## J. I. FLANAGEN. CORK STOPPER.

No. 171,606.

Patented Dec. 28, 1875.

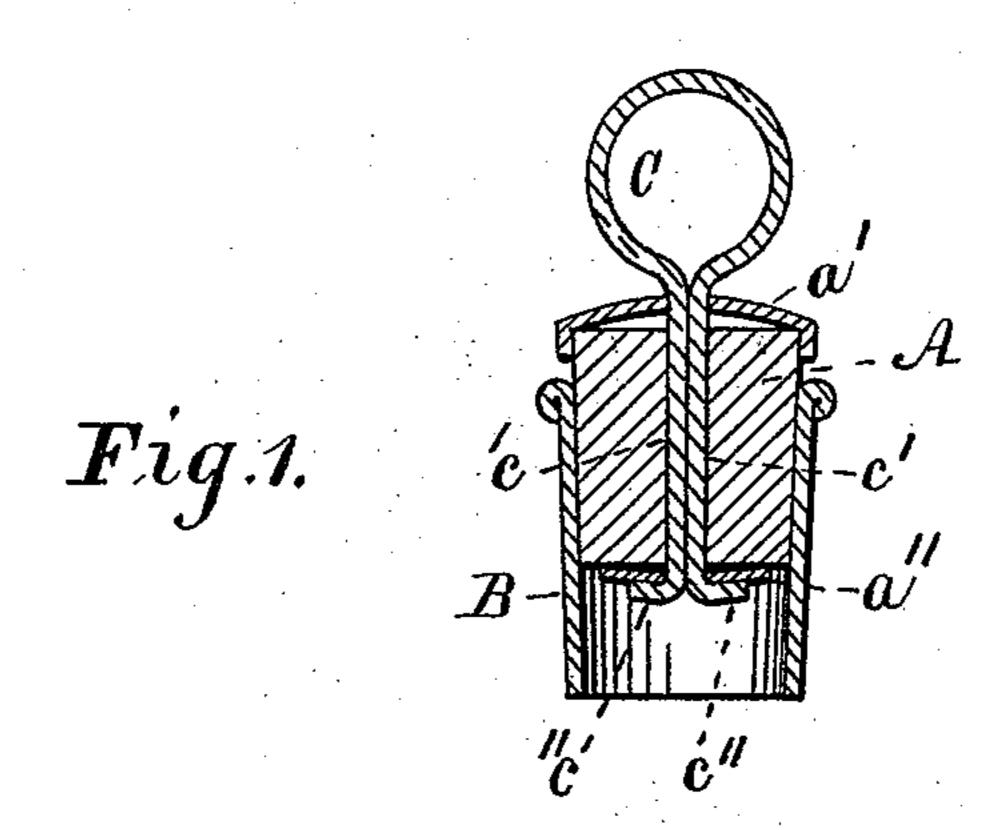
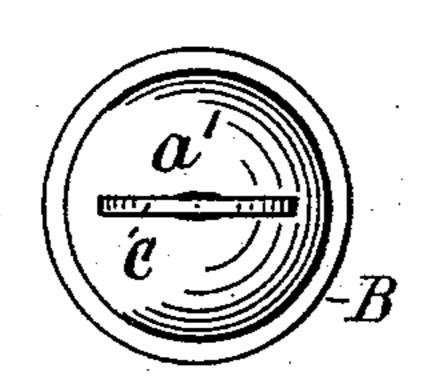


Fig.2.



Witnesses:
Benj Primson
Un: H. Morison.

Inventor: James J. Hanagen.

## United States Patent Office,

JAMES I. FLANAGEN, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN CORK STOPPERS.

Specification forming part of Letters Patent No. 171,606, dated December 28, 1875; application filed November 30, 1875.

To all whom it may concern:

Be it known that I, JAMES I. FLANAGEN, of the city of Philadelphia, in the State of Pennsylvania, have invented an Improvement in Cork Stopples, of which the following is a specification:

The object of my improvement is to produce a more secure and reliable connection of the wire pull-loop with the usual cork stopple for bottles and sheet-metal vessels provided with nozzles.

The mode in common use whereby the wire pull-loop is secured to the cork consists in soldering the shank or stem of the loop (which is passed longitudinally through the center of the cork) fast to the sheet-metal disks at the two ends of the cork body of the stopple, and the said shank or stem being straight, there is not anything to prevent the stem from being pulled out of the cork body in the effort to withdraw the latter from the nozzle, except | inserted, as described, the two projecting ends the solder whereby the inner end of the shank is attached to the inner disk of sheet metal, and, consequently, if the cork has been strongly inserted in the nozzle, or has become cemented therein by a slight leaking of the contents of the vessel, a very trifling pull upon the shank will detach the latter from the said inner disk of sheet metal, and leave the cork fast in the nozzle.

There are thousands of such nozzle-corked vessels used by miners and other laborers for liquid lunch—as coffee, tea, &c.—and hence a ready access at the proper time is always desired.

The object of my invention is to afford a perfectly secure and reliable connection of the shank of the wire pull-loop with the sheetmetal disk at the inner end of the cork stopple, and this without increasing the cost of construction, as will be more fully and clearly described herein, with reference to the accompanying drawing, in which—

Figure 1 is a vertical central section of a nozzle having my improved stopple inserted therein, and Fig. 2 a plan view of the outer end of said stopple.

The body A of the stopple consists of the ordinary cork-wood, adapted in form to fit

the nozzle B, and provided with a sheet-metal cap, a', fitted over the upper or larger end of the cork A, and a sheet-metal disk, a'', of somewhat lesser diameter than the lower or lesser end of the cork A, adapted to fit against the said smaller end, each of said end pieces being also perforated in its center for the introduction of the shank of the wire pull-loop C, substantially in the usual manner.

The wire pull-loop C in this improvement is made with a double shank, c' c', consisting of two straight portions of the wire extending from the loop in close parallel relation to each other, and of sufficient lengths to extend about a quarter of an inch beyond the smaller or inner end of the cork A, when the same are inserted together through the central hole in the cap a' in the cork A, and in the disk a'', as represented in Fig. 1.

After the said double shank c' c' has been are turned or bent firmly over in opposite directions, into close contact with the outer side of the disk a'', as represented in the same figure, thus securing the wire pull-loop C and the cork A together with such stability that they cannot be separated by any one pulling on the loop C in withdrawing the stopple.

There is not any increase in the cost of this construction over the old mode, in which a single wire is used for the shank, and the same secured in the cork by means of solder, as before explained; and, besides, the use of solder is not required in my structure, and therefore the latter is by so much less costly than the former; and as the firm of which I am a member produces about three hundred gross of my said stopples per year, the saving in solder is a matter of importance in the cost for the year.

I am aware that a wire stem has been embedded in vulcanized gum, as in the patent of Alexander, No. 79,536, dated July 7, 1868, for the like purpose; but as the material of the body of such a stopple is too costly for ordinary or common use, a stopple having its body made of the ordinary or well-known bark of "cork-wood," combined with a wire stem, bent and secured in said body in the manner

herein shown and described, is new and useful, and, moreover, much less costly than the vulcanized gum stopple referred to above.

I claim as my invention—

The stopple A, the same consisting of the ordinary cork-wood body, the double shank c' c' of the wire pull-loop C, and the disks a' a'', the said parts being secured permanently

together simply by bending the ends c'' c'' up against the lower disk a'', substantially as described, for the purpose hereinbefore specified.

JAMES I. FLANAGEN.

Witnesses:

BENJ. MORISON, WM. H. MORISON.