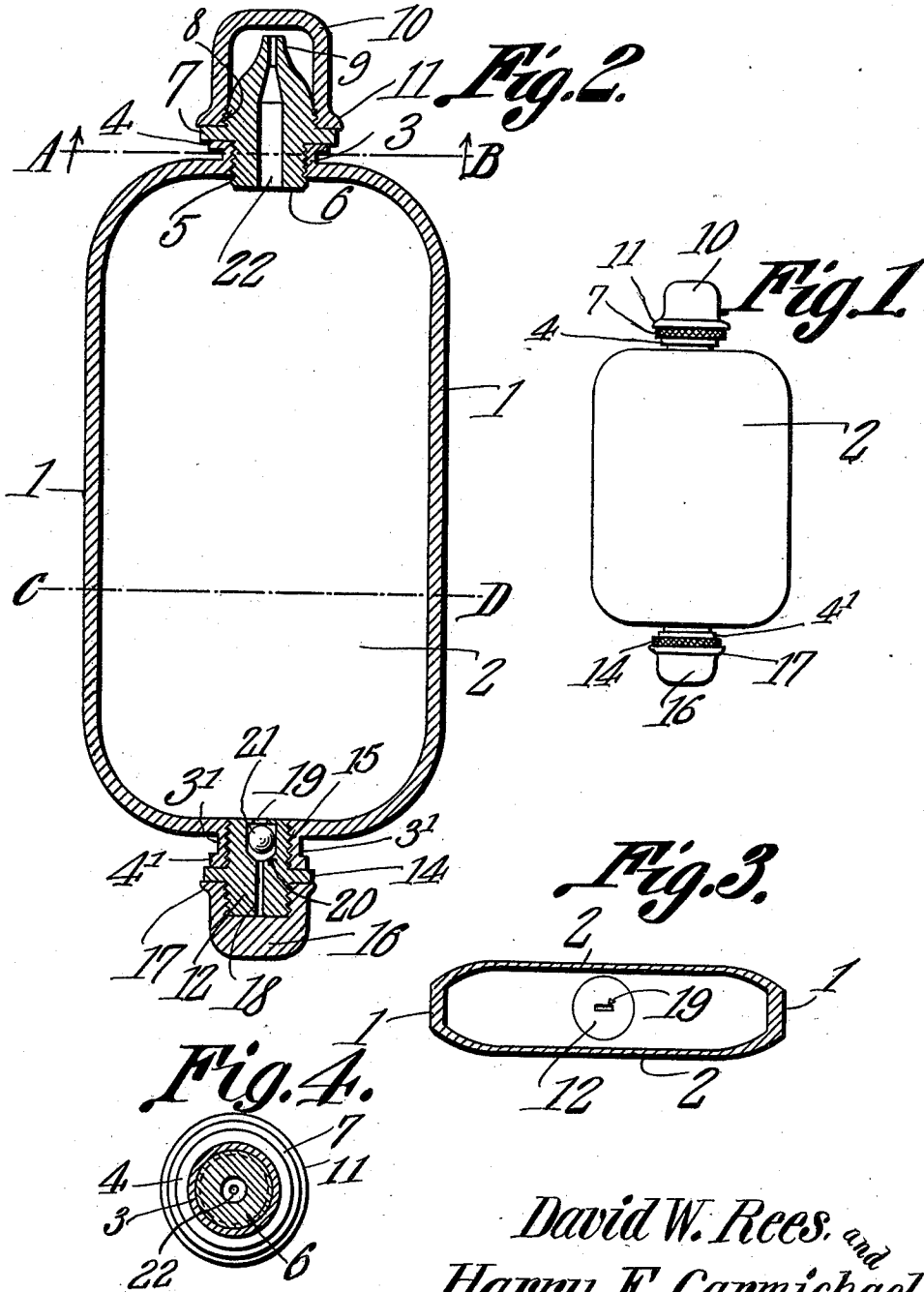


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POCKET SYRINGE.

APPLICATION FILED APR. 21, 1910.

991,022.

Patented May 2, 1911.



Witnesses

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POCKET-SYRINGE.

991,022.

Specification of Letters Patent.

Patented May 2, 1911.

Application filed April 21, 1910. Serial No. 556,819.

To all whom it may concern:

Be it known that we, DAVID W. REES and HARRY E. CARMICHAEL, citizens of the United States, residing at Needles, in the county of San Bernardino and State of California, have invented a new and useful Pocket-Syringe, of which the following is a specification.

It is the object of this invention to provide in a simple, merchantable, and inexpensive form, a syringe adapted to be carried in the pocket of the operator for the treatment of those local difficulties which render necessary, the employment of a pocket syringe.

Another object of the invention is to provide a syringe body of novel and improved form, so constructed that by compressing the side walls of the body, the contents of the syringe may readily be expelled.

Another object of the invention is to provide a novel means for mounting and for protecting, such auxiliary portions of the syringe as are represented by the nozzle and the air-inlet element thereof.

The drawings show but one form of the invention, and it is to be understood that changes, properly falling within the scope of what is claimed, may be made, without departing from the spirit of the invention.

In the accompanying drawings,—Figure 1 shows the invention in side elevation; Fig. 2 is a longitudinal section; Fig. 3 is a transverse section on the line C—D of Fig. 2; and Fig. 4 is a transverse section on the line A—B of Fig. 2.

The body of the syringe is preferably fashioned in one piece, and comprises relatively thick edge walls 1, defining a rigid marginal rib extended entirely around the periphery of the body and located in the median plane thereof. The side walls 2 of the body, are oppositely disposed, and are formed by thinning out the edge walls 1; the side walls 2, being rendered resilient, and readily depressible in order to expel the contents of the syringe, while the edge walls 1 are, as hereinbefore stated, rendered rigid, so as to preserve the outline of the body of the syringe. The edge walls 1 are spaced apart at considerably greater distance than are the side walls 2, thus giving to the body of the syringe, a flat form, so that the same may readily be inserted into the pocket of a garment.

At each end of the body of the syringe, and formed integrally with the edge walls 1, are outstanding, tubular necks 3 and 3', provided, at their free ends, with outstanding annular flanges 4 and 4', the necks 3 and 3' being internally threaded. Tubular members are adapted to be inserted into the necks 3 and 3'. One of these tubular members comprises the nozzle of the syringe, while the other of the tubular members comprises an element adapted to house the valve of the syringe. These tubular members are similar in construction. The nozzle will be described first.

The nozzle comprises a shank, which, at its inner end, is threaded as denoted by the numeral 5, to fit within the threaded neck 3. The shank of the nozzle, denoted by the numeral 6, is provided, intermediate its ends, with an outstanding flange 7. The diameter of this flange 7 is greater than the diameter of the flange 4 of the neck, so that flange of the nozzle outstands peripherally beyond the flange of the neck. Upon the shank 6 of the nozzle, above the flange 7, there are threads 8. Above these threads 8, the nozzle is tapered, to form an entering tip 9, the bore 22 of the nozzle being tapered accordingly. A cap 10 is provided, adapted to house the tip 9 of the nozzle. Upon its interior, and adjacent its open end, this cap 10 is threaded to engage the threaded portion 8 of the shank of the nozzle. The flange 7 of the shank of the nozzle is adapted to be rotated into abutment with the flange 4 of the neck, and the open end of the cap 10 is enlarged as denoted by the numeral 11, to outstand beyond the flange 7 of the shank of the nozzle, the enlarged portion 11 of the cap 10 being adapted to be rotated into abutment with the flange 7 of the shank; all as seen most clearly in Fig. 2 of the drawings.

A tubular member 12 is adapted to be inserted into the neck 3'. Intermediate its ends, the tubular member 12 has an outstanding flange 14, arranged to project peripherally beyond the flange 4' of the neck 3'. Upon both sides of its flange 14, the tubular member 12 is threaded, as denoted by the numeral 15. A cap 16 is shown, the same being enlarged peripherally as shown at 17, to outstand beyond the periphery of the flange 14 of the tubular member 12; the relations between the elements 17, 14 and

4', at one end of the body of the syringe, being the same as the relation between the elements 11, 7, and 4, at the other end of the syringe. In the tubular member 12, there is an axial duct 18, at the inner end of which there is an outlet 19, communicating with the interior of the syringe body. Intermediate its ends the duct 18 is enlarged, and rounded at one end, as shown at 20, to provide a seat for a valve, in the present instance shown in the form of a ball 21, the ball reciprocating in the tubular member 12, to open and to close the duct 18.

In practical operation, a tablet of any sort, and water; or an antiseptic solution, may be placed within the body of the syringe, the nozzle of the syringe being upwardly disposed in the pocket of the user, and the cap 16 preventing any leakage of liquid through the duct 18. When it is desired to use the syringe, the caps 10 and 16 may be removed, and by compressing the side walls 2 toward each other, the contents of the body of the syringe will be ejected, the ball 21 reciprocating in its seat, and alternately permitting and preventing the inflow of air into the interior of the syringe through the duct 18.

It is to be noted that the flange 7 of the shank of the nozzle outstands peripherally beyond the flange 4 of the neck 3, the enlarged portion 11 of the cap 10 outstanding beyond the flange 7. This construction, at the nozzle end of the syringe, is duplicated at the valved end thereof.

The advantage incident to this construction is that when the cap 10 or the cap 16 is seized for rotation, the fingers of the operator cannot come into contact with the flanges 7 or 14, which contingency would permit the tubular members to be unscrewed,

simultaneously with the removal of the caps. Likewise, the caps 10 and 16 being removed, the tubular members may be unscrewed out of the necks 3 and 3', without the fingers of the operator coming into contact with the flanges 4 and 4', a contingency tending to hinder the removal of the tubular elements. This result is effected by the fact that the flanges 7 and 14 outstand peripherally beyond the flanges 4 and 4'. Thus, the caps 10 and 16 may be removed readily and quickly, without disconnecting those elements upon which the caps 10 and 16 are mounted.

Having thus described the invention, what is claimed is:—

In a syringe, a body provided with an internally threaded neck outstanding from the body and having at its free end, a laterally outstanding flange; a nozzle threaded to fit within the neck and provided with an outstanding flange arranged to bear against the flange of the neck, the flange of the nozzle being arranged to project peripherally beyond the flange of the neck, the nozzle being threaded beyond its flange; and a cap internally threaded to engage the last named threaded portion of the nozzle, the cap being rotatable into abutment with the flange of the nozzle, and being provided with a peripheral enlargement abutting against the flange of the nozzle and outstanding peripherally beyond said flange.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

DAVID WILLIAM REES.

HARRY ERDMAN CARMICHAEL.

Witnesses:

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