

(No Model.)

C. SCHROEDER.  
STOPPERING BOTTLES.

No. 505,300.

Patented Sept. 19, 1893.

Fig. 3.

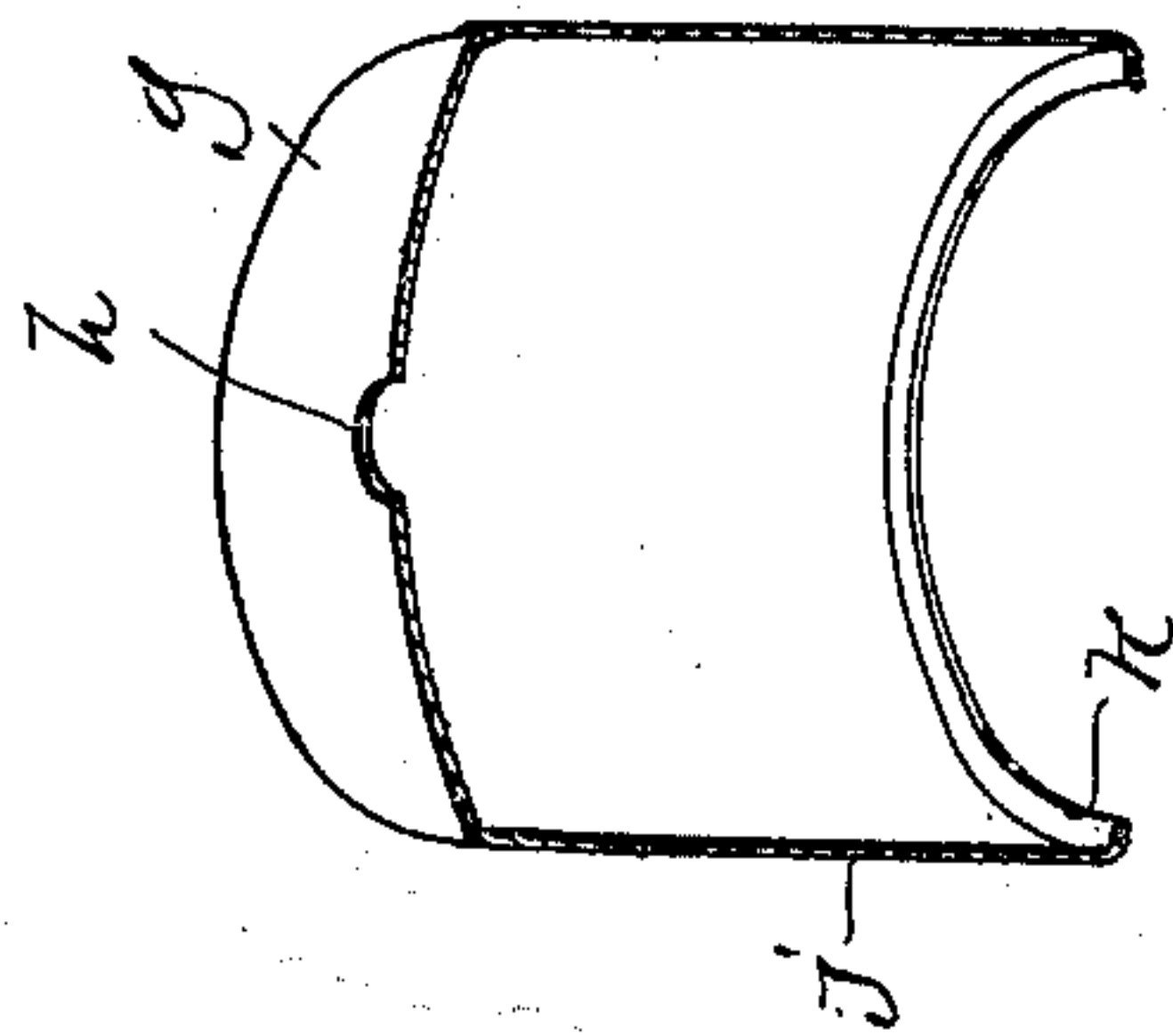


Fig. 2.

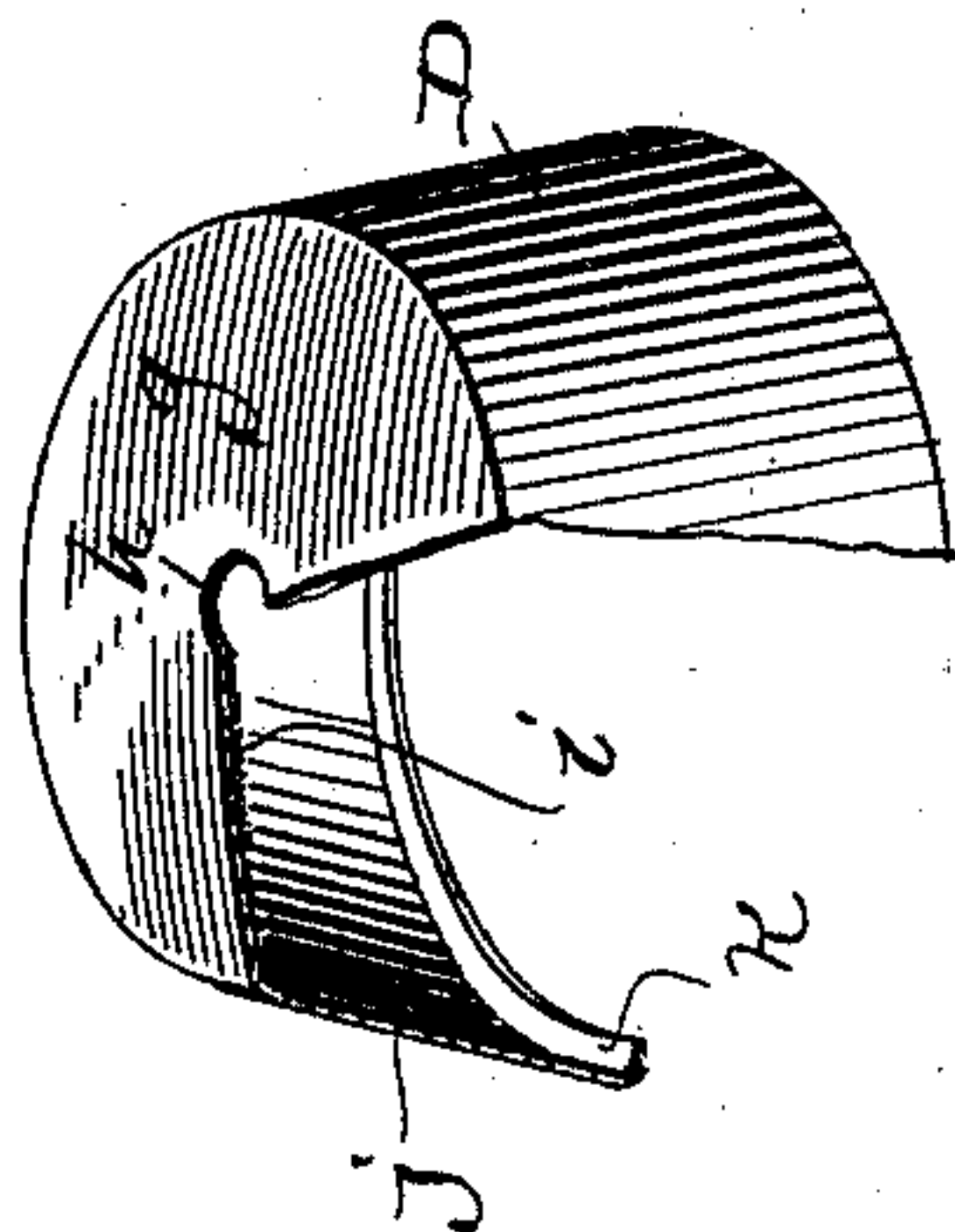


Fig. 4.

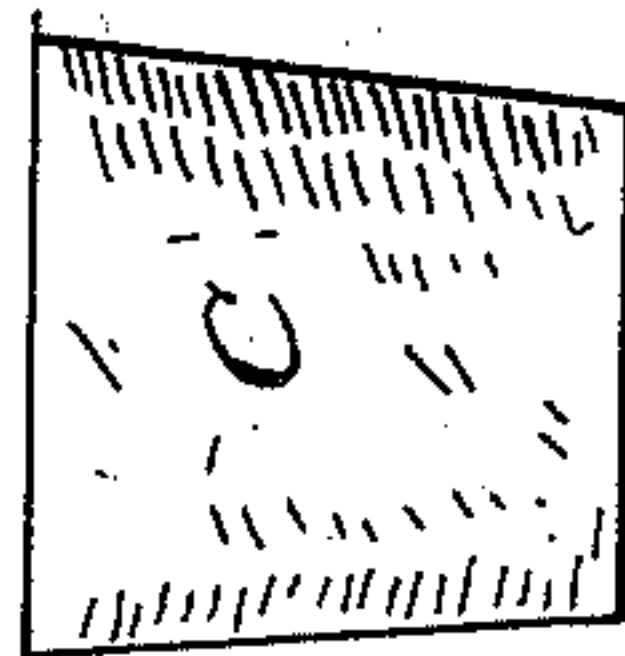
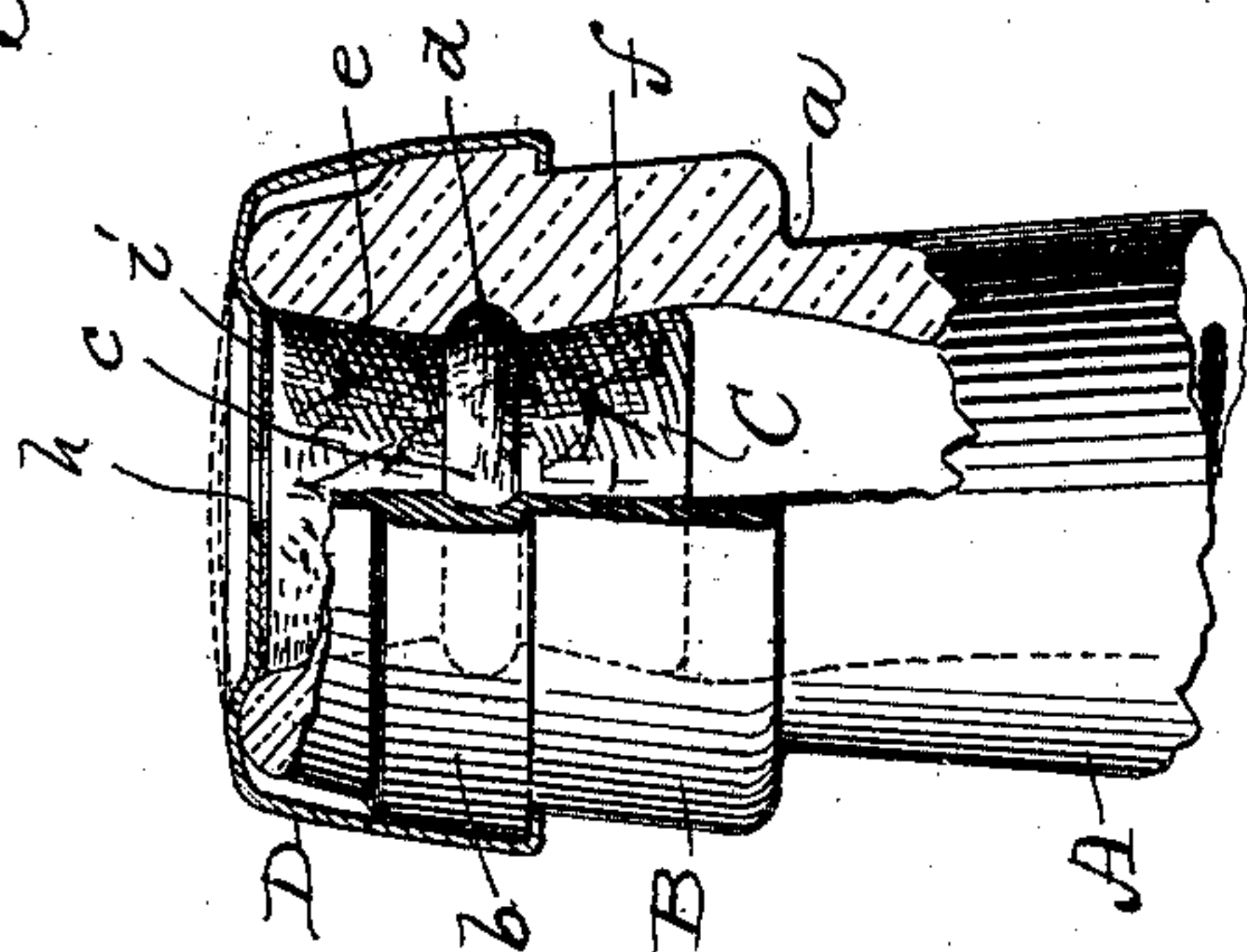


Fig. 1.



Witnesses  
Geo. W. Lounney  
C. H. Lott

Inventor  
Carrad Schroeder.  
By H. G. Underwood  
Attorney



# UNITED STATES PATENT OFFICE.

CONRAD SCHROEDER, OF MILWAUKEE, WISCONSIN, ASSIGNOR OF TWO-THIRDS, BY DIRECT AND MESNE ASSIGNMENTS, TO ANTON STOLLENWERK AND FERDINAND ACHTENHAGEN, OF SAME PLACE.

## STOPPERING BOTTLES.

SPECIFICATION forming part of Letters Patent No. 505,300, dated September 19, 1893.

Application filed April 18, 1892. Serial No. 429,535. (No model.)

*To all whom it may concern:*

Be it known that I, CONRAD SCHROEDER, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Stoppering Bottles, (Case A;) and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to improvements in stoppering bottles, and consists in certain peculiarities of construction of the upper part of the bottle, and the combination therewith, and construction, of the stoppering devices, all as will be fully set forth hereinafter, and subsequently claimed.

In the drawings:—Figure 1 is a representation of the upper part of a bottle, constructed and stoppered according to my present invention, and with portions thereof broken away, or in section, to better illustrate details of construction. Fig. 2 is a perspective view, partly broken away, of one form of my sealing cap. Fig. 3 is a perspective sectional view of another form. Fig. 4 is a view of the cork before it is applied to the bottle.

A represents the neck of a bottle, such as is ordinarily employed to hold beer, wine, or other potable fluid, B the head of the bottle, *a* the choke in the bottle neck, and *b* a strengthening band formed circumferentially on the exterior of the head B and integral therewith. The interior of the bottle head is provided with a circumferential concave groove *d*, in line with the described strengthening band *b*, and above and below this groove *d* the bore in the bottle head is flared or enlarged, in both directions, as shown at *e f*.

C, Fig. 4, represents the short tapered cork used, whose smallest diameter is at least equal to the greatest diameter of the bore in the bottle head. This cork is softened, and forced to place within the bottle head a proper distance by a suitable tool, and then, by expansion, the cork crowds against all the adjacent portions of the bore, and is thereby held tightly to place, the center of the cork forming a band or bead *c* which completely fills up the described groove *d*, as shown.

D is a cap stamped or otherwise formed of

stiff metal, such as tin-plate, having a rounded top *g*, with a small central perforation *h*, for the admission of a corkscrew. The under side of this top *g* is preferably coated with some easily fusible material, such as rosin, or paraffine, as shown at *i*. The side wall *j* of the cap D is preferably flared or tapered as shown in Fig. 2, although the same may be practically straight, if preferred, as in Fig. 3, and the lower edge of said wall is slightly rounded or flanged inward, as shown at *k*, for engagement with the lower edge of the described band *b*, or, if the cap is made with a longer wall *j*, with the lower surface of the bottle head proper, adjacent to the choke *a*.

In practice, the cork C is first driven to place, as described, and then the cap D is slipped over the bottle head, until the flange *k* of the cap passes the band *b*, (or the bottom of the head B, if the longer cap is used,) and then pressure is applied to the rounded top *g* of the cap, above the cork, and said top is flattened down, against the top of the cork, which operation serves to draw up the flange *k* of the cap tightly against the under side of the band *b*, or head B, and when the bottle is subjected to the steaming process usual with beer and analogous fluids, the rosin, paraffine or other fusible substance on the under side of the cap-top *g* is readily melted, completely closing up any space between the top edge of the cork, bottle-head and cap, the whole forming a very perfect sealing of the contents of the bottle, and yet one which can be quickly and easily removed by a slight pull on a corkscrew inserted, as described, through the hole *h* in the cap D. It is to be observed that the described rounded top of the metallic cap closely hugs the rounded top of the bottle-head, and that the central part of said cap being depressed below the level of the bottle top insures an absolutely tight fit at this point, and that the fusible material on the under side of said central portion of the cap, between it and the top surface of the cork, positively prevents the escape of any gases from the bottle, this sealing being independent of the external side walls of the said cap, to which point the gases are never permitted to reach.



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

1. In a bottle-stoppering device, a bottle-  
5 head having a rounded top and an annular exterior shoulder, a cork, a stiff metallic cap having a central depressed portion above said cork, and provided with a small central perforation, a rounded top closely hugging the  
10 rounded top of said bottle head a side-wall and an inward flange at the base of its side-wall, substantially as set forth.

2. In a bottle-stoppering device a cork, a  
15 stiff metallic cap, provided with a rounded top, and a side-wall, having a hole in the cen-

ter thereof, and a coating of readily fusible material on its under surface, between said cork and said cap and an inward flange at the base of its side-wall, and a bottle-head having a rounded top and an annular exterior shoul- 20 der, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

CONRAD SCHROEDER.

Witnesses:

H. G. UNDERWOOD,  
C. W. SCOTT.