

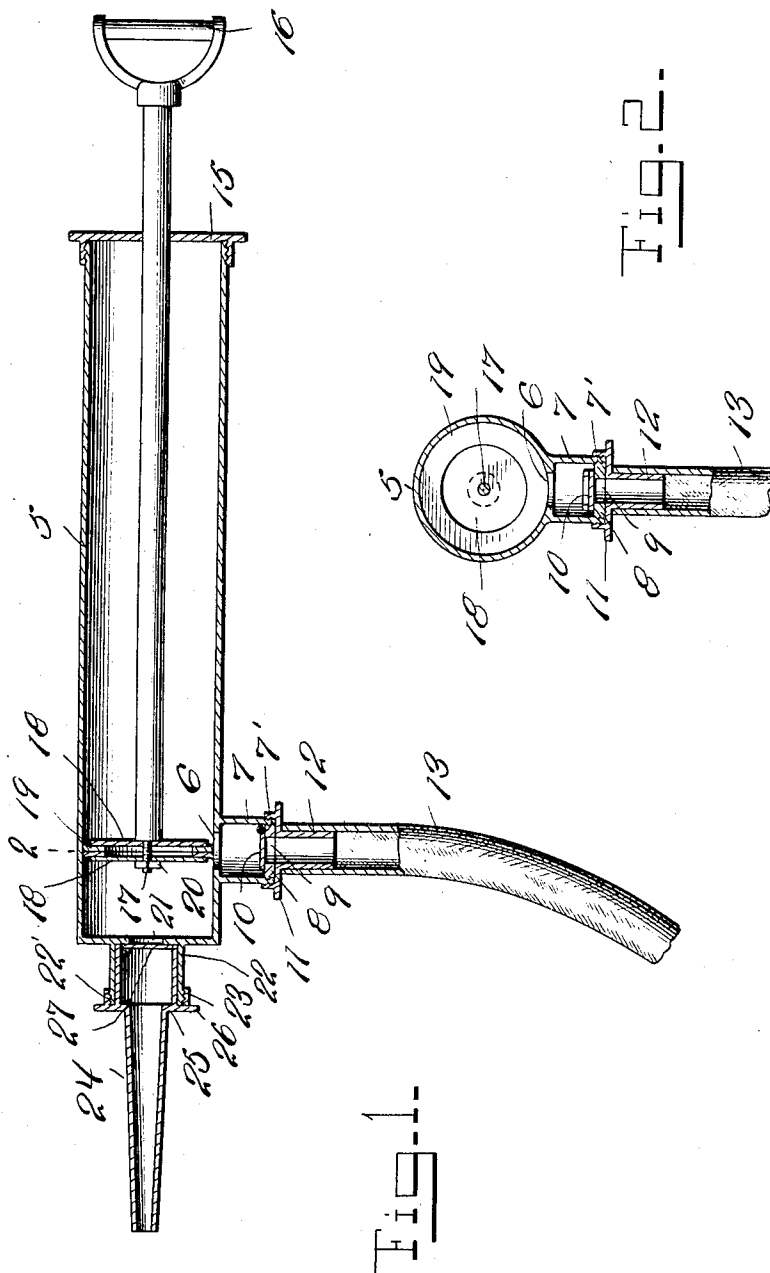
No. 852,065.

PATENTED APR. 30, 1907.

B. F. KELLER.

SYRINGE.

APPLICATION FILED JUNE 27, 1906.



Witnesses

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UNITED STATES PATENT OFFICE.

BENJAMINE F. KELLER, OF CAMDEN, OHIO.

SYRINGE.

No. 852,065.

Specification of Letters Patent.

Patented April 30, 1907.

Application filed June 27, 1906. Serial No. 323,723.

To all whom it may concern:

Be it known that I, BENJAMINE F. KELLER, a citizen of the United States, residing at Camden, in the county of Preble, State of Ohio, have invented certain new and useful Improvements in Syringes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to syringes and more particularly to those for use in the practice of veterinary surgery, and has for its object to provide a syringe equipped with separate inlet and discharge openings, so that a number of charges may be forced from the syringe without removing the nozzle from the locality to be irrigated.

Another object is to provide a syringe of simple structure, such that worn parts may be replaced with ease and speed.

Other objects and advantages will be apparent from the following description, and it is to be understood that I do not desire to be limited to the exact details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

In the drawings forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a longitudinal section through the syringe, Fig. 2 is a transverse section on line 2—2 of Fig. 1.

Referring now to the drawings, the present invention comprises a hollow cylindrical barrel 5, having a laterally opening, intake port 6, surrounded by an outwardly extending flange 7 threaded interiorly at its outer end, as shown at 7'. Within this threaded portion, there is engaged a disk 8 having a central opening 9, for which there is provided a flap valve 10, of leather or other suitable material, secured at one side to the inner surface of the disk, and thus arranged for inward movement into open position.

A cap 11 is screwed upon the outer end of the flange 7, the thread 7' being pressed or spun in the metal of the flange, to present both interior and exterior threads, and the cap has an outwardly extending nipple 12 which receives a flexible hose 13, the passage through the nipple communicating with the

interior of the flange through an opening in the cap 11, as shown.

A piston rod 14 is engaged in the removable rearward end 15 of the barrel for sliding movement, and has a stirrup-shaped handle 16 at its rearward end. The forward end of the piston rod is reduced, as shown at 17, and has engaged therewith a pair of metallic washers 18, between which there are engaged a pair of flexible suckers 19, of annular form, having their outer edge portions turned in opposite directions against the inner periphery of the barrel, and a confining nut 20 is engaged with the extremity of the reduced portion 17.

A discharge opening 21 is formed in the forward end of the barrel 5 and is surrounded by an outwardly extending flange 22, spaced outwardly from the opening, and provided with an exterior thread 22' at its outer end, which receives the interiorly threaded rim 23 carried by the inner end of a nozzle 24. A sleeve 25 is carried by an outwardly extending disk 26 at the base of the nozzle, within the inclosure of the rim 23, which is carried by this disk, and when the nozzle is in position, this sleeve 25 engages the forward end of the barrel, surrounding the opening 21, and secured at one side within the sleeve 25, there is a flap valve 27, thus arranged for outward movement.

It will be seen that the pipe 13 may be disposed in a supply of liquid, when rearward movement of the piston rod will suck the liquid into the barrel, forward movement of the piston rod forcing it out through the nozzle 24, and this operation may be repeated, until the supply of liquid is exhausted. The opening 6 is located adjacent to the forward end of the barrel, as shown.

What is claimed is:

A syringe comprising a barrel provided with inlet and discharge openings formed therein; a piston slidably mounted in the barrel; a piston rod connected with the piston; an outwardly extending flange surrounding the inlet opening and threaded interiorly and exteriorly at its outer end; a disk disposed within the flange in engagement with the inner threads thereof, said disk having an opening formed therethrough; an inwardly movable valve secured to said disk in posi-

tion to open and close said opening; a cap removably engaged with the exterior threads of said flange and provided with an opening; a supply pipe communicating with said cap opening; an outwardly extending flange surrounding the discharge opening; a nozzle removably engaged with said last mentioned flange; a sleeve carried by the nozzle and disposed within said last-mentioned flange, said

sleeve surrounding the discharge opening; and an outwardly-opening valve for the discharge opening located within the sleeve.

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

BENJAMINE F. KELLER.

Witnesses:

J. G. SHUEY,
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