C. E. MOMANUS.

COMBINED BOTTLE STOPPER AND PULLING ATTACHMENT THEREFOR.

APPLICATION FILED DEC. 21, 1904.

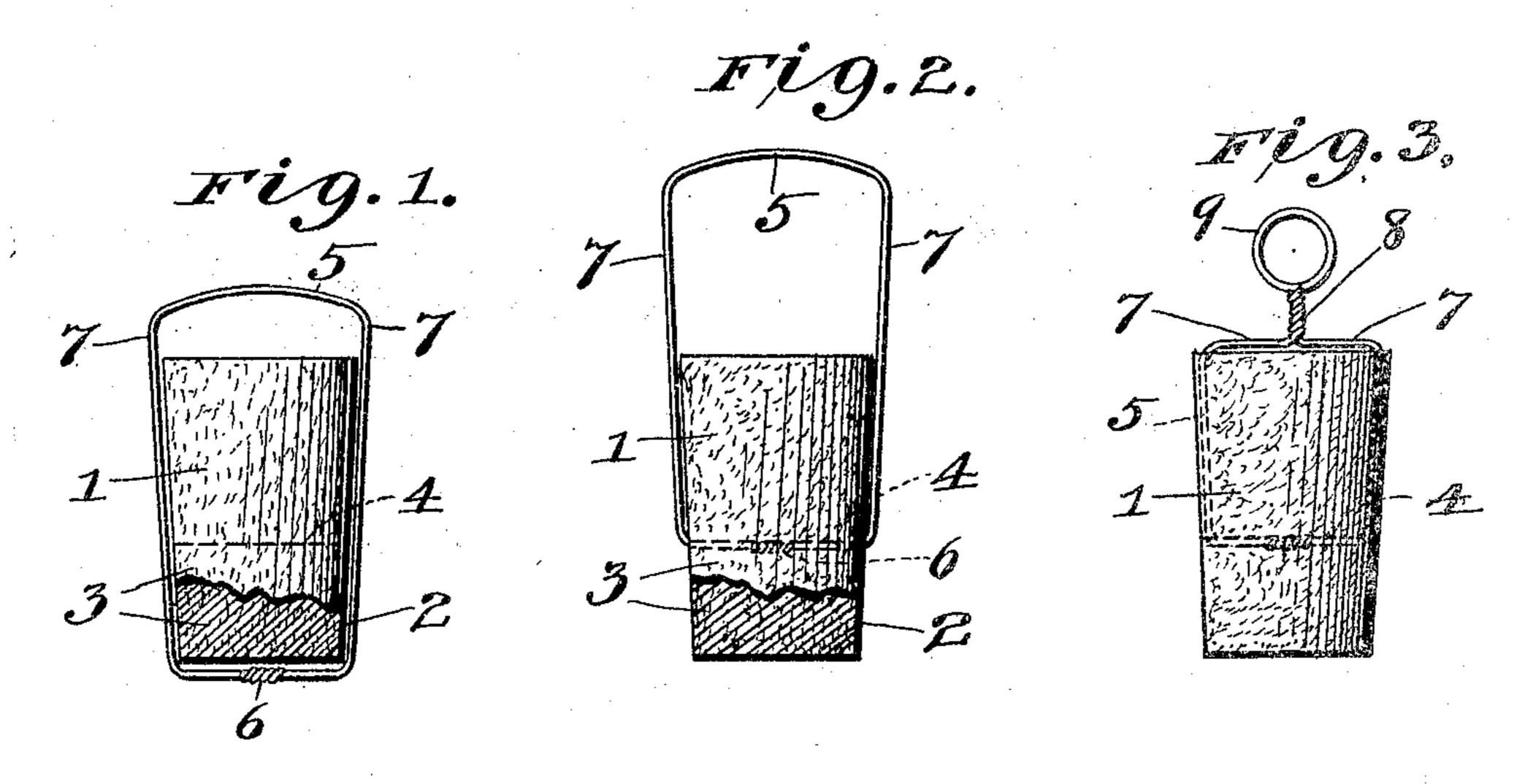
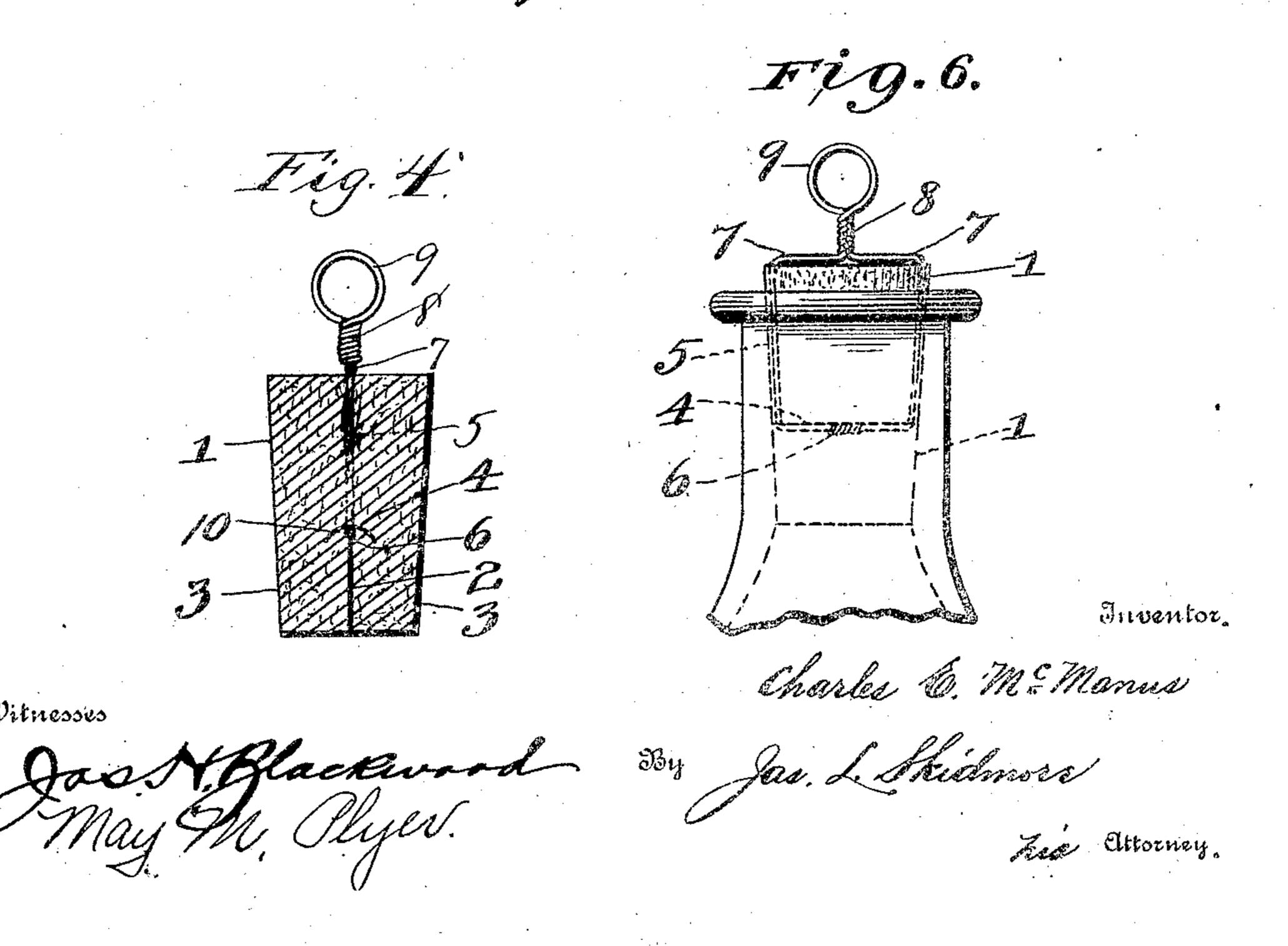


Fig. 5.



UNITED STATES PATENT OFFICE.

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COMBINED BOTTLE-STOPPER AND PULLING ATTACHMENT THEREFOR.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, Charles E. McManus, a citizen of the United States, residing at New York city, in the county and State of New York, have invented new and useful Improvements in a Combined Bottle-Stopper and Pulling Attachment Therefor, of which the following is a specification.

My invention relates to pulling attachno ments for bottle-stoppers; and one of the
principal objects of the same is to provide a
strong and reliable device for drawing corks
or stoppers, which device may be quickly and
economically applied to a cork or stopper
and which device will not come in contact
with the contents of the bottle or container
when the stopper is in use.

Another object is to provide a simple and economical method of applying the attach-

20 ments to corks or stoppers.

These and other objects are attained by means of the construction illustrated in the

accompanying drawings, in which—

Figure 1 is a view in side elevation and 25 partial section of a cork or stopper with a wire loop surrounding the same prior to its attachment to said cork or stopper. Fig. 2 is a similar view showing a further development of the method in attaching the wire 30 loop to the cork or stopper. Fig. 3 is a side elevation of a cork or stopper with my pulling attachment fully applied thereto. Fig. 4 is a central vertical section of a cork or stopper slitted from its lower end upward, as is re-35 quired for my purpose, and provided with a reinforce-bar, which I may use with certain qualities of corks or stoppers. Fig. 5 is a perspective view of the reinforce-bar. Fig. 6 is a side view of the neck of a bottle having a 40 cork or stopper therein and provided with my attachment.

Referring to the drawings for a more particular description of my invention, the numeral 1 designates a cork or stopper, which may be of any suitable size and shape, dependent upon its purposes and the contour of the inner surface of the neck of the bottle with which it is to be used. The stopper 1 is slitted, as at 2, from the bottom or inner end thereof upward a sufficient distance within the body of the stopper centrally to provide two semicircular resilient members or halves 3, the purpose of which will hereinafter appear. In forming the slit 2 no portion of the stopper material is removed. The slit 2 ter-

minates in a plain transverse wall 4, extending from side to side of the stopper.

The first step in the method of applying the pulling attachment to the stopper is illustrated in Fig. 1. An endless loop 5 is formed 60 of a piece of flexible wire of suitable gage and length, and the ends of said wire are twisted together or otherwise united, as at 6. The stopper 1 is placed within the endless wire loop 5, as shown in Fig. 1, and the loop 5 is 65 then drawn upward, the twisted ends 6 of the loop being centrally disposed in the slit 2, as shown in Fig. 2, and said loop being pulled within the slit until the wire reaches the terminal wall 4 of the slit. The two side 70 strands 7 of the wire loop are then brought together at the top of the stopper and twisted together, as at 8, to form a ring 9 at the top of the cork. It is intended that the twisted portion 8 of the wire shall be given 75. sufficient tension to embed the side strands 7 slightly within the sides and upper edges of the cork.

In certain qualities of corks it is found desirable to reinforce the terminal wall 4 of the 80 slit. This is especially desirable in cases where inferior qualities of cork are used or where fine wire is used for the pulling-loop. In Figs. 4 and 5 I have illustrated a reinforcebar 10 inserted transversely through the 85 stopper just below the terminal wall 4 of the slit. This reinforce-bar 10, as shown, is provided with a pointed end 11 and is slightly concavo-convex in cross-section, the bar being made of thin sheet metal and being of a 90 length slightly less than the diameter of the stopper. When tension is exerted upon the wire to form the ring 9, the twisted ends of the loop are brought firmly against the reinforcebar 10 and prevented from cutting the cork, 95 even should it be of inferior quality. The pointed end 11 of the reinforce-bar 10 serves as an entering point in the insertion of the bar in line with the slit 2 at its terminal wall 4.

Referring to Fig. 6, it will be noticed that 100 when the stopper 1 is forced into the mouth of a bottle or other container the two resilient halves or members 3 at the sides of the slit 2 are forced together to prevent the contents of the bottle from coming in contact 105 with the wire loop, while the side strands are embedded within the sides and upper edges of the cork to further aid in preventing the liquid from coming in contact with the wire. In drawing the stopper any suitable device, 110

like a pencil, may be inserted in the ring 9, and the cork may be readily withdrawn. It will be noticed that the wire loop has no terminal ends outside the cork, that a continuous smooth puller is provided, and that the wire will not come in contact with the contents of the container or bottle. By means of my method of applying the attachment to stoppers I can separately form the endless loops of the required length in large numbers and subsequently attach them to the slitted corks, thus materially economizing in the labor and cost of production of devices of this character.

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

Patent, is—
1. A pulling attachment for stoppers, consisting of a wire loop having its terminal ends twisted together, a stopper having a slit in its

lower end and a terminal wall, the twisted ends of the loop being drawn into the slit in the stopper, said loop being embedded in the sides and upper edges of the stopper, for the purpose described, and the strands being twisted together at the top of the cork to form a drawing-ring, substantially as described.

2. In a cork-pulling attachment, a slitted cork, a curved reinforce-bar at the terminal 30 wall of the slit and in line therewith, an endless wire loop passing through the slit in contact with the reinforce-bar, and a pulling-ring formed in the loop at the top of the cork, substantially as described.

CHARLES E. McMANUS.

In presence of— RALPH J. Bucks, WILLIAM HODGINS.