

(No Model.)

R. J. SANKEY.
STOPPERING BOTTLES FOR CONTAINING AERATED OR GASEOUS LIQUIDS.

No. 294,156.

Patented Feb. 26, 1884.

Fig. 1.

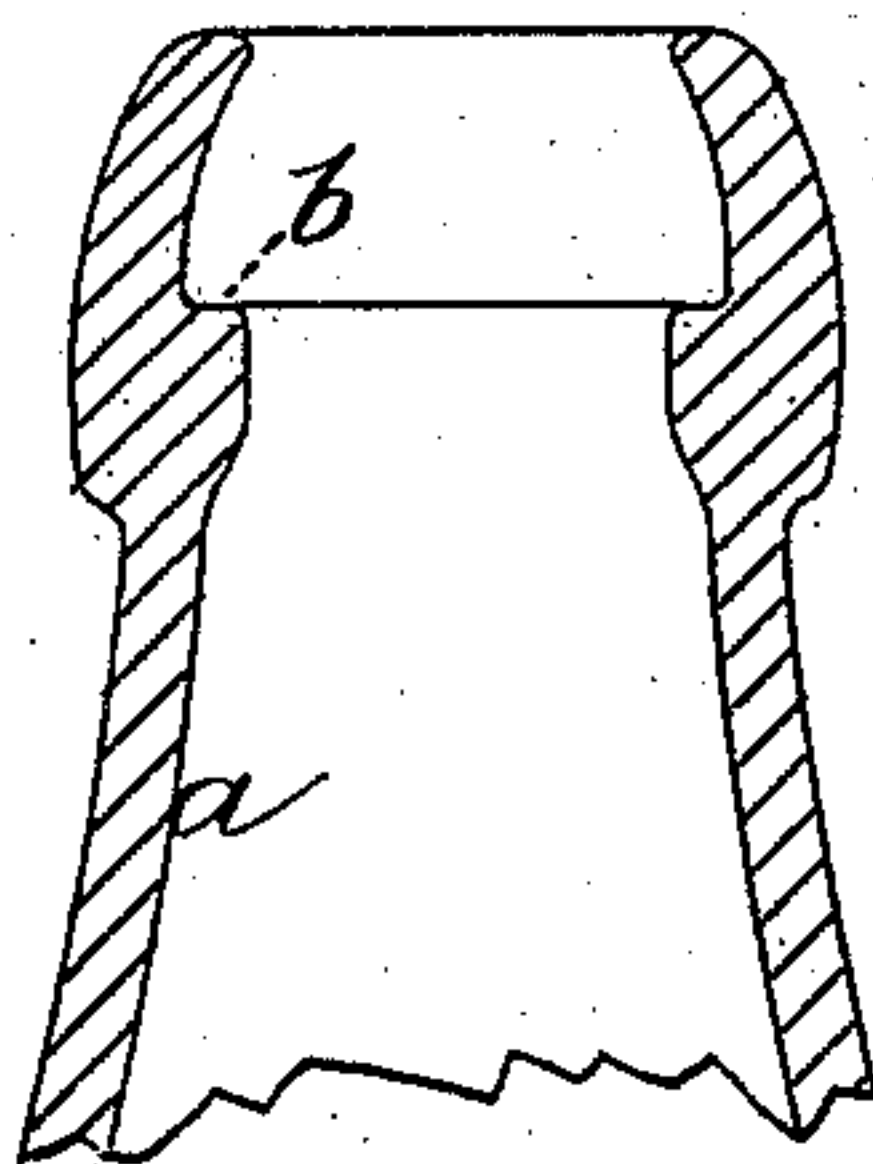


Fig. 2.

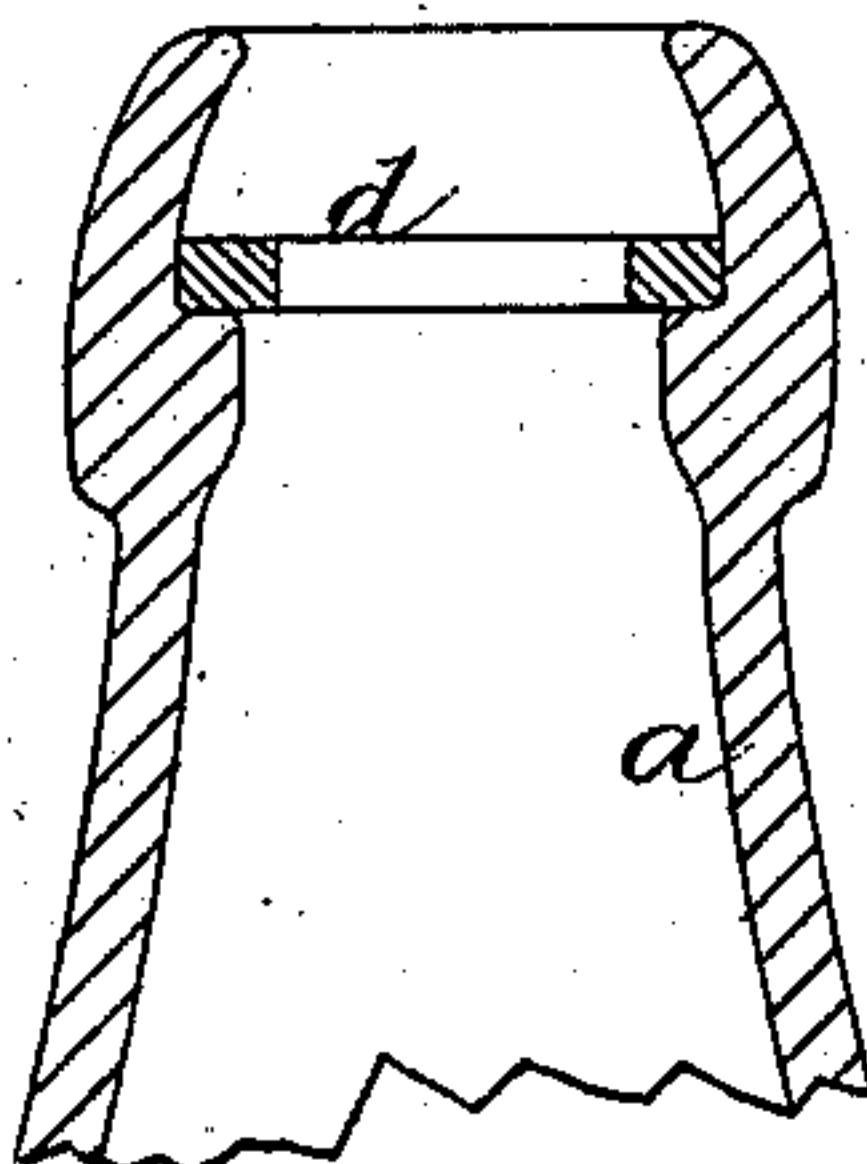


Fig. 3.

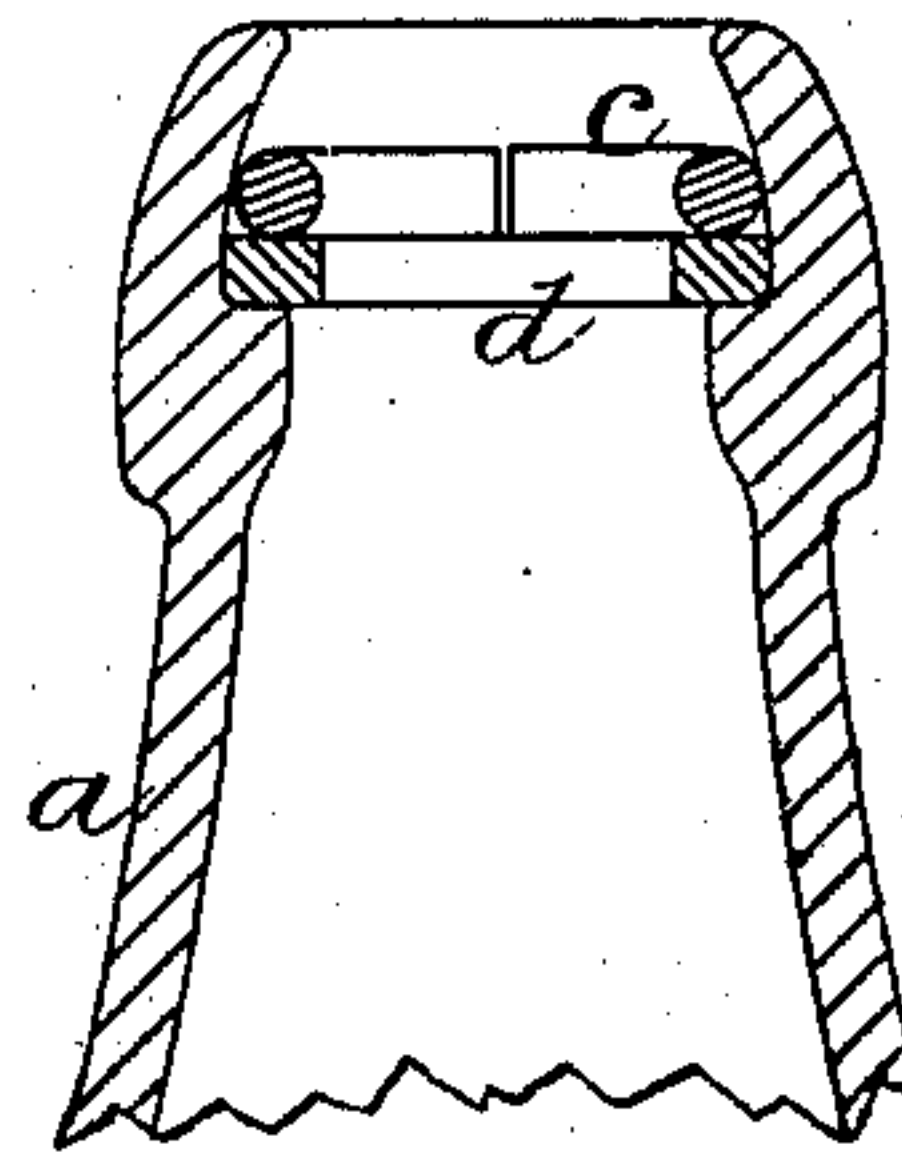
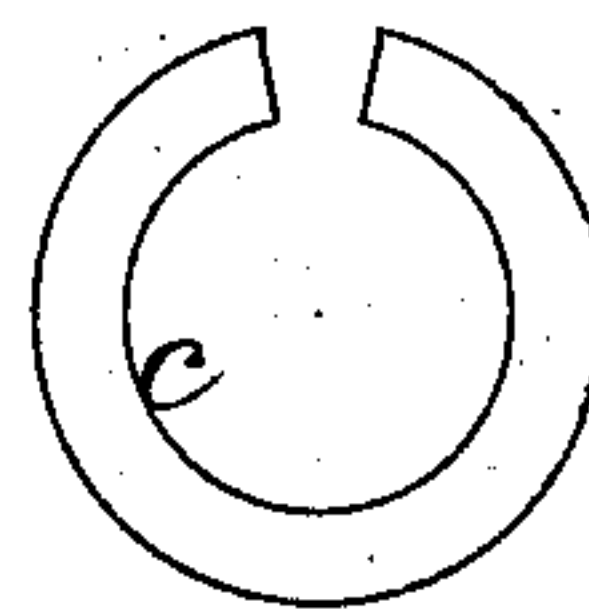


Fig. 5.



Fig. 4.



Witnesses:

H. C. Huntman
M. R. B. Atkinson

Inventor:

Richard John Sankey
by *John J. Halsted & Sons*
his Attys.

UNITED STATES PATENT OFFICE.

RICHARD J. SANKEY, OF SOUTH HILL, NEAR ASHFORD, COUNTY OF KENT,
ENGLAND.

STOPPERING BOTTLES FOR CONTAINING AERATED OR GASEOUS LIQUIDS.

SPECIFICATION forming part of Letters Patent No. 294,156, dated February 26, 1884.

Application filed June 26, 1883. (No model.) Patented in Germany May 26, 1883, No. 24,740, and June 19, 1883, No. 25,679; in England June 9, 1883, No. 2,883; in Victoria August 7, 1883, No. 3,516; in South Australia August 13, 1883, No. 380, and in New South Wales October 11, 1883, No. 12,341.

To all whom it may concern:

Be it known that I, RICHARD JOHN SANKEY, a subject of the Queen of Great Britain, residing at South Hill, near Ashford, in the county of Kent, England, have invented new and useful Improvements in Stoppering Bottles for Containing Aerated or Gaseous Liquids, of which the following is a specification.

The present invention relates to further improvements on the invention for "improvements in stoppering bottles for containing aerated or gaseous liquids," for which I applied for Letters Patent on or about the 11th day of June, 1883. According to my present improvements, instead of fitting and fixing the india-rubber ring in the neck of the bottle in the manner described in the specification filed with my said former application, I now employ a length of suitable flexible material bent into the form of a ring, which is then sprung into the neck of the bottle.

In order to enable my invention to be fully understood, I will describe the same by reference to the accompanying drawings, in which Figure 1 is a section of a bottle-neck before the seating is applied thereto. Fig. 2 is a section showing the seating applied thereto, ready to be fixed. Fig. 3 is a section showing the seating fixed in position, and Figs. 4 and 5 plans of the fixing-ring.

Similar letters in all the figures represent similar or corresponding parts.

The bottle-neck *a* is formed with a step or shoulder, *b*, in the interior, as described in my said former specification, and on the said shoulder or step I place, as before, an ordinary vulcanized india-rubber ring, *d*, which forms the seating for the stopper, as usual. In order to fix this india-rubber seating *d* in its place, I now employ a length of suitable flexible material, preferably circular in section, which is bent into the form of a ring, *c*, as shown in Fig. 4, the diameter of the ring being such that it will tightly fit the interior of the neck of the bottle just above the seating *d*. To apply the said ring *c*, it is contracted by passing one end over the other, as shown in Fig. 5, and is then passed into the neck of the bottle, so as to rest on the seating *d*, when it will spring out and become tightly fitted in the interior of the bottle-neck, and will securely hold the seating *d* in its place.

In practice I have found vulcanite to answer well for the fixing-ring; but it will be evident that other suitable flexible material or metal may be employed for the fixing-ring.

The method of fixing the india-rubber seating in the neck of the bottle by means of a flexible ring, as hereinbefore described, allows of the seating being removed and replaced without having to break the fixing-ring, as the same can be easily removed when required.

It will be obvious that the fixing-ring need not be in one piece, but may be subdivided, each part being introduced separately, so as to form a complete ring.

Instead of employing a ring of flexible material, as hereinbefore described, I sometimes employ a complete ring of metal of a diameter which will allow it to be passed into the bottle-neck, and it is then expanded by a suitable tool until it tightly fits the neck of the bottle above the seating.

By the word "ring" I mean either a severed or an unsevered one. The severed flexible one, made and applied as above described, expands by its own resilience to hold the seating. The non-severed one must be positively expanded, as already stated, to hold the seating. In both cases, however, they are inserted and expanded while in their normally-unheated state, no heat being used to effect the expansion, the capacity for the requisite expansion being incident to the character or material of the ring itself.

I claim—

1. The herein-described method of holding to place an elastic seating, located in the neck of a bottle, consisting in introducing into such neck and against such seating a severed or a non-severed ring and effecting the expansion of such ring within the neck while the ring is in its cold or unheated state.

2. A bottle for internal stoppers having a seating fixed against a shoulder in the neck thereof, by means of a severed or cut ring of suitable flexible material, substantially in the manner hereinbefore described, and illustrated in the accompanying drawings.

R. J. SANKEY.

Witnesses:

G. F. REDFERN,
B. BRADY.