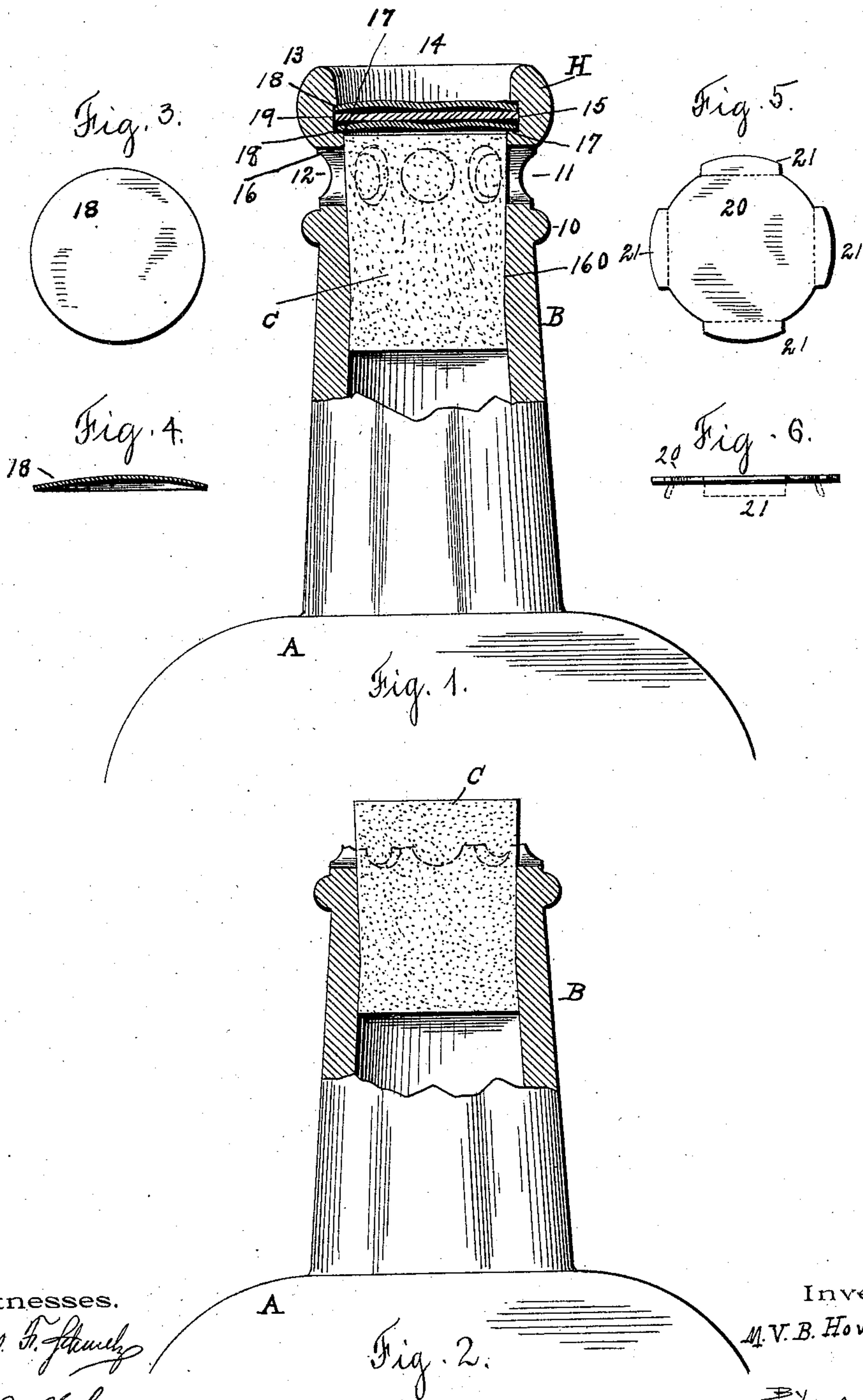


(No Model.)

M. VAN B. HOWE.
BREAKABLE BOTTLE.

No. 575,605.

Patented Jan. 19, 1897.



Witnesses.

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UNITED STATES PATENT OFFICE.

MARTIN VAN BUREN HOWE, OF GARDNER, MASSACHUSETTS.

BREAKABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 575,605, dated January 19, 1897.

Application filed December 30, 1895. Serial No. 573,713. (No model.)

To all whom it may concern:

Be it known that I, MARTIN VAN BUREN HOWE, a citizen of the United States, residing at Gardner, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Breakable Bottles, of which the following is a specification.

The aim of this invention is to provide a non-fillable bottle of such construction that the same has to be so broken or mutilated to withdraw the contents as to render it impossible to restore the same to its original condition.

My invention is especially designed as a bottle for containing high-grade liquors.

A great deal of fraud takes place in connection with the ordinary bottles containing high-priced liquors.

Persons obtain the ordinary bottles containing high-priced liquors and draw off the contents thereof and refill the bottles with liquor of inferior grade, or draw off part of the contents and dilute the original liquor with liquor of inferior grade; or, again, persons may buy up bottles that have once been used and fill them up with liquors of inferior grades and then so fix the bottles as to give them the appearance of never having been used. By these practices inferior liquors are palmed off as the original high-priced liquors which the bottles originally contained, the bottles readily selling on account of the trade-marks and stamps which are attached thereto.

By the use of my invention a bottle is provided so that after the same is once filled and prepared the bottle has to be so mutilated to withdraw any part of the contents that the same cannot be restored to its original condition and these practices carried out.

A bottle constructed according to my invention consists of a glass bottle provided with a head fragilely connected to the neck thereof. The stopper or cork for the bottle is driven through the head down into the neck of the bottle. A groove is formed in the inside of said head and one or more metallic washers are snapped into this groove. The disks when snapped into position fit loosely in the groove, and these disks will also take the place of the ordinary wires and prevent the cork being

forced out by fermentation or internal pressure. I also preferably use a plurality of disks, one or more of them being made of hardened steel. This and the fact that the disks will readily rotate in said groove will prevent the same being drilled through to obtain access to the cork.

To withdraw the contents of a bottle constructed according to my invention, the head is knocked off at its fragile joint. This will give access to the stopper or cork, so that the same may be withdrawn and the contents of the bottle used, but will prevent the bottle being restored to its normal or original condition, and thus will prevent the fraudulent practice before referred to.

I have shown in the accompanying drawings the best mode now known to me for applying the principle of my invention.

Referring to said drawings, Figure 1 is an elevation, partly in section, illustrating a bottle constructed according to my invention. Fig. 2 is a similar view illustrating the bottle after the head has been removed. Figs. 3 and 4 are a plan and sectional elevation of the preferred form of disk as originally prepared, and Figs. 5 and 6 are similar views of a modified form of disk.

Referring to said drawings and in detail, A represents a glass bottle of suitable shape, which is provided with a suitable neck B, and near the top of the neck the bottle is provided with a reinforcing-rib 10.

H represents a head which is formed integrally with the neck of the bottle, and is connected thereto by a fragile joint, which, in the preferred form of my invention, consists of a joint in which a number of holes are formed, the connection between the head H and the neck B being the glass left between the holes, and the bottle is grooved, as at 12, around these holes. Other fragile connections between the head and neck may be devised. By this construction the head H can be easily knocked off from the neck B, the reinforcing-rib 10 preventing cracks running down into the neck. The top of the head is provided with a flaring portion 13, having a mouth 14 made larger than the hole 16 through the remaining portion of the head.

An annular groove 15 is formed on the inside of the head H, between the mouth 14 and the hole 16, and the bottom of the groove will thus have a shoulder 17, which is smaller than the mouth 14.

The hole 16 in the neck B of the bottle, into which the stopper or cork C fits, is made somewhat smaller than either the mouth 14 or the hole 16.

When a cork is driven into its proper position in the neck of the bottle, the fragile connection between the head of the bottle and the neck will be located some distance below the top of the cork.

With a bottle made according to this construction the way the same is used is as follows: The bottle is first filled. Then the cork or stopper C is forced down into the neck B, if desired, a suitable plunger or press being used for this purpose. Then the disk 18 is snapped into the groove 15. The disk is made dish-shaped or crowned, as shown in Fig. 4, so that the same will drop down through the mouth 14 and strike on the shoulder 17, and so that when in position by pushing down on the middle of said disk by suitable tools the same will be expanded or forced to fit into the groove 15. A disk of hardened steel 19, of just about the diameter of the mouth 14, is then dropped on the lower disk 18, and then another disk 18 is snapped into position on top of the steel disk 19. The top disk 18 may have a monogram or trade-mark stamped thereon, if desired. These disks when in position will hold the cork in place in the neck and thus prevent fermentation or internal pressure forcing the cork out, and thus perform the function of the ordinary wires, which may thus be omitted. The cork is only forced into the neck far enough, so that when the disks are placed in position the same will bear, or come very near bearing, on top of the cork. When the bottle is filled and sealed in this manner, it is an impossibility to get at the cork C to withdraw the same, because it is impossible to get at the disks to pry the same out of the bottle, and it is impossible to drill through the same to get at the stopper or to get a tool through the disks to remove the same. If drilling is attempted, the disks will rotate in the groove, and the hardened-steel disk 17 will prevent the drill from passing through the disks. If it is attempted to broach or drive a hole through the disks, the fragile joint between the head H and the neck B will in all probability be broken.

I contemplate using in some instances only one disk in the groove.

To withdraw the contents of the bottle, as before stated, the head H is knocked off, which can be done with a slight blow. This gives access to the stopper C, so that the same can be readily pulled out to withdraw the contents of the bottle, but after the head H has once been knocked off the neck of the bottle

it is impossible to restore the bottle to its original condition.

By locating the fragile connection between the head and the neck of the bottle some distance below the top of the cork when the same is in its normal position I have found in practice that when the head H is knocked off in some cases the cork will be carried by and adhere to the head, so that it will be withdrawn automatically when the head is knocked off. If the cork does not remain fixed in the head, so as to be withdrawn therewith, it will then be left so that it protrudes a sufficient distance, as illustrated in Fig. 2, so that it can be readily withdrawn by hand without the use of a corkscrew or other instrument.

In Figs. 4 and 5 I have shown a modified form of the expansible disk. The disk in this modification consists of a body portion 20, a number of lips 21, (four, as shown,) which are beveled, so that when the disk is forced into the grooves the lips will be forced out, so that the same will be expanded into position. The disks may be formed with as many lips as desired. If this construction is used, the preferred way is to make the lip of the disk 20 very close to the lip of the mouth 14, so that when the disk 20 is in place a tool cannot be placed under the same.

It will be seen that a bottle constructed according to my invention presents a very neat and attractive appearance and is so constructed that the ordinary labels and seals may be also used on the same, if desired.

The details herein shown and described may be greatly varied by a skilled mechanic without departing from the scope of my invention as expressed in the claims.

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

1. In a device of the class described, the combination of a glass bottle, a head fragilely connected to said bottle, a cork fitting both into the head and neck of the bottle so that the fragile connection will be located below the top of the cork, and a plurality of metallic retaining-disks sprung into position above said cork, said disks being of different hardness so as to prevent the same from being drilled out, substantially as described.

2. A glass bottle provided with a head fragilely connected to the neck thereof, a groove formed in the inside of said head, a metallic disk sprung into said groove, a steel disk laid on said metallic disk, and another metallic disk sprung into said groove on top of the steel disk, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

MARTIN VAN BUREN HOWE.

Witnesses:

LOUIS W. SOUTHGATE,
E. M. HEALY.