

No. 669,254.

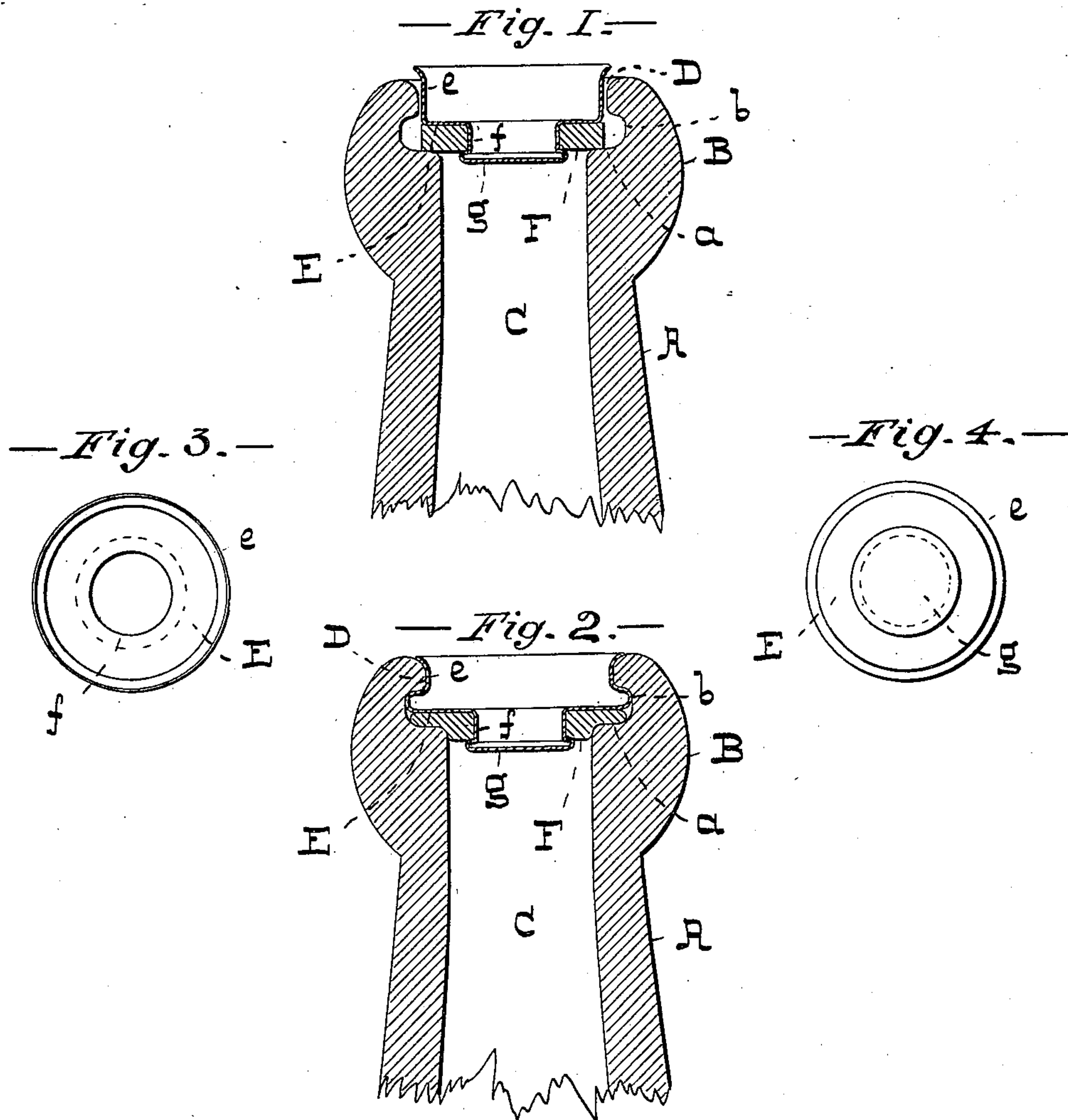
Patented Mar. 5, 1901.

H. T. GAY.

BOTTLE SEALING DEVICE.

(Application filed June 13, 1900. Renewed Jan. 18, 1901.)

(No Model.)



Witnesses:

M. Caudler.

Frank B. Chaplain.

Inventor:

Herman T. Gay.

by Chas. H. Howard,
att'y.

UNITED STATES PATENT OFFICE.

HERMAN T. GAY, OF BALTIMORE, MARYLAND, ASSIGNOR TO THE IDEAL STOPPER COMPANY, OF SAME PLACE.

BOTTLE-SEALING DEVICE.

SPECIFICATION forming part of Letters Patent No. 669,254, dated March 5, 1901.

Application filed June 13, 1900. Renewed January 18, 1901. Serial No. 43,759. (No model.)

To all whom it may concern:

Be it known that I, HERMAN T. GAY, of the city of Baltimore, in the State of Maryland, have invented certain Improvements in Bottle-Sealing Devices, of which the following is a specification.

This invention relates to certain improvements in the bottle-sealing device described and shown in Letters Patent No. 662,263, granted to me on the 20th day of November, 1900, to which reference should be made.

In the description of the said invention which follows reference is made to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a central vertical section of the upper part of a bottle and the improved sealing device which is shown as situated in the mouth of the bottle, but not secured therein. Fig. 2 is a view similar to Fig. 1, except that the sealing device is shown as secured in the bottle-mouth. Fig. 3 is a top view of the sealing device alone. Fig. 4 is an under side view of the same.

Referring now to the drawings, A is the neck of a bottle, and B the bottle-head.

C is the throat of the bottle, and D its mouth, which is somewhat larger in diameter than the throat in order to form the seat *a* for the expansible sealing disk or plug, hereinafter described.

Within the mouth of the bottle and situated immediately above the seat *a* is an annular groove *b*, into which the flange of the sealing-plug, hereinafter described, is expanded or distended to hold the sealing-disk in place.

The bottle as above described corresponds in all essential particulars with the one shown and described in the said Letters Patent.

The sealing-plug consists of a sheet-metal disk E, preferably of aluminium, because of the malleability and corrosion-resisting qualities of that metal, having an upturned flange *e*. The flanged disk has a diameter slightly less than that of the mouth of the bottle to admit of its being easily inserted therein, as shown in Fig. 1.

To the under side of the disk E is applied a joint-forming gasket F, of some compressible material, such as cork, which after the insertion of the sealing-plug in the bottle-mouth

rests on the seat *a*, as shown in Fig. 1. In order that the gasket F may be attached to the flanged disk E, the disk is provided with a central projection *f*, which is stamped or drawn from the disk, around which the annular cork gasket is placed. In the Letters Patent there is nothing shown or described to hold the annular cork gasket to the projection *f*, the union of the two elements of the sealing-plug being effected only by friction between them, the hole in the gasket being made slightly smaller than the projection. In the present invention I make the connection between the annular gasket and the holding projection *f* effective by forming on the latter immediately below the gasket a bead or hollow button *g*, over which the annular gasket is forced. This construction effectually prevents accidental dislocation of the two elements of the sealing device, and the complete sealing-plug may be handled and packed without the gasket becoming separated from the flanged disks. In the said Letters Patent the flange *e* of the disk E is shown as cylindrical and of such depth that when it is expanded it is entirely within the said groove. In the present invention I increase the depth of the flange *c* and flare its edge, as shown in Fig. 1. By this change in shape and depth of the flange the whole inner surface of the bottle-mouth and the inner lip is lined with the metal of the sealing device and gives a better appearance than where the inner lip of the bottle is exposed. The object in flaring the flange *c* of the disk E is to cause the said flange to conform closely to the shape of the inner lip of the bottle when pressure is applied to it in a downward direction in the sealing operation. It will be understood that, as in the device shown and described in the said Letters Patent, the expansion of the flange of the sealing-disk does not form the sealing-joint, but merely serves to hold the disk and the compressed gasket in place, the gasket forming a joint with the seat *a*.

I claim as my invention—

1. In combination with a bottle having in its mouth an annular groove, and a laterally-extending seat below the groove, a sealing device which consists of a sheet-metal disk with an upturned flange adapted to be ex-

panded circumferentially within the said annular groove and the part of the mouth above the groove, the said disk having a downwardly - extending projection stamped or
 5 drawn therefrom and provided with a button at its end which is integral therewith, and an annular compressible gasket which is sprung over the said button and made to rest upon the said projection between the under side
 10 of the disk and the button, substantially as specified.

2. A bottle-sealing device adapted for application to a bottle having an annular groove in its mouth and an annular seat situated
 15 immediately below the said groove, substantially as described, which consists of a sheet-metal disk with an upturned flange, and a projection formed on its under side by stamping or drawing having a button at its end,
 20 combined with a joint-forming annular gasket which is placed around the said projection and between the under side of the disk and the inner side of the button on the projection, substantially as specified.

25 3. A bottle-sealing device adapted for application to a bottle having an annular groove

in its mouth and an annular seat situated immediately below the said groove, which consists of a sheet-metal disk with an upturned flange which is flared at its edge, and
 30 a projection formed on its under side by stamping or drawing having a button at its end combined with a joint-forming annular gasket which is placed around the said projection and between the under side of the
 35 disk and the inner side of the button on the said projection, substantially as specified.

4. A bottle-sealing device adapted for application to a bottle substantially as described, which consists of a sheet-metal disk with an
 40 upturned flange and a projection formed on its under side by stamping or drawing having a button at its end formed by enlarging the diameter of the said projection, combined with a joint-forming annular gasket which is
 45 sprung over the button and onto the projection between the button and the under side of the disk, substantially as specified.

HERMAN T. GAY.

Witnesses:

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