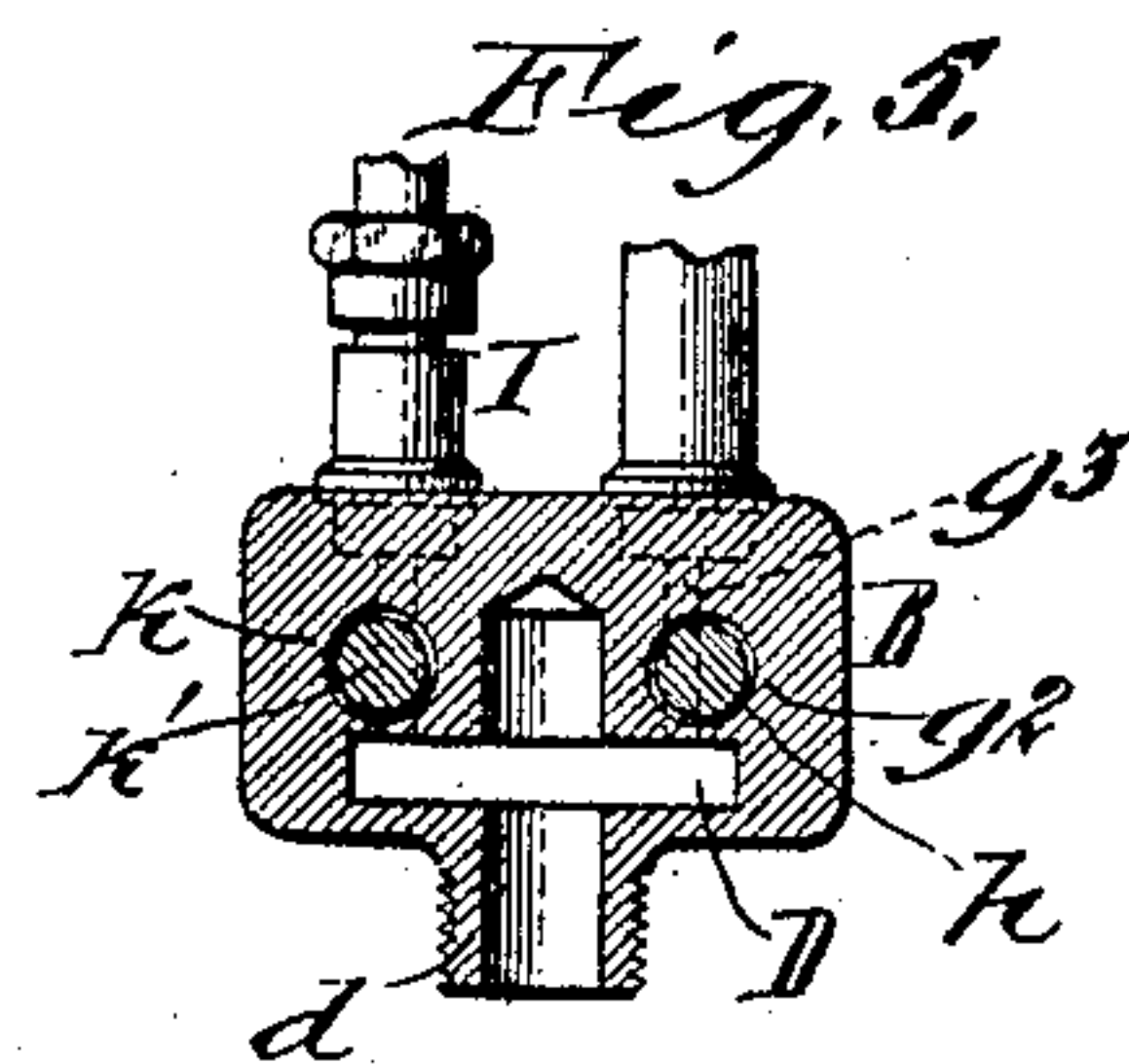
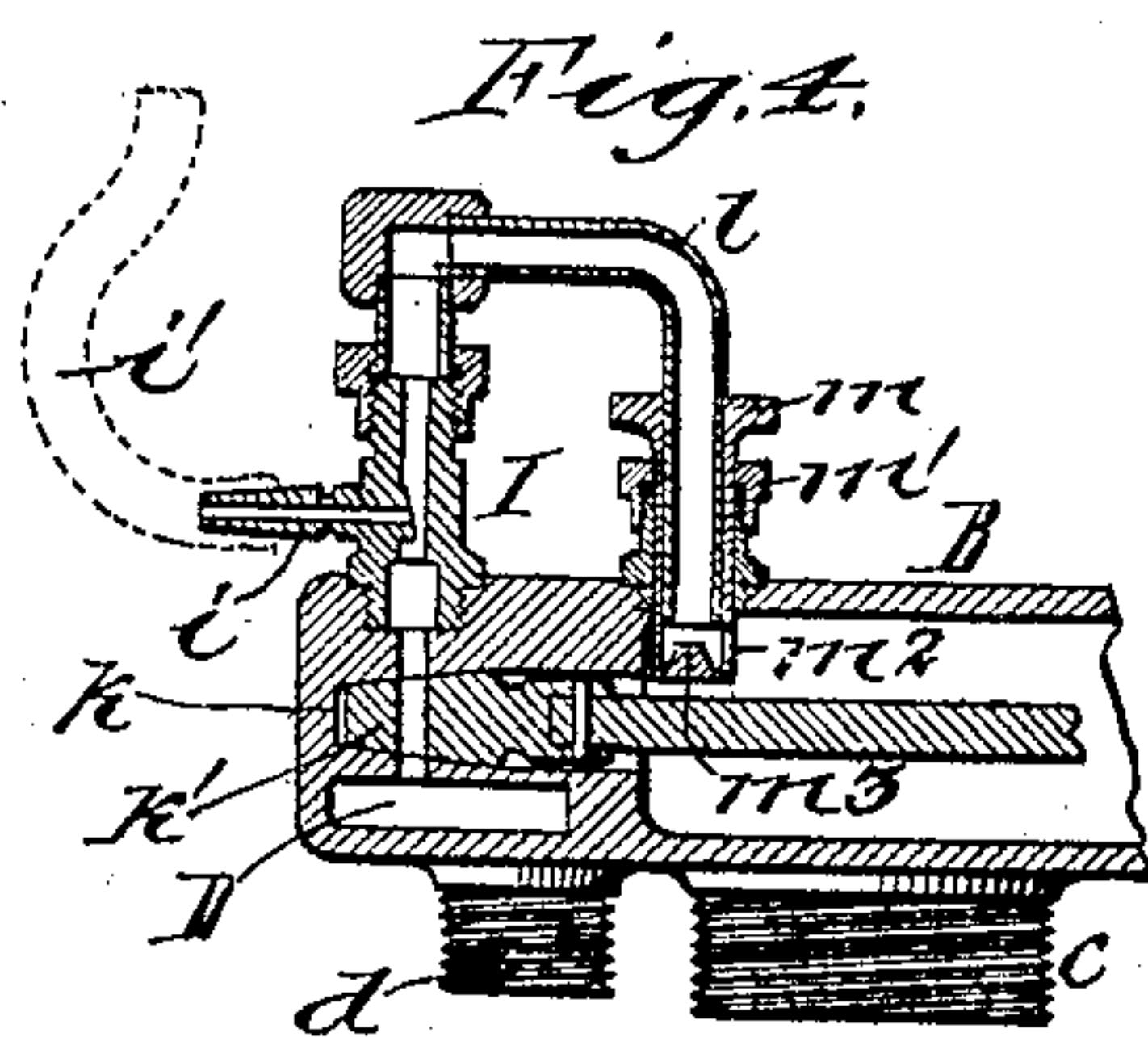
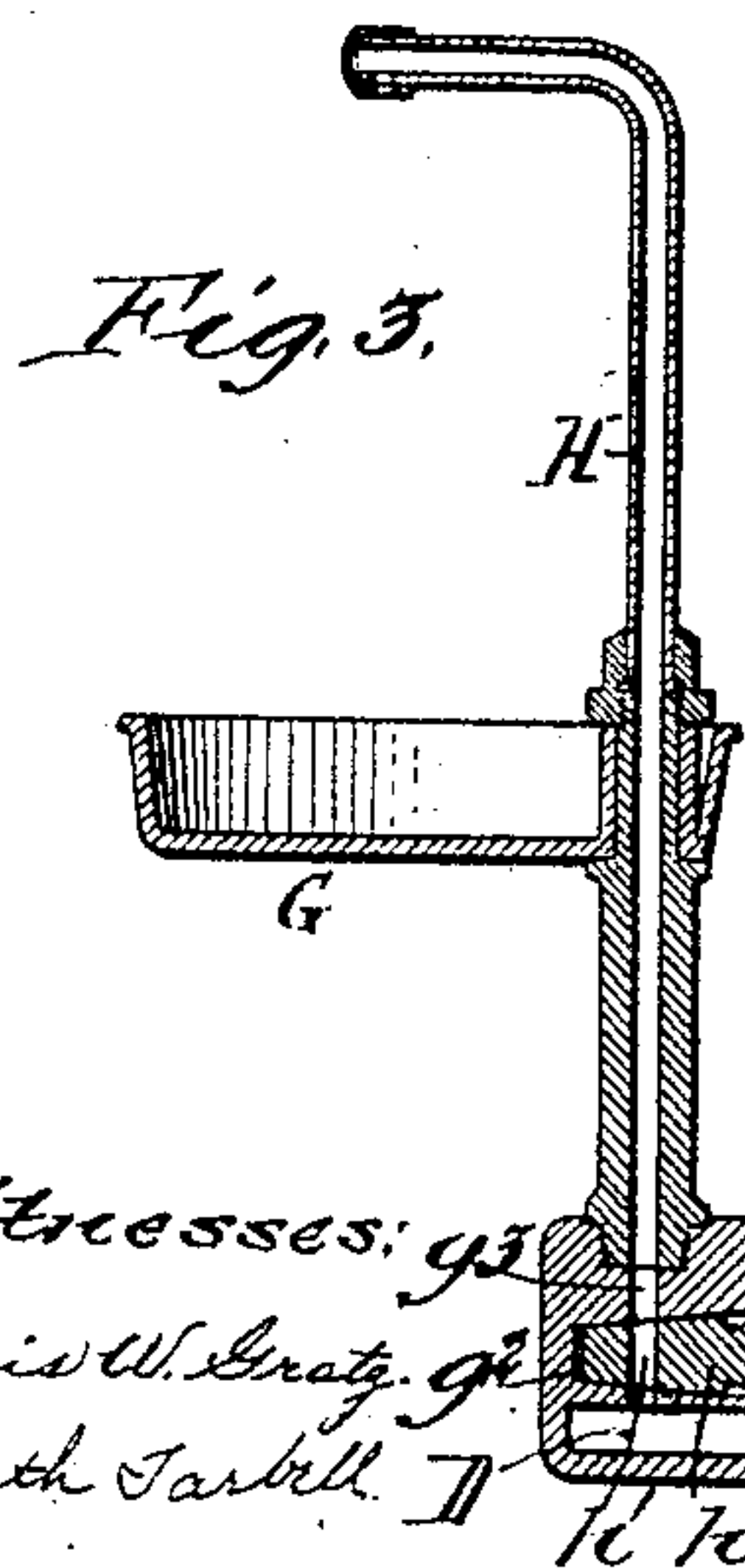
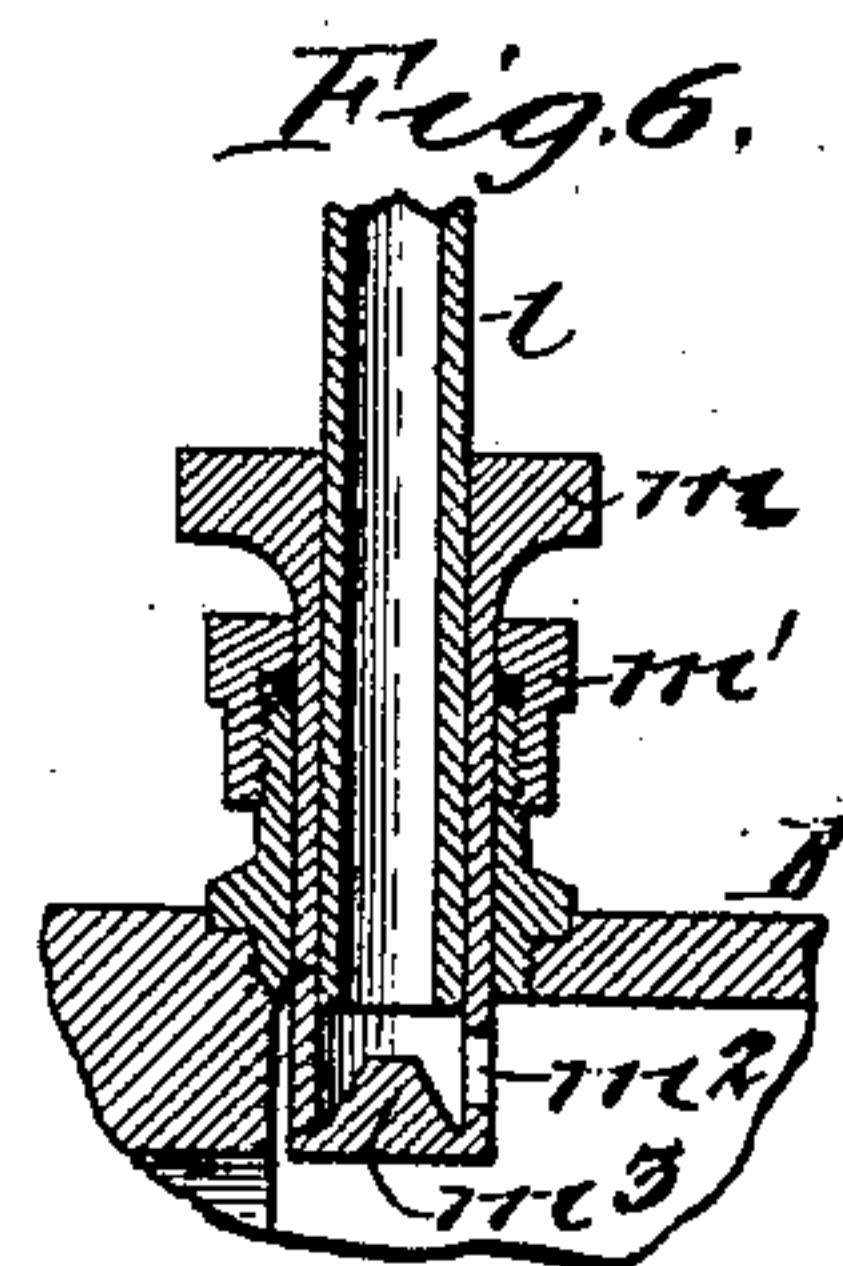
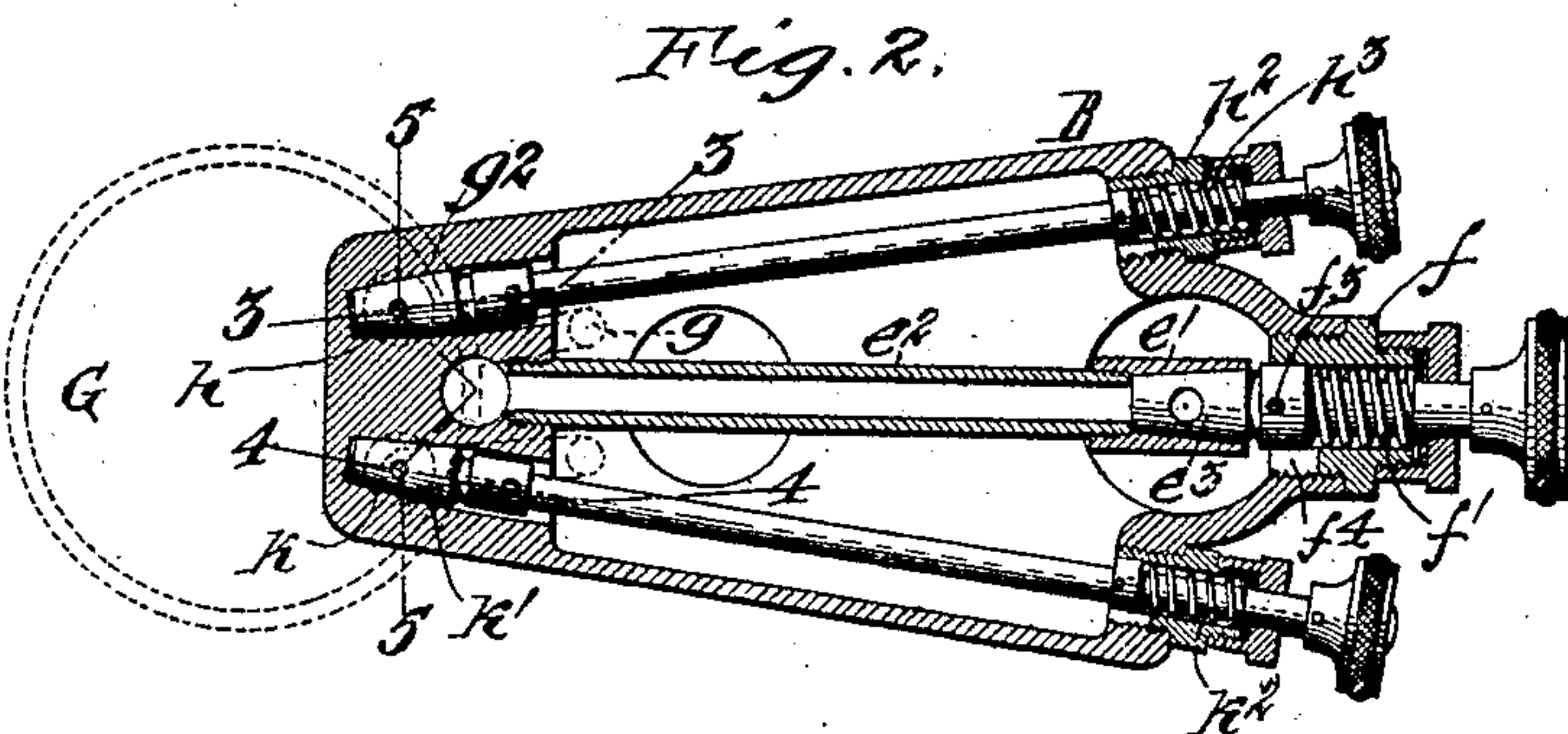
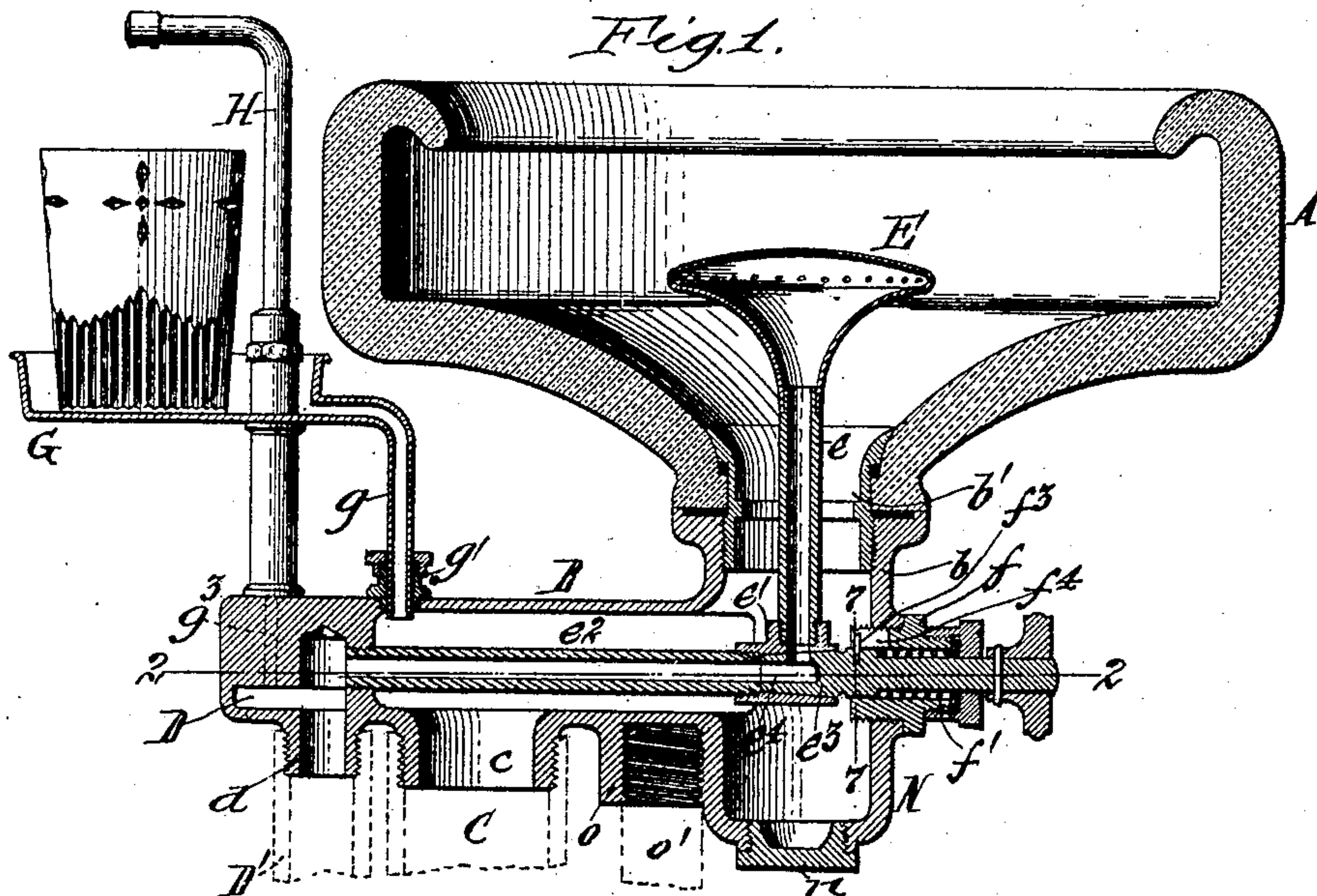


No. 832,263.

PATENTED OCT. 2, 1906.

T. G. LEWIS.
 FOUNTAIN SPITTOON.
 APPLICATION FILED JAN. 29, 1906.

2 SHEETS—SHEET 1.



Witnesses:
 Louis W. Gratz, Jr.
 Ruth Tarbell

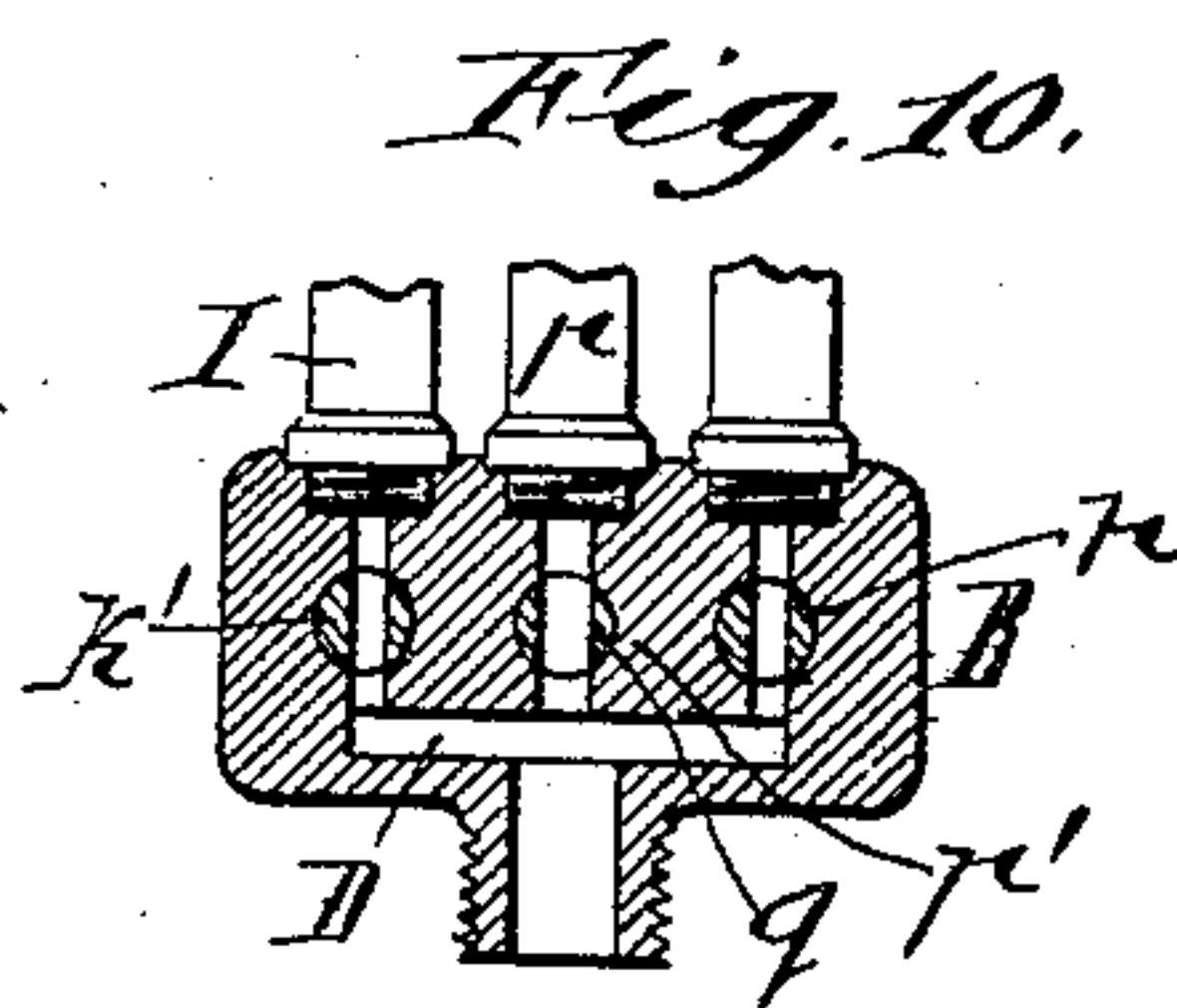
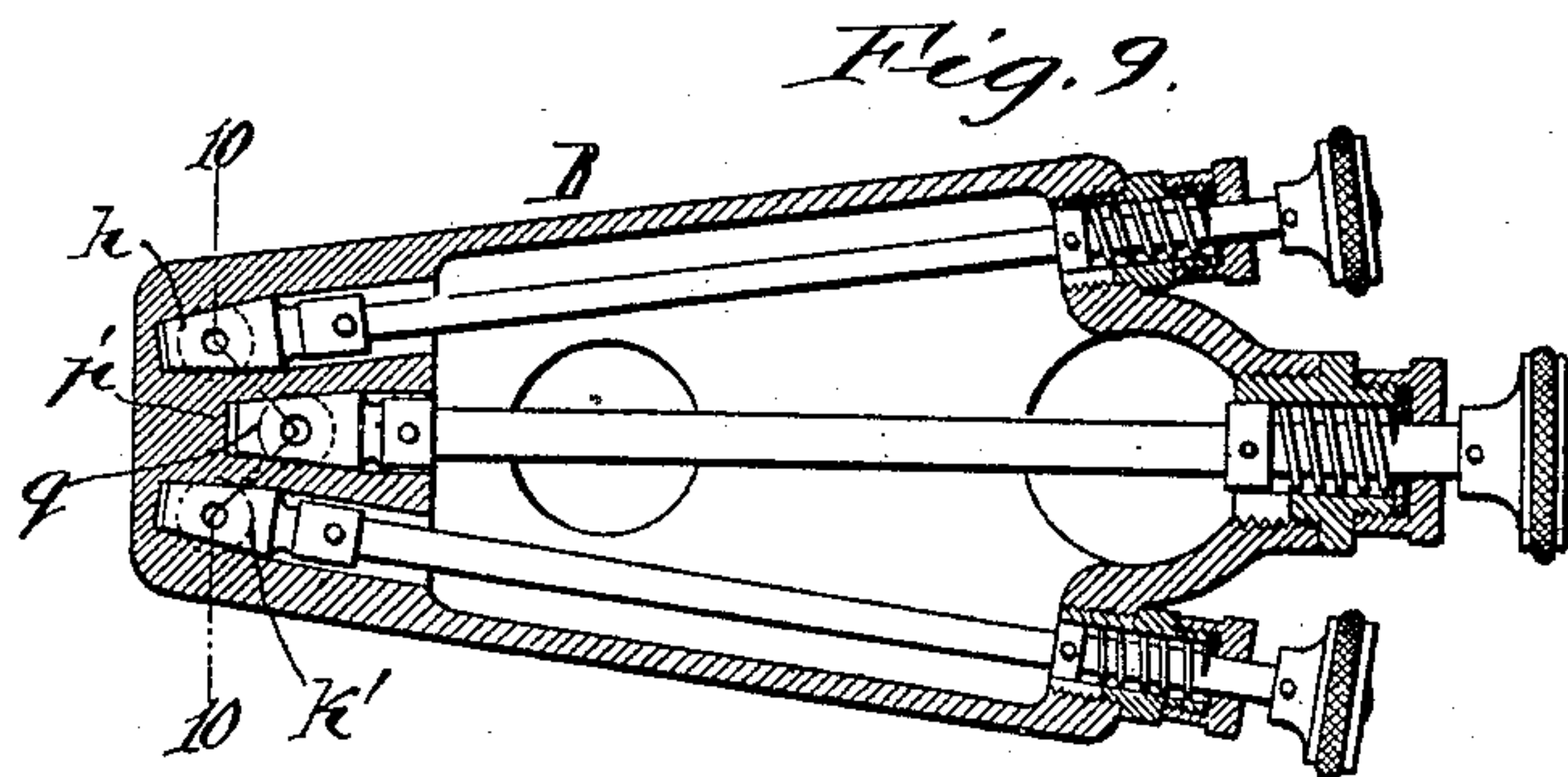
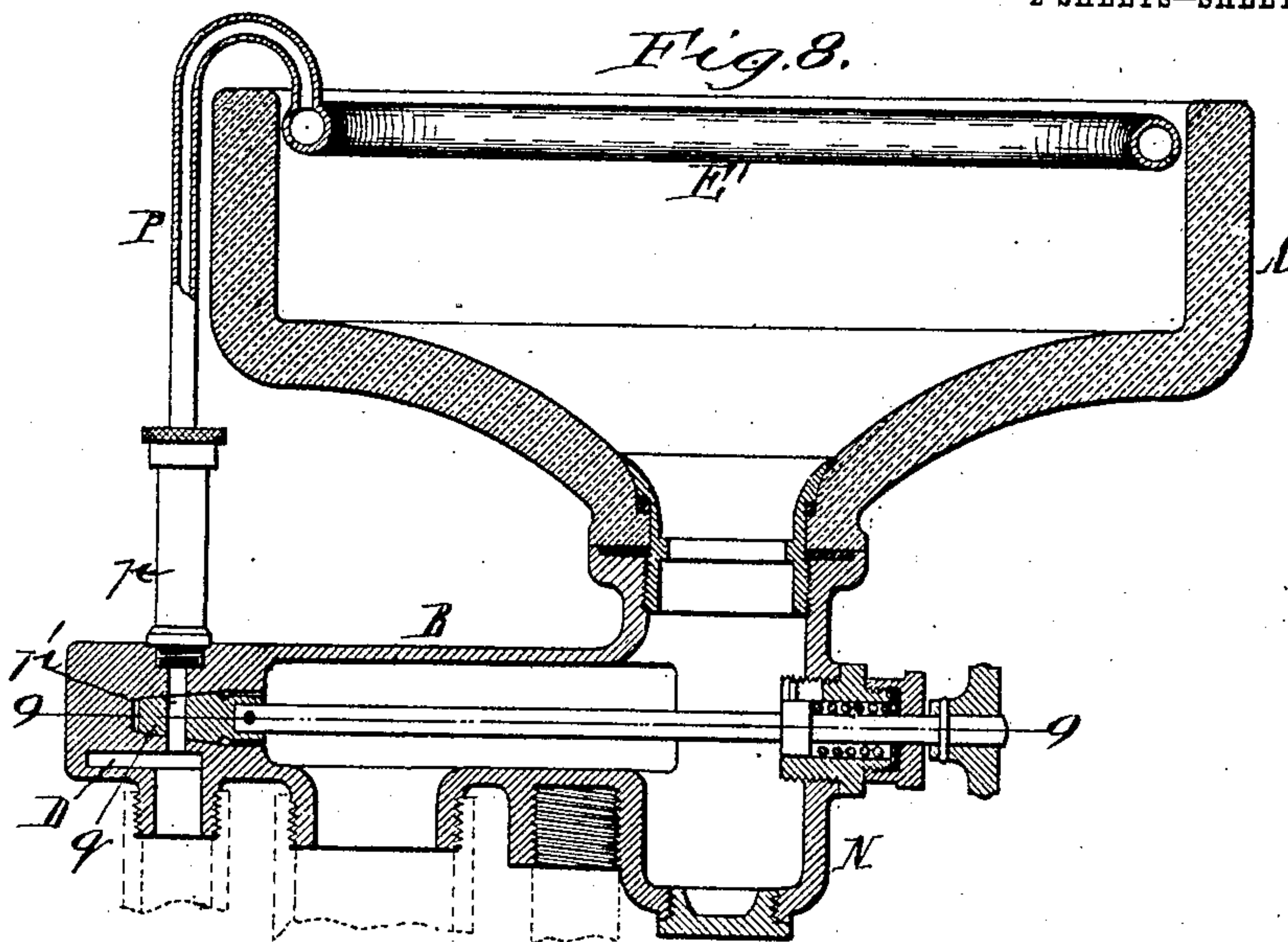
Fig. 7. Theodore G. Lewis,
 Inventor
 By Geyer Popp
 Attorneys

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2 SHEETS—SHEET 2.



Witnesses:
Louis W. Gratz,
Ruth Tarbell.

Theodore G. Lewis,
Inventor,
by *Leyer & Popp*
Attorneys

UNITED STATES PATENT OFFICE.

THEODORE G. LEWIS, OF BUFFALO, NEW YORK, ASSIGNOR TO BUFFALO DENTAL MANUFACTURING COMPANY, OF BUFFALO, NEW YORK, A CORPORATION OF NEW YORK.

FOUNTAIN-SPITTOON.

No. 832,263.

Specification of Letters Patent.

Patented Oct. 2, 1906.

Application filed January 29, 1906. Serial No. 298,309.

To all whom it may concern:

Be it known that I, THEODORE G. LEWIS, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Fountain-Spittoons, of which the following is a specification.

This invention relates to the flushing or fountain cuspidors used principally by dentists.

One of its objects is to so construct a support for the spittoon-bowl that all valve-seats and inlet and outlet connections are contained in a single casting or housing, which also forms a common receptacle for all waste fluids.

Another object is to so construct and arrange said support and valve-housing that it serves as a common receptacle into which all such waste fluids are discharged directly instead of being first discharged into the bowl and thence into the drain or waste pipe.

A further object is to so construct the valves that they can be readily opened for draining the various pipes to prevent freezing of the same during the night.

The invention has the further object to render the valve mechanism neat and compact and easy of access, so that the several valves can be conveniently manipulated from the same side of the spittoon.

In the accompanying drawings, consisting of two sheets, Figure 1 is a vertical central section of the improved spittoon. Fig. 2 is a horizontal section in line 2 2, Fig. 1. Fig. 3 is a vertical section of the supply-pipe of the tumbler and its controlling-valve, the plane of the section being in line 3 3, Fig. 2. Fig. 4 is a similar section of the saliva-ejector and adjacent parts, the plane of the section being in line 4 4, Fig. 2. Fig. 5 is a cross-section in line 5 5, Fig. 2. Fig. 6 is an enlarged vertical section of the cut-off valve applied to the discharge-pipe of the ejector. Fig. 7 is a cross-section in line 7 7, Fig. 1. Fig. 8 is a vertical section similar to Fig. 1, showing a modified construction of the flushing device and its controlling-valve. Fig. 9 is a horizontal section in line 9 9, Fig. 8. Fig. 10 is a cross-section in line 10 10, Fig. 9.

Similar letters of reference indicate corresponding parts throughout the several views.

Referring to the construction shown in

Figs. 1 to 7, A is the bowl, which may be of ordinary construction, and B indicates a valve box or housing arranged horizontally below the bowl and serving as a support for the same. This box is closed on all sides and provided at its top with a neck *b*, arranged in line with the central discharge-opening of the bowl and secured to the latter by a suitable union *b'*, preferably arranged within said opening and neck. In its bottom the box is provided with a depending nipple *c*, to which a drain or waste pipe C is attached.

D indicates a water-inlet chamber arranged in the rear portion of the valve-box B and having a depending nipple *d*, to which a water-supply pipe D' is connected.

E is a flush-head or rose arranged centrally in the bowl A and supported by an upright pipe *e*, passing through the union *b'* and connected at its lower end to a valve-case *e'*, arranged within the box B. This valve-case is connected with the inlet-chamber D by a horizontal pipe *e²*, also arranged in the valve-box. The case *e'* contains a valve *e³*, preferably consisting of a tapering plug which is capable of sliding as well as rotating in the case. This plug has a longitudinal passage which is in constant communication with the pipe *e²* and a lateral port *e⁴*, adapted to register or break register with the flush-pipe *e* by turning the plug. The stem of the plug passes through a stuffing-box or capped bushing *f* in the front wall of the valve-box B and terminates in an external head or knob for manipulating it, as shown. The plug is yieldingly held in its seat by a spring *f'*, applied to its stem between a shoulder thereof and the cap of said bushing. Upon withdrawing the plug from its seat by a pull on its stem any water in the flush-pipe *e* is allowed to drain through the open front end of the valve-case *e'* into the valve-box B and thence into the sewer.

The rotary movement of the valve-plug *e³* may be limited by a pin *f³*, projecting from its stem into a segmental groove *f⁴*, formed in the bushing *f*, this groove being of sufficient depth to permit the necessary sliding movement of the plug.

G is the tumbler-tray, and *g* its drain-pipe, which leads from its bottom and enters the top of the valve-box B through a stuffing-box *g'*. H is the water-supply pipe of the

tumbler, extending through the bottom of the tray and terminating above the same. The lower end of this pipe is connected with a valve-case g^2 , arranged in the solid rear portion of the valve-box B, communicating with the inlet-chamber D by a port g^3 , Fig. 3. This case contains a controlling-valve h , preferably a combined rotary and sliding plug, like the valve-plug e^3 , and having a transverse port h' , adapted to connect the tumbler supply-pipe H with the inlet-chamber D. The stem of this valve extends through a capped bushing h^2 in the front wall of the valve-box B, and the valve is held in its seat by a spring h^3 , applied to its stem between a collar of the latter and the cap of said bushing. This construction permits the valve to be withdrawn from its seat like the valve e^3 for draining the contents of the tumbler supply-pipe H into the valve-box B.

I is the saliva-ejector, and i its jet-nozzle, with which the usual hose or tube i' is connected. This nozzle preferably extends a short distance into the main passage of the ejector, and its inner end is slightly beveled, as shown in Fig. 4. The lower end of this ejector communicates through a valve-chamber k with the inlet-chamber D. In this valve-chamber is a valve k' , which is preferably identical in construction with the valve g^2 , the same being held in its seat by a spring k^2 . The upper end of the ejector is connected with the interior of the valve-box B by a tube l , the lower vertical portion of which enters a slidable sleeve m , which passes through a stuffing-box m' in the top of the valve-box B. The sleeve is closed at its lower end and provided in its side near said end with a discharge-opening m^2 , which communicates with the valve-box B in the depressed position of the sleeve (shown in Figs. 4 and 6) and through which the water after having passed through the ejector flows into the valve-box. Within its closed lower end the sleeve is provided with an upwardly-extending conical valve or plug m^3 , which closes the lower end of the tube l when the sleeve is elevated. When the sleeve is thus cut off from the valve-box and the ejector-valve k' is opened, as shown in Fig. 4, the current is reversed, the water passing from the inlet-chamber through the jet-nozzle and the ejector-tube and flushing the same.

N is a gold trap or cavity arranged in the bottom of the valve-box B underneath the discharge-opening of the bowl A and provided at its lower end with a discharge-opening which is normally closed by a screw cap or plug n .

The valve-box is provided in its bottom with a screw-threaded socket o , adapted to receive the upper end of a rod or standard o' , which supports the cuspidor.

By the improved construction herein shown and described the spittoon-bowl con-

nection or neck b , the valve-seats, and all inlet and outlet nipples are contained in a single casting or housing. All waste fluids from the flush device E, the tumbler-drain g , and the ejector-drain l are discharged directly into the common receptacle or waste-chamber formed by the valve-box and not first into the bowl and then into the drain-pipe, as is usually the case. The controlling-valves of the flush device E, the tumbler supply-pipe H, and the ejector I are all inclosed by the valve-box, and any leakage from these valves drains into the box, preventing soiling of the floor or damage to the premises.

The stems of the several valves are arranged in a small compass at one end of the valve-box, enabling the dentist to conveniently manipulate any of them from a single point without leaving his place beside the dental chair.

To prevent freezing of the water-passages of the spittoon during the night, the dentist or other operator before leaving his office simply pulls the stems of the several valves e^3 , g^2 , and k' , when the water in the flush-pipe e , the tumbler supply-pipe H, and the ejector I will drain into the valve-box B, as hereinbefore described.

As there is no water-pressure in the valve-box, ordinary joints, such as shown in the drawings, may be employed for the various valve-stems and the pipes g and l , thus simplifying the construction of the spittoon and reducing its cost of manufacture.

In the modified construction shown in Figs. 8 and 9 a perforated circular flush-pipe E' , arranged in the spittoon near its upper edge, is substituted for the rose E. This pipe is connected with the inlet-chamber D by an external pipe P, a nipple p , and a valve-chamber p' , arranged centrally in the rear portion of the valve-box. This valve-chamber, which takes the place of the corresponding chamber e' of the first-described construction, contains a valve or plug q , preferably constructed like the valves g^2 and k' and operating in the same manner. The other parts of this modification may be identical with the corresponding parts of the construction shown in Figs. 1 to 7.

I claim as my invention—

1. In a fountain-spittoon, the combination of the spittoon-bowl, a single valve box or housing serving as a support for the bowl and containing a water-supply chamber and a waste-chamber which latter communicates with the bowl, a flush device for the bowl and a tumbler supply-pipe both connected with said supply-chamber, and cut-off valves controlling the passage of the water from the supply-chamber to the flush device and the tumbler supply-pipe, respectively, and both arranged in said housing, substantially as set forth.

2. In a fountain-spittoon, the combination

of the spittoon-bowl, a single valve box or housing arranged underneath the bowl and supporting the same, said housing containing a water-supply chamber and a waste-chamber which latter communicates with the bowl, a flushing device for the bowl, a tumbler supply-pipe and a saliva-ejector all connected with said water-chamber, and independent controlling valves for the three last-named accessories, all arranged in said housing, substantially as set forth.

3. A valve-box for a fountain-spittoon, consisting of a single housing or casting having a neck at its top adapted to connect with the bottom of a spittoon-bowl, a drain-opening in its bottom, a water-inlet chamber at one end of the housing, a plurality of water-outlets, and independent valves all arranged in the housing and controlling the passage of the water from said inlet-chamber to said outlets, substantially as set forth.

4. In a fountain-spittoon, the combination of a bowl, a valve box or housing connected therewith and having a drain-opening, a flush device for the bowl having a supply pipe or conduit, a valve-case connected with said supply-pipe and said valve-box, and a combined rotary and sliding valve arranged in said valve-case, substantially as set forth.

5. In a fountain-spittoon, the combination of a bowl, a valve box or housing connected therewith and having a drain-opening, a flush device for the bowl having a supply pipe or conduit, a valve-case connected with said supply-pipe and said valve-box and arranged in the latter, a combined rotary and sliding valve arranged in said valve-case and having a stem which extends through the wall of said valve-box, and a spring for holding said valve in its seat, substantially as set forth.

6. In a fountain-spittoon, the combination of a bowl, a valve box or housing connected with the bottom thereof and having a drain-opening, a flush device for the bowl having a supply-pipe, a tumbler supply-pipe, a saliva-ejector, valve-cases connected respectively with said supply-pipes and the saliva-ejector and all arranged in and communicating with said valve-box, and combined rotary and sliding valves arranged in the respective valve-cases and having stems which extend through the wall of the valve-box, substantially as set forth.

7. In a fountain-spittoon, the combination of a bowl, a valve box or housing connected with the bottom thereof and having a drain-opening, and a water-inlet chamber, a flush device for the bowl having a supply-pipe, a tumbler supply-pipe, valve-cases arranged in said valve-box, both communicating with said inlet-chamber and connected with said supply-pipes respectively, and controlling-valves arranged in said valve-cases, substantially as set forth.

8. In a fountain-spittoon, the combination of a bowl, a valve box or housing connected with the bottom thereof and having a drain-opening in its bottom and a water-inlet chamber at one end, a flush device for the bowl having a supply-pipe, a tumbler supply-pipe, a saliva-ejector, valve-cases connected respectively with said supply-pipes and said ejector, said valve-cases being arranged adjacent to said inlet-chamber and each communicating therewith and also with said valve-box, and combined rotary and sliding valves arranged in said valve-cases, substantially as set forth.

9. In a fountain-spittoon, the combination of a bowl, a valve box or housing connected with the bottom thereof and having a drain-opening in its bottom and a water-inlet chamber at one end, a flush device for the bowl having a supply-pipe, a tumbler supply-pipe, a saliva-ejector, valve-cases connected respectively with said supply-pipes and said ejector, said valve-cases being arranged adjacent to said inlet-chamber and each communicating therewith and also with said box, combined rotary and sliding valves arranged in said valve-cases and having stems which extend through the opposite end of the valve-box, and springs applied to said stems for holding the valves in their seats, substantially as set forth.

10. In a fountain-spittoon, the combination of a bowl, a valve box or housing arranged underneath the bowl and supporting the same, said box having a drain-opening, a flush device for the bowl having a supply-pipe, a tumbler-tray having a drain-pipe leading directly to said valve-box, a tumbler supply-pipe, and controlling-valves for said supply-pipes both arranged in said valve-box, substantially as set forth.

11. In a fountain-spittoon, the combination of a water inlet or supply chamber, a saliva-ejector connected with said chamber, a discharge-pipe leading from the ejector, and a valve applied to said pipe, whereby when the valve is opened the water passing to the discharge-pipe operates the ejector, while when the valve is closed the water passes through the ejector and flushes the same, substantially as set forth.

12. In a fountain-spittoon, the combination of a bowl, a valve box or housing connected therewith and having a drain-opening and a water-inlet, a saliva-ejector connected with said inlet, a valve arranged in said box and controlling the supply of water to the ejector, a discharge-pipe leading from the ejector to said valve-box, and a cut-off valve applied to said discharge-pipe, substantially as set forth.

13. In a fountain-spittoon, the combination of a bowl, a valve box or housing connected therewith and having a drain-opening, and a water-inlet, a saliva-ejector connected

with said inlet, a valve arranged in said box and controlling the supply of water to the ejector, a discharge-pipe leading from the ejector to said valve-box, a sliding sleeve
5 surrounding said discharge-pipe and extending into said valve-box, and a valve carried by said sleeve and arranged to close the delivery end of said discharge-pipe, substantially as set forth.

10 14. In a fountain-spittoon, the combination of a bowl, a valve box or housing connected therewith and having a drain-opening, and a water-inlet, a saliva-ejector connected
15 and controlling the supply of water to the

ejector, a discharge-pipe leading from the ejector to said valve-box, a sliding sleeve surrounding said discharge-pipe and extending into said valve-box, the sleeve being provided near its lower end with a discharge-
20 opening, and a valve arranged within the lower portion of the sleeve and adapted to close the delivery end of said discharge-pipe, substantially as set forth.

Witness my hand this 10th day of January, 1906.

THEODORE G. LEWIS.

Witnesses:

C. F. GEYER,

E. M. GRAHAM.