

No. 651,938.

Patented June 19, 1900.

DE WANE B. SMITH.  
SPRAYER.

(Application filed June 5, 1899.)

(No Model.)

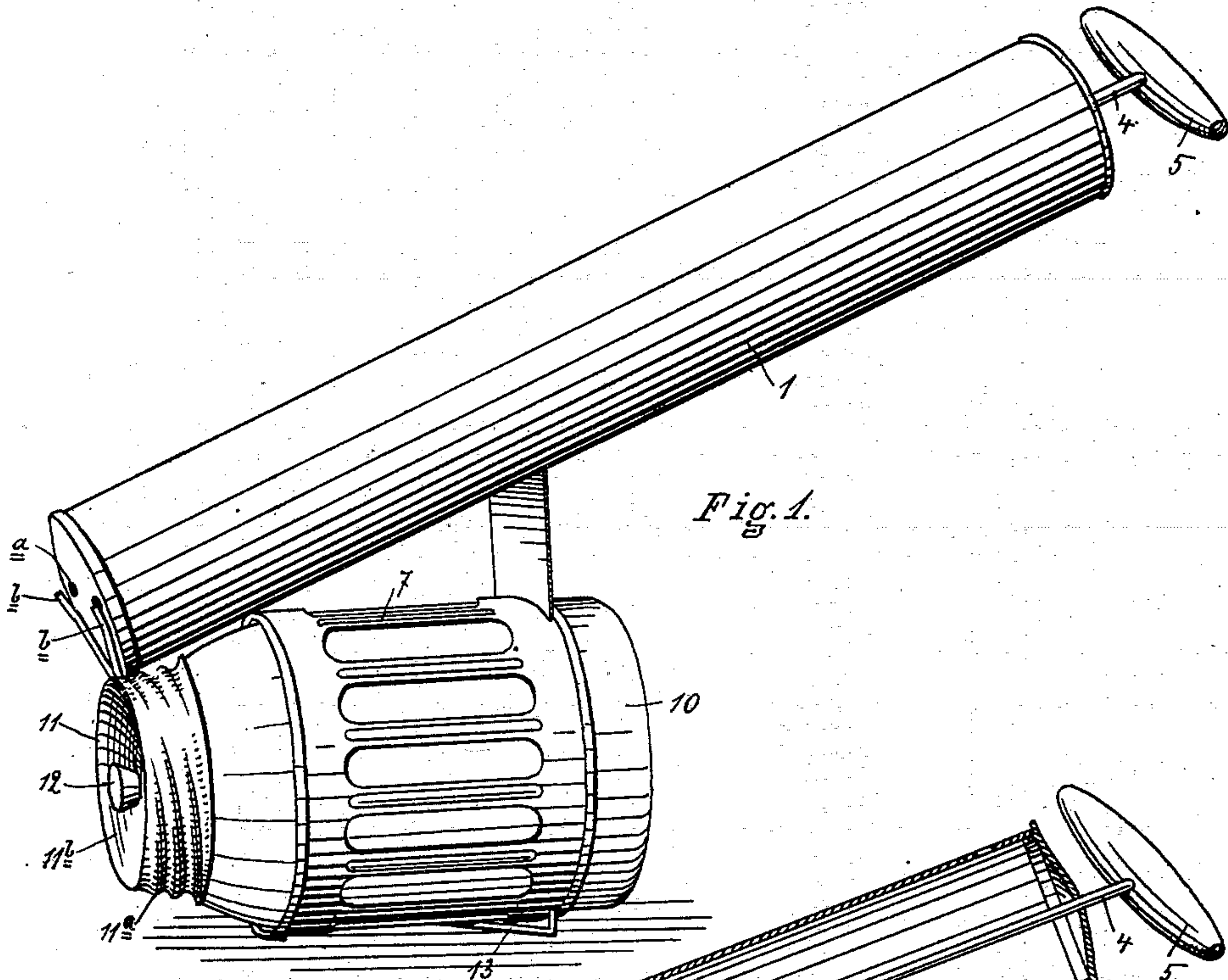


Fig. 1.

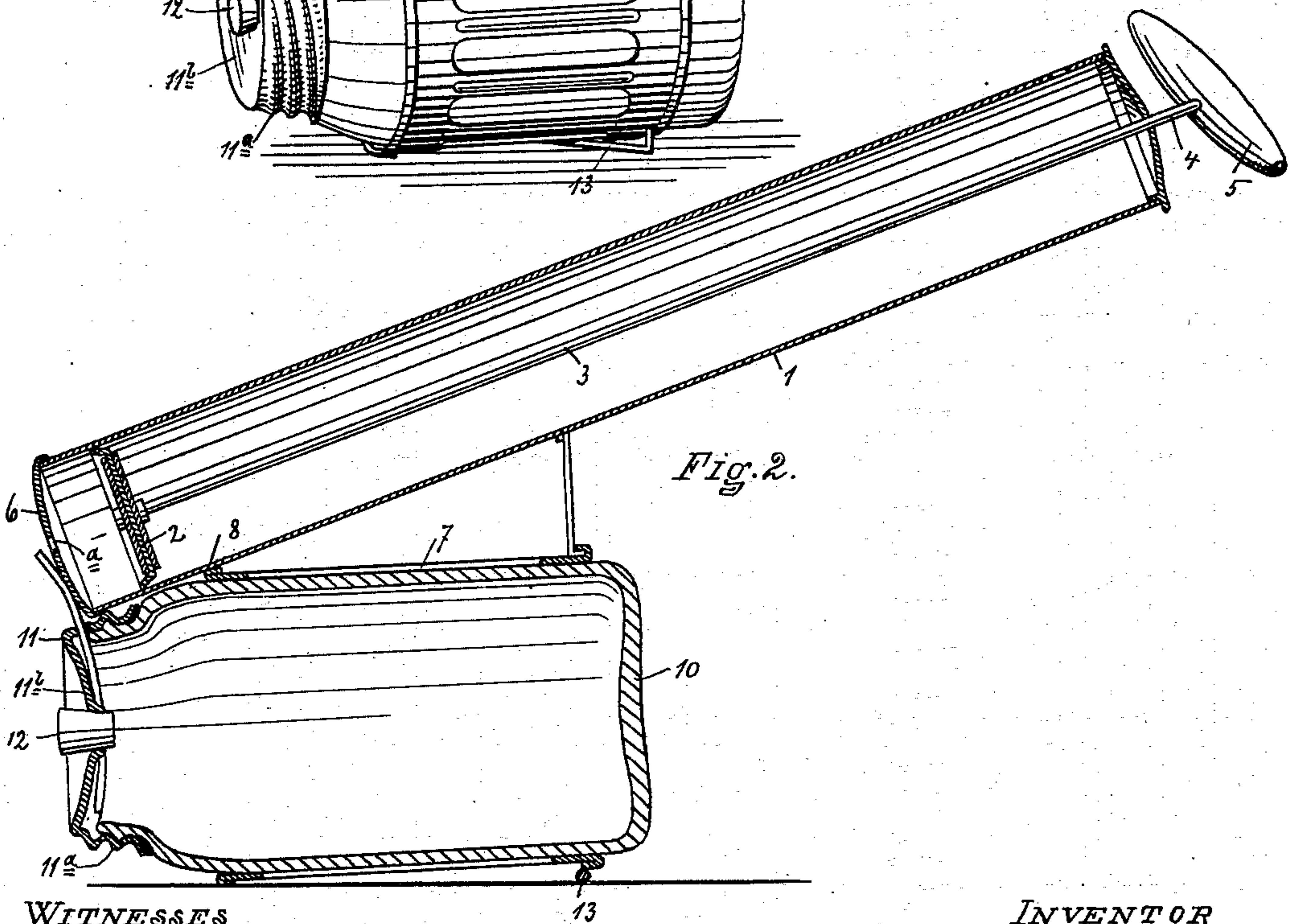


Fig. 2.

WITNESSES  
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# UNITED STATES PATENT OFFICE.

DE WANE B. SMITH, OF DEERFIELD, NEW YORK.

## SPRAYER.

SPECIFICATION forming part of Letters Patent No. 651,938, dated June 19, 1900.

Application filed June 5, 1899. Serial No. 719,368. (No model.)

*To all whom it may concern:*

Be it known that I, DE WANE B. SMITH, of Deerfield, in the county of Oneida and State of New York, have invented certain new and  
5 useful Improvements in Sprayers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same,  
10 reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form part of this specification.

The object of my present invention is to  
15 provide further improvements in sprayers.

In the drawings, Figure 1 shows a perspective view of a sprayer of my improved construction. Fig. 2 shows a longitudinal section of the same.

20 Referring to the reference letters and figures in a more particular description of the device, 1 indicates the cylinder or barrel, in which is located a plunger 2, secured on the inner end of the piston-rod 3. The piston-rod 3 passes out through the cover 4 and is  
25 provided with a handle 5, by means of which the plunger may be conveniently operated. In the end of the cylinder or barrel there is provided a head 6, which, as shown, is pro-  
30 vided with two openings or blow-holes *a*. Beneath the cylinder there is arranged a receptacle-casing 7, secured directly to the barrel at 8 and also by a hanger 9, which places the casing at an acute angle with the axis of the  
35 barrel. The casing 7 is preferably cylindrical and receives the receptacle 10, which is preferably of glass or transparent material and of a cylindrical form. In line with the axis of the casing 7 and at the end of the barrel 1  
40 there is secured a receptacle head or cap 11. The flange 11<sup>a</sup> of the cap is so arranged with reference to the end of the cylinder 1 that the head of the cap stands in advance of the head of the cylinder, substantially as shown. The  
45 flange 11<sup>a</sup> of the cap is also preferably provided with a "rolled-in" screw-thread which is adapted to receive a screw-thread on the end of the receptacle 10. The arrangement is preferably such that the cap is of a less  
50 diameter than that of the body of the receptacle, and the end of the receptacle which receives the cap 11 is correspondingly reduced

to adapt the same to the cap. The head of the cap 11 is preferably made dishing or concave, as shown at 11<sup>b</sup>, having a hole in the  
55 center and forming a convenient funnel for filling the receptacle. The hole mentioned may be stopped by a cork or stopper 12. From points approximate to the openings *a* in the head of the cylinder there extend suction-  
60 tubes *b b* through the projecting portion of the flange 11<sup>a</sup> of the cap or head to points approximating the opposite side of the cap. These tubes within the cap are perfectly bent to avoid the opening closed by the stopper 12.  
65

On the under side of the casing 7 there is provided a transverse bar 13, secured to the casing and forming a sort of foot, which will maintain the device in upright position when it is placed upon a horizontal surface.  
70

In the construction as shown the receptacle 10 is removable by unscrewing it from the flange 11<sup>a</sup> and withdrawing it from the casing 7. This removable feature provides a ready access to the interior of the receptacle  
75 either for cleaning purposes or otherwise and also allows a new receptacle to be readily inserted in case of breakage.

Sprayers of this class are in the main used for spraying with a mixture of paris-green  
80 and water. The paris-green is not in solution and without constant agitation quickly forms a heavy sediment in the lowest point of the receptacle. It will be understood that in using a sprayer of this class it is held in  
85 the hand of the operator, with one hand preferably grasping the barrel 1 substantially above the receptacle and the other operating the same by the handle 5. In the usual mode of operation the sprayer gets a longitudinal  
90 swinging movement, by which, with the elongated form of the cylindrical receptacle 10 and the reduced forward end thereof, a churning motion is maintained within the receptacle, which keeps the paris-green thoroughly in sus-  
95 pension in the water. Aside from this, when the use of the sprayer is discontinued and it is placed on a surface substantially as shown in Fig. 1 the paris-green settles in the lowest  
100 portion of the receptacle and not in close proximity to the intake ends of the suction-tubes *b*, where the thick paris-green will be discharged upon the sprayer again being put into operation before there has been a suffi-



cient interval of time with the agitating movement to again thoroughly mix it with the water.

In addition to protecting and supporting the receptacle the casing also serves to direct the threaded or attaching end to the cap when replacing the receptacle.

It is evident that the form of construction may be modified in several particulars without departing from the spirit of my invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination in a sprayer of a cylinder and plunger, a receptacle head or cover secured in position adjacent to the end of the cylinder, a receptacle-casing secured in axial line with said head or cover, a receptacle and a suction-tube extending from a point approximate a blow-hole in the cylinder into the receptacle through the said head or cover, substantially as set forth.

2. The combination in a sprayer of a cylinder and plunger, a receptacle head or cap secured at the end of the cylinder, a longitudinally-arranged detachable receptacle adapted to be secured to said head or cap, and a

suction-tube passing through the said cap or head from a point approximate a blow-hole at the end of the cylinder to a point within the receptacle, substantially as set forth.

3. The combination in a sprayer of a cylinder and plunger and a flanged receptacle cap or head secured at the end of the cylinder, a suction-tube passing through the cap, a receptacle-casing secured to the cylinder and coinciding axially with the cap and the receptacle, substantially as set forth.

4. The combination in a sprayer of a cylinder and plunger, a receptacle cap or head secured to the cylinder, a receptacle, a receptacle-casing and a suction-tube passing from a point approximate to a blow-hole in the cylinder into the receptacle, substantially as set forth.

In witness whereof I have affixed my signature, in presence of two witnesses, this 31st day of May, 1899.

DE WANE B. SMITH.

Witnesses:

SARAH A. BROWN,  
E. WILLARD JONES.