

(No Model.)

J. SPRUCE & J. TONKS.

SCREW COLLAR FOR GLASS VESSELS.

No. 327,338.

Patented Sept. 29, 1885.

Fig. 4

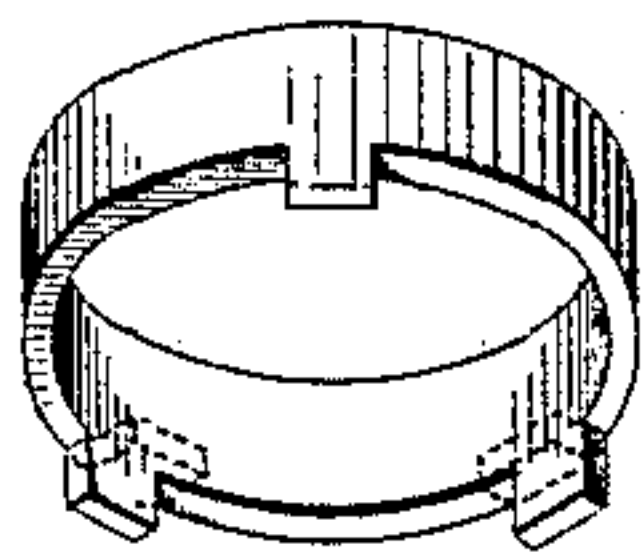


Fig. 3

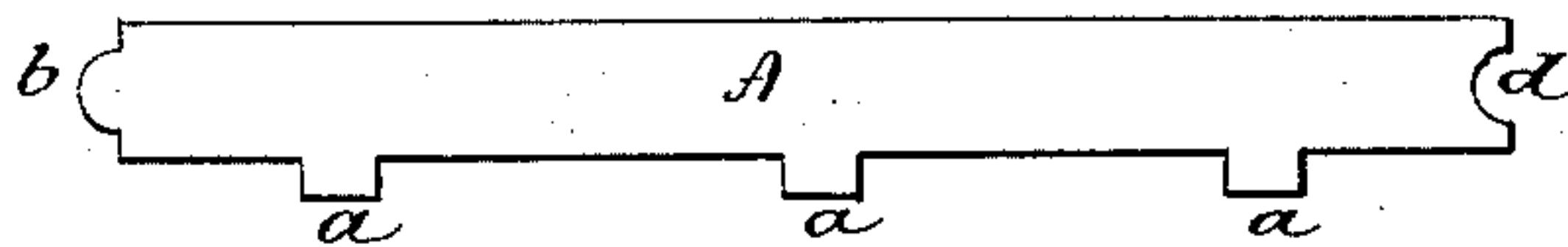


Fig. 1

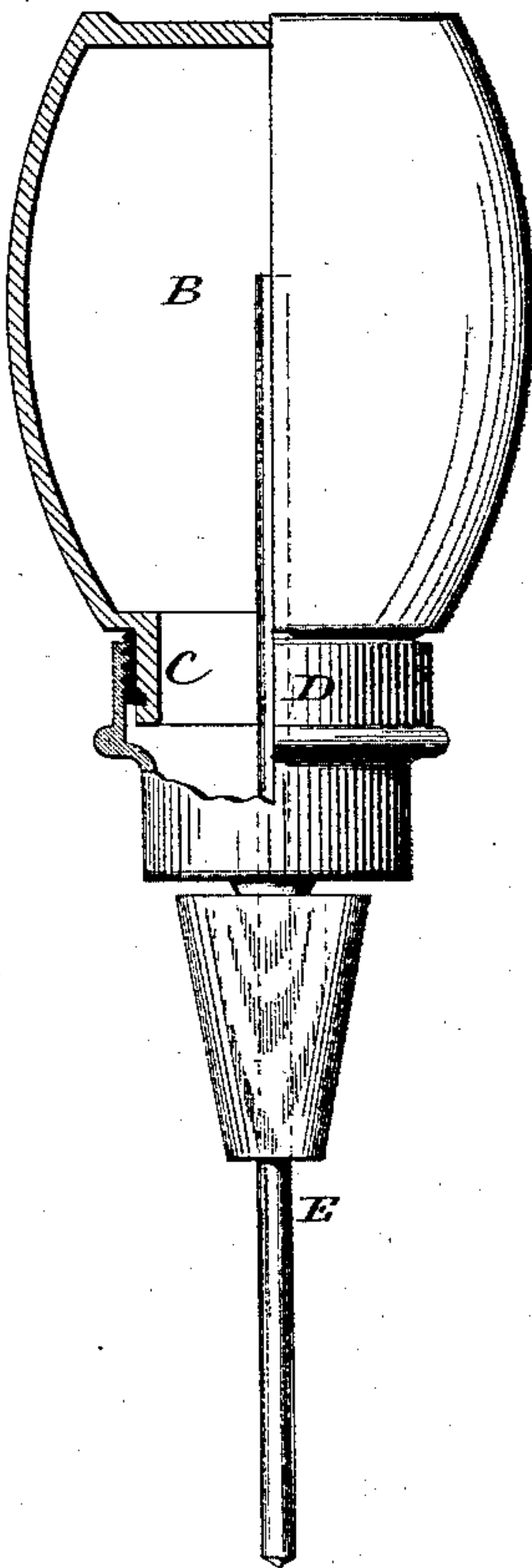


Fig. 2

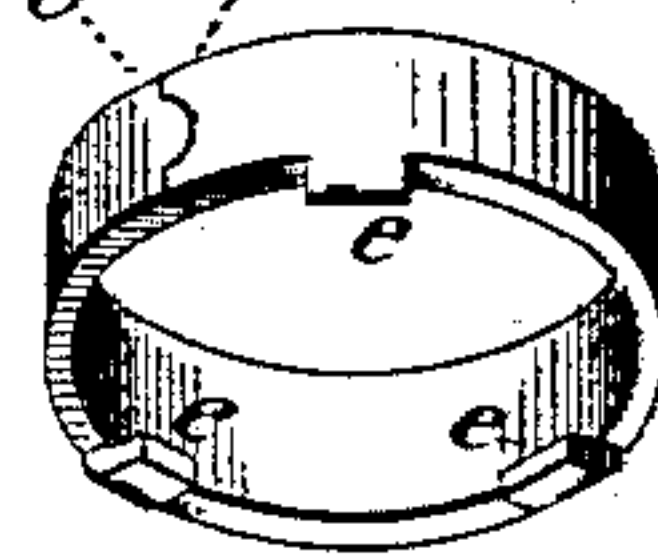
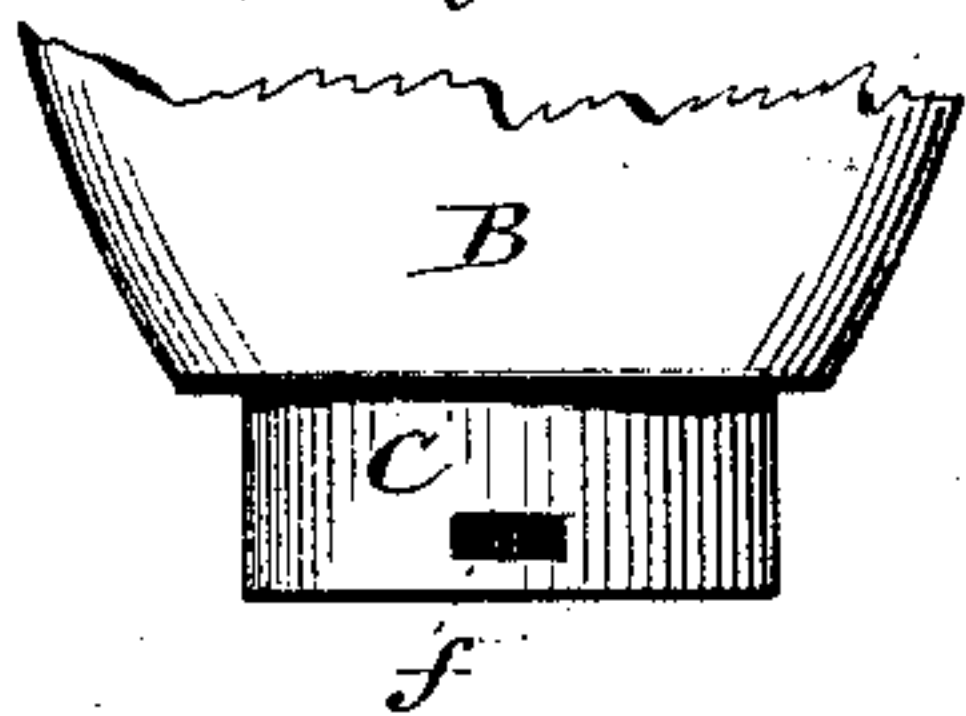


Fig. 5



Witnesses
J. H. Shumway
Fred C. Earle

James Spruce
& James Tonks
Inventors

By Atty
Wm. C. Earle

UNITED STATES PATENT OFFICE.

JAMES SPRUCE AND JAMES TONKS, OF WATERBURY, CONNECTICUT, ASSIGN-
ORS TO THE SCOVILL MANUFACTURING COMPANY, OF SAME PLACE.

SCREW-COLLAR FOR GLASS VESSELS.

SPECIFICATION forming part of Letters Patent No. 327,338, dated September 29, 1885.

Application filed July 1, 1885. (No model.)

To all whom it may concern:

Be it known that we, JAMES SPRUCE and JAMES TONKS, of Waterbury, in the county of New Haven and State of Connecticut, have
5 invented a new Improvement in Screw-Collars for Glass Vessels; and we do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and
10 exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure, 1 a side view, in partial section, of a lubricator, showing our invention applied;
15 Fig. 2, a perspective view of the collar before screw-threading; Fig. 3, the blank from which the collar is formed; Fig. 4, a perspective view of the collar in a modified form; Fig. 5, a side view of a portion of the vessel, showing the
20 recess in the neck for securing the collar.

This invention relates to an improvement in metal collars adapted to be secured to the necks of glass vessels, and by which an attachment may be applied to such vessel, the collar
25 presenting a screw-threaded external surface to receive a correspondingly internally screw-threaded socket, or whatever it may be desired to attach to the vessel. Among the various methods of attaching such collars to glass ves-
30 sels has been the introduction of a cement of some character between the collar and the neck of the vessel. In another method of attachment the neck has been constructed of a considerable length and with recesses, the col-
35 lar constructed with springs projecting from its edge, which, as the collar is pressed on over the ring, will yield, and then as the collar approaches its desired position the springs will
40 fly into said recesses, and thereby prevent the removal of the collar, as well as its rotation upon the neck. It is to this latter class of collars that our invention particularly relates. It has for its object, chiefly, to avoid the
45 length of the neck of the vessel necessary for the application of springs; and it consists in constructing the collar as a divided ring screw-threaded upon its outside, with inwardly-projecting lugs adapted to enter corre-
50 sponding cavities in the neck of the vessel, and so that the collar opened or expanded may pass onto the neck and then contract to bring

the lugs into engagement with the neck, and whereby when the said lugs have so engaged the cavities in the neck the ring is securely held to the neck without the interposition of other
55 fastening device, as more fully hereinafter described.

In illustrating our invention we show it as applied to lubricators which are adapted to be placed over a bearing, and from which a
60 spindle extends to the shaft as a means of conducting oil from the vessel to the bearing—a class of lubricators too well known to require particular description as to their theory of operation or construction—but generally the
65 lubricator consists of a glass vessel, B, having a neck, C, extending downwardly therefrom, and to which the screw-collar is applied, and to this screw-collar a correspondingly screw-
70 threaded socket, D, is applied, by which the lubricator is supported in its position, and through which the free spindle E extends to the shaft.

In the best construction of the neck we make it from a blank, as seen in Fig. 3, which con-
75 sists of a strip of metal, A, in width corresponding to the depth of the neck, and in length corresponding to the circumference of the collar required. From one edge of this ring one or more projecting tongues, *a a*, are
80 formed, which are eventually to be turned inward to form the lugs. At one end of the strip a projection, *b*, is formed, and at the opposite end a corresponding recess, *d*, and so
85 that when bent into ring shape the projection on the one part will stand in the recess on the other part, as seen in Fig. 2, and thereby interlock the two ends to prevent their displacement. The tongues *a* are turned inward to
90 form inwardly-projecting non-elastic lugs *e*, as seen in Fig. 2. The neck of the vessel is in length only slightly longer than the depth of the collar, and in the outer surface of the neck cavities *f* are formed corresponding to the
95 lugs *e* on the collar. The collar is applied to the neck by opening it so that the lugs may pass onto the neck, and then so soon as they arrive at their respective cavities the elasticity of the collar causes it to contract and bring
100 the lugs into their respective cavities, so as to permit the removal or displacement of the collar.

It will be understood that the collars are screw-threaded upon their outside, as indicated in Fig. 1, to receive the socket D, or whatever it may be desired to attach thereto.

5 The interlocking of the two ends holds the ends together, as if a solid collar, in the formation of the thread, as well as when upon the neck, and so that the socket applied thereto will readily engage the proper threads and
10 run upon the screw-thread, as if it were an undivided collar. This construction of collar is very simple, requires less metal than in the construction to which we have before referred, as well as permits the shortening of
15 the neck of the vessel to a very considerable extent.

While we prefer the interlocking of the two ends of the ring, such interlocking is not essential, as the two ends may abut without such
20 interlocking.

We have described the collar as a divided ring with the lugs bent inward before the collar is applied to the neck of the vessel; but the collar may be made a continuous ring, as
25 seen in Fig. 4, the tongues standing in the longitudinal plane of the collar until applied to the neck, and then the tongues or lugs turned inward into their respective cavities to make engagement with the neck and secure
30 the collar thereto.

The collars may be made as an article of manufacture and sold to the trade to be applied to the various uses to which they are adapted, the illustration which we have made of the
35 adaptation of the collar to a lubricator being sufficient to enable those skilled in the art to apply the collars to glass vessels for various uses, having the neck properly constructed.

40 We have described the vessel to which the collar is to be attached as glass; but it will be understood that by the term "glass" we include

all analogous materials to which it is desirable to attach a screw-collar.

We claim—

1. A screw-collar for glass vessels, consisting of the metal ring screw-threaded upon its outside, and constructed with non-elastic inwardly-projecting lugs *e* upon its edge, adapted to enter corresponding cavities in the neck of the vessel, substantially as described. 45 50

2. A screw-collar for glass vessels, consisting of a divided ring screw-threaded upon its outer surface, and constructed with inwardly-projecting lugs *e*, adapted to engage corresponding cavities in the neck of the vessel, substantially as described. 55

3. A screw-collar for glass vessels, consisting of a divided ring screw-threaded upon its outside, the two ends constructed, the one with a recess and the other with a corresponding projection, to interlock the one with the other, and also constructed with inwardly-projecting lugs *e*, adapted to engage corresponding recesses in the neck of the vessel, substantially as described. 60 65

4. The herein-described lubricator, consisting of a vessel adapted to receive and contain oil, and constructed with a neck having cavities *f* in its outer surface, combined with an externally screw-threaded collar constructed with inelastic inwardly-projecting lugs set over said neck, and the said lugs fitting into the said cavities, and a correspondingly screw-threaded socket, D, adapted to support said vessel, and the spindle E, extending from said vessel through said socket, substantially as described. 70 75

JAMES SPRUCE.

JAS. TONKS.

Witnesses:

C. W. DE MOTT,

F. J. GORSE.