

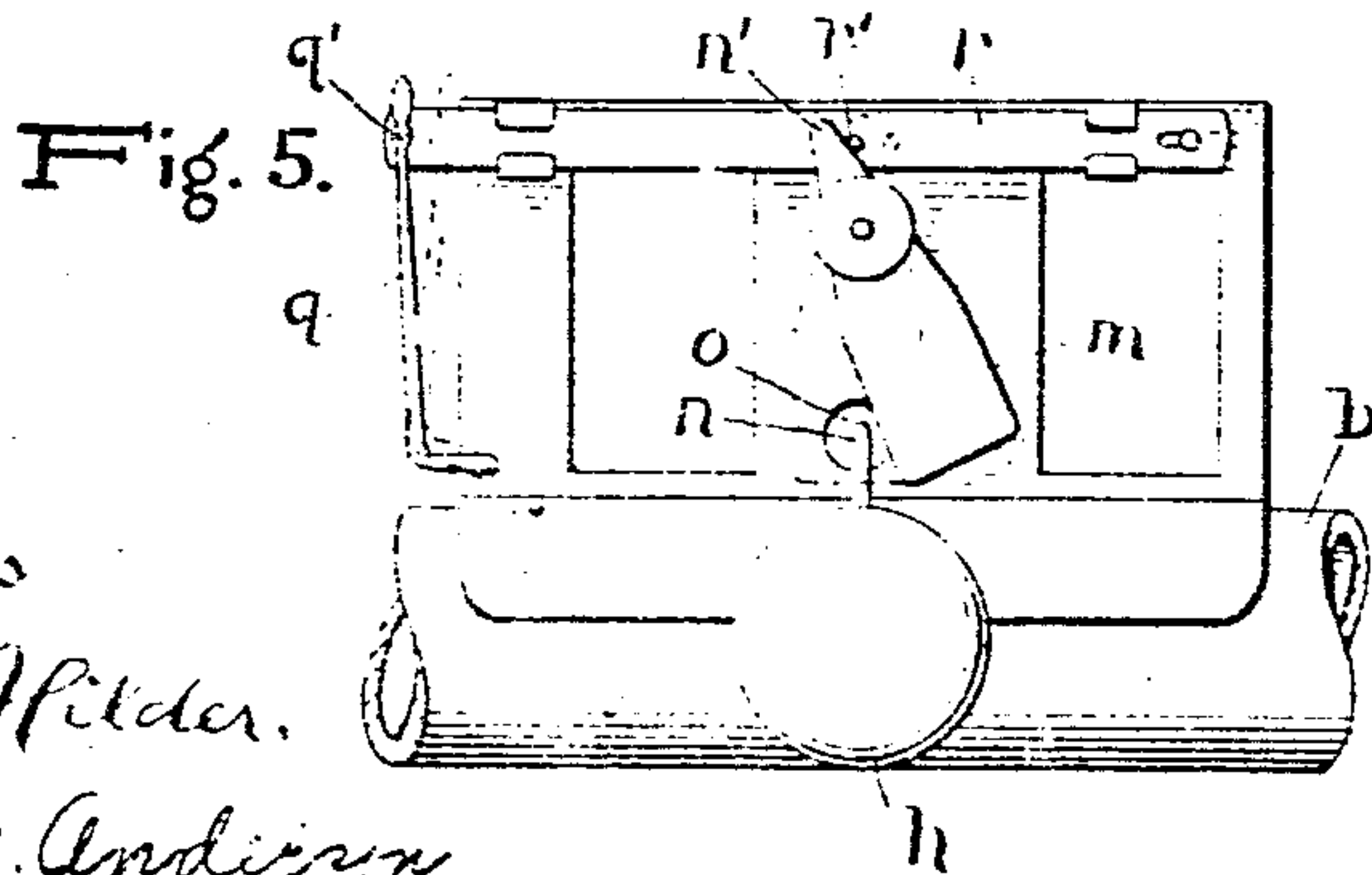
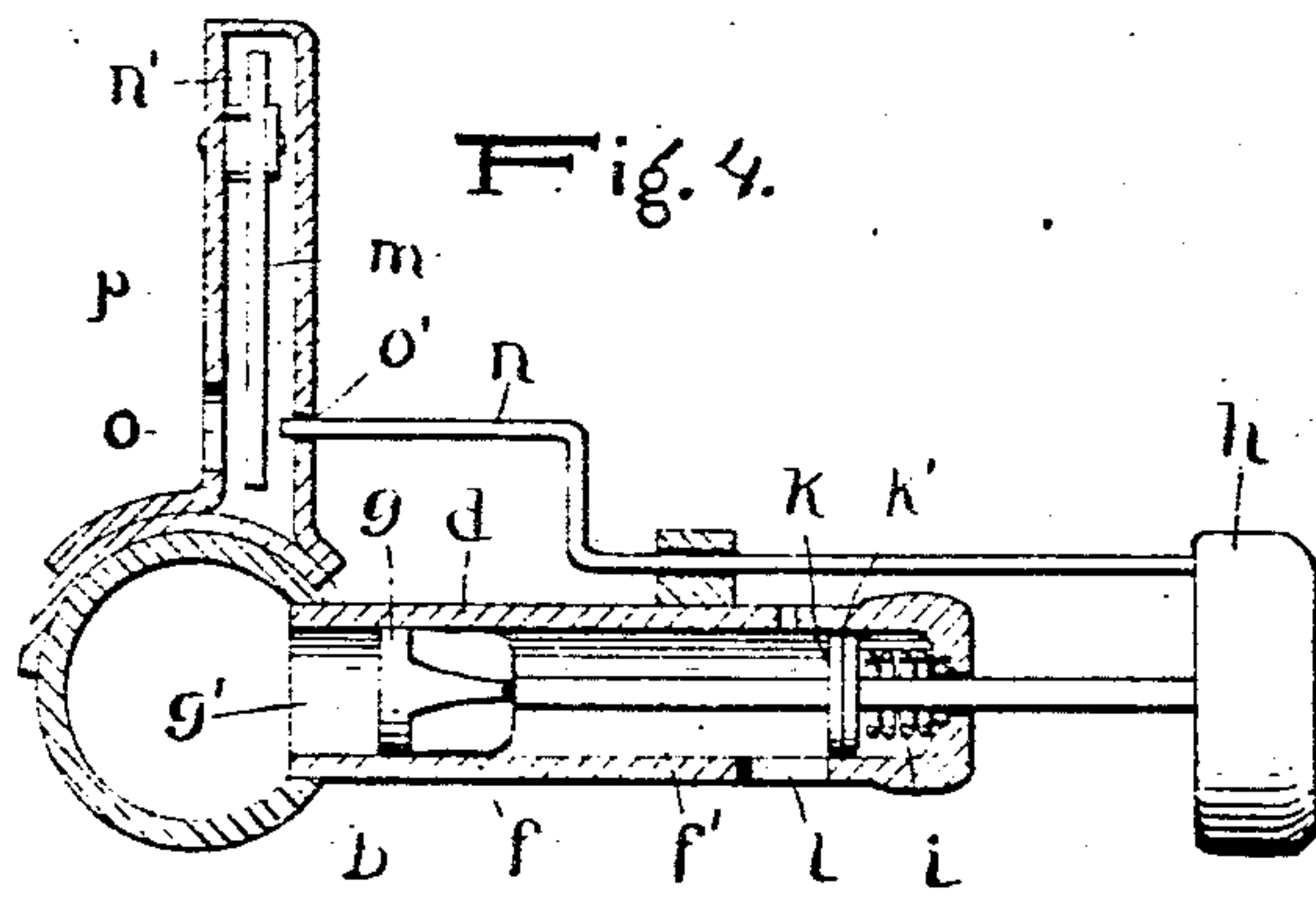
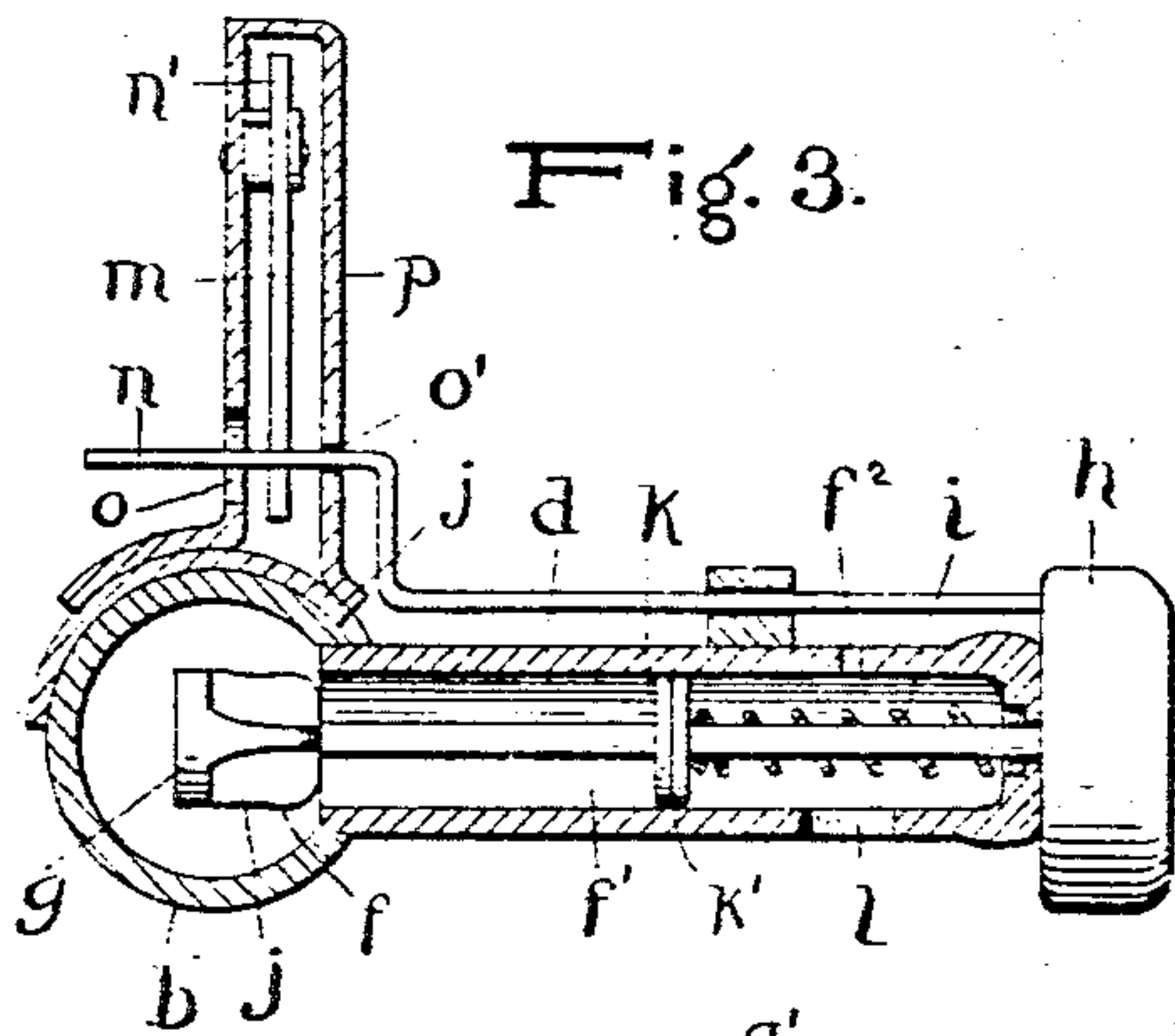
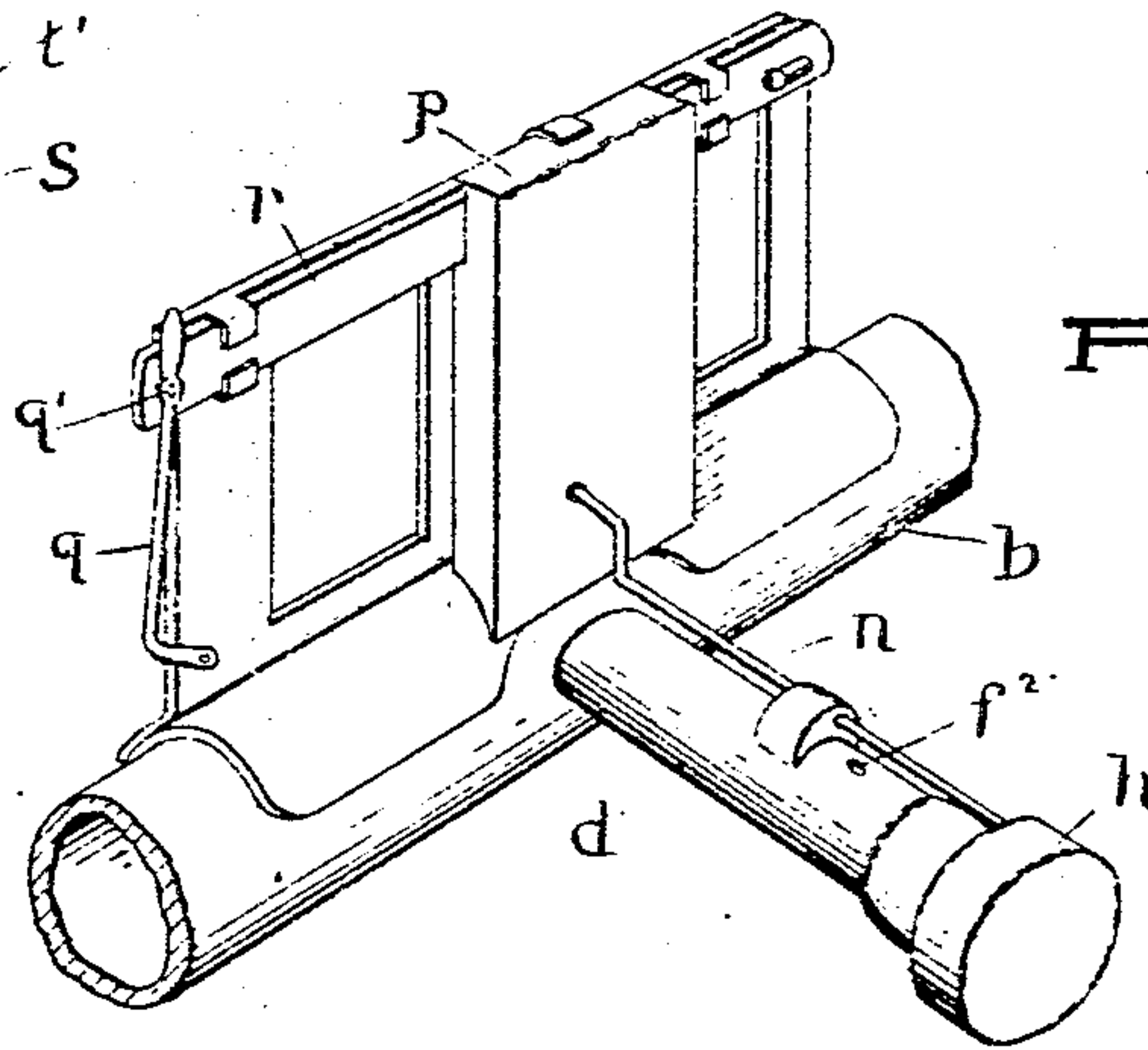
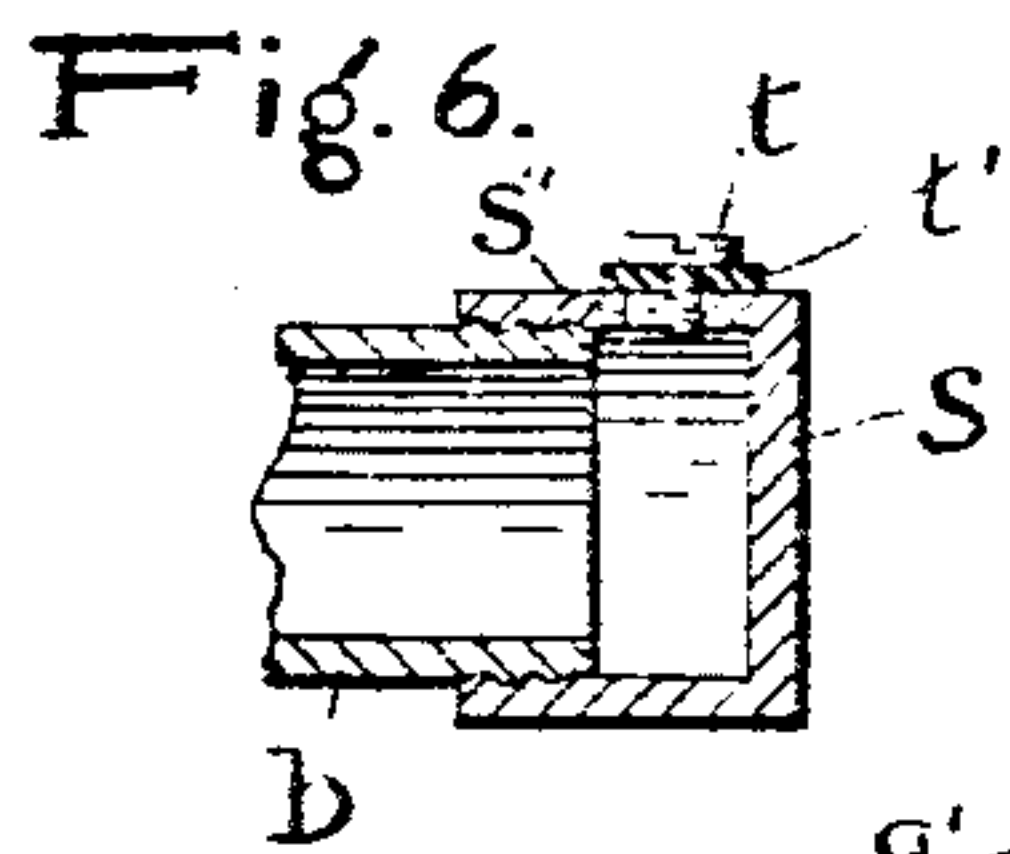
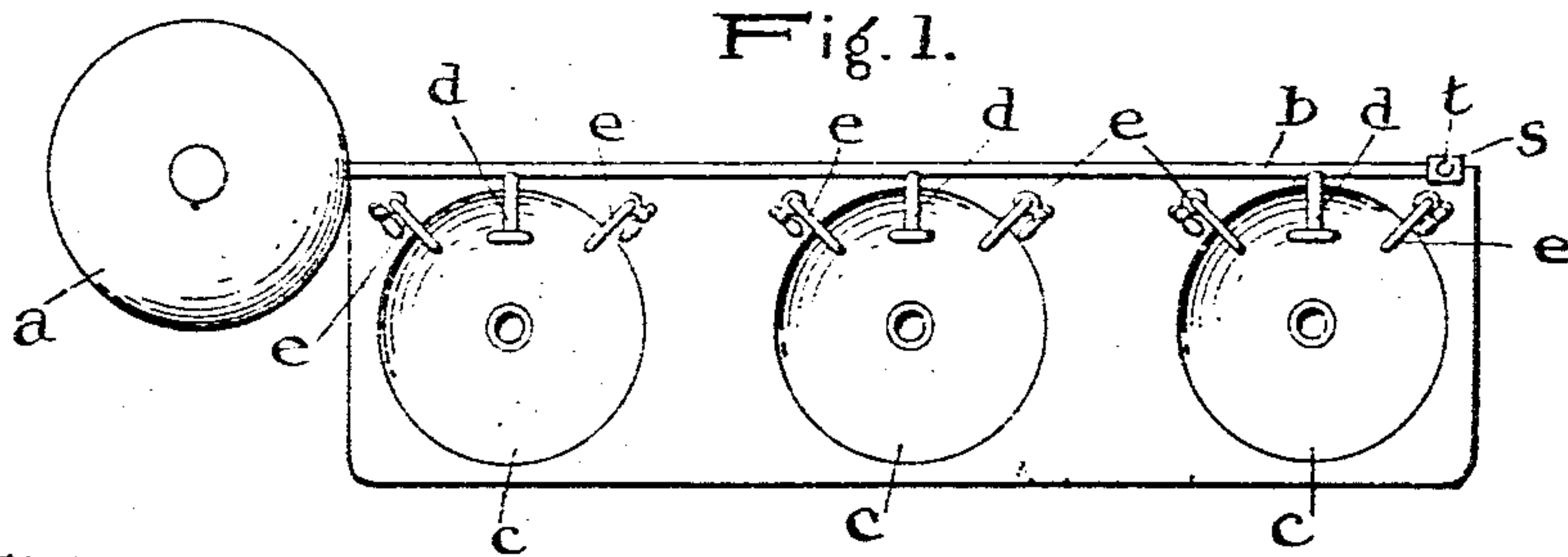
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APPARATUS FOR THE DISTRIBUTION OF LIQUID SOAP IN LAVATORIES.

APPLICATION FILED JUNE 10, 1909.

962,394.

Patented June 21, 1910.



Witnesses
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APPARATUS FOR THE DISTRIBUTION OF LIQUID SOAP IN LAVATORIES.

962,394.

Specification of Letters Patent.

Patented June 21, 1916.

Application filed June 10, 1909. Serial No. 501,437.

To all whom it may concern:

Be it known that I, RUFUS N. SHELDON, a citizen of the United States, resident of Norwalk, in the county of Huron and State of Ohio, have made a certain new and useful Invention in Apparatus for the Distribution of Liquid Soap in Lavatories; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a plan view of the invention as applied. Fig. 2 is a detail perspective view of one of the valve devices and the adjacent parts. Fig. 3 is a central longitudinal section of one of the valve devices and parts adjacent. Fig. 4 is a similar view showing the valve operated to deliver a supply of soap. Fig. 5 is a front view of one of the valves with one side of the casing removed to show the swinging stop, the fallen position of said stop being shown in dotted lines. Fig. 6 is a detail sectional view of the air vent.

The invention relates to apparatus for the distribution of liquid soap in lavatories, and it consists in the novel construction and combinations of parts as hereinafter set forth.

In the accompanying drawings, illustrating the invention, the letter *a*, designates a tank or receptacle designed to contain the liquid soap and having any suitable capacity; *b*, is a horizontal constantly open supply pipe connected with said tank and installed in rear of the wash bowls *c*, *c*, and *d*, *d*, are the soap faucets, one of which communicates with the supply pipe *b*, between the hot and cold water faucets *e*, *e*, of each wash bowl.

Each faucet *d*, is so constructed that when the valve is operated a given amount of liquid soap is caused to escape into the open hand of the person held beneath the same, the supply pipe communication with the faucet being at the same time closed to avoid escape of the contents of the tank should the valve remain open. To this end each faucet *d*, consists of a reciprocatory plunger *f*, working in a cylinder *f'*, of less diameter than that of and at right angles to and in the same plane as the supply pipe *b*, said

plunger having a valve head *g*, at its inner end also of less diameter than that of the supply pipe and which when the plunger is drawn outward by the handle *h*, will at the limit of its outward movement close the orifice *g'*, of the hollow cylinder or casing *f'*, against the admission of more soap from the supply pipe, but which when the plunger occupies its normal projected position (under the influence of the coil spring *i*,) will allow the admission of soap into the cylinder through notches *j*, *j*, of said valve head in front of the valve portion proper thereof. Each plunger also carries a piston head *k* in front of the valve head, working tightly in the cylinder, whereby when the valve plunger is pulled outward a given supply of soap will be sucked into the charging chamber of the valve cylinder *f'*, between the two heads *g*, and *k*, and discharged through opening *l*, thereof, the piston head *k*, passing over and beyond such opening in its movement. The valve head in its normal position projects within the bore of the supply pipe with the valve open, as shown in Fig. 3 of the drawings, and the supply pipe being of larger diameter than that of the valve head is constantly open for supply of the liquid soap to all of the faucets at all times. In this way every single operation of a faucet *d*, discharges a given supply of soap, and if more soap is desired a second operation of the valve (which is returned to normal position automatically by its spring) is required. The supply of soap discharged is subject to regulation by alteration of the dimensions of the cylinder *f'*, of the faucet.

In order to lock the plunger *f*, against operation when desired, as for instance to prevent children from tampering with the same with consequent waste of soap, a swinging stop plate *m*, may be provided, working in the path of movement of a rod *n*, fixed to the handle of the valve plunger and moving therewith. This swinging stop is so arranged with reference to the rod *n*, that when the plunger is pulled back to close the soap admission orifice of the cylinder *f'*, it will automatically, through force of gravity, fall across or between openings *o*, *o'*, at the rear and front of a casing *p*, inclosing such stop, and through engagement with the rod *n*, hold the plunger withdrawn, with the escape of soap stopped. Thus the plunger may not be again operated to supply soap

until the stop plate is moved out of the way of the rod n , which is accomplished by means of a lever q , having pivotal connection q' , with a reciprocatory plate r , provided with a lug r' , having engagement with an arm n' , of the stop plate upon the opposite side of its pivot.

An air vent is provided in the cylinder at f^2 .

10 s , is a cap piece for the end of the pipe b , provided with an air escape opening s' , normally closed by a screw t , having a washer t' . When the soap tank is to be filled the screw t , is loosened to allow escape of air
15 through the opening s' .

The piston head of the plunger is preferably provided with a central groove k' , therein, in which when the piston head becomes worn a packing strip may be located.
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Having thus described the invention, what I claim as new and desire to secure by Letters Patent is:

1. In apparatus for the distribution of
25 liquid soap in lavatories, the combination with a supply pipe having a plurality of faucet-casings of less diameter than that of said pipe, of a normally open measuring valve for each casing, said valve being also
30 of less diameter than that of and having normal projection within the bore of the supply pipe, said pipe being constantly open for supply of the liquid soap to all of the faucets at all times, said casings having each
35 an air-inlet opening and a discharge opening, and said valve being capable of movement to close the communication of the casing with the supply pipe and discharge a given regulated quantity of liquid soap.

40 2. In apparatus for the distribution of liquid soap in lavatories, the combination with a supply pipe having a plurality of faucet-casings of less diameter than that of said pipe, of a plunger working in each casing consisting of a central shaft having a valve-head also of less diameter than that
45 of the supply pipe and a piston-head in front of the valve-head and separated therefrom by an interval to form with the casing a measuring chamber, said valve-head having normal projection within the bore of the supply pipe, said pipe being constantly open
50

for supply of the liquid soap to all of the faucets at all times, said casings having each an air inlet opening and a discharge
55 opening, and the valve head being capable of outward movement within the valve casing to close the communication thereof with the supply pipe and discharge a given regulated quantity of liquid soap. 60

3. In apparatus for the purpose described, a source of supply, a distributing pipe leading therefrom, a valve device controlling the distribution and capable of operation to discharge a given regulated quantity of
65 the liquid soap and to close the communication with said pipe, and means for locking the valve against return to normal position after operation comprising a casing having aligned openings in opposite walls thereof, a
70 rod having movement with the valve and capable of engagement with said openings when the valve is in normal position and a pivoted stop plate in said casing having movement across the path of said rod be- 75
tween said openings when the valve is operated.

4. In apparatus for the purpose described, a source of supply, a distributing pipe, a valve device controlling the distribution
80 comprising a cylinder, a reciprocatory plunger having a piston head working in the cylinder, and a head having passages normally communicating with said pipe and capable of closing communication with said pipe
85 when the valve is operated, and means for locking the valve against return to normal position after operation comprising a casing having aligned openings in opposite walls thereof, a rod having movement with the
90 valve plunger and capable of engagement with said openings when the valve plunger is in normal position, a pivoted stop plate in said casing having movement across the path of said rod between said openings when
95 the valve is operated, and means for moving said stop plate to allow the valve to return to normal position.

In testimony whereof I affix my signature, in presence of two witnesses.

RUFUS N. SHELDON.

Witnesses:

T. FAY CRAIG,
MABEL FRYE.