

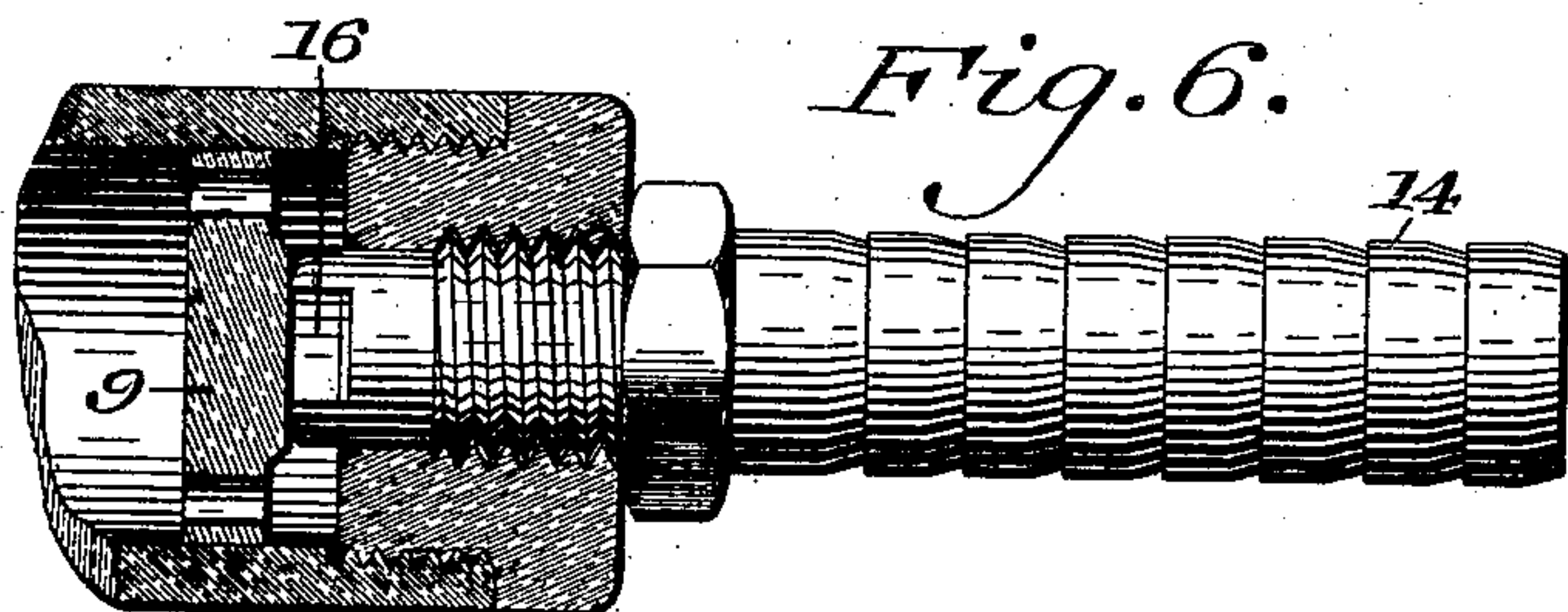
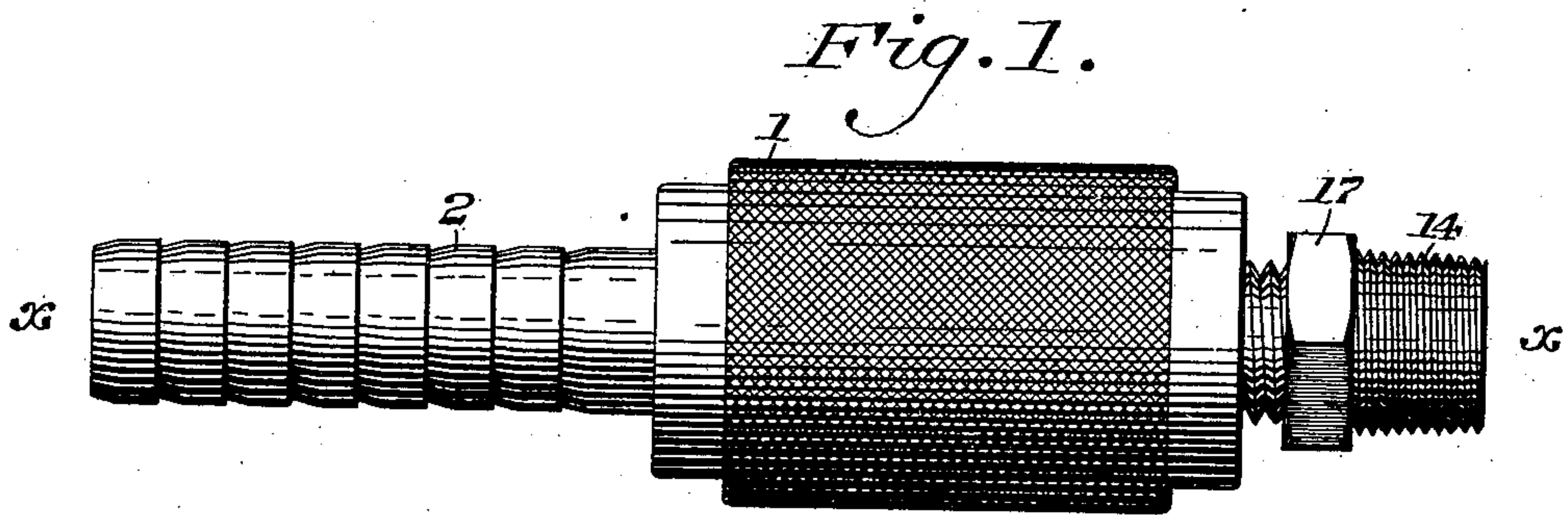
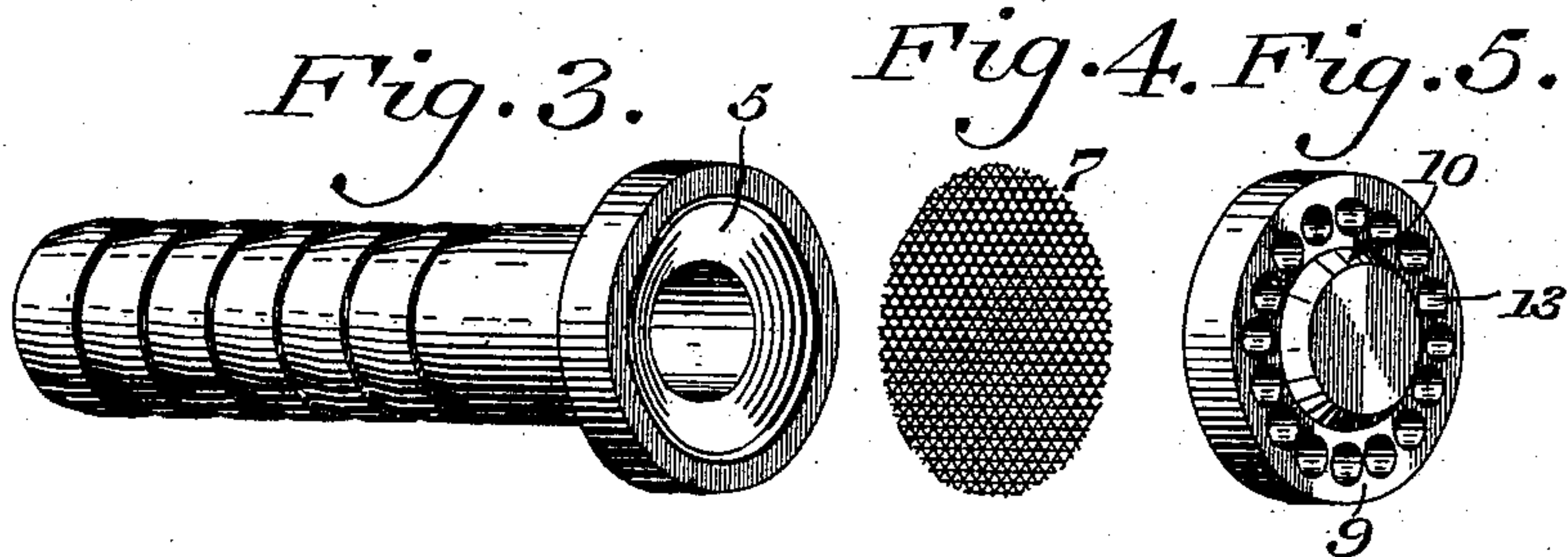
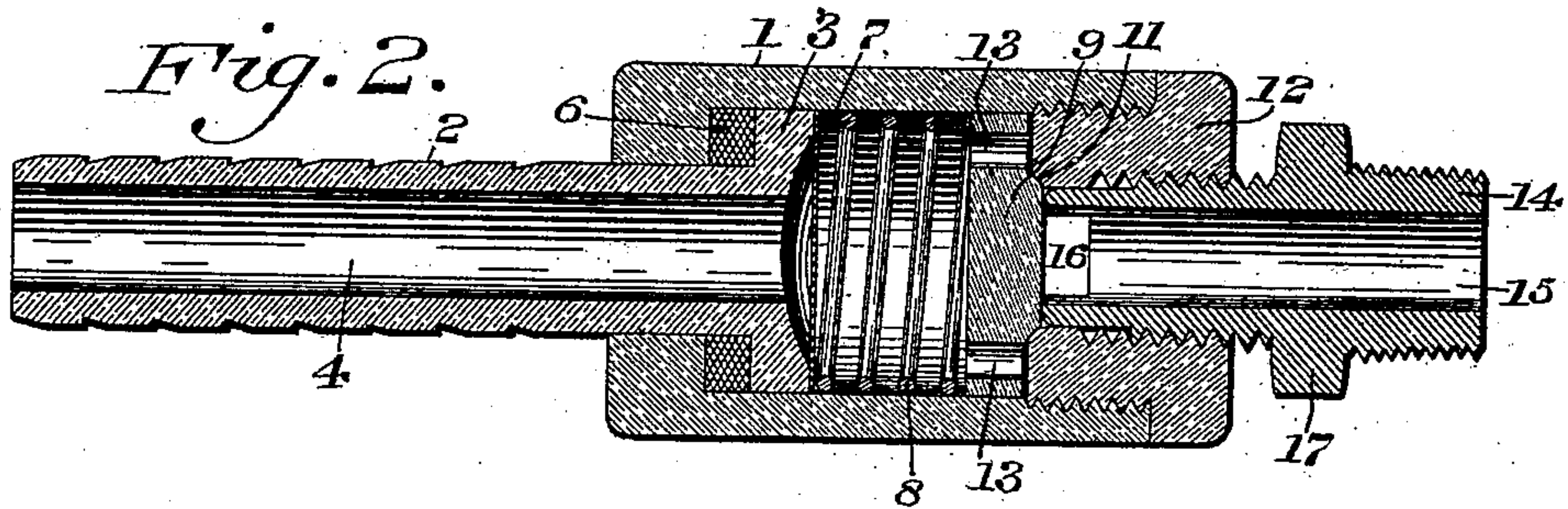
No. 711,771.

Patented Oct. 21, 1902.

W. H. KELLER.  
HOSE COUPLING AND AUTOMATIC VALVE.

(Application filed May 16, 1902.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

WILLIAM H. KELLER, OF PHILADELPHIA, PENNSYLVANIA.

## HOSE-COUPLING AND AUTOMATIC VALVE.

SPECIFICATION forming part of Letters Patent No. 711,771, dated October 21, 1902.

Application filed May 16, 1902. Serial No. 107,584. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. KELLER, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Hose-Couplings and Automatic Valves, of which the following is a specification.

My invention consists of an improvement in hose-couplings and automatic stop-valves wherein I provide means controlled by the operator for opening the valve and means for automatically closing the same.

It further consists in novel details of construction, all as will be hereinafter fully set forth.

Figure 1 represents an elevation of a coupling embodying my invention. Fig. 2 represents a sectional view on line *xx*, Fig. 1. Figs. 3, 4, and 5 represent perspective views of portions of the coupling in detached position. Fig. 6 represents a partial side elevation and partial sectional view of a portion of a coupling, showing the valve in open position.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, 1 designates a casing which is adapted to receive a nipple 2, having the flanged end 3 thereon and the passage 4 therethrough, the inner end of said nipple being molded out, as at 5. A suitable packing 6 is placed between the flange 3 and the inner wall of the casing 1.

7 designates a mesh or screen, which is placed at the inner end of the nipple 2 and is adapted to catch dirt and other foreign substances that may enter with the motive fluid.

8 designates a spring, which is situated within the casing and bears against the screen 7 at one side and against a valve 9 at the other end, said valve having a suitable portion 10 thereon, which is adapted to bear against the seat 11, which is carried by a nut 12, the latter being screwed or otherwise secured to the casing 1, said valve being provided with suitable openings 13.

14 designates a pipe or nipple, which is adapted to be secured to the nut 12, said nipple having the passage 15, which communicates with the opening 16 at the inner end of

said nipple, which is also provided with a nut 17 for operating the same. It is evident that said nipple 14 can be secured to a machine, tool, or hose, as may be desired, and that the inner end of said nipple is adapted to abut against the valve 9.

The operation is as follows: The nipple 2 being suitably connected with a hose and the motive fluid turned on at any suitable point, the same can pass into said coupling, and as the valve 9 is properly seated and held there by the spring 8 no fluid can escape. In addition, the pressure of the motive fluid itself will assist in holding the valve seated. When it is desired to couple a hose or to secure the same to a machine or tool to operate the same, the nipple 14 is properly connected thereto, and the operator by turning the casing 1 causes the nipple to bear against the valve 9 and force the same from its seat, whereby the motive fluid will pass through the ports 13 in the valve and through opening 16 and passage 15 in the nipple 14 to the desired point. When it is desired to stop the motive fluid by a reverse movement of the casing 1, the valve 9 is automatically seated, since the nipple 14 no longer bears against the same, so that the motive fluid cannot pass through.

It will be evident from the above that by the proper manipulation of the casing 1 the flow of the motive fluid through the coupling can be adjusted according to requirements, since the valve can be moved more or less from its seat according to requirements.

It will be evident that various changes may be made by those skilled in the art which will come within the scope of my invention, and I do not, therefore, desire to be limited in every instance to the exact construction herein shown and described.

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

1. In a hose-coupling, a casing, an inlet-pipe therefor, a valve-seat within said casing, a valve adapted to rest against said seat, a spring interposed between said valve and said inlet-pipe, and an outlet-pipe in threaded engagement with said casing, whereby the rotation and longitudinal movement of said cas-



ing relative to said outlet-pipe causes said valve to be unseated according to requirements.

2. In a hose-coupling, a casing, an inlet-pipe therefor, a strainer through which said inlet-pipe discharges, a valve-seat within said casing, a valve adapted to rest against said seat, a spring interposed between said valve and said inlet-pipe, and an outlet-pipe in threaded engagement with said casing, whereby the rotation and longitudinal movement of said casing relative to said outlet-pipe causes said valve to be unseated according to requirements.

3. In a coupling, a valve, a seat therefor, means for holding said valve against said seat, devices capable of both rotary and longitudinal movement controlled by the operator for moving the valve from said seat, and devices for retaining said valve in unseated position after the hand of the operator is removed therefrom.

4. In a coupling, a casing, a valve therefor, a spring holding said valve normally against its seat and a pipe having an opening therein adapted to force said valve from its seat, said casing being rotatably mounted on said pipe whereby the rotation and longitudinal movement of said casing with respect to said pipe causes the latter to enter said casing and unseat said valve.

5. In a device of the character named, a casing, an inlet-pipe therefor, the latter having a flanged end within said casing, a valve-seat within said casing, an apertured valve adapted to rest against said seat, a spring interposed between said valve and flanged end, an outlet-pipe having a slotted end adapted

to contact with said valve, and means whereby the rotation and longitudinal movement of said casing relative to said outlet-pipe will unseat said valve according to requirements.

6. In a device of the character named, a casing, an inlet-pipe having a flanged end located within said casing, a valve-seat within said casing, a valve consisting of a plate having portion adapted to contact with said seat, the outer portions of said valve having openings therethrough, a spring intermediate said valve and flanged end, a discharge-pipe upon which said casing is rotatably mounted, an end of said discharge-pipe being slotted and adapted to contact with said valve, and means whereby the rotation and longitudinal movement of said casing will cause the slotted end of said pipe to unseat said valve.

7. In a device of the character named, a casing, an inlet-pipe having a flange thereon, said flange being contained within said casing, a packing-ring interposed between the latter and said flange, a valve contained within said casing, a screen adapted to abut against said flange, a spring interposed between said screen and valve, openings in the outer portion of the latter, a nut in threaded engagement with said casing and adapted to serve as a valve-seat, and a nipple or discharge-pipe in threaded engagement with said nut, said nipple having its end slotted and adapted to contact with said valve so that the latter will be unseated when said casing is rotated upon said nipple.

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