

(No Model.)

C. NEUHAUS.
STOPPER FOR BOTTLES.

No. 592,879.

Patented Nov. 2, 1897.

Fig. 1.

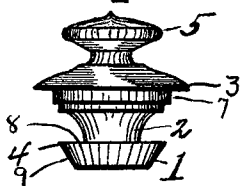


Fig. 2.

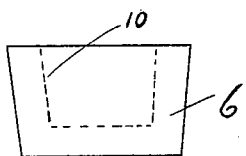


Fig. 3.

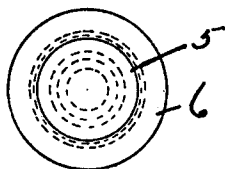


Fig. 4.

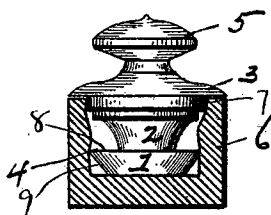
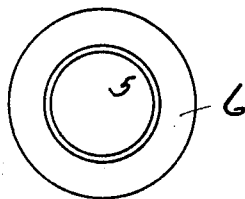


Fig. 6.

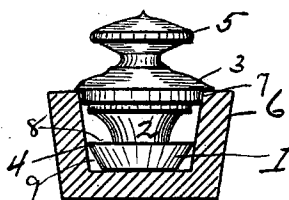


Fig. 5.

WITNESSES:

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CHARLES NEUHAUS, OF BALTIMORE, MARYLAND.

STOPPER FOR BOTTLES.

SPECIFICATION forming part of Letters Patent No. 592,879, dated November 2, 1897.

Application filed March 6, 1897. Serial No. 626,348. (No model.)

To all whom it may concern:

Be it known that I, CHARLES NEUHAUS, a citizen of the United States, residing at Baltimore city, in the State of Maryland, have invented certain new and useful Improvements in Bottle-Stoppers, of which the following is a specification.

This invention relates to improvements in bottle-stoppers, and has more particular relation to stoppers constructed of flexible or elastic substances.

The invention consists of certain novel constructions, combinations, and arrangements of parts, all of which will be hereinafter more particularly set forth and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 represents a side elevation of the body portion of my improved stopper. Fig. 2 represents a side elevation of the stopper proper. Fig. 3 represents a bottom plan view of the body portion illustrated in Fig. 1. Fig. 4 represents a top plan view of the stopper proper illustrated in Fig. 2. Fig. 5 represents a central vertical section, partly in side elevation, of my improved stopper before being inserted into the bottle; and Fig. 6 represents a similar view of the same after being inserted.

1 in the drawings represents the expanding and locking part of the body portion; 2, the shank; 3, the head; 4, the locking edge; 5, the handle, and 6 the stopper proper.

My invention is particularly applicable to stoppers having an external flexible portion or stopper proper combined with a central core or body portion of metal attached thereto in the process of inserting the stopper into the bottle. The said core or body portion is preferably constructed of metal and comprises the knob or handle 5, the cap 3, adapted to lie over the upper edge of the stopper proper, 6, the annular shoulder 7, adapted to lie within the upper edge of the stopper portion 6, the contracted neck or shank 2, and the locking head or disk 1. This latter is secured to the lower end of the shank 2 and has a flat upper surface 8, a sharp periphery 4, and inclined sides 9. The stopper proper, 6, which is composed of some suitable flexible material, is hollowed out, as at 10, to receive the core or body portion. The exterior of said stopper

proper is preferably slightly flaring for purposes hereinafter more fully described.

In applying my improved stopper to a bottle a part of the body portion is first placed in the stopper proper, with the annular shoulder just within the upper edge or mouth of the stopper proper. Now as the entire stopper is driven into the neck of the bottle the material composing the stopper portion proper is forced into the space between the lower edge of the shoulder 7 and the sharp edge 4, thus forming an effectual lock for the core portion and positively preventing its withdrawal.

The peculiar construction of the core portion, with the annular shoulder and sharp-edged disk 4, causes the material of the stopper proper to be given a sharp kink when forced into the space surrounding the shank 2 and thus positively lock the core portion in position by preventing the withdrawal of the locking-disk from said stopper proper.

It will be observed from the above that the annular shoulder 7 prevents the upper edge of the stopper proper from being forced inward when the stopper is applied to the bottle and thus causes the aforementioned kink to be positively formed by the expansion of the flexible material into the space surrounding said shank 2. When applied in this manner, the sharp edge or periphery 4 cuts deeply into the flexible material and forms a positive locking-channel from which it cannot be withdrawn even after the stopper is removed from the bottle. A combination of wood and metal is thus secured with the expenditure of very little time and trouble and all objections heretofore raised to such stoppers thus overcome.

It will be observed by reference to the drawings that the diameter of the disk 3 is such that when the stopper proper is applied in the bottle the periphery of said disk will lie in close proximity to the circumference of said stopper and thus form in effect a metallic partition extending through the greater portion of the diameter of said stopper to prevent the evaporation of the liquid in the bottle through the porous material of said stopper proper. Sufficient of the material remains, however, beyond the periphery of

the disk to prevent the latter contacting with the glass of the neck and thus protecting the latter when the stopper is forced in position.

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

1. In a stopper, the combination with a hollow stopper proper, of a core portion adapted to be applied into the same and comprising a locking-disk having a sharp periphery, a shank connected to the center of said disk, an annular shoulder connected to the upper end of said shank and adapted to lie in the upper edge of said stopper, and a handle mounted on said shank, substantially as described.

2. In a stopper, the combination with a suitable hollow stopper proper, a core portion adapted to be applied in the same and comprising a disk having a sharp periphery and bevel sides, a shank connected to the center of said disk, an annular shoulder mounted on

the upper end of said shank and adapted to lie within the upper edge of the hollow stopper, and a handle mounted on said shank, substantially as described.

3. In a stopper, the combination with a hollow stopper proper, of a core adapted to be applied in the same and comprising a disk having a sharp periphery, a shank rising from the center of said disk, a circular cap applied on the upper end of said shank and adapted to rest upon the top of the stopper proper, an annular shoulder formed on the under side of said cap and adapted to lie within the upper edge of the stopper, and a handle mounted on the upper end of said cap, substantially as described.

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

CHARLES NEUHIAUS.

Witnesses:

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