F. C. BITLER.

BOTTLE STOPPER.

APPLICATION FILED APR. 1, 1919.

1,327,519. Patented Jan. 6, 1920.

Fig. 1

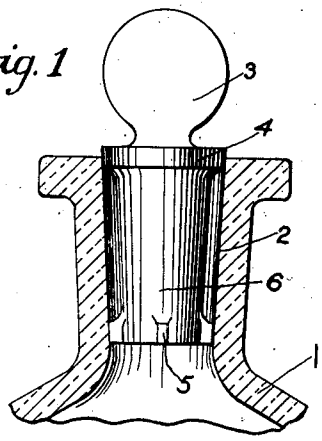


Fig. 2.

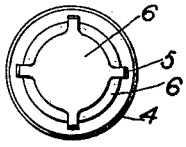


Fig. 3.

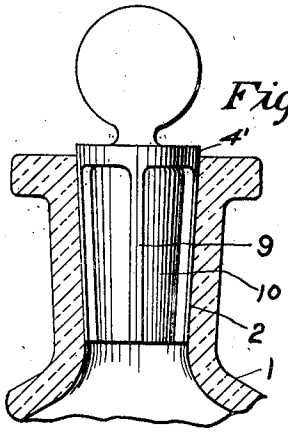
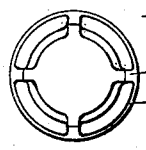


Fig. 4.



WITNESSES

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BOTTLE-STOPPER.

1,327,519. Specification of Letters Patent. Patented Jan. 6, 1920.

Application filed April 1, 1919. Serial No. 286,640.

To all whom it may concern:

Be it known that I, FREDERIC C. BITLER, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Bottle-Stopper, of which the following is a full, clear, and exact description.

This invention relates to stoppers, and particularly to bottle stoppers and has for an object the provision of an improved construction wherein the sticking of the stopper is prevented to an appreciable extent.

Another object of the invention is to provide a stopper for ground glass bottles wherein the contact surface is reduced in area and thereby presenting means whereby sticking is prevented though a tight connection is provided.

A further object of the invention is to provide a stopper in which the reduction of area presents such a structure as to act as a guide as well as a contact surface.

In the accompanying drawing:

Figure 1 is a fragmentary sectional view through the neck of a bottle showing a stopper embodying the invention applied thereto.

Fig. 2 is a bottom plan view of the stopper shown in Fig. 1.

Fig. 3 is a view similar to Fig. 1, but showing a modified form of the invention.

Fig. 4 is a bottom plan view of the stopper shown in Fig. 3.

Referring to the accompanying drawing by numerals, 1 indicates a bottle provided with a ground inner neck portion 2 acting as a seat for the cork 3. The cork 3 instead of being ground for the full length for fitting the seat 2 is provided with a ground ring portion 4 which snugly fits against the seat 2 at the upper end and thereby makes a tight connection. In order that this ground section or ring 4 may fit in the proper manner without sticking the stopper 3 is made of the usual length and at the lower end is provided with a spider structure, or rather a number of projections 5 extending from the reduced body 6. The projections 5 may or may not be ground as desired, but preferably form a reasonably snug fit. By this construction and arrangement a proper stopper is provided and the objectionable sticking found in most ground stoppers is eliminated, as the amount of contact surface on ring 4 is reduced to a minimum.

In Figs. 3 and 4 will be seen a modified form of the invention in which the ring section 4′ is formed substantially the same width as the ring 4 of the preferred form, but merges into a number of beads or projections 9 extending radially from the reduced central body 10. The outer surfaces of sections 9 are preferably ground and are in line with the outer surface of the ring 4′. The entire construction of course tends to properly fit the seat 2 of bottle 1.

In the ordinary ground glass stopper a large contact surface is provided and consequently the liquid engaging the neck of the bottle will be engaged by the stopper when reinserted after some of the liquid has been poured from the bottle. This will produce in many instances a sticking action and consequently will make it very difficult to remove the stopper. To obviate this sticking action the contact surface of the stopper is reduced to a minimum while provided with an annular restricted surface in order to provide the desired tight connection.

What I claim is:

1. The combination with a bottle having a tapering neck opening of a stopper of glass, formed with a reduced central part, a ring formed on one end, and a plurality of longitudinal radiating flanges extending from the end of the stopper opposite said ring toward the ring, said ring and said flanges being ground in a common conical surface smaller in diameter at the end opposite the ring so as to fit the tapering neck of the bottle simultaneously.

2. The combination with a bottle having a tapering neck opening of a stopper of glass, formed with a reduced central part, a ring formed on one end, and a plurality of radiating feet formed on the opposite end, said feet and said ring being ground in a common conical surface smaller in diameter at the end opposite the ring so as to fit the tapering neck of the bottle simultaneously.

FREDERIC CLAYTON BITLER.