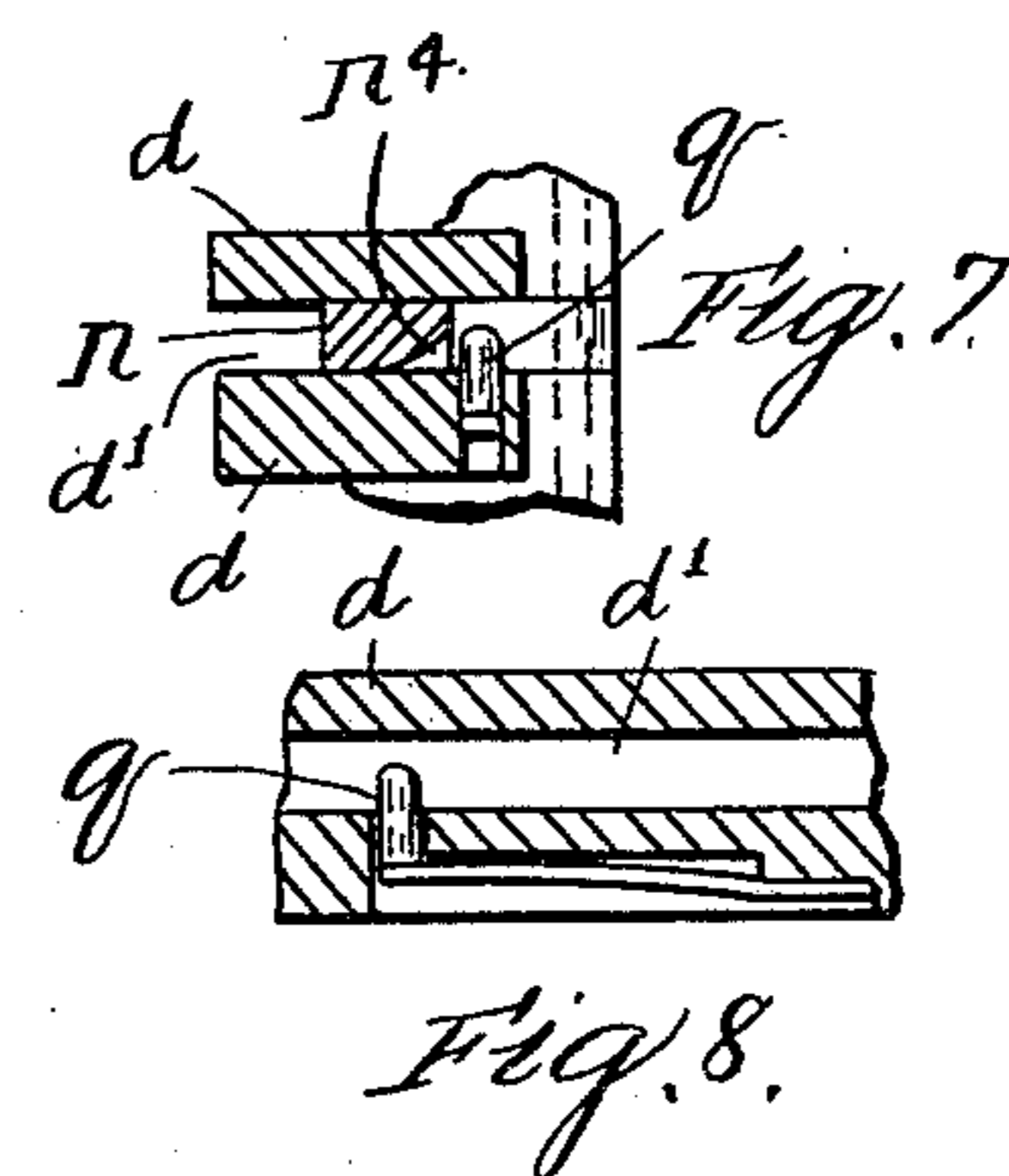
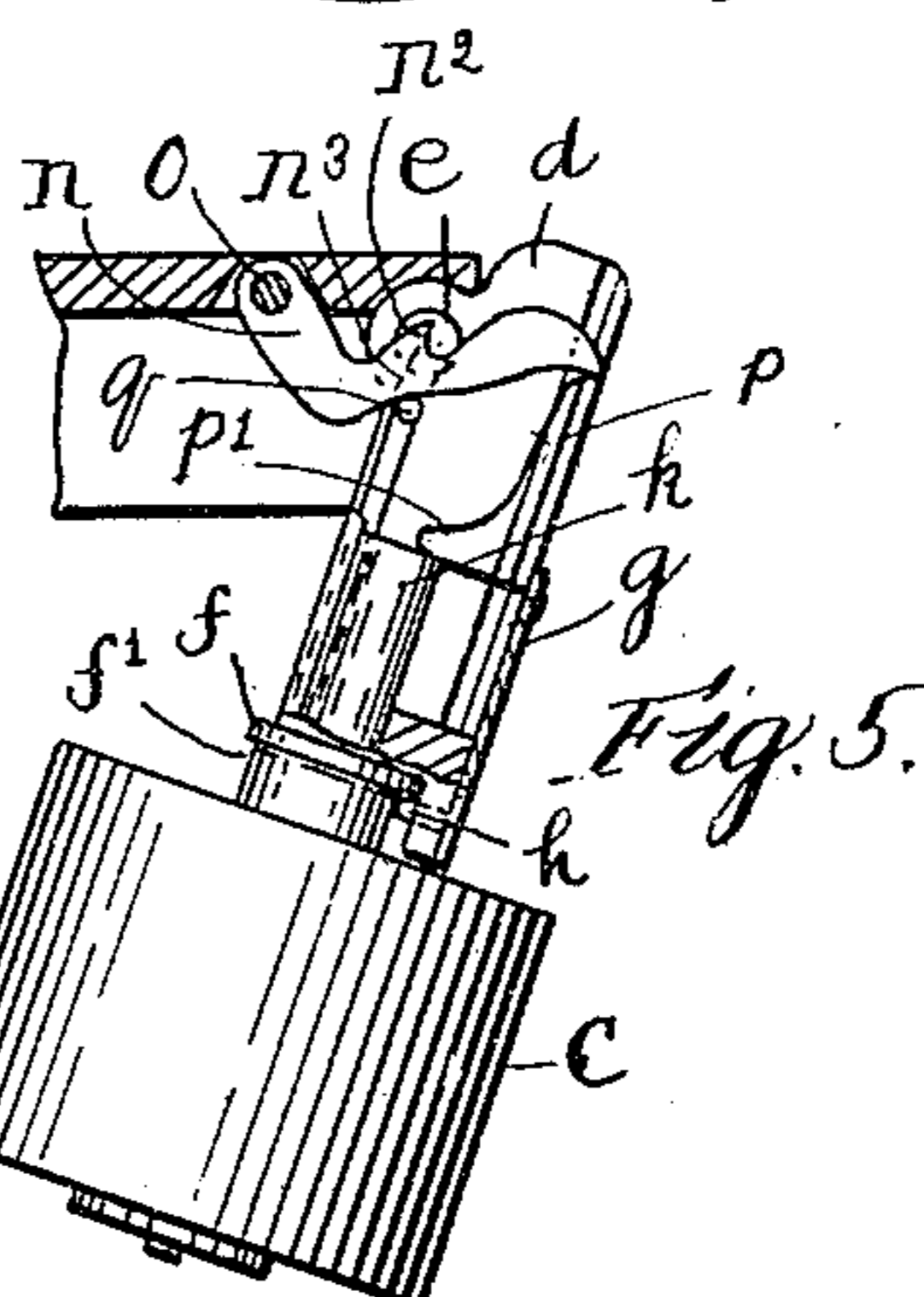
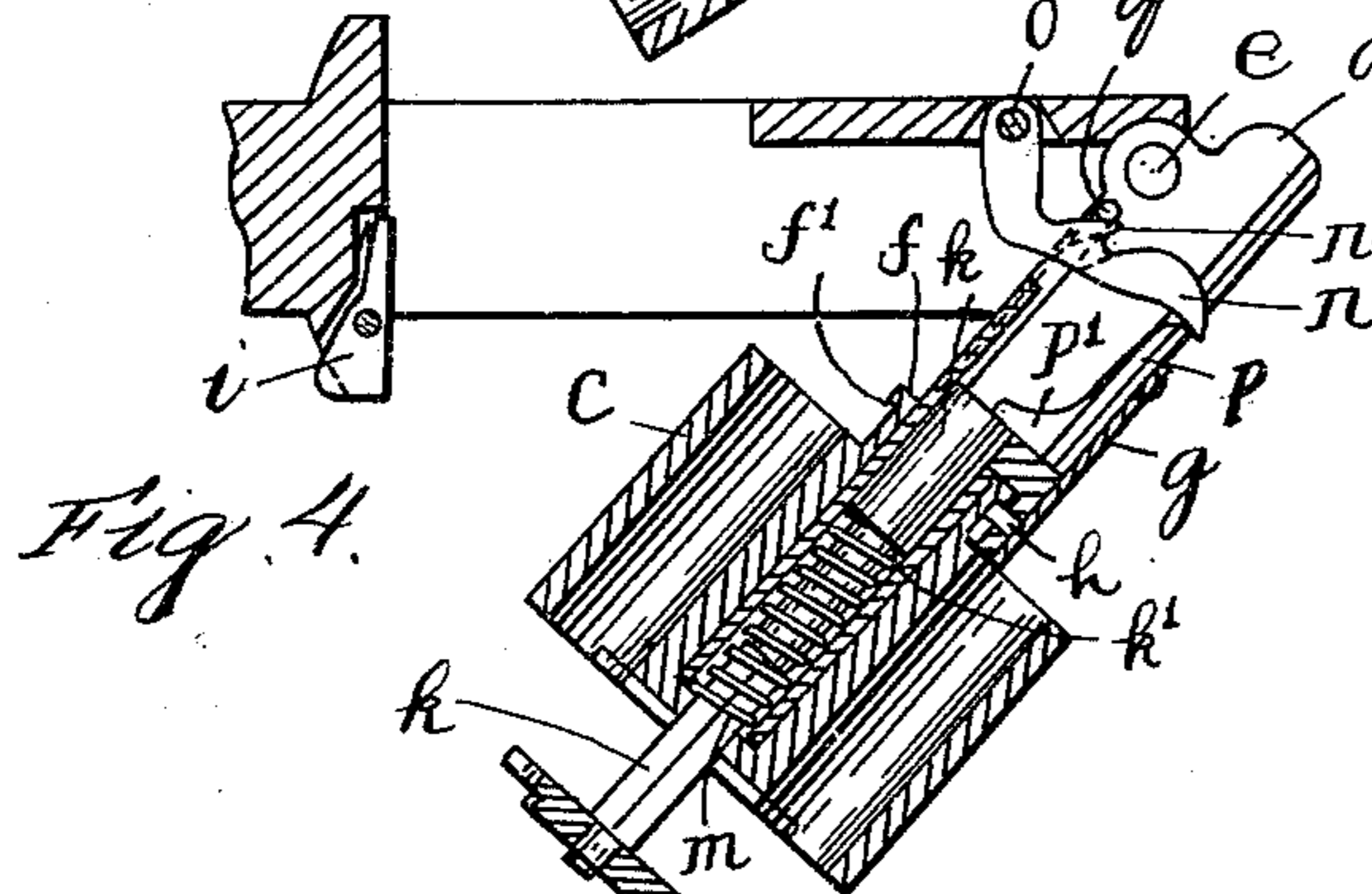
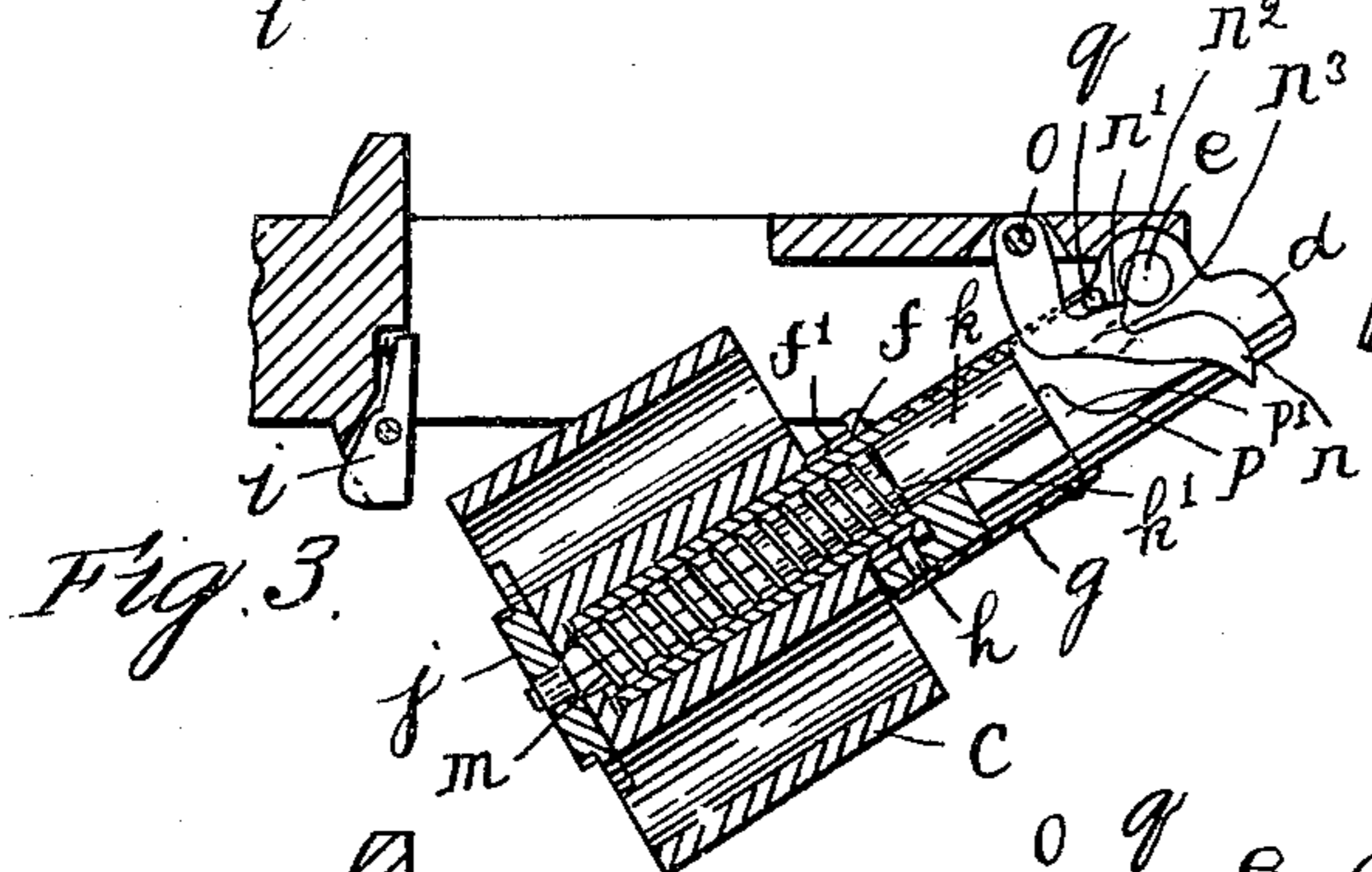
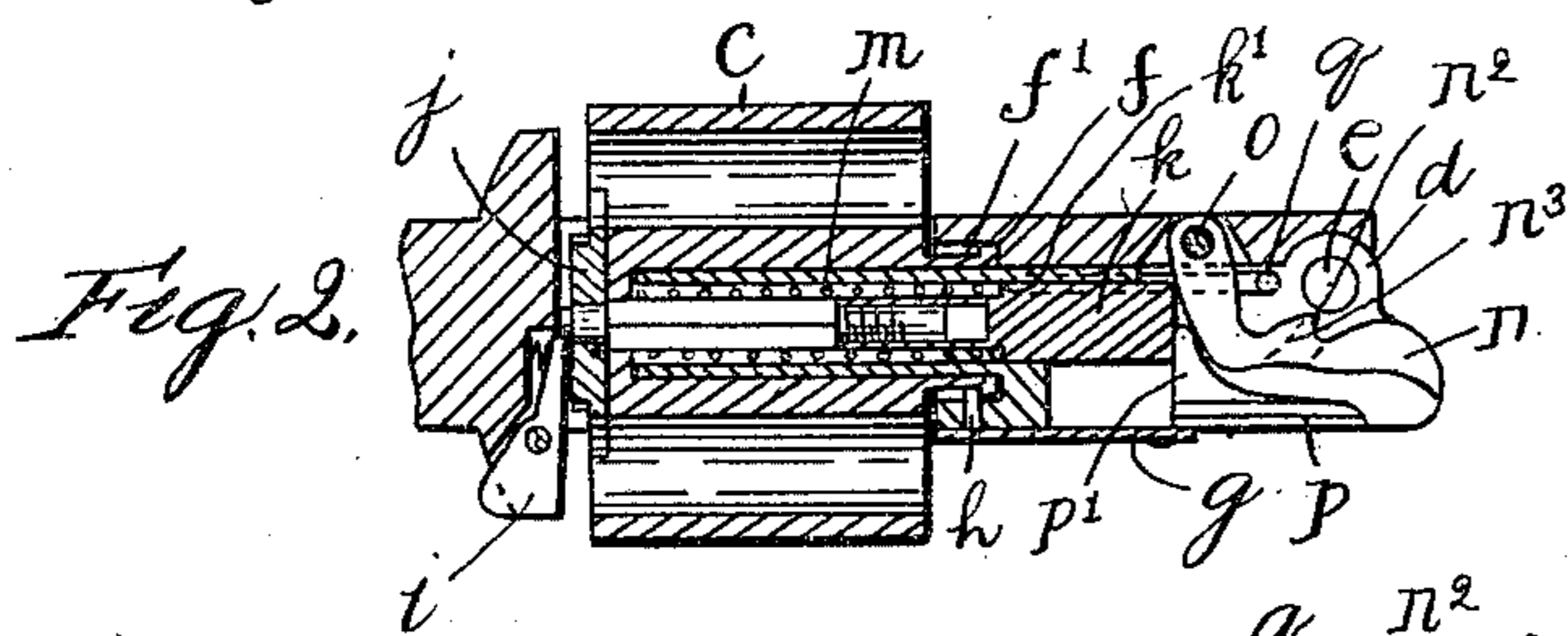
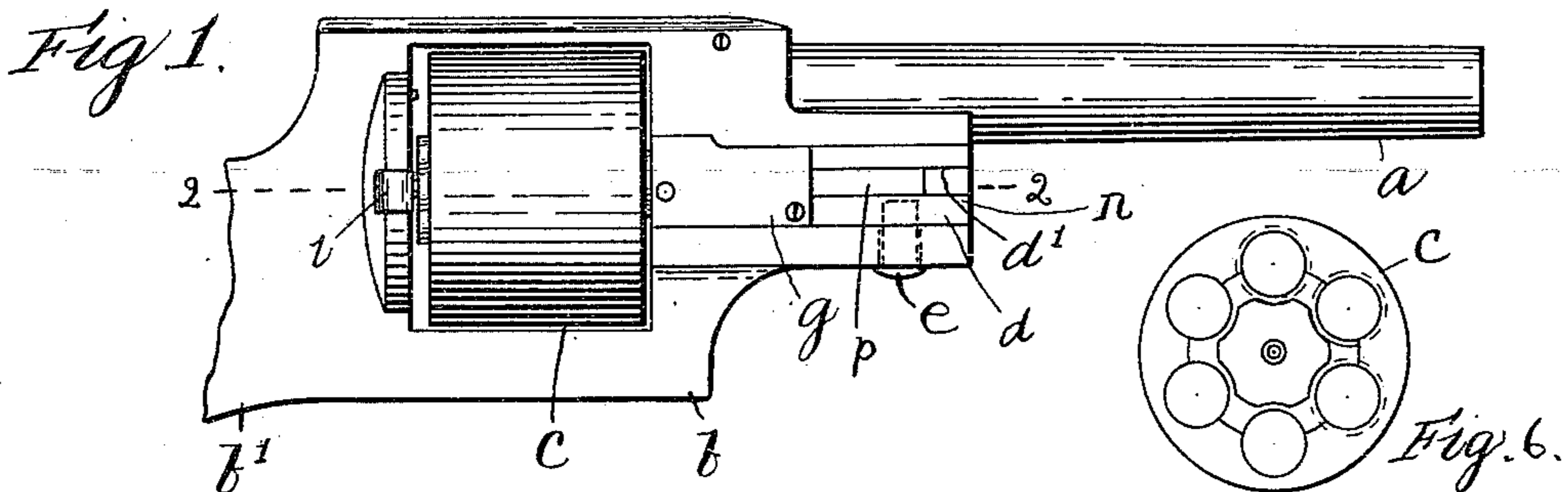
No. 841,240.

PATENTED JAN. 15, 1907.

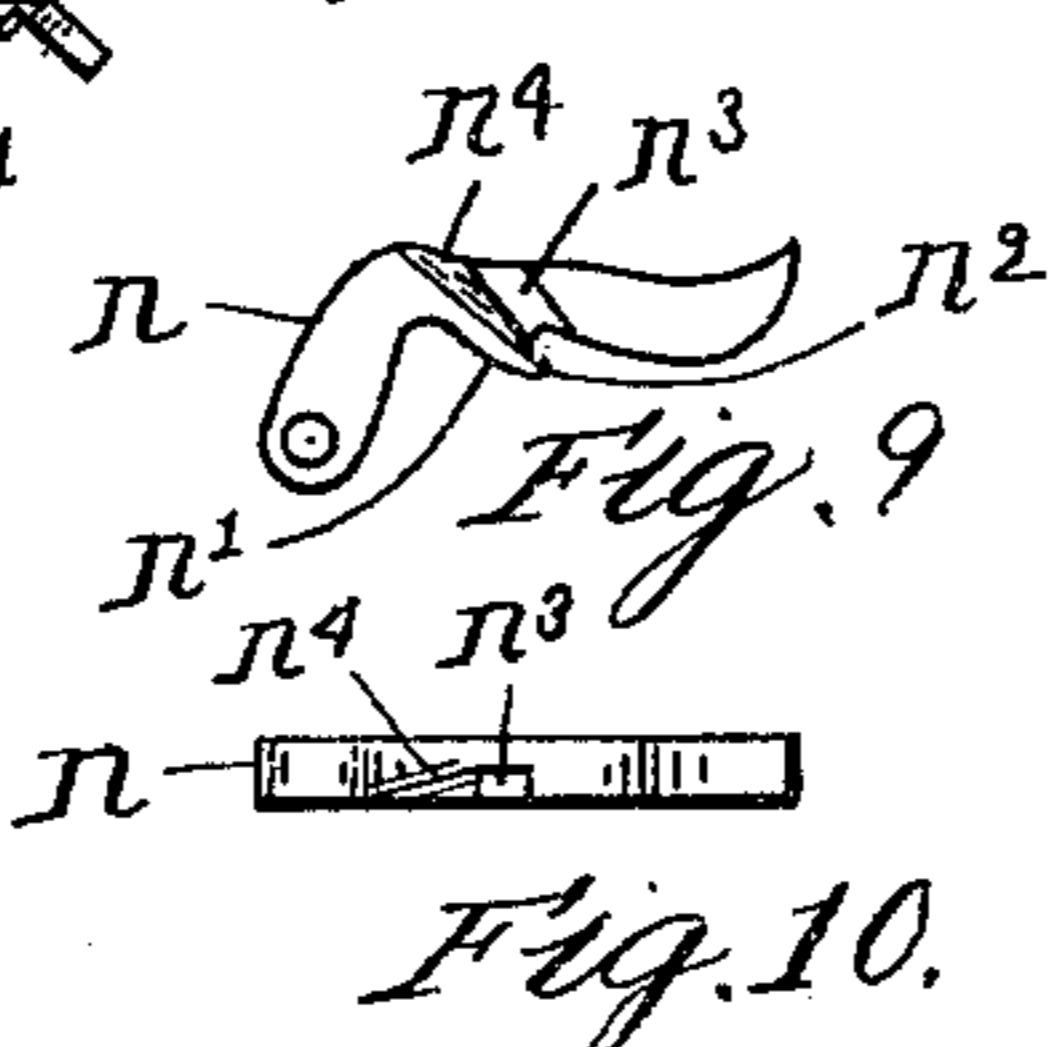
A. FYRBERG.

SHELL EXPELLING MECHANISM FOR FIREARMS.

APPLICATION FILED AUG. 11, 1906.



Witnesses:
H. B. Davis.
Cynthia Doyle.



Inventor:
Andrew Fyrberg
By Royce H. Harniman
Att'y

UNITED STATES PATENT OFFICE.

ANDREW FYRBERG, OF HOPKINTON, MASSACHUSETTS.

SHELL-EXPELLING MECHANISM FOR FIREARMS.

No. 841,240.

Specification of Letters Patent.

Patented Jan. 15, 1907.

Application filed August 11, 1906. Serial No. 330,108.

To all whom it may concern:

Be it known that I, ANDREW FYRBERG, of Hopkinton, county of Middlesex, State of Massachusetts, have invented an Improvement in Shell-Expelling Mechanism for Firearms, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention relates to that class of pistols or revolvers in which the barrel, handle, and frame or body thereof are rigidly connected and the cartridge-cylinder is mounted upon a holder which is pivotally connected at its front end to the frame, so that the cylinder may be swung laterally out of its chamber for the purpose of extracting the shells and loading the same.

My invention particularly relates to a shell extracting or ejecting mechanism for the cylinder of a revolver of the above-described character, and has for its object to provide an ejecting mechanism of this character in which the extractor will be caused to expel the shells and return to its normal position automatically during the outward lateral movement of the cylinder.

A further object of my invention is to improve firearms of the above character in minor details, as will hereinafter appear.

I accomplish these objects by the means shown in the accompanying drawings, in which—

Figure 1 is a side elevation of a revolver barrel and frame provided with my invention. Figs. 2, 3, and 4 are horizontal sectional views on the line 2 2 of Fig. 1, showing the parts in different positions. Fig. 5 is a partial sectional view on the line 2 2, Fig. 1, showing the parts in still another position. Fig. 6 is an end view of the cylinder. Figs. 7 and 8 are detail views of the spring-abutment. Figs. 9 and 10 are detail views of the actuating-lever.

As shown in the drawings, the barrel *a* is rigidly mounted in a frame or body *b*, having the usual chamber to receive the cartridge-cylinder *c*, said cylinder being revolvably mounted on the holder *d*, which is mounted to swing laterally on the pivot *e* in the frame, so as to carry the cylinder to one side thereof to permit loading. The cylinder is provided at its front end with a projecting boss *f*, hav-

ing an annular groove *f'* in its outer side, and a spring *g* is mounted on the holder *d* and provided with a pin *h*, which extends through an aperture in the holder, so that it is rigidly supported against transverse strain, and enters the groove *f'*, so as to provide a swivel connection between the cylinder and holder, which enables the cylinder to be removed readily from the holder by simply lifting the spring sufficiently to withdraw pin *h* from groove *f'*. A locking-catch *i* of common form is provided to hold the cylinder in alignment with the barrel.

A shell-extractor *j* of common form is mounted on a rod *k*, which is slidably mounted in the central bore formed in the portion of the holder on which the cylinder is journaled. Said rod *k* is provided with a shoulder *k'* near its forward end, and a spring *n* is interposed between said shoulder and the cylinder, so that said spring normally acts to hold the extractor against the end of the cylinder in position to permit the cartridges to be inserted, all as is usual in devices of this character. An actuating lever or dog *n* is mounted on a pivot *o*, rigidly held in the frame *b* at one side of and parallel to the pivot *e*. Said lever extends transversely of the holder in the rear of pivot *e* through a slot *d'*, formed through the front end portion thereof and into which the central bore thereof leads in position to engage one end of a block *p*, which is mounted to slide axially of the cylinder in the holder, the opposite end of said block being provided with a transverse lug *p'*, which is adapted to engage the front end of the rod *k*. The holder *d* is provided with a spring-actuated pin or abutment *q*, which normally extends into the slot *d'* at the front side of the lever *n*.

When the cylinder is in its normal position, the parts will be disposed as shown in Fig. 2. When the holder *d* is swung laterally on its pivot *e*, the pin *q* therein will be moved into engagement with an intermediate cam portion *n'* on the side of lever *n* next pivot *e* as soon as the rear or outer end of the cylinder is far enough to one side of the frame to permit the shells to be moved outwardly, as in the position of Fig. 3. Further outward movement of the holder causes the pin *q* to swing the lever *n* rearwardly or toward the breech, causing it to move the block *p* in the

same direction, the latter thus engaging rod *k* and moving the extractor *j* to extract the shells, as shown in Fig. 4. The cam portion *n'* of lever *n* is provided with a projecting end portion *n²*, at the outer end of which is formed a groove *n³*, which extends transversely of the lever and is of sufficient depth and width to permit the pin *q* to pass therethrough. When the holder is swung outwardly so far that the pin *q* has reached the end *n²* of the cam portion, the extractor will have been moved out sufficiently to expel the shell, so that upon further outward movement of the holder said pin will slip past said end and become disengaged from said lever, permitting the spring *m* to return the extractor to its normal position and swinging the lever forwardly to its normal position, so that said pin *q* will then be at the opposite side of the lever from its cam *n'*, and the parts will assume the position of Fig. 5, in which position the cartridges may be inserted.

Lever *n* is further provided with an inclined surface *n⁴*, which extends transversely thereof from the side of the lever from cam *n'* and the adjacent portion of groove *n³* toward said cam portion *n'*, as best shown in Figs. 7, 9, and 10. When the cylinder and holder are swung back to their normal positions, the pin *q* will be immediately moved into contact with said inclined surface *n⁴* and will be forced outwardly thereby as it is moved across the lever. When the pin has been moved entirely across said lever, it will be moved by its spring back into its normal position, (shown in Figs. 2 and 3,) so that the previously-described operation may be repeated.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a firearm having a rigidly-connected frame and barrel, a cylinder-holder pivoted thereto at its front end to swing laterally in the horizontal plane of the barrel, a cylinder, on said holder, a shell-extractor for said cylinder, and means operated by said holder as it is swung laterally, for moving said extractor to extract the shells, and means for returning said extractor to its normal position upon continued outward movement thereof, substantially as described.

2. A firearm having a pivotally-mounted cylinder-holder adapted to swing laterally with relation thereto, a cylinder on said holder, a shell-extractor for said cylinder, a lever pivoted adjacent said holder, means on said holder for engaging said lever to cause the latter to operate said extractor upon outward movement of the holder, substantially as described.

3. A firearm comprising a frame having a cylinder-holder pivotally mounted thereon

and adapted to swing laterally with relation thereto, a cylinder on said holder, a shell-extractor for said cylinder, a lever pivoted on the frame adjacent said holder, means on said holder for engaging said lever to cause the latter to move said extractor to extract the shells during the outward movement of the holder, means permitting disengagement of said holder and lever during said outward movement, and means for returning said extractor to its normal position, substantially as described.

4. A firearm comprising a frame having a cylinder-holder pivotally mounted thereon and adapted to swing laterally with relation thereto, a cylinder on said holder, a spring-actuated shell-extractor for said cylinder, a lever pivoted on the frame adjacent said holder and extending transversely thereof, and engaging means on said holder for moving said lever into engagement with said extractor to extract the shells upon outward movement of said holder, said engaging means being arranged to move out of engagement with said lever as the holder reaches the end of its outward movement, substantially as described.

5. A firearm comprising a frame having a cylinder-holder pivotally mounted thereon and adapted to swing laterally with relation thereto, a cylinder on said holder, a spring-actuated shell-extractor for said cylinder, a lever pivoted on the frame adjacent said holder and extending transversely thereof, said lever having a cam-face, and an oppositely-disposed inclined face, a yielding abutment on said holder normally in position to engage said cam-face to move said lever into engagement with said extractor to extract the shells during the outward movement of the holder and to be moved out of engagement therewith at the end of said outward movement to permit said extractor and lever to return to their normal position, said inclined face being disposed to cause said abutment to yield and pass over the lever into its normal position upon inward movement of said holder, substantially as described.

6. A firearm comprising a frame having a cylinder-holder pivotally mounted thereon and adapted to swing laterally with relation thereto, a cylinder on said holder, a spring-actuated shell-extractor for said cylinder, a lever pivoted on the frame adjacent said holder and extending transversely thereof, said lever having a cam-face, a transverse recess at the outer end of said face, and an inclined, transversely-extending face oppositely disposed to said cam-face, a yielding abutment on said holder normally in position to engage said cam-face to move said lever into engagement with said extractor to extract the shells during the outward movement of the holder, and adapted to enter

said recess at the end of said movement to permit said lever and extractor to return to their normal positions, said inclined face being adapted to force said abutment inwardly
5 to permit the same to pass over said lever during the return movement of said holder, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ANDREW FYRBERG.

Witnesses:

WEBSTER W. PAGE,

HERMAN FYRBERG.