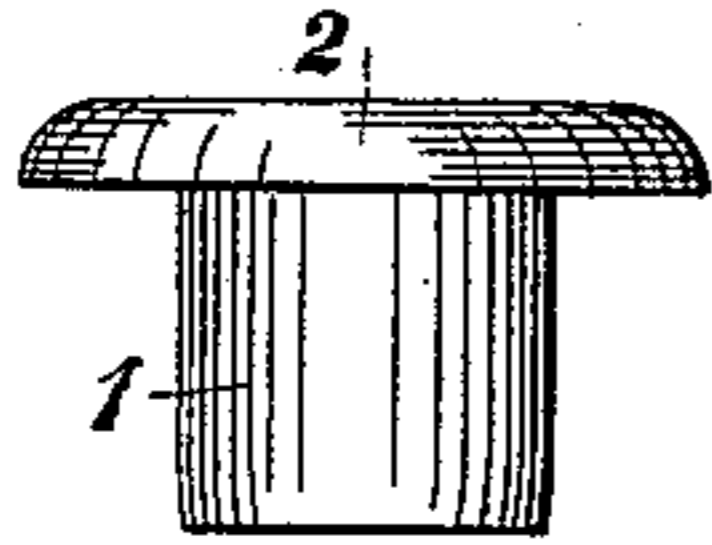


(No Model.)

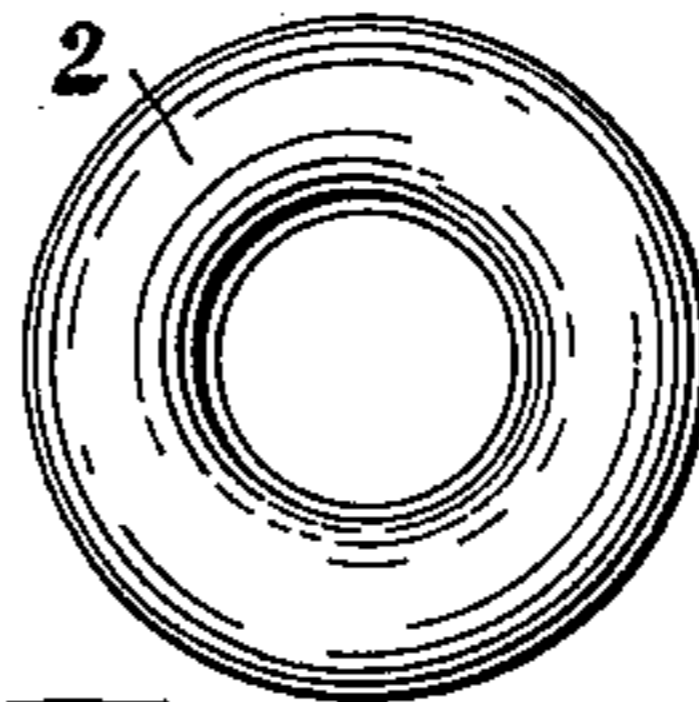
G. B. MILLER.  
EYELET.

No. 605,892.

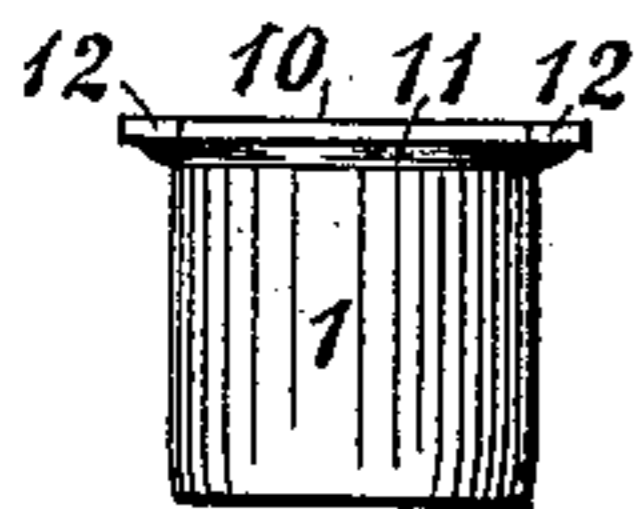
Patented June 21, 1898.



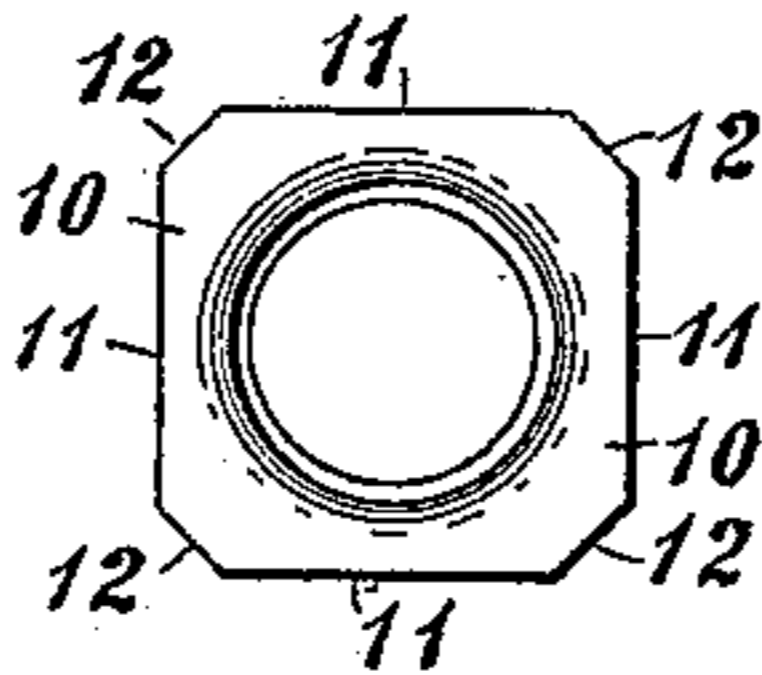
*Fig. 1.*



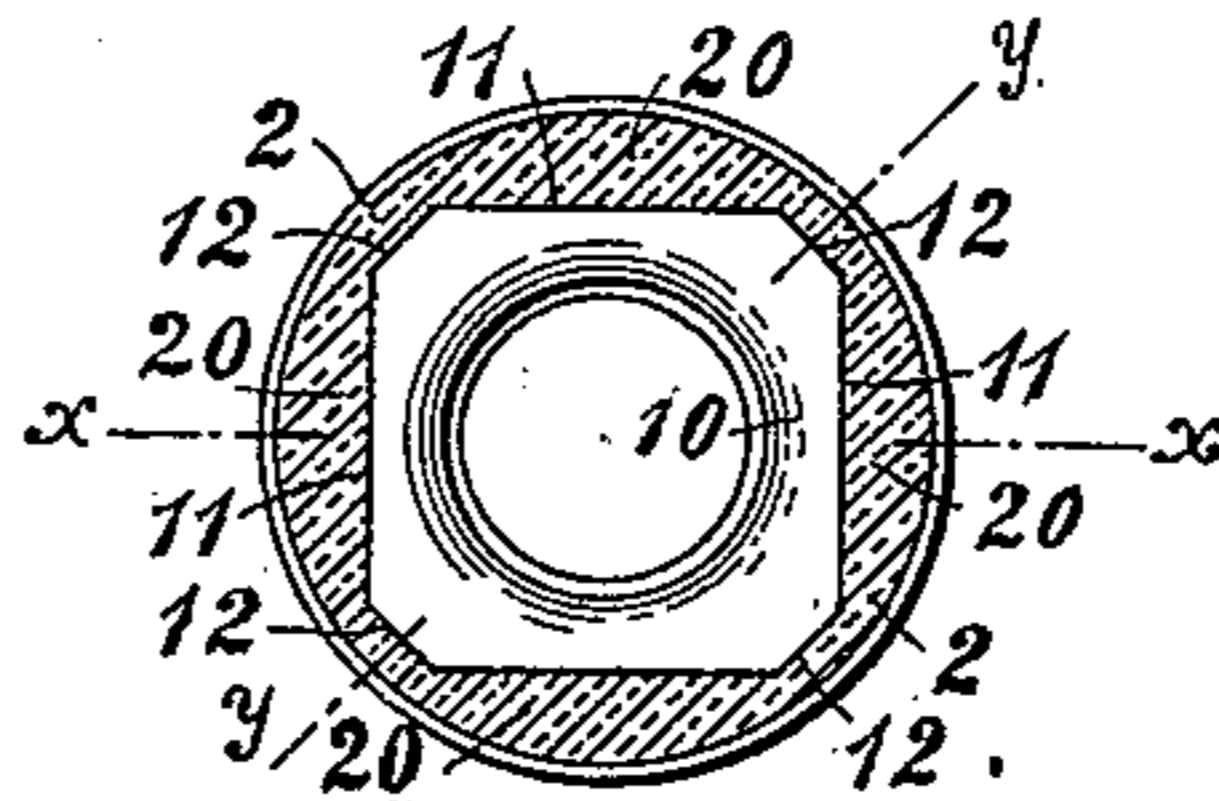
*Fig. 2.*



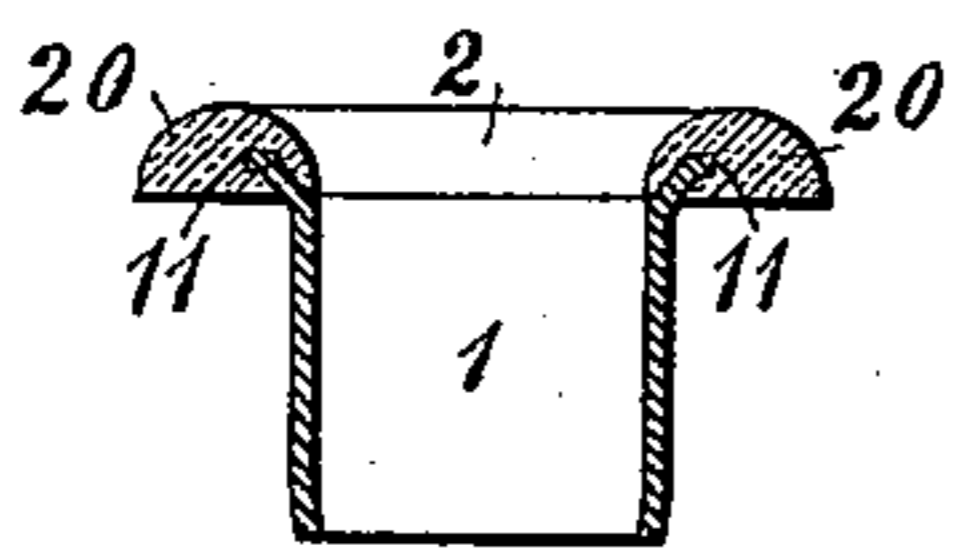
*Fig. 3.*



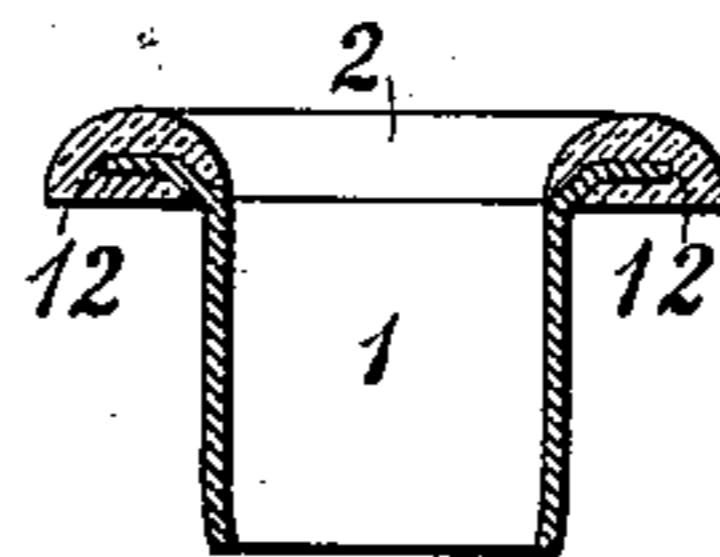
*Fig. 4.*



*Fig. 5.*



*Fig. 6.*



*Fig. 7.*

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# UNITED STATES PATENT OFFICE.

GEORGE B. MILLER, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE  
AMERICAN RING COMPANY, OF SAME PLACE.

## EYELET.

SPECIFICATION forming part of Letters Patent No. 605,892, dated June 21, 1898.

Application filed December 24, 1896. Serial No. 616,833. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE B. MILLER, of Waterbury, in the county of New Haven and State of Connecticut, have invented a certain  
5 new and useful Improvement in Eyelets, of which the following is a full, clear, and exact description, reference being made to the accompanying drawings, forming part of this specification.

10 This invention relates to improvements in eyelets which are provided with a head comprising a ring of hardened plastic material which forms the exterior of the head and which is secured on the body of the eyelet by means  
15 of a metallic flange or similar projection formed on the body and embedded in and covered by the ring; and the invention consists of an eyelet comprising a head whose parts have the respective forms and bear to  
20 each other the relations hereinafter described, and defined in the claims.

On the accompanying sheet of drawings, Figure 1 is a side view of an eyelet embodying the invention; Fig. 2, a top view of the  
25 head; Fig. 3, a side view of the metal part of the eyelet; Fig. 4, a top view of the metal part; Fig. 5, a top view of the metal part and a section in the same plane of the hardened plastic material surrounding the top of the  
30 metal part; Fig. 6, a section of the eyelet on the axis thereof and on the line  $x x$ , Fig. 5; and Fig. 7, a section of the eyelet on the axis thereof and on the line  $y y$ , Fig. 5.

Similar reference-numerals designate like  
35 parts in the different views.

The general object of this invention is to facilitate the proper application of the plastic material to the metal part of the eyelet and to render the head of the eyelet especially  
40 strong and durable.

The external appearance of this eyelet is not necessarily different from that of others which were in use before this invention was made, the body 1 being like that of a common  
45 eyelet and the ring 2 of hardened plastic material having, if desired, the plano-convex form, which is well known in connection with the heads of eyelets. The top 10 of the metal part has the outline of a convex polygon—  
50 that is to say, a polygon no side of which

when produced will enter the space inclosed by the perimeter—and it is preferably either a square or almost a square, as appears by Fig. 4. The projection of the top 10 from the body 1 is little if any more than the thick-  
55 ness of the metal at the center of each of the sides 11 of the top; but next to the portions 12 of the perimeter of the top shown, or, if the top is square, then next to the corners thereof, it is great enough to extend nearly  
60 to the outer surface of the head when the eyelet is finished.

The operation of forming the ring 2 on the metal part is substantially that which is now practiced by manufacturers of other eyelets,  
65 the plastic material being held against the upper face of the top 10 and by means of a hot die being softened and forced over the edges of the top and into the space between the top 10 and the flat face of the die. In  
70 consequence of the peculiar form of the top 10 and its relation to the interior of the die ample space is afforded between the sides 11 and the wall of the die to enable the softened plastic material to be very easily forced un-  
75 der all parts of the top 10, while a suitable quantity of that material is used in the manufacture of each head, however small it may be, to render the action of the plastic material in the die satisfactory and to insure the  
80 formation of a perfect head.

The relations which the metal part and its covering of plastic material bear to each other are those which are represented in Figs. 5, 6,  
85 and 7. As appears by these figures, the center of each of the sides 11 of the top 10 is nearer to the inner than to the outer margin of the ring 2, and the ends of each of these sides are nearer to the outer than to the inner margin  
90 of the ring, or, in other words, each of the sides 11 of the top extends from the inner to the outer portion of the ring 2 in opposite directions from the center of the side. Thus a good foundation for the ring is afforded by  
95 the top 10, and the long sides 11 of the top bearing against the solid sections 20 of the ring effectually resist any tendency of the ring to work loose on the metal part of the head when the eyelet is in use. Moreover,  
100 the sections 20 of the ring help to render that

part of the head especially strong, so that it is not liable to be fractured as easily as a covering such as is applied to the metal part of an eyelet having a round top or flange or a flange which extends nearly to the surface of the head along the entire circumference or perimeter of the flange, and hence almost divides the covering into two distinct parts.

Even very small eyelets may be readily provided with a neat and durable head made as above described.

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

1. An eyelet composed of a metal part and a ring of hardened plastic material, the metal part consisting of a tubular body, and a top having the outline of a convex polygon, the top being embedded in the ring, and having the outermost portions of its perimeter near the outer margin of the ring, and the innermost portions nearer to the inner than to the outer margin of the ring, substantially as described.

2. An eyelet comprising a head which is

composed of the top of the metal part of the eyelet and an annular covering of hardened plastic material, said top having the outline of a polygon and having some of its sides longer than others, whereby some of the sections of the covering surrounding the top are rendered broader than others, substantially as described.

3. An eyelet composed of a metal part and a ring of hardened plastic material, the metal part consisting of a tubular body and a thin top or flange, the top having a polygonal perimeter comprising sides 11 bearing to each other the relations of the sides of a square, and the ring covering both the upper and under faces and the perimeter of the top, and the layers of material on the faces of the top, and the sections 20 in contact with the sides 11 of the top, being an integral mass, substantially as described.

GEO. B. MILLER.

In presence of—

DAVID N. PLUME,  
FREDERICK W. CHESSON.