

(No Model.)

G. KOEHLER.
BOTTLE STOPPER.

No. 571,949.

Patented Nov. 24, 1896.

Fig. 1.

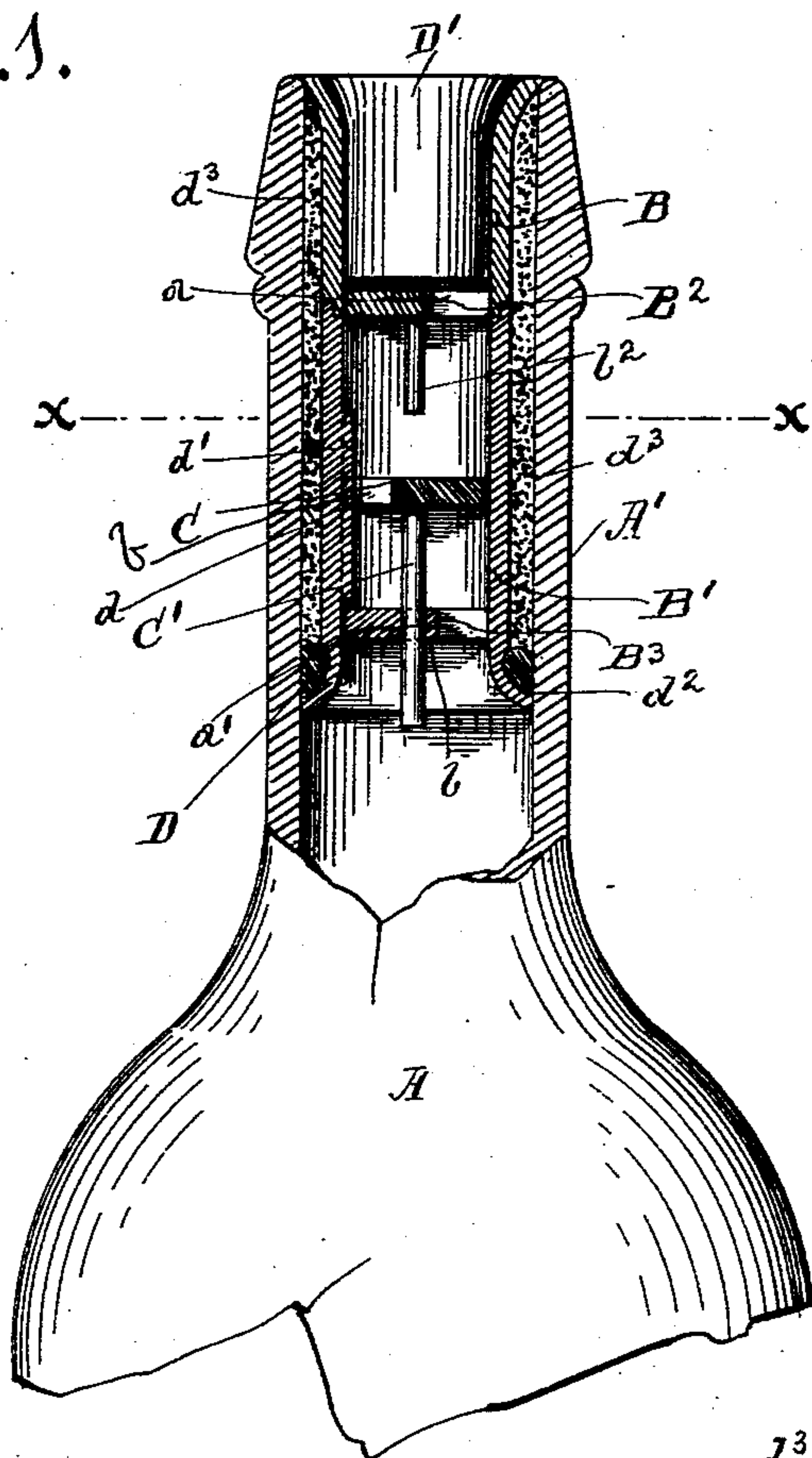


Fig. 2.

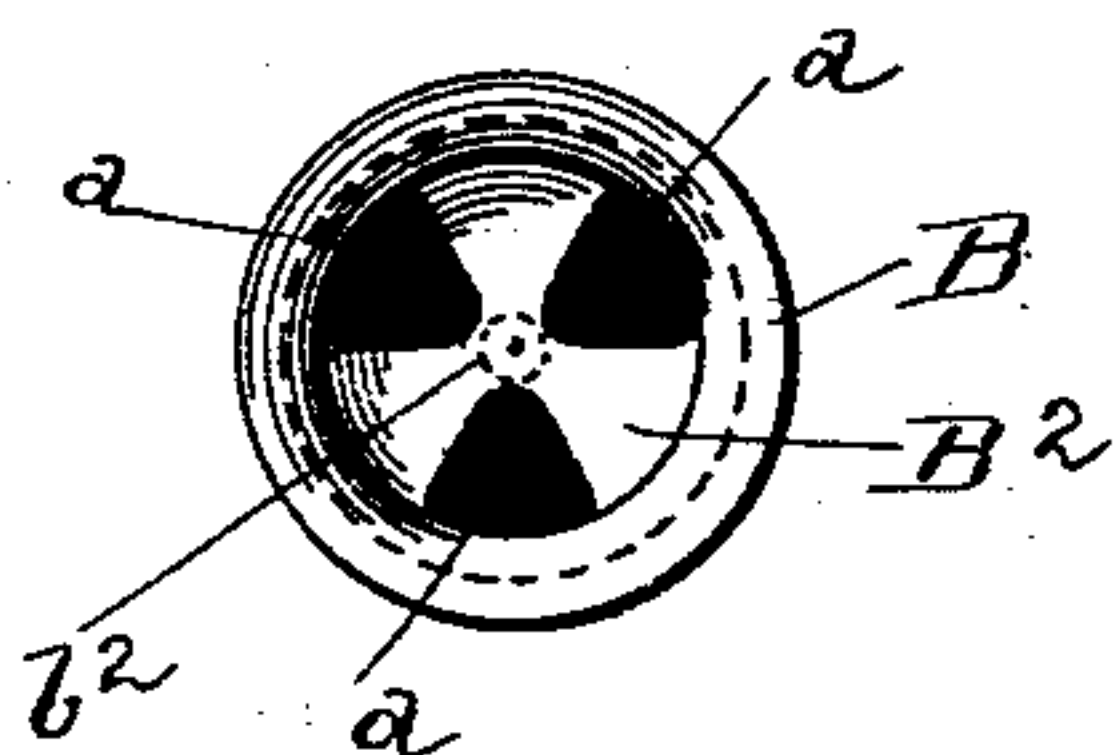
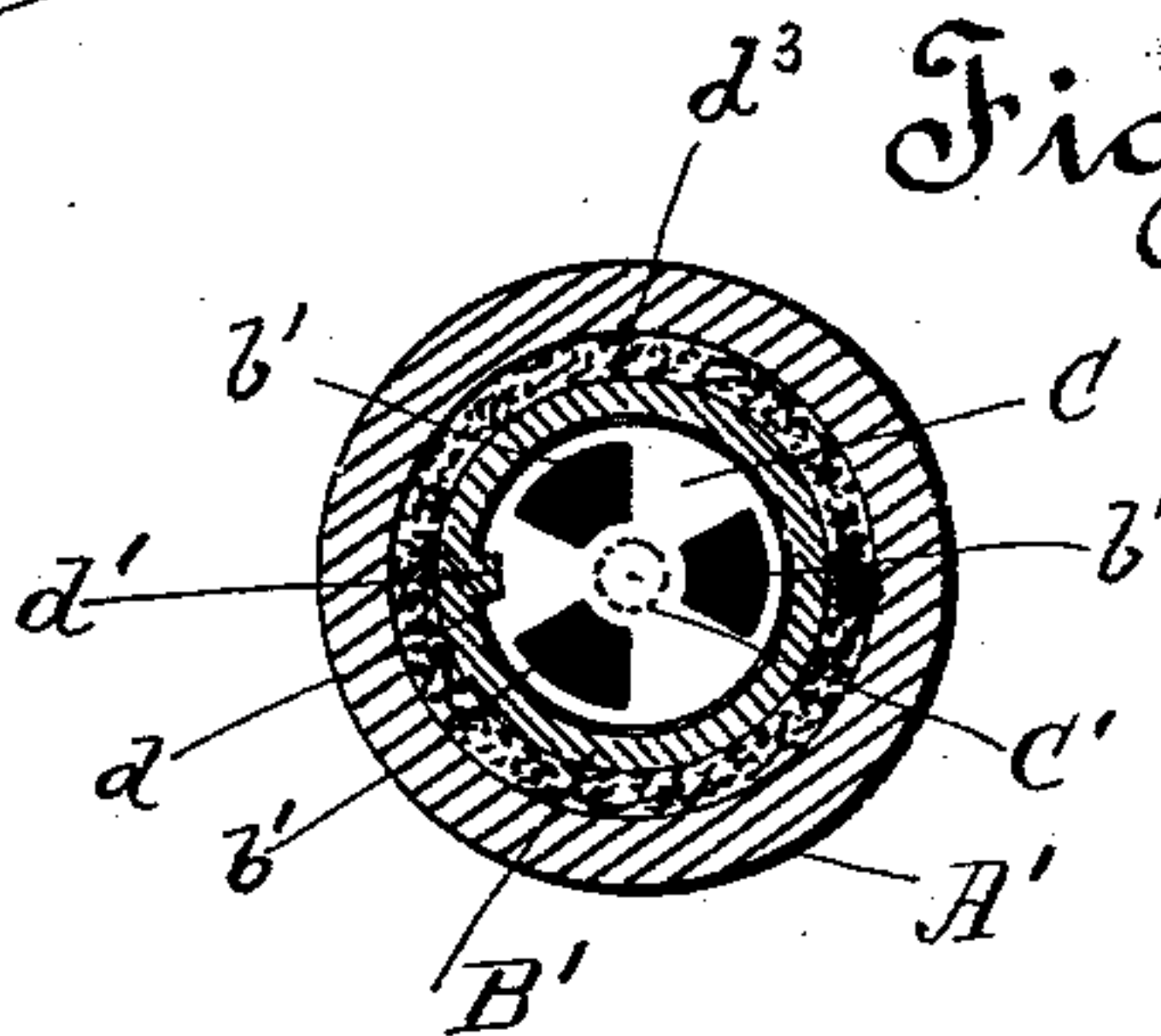


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

GOTTHARD KOEHLER, OF SAN FRANCISCO, CALIFORNIA.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 571,949, dated November 24, 1896.

Application filed April 8, 1896. Serial No. 586,707. (No model.)

To all whom it may concern:

Be it known that I, GOTTHARD KOEHLER, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Bottle-Stoppers; and I do hereby declare that the following is a full, clear, and exact description thereof.

This invention relates to a certain new and useful bottle-stopper which has for its object to provide a stopper which shall effectually close or seal the bottle and prevent the opening of the seal for the purpose of refilling the bottle with a spurious article; and it consists in the arrangement of parts and details of construction, as will be hereinafter fully set forth in the drawings, and described and pointed out in the specification.

The invention is more especially designed for the use of the manufacturers of or the dealers in special brands or high grades of liquor, bitters, &c., so as to enable them to place their goods upon the market and guard against their bottles being refilled with an imitation of their special brand of liquors, &c., after the original article or contents of the bottle has been removed.

In order to more fully understand my invention, reference must be had to the accompanying sheet of drawings, forming a part of this application, wherein—

Figure 1 is a sectional front view in elevation of the stopper in the bottle, showing the bottle partly broken away. Fig. 2 is a top plan view of the stopper; and Fig. 3 is a top plan cross-sectional view on line xx , Fig. 1.

In the drawings, the letter A is used to indicate the bottle proper, and A' is used to indicate the neck thereof. The stopper, which is designed to fit within the neck of the bottle, is constructed of glass and is made of two sections B and B', the upper section B being secured to the lower section through the medium of cement.

Section B of the stopper is formed with the diaphragm or plate B², which diaphragm or plate is provided with a series of outlet-openings a , the lower section B' of the stopper being formed with the diaphragm or plate B³,

which diaphragm or plate is provided with the escape-openings a' , which register with the openings a in the upper diaphragm.

Within the lower section B' is located the disk valve C, the stem C' of which extends through the central opening b in the diaphragm or plate B³, Fig. 1. This disk valve, when the sections B B' are united, plays or works between the diaphragms or plates B² B³. The disk valve C has a series of openings b' therein, which openings, when the valve is in position, are in line with the solid portions of the diaphragms B² B³. This valve, when lowered, closes the openings in the diaphragm B³ of the lower section of the stopper.

From the diaphragm B' downwardly projects the rod b^2 , which limits the movement of and prevents the disk valve, when the bottle is turned to open the same, from coming into contact with the upper diaphragm or plate and closing the outlet-openings thereof.

In the edge of the disk valve is cut the groove or socket d , within which fits the feather or vertical key d' , formed in the lower section B' of the stopper. This key or feather, fitting within the groove or socket of the disk valve, holds the said valve in position and prevents the same being rotated or turned within the lower section of the stopper, so as to uncover the openings of the lower diaphragm B³.

In the lower outer end of the section B' of the stopper is formed the circular groove d^2 , within which is secured the rubber packing ring or washer D.

After the bottle has been filled with liquor, &c., the stopper, with its sections cemented together, is fitted within the neck of the bottle, the rubber packing ring or washer bearing tightly against the inner face of the bottle's neck, Fig. 1. The space d^3 left or existing between the outer wall of the stopper and the inner wall of the neck of the bottle is then filled with cement, so as to fasten the stopper permanently within the neck of the bottle, the rubber packing ring or washer preventing the cement from flowing within the body of the bottle.

The upper edge of the section B is flanged,

so as to cover the edge of the neck of the bottle, and from the diaphragm B² the section B is gradually inclined upwardly.

After the stopper is placed and secured
5 within the neck of the bottle the bottle is sealed by forcing a cork D' within the upper portion of the section B.

In order to remove the contents of the bottle, the cork D' must first be removed. If the
10 bottle is then turned over, the disk valve will move outward, so as to uncover the openings of the diaphragm B³, and the liquor will flow outward through the openings a' in said diaphragm, openings b' in the disk valve, and
15 finally escape through the openings a in the diaphragm B'. As the bottle is raised into a vertical position the disk valve moves downward, so as to seat itself upon the diaphragm B³ and close the outlet-openings a' therein.
20 When the bottle remains in this position, it will be impossible to force liquor into the bottle.

Having thus described my invention, what

I claim as new, and desire to secure protection in by Letters Patent, is—

In a bottle-stopper, for the purpose specified, the combination with the upper and the lower sections united together, of a perforated diaphragm located in each section of the stopper, a perforated valve movably secured between the said diaphragms, the stem of which
30 valve projects through the diaphragm of the lower section, a feather or key secured within the lower section which fits within a socket or groove cut in the edge of the valve so as
35 to prevent the valve being turned or rotated, and a rod depending from the diaphragm of the upper section so as to limit the outward movement of the valve.

In testimony whereof I affix my signature,
40 in presence of two witnesses, this 20th day of March, 1896.

GOTTHARD KOEHLER.

Witnesses:

N. A. ACKER,
LEE D. CRAIG.