

A. L. WEISSENTHANNER.
 SHEET METAL STOPPER FOR BOTTLES, JARS, &c.
 APPLICATION FILED MAY 12, 1908. RENEWED JUNE 16, 1910.
 983,332. Patented Feb. 7, 1911.

Fig. 1

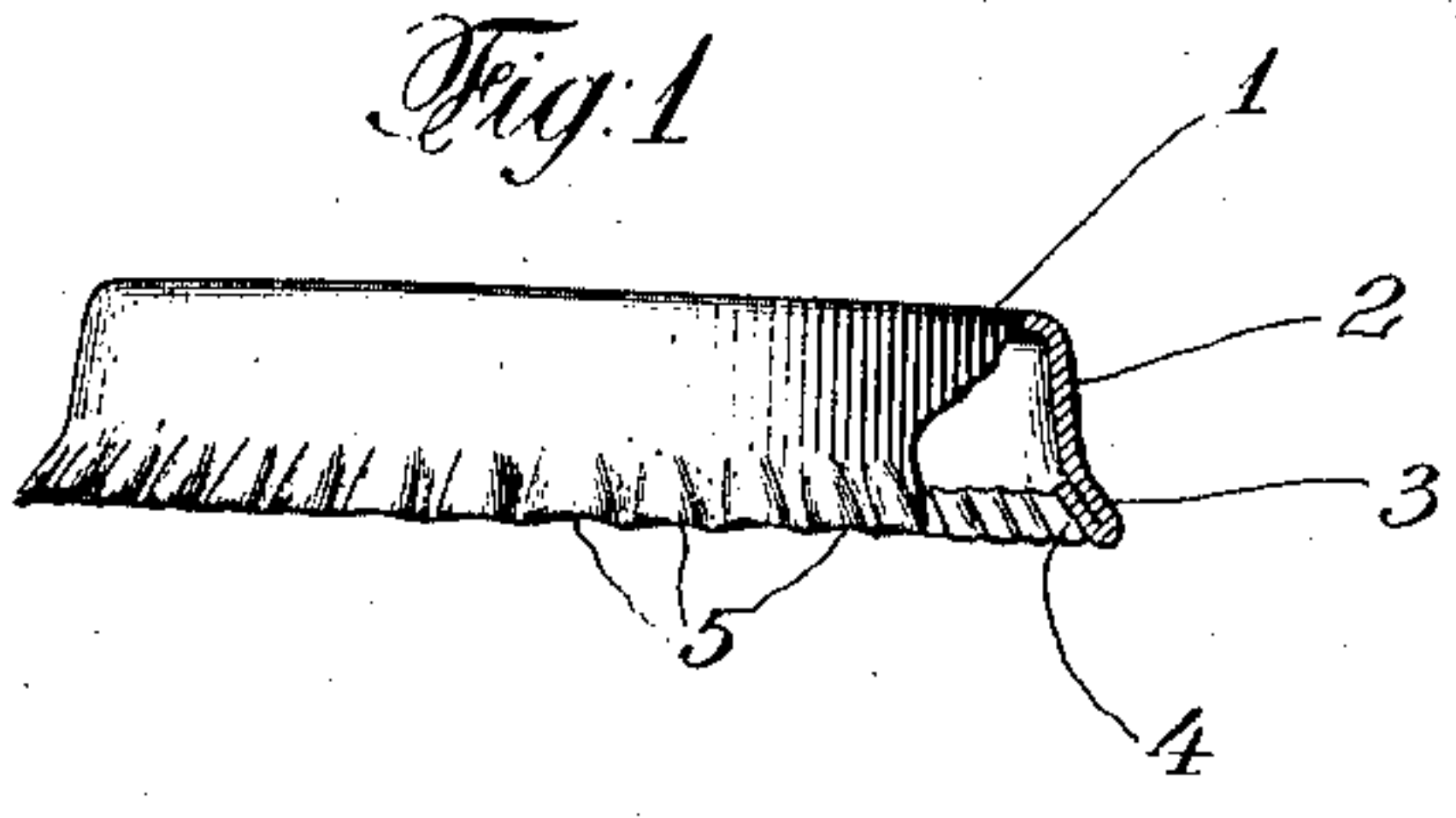


Fig. 2

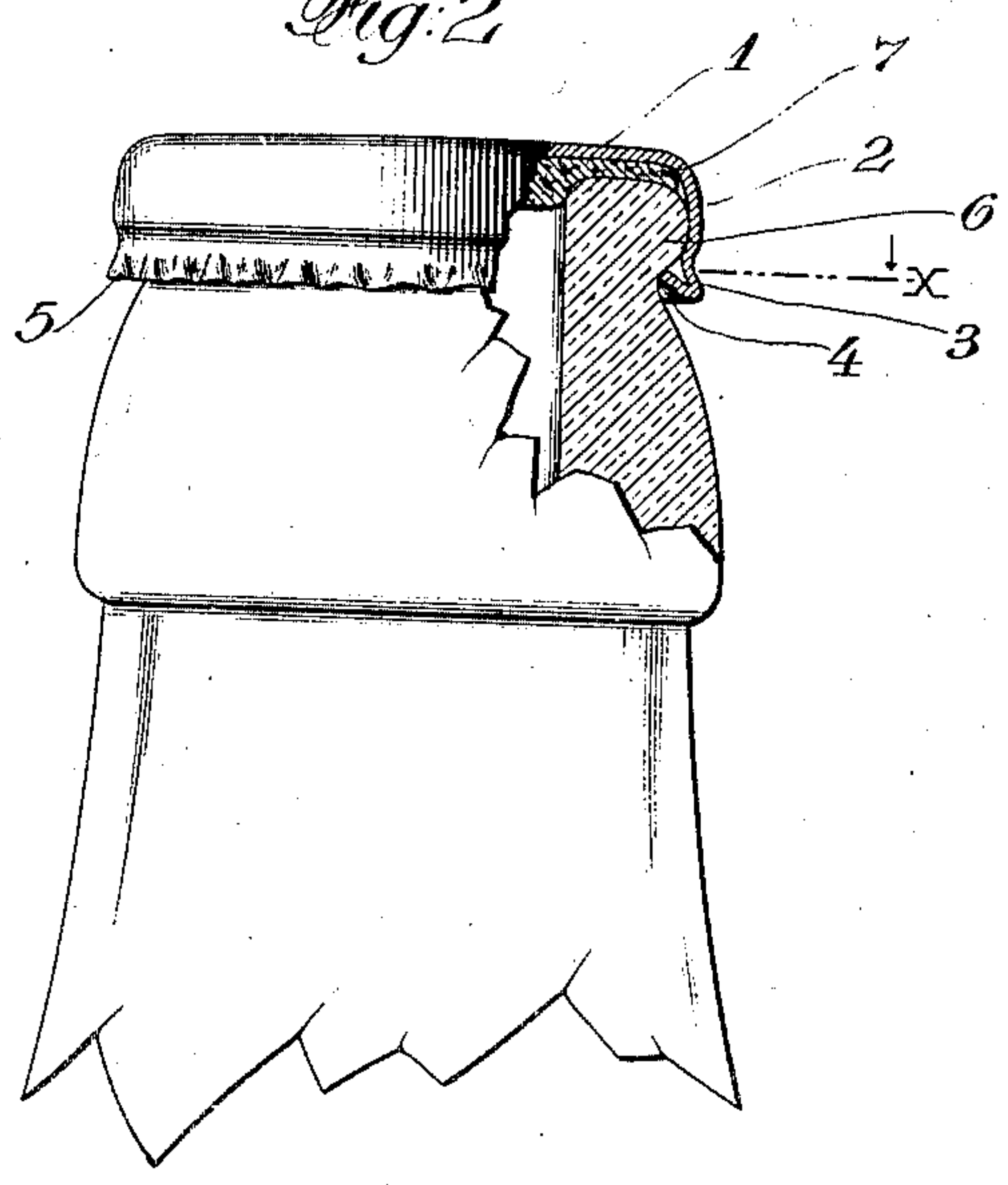


Fig. 3

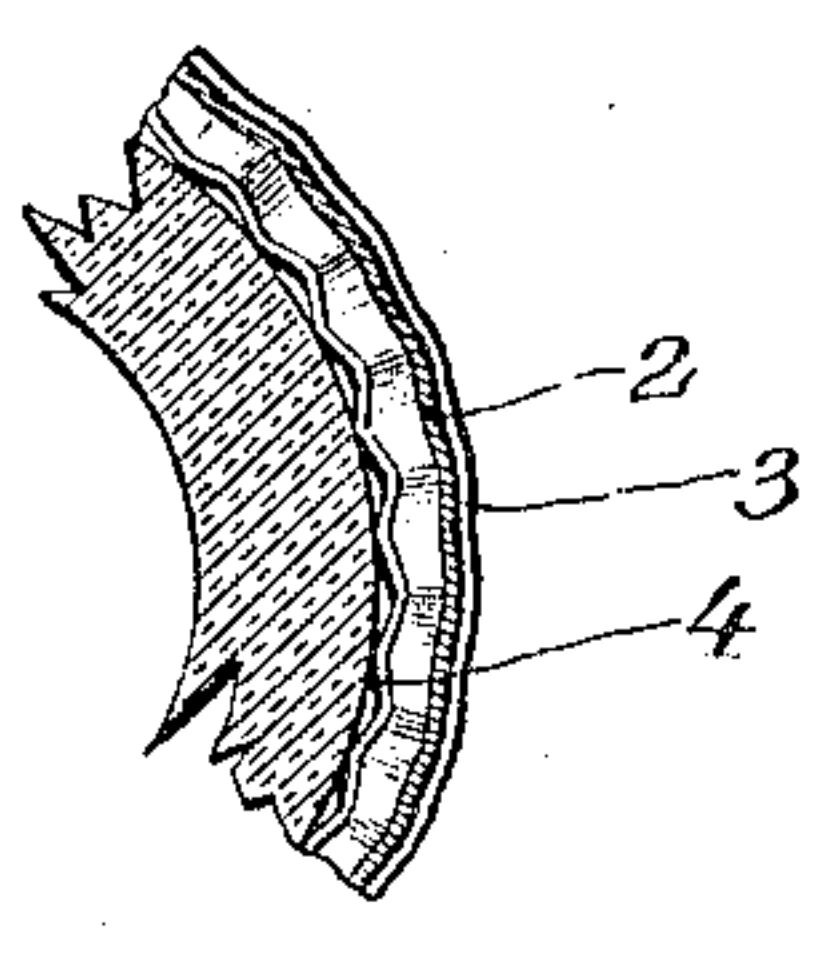
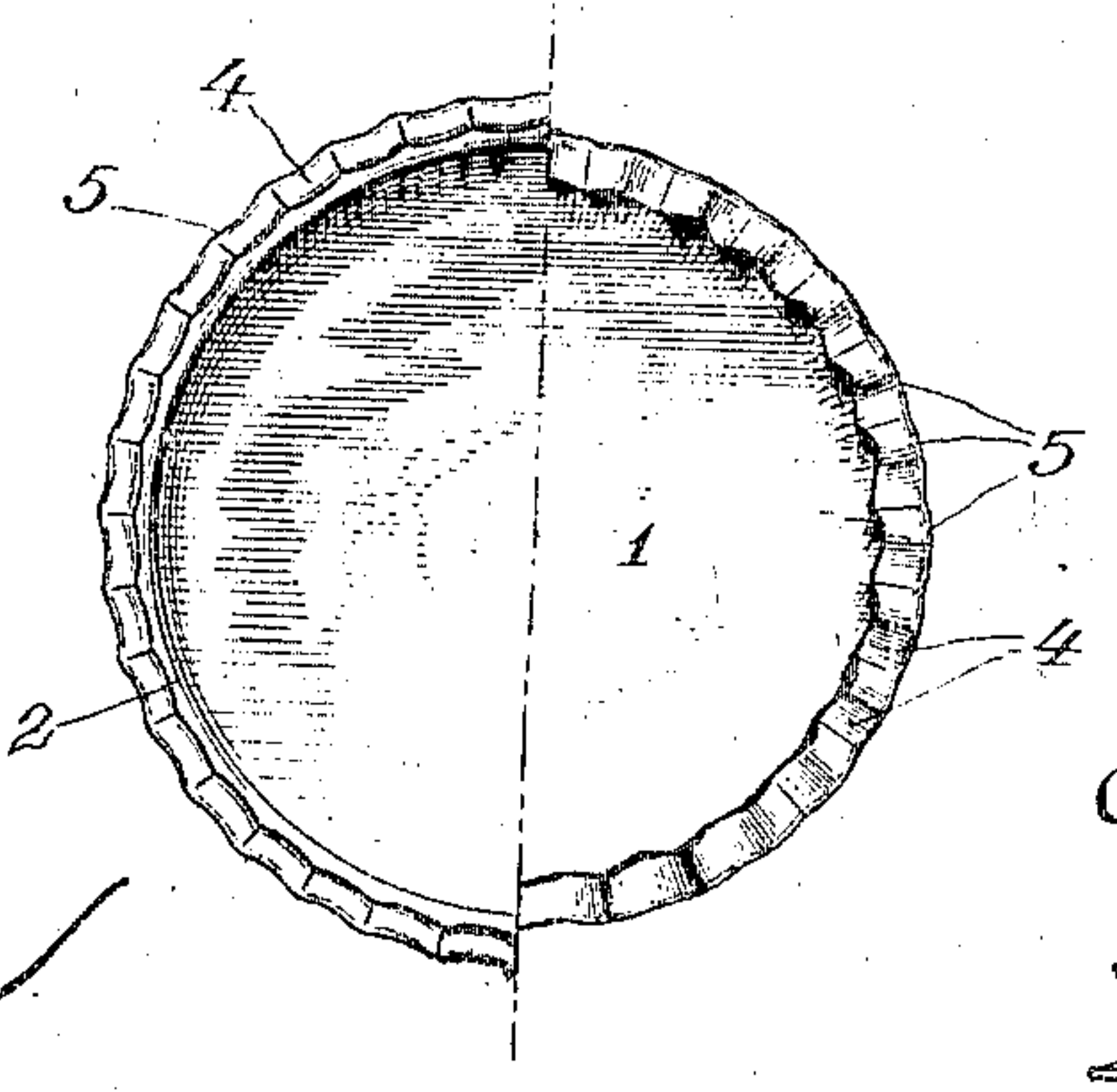


Fig. 4



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SHEET-METAL STOPPER FOR BOTTLES, JARS, &c.

983,332.

Specification of Letters Patent.

Patented Feb. 7, 1911.

Application filed May 12, 1908, Serial No. 432,380. Renewed June 15, 1910. Serial No. 567,070.

To all whom it may concern:

Be it known that I, ALFRED L. WEISSENTHANNER, a citizen of the Republic of France, and resident of the city, county, and State of New York, have invented certain new and useful Improvements in Sheet-Metal Stoppers for Bottles, Jars, &c., of which the following is a specification.

This invention relates to stoppers for bottles, jars, etc., and particularly to that class in which is employed a metallic sealing cap, the flange of which is adapted to be forced into locking engagement with the neck of the receptacle.

The object of my invention is to provide a construction in which the lower portion of the locking flange of the cap is folded inwardly upon itself, flared outwardly, and corrugated, whereby when such portion is constricted radially, the free edge of the inner fold is caused to exert an effective gripping action on the receptacle, and yet by the application of a suitable opening tool to the lower folded edge of the flange, in the usual manner, the stopper can be readily and safely removed from the receptacle, as will be hereinafter described and claimed.

In the drawings—Figure 1 is a side elevation, partly in section, of a stopper embodying my invention. Fig. 2 is a sectional elevation thereof as applied to a bottle. Fig. 3 is a partial transverse section, as on the line X of Fig. 2. Fig. 4 is a bottom view of the stopper, showing one-half thereof constricted to effect the inward bulging of the ribs or corrugations on the inner fold of the flange.

My improved stopper is stamped out of a single piece of sheet metal to produce the top or crown 1 and the integral depending flange 2. The lower portion of this flange is flared outwardly and downwardly, as at 3; its free end is turned inwardly and upwardly, as at 4; and the portion thus doubled is crimped or corrugated throughout, as at 5. The depth of the flange is such that when the stopper is applied to the mouth of a bottle or other receptacle, the lower folded and crimped portion of the flange extends below the usual shoulder 6 on the neck of the receptacle so that when such

portion of the flange is forcibly constricted by radial pressure thereon, the ribs or corrugations on the inner fold are transversely contracted and their free edges thus caused to spread or bulge inward and take under the shoulder, as illustrated in Fig. 2.

The stopper is provided with the usual sealing disk 7, of cork or other yielding material, which is forced downwardly upon and around the mouth of the receptacle during the application of the stopper thereto.

The inwardly and upwardly inclined portion of the flange due to the displacement of the corrugations thereof, affords and insures a reliable locking of the stopper to the receptacle. The internal upward pressure upon the stopper by the gaseous contents of the receptacle causes such inclined portion to exert a still more efficient gripping action upon the neck of the receptacle, and yet by the application of the usual opening tool to the lower reinforced edge of the flange, the removal of the stopper from the vessel can be readily and safely accomplished.

I claim—

1. A metal stopper having an integral depending flange, the lower portion whereof is folded inwardly upon itself, flared downwardly, and crimped or corrugated, whereby when such portion is constricted, the ribs or corrugations on the inner fold are transversely contracted and their free upper edges thus caused to spread or bulge into locking engagement with the receptacle.

2. In combination with a receptacle having an annular locking shoulder, a sealing disk, and a metallic cap provided with a flange whereof its lower portion is folded inwardly and upwardly, and the adjacent surfaces correspondingly corrugated, the free ends of the ribs or corrugations of the inner fold being in locking engagement with the shoulder.

Signed at New York, in the county of New York and State of New York, this eleventh day of May 1908.

ALFRED L. WEISSENTHANNER.

Witnesses:

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John R. Nolan.