

(No Model.)

E. KEMPSHALL.
EYELET.

No. 557,992.

Patented Apr. 7, 1896.

FIG. 1.

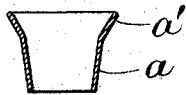
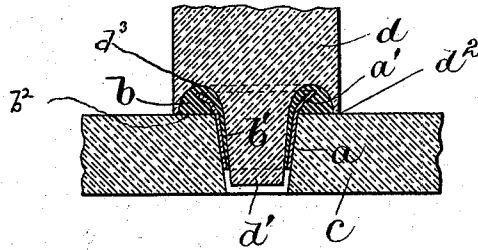


FIG. 2.



WITNESSES:

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ELEAZER KEMPSHALL, OF SHARON, MASSACHUSETTS, ASSIGNOR TO THE BOSTON FAST COLOR EYELET COMPANY, OF BOSTON, MASSACHUSETTS.

EYELET.

SPECIFICATION forming part of Letters Patent No. 557,992, dated April 7, 1896.

Application filed April 25, 1895. Serial No. 547,081. (No model.)

To all whom it may concern:

Be it known that I, ELEAZER KEMPSHALL, of Sharon, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Eyelets, of which the following is a specification.

This invention relates to a new and improved eyelet; and it consists in the novel features of construction and relative arrangement of parts hereinafter fully described in the specification, clearly illustrated in the drawings, and particularly pointed out in the claims.

Reference is to be had to the accompanying sheet of drawings, forming a part of this application, in which like characters indicate like parts wherever they occur.

In the drawings, Figure 1 represents a vertical section of a metal blank used in the construction of my improved eyelet. Fig. 2 represents in vertical section the mechanism by which the setting-flange of plastic material is fashioned and applied to the end of the metal blank, the blank and flange being also shown in section.

Referring to the drawings, in the embodiment of my invention therein shown and selected by me for the purpose of illustrating my invention, *a* represents a tubular-shaped metal eyelet formed at one end as an outwardly-extending flange *a'*, arranged at an angle to the axis of the eyelet. The bottom part *a* of the blank constitutes an attaching member for securing the eyelet to the fabric or object upon which it is to be used. Its particular construction is unimportant. It is here shown as tubular and slightly tapered.

b represents an annular ring or setting-flange of plastic material molded upon the top of the flange *a'* and extending over and beneath the edge of the flange *a'* to anchor said ring to said flange and to form a shoulder *b²*, adapted to rest upon the material (not shown) to which the eyelet is secured. This ring or flange *b*, as shown, is generally semi-circular in cross-section, having a round top and a flat under side forming the shoulder *b²*, the surface of this shoulder *b²* being arranged substantially at right angles to the axis of the eyelet.

The plastic material is carried down along

the inner wall of the metal eyelet *a* to a greater or less extent, depending upon the configuration of the part *b'*. While in the drawings the material is shown as carried to the end of the eyelet, yet this is not essential, as it can be made to terminate at any point along the inner wall of the eyelet. Preferably, however, in all cases this material should be carried below the plane occupied by the surface of the shoulder *b²*.

In applying the covering of plastic material forming the ring or flange *b* I first place the body *a* of the metal eyelet in a hole which it closely fits in a die-plate *c*, the flange *a'* standing above said plate. The angle at which the flange *a'* stands upon the die-plate enables the lower portion of the flange *a'* to bear firmly upon the die, so that the flange is firmly supported and has no tendency to tip in either direction. The said angle also prevents the eyelet from being forced or wedged into the hole in the die-plate *c* by the downward pressure, as hereinafter described, upon the flange, and also permits the plastic material to be molded over the edge of the flange *a'* and beneath the same to form the shoulder *b²*. A proper quantity of plastic material suitably fashioned, from which the ring or flange *b* is to be made, is laid upon the upper edge of the flange *a'*, and then a die *d* is forced against the die-plate *c*. The die *d* is formed to enter the body of the eyelet to mold the covering *b* upon the flange *a'*, said die pressing the plastic material close against the inner surface of the flange, while the marginal portion *d²* of the die coöperates with the die-plate *c* in forming the outer portion of the covering or ring *b*, while the annular depression *d³*, that lies between the marginal portion *d²* and the projecting portion *d'*, forms the top of the covering or ring *b*.

It will be seen that the beveled or inclined flange *a'* projects upwardly at an angle to the die-plate *c*, and at such an angle that the die-plate is enabled to firmly support the flange and prevent it from being wedged or crowded into the orifice of the said plate, as above described, while the die *d* is enabled to readily force the material into said space which is overhung by said flange, so that the material is pressed closely against the parts of the

outer surface of the flange, the result being a head or ring that is perfectly formed at all parts and sufficiently bulky to afford ample strength. The upper surface of the flange acts in a certain sense as a knife to cut the mass of covering or composition and causes a part to readily enter or flow into the space overhung by the flange, so that when the covering is applied the margin of the flange will be firmly interlocked therewith, as shown in Fig. 2.

The projecting portion d' of the die d is preferably formed to carry a portion of the covering material down into the interior of the body of the eyelet and thus form the lining b' of the flange integral with the head or covering b , said lining being extended to any desired point within the body of the eyelet, but preferably below the plane occupied by the surface of the shoulder b^2 .

The inner portion of the annular head or covering constitutes a wear-resisting extension of the inner surface of the eyelet from the point where it stops on said eyelet a , and so resists the wear exerted by the lacing-cord passing through the eyelet that the exposure of the metal outer portion of the eyelet is prevented. The outer portion of the covering, as above stated, extends over and is interlocked with the flange of the eyelet and forms a shoulder b^2 , which is flush with said angle and is adapted to bear on the material in which the eyelet is inserted.

Having thus explained the nature of my invention and described a way of constructing and using the same, though without attempting to set forth all of the forms in which it may be made or all of the modes of its use, what I claim, and desire to secure by Letters Patent, is—

1. An eyelet composed of two parts, viz:

first, a tubular metal body having a flange or enlargement at its outer end, and secondly, a rigid wear-resisting covering inclosing and interlocked with the flange or enlargement and forming on the outside of the eyelet a shoulder adapted to bear on the material in which the eyelet is inserted, said eyelet having a central lacing-passage.

2. An eyelet for lacings made with an interior-placed metallic part, having a lateral flange, or ledge upon its outer end, and a body part made of plastic material surrounding and inclosing said flange, said body part being formed with a central lacing-passage, a rounded outer surface, and a shoulder surrounding said tubular part beneath said flange, and arranged at substantially right angles to the axis of the eyelet, the lower end of the tubular part being adapted to be clenched against the under surface of the material to which the eyelet is applied, and co-operating with said shoulder in securing the eyelet to said material.

3. A lacing-eyelet, comprising a tubular metallic body having at the top an outwardly-extending flange, and a covering of plastic material surrounding and inclosing said flange, and formed on the under side of said flange with a shoulder arranged substantially at right angles to the axis of the eyelet, the eyelet thus made having a central lacing-passage.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 20th day of April, A. D. 1895.

ELEAZER KEMPSHALL.

Witnesses:

C. F. BROWN,
A. D. HARRISON.