

No. 744,656.

PATENTED NOV. 17, 1903.

O. WIDER.  
FOUNTAIN SYRINGE.

APPLICATION FILED JUNE 23, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

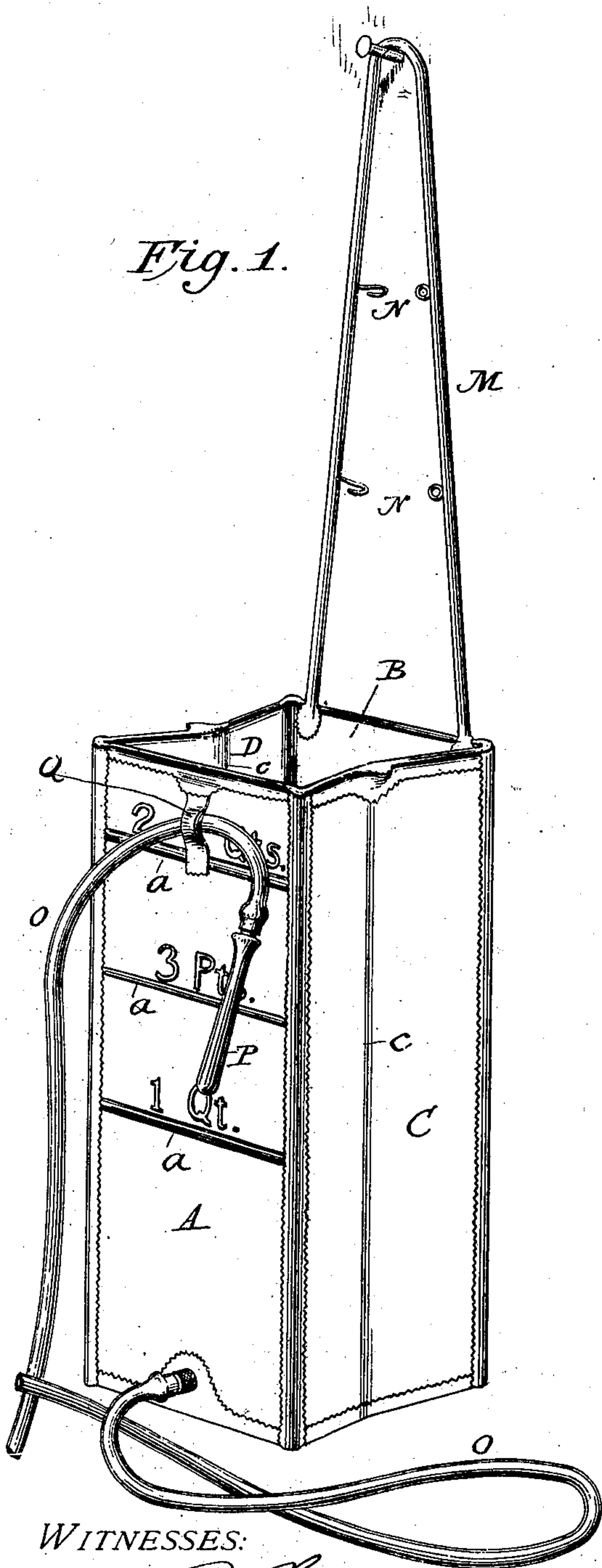
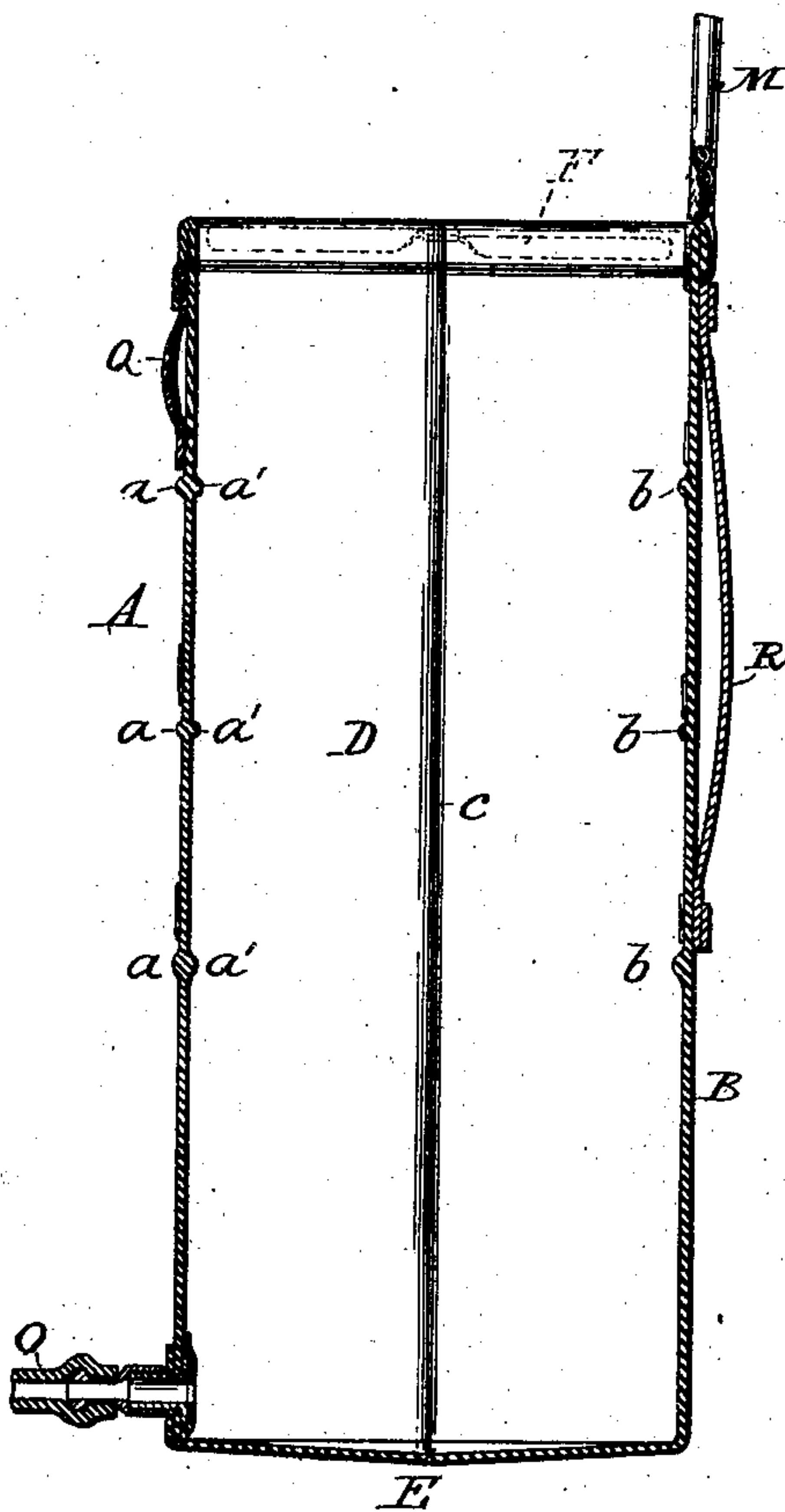


Fig. 2.



WITNESSES:

*Sidney P. Hollingsworth*  
*A. M. Parkins*

INVENTOR;

*Otilie Wider,*

BY HER ATTORNEYS

*Baldwin, Twidson & Wright*

No. 744,656.

PATENTED NOV. 17, 1903.

O. WIDER.  
FOUNTAIN SYRINGE.  
APPLICATION FILED JUNE 23, 1903.

NO MODEL.

2 SHEETS—SHEET 2.

Fig. 3.

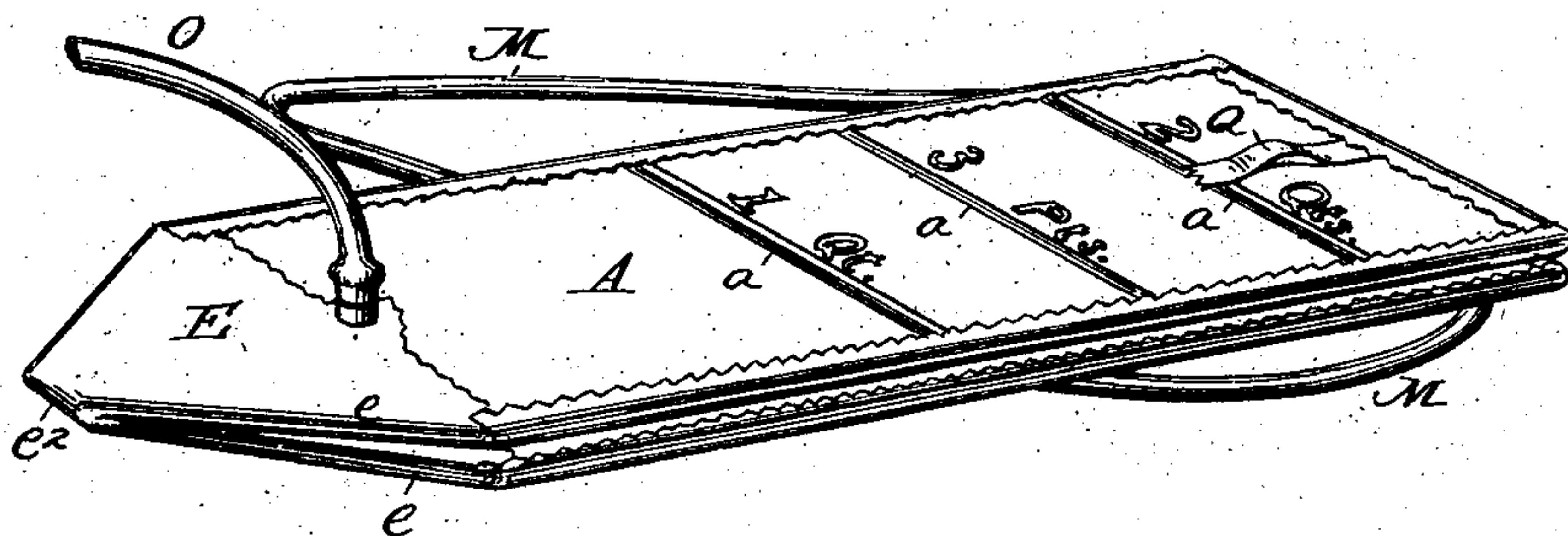


Fig. 4.

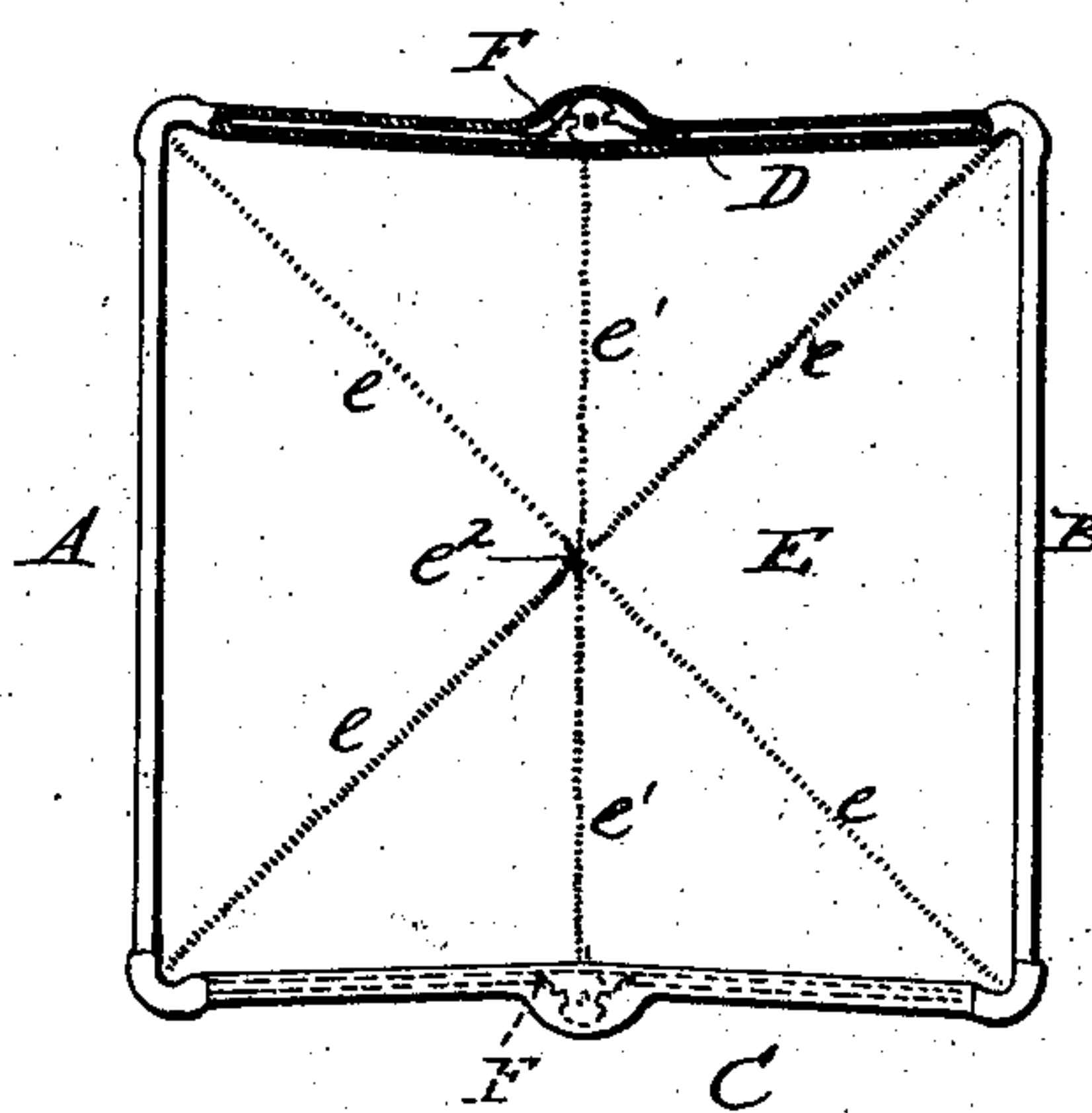


Fig. 5.

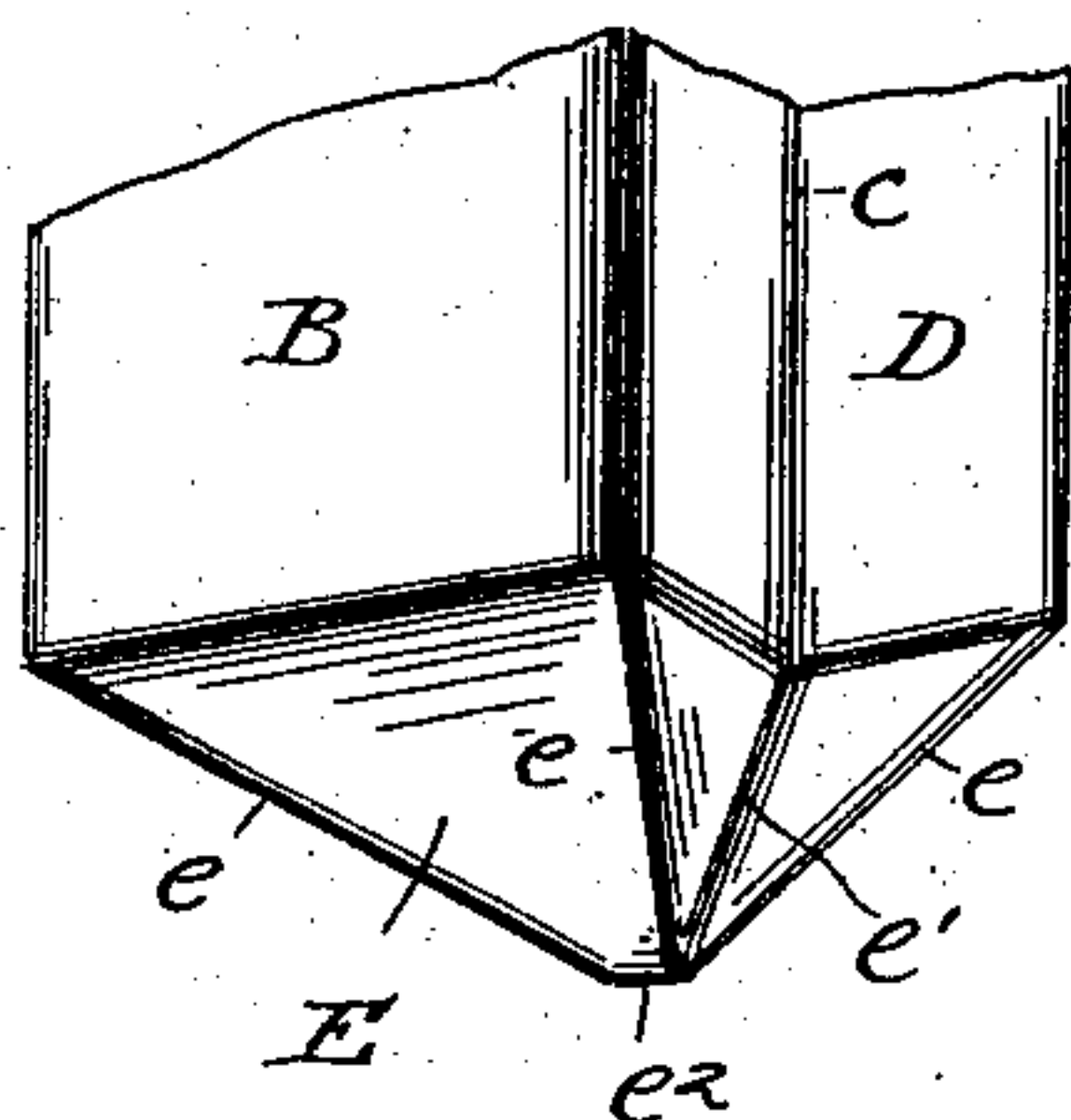
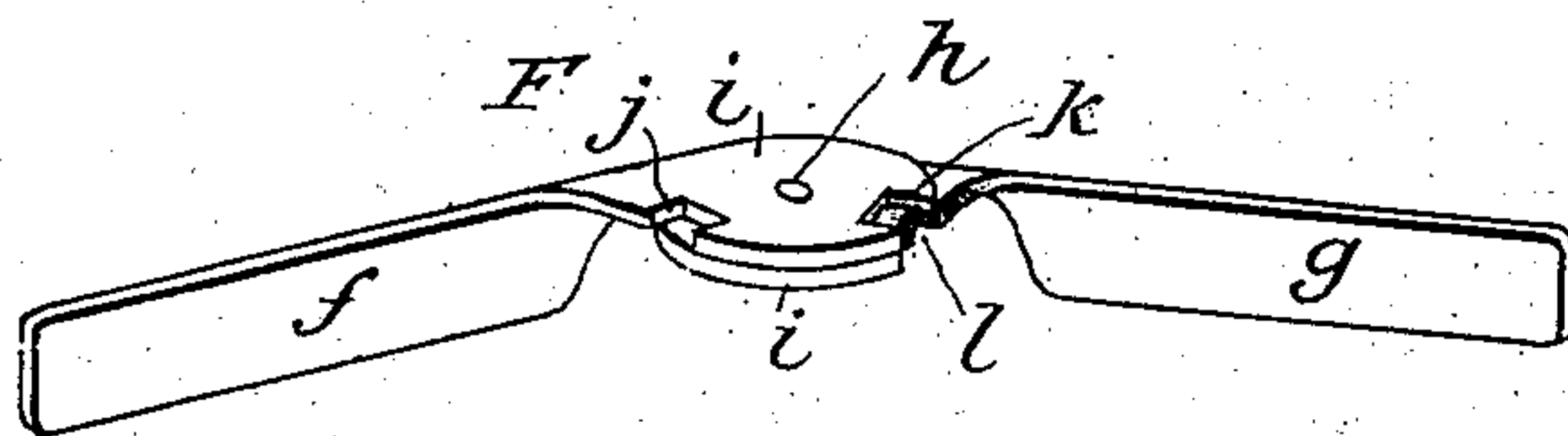


Fig. 6.



WITNESSES:

*Sidney P. Hollingsworth*  
*A. M. Parkins*

INVENTOR:

*Otilie Wider,*

BY HER ATTORNEYS

*Baldwin Davidson Wright*



# UNITED STATES PATENT OFFICE.

OTILIE WIDER, OF WASHINGTON, DISTRICT OF COLUMBIA.

## FOUNTAIN-SYRINGE.

SPECIFICATION forming part of Letters Patent No. 744,656, dated November 17, 1903.

Application filed June 23, 1903. Serial No. 162,800. (No model.)

*To all whom it may concern:*

Be it known that I, OTILIE WIDER, trained nurse, a subject of the Emperor of Germany, residing in Washington, District of Columbia, have invented certain new and useful Improvements in Fountain-Syringes, of which the following is a specification.

A fountain-syringe as usually made consists of a flat bag with an open-mouthed narrow neck at the top, to which is attached a tab having an eye adapted to pass over a nail by which the syringe is suspended. The tube is attached to the bottom of the bag, and when the syringe is suspended it is convenient to place the nozzle when not in use in the mouth of the bag in order to support it and suspend the tube. All hospitals and physicians forbid the placing of the nozzle in the bag, and often the tube is left dangling, with the nozzle sometimes resting on the floor. In all syringes with which I am acquainted the mouth of the bag has been so small that it has been impossible to get a brush or other similar device into the bag to properly clean it, and the filling and emptying of the bag has been a slow and sometimes a difficult process. Definite quantities for the douche are often prescribed; but heretofore these have always been measured in a separate vessel before being poured into the bag, and as a measuring vessel is not always at hand the proper amount is often merely guessed at. A nurse often finds it difficult to find a place to suspend the syringe. Sometimes it is suspended from a nail nearby the bed. Sometimes a rag or string is passed through the eye of the tab and the syringe is hung on the bedpost. Sometimes it is suspended from a gas-bracket; but no means has heretofore been devised, so far as I am aware, by which the syringe could be suspended from a variety of objects and yet held at the proper elevation without the use of some supplemental means, such as a cord or rag attached to the tab.

The objects of my invention are to remedy all these defects, while still providing a syringe that can be manufactured and sold with but triflingly-increased cost.

In carrying out my invention I form the syringe with a wide-open mouth, enabling it to be quickly filled, emptied, and cleaned,

and I graduate the bag so that the proper amount of fluid may be poured into it without previous measurement. In order to suspend the bag, I employ a long rubber-covered chain, which is attached to the top of the bag and is of sufficient length to pass over a bedpost. The chain is looped and is provided with fastening devices by means of which the size of the loop may be varied, adapting it to be attached to supports at different elevations and yet hold the syringe at the proper height. In order to support the outer end of the tube and the nozzle, I attach to the bag a small strip of rubber which is bent to form a loop which will allow the nozzle to be easily passed through it. In order that the syringe may be folded into a small compass for packing and transportation, the bag is formed with bellows sides and a folding bottom, enabling it to be reduced to a thin flat form which will take but little room in a box or satchel. The bag may be easily distended and made to stand erect; but in order that the mouth may be held open to its full extent I provide fastening devices at the upper end of the bag, which when the mouth of the bag is fully open hold it so, but which enable the bag to be collapsed by an easy natural movement.

In the accompanying drawings, Figure 1 is a perspective view of a fountain-syringe embodying my invention. Fig. 2 shows a vertical central section of the bag and some of the parts directly connected therewith. Fig. 3 shows the syringe folded and ready for packing or transportation, the tube being partially broken away. Fig. 4 is a plan view of the bag with some parts broken away and some shown in section. Fig. 5 is a detail perspective view of the lower portion of the bag. Fig. 6 is a detail perspective view of one of the devices for holding the mouth of the bag open.

Instead of making the bag of two pieces secured together at their side edges, I make it with four sides A B C D, preferably of equal dimensions, producing a square top and bottom. The front and rear sides A and B are not intended to be folded; but the sides C and D are creased at c and a slight "set" is given to the rubber, which gives the sides C and D a natural tendency to fold inward. The bottom E is substantially square and flat when the bag is open to the extent shown in Fig.



1; but it is creased at  $e e' e^2$  in such manner as to give it a tendency to fold in the manner indicated in Fig. 3. While I have said that the sides and bottom are square or rectangular, the exact shape may be somewhat varied without departing from my invention.

The front of the bag is graduated. Preferably this is done by forming integrally with the rubber ribs  $a$ , above which are integral characters, such as "1 Qt.," "3 Pts.," "2 Qts." Corresponding ribs  $a'$  and  $b$  are also formed on the inside of the front piece A and on the inside of the back piece B. By these devices the nurse, if she happens to have no separate measuring vessel, can supply the syringe with the proper quantity of fluid. In fact, the use of a separate measuring vessel is never necessary. It is easier to read the graduations on the outside of the bag, and when the eye observes the proper marks on the outside the corresponding marks on the inside can readily be determined, even though they are not numbered.

The bag may be made in any desired number of pieces in ways analogous to those at present in use for making syringes and water-bags, the corners being reinforced in the manner indicated. The top edge of the bag is preferably thickened or reinforced, and to the upper edge of the sides C and D are attached fastening devices F, one of which is shown separate in Fig. 6. Each of these devices consists of two members  $f$  and  $g$ , hinged together at  $h$ . The hinge-pin passes through an enlarged circular portion  $i$  of each member, and one of these portions  $i$  is formed with two notches  $j k$ , while the corresponding portion  $i$  of the other member is formed with a spring-finger  $l$ , adapted to enter the notches. When the finger enters the notch  $k$ , the members are open or distended; but when the finger enters the notch  $j$  the members are folded. While the spring is strong enough to hold the members in either position under ordinary conditions, it will yield when slight extra force is exerted, so that the device may be easily opened or closed by hand. Each fastening device F is inclosed by rubber in the manner indicated in Figs. 1, 2, and 4. The rubber may be closely applied to the arms of the members; but it is slack or formed with a pocket at their joint in the manner shown in Fig. 4, so as to allow the members to open and close properly. The arrangement is, however, for sanitary reasons such as to completely cover the metal.

In order to suspend the syringe, I employ a rubber-covered chain M, the ends of which are attached to the upper portion of the back piece B. The chain, which may be quite small, affords the necessary strength, while the rubber presents a surface easy to clean. A wire might be used instead of a chain; but the chain is preferred. This suspending device may be easily made and applied by drawing a rubber tube over a small chain, splitting the ends of the tube, and vulcanizing

them to the bag, the ends of the chain preferably being embedded in the vulcanizing process. The chain is of sufficient length to form a loop large enough for all conditions. It may be placed over a bedpost or a gas-bracket or applied to a nail high up on the wall. If the object on which it is convenient to support the syringe is low, one of the fastening devices N (which may be a hook and eye) may be interlocked and made to rest on the nail or other support. In this way the syringe may be supported at the proper elevation on any suitable nearby device.

The tube O may be connected with the bag by any suitable coupling; but this coupling is preferably applied to the front piece A instead of to the bottom of bag in order that the bag may be more easily folded and in order that sediment will not so readily enter the tube. The coupling is a small and simple one. It may be easily taken apart and cleaned.

In order to support the nozzle P and the outer end of the tube, I employ a strip of rubber Q, which is formed into a loop and attached to the front of the bag near its upper end. Preferably the vertical edges of the loop are slightly rounded or beveled, as shown, in order that the nozzle may be guided while being inserted or withdrawn. This simple device is very useful and important. It is just as easy to pass the nozzle through the loop as it is to drop it into the bag, which latter practice is unsanitary and often prohibited.

Experience has demonstrated that when opened and ready for filling, as shown in Fig. 1, the bag will stand erect without side supports and will not tend to collapse or fall while being filled or after it is filled. When hung, it will not tend to sag or become in any way distorted.

Douches or enemas often contain milk, eggs, and other such matter, and it is important that the bag should be thoroughly cleansed after use. A bag made in the manner which I have described may be cleaned most thoroughly, as the mouth is so wide that a brush or other cleaning device may be easily inserted and manipulated.

When not in use, the bag may be folded in the manner shown in Fig. 3, so as to take but little room in a nurse's satchel. If desired, a handle R may be attached to the back of the bag.

I claim as my invention—

1. In a fountain-syringe, a bag having a wide-open mouth whereby access may be had to the interior of the bag for thorough cleansing, vertically-creased folding sides and a flat folding bottom projecting outwardly when folded, a suspending device attached to the upper end of the bag, and a tube attached to the bag above the bottom thereof.

2. In a fountain-syringe, a bag having a mouth equal in area to the greatest cross-section of the bag whereby access may be had to



the interior of the bag for thorough cleansing, vertically - creased folding sides and a flat folding bottom, a flexible suspending device attached to the upper end of one side of the bag, and a tube attached to the bag above the bottom.

3. In a fountain-syringe, a bag having a wide-open mouth whereby access may be had to the interior of the bag for thorough cleansing, vertically - creased folding sides and a folding bottom having diagonal and transverse creases along the lines of folding, a suspending device attached to the bag near its upper end and a tube attached to the bag above the bottom thereof.

4. In a fountain-syringe, a bag having a wide-open mouth, vertically-creased sides, a folding bottom having creases along the lines of folding and collapsible devices attached to the bag for holding its mouth open.

5. In a fountain-syringe, a rubber bag having a wide-open mouth, vertically - creased folding sides, and collapsible devices for holding the mouth of the bag open, each comprising two members hinged together and embedded in the rubber at the mouth of the bag, the middle or hinged portion of the device being provided with locking devices and inclosed in a loosely - fitting pocket, for the purpose specified.

6. In a fountain-syringe, a folding, rubber bag having a flat bottom enabling the bag to stand erect, a wide-open mouth to receive the charge and to permit thorough cleansing and graduation-marks placed directly on the inner face of one of its sides which can be read through the mouth of the bag.

7. In a fountain-syringe, a folding, rubber bag having a flat bottom enabling the bag to stand erect, a wide-open mouth to receive the charge and to permit thorough cleansing, and

graduation-marks formed integrally with the bag on the inner face of one of its sides, and which can be read through the mouth of the bag.

8. In a fountain-syringe, a folding, rubber bag having a flat bottom enabling the bag to stand erect, a wide-open mouth to receive the charge and to permit thorough cleansing, a tube attached to the bag above the bottom thereof and graduation-marks placed directly on the inner face of one side of the bag which can be seen through the mouth of the bag while standing.

9. In a fountain-syringe, a bag formed integrally with transverse ribs on both the inside and outside to provide guides for measuring the charge poured into the bag.

10. In a fountain-syringe, the combination of a bag and a suspending device consisting of a rubber-covered chain, having the ends of the rubber covering split and vulcanized to the upper end of the bag.

11. In a fountain-syringe, the combination of a bag and a looped suspending device provided with supplemental suspending devices rigidly connected with the main suspending device but detachably connected with each other for varying the length of the loop.

12. In a fountain-syringe, the combination of a bag and a chain attached at its ends to the bag and provided with a series of suspending devices which are rigidly connected with the chain but detachably connected with each other.

In testimony whereof I have hereunto subscribed my name.

OTILIE WIDER.

Witnesses:

R. M. PARKINS,  
LLOYD B. WIGHT.