

No. 688,786.

Patented Dec. 10, 1901.

E. P. LINCH.  
COVERED EYELET.

(Application filed Jan. 2, 1901.)

(No Model.)

Fig. 1.

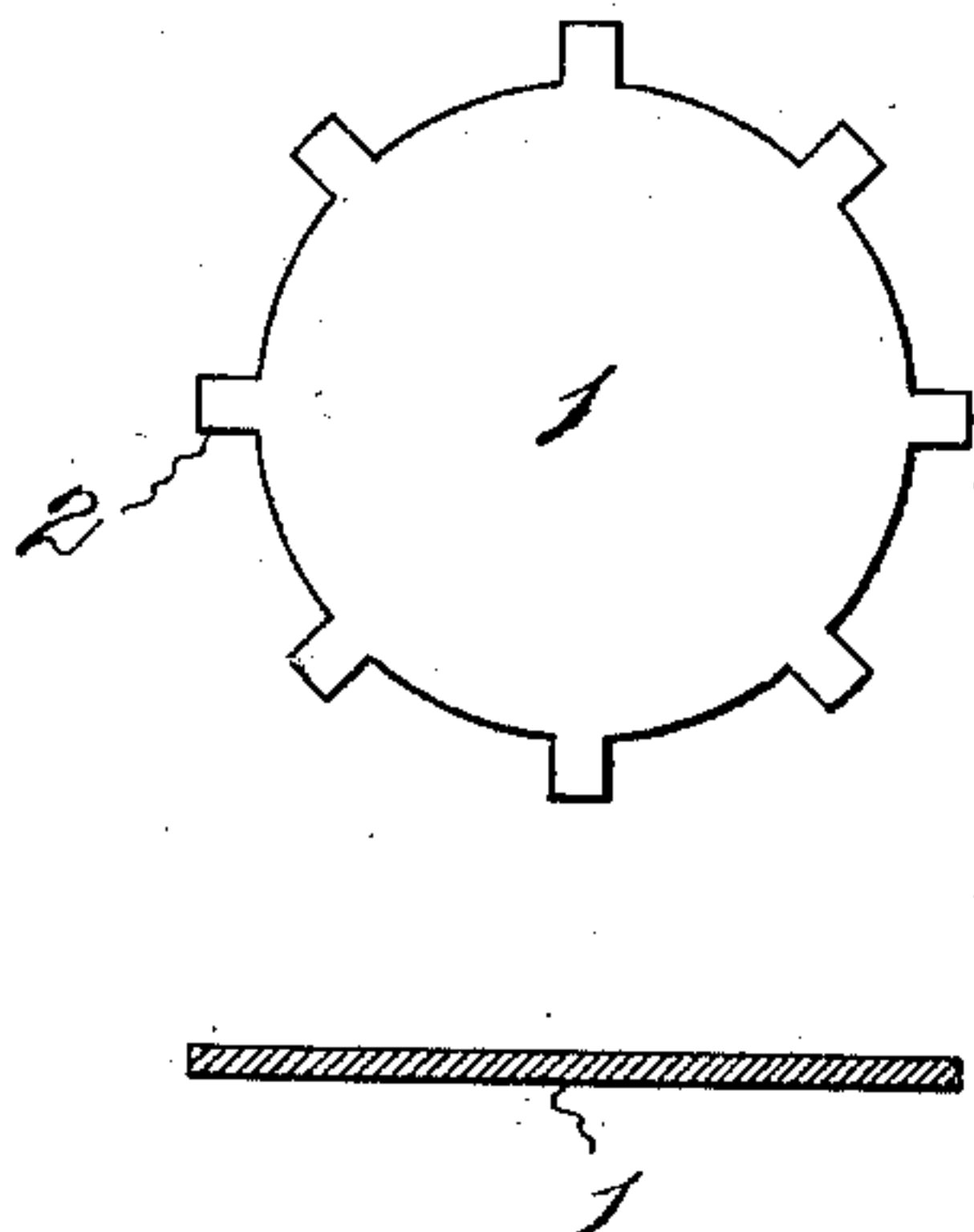


Fig. 2.

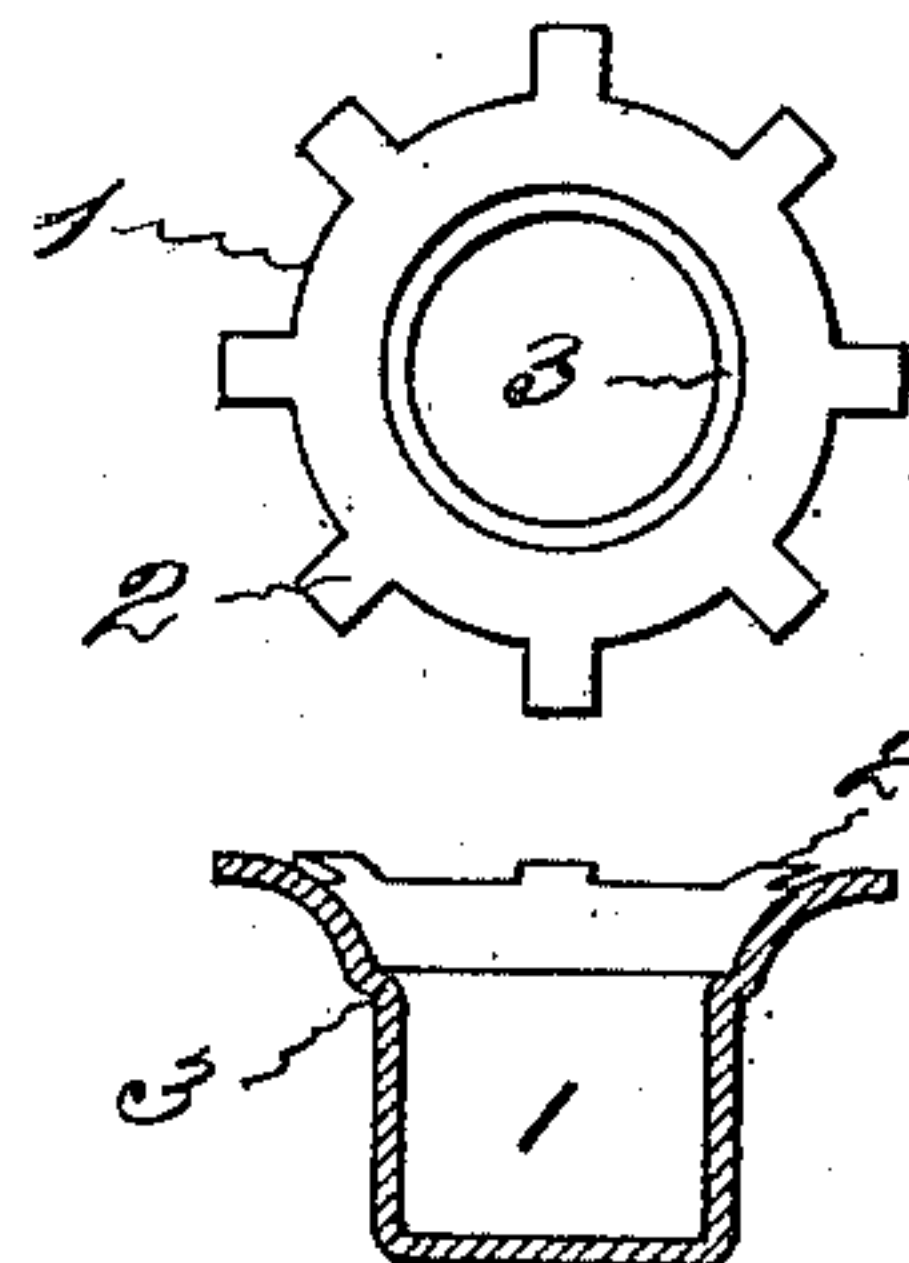


Fig. 3.

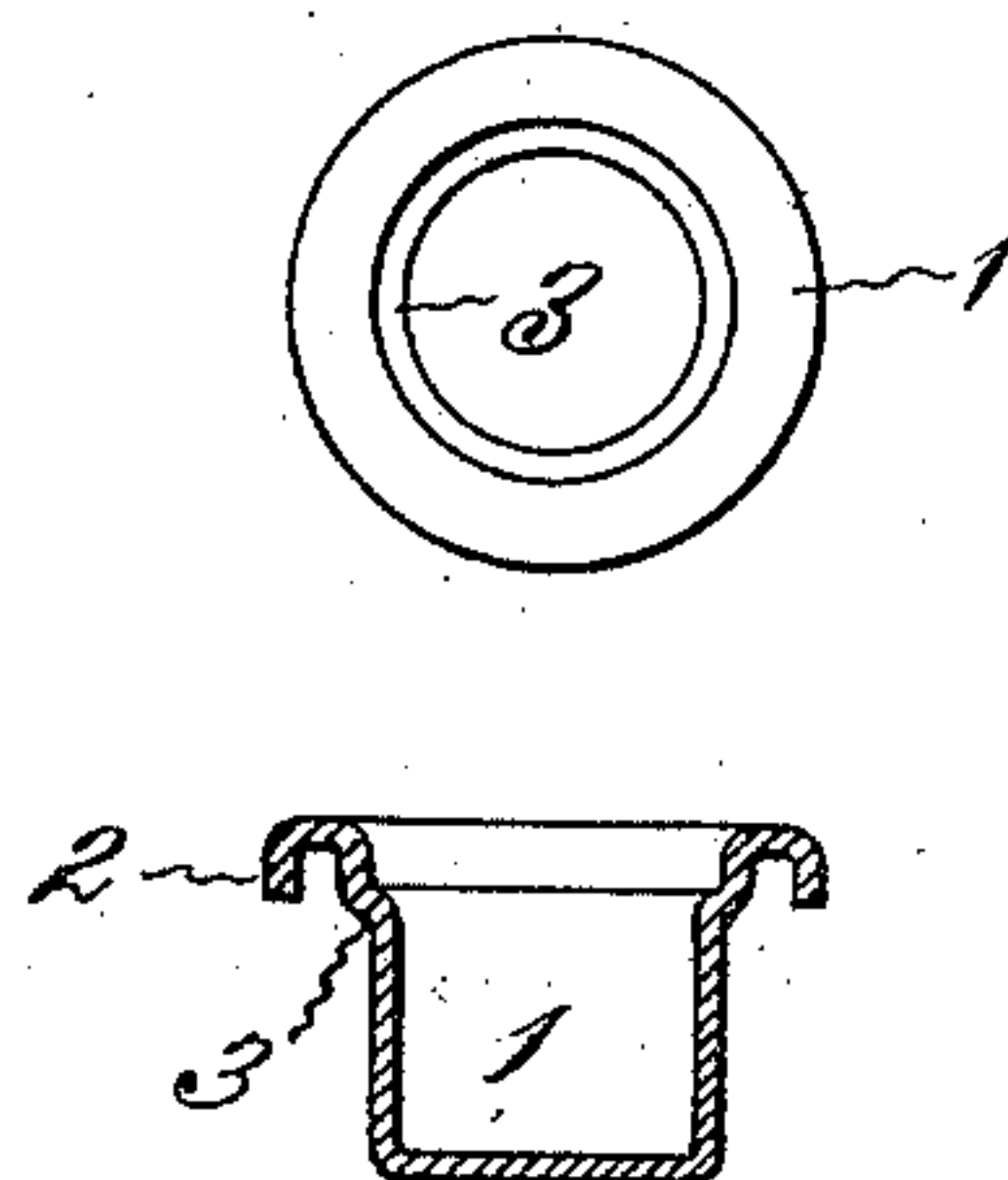


Fig. 4.

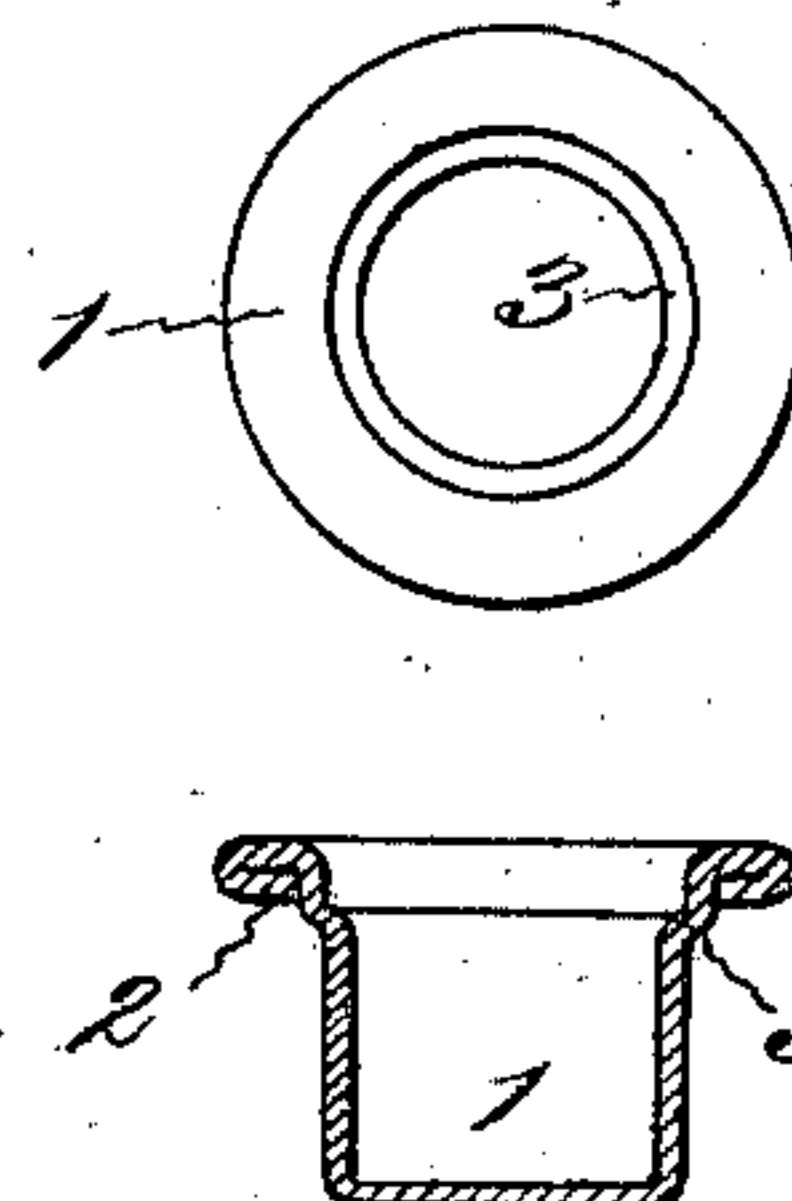


Fig. 5.

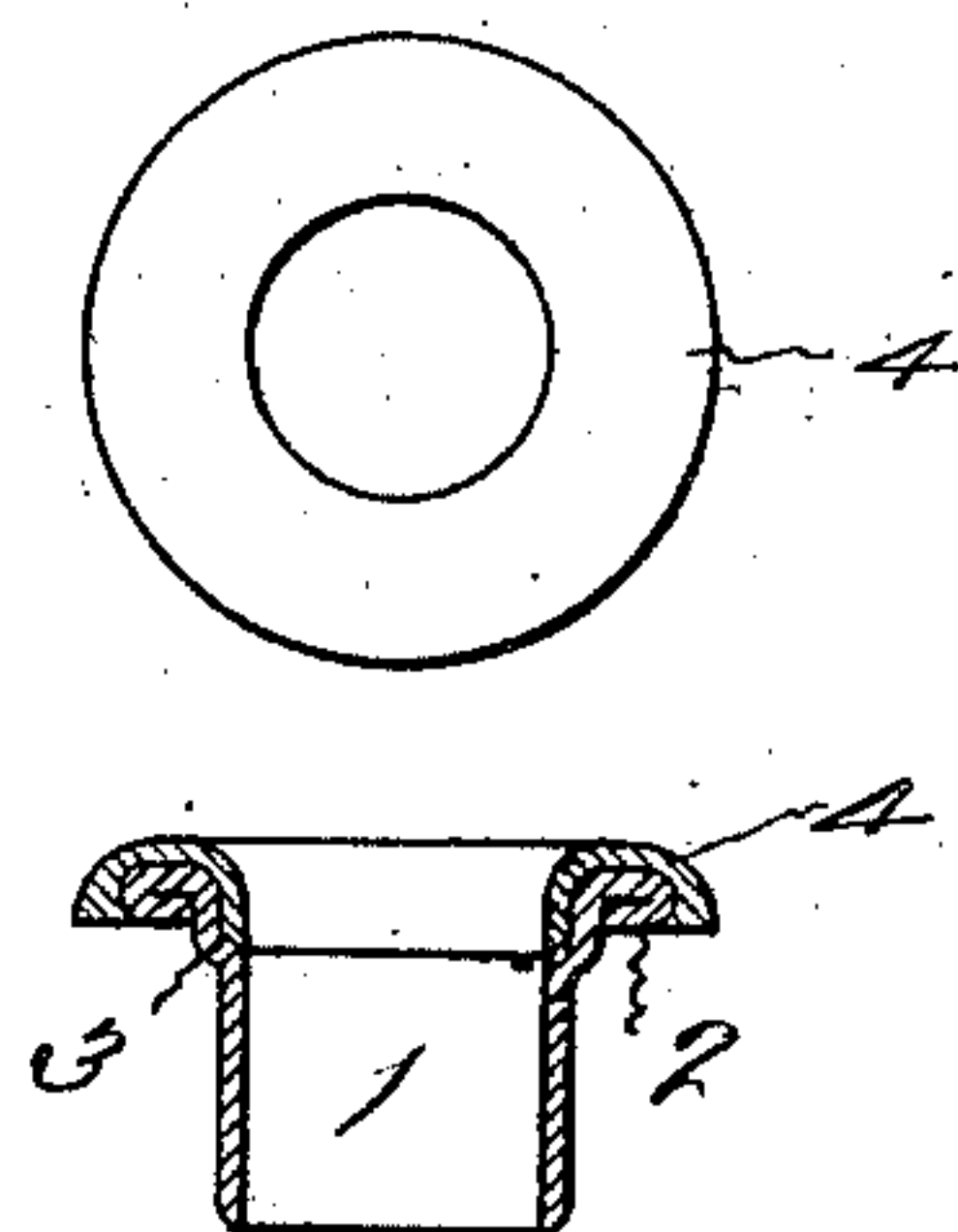
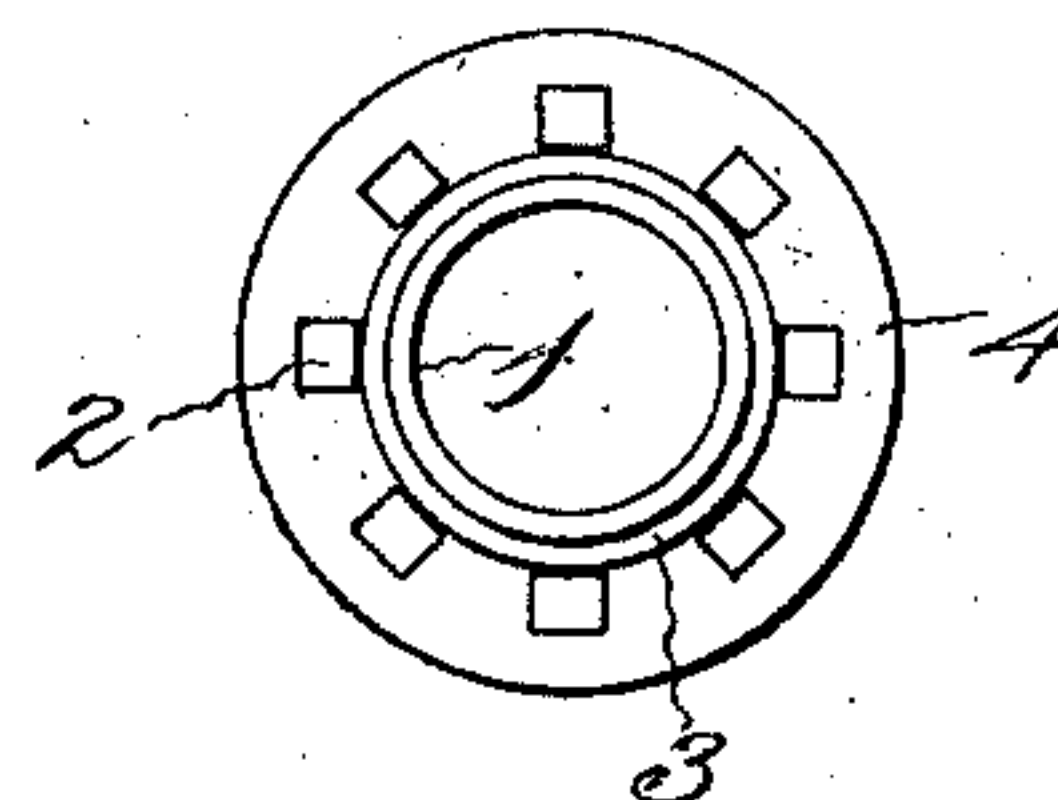


Fig. 6.



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# UNITED STATES PATENT OFFICE.

EDWARD P. LINCH, OF WATERBURY, CONNECTICUT, ASSIGNOR OF ONE-HALF TO BARTOLO L. D'AUBIGNE, OF LONDON, ENGLAND.

## COVERED EYELET.

SPECIFICATION forming part of Letters Patent No. 688,786, dated December 10, 1901.

Application filed January 2, 1901. Serial No. 41,801. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD P. LINCH, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Covered Eyelets, of which the following is a specification.

This invention relates to those eyelets which are stamped from thin sheet metal and partly covered with celluloid or a like composition that becomes plastic when heated.

The object of the invention is the production of an eyelet having a very stiff and easily-formed metal body which can be rapidly made without requiring great accuracy in the dies and punches and gage of the metal and which will readily receive and firmly hold the plastic composition that is molded about the head.

The eyelet that is illustrated in the accompanying drawings as embodying the invention has a sheet-metal tubular body with a flanged head that has a smooth upper surface and regular circular periphery and that at intervals is composed of two thicknesses of metal, with hardened plastic composition molded over the smooth upper surface, around the regular circular periphery, and under the portions that are of single thickness of metal and between those portions that are of double thickness.

Figure 1 of the drawings shows a plan and central section of a blank from which the body of this eyelet is formed. Fig. 2 shows a plan and central section of the body-blank after it has been cupped. Fig. 3 shows a plan and central section of the body-blank after the projections which are to form the double thicknesses for the flanged head are bent downwardly. Fig. 4 shows a plan and central section of the body-blank with the flange projections doubled under, so as to provide two thicknesses of metal at intervals around the head. Fig. 5 shows a plan and central section of the completed body with the composition molded over the smooth upper surface, around the regular circular periphery, and beneath the portions of single thickness and between the portions of double thickness; and Fig. 6 shows a bottom view of a completed eyelet.

The blank 1 is stamped from thin sheet

metal in a circular form, with teeth 2 projecting from its periphery. In the process of manufacture this blank is passed to a punch and die of common form and cupped. A shoulder 3 may be formed around the upper part of the cup. The cupped blank is passed to a punch and die, and the teeth which project from the periphery of the flanged head are bent downwardly to the position illustrated in Fig. 3. The blank with teeth extending downwardly is then passed to dies which double the teeth underneath the flange, so that portions of the head will be formed of two thicknesses of metal. At the desired time during these steps the bottom of the cup may be punched out, so as to leave an opening entirely through the body of the eyelet.

The tubular body of the eyelet, with the flanged head formed partially of two thicknesses of metal and partially of a single thickness of metal, is placed in a molding-die, and heated plastic composition 4 is by common means pressed upon the head, so as to cover the head from the shoulder on the inside around to the shoulder on the outside. When the body is placed in the molding-die, the doubled portions of the flange rest upon the face of the die and hold the head away from the face of the die, so that at intervals where the head is of but a single thickness there are openings between the inner face of the flange and the face of the die, and the composition when molded flows around the edges and beneath the flanged head into these openings between the doubled portions. By forming portions of the head of two thicknesses of metal in this manner a head is formed which has a perfectly smooth upper face and a true circular periphery. This head is unyielding when the composition is being molded upon it, for the reason that the two thicknesses of metal which support the head cannot give under the pressure exerted when the composition is applied. As a result of the unyielding support for the flanged head great force may be applied for compressing the composition without so straining the metal that when this force is removed it will spring back and weaken the adhesion of the composition, and by reason of the heavy pressure that may be applied the composition may be laid on thin



and made very dense and will be firmly anchored by that which flows over the circular edge and enters between the double-thick portions of the head.

- 5 The bodies of these improved eyelets may be produced very rapidly by common tools without exercising particular skill, and should the dies become worn or the metal vary in thickness the eyelets produced would be in  
10 such shape that they could be satisfactorily covered.

I claim as my invention—

- An eyelet consisting of a tubular metallic body having a flanged head that has sections  
15 formed of two thicknesses of metal that lie

close together and are integral at the periphery of the head, with intervening sections of single thickness, which head has a substantially flat smooth upper surface, a regular circular periphery and an uneven under surface, 20 with composition forcibly molded upon the smooth upper surface around the regular circular periphery and beneath the uneven under surface of the head substantially as specified.

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