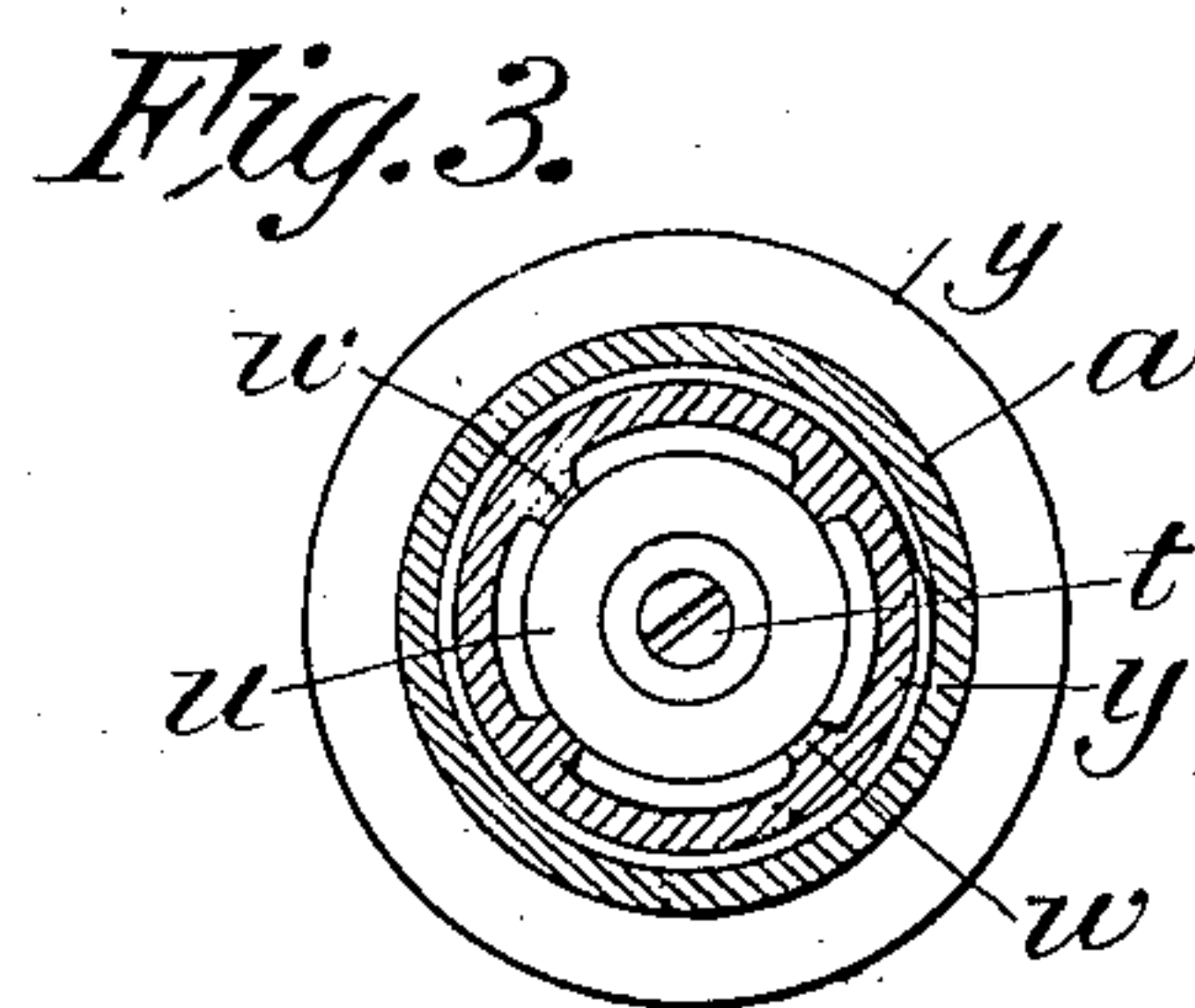
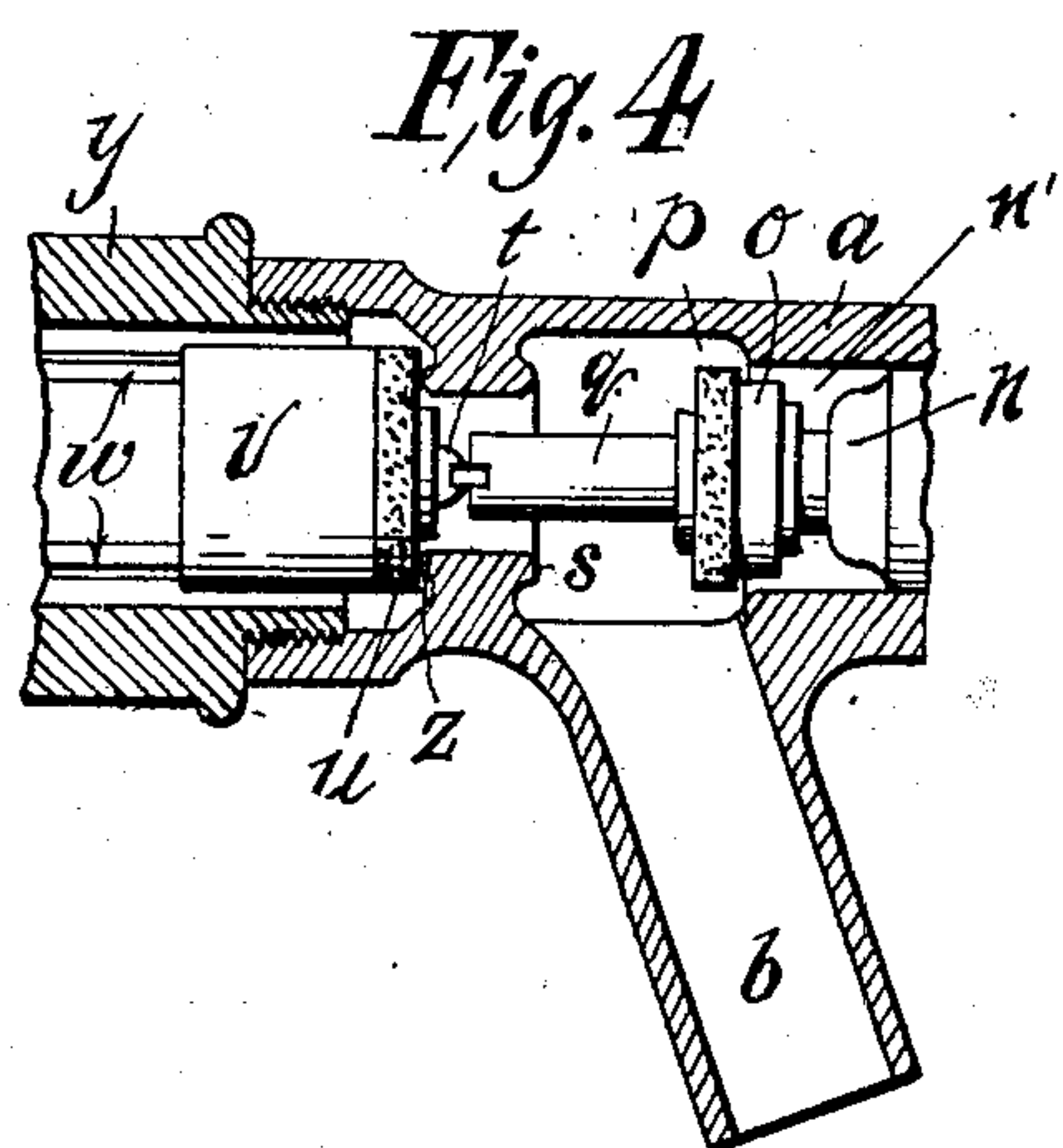
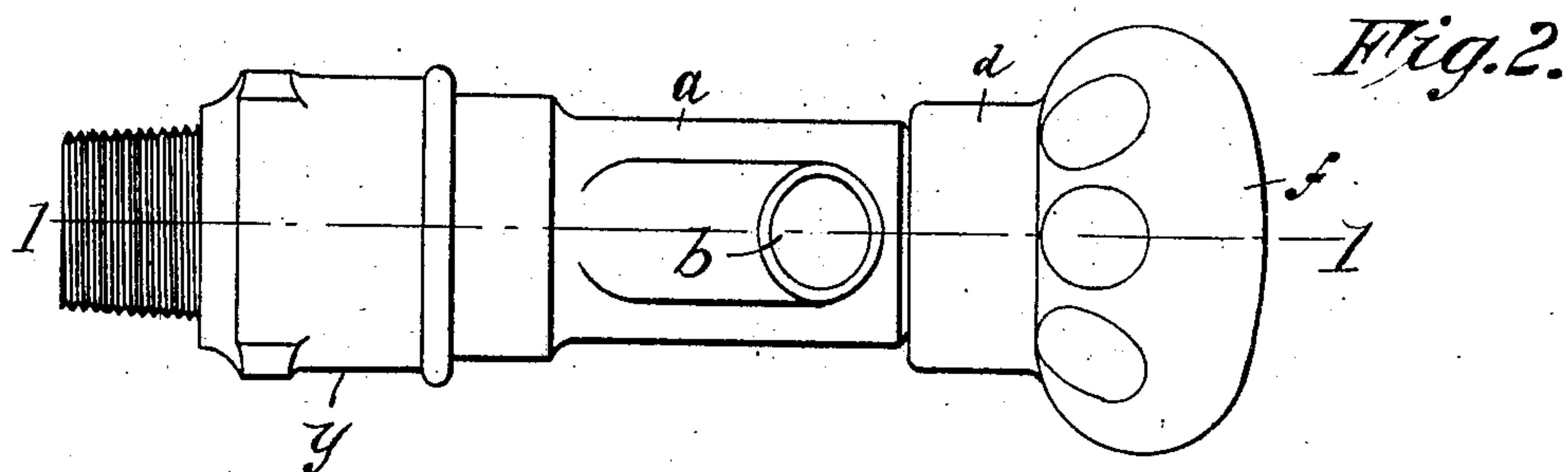
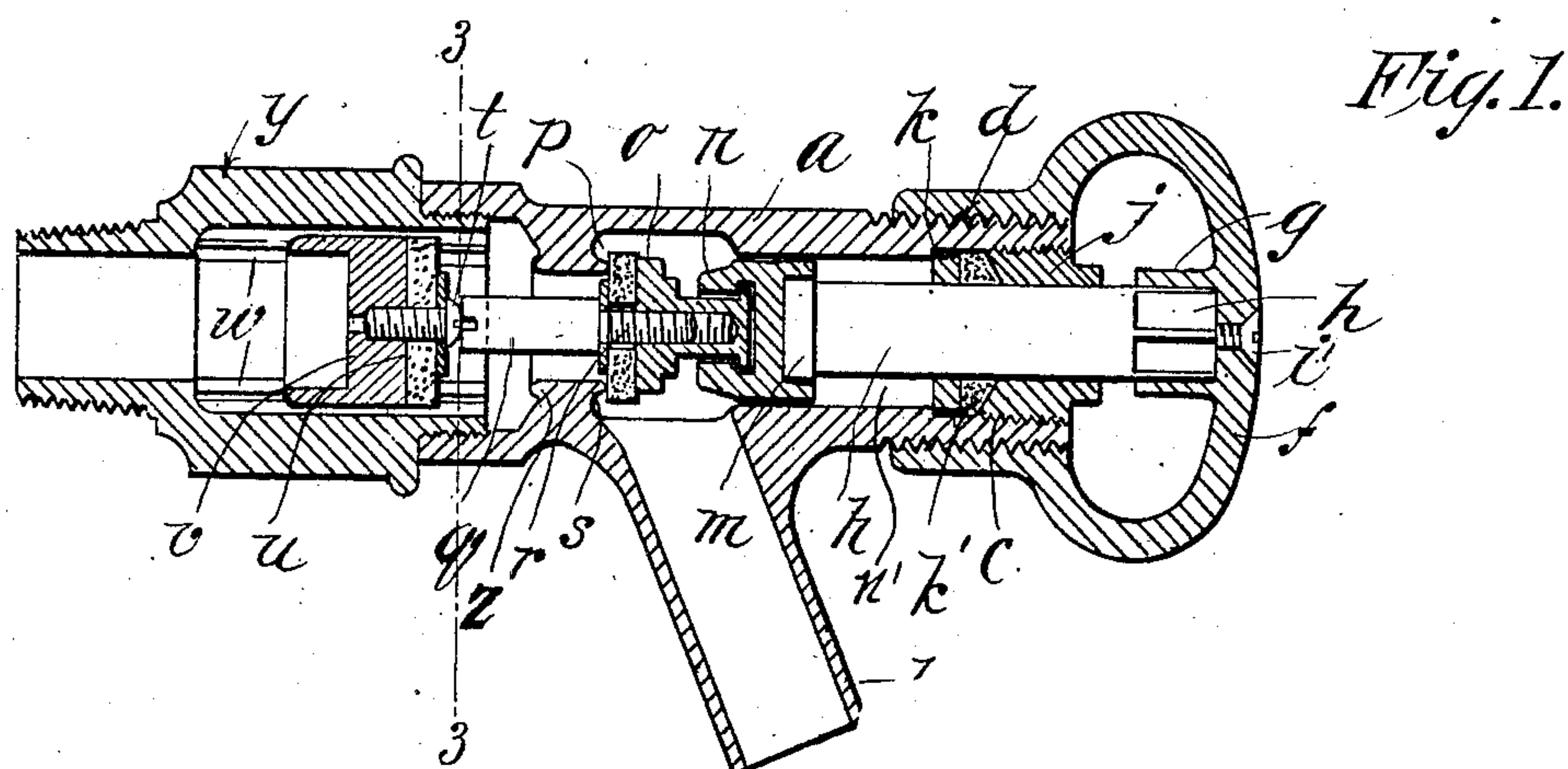


F. E. GUYOTT.
VALVE.
APPLICATION FILED DEC. 10, 1906.

908,250.

Patented Dec. 29, 1908.



Witnesses:
H. L. Sprague.
H. W. Brown.

Inventor:
Frank E. Guyott.
by Chapin & Co.,
Attorneys.

UNITED STATES PATENT OFFICE.

FRANK E. GUYOTT, OF NORTHAMPTON, MASSACHUSETTS

VALVE.

No. 908,250.

Specification of Letters Patent.

Patented Dec. 29, 1908.

Application filed December 10, 1906. Serial No. 347,228.

To all whom it may concern:

Be it known that I, FRANK E. GUYOTT, a citizen of the United States of America, residing at Northampton, in the county of Hampshire and State of Massachusetts, have invented new and useful Improvements in Valves, of which the following is a specification.

This invention relates to improvements in faucets or bibs, more particularly to devices of this character wherein provision is made for enabling the main valve to be removed for renewal or repairs without the necessity for shutting off the water or steam, or shutting off the supply in the main pipe.

With these and other objects in view, the invention consists in certain features of construction as hereinafter shown and described and specifically pointed out in the claim, and in the drawings employed for illustrating the invention is shown the approved form of embodiment of the same, and in the drawings thus employed:—Figure 1 is a longitudinal vertical section on the line 1—1 of Fig. 2. Fig. 2 is a bottom plan view of the complete valve. Fig. 3 is a sectional view on the line 3—3 of Fig. 1. Fig. 4 is a sectional detail illustrating the main valve in open position and the auxiliary valve in closed position.

The improved device comprises a shell or body *a* having a main valve seat *s* and an auxiliary valve seat *z* intermediate its ends, and threaded, as at *c*, at one end to receive a sleeve *d* upon a hood *f* and with a guide-way *n'* between the main valve seat and the threaded end of the shell, and with an outlet *b* leading from the shell between the valve seat *s* and the guide-way *n'*, this portion of the shell forming an outlet chamber, as shown. Slidably disposed in the guide-way *n'* is a carrier-piece *n* in one side of which a valve stem *h* is secured, as at *m*, the outer end of the valve stem being formed rectangularly and fitting into a rectangular socket *g* upon the hood *f*, the valve stem being secured in position by a screw *i'* operating through the hood *f*. The shell *a* is internally threaded within the hood *f*, as at *e*, to receive a gland *j* operating against a packing *k—k'*, to prevent leakage around the valve stem. Seated upon the main valve seat *s* is a valve disk *p* preferably of flexible material and secured by a screw *r* to a connecting piece *o*, the connecting piece having a flange at one end fitting into a corresponding cavity in the carrier-piece *n*. By this means the main

valve is rotatively connected to the carrier-piece *n* and movable longitudinally of the shell therewith, as hereinafter explained.

The screw *r* is provided with a projecting stud *q* extending beyond the auxiliary seat *z*. Detachably connected to the shell is an extension piece *y* forming the inlet to the valve shell and with an internal relatively large chamber having spaced longitudinal guides *w* upon which an auxiliary valve device *v* is slidably disposed, the member *v* having a disk of flexible material *u* secured thereto by a screw *t*, the screw adapted to be engaged by the free end of the stud *q*, and thus maintained normally out of contact with the auxiliary valve seat *z*. The valve member *v—u* is thus free to move within the chamber of the extension piece *y* and permit the inflowing water or steam to pass around it or within the spaces between the ribs *w*.

The main valve *p* is operated by rotating the hood *f*, as will be obvious, the turning of the hood in one direction opening the main valve and the turning of the hood in the opposite direction closing the main valve through the coaction of the stem *h*, carrier-piece *n* and connecting piece *o*. A certain degree of flexibility is therefore assured between the stem *h*, the carrier-piece *n* and the connecting piece *o*, so that the valve is free to seat itself upon the seat *s*. The main valve *p* may thus be moved to a sufficient extent to enable the water or steam to flow freely from the inlet of the casing past the auxiliary valve *v* and the main valve *p* and be discharged through the pipe *b*, and so long as the main valve *p* remains perfect this operation will continue. It is not necessary to draw the valve *p* to the position shown in Fig. 4 in order to permit of a discharge through the outlet *b*, but only partway over opposite sides of said outlet, in which position of the valve *p*, the stud *q* would engage the valve *v* and hold it away from the seat *z* thereby permitting of a proper discharge to the outlet *b*. Should, however, the main valve require renewal or re-packing, the screw *i'* is removed, the hood *f* unscrewed, and the stem *h* drawn outward carrying with it the valve *p* and necessarily withdrawing the stud *q* and permitting the pressure in the rear of the auxiliary valve *v—u* to close the latter upon the auxiliary seat *z* and thus shut off the out-flow. Upon the return of the valve *p* to its position within the shell, the stud *q* will detach the auxiliary valve from

the seat *z* by contact with the head of the screw *t*, and restore the valve to its former condition.

Having thus described the nature of the invention, what is claimed as new is:—

5 A valve of the class described comprising a shell having a main valve seat and an auxiliary valve seat oppositely disposed intermediate the ends and an inlet at one end and
10 a guide-way near the other end and a discharge chamber between the guide-way and main valve seat and an outlet leading from the discharge chamber an inlet chamber between the inlet and the auxiliary valve seat,
15 a carrier-piece slidable in said guide-way and an operating stem projecting from one end of said carrier-piece a main valve adapt-

ed to be seated upon the main valve seat and a connecting piece rotatively uniting the main valve and the carrier-piece, a stud projecting from the valve and extending in advance of the auxiliary valve seat, and a supplemental valve device loosely disposed in said inlet chamber and normally maintained out of engagement with the auxiliary valve seat by said stud when the main valve is in closed or open position, and adapted to engage said auxiliary valve seat when the main valve is to be removed from the shell.

FRANK E. GUYOTT

Witnesses:

MELVIN L. EMRICK,
GEORGE M. PAGE.