Nov. 21, 1933. W. G. PETERS 1,936,437

MEDICINE INJECTOR

Filed June 28, 1932

Fig. 1.

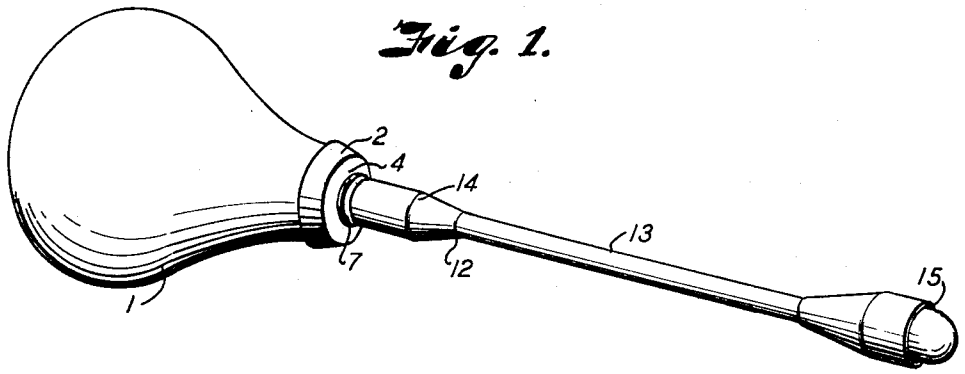


Fig. 2.

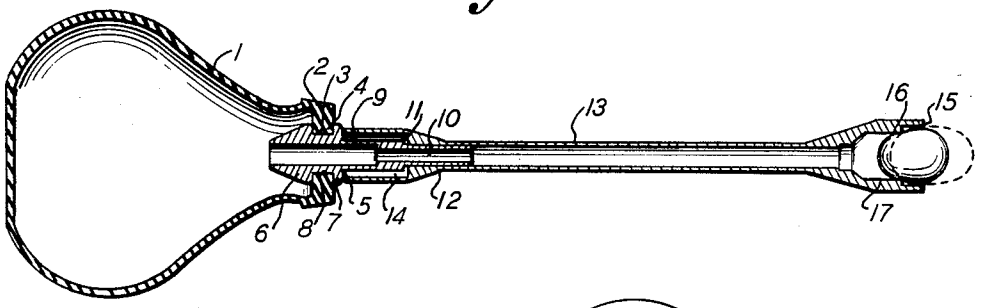


Fig. 3.

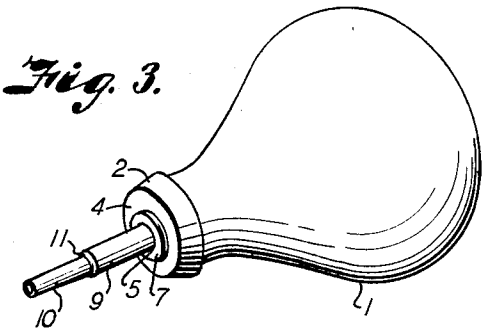
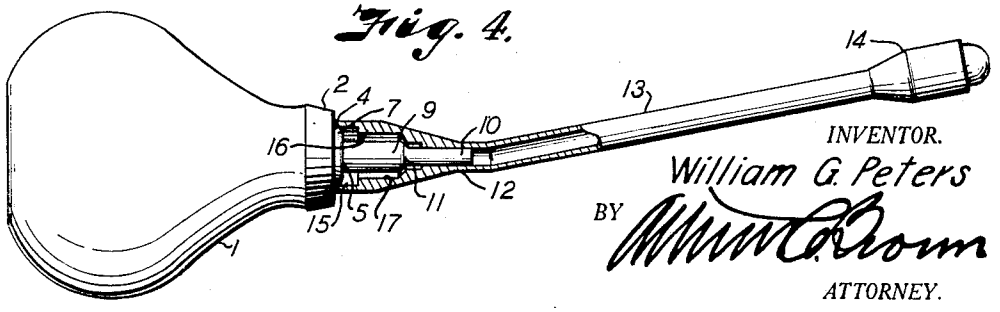


Fig. 4.



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UNITED STATES PATENT OFFICE

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MEDICINE INJECTOR

William G. Peters, Kansas City, Mo.

Application June 28, 1932. Serial No. 619,687

7 Claims. (Cl. 128—264)

My invention relates to medicine injectors and more particularly to a device of that character for use in inducting a capsule, pellet, or the like, into the stomach of an animal by projection of the same from a holder, so located in the mouth or throat of the animal as to insure it reaching the stomach, along, or in association with, liquid supplied by the injector for flushing the medicine into the animal's throat.

As animals of the same species, but of different size and age, require different doses, it has been found impractical to attempt to apply the medicine to a small animal with the same instrument employed for treating larger animals, because of difficulty of applying a nozzle of the size to carry a capsule of required dosage for a large animal to a proper location in the mouth or throat of a smaller animal of the same species, thus necessitating employment of a plurality of like instruments of different sizes for treating all of the animals of a flock, herd or group.

It is the object of my invention to provide an injector of the character mentioned which is adaptable for adjustment for applying different dosages to animals of different size and thereby obviating the necessity for employment of the plurality of like instruments heretofore required for the same use.

In accomplishing this object, I have provided improved details of structure, a preferred form of which is illustrated in the accompanying drawing, wherein:

Fig. 1 is a perspective view of an assembled medicine injector embodying my improvements, illustrating a capsule or pellet applied to the instrument for injection into an animal's throat.

Fig. 2 is a central longitudinal section of the same.

Fig. 3 is a detail perspective view of the bulb element of the device.

Fig. 4 is a view similar to Fig. 2, but with the nozzle reversed to illustrate application of the larger socket end to the bulb element.

Referring more in detail to the drawing:

1 designates a syringe bulb of known type, having a reinforced neck 2 provided with a central aperture 3 forming an internal rim 4 for removably mounting a nipple 5, preferably constructed of suitable metal including an anchoring boss 6 at its inner end and an anchoring ring 7 spaced from the boss to provide a circumferential groove 8 for receiving the internal rim portion 4 of the neck 2 to anchor the nipple to the bulb.

The nipple includes a barrel member 9 extending outwardly from the grooved body portion and provided with a reduced extension 10 forming a shoulder 11 for a purpose presently described.

12 designates the nozzle of the device, preferably formed of a metallic tube 13 provided at its respective ends with socket members 14 and 15 of greater diameter than the tubular body portion to receive capsules or pellets of appropriate size, as illustrated in Figs. 1, 2 and 4 of the drawing, the cylindrical portions of the sockets being dimensioned as to diameter and length to fit over the bulb nipple and bear at their outer ends against the ring 7 when the nipple extension 10 is projected into the tubular body of the nozzle with the base of the socket in engagement with the shoulder 11 formed at the base of the nipple extension, to serve, not only as a holder for the medicine capsule or pellet, but also as a ferrule for stabilizing mounting of the nozzle on the bulb, the reduced extension of the nipple barrel projecting into the nozzle body when the parts are thus assembled to further stabilize connection of the parts.

The socket member 15 is identical with the socket 14, except that it is of greater diameter to receive capsules or pellets of larger size, but preferably includes an interior seat 16 providing a sub-socket 17 for accommodating capsules or pellets of size intermediate those adapted for reception within the outer end of the socket 15 and the end of the smaller socket 14.

The diameter of the large socket is such that it will engage the end of the bulb about the ring 7, instead of the outer face of the ring and is consequently of slightly greater length for such arrangement.

Assuming the injector to be constructed as described, if required for use in treating a large animal of a group, such as a full grown hog, the smaller socket of the nozzle is applied to the bulb, as illustrated in Fig. 2 of the drawing, to locate the larger medicine socket at the free end of the nozzle.

The bulb 1 is filled with water, by collapsing the bulb and then allowing it to expand to draw water through the nozzle in the usual manner and a capsule or pellet of a size to constitute a dose for the large animal is then seated in the socket, the instrument projected into the mouth of the animal to locate the medicine underneath the tongue, or within the throat, of the animal and the capsule or pellet then flushed from the nozzle by pressure on the bulb, location of the medicine and the flushing water inducing the

animal to swallow and thus conduct the medicine to its stomach.

For treating partially grown animals of the same group, a smaller capsule or pellet is located in the interior seat of the socket 17 and the operation described repeated.

When a small animal is to be treated, the nozzle is reversed to locate the smaller socket at the free end of the nozzle, operation for inducting the medicine being then the same as heretofore described.

It is thus apparent that the single instrument is adaptable for treatment of animals of different size and species and that by constructing the sockets as described, the nozzle is adapted for properly receiving a capsule or pellet at one end and firmly mounting the nozzle on the bulb at its opposite end and that reversal of the nozzle adapts the instrument for inducting capsules or pellets of different sizes while affording the same firm mounting of the nozzle on the bulb.

What I claim and desire to secure by Letters Patent is:

1. A medicine injector including a flushing member having a nipple, and a nozzle having socket members of different dimensions at its respective ends selectively applicable to the flushing member and each including a cylindrical body constituting a ferrule adapted for engagement with the end of the flushing member about the nipple.

2. A medicine injector including a flushing member having a nipple, and a nozzle including a tubular body adapted to slidably receive said nipple and having socket members at its ends adapted to extend as a ferrule about the nipple.

3. A medicine injector including a flushing member having a nipple, a coaxial extension on the nipple of less cross sectional area than the nipple to form a shoulder at the base of said extension, a nozzle including a tubular body adapted to receive the nipple extension and to engage said shoulder, and a socket at each end of said body adapted to selectively fit as a ferrule about the nipple and serve as a medicine holder.

4. A medicine injector including a flushing member having a nipple, a coaxial extension on the nipple of less cross sectional area than the nipple to form a shoulder at the base of said extension, a nozzle including a tubular body adapted to receive the nipple extension and to engage said shoulder, and socket members of different dimensions at the respective ends of the nozzle selectively applicable to the flushing member and each including a cylindrical body constituting a ferrule adapted for engagement with the end of the flushing member about the nipple.

5. A medicine injector including a flushing member having a nipple, and a nozzle including a tubular body adapted to receive said nipple and having a socket at one end and a socket and subsocket at its opposite end of different dimensions than said first named socket for respectively receiving different dosages of medicine.

6. A medicine injector including a flushing member having a nipple provided with an anchoring ring, and a nozzle including a tubular body adapted to receive said nipple and having socket members of different dimensions at its ends adapted respectively to receive said ring and to abut against the ring.

7. A medicine injector including a flushing member having a nipple and a nozzle having opposite ends adapted to be selectively engaged with said nipple and terminating in sockets of different dimensions for respectively receiving different dosages of medicine.

WILLIAM G. PETERS.