

No. 634,962.

Patented Oct. 17, 1899.

DE WANE B. SMITH.
SPRAYER.

(Application filed Dec. 14, 1898.)

(No Model.)

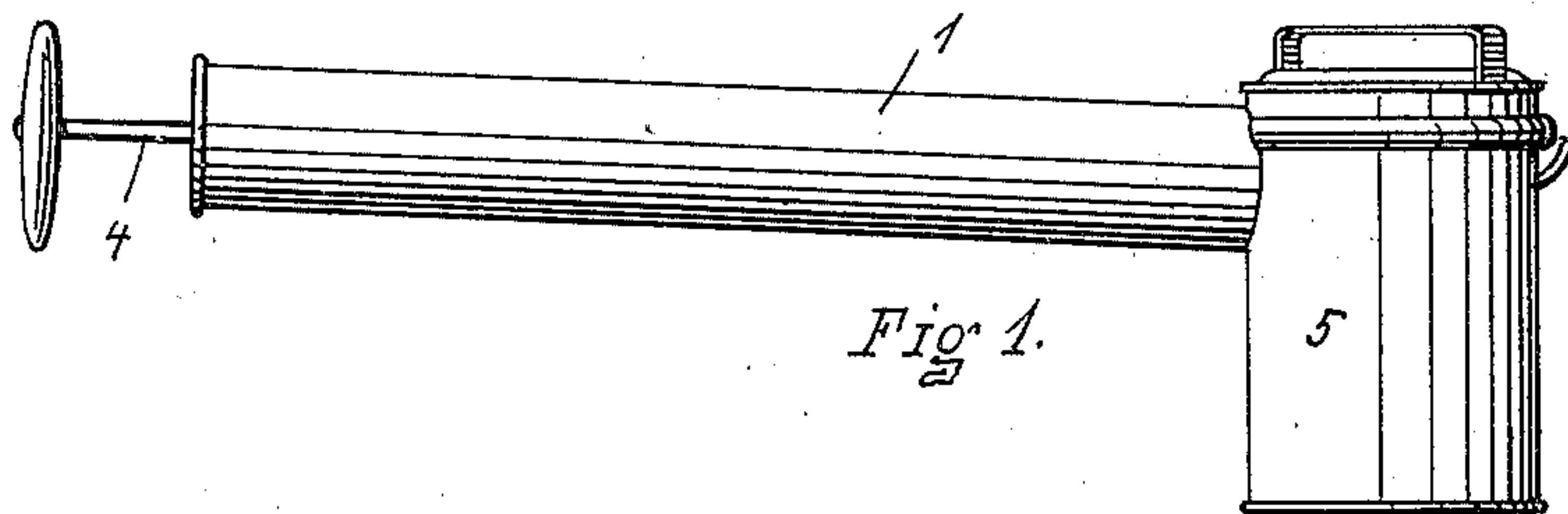


Fig. 1.

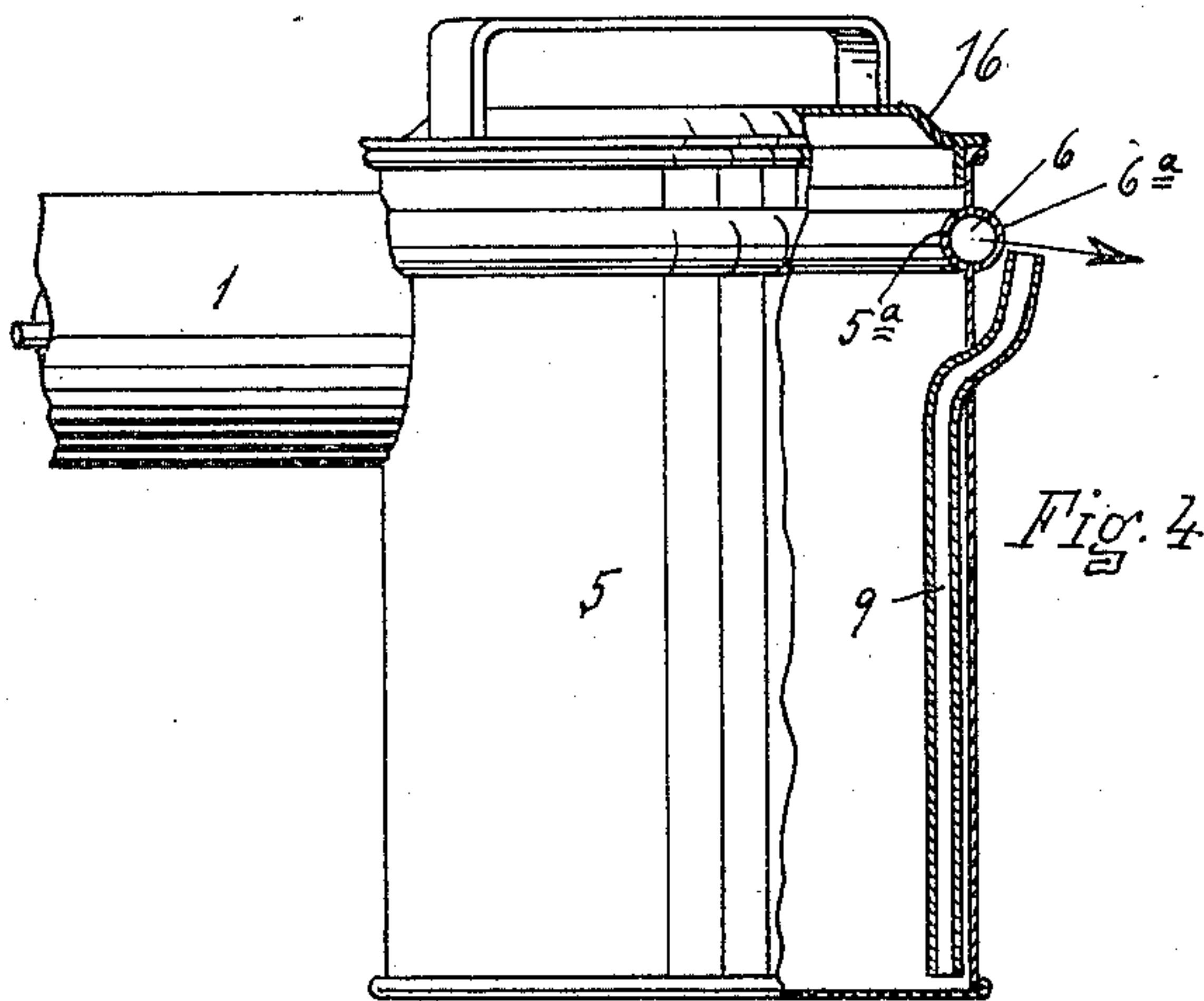


Fig. 4.

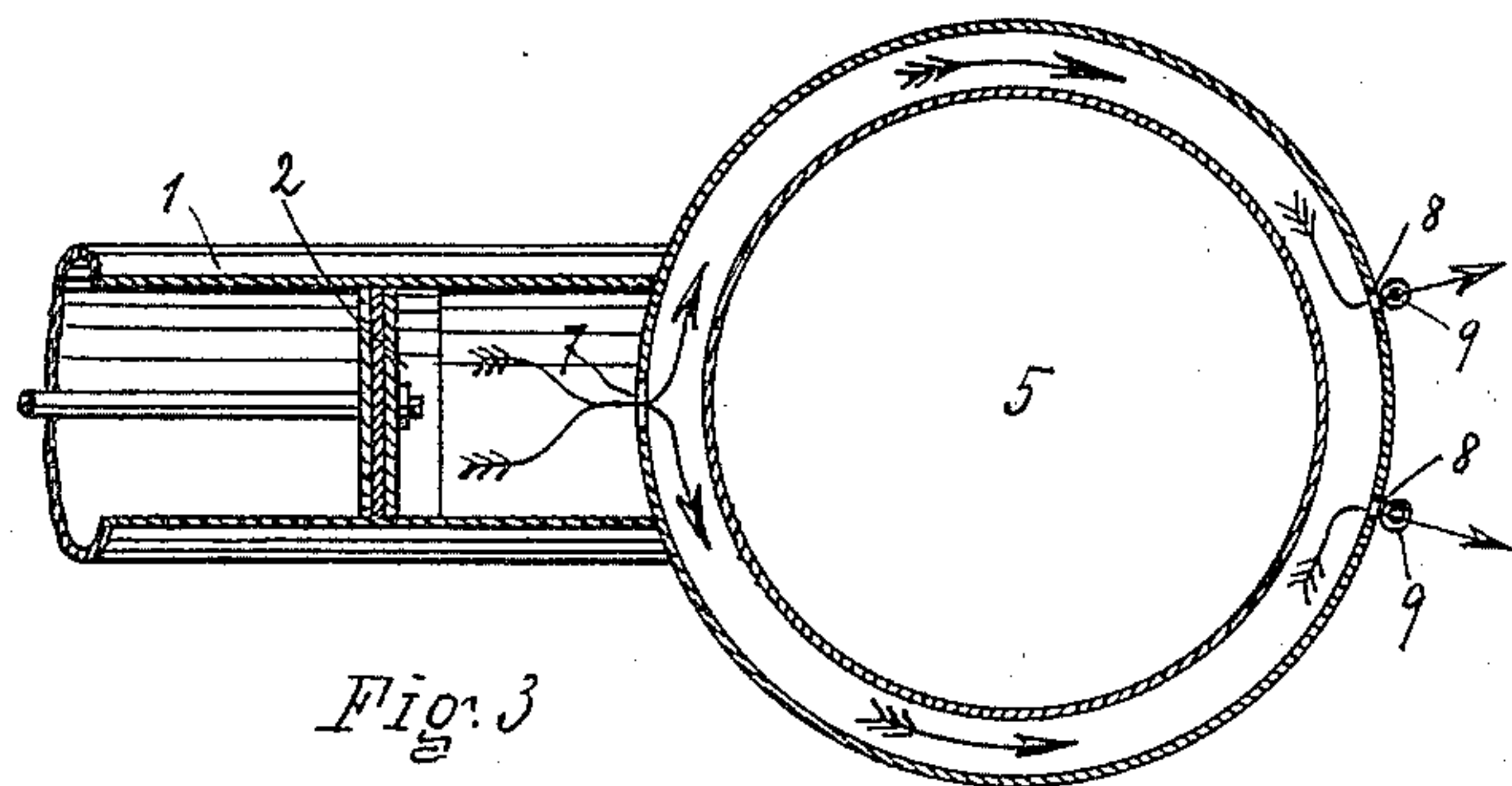


Fig. 3.

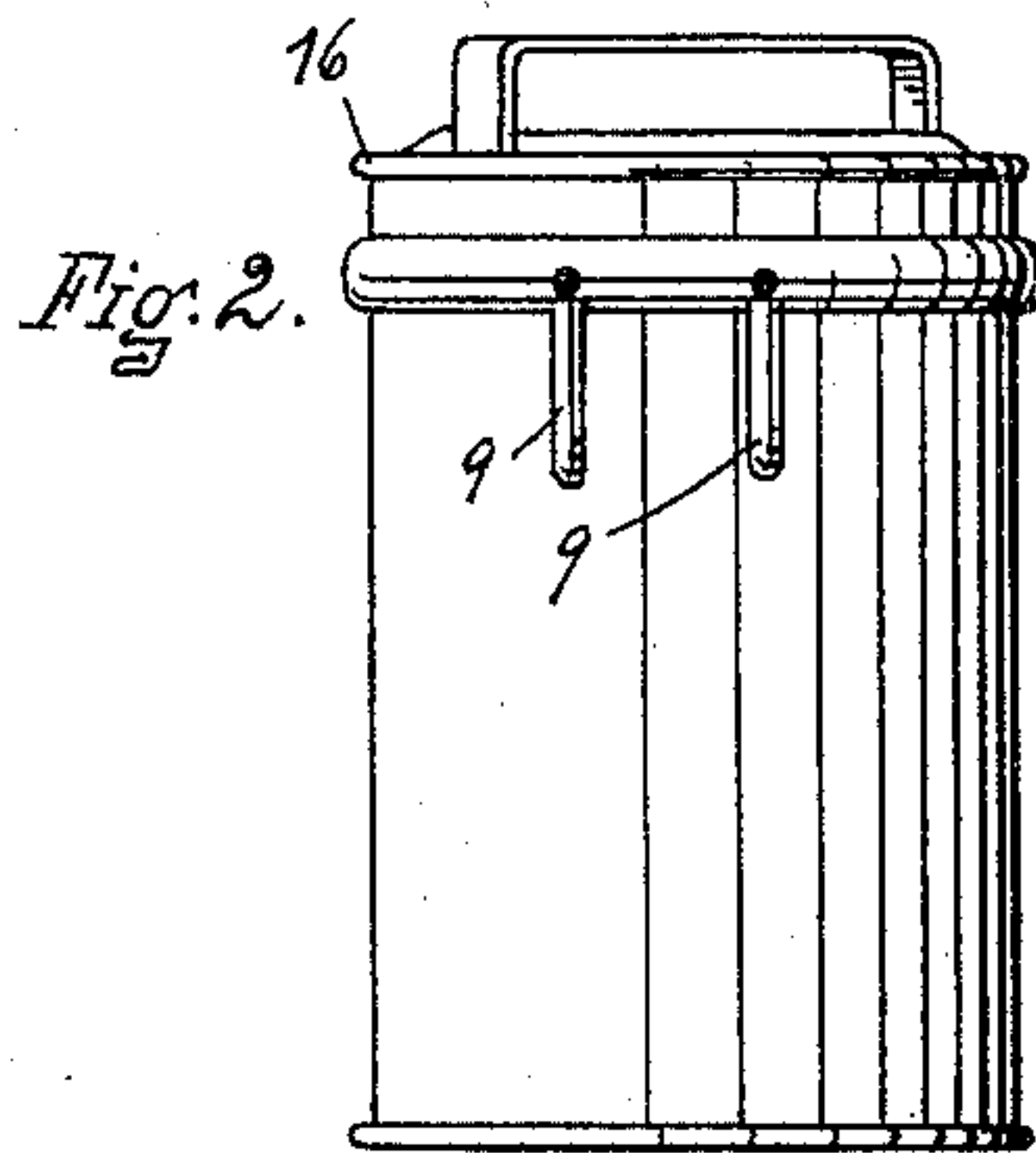


Fig. 2.

WITNESSES
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SPRAYER.

SPECIFICATION forming part of Letters Patent No. 634,962, dated October 17, 1899.

Application filed December 14, 1898. Serial No. 699,256. (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 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form part of this specification.

The object of my present invention is to provide a sprayer the liquid-receptacle of which can be readily and conveniently filled by dipping and which can be readily and thoroughly cleaned and in which access may be readily had to all parts liable to require attention.

A further object is to provide a sprayer which is strong, compact, and simple in construction and of a form convenient for use and being adapted to produce a plurality of sprays.

In the drawings, Figure 1 shows a side elevation of my improved sprayer. Fig. 2 shows an end view of the same. Fig. 3 shows, on an enlarged scale, a cross-section taken on a horizontal plane. Fig. 4 shows, on an enlarged scale, a partial side elevation of the liquid-receptacle portion and a partial vertical section.

Referring to the reference-figures in a more particular description, 1 indicates the cylindrical barrel of the sprayer, which is provided with a plunger 2, operated by a handle 3 on the end of the piston or plunger rod 4. Secured to the end of the barrel 1 is the liquid-receptacle 5, having a large open top adapted to be closed by the cover. Adjacent to the upper end of the wall of the tank or receptacle 5 is formed an encompassing air-passage 6. This passage is preferably formed by bending the wall of the receptacle inwardly, as shown at 5^a, and applying a bead-like strip 6^a on the outside opposite the bead and securing it by solder or otherwise. At one side of the receptacle the encircling passage 6, which conforms to the wall of the receptacle, is provided with an

opening 7, affording a passage or communication with the interior of the cylinder 1. Substantially at the opposite side of the receptacle are provided discharge-openings or blow-holes 8 8, and from points approximate to said openings 8 8 suction-tubes 9 9, passing through the walls of the receptacle, extend down close to the bottom of the receptacle 5.

The device is capable of and is intended to be used as follows: The cover is removed and the operator taking hold of the barrel 1, using it as a dipper-handle, dips the receptacle 5 into a pail or can and fills it with liquid. The cover being replaced the spray is delivered at the openings 8 by operating the plunger backward and forward in the barrel by means of the handle 3. In operation the air passes from the cylinder 1 around the encompassing passage 6 to the openings 8, where it being discharged across the upper end of the tubes 9 a suction is created which draws the liquid from the tank 5 and atomizes it and directs it in a spray in the direction of the blast from the openings 8.

On removing the cover the contents of the receptacle 5 can be emptied out or removed and the receptacle thoroughly cleaned and dried out and examined and access can be had to the inner end of the tubes 9.

It is evident that instead of forming the air-passage 6 directly in the walls of the receptacle 5 the passage might be formed by a separate tube passing around the inner or outer side of the wall and conforming thereto. It is also evident that the portion of the tube between the openings 8 might be stopped and in effect form two portions of tubular passages extending from the cylinder around to the discharge-openings. It is also obvious that two portions or sections of tube conforming to the walls of the receptacle 5 might be employed instead of one encircling tube or passage.

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

The combination in a sprayer of a barrel and plunger a receptacle having an open top of substantially the entire diameter of the receptacle, secured to one end of the barrel, air-passages conforming to the side walls of

the receptacle and connecting the barrel with
blow-holes located on the opposite side of the
receptacle from the barrel, and suction-tubes
extending from points approximate to said
5 blow-holes into the receptacle, substantially
as set forth.

In witness whereof I have affixed my signa-

ture, in presence of two witnesses, this 10th
day of December, 1898.

DE WANE B. SMITH.

Witnesses:

E. WILLARD JONES,
SARAH A. BROWN.