

No. 757,605.

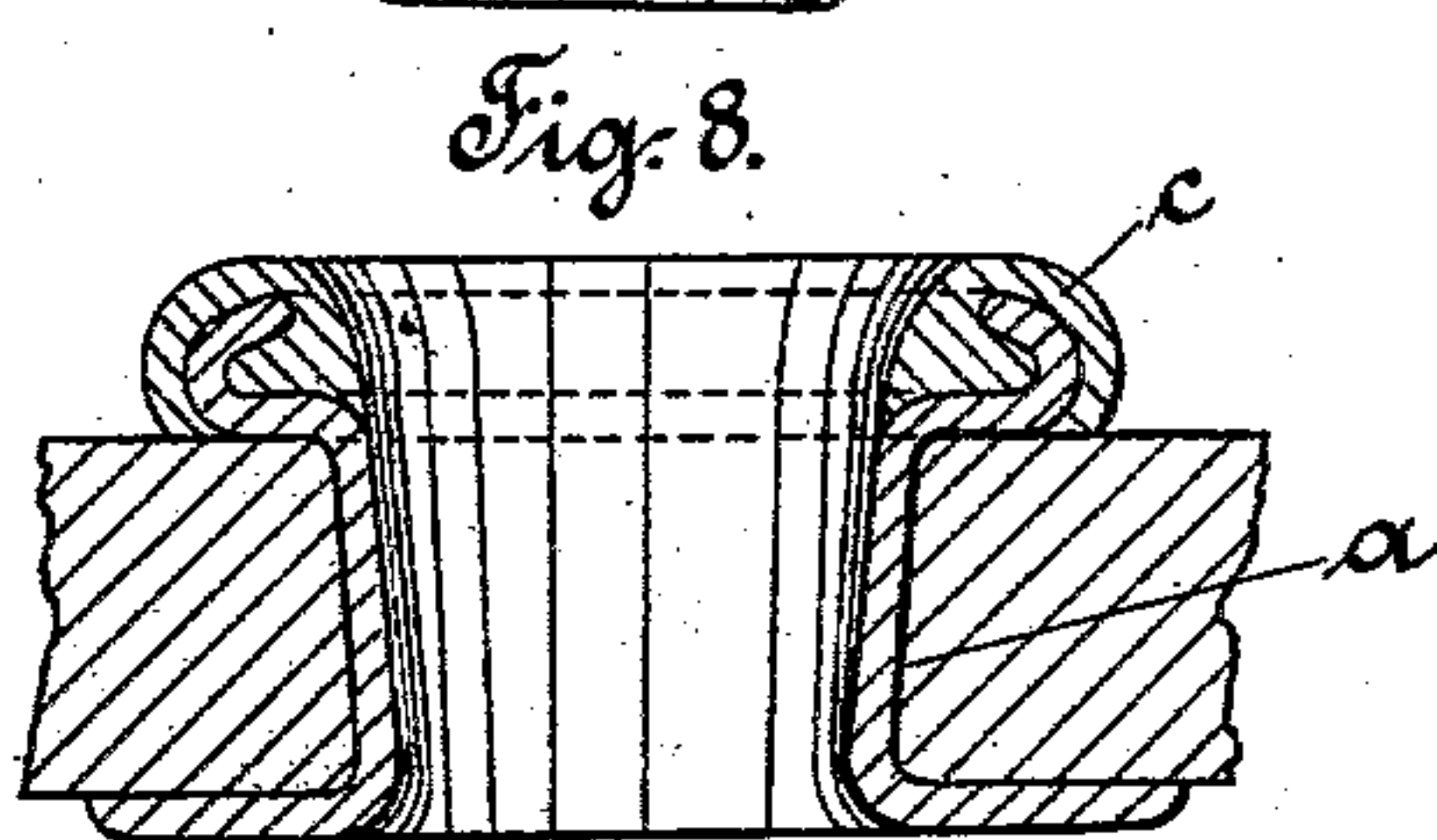
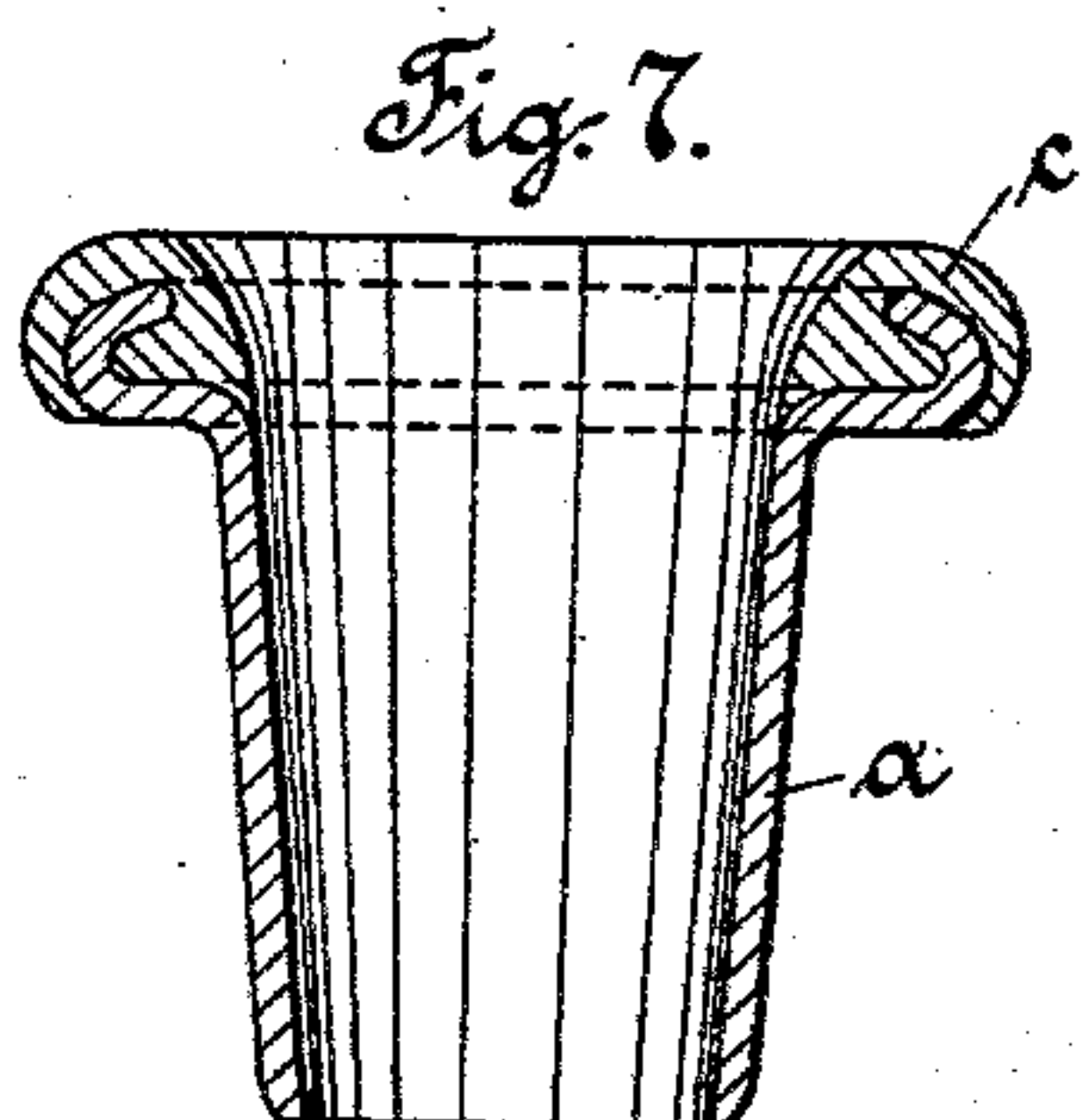
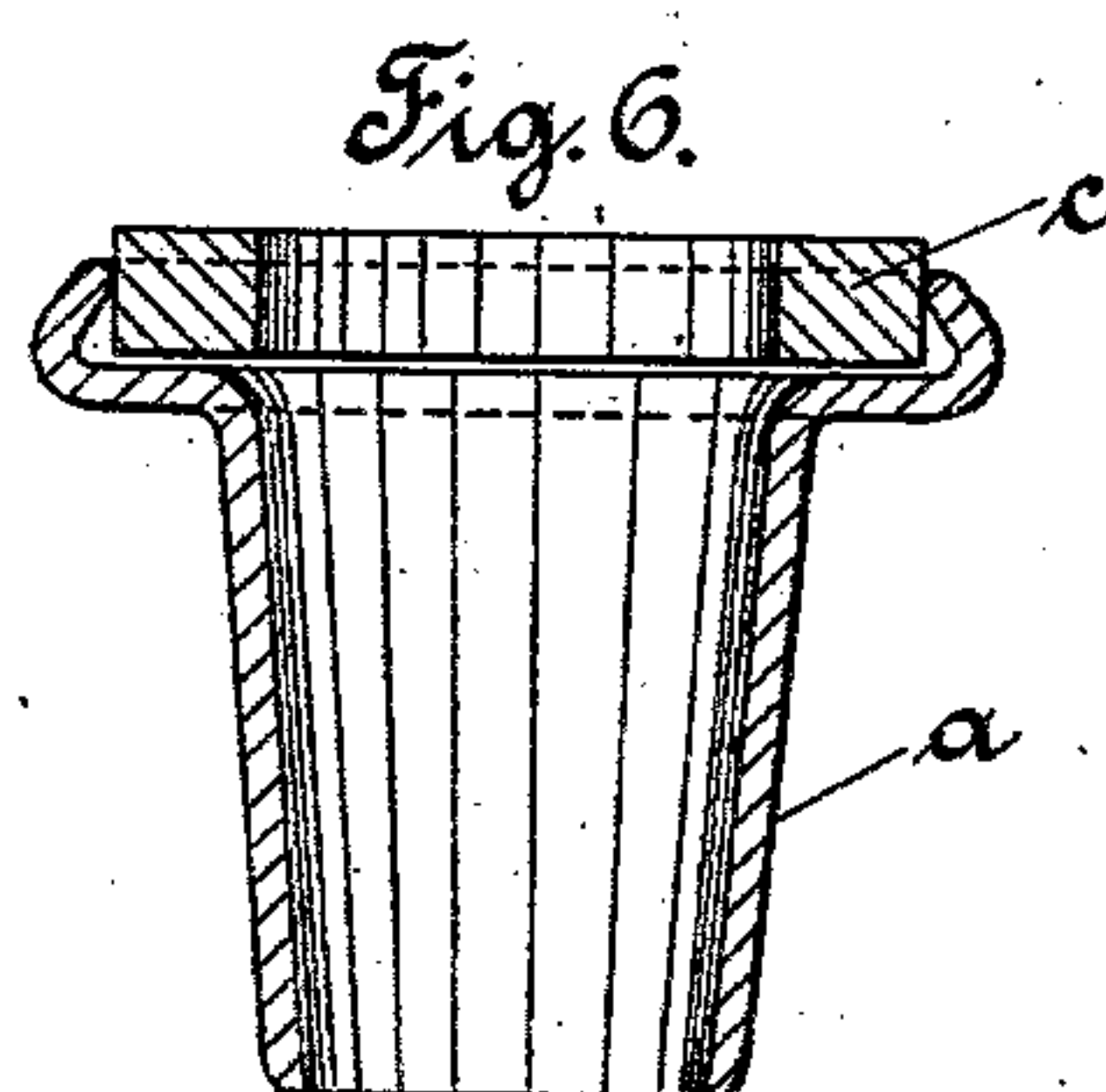
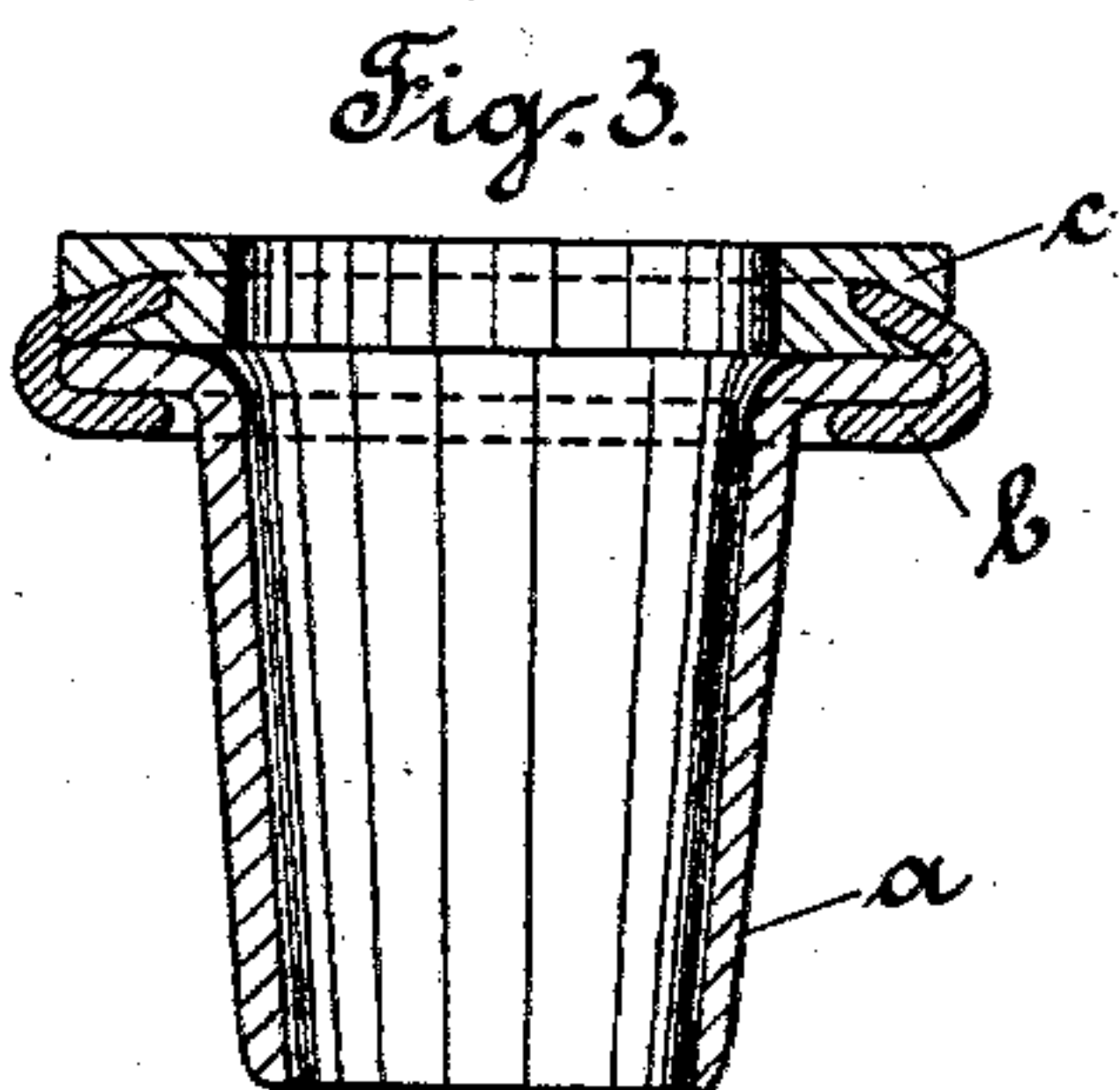
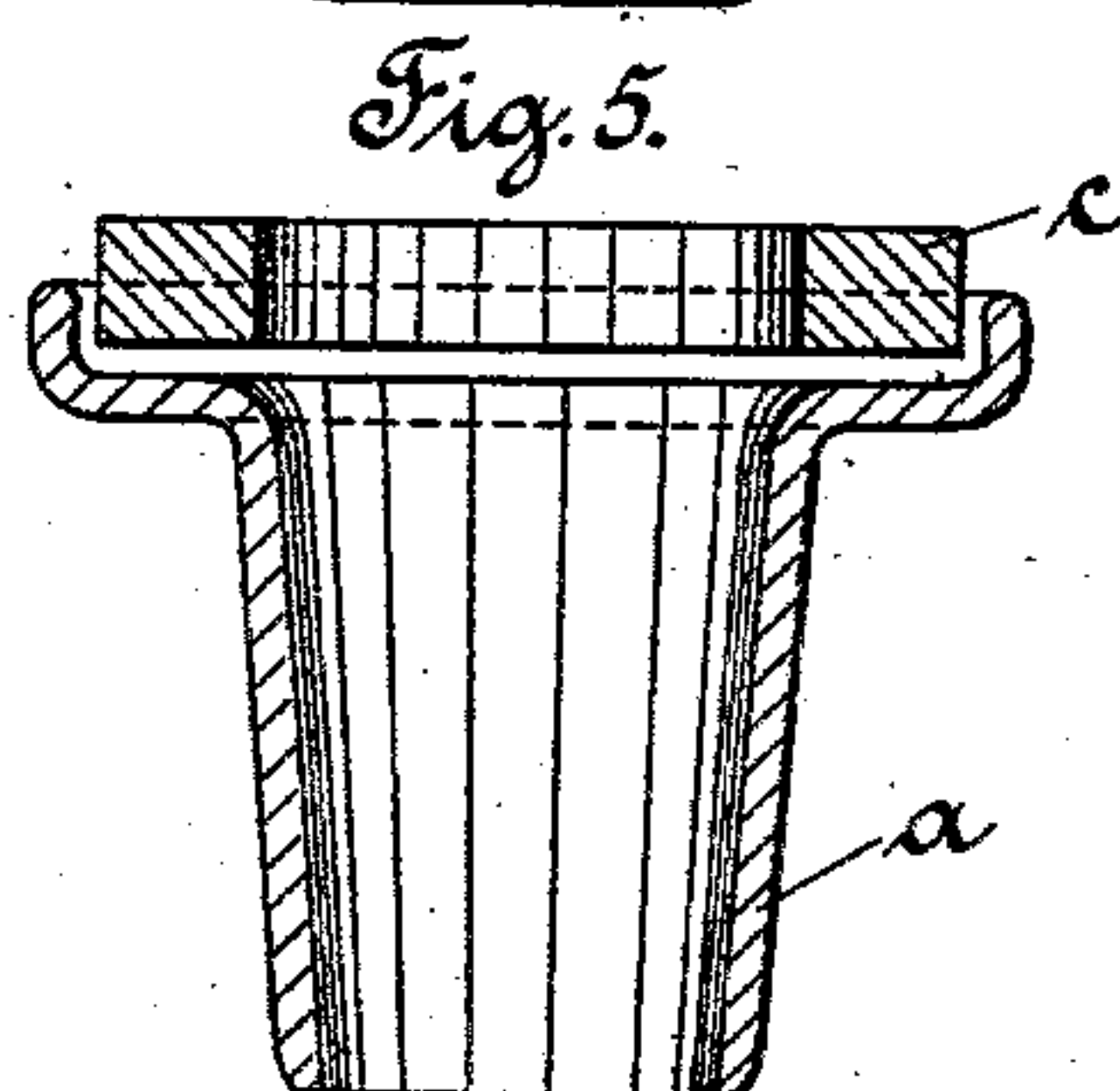
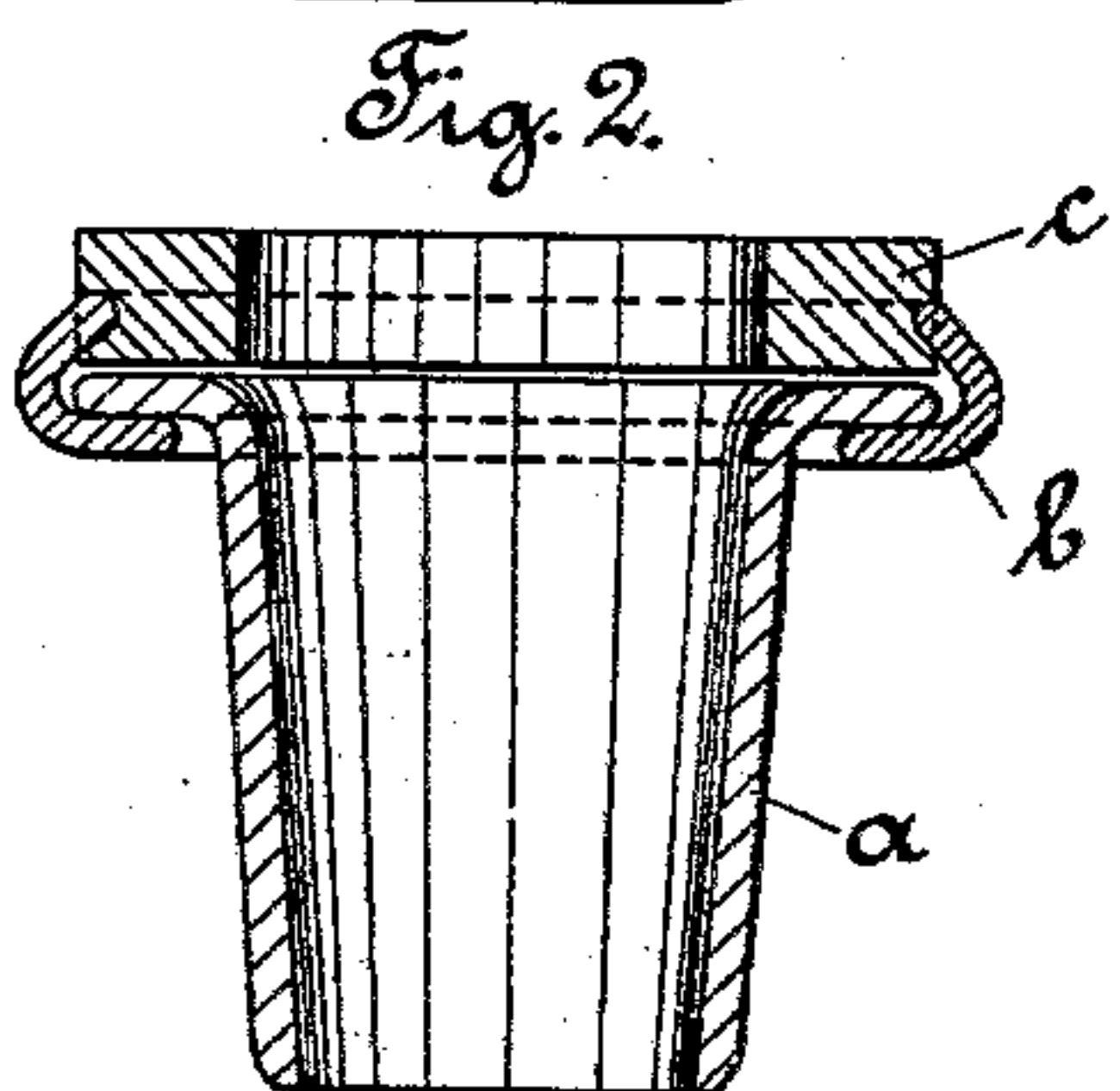
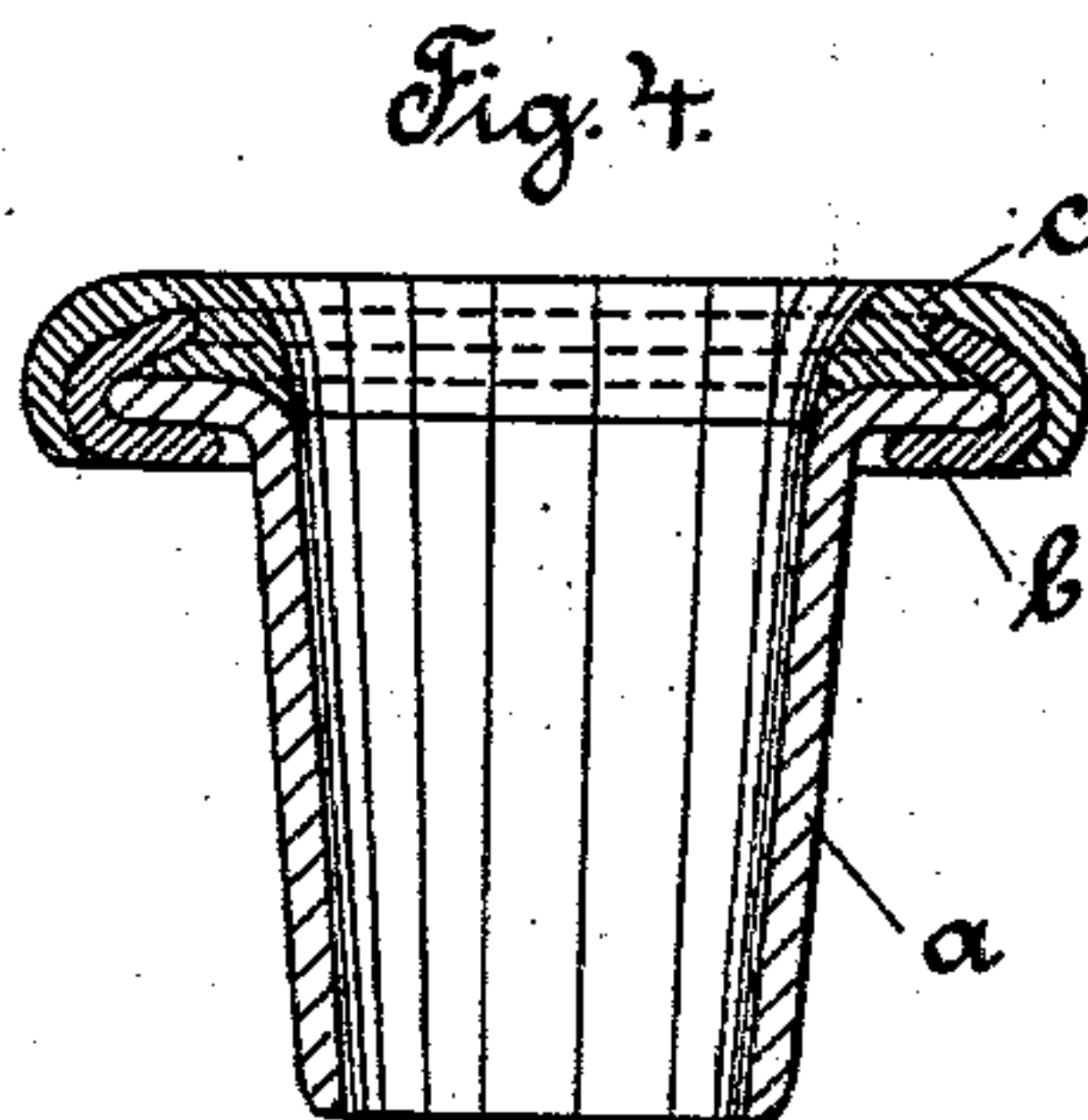
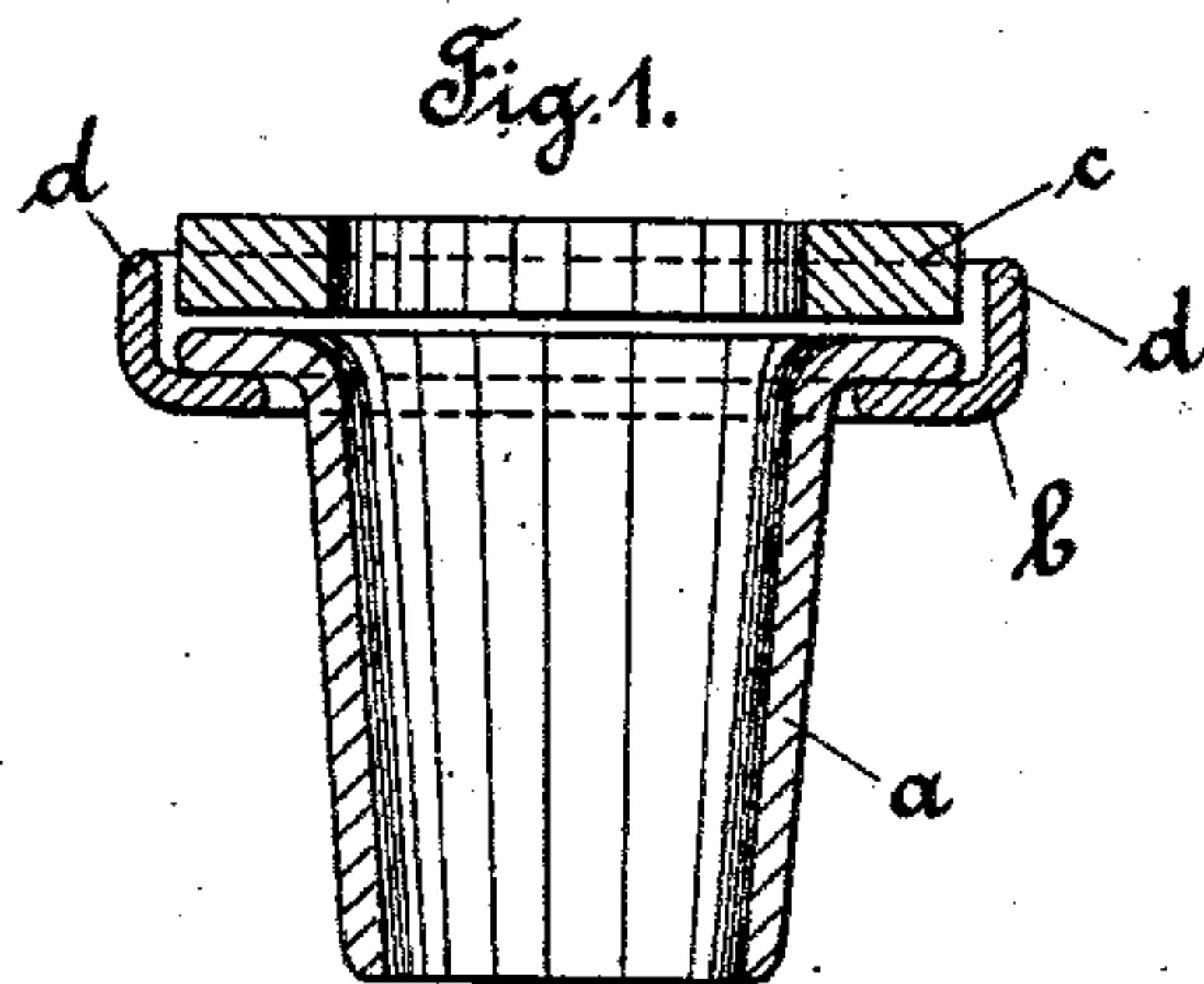
PATENTED APR. 19, 1904.

J. C. ENGELS.

EYELET.

APPLICATION FILED JULY 19, 1900.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHANN CASPAR ENGELS, OF BARMEN, GERMANY.

EYELET.

SPECIFICATION forming part of Letters Patent, No. 757,605, dated April 19, 1904.

Application filed July 19, 1900. Serial No. 24,233. (No model.)

To all whom it may concern:

Be it known that I, JOHANN CASPAR ENGELS, a subject of the King of Prussia, Emperor of Germany, residing at Barmen, in the Kingdom of Prussia, Germany, have invented certain new and useful Improvements in Eyelets, of which the following is a specification.

This invention relates to eyelets for eyelet-holes, such as are used for lacing shoes, stays, and other articles of dress. Such eyelets are usually provided with a coating for concealing the metal surface, both for the purpose of protection of the same and for decorative purposes. In the eyelets of this kind as heretofore manufactured the coating or covering of celluloid, rubber, varnish, japan, paste-board, papier-mâché, or other material of this kind was secured to the upper flanged part of the eyelet in such a manner that the coating was placed around the upper and under surface of the flange, so that part of the rather brittle fragile coating or covering was inserted between the lower surface of the eyelet-flange and the leather, whereby it was impossible to so secure the eyelet in and to the leather that slipping of the eyelet on account of the smooth surface of the intervening lower part of the covering was induced and the eyelet easily got loose. Moreover, the pressure of the flange against the leather gave rise to the slipping off of the lower part of the covering between the flange and the leather, and this very soon resulted in the breaking of the upper portion of the cover, also in view of the glass-like character of the covering, whereby small fissures produced by the pressure on the leather caused it to peel and to scale off readily. Moreover, in the eyelets as heretofore constructed the covering, in view of its being bent below the flange also, was not very securely connected to the edges of the flange, which in most cases were allowed to flare outwardly and were liable to cut the covering, in view of the difference of extension of the leather and of the flange, so as to be another cause of the ready cracking and peeling off of the coating or cover of the flanged part of the eyelets.

By my invention I produce an eyelet in

which the cover of celluloid, ebonite, or other suitable material is securely connected to the metal portion of the eyelet in such manner that when the eyelet is inserted and secured in an article none of the covering material will be interposed between the metal of the eyelet and such article.

In the accompanying drawings, Figures 1 to 4, inclusive, are sectional views showing my improved eyelet at different stages of its manufacture. Figs. 5 to 8, inclusive, are similar views showing a modified form of the metal part of the eyelet.

In constructing the eyelet as shown in Figs. 1 to 4 there is preferably used a tubular metal body *a*, provided with a flange at its upper end, and over the tubular body is passed from below a metal ring *b*. The ring *b* consists of a horizontal plate which on the outer border is bent upward. After the ring has been placed on the tubular body a ring of celluloid *c*, previously cut out, is placed upon the flange of the tubular body *a*. For uniting the ring of celluloid to the border of the ring *b* the three parts (the tubular body, metal ring, and ring of celluloid) are placed into a matrix, and by means of a suitable upper die the upper border *d* of the metal ring *b* is pressed into the ring of celluloid *c*. (See Figs. 2 and 3.) After the ring of celluloid has been united to the metal ring, whereby at the same time the metal ring and the tubular body are also united together, the celluloid is pressed down over the outer surface of the part *d* by means of a suitable die. The covering material terminates at the plane of the under surface of the ring *b*, which in this case forms the engaging flange of the eyelet—that is, the flange that comes in contact with the surface of the article in which the eyelet is inserted.

In the structure shown in Figs. 5 to 8 the metal ring *b* is omitted, and the flange of the tubular body has its outer portion turned up, and this turned-up portion performs the same function as the part *d*, it being embedded in the covering material which covers the upper surface of the flange, the same as in the construction illustrated in Figs. 1 to 4.

I have referred specifically to a covering of

celluloid; but it is to be understood that any other materials susceptible of being molded while either hot or cold may be employed.

It will be observed that in either form of the invention—that is, with or without the ring *b*—only the top or upper surface of the flanged end of the eyelet is covered by the plastic coating, and there will be nothing between the metal and the material into which the eyelet is inserted. This is advantageous for the reason that the eyelet will not be as liable to come loosened as would be the case if there was a smooth surface of the plastic material in contact with the fabric.

What I claim is—

1. An eyelet comprising a metal body, having an upper flange, a cover of plastic material on the upper surface of said flange, and a metal ring on the body below the said flange, said ring having an upwardly and inwardly bent flange embedded in the plastic material.
2. An eyelet of substantially tubular shape

comprising a metal body provided with an upper flanged part having an inturned upper edge, and a cover of plastic material in which said inturned edge is embedded and said material also covering the top or upper surface of said flanged part and terminating in the plane of its lower surface, substantially as described.

3. An eyelet of substantially tubular shape, comprising a metal body, flanged at its upper end, a metal ring surrounding said end and having an inwardly-bent edge inclosing said flanged upper end and a cover of plastic material on top of and between the ring and said flanged part, substantially as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHANN CASPAR ENGELS.

Witnesses:

OTTO KÖNIG,

J. A. RITTERSHAUS.