

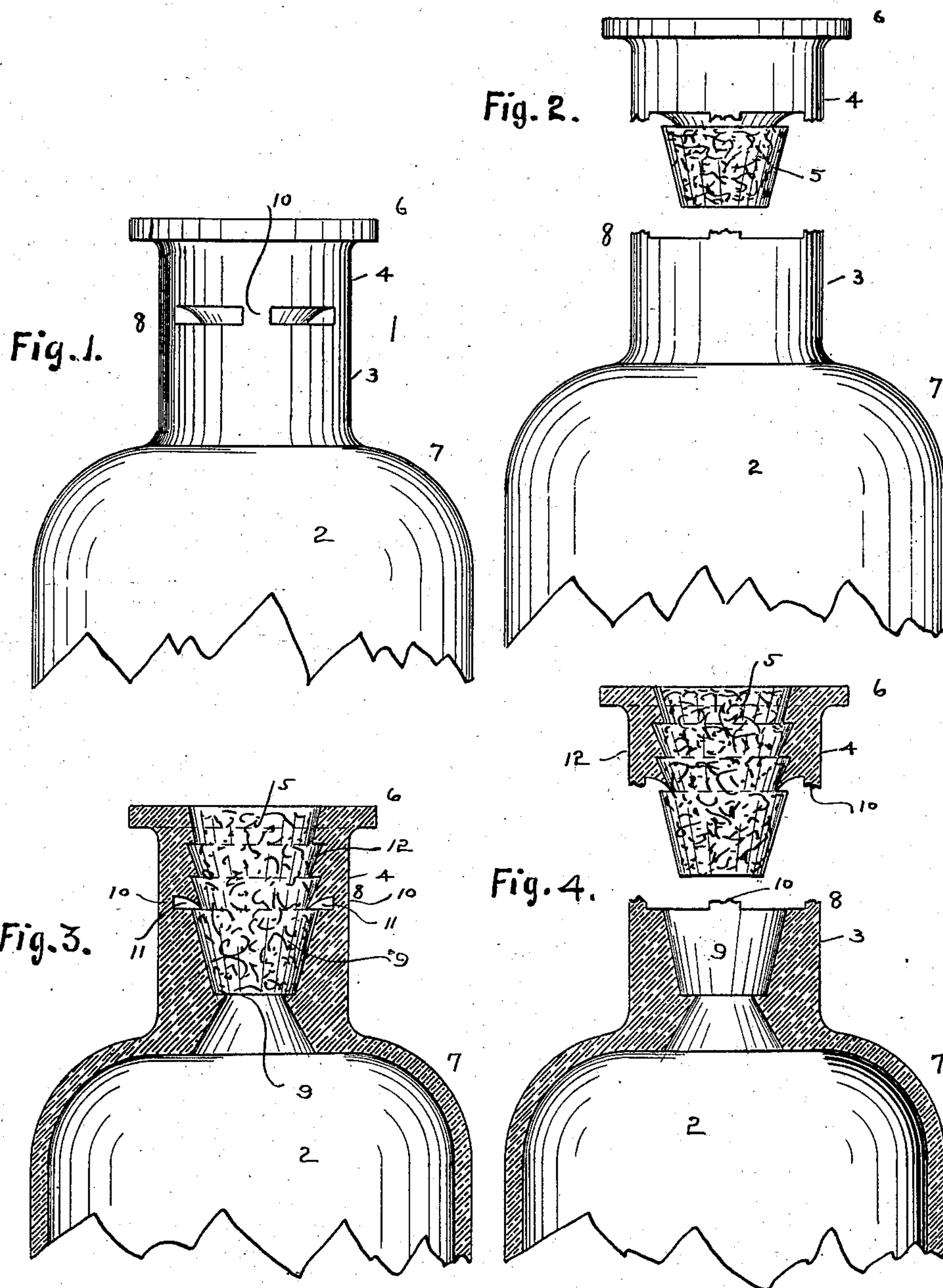
No. 702,000.

Patented June 10, 1902.

G. FERGUSON.
NON-REFILLABLE BOTTLE.

(Application filed May 4, 1901.)

(No Model.)



WITNESSES:

L. Duane,
M. M. Durkin.

INVENTOR
George Ferguson,
BY
J. R. Littell,
His ATTORNEY.

UNITED STATES PATENT OFFICE.

GEORGE FERGUSON, OF NEW YORK, N. Y.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 702,000, dated June 10, 1902.

Application filed May 4, 1901. Serial No. 58,694. (No model.)

To all whom it may concern:

Be it known that I, GEORGE FERGUSON, a subject of the King of Great Britain, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

This invention relates to non-refillable bottles; and it has for its object to provide an improved device of this class which shall be superior in point of simplicity, effectiveness in operation, and general efficiency.

In the drawings, Figure 1 is a side elevation of my improved non-refillable bottle. Fig. 2 is a similar view with the sealing member and stopper in detached position. Fig. 3 is a central vertical section of the improved bottle with the parts in the position shown in Fig. 1. Fig. 4 is a similar view with the parts in the position shown in Fig. 2.

Corresponding parts in all the figures are denoted by the same reference characters.

Referring to the drawings, 1 designates my improved non-refillable bottle, which comprises a body portion 2, provided with a neck portion 3, and a detachable sealing member 4, provided with a stopper 5. The body portion and neck portion may be of any desired type in the main; but in carrying out my invention I so form the neck portion that the upper part 6 thereof may be severed from the lower part 7 of the same at a predetermined line of severance, as at 8, to permit of opening the bottle. The bottle-stopper 5 is permanently secured to the upper part 6 of the neck portion and with the same constitutes the sealing member 4. The stopper 5 is received in a conical seat 9, which is formed in the lower part 7 of the neck portion.

In the preferred form of construction the upper and lower parts of the neck portion are connected by an annular series of spaced pillars 10, which are formed integral with both parts of the neck portion, being arranged in alternation with a plurality of openings 11. The stopper 5 is secured in place by means of a plurality of annular toothed corrugations 12, which are formed in the inner wall of the upper part 6 of the neck portion and embody downwardly-directed operative edges. In sealing the bottle the stopper is forced into

the neck portion until it rests at its lower end in the seat 9, which seat is formed beneath the plane of the top of the lower part of the neck portion. The stopper 5 is now prevented from extraction by the expansion of its component material into a locking engagement with the corrugations 12. The lower end portion of the upper part of the neck portion is formed with downwardly and inwardly inclined walls 13, and the pillars 10 are formed in the same plane of the neck portion as the inclined walls 13, whereby they are spaced from the same, permitting easy fracture of the pillars to sever the sealing member from the lower part of the neck portion.

The operation and advantages of my improved non-refillable bottle will be readily understood. The bottle is filled in the customary manner before insertion of the stopper 5, and the stopper is maintained positively against extraction by the corrugations 12. When it is desired to unseal the bottle, the pillars 10 are broken by any suitable implement, and the sealing member 4 and the stopper 5 may then be removed from the lower part of the neck portion. This removal of the sealing member withdraws the stopper from the seat 9 and permits of decanting the contents of the bottle in the customary manner. It will be noted that the bottle is tightly sealed by the stopper during the breaking of the pillars 10, and the entrance of any fragments thereof into the bottle is thus prevented, as these fragments may be brushed away before removing the sealing member and the stopper. When the pillars 10 have been once broken, the bottle cannot be again used in its original form, and hence it is impossible to refill and offer the same for sale as an original and genuine package. As the bottle is to all intents and purposes destroyed when opening the same, its non-refillable qualities are of the highest and most efficient type, the best of results for the purpose in view being obtained with the employment of structural features of extreme simplicity.

I do not desire to be understood as limiting myself to the details of construction and arrangement as herein described and illustrated, as it is manifest that variations and modifications may be made in the features of

construction and arrangement, in the adaptation of the device to various condition of use, without departing from the spirit and scope of my invention and improvements. I therefore reserve the right to all such variation and modification as properly fall within the scope of my invention and the terms of the following claims.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. An improved non-refillable bottle, comprising a body portion, a neck portion, and a stopper, said neck portion consisting of an upper part and a lower part, which are integrally connected in a line of severance, the lower part of said neck portion being formed into a seat for said stopper which latter is permanently connected with the upper part of said neck portion by means of a plurality of interior

corrugations formed in said upper part of said neck portion.

2. An improved non-refillable bottle, comprising a body portion, a neck portion and a stopper, said neck portion consisting of an upper part and a lower part integrally connected by a plurality of frangible pillars, the lower part of said neck portion being formed into a seat for said stopper which latter is permanently connected with the upper part of said neck portion by means of a plurality of interior annular toothed corrugations formed in said upper part of said neck portion.

In testimony whereof I have signed my name in the presence of the subscribing witnesses.

GEORGE FERGUSON.

Witnesses:

GEO. VAIL HUPPERTZ,
J. R. LITTELL.