No. 755,623. PATENTED MAR. 29, 1904.

K. H. CRESSMAN.

BOTTLE CLOSURE.

APPLICATION FILED JUNE 3, 1903.

NO MODEL.

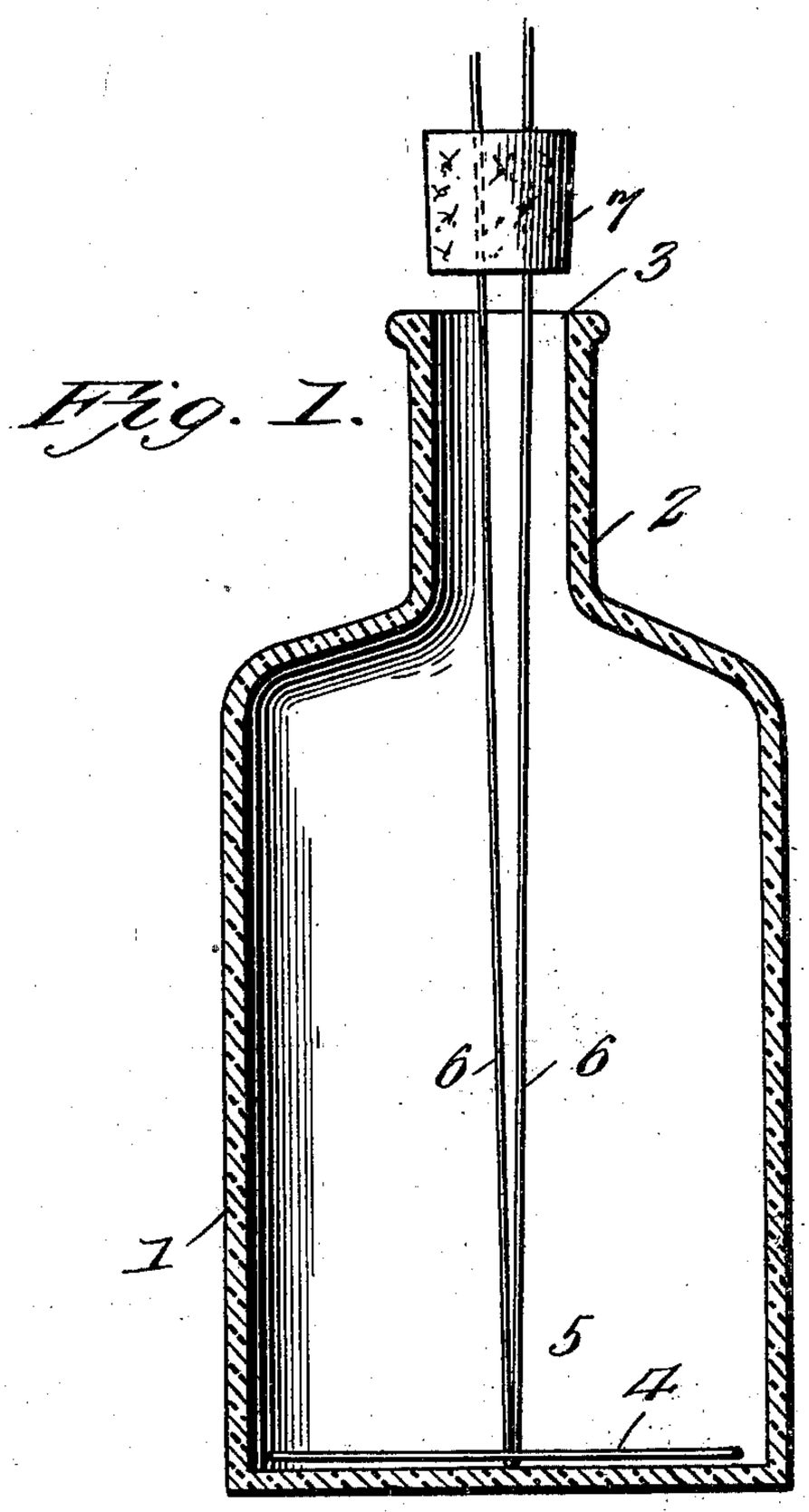

Fig. 1.

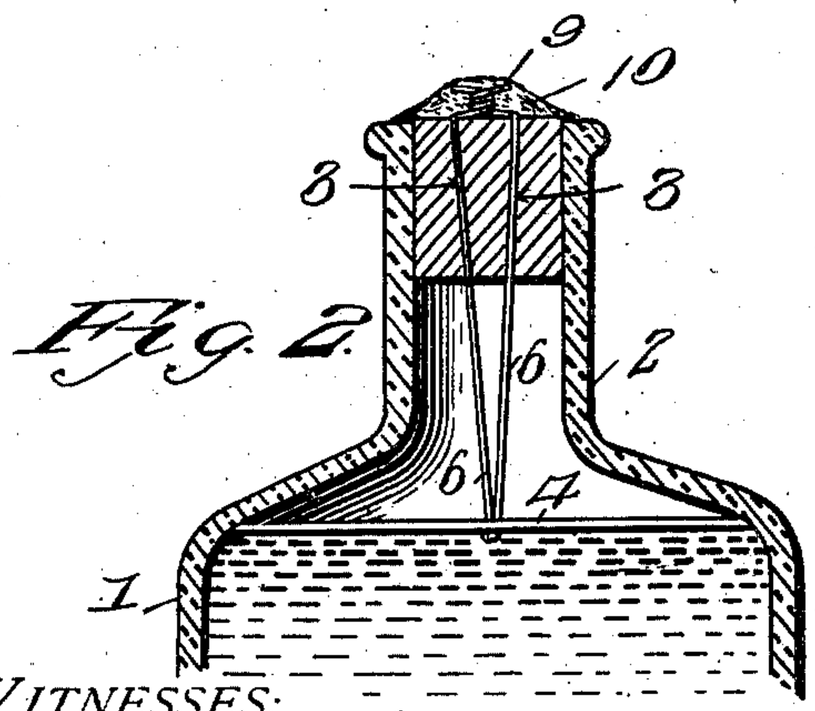

Fig. 2.

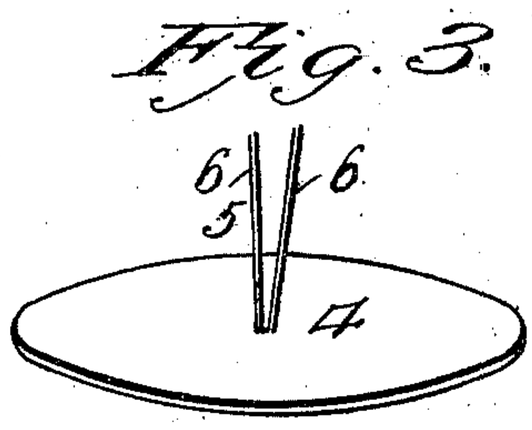

Fig. 3.

WITNESSES:

Wm. Keith.

Chas. S. Hoyer.

K. H. Cressman, INVENTOR

BY

Victor J. Evans Attorney

No. 755,623. Patented March 29, 1904.

UNITED STATES PATENT OFFICE.

KRAUTH H. CRESSMAN, OF NAPER, NEBRASKA, ASSIGNOR OF ONE-TENTH TO CHARLES F. ZIMMERMAN, OF NAPER, NEBRASKA.

BOTTLE-CLOSURE.

SPECIFICATION forming part of Letters Patent No. 755,623, dated March 29, 1904.

Application filed June 3, 1903. Serial No. 159,952. (No model.)

To all whom it may concern:

Be it known that I, KRAUTH H. CRESSMAN, a citizen of the United States, residing at Naper, in the county of Boyd and State of Nebraska, have invented new and useful Improvements in Bottle-Closures, of which the following is a specification.

This invention relates to closures for bottles and the like; and the object of the same is to provide means whereby the public may be able to detect when the contents of the original package are being dispensed and avoid fraudulent substitution of some liquid in the same bottle other than that designated thereon as being the product prepared or bottled by a certain firm that may be designated on the exterior of the bottle, and thus reliably inform the purchaser or user that he is obtaining the quality of goods desired.

The invention consists in the construction and arrangement of the several parts hereinafter more fully described and claimed.

In the drawings, Figure 1 is a vertical transverse section of a bottle embodying the features of the invention as they appear before the parts of the closure are assembled in normal positions. Fig. 2 is a vertical transverse section of the upper portion of a bottle, showing the parts of the closure fully assembled in normal position. Fig. 3 is a detail perspective view of a detector-disk forming part of the invention.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates a bottle or receptacle of an analogous nature having a neck 2 and a mouth 3, adapted to receive a stopper. The form of the bottle or other receptacle 1 is not essential and may be varied at will, and the parts of the closure may also be varied in proportions and dimensions to accommodate various applications without departing from the spirit of the invention.

The closure comprises a glass plate or detector 4 of disk form, having a doubled wire 5 centrally secured thereto to produce two strands 6 primarily of such length as to project some distance beyond the mouth 3 of the neck 2. The disk 4 and wire 5 are inserted in the bottle before the neck 2 is completed or previous to the reduction of the upper part of the body to shape the neck during the blowing operation. After the bottle is completed and the detector and wire arranged as shown by Fig. 1 an ordinary cork stopper 7 is formed, with two openings 8 extending longitudinally thereof, and through said openings the strands 6 are threaded, this operation being carried on subsequently to the filling of the bottle with the liquid intended to be stored therein. After the bottle is filled with the liquid and the stopper 7 applied to the wire strands 6 as shown by Fig. 1 the said strands are drawn through the stopper until the disk is positioned on the upper surface of the liquid, as clearly shown by Fig. 2, and the stopper is then forced downwardly into the neck and the wire strands twisted over the top thereof, as at 9. A covering of wax, soft solder, or other suitable material 10 is secured over the twisted-wire terminals, the stopper, and the upper edge of the bottle-neck. When the parts of the closure are in this position, it will be seen that attempts to dispense the contents of the bottle by irregular methods will be frustrated by the position of the disk, which has its periphery snugly held against the inner wall of the bottle-body above the level of the liquid, and in order to withdraw the stopper 7 it is necessary to sever the wire terminals, which may be accomplished by the usual wire-cutting knife or hook provided for this purpose and usually combined with corkscrews. As soon as the wire terminals are broken and the stopper 7 withdrawn the disk or detector 4 will gradually sink through the liquid until it reaches the bottom of the bottle-body. The contents of the bottle may then be poured out, as in ordinary methods of dispensing liquids from bottles; but any attempt to refill the bottle with a liquid other than that it is designed to contain and dispose the detector in normal position will be obstructed, in view of the fact that the wire strands cannot be so positioned as to again thread them through a stopper and a purchaser or user acquainted with the original package embodying the closure set forth

will immediately become apprised of the fraudulent character or substitution of a liquid other than that which the bottle should contain. It will be seen that the detector will not become injured when released and during the time that it sinks through the liquid in the bottle, as such liquid will cause the descent thereof to be gradual. After the bottle is emptied an effort to position it in normal position to effect a nefarious substitution would also be obstructed, as the said detector is quite thin and would become fractured, and thereby provide a further means of informing the purchaser or user that an attempt, at least, had been made to refill the bottle after the original contents had been completely used.

The improved bottle-closure will be found exceptionally reliable, and it will be observed that the expensive constructions ordinarily employed in connection with bottles to adapt them to different kinds of detecting-closures are entirely avoided.

Having thus fully described the invention, what is claimed as new is—

The combination with a bottle, of a closure therefor comprising a thin frangible disk within the same, a wire doubled and looped through the center thereof, producing two strands extending therefrom, and a stopper through which the strands are threaded at a distance apart, the strands being twisted together upon the outer end of the stopper.

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

KRAUTH H. CRESSMAN.

Witnesses:

J. M. SMALL,

ADAM SCHEUEFELD.