

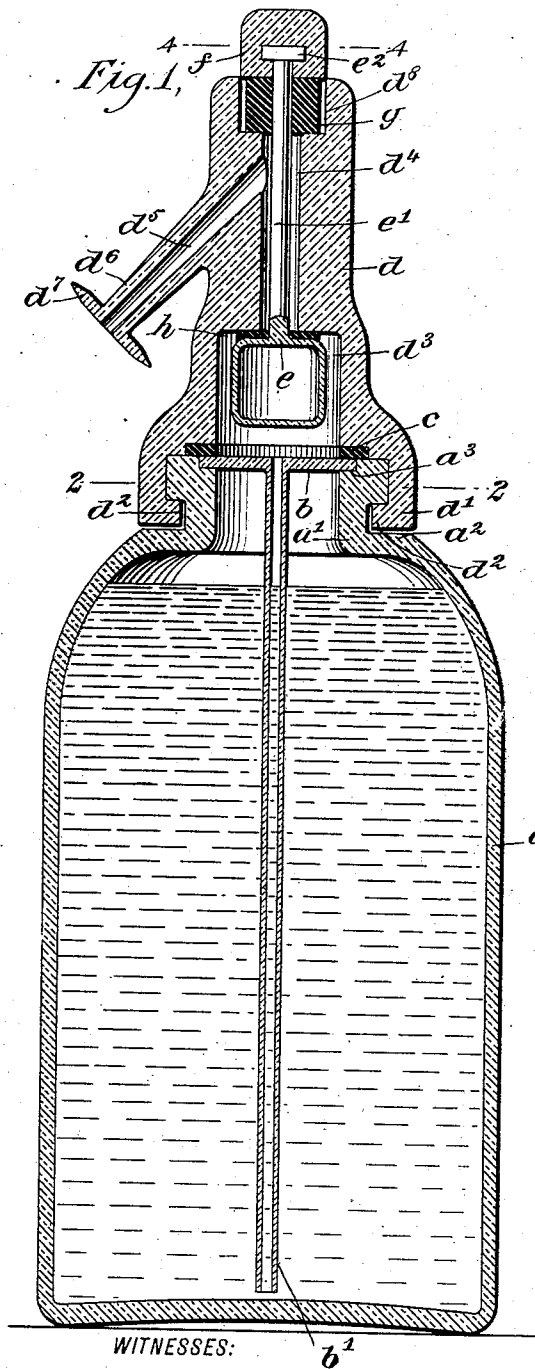
No. 787,591.

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F. SONNENFELD & J. GLASS.

ANTISEPTIC BOTTLE.

APPLICATION FILED JUNE 20, 1904.



WITNESSES:

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A. Fay.

Fig. 4.

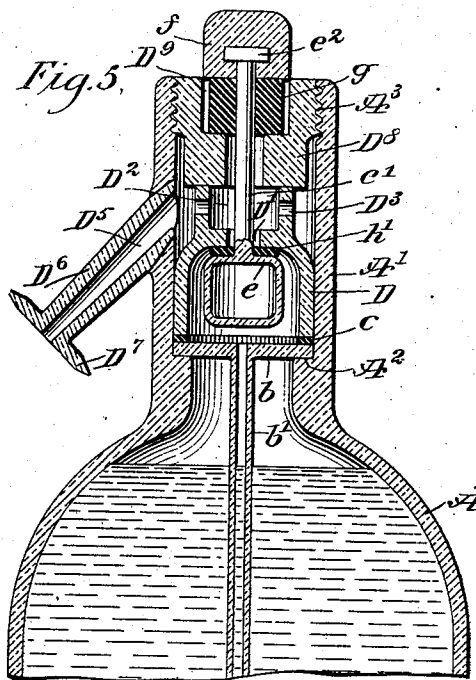
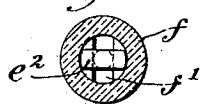


Fig. 2.

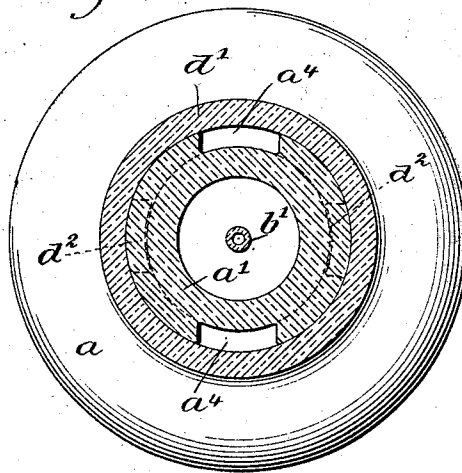
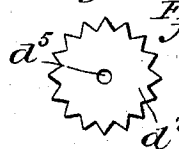


Fig. 3.



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FRANCK SONNENFELD AND JACOB GLASS, OF NEW YORK, N. Y.

ANTISEPTIC BOTTLE.

SPECIFICATION forming part of Letters Patent No. 787,591, dated April 18, 1905.

Application filed June 20, 1904. Serial No. 213,332.

To all whom it may concern:

Be it known that we, FRANCK SONNENFELD, a subject of the Emperor of Austria-Hungary, and JACOB GLASS, a citizen of the United States, and both residents of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Antiseptic Bottle, of which the following is a full, clear, and exact description.

Our invention relates to a receptacle for containing liquids of various kinds and especially adapted for seltzer and other carbonated waters.

Seltzer-bottles as heretofore manufactured are provided with certain surfaces which are made of alloys containing certain metals that unite with the acids contained in seltzer and similar waters to form poisonous compounds. Furthermore, these bottles are usually provided with a nozzle which is used in various ways by the public and may be introduced into the mouth. Owing to the fact that these bottles are reused a large number of times, that the liquid is not all used from them and some remains when the bottles are refilled, and that they are all made in one piece, so that they cannot be properly cleaned upon being refilled, they have become a dangerous agent for the dissemination of diseases of various kinds.

It is the principal object of our invention to provide a bottle or receptacle which may be refilled and used an indefinite number of times without the possibility of carrying disease-germs or poisonous chemical compounds when it is submitted to an ordinary washing process, and which, being transparent, will indicate to the public the fact of containing foreign substances, so as to necessitate thorough cleaning before refilling.

It is a further object of our invention to provide a receptacle of the above-mentioned character which may be readily taken apart, so that the various portions can be easily and quickly cleaned by the simplest of cleaning processes.

Reference is to be had to the accompanying drawings, forming a part of this specification,

in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical longitudinal sectional view showing one embodiment of our invention. Fig. 2 is a sectional view on the line 2 2 of Fig. 1. Fig. 3 is an end view of the nozzle. Fig. 4 is a sectional view on the line 4 4 of Fig. 1; and Fig. 5 is a fragmentary sectional view similar to Fig. 1, showing another form in which our invention may be embodied.

In Figs. 1 to 4, *a* represents the receptacle proper or the main portion thereof. It is provided with a neck *a'*, which has a recess *a''* surrounding it and a shoulder *a'''*. This shoulder is provided for the purpose of supporting a plate *b*, from which extends downwardly a tube *b'*, the plate being perforated to register with the inside of the tube. *c* is a rubber disk or packing placed upon the top of the plate *b* and held in position by the removable neck or upper part *d* of the bottle. This portion of the bottle is provided with a downwardly-extending projection *d'*, which has a pair of inwardly-extending projections *d''*, adapted to engage in the groove *a'''* and to pass through openings *a''''* in the upper portion of the neck. This construction is similar to a bayonet-joint and provides for the ready and convenient coupling of the neck to the bottle and removing it therefrom. It will be obvious, however, that any equivalent means, such as a screw-thread, could be substituted for the bayonet-joint.

The neck portion *d* is provided with a chamber *d'''* immediately above the plate *b* and with passages *d''''* and *d'''''* for the escape of the contents of the bottle.

d'''' is a nozzle which is provided with a rosette *d'''''*, which prevents the insertion of the nozzle in a person's mouth. The passage *d''''''* is provided with a valve *e*, which consists of a hollow bulb provided with a stem *e'* and with a projection *e''* at the top for the purpose of securing it to the button *f* by means of a slot *f'* therein.

g is a rubber spring and packing device which is contained in an enlarged opening *d''''''* above the passage *d''''* and the stem *e'* of the

valve. *h* is another packing between the valve *e* and its seat.

It will be observed that by constructing the device in the manner illustrated or in any equivalent manner all of the elements may be constructed of non-metallic material, which will be inert in the presence of the materials to be contained in the receptacle and will therefore not be acted upon to produce poisonous or injurious compounds. These elements may be made of such materials by coating their surfaces with enamels or the like or they may be constructed throughout of glass or similar material. The packings *c*, *g*, and *h* will of course be made of rubber, which will also be inert in the presence of the materials contained in the receptacle.

While our invention comprises the construction of these elements of any non-metallic material, we prefer to use rubber for the packings and glass for all of the other elements.

In the use of the device the receptacle *a* may be filled with the desired liquid, the plate *b* placed thereon with its tube *b'* extending nearly to the bottom of the receptacle, the packings applied, and the neck portion *d* readily secured in position. It will be observed that the rubber packing *g* will not only prevent the escape of liquid through the upper part of the neck portion, but will by the natural resiliency of the rubber aid in holding the valve *e* against its seat. Upon pressing down upon the button *f* the valve will be forced away from its seat and the liquid or gas may be allowed to emerge from the passage *d*⁵. The pressing down of the button will more effectively close the opening at the top of the passage *d*⁴. The valve may be inserted by passing it through the neck *d* and into the opening *f'*, when it may be turned at right angles, as indicated in Fig. 4. This will securely hold it in position. Furthermore, it will be seen that all the parts being made of glass with the exception of the packings and all the parts being readily removable one from another the bottles may be taken apart when they are to be refilled and all portions thereof can readily be washed with any desired degree of thoroughness.

It will be obvious that the construction described is merely one form in which our invention may be embodied and that it is capable of taking many other forms. One of these forms is illustrated in Fig. 5, in which *A* represents the main portion of the receptacle and is provided with an upwardly-extending neck *A'* and a shoulder *A*². The shoulder is adapted for the reception of the plate *b*, having a tube *b'*. This device is also provided with the parts *c e e' e'' f g h*, which are substantially the same as the elements having those letters in Fig. 1; but instead of having a removable neck the device may be provided with a removable body *D*, contained within the neck

A', which is integral with the body of the bottle. This body *D* extends downwardly into contact with the packing *c* and forms a closed chamber thereabove, with the exception of the passage *D'*, which is adapted to be closed by the valve *e*. Above this passage is a chamber *D*², having openings *D*³ in its walls for permitting a liquid to pass out through the passage *D*⁵ in the nozzle *D*⁶, which is here shown as removable from the neck of the bottle. This nozzle is also provided with a rosette *D*⁷. Above the chamber *D*² is a portion *D*⁸, having a cavity *D*⁹ for the reception of the spring and packing *g*. The body *D*⁸ is adapted to be secured to the neck of the bottle by means of the screw-threads shown at *A*³ or in any other convenient manner.

It will be obvious that this device will operate in substantially the manner heretofore described and that it may be easily cleaned and refilled.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A receptacle having a shoulder in its upper part, in combination with a removable neck having means for securing it to the receptacle, a float-valve carried by the neck, and a perforated plate resting on said shoulder and having a tube extending therefrom nearly to the bottom of the receptacle.

2. A non-metallic receptacle having a shoulder in its upper part, in combination with a perforated non-metallic plate resting on said shoulder and having a tube extending toward the bottom of the receptacle, a float-valve for controlling the discharge of material from the receptacle, and a nozzle in communication with the interior of the receptacle and having a rosette at its end.

3. In a receptacle, the combination of a main portion, a removable neck therefor having a passage therethrough, and a valve for closing said passage, comprising a hollow body adapted to be held against its seat by the pressure of a fluid in the receptacle.

4. In a receptacle, the combination of a non-metallic main portion, a removable non-metallic neck therefor having a passage therethrough, a valve for closing said passage, comprising a hollow non-metallic body, and positive yielding means for holding the valve in closed position.

5. In a receptacle, the combination of a glass main portion, a removable glass neck therefor having a passage therethrough, a valve for closing said passage, comprising a hollow body of glass and provided with an upwardly-extending stem, a button, means on said stem for securing the valve to the button, and a rubber spring mounted between the button and the neck.

6. In a receptacle, the combination of a main portion, a removable neck therefor having a passage therethrough, a valve for closing said

passage, comprising a hollow body adapted to be held in closed position, and a plate mounted on said main portion below said neck and having a tube extending therefrom to the vicinity
5 of the bottom of the receptacle.

7. In a receptacle, the combination of a glass main portion having an upwardly-extending portion or neck thereon provided with a recess and with a shoulder, a removable glass
10 neck provided with projections adapted to engage in said recess for securing the said neck upon the main portion of the receptacle, a glass plate mounted on said shoulder and having a tube extending therefrom to near the
15 bottom of the receptacle, said removable neck

having an enlarged chamber above said plate, and a passage extending therefrom to the exterior thereof and provided with a nozzle having a rosette at the end thereof, a hollow glass valve for closing said passage, and yielding means for retaining said valve in position.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

FRANCK SONNENFELD.
JACOB GLASS.

Witnesses:

I. H. KONIGSBERG,
ROBERT POSNER.