

(No Model.)

J. A. EDES.
BOTTLE STOPPER.

No. 418,706.

Patented Jan. 7, 1890.

Fig. 1

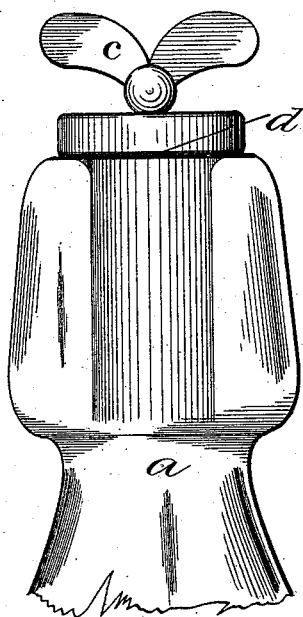


Fig. 2

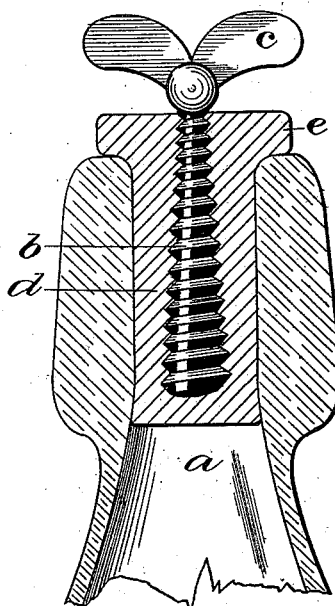
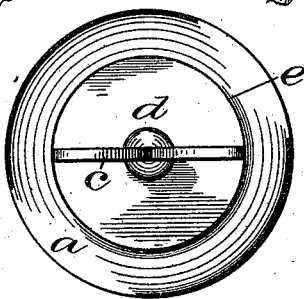


Fig. 3



Witnesses:

C. H. Russell,
O. B. Jenkins.

Inventor,

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UNITED STATES PATENT OFFICE.

JOHN A. EDES, OF LAWRENCE, MASSACHUSETTS.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 418,706, dated January 7, 1890.

Application filed October 30, 1889. Serial No. 328,624. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. EDES, a citizen of the United States, residing at Lawrence, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Bottle-Stoppers, of which the following is a full, clear, and exact specification.

The invention relates to the class of laterally-expansible stoppers for bottles, cans, and jars; and the object is to provide a stopper of this class which is cheap, few in parts, easily operated to tightly seal or unseal the mouth of the vessel into which it is inserted, safe against accidental removal, and so constructed that no metallic or corrosive substance comes in contact with the contents of the vessel sealed.

In the accompanying drawings, where the invention is illustrated, Figure 1 is a side view of the neck of a bottle sealed by my improved stopper. Fig. 2 is a view of the same in central vertical section. Fig. 3 is a plan view.

In the views, the letter *a* denotes the neck of a glass bottle in the mouth of which one of my improved stoppers is inserted. This stopper consists of a tapered core *b*, usually formed of metal, which is preferably threaded from end to end of the tapered portion and provided at the smaller end with a handle or thumb and finger piece *c*. The body *d* of the stopper is formed of any expansible and somewhat elastic material—as rubber—which is suitable for corking a bottle, and this body, which is cylindrical, is molded, cast, or otherwise placed about the core *b*. A head *e* may, if desired, be formed on the upper end of the body to prevent the stopper from being driven too far into the mouth of the bottle when it is inserted in place. It is not essential that the core should be tapered for its entire length, nor that the screw-thread should extend its whole length, but the expanding wedge portion of the core should be tapering, with a screw-thread formed on the surface of the tapering portion. The stopper is inserted in the mouth of the bottle, can, or

jar which it is intended to seal and the handle rotated a little, so that the screw is slightly drawn from the body, which, as the tapering threads move upward into the body of the stopper, where there is more material and a smaller opening for the screw, causes the body to expand laterally or radially of the threads and tightly fill and seal the mouth of the bottle. As the screw acts as a wedge, this is easily accomplished with but little force applied to the handle.

There are but two parts to the stopper, and these are cheaply constructed and assembled, and the metallic and corrosive part is securely incased within the body of the stopper, so that it can in no way come in contact with the contents of the bottle. After the body has been loosened from the walls of the mouth of the bottle by screwing the core inward the stopper is readily pulled out by the handle, should the sides stick or adhere to the bottle, as the larger end of the core is at the inner end of the stopper and of course cannot be pulled out of the body of the stopper. All wear or shrinking due to compression of the body is overcome by so turning the handle of the core that it is screwed farther out of the body, so that the larger end of the core is brought up to where there is more material in the body, and the life of the stopper is much longer than prior stoppers on account of this fact.

I claim as my invention—

1. A bottle-stopper consisting of an expansible body and a threaded tapering core having a handle at the smaller end, substantially as specified.

2. A bottle-stopper consisting of an expansible body provided with a head to prevent too far insertion into a bottle, and a threaded tapering core incased within the body and having a handle attached to the smaller end, whereby the core may be rotated, substantially as specified.

JOHN A. EDES.

Witnesses:

CHAS. E. CONANT,
MERRILL N. HOWE.