

J. W. FARRELL.
Can Nozzle.

No. 241,339.

Patented May 10, 1881.

Fig. 1.

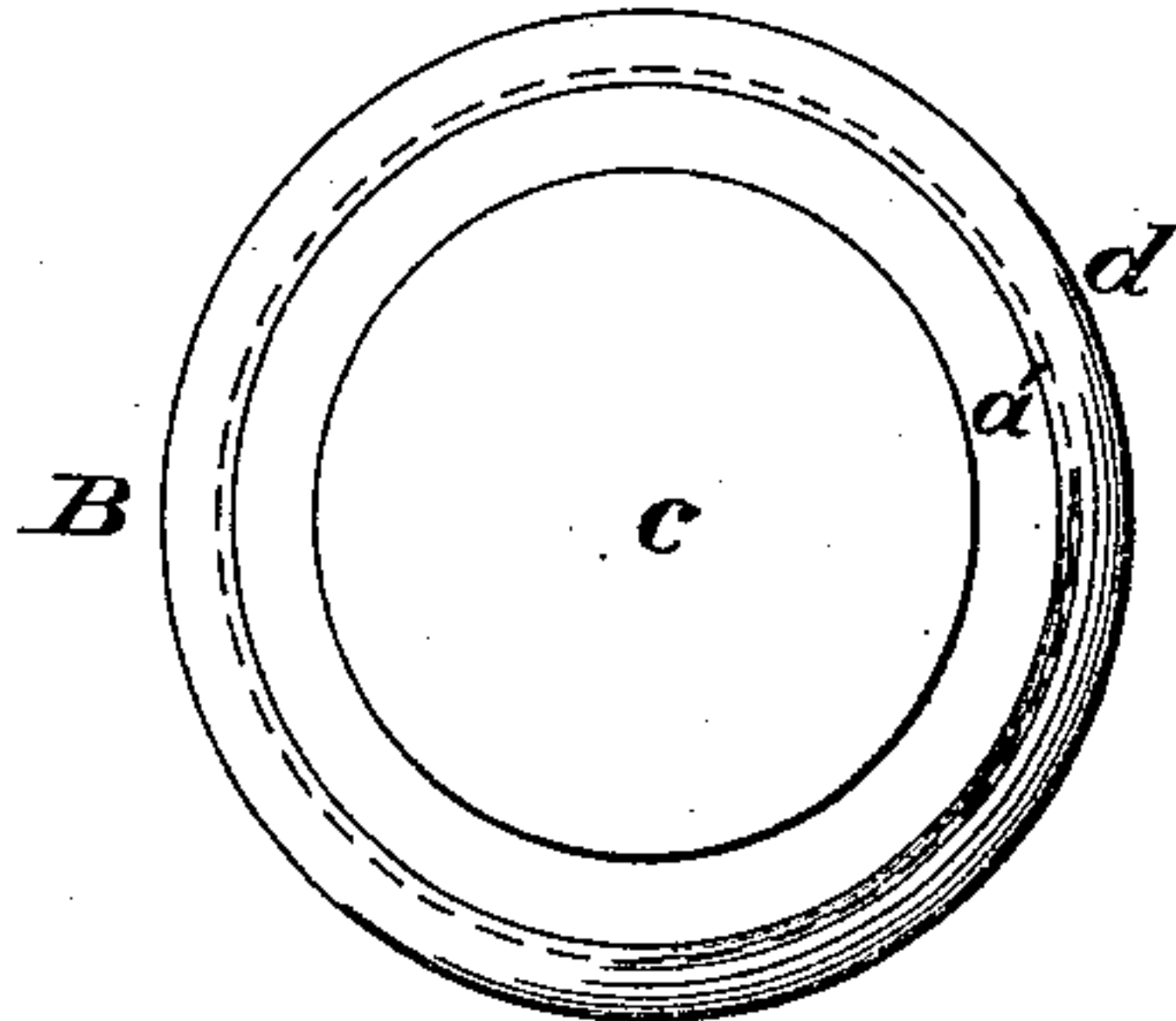


Fig. 2.

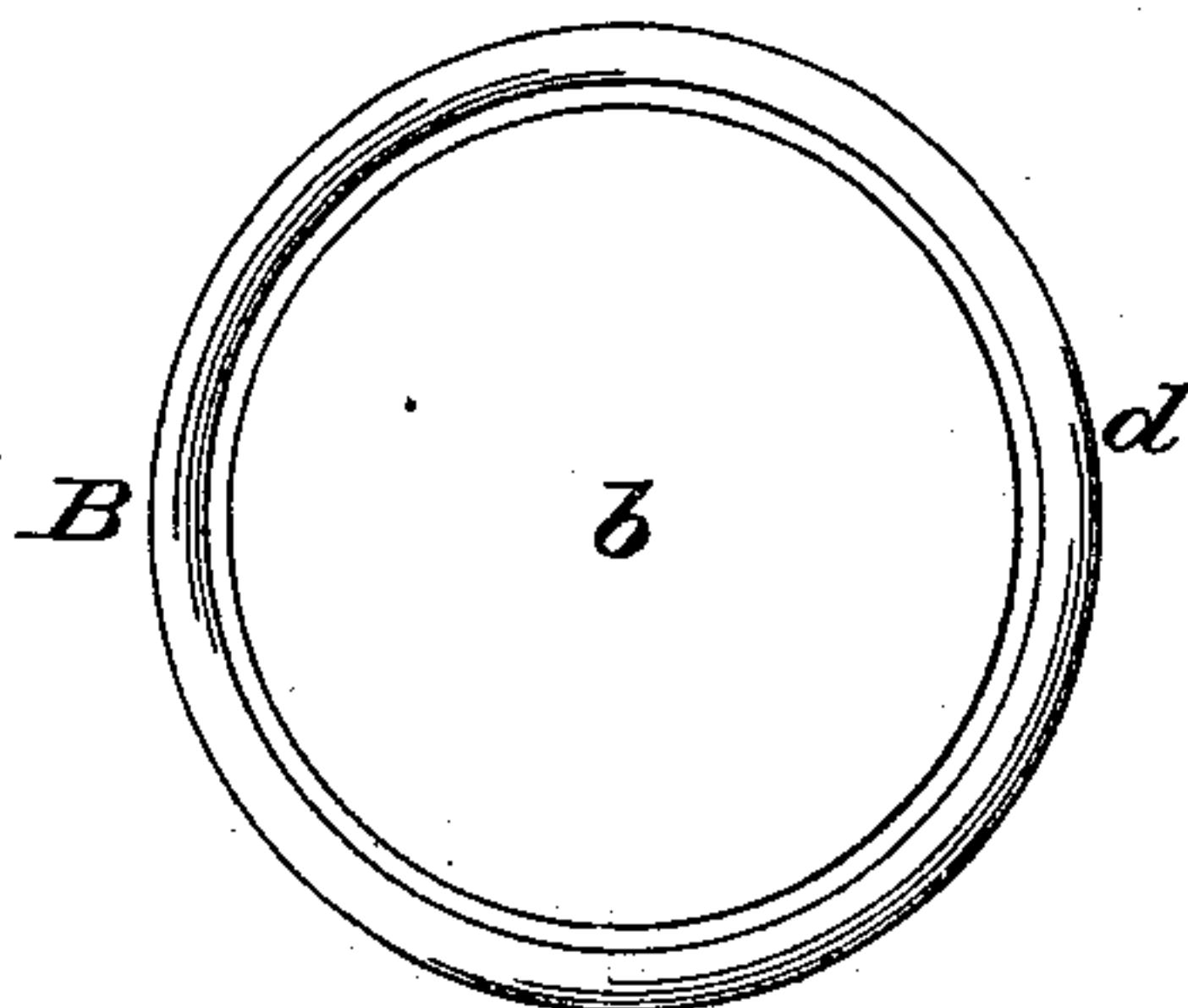


Fig. 3.

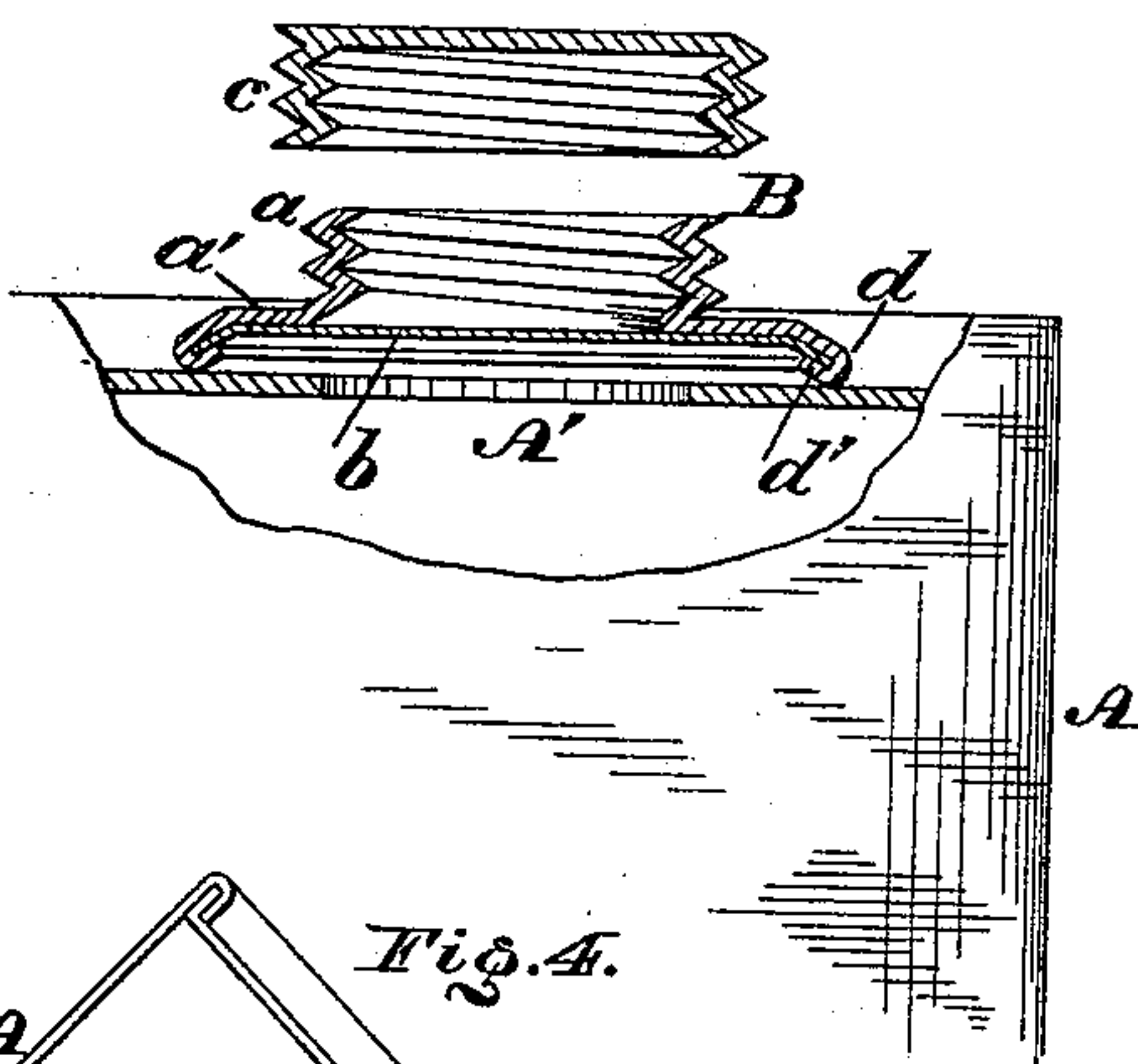
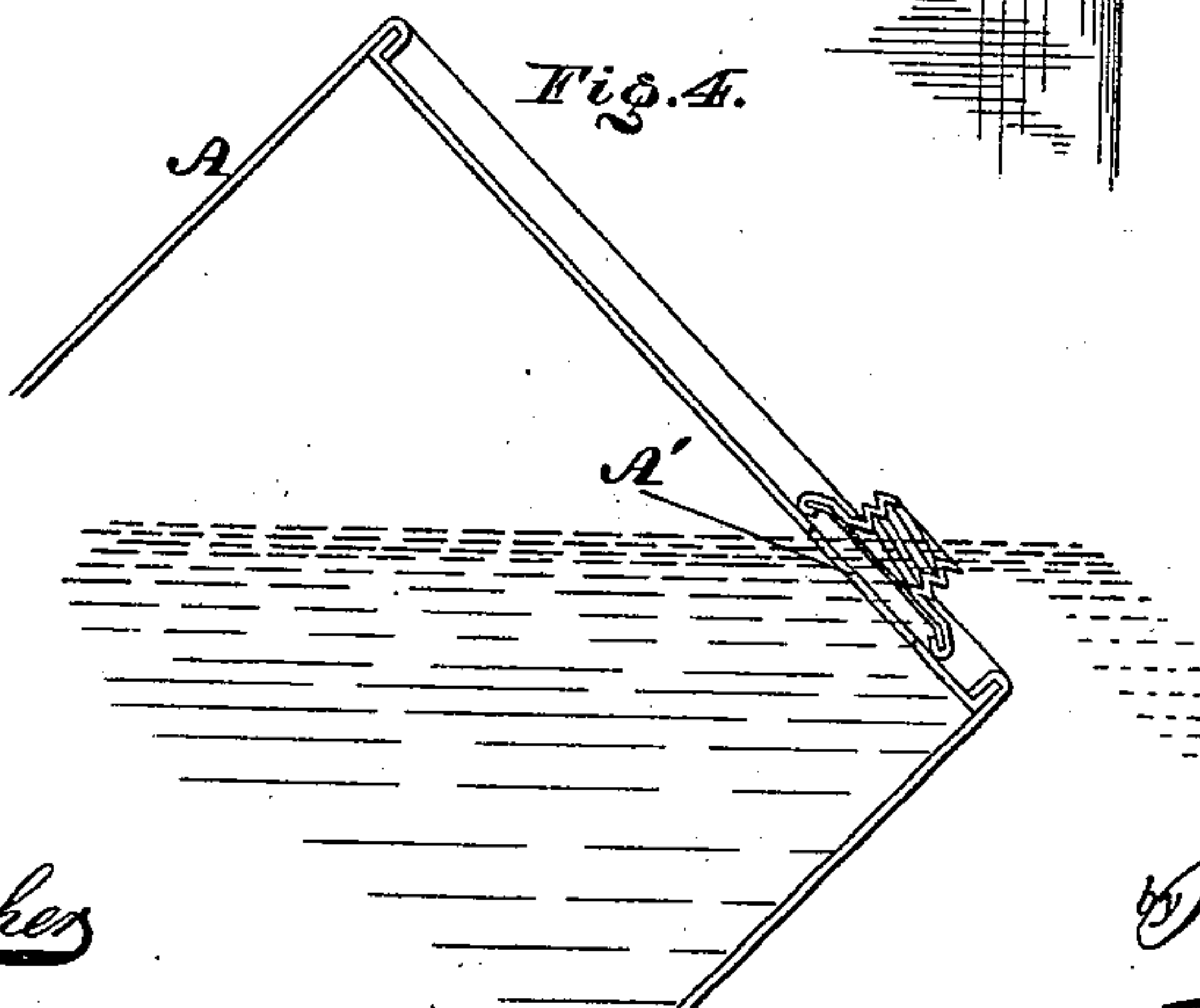


Fig. 4.



Witnesses:

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JAMES W. FARRELL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF TO STEPHEN FLANAGAN, OF SAME PLACE.

CAN-NOZZLE.

SPECIFICATION forming part of Letters Patent No. 241,339, dated May 10, 1881.

Application filed February 14, 1880.

To all whom it may concern:

Be it known that I, JAMES W. FARRELL, a citizen of the United States, and a resident of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Can-Nozzles, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a top view of a nozzle embodying my invention and the cap applied to it. Fig. 2 is a bottom view thereof. Fig. 3 is a vertical section thereof, the parts being separated and the nozzle attached to the can. Fig. 4 shows the operation of the nozzle.

Similar letters of reference indicate corresponding parts in the several figures.

Cans for the transportation of hydrocarbon fluids and for other purposes are constructed with openings on top for purposes, first, of filling, and afterward of discharging the fluids. After a can is filled its opening is covered by a capped nozzle soldered to the can and having a closed or solid bottom. When the can reaches its destination and requires to be opened the bottom of the nozzle is cut through, thus forming a communication between the nozzle and can, and the nozzle serves as convenient spout or pour-off. It is common to make the top and bottom of such nozzle of separate pieces united by soldering; but, owing to the nicety of work required, much time is expended, and many nozzles are found imperfect and leaky, so as to be thrown aside as waste. The top and bottom of such nozzle have also been formed of one piece of metal; but as the top requires to be threaded it is made of stout material, and the bottom is likewise made of the same grade, the objection whereto is that said bottom is difficult to be cut through when the can is to be opened, and is costly in metal. Further, more, the single piece of metal to be converted into a nozzle requires to undergo several severe manipulations, and the product is often cut or cracked and not smooth at the bends.

My invention has for its object the remedy of the aforesaid defects; and it consists in forming the flanged top and bottom of a can-nozzle of two pieces of metal united by lap-joints, the base of the top part being of greatest diameter, and having its edge turned downwardly

and inwardly under the edge of the bottom piece and squeezed, so that when the nozzle is fluxed and located on the can and solder applied some of the solder escapes under the nozzle and flows into the lap-joint, and thus solders the two parts, and certainly solders together the nozzle and can-head, whereby rotation of the top or cap part is prevented during the operation of screwing and unscrewing the cap. Furthermore, the edge of the bottom part is not exposed, whereby liability of catching of and cutting by said edge (usually rough) is avoided and a smooth finish is made.

In the drawings, A represents a can which has an opening in its top, as is well known in the class of oil-transportation cans.

B represents a nozzle, formed of a flanged top, *a a'*, and bottom piece, *b*, the flange *a* being threaded for engagement of the screw-cap *c*, and the bottom piece being imperforate. The base *a'* of the top part is of greater diameter than that of the bottom piece, *b*, and its edge is turned downwardly and inwardly under the edge of said piece *b* and squeezed, thus connecting the two pieces by a lap-joint, as at *d*.

It will be noticed that the edge of the bottom piece, *b*, is below, and when the nozzle is attached to the can said edge is concealed. The nozzle is now placed over the opening *A'* of the can and the circumference or rim of the connected pieces soldered to the can, it being noticed that the imperforate bottom *b* closes said opening *A'* by a fixed or soldered joint, and prevents the escape or leakage of the fluid or oil.

When the nozzle is to be soldered to the can the bottom edge or lap-jointed portion of the nozzle is fluxed. The solder is then applied around the circumferential edge, and some of it escapes under the nozzle and runs along the inner part, *d'*, of the lap-joint and reaches said joint, thus soldering the two parts, and certainly soldering together the nozzle and can-head, and thereby preventing subsequent rotation of the top part in screwing and unscrewing the cap *c*. The cap *c* is screwed in position either prior or subsequent to the soldering of the nozzle of the can.

When the can is to be discharged the cap *c* is unscrewed, and, by any sharp instrument or

tool, an opening is cut through the bottom *b* coincident with the opening *A'* of the can, and thus there is access to the can through the previously-closed nozzle, which now becomes
5 a spout for the ready pouring off of the fluid or oil.

When it is desirable to close the can the cap *c* is screwed to the flange *a*, as in other nozzles.

It will be seen that the two parts of the nozzle may be quickly formed and united, and the
10 bottom piece may be produced of inferior metal, which, while possessing sufficient strength for closing the opening *A'*, is readily cut through for forming the necessary communication be-
15 tween the can and nozzle.

It will also be seen that the flanged top may be struck up, stamped, or spun with sharp corners without cracking, and there is no buckling or roughness of either part. Furthermore,
20 solder is avoided in primarily uniting the two parts, and the joint between them is tightly closed throughout its length, so that there is no leakage between them when the can is opened.

I am aware that it is not new to form a nozzle of a threaded top part and a bottom piece,

which latter is of the greater diameter, and has its edge turned downwardly under and upward over the outside edge of the top part; but in such construction, as the edge of the
bottom piece is above the line of said bottom
30 piece, no certain provision is made for soldering the two parts by the operation of soldering the nozzle to the can; and, furthermore, said edge is exposed and liable to cut and be
35 caught, the former important feature, however, existing in my case, and the latter objectionable feature being obviated by my construction.

I claim—

As a new article of manufacture, a can-nozzle adapted to be soldered to the can, consisting of the bottom piece, *b*, and a top or cap
40 part, *a*, the base of the latter having its edge turned downwardly and inwardly under the edge of said bottom, substantially in the manner and for the purpose set forth.
45

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Witnesses:

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