

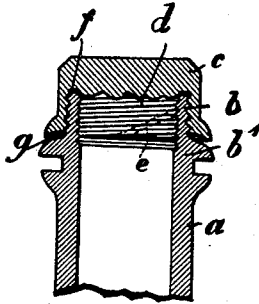
No. 676,160.

Patented June 11, 1901.

C. SÜHL.
MEANS FOR CLOSING RÉCEPTACLES.

(Application filed Aug. 23, 1900.)

(No Model.)



Attest
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By his attorney
[Signature]

UNITED STATES PATENT OFFICE.

CLAUS SÜHL, OF MARNE, GERMANY.

MEANS FOR CLOSING RECEPTACLES.

SPECIFICATION forming part of Letters Patent No. 676,160, dated June 11, 1901.

Application filed August 23, 1900. Serial No. 27,789. (No model.)

To all whom it may concern:

Be it known that I, CLAUS SÜHL, a subject of the King of Prussia, Emperor of Germany, residing at Marne, Holstein, in the Kingdom of Prussia, German Empire, have invented certain new and useful Improvements in Means for Closing Receptacles, (for which I have applied for patent in Germany, dated June 16, 1900,) of which the following is a specification.

This invention relates to stoppers for bottles, jars, and other receptacles, and is fully set forth in the following specification and shown in the accompanying drawing.

It is the object of my invention to enable the stopper to be easily applied and removed and to provide it with means to relieve any excessive pressure that may accumulate within the bottle or vessel without permitting the escape of the contents under normal pressure.

The accompanying drawing shows a bottle-stopper embodying my invention.

a is the neck of the bottle, having its upper portion *b* threaded both internally and externally.

c is a cap having internal threads adapted to engage the external threads on the portion *b* and a central plug *d*, provided with external threads, adapted to engage the internal threads on the part *b*, so that when the cap is screwed upon the top of the neck *b* the internal plug will be screwed into the interior thereof.

The plug *d* is provided with a small hole or passage-way *e*, leading from the base of the plug to the side thereof, preferably as near the top as practical, so that in case of excessive pressure within the bottle or vessel the excess may be relieved through this passage-way and the threads of the cap and bottle. The passage-way thus afforded will not, however, permit the contents to escape under normal pressure. If desired, gaskets may be arranged between the upper edge of the top *b* and the inside of the cap *c*, as shown at *f*, and also between the lower edge of the cap and the flange *b'* on the neck of the bottle, as shown at *g*. By employing this small hole *e*,

opening through the side of the plug *d*, near the top, the internally-threaded plug may be used without rendering the seal too tight to relieve excessive pressure, since the passage-way affords a free outlet to substantially the top of the part *b*, and the greater portion of the internal threadway need not be forced by the internal pressure. I am therefore able to obtain the advantage of the firm and tight closure afforded by the internal plug without destroying the feature of relieving the excessive pressure through the external threadway.

The combined internal and external threaded connection of the cap with the neck of the bottle serves to secure the cap firmly in place and to render it less liable to work loose. By my invention I am enabled to obtain this firm connection with extended screw-threads without rendering the closure so tight that excessive pressure cannot be relieved.

What I claim as new, and desire to secure by Letters Patent, is as follows:

1. In a stopper for bottles, &c., the combination with an internally and externally threaded bottle-top *b* of an internally-threaded cap *c* adapted to be screwed upon the externally-threaded top *b*, and provided with an externally-threaded plug *d* adapted to be screwed into the internally-threaded top *b*, said plug being provided with a passage-way *e* opening through its base and side, substantially as and for the purposes described.

2. A cap for closing bottles, &c., consisting of a cup-shaped piece having internal threads adapted to be screwed to the outside of the top of the bottle, and an internal plug provided with external threads adapted to be screwed to the inside of the neck of the bottle and having a small passage-way *e* opening through its base and side.

In testimony whereof I have hereunto set my hand in the presence of two witnesses.

CLAUS SÜHL.

Witnesses:

GUSTAV WEBER,
E. H. L. MUMENHOFF.