

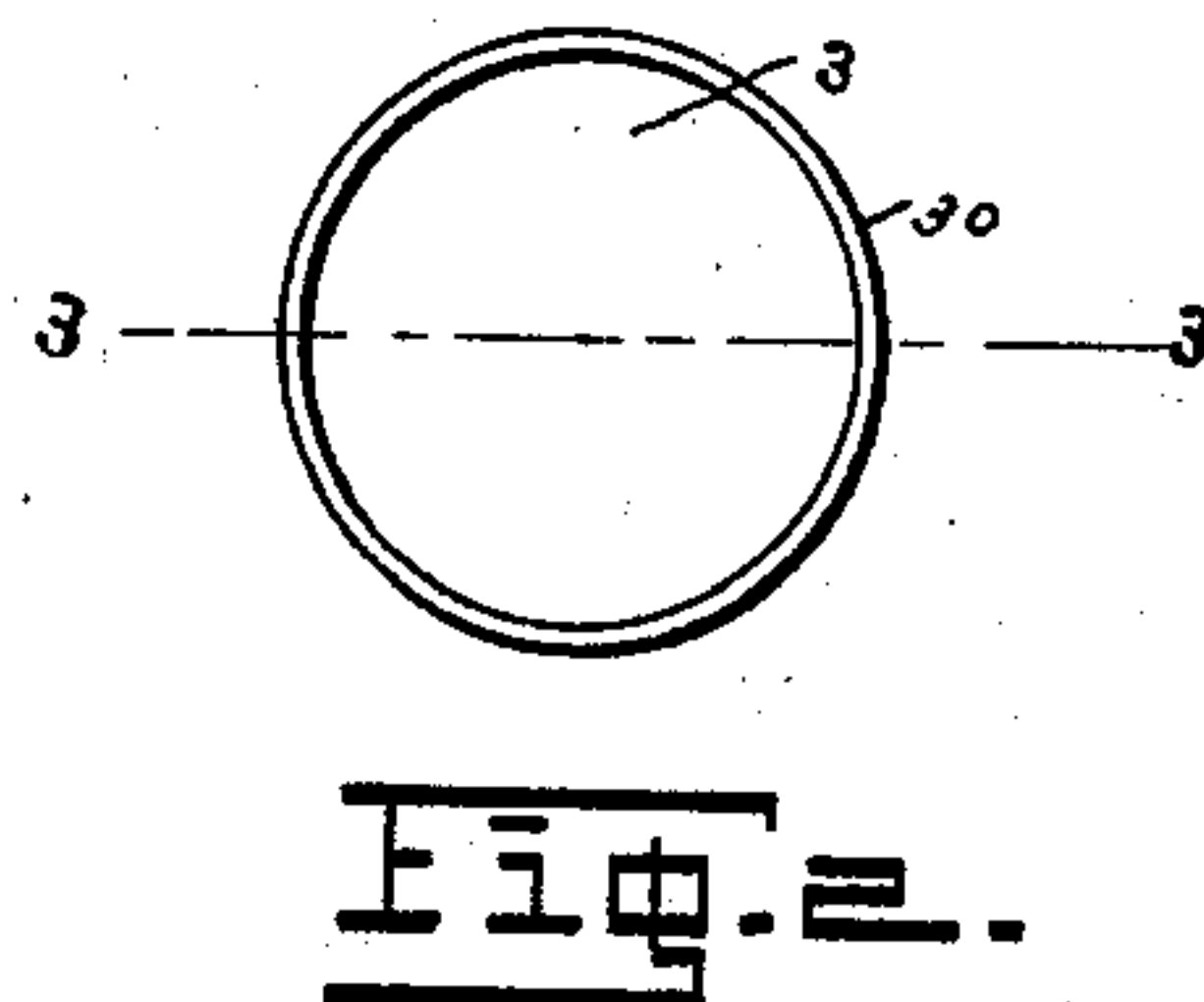
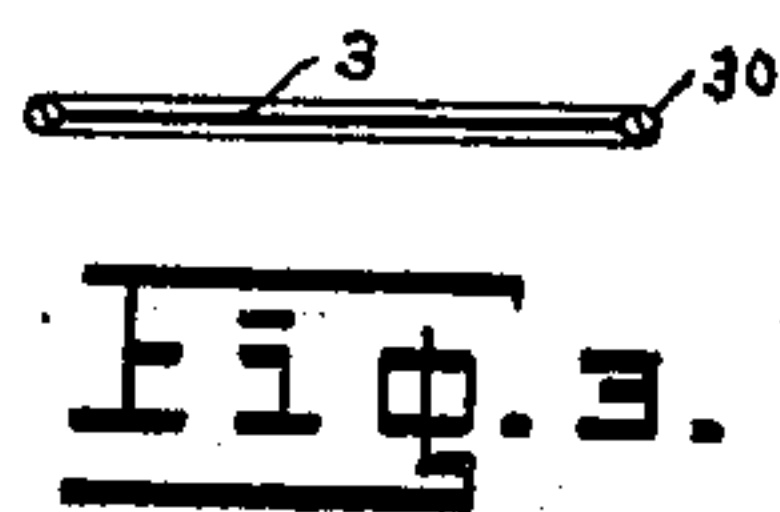
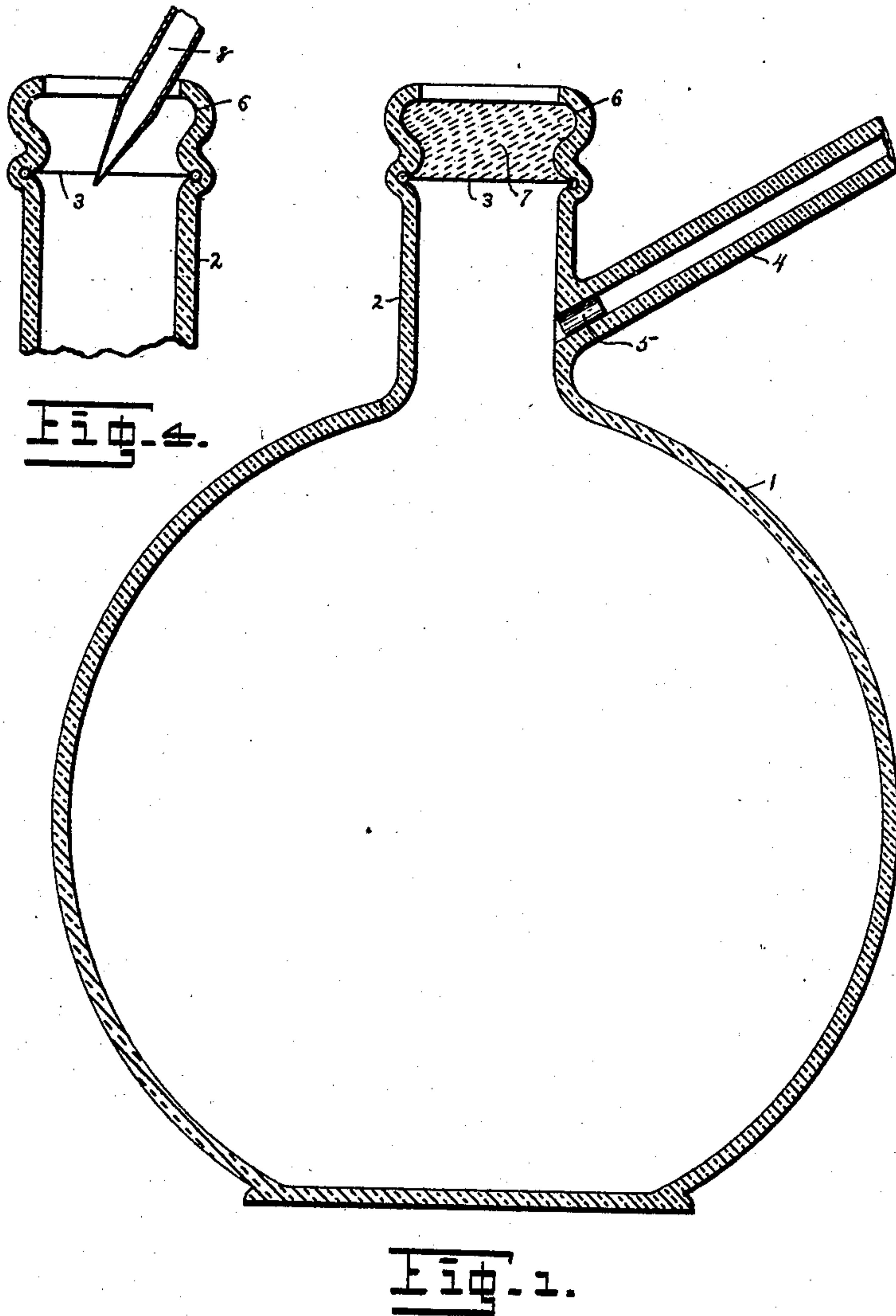
No. 698,241.

Patented Apr. 22, 1902.

T. S. BAILEY.
NON-REFILLABLE BOTTLE.

(Application filed Sept. 11, 1901.)

(No Model.)



WITNESSES
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UNITED STATES PATENT OFFICE.

THEODORUS S. BAILEY, OF ELIZABETH, NEW JERSEY.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 698,241, dated April 22, 1902.

Application filed September 11, 1901. Serial No. 75,088. (No model.)

To all whom it may concern:

Be it known that I, THEODORUS S. BAILEY, a citizen of the United States, residing at Elizabeth, in the county of Union and State of New Jersey, have invented a new and useful Improvement in Non-Refillable Bottles, of which the following is a specification.

This invention relates to non-refillable bottles, and has for its objects the production of a device of this character which is inexpensive in manufacture, simple and light in construction, and neat and attractive in appearance. These objects I attain in the structure shown in the accompanying drawings, in which—

Figure 1 is a longitudinal section taken through the center of the bottle. Fig. 2 is a plan view of the asbestos diaphragm which closes the neck of the bottle. Fig. 3 is a section through said diaphragm, taken on the line 3 3 of Fig. 2; and Fig. 4 is a sectional view of a modified form, showing the top of a bottle-neck having the diaphragm in position with the end of the filling-tube inserted therethrough.

Like reference characters designate corresponding parts throughout the several views of the drawings.

Owing to the common fraudulent practice of filling bottles bearing the name or label of reputable manufacturers with an inferior quality of liquids which are sold for the superior product of the manufacturer whose name the packages bear there has long been a demand for a bottle which is so changed in appearance or character by the necessary process of opening the same that its further use as an original package could be easily detected. The devices of this character which have been heretofore produced have been so expensive in manufacture and so heavy and cumbersome in use that they have not been extensively adopted. Moreover, the greater number of these bottles have been so constructed that the opening of the bottle resulted in its complete destruction, so that it could never be used for any purpose.

My invention aims to fulfil all the requirements of a successful non-refillable bottle and is so constructed that it may be used after having been once opened for holding any

liquid, although it cannot be used again as an original package.

In the drawings forming part of this application, 1 represents the main body, and 2 the neck, of a bottle having my invention applied thereto. While the glass of which the neck is composed is in either a liquid or plastic state I form or cast it about a thin diaphragm, of asbestos or other suitable refractory material, so that the diaphragm completely closes the neck of the bottle. This diaphragm, which is shown in Figs. 2 and 3 of the drawings, has a strengthening-rim 30 formed about its edge.

In order to fill the bottle, I provide the same at any convenient point below the diaphragm with a filling-tube 4, through which the liquid is introduced into the bottle, a small perforation having previously been made through the diaphragm to permit the escape of the air as the liquid enters. After the bottle is completely filled the tube 4 is preferably sealed by means of a blowpipe-flame, or it may be closed in any other suitable manner. In case the liquid in the bottle is so volatile as to render the use of the blowpipe-flame dangerous, the tube may be filled before sealing with a cork or asbestos plug, as shown at 5. After the bottle is filled that part of the neck above the diaphragm is filled with sealing-wax or paraffin, this part of the neck being curved inwardly, as shown at 6, to hold the wax more securely in place. This wax or paraffin, which is shown at 7, will adhere to the diaphragm, so that when the former is cut out of the neck the diaphragm will be destroyed.

The upper part of the neck of the bottle is substantially of the same diameter as the neck below the diaphragm, so that after the wax and the diaphragm have been removed the device may be used as an ordinary bottle by closing the neck with a cork or in any other suitable way.

Fig. 4 shows a modified form of filling device, which consists of a pointed tube 8, the point of which is inserted through the diaphragm, so that the liquid may be injected into the bottle beneath the same. It will be understood that when this means of filling is employed the tube 4 (shown in connection

with the bottle first described) is preferably omitted. After being filled in this manner the top of the neck above the diaphragm is sealed in the manner heretofore described.

5 While I have employed the term "bottle" exclusively in the claims, I desire it to be understood that I use this term in a generic sense, as the invention is also adapted to jugs or other forms of receptacles.

10 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A bottle having a neck, a disk of penetrable material cast into said neck when the
15 bottle is formed and before it is filled, the neck being left unobstructed below the disk, and sealing material covering the disk, said material being applied after the bottle is filled.

20 2. A bottle having a neck, an asbestos diaphragm cast into the neck when the bottle is

formed and before it is filled, the neck being unobstructed below the diaphragm so that the bottle may be filled through the latter, an inward curvature in the neck above the dia- 25 phragm, and sealing material between the diaphragm and curvature, for the purpose specified.

3. A bottle having a neck, a thin diaphragm of asbestos having a strengthening-rim on its outer edge cast into the neck when the bottle
30 is formed and before it is filled, means for filling the bottle with the diaphragm in position, and means for sealing over the diaphragm to close the bottle.

35 In testimony whereof I affix my signature in the presence of two witnesses.

THEODORUS S. BAILEY.

Witnesses:

W. H. RYAN,
FRED EINFELDT.