

(No Model.)

A. LATHAM.
EYELET.

No. 544,311.

Patented Aug. 13, 1895.

Fig. 1.

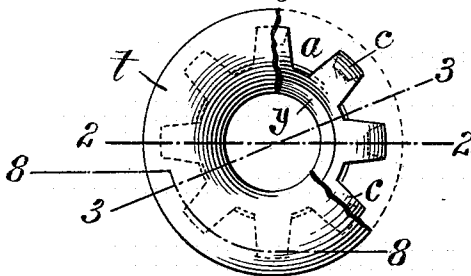


Fig. 4.

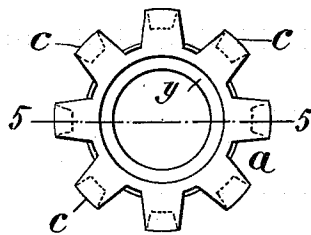


Fig. 2.

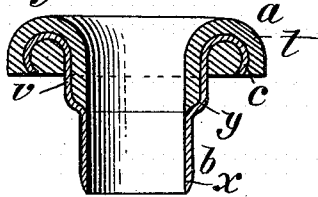


Fig. 5.

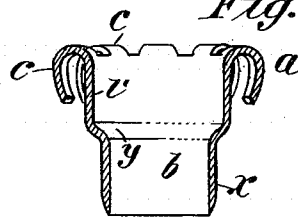


Fig. 3.

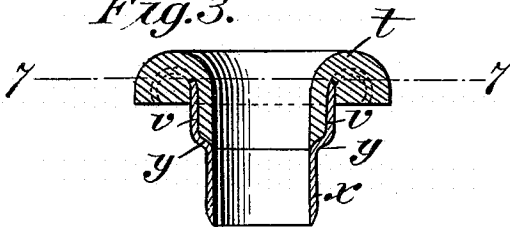


Fig. 6.

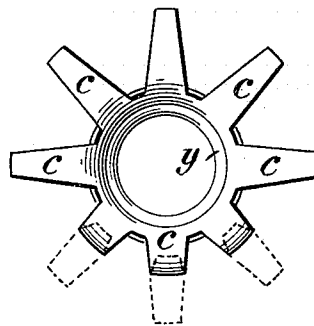


Fig. 7.

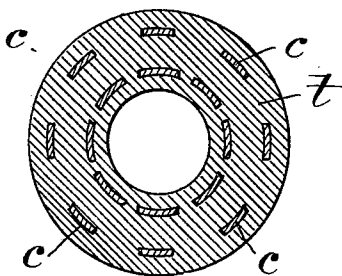
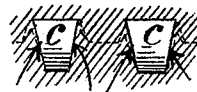


Fig. 8.



Witnesses.
J. H. Thompson.
Paula R. R. R.

Inventor.
Albert Latham

UNITED STATES PATENT OFFICE.

ALBERT LATHAM, OF SPRINGFIELD, MASSACHUSETTS.

EYELET.

SPECIFICATION forming part of Letters Patent No. 544,311, dated August 13, 1895.

Application filed April 12, 1895. Serial No. 545,425. (No model.)

To all whom it may concern:

Be it known that I, ALBERT LATHAM, a citizen of the United States of America, and a resident of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Eyelets, of which the following is a specification.

The object of this invention is to improve the construction of the top of an eyelet, lacing-stud, button, or analogous fastening, especially with respect to the means comprised thereat for providing an unusually effective anchorage or interlock of and for the comparatively thick layer or body of the pyroxylin or other plastic material which covers and surrounds the upper part of the eyelet or stud for concealing the metal and preventing the same from being exposed and wearing bright. The attainment of an eyelet which is strong and capable of withstanding the hydraulic or other great pressure necessarily imparted in the molding operation, and subsequently the pressure in the setting operation, one in which the covering is permanent and proof against scaling, chipping, breaking, or stripping and one which may be produced with entire practicability and at an unusually inexpensive figure, is an object for the accomplishment of which the present invention has special aptitude.

The invention consists in an eyelet, stud, or other analogous fastening having its metallic body constructed at its upper portion with a series of separated marginal members which have in addition to their radially-extending dispositions also hooked, return-bent, or curling or equivalent formations, whereby the plastic material in addition to having a multiplicity of separate engagements or anchorages between and surrounding the said members, each as a whole, also is embedded within and has a clinching engagement by each of said members, and all as will hereinafter fully appear, and be set forth in the claims.

Reference is to be had to the accompanying drawings, in which an actual and practical carrying out of the invention is illustrated.

Figure 1 is a plan view of the eyelet with a portion of the plastic covering broken off. Fig. 2 is a central vertical sectional view taken

on line 2 2 of Fig. 1. Fig. 3 is a view similar to Fig. 2, but taken on the line 3 3 of Fig. 1. Fig. 4 is a plan view of the body of the eyelet without the plastic cover, Fig. 5 being a vertical central section on the line 5 5, Fig. 4. Fig. 6 is a plan view of the metallic body of the eyelet, showing the several radial members thereof as being in the form which they occupy previous to being overturned, three of the overturned members, however, being indicated. Fig. 7 is a horizontal cross-sectional view through the top of the covered eyelet, as taken on the line 7 7, Fig. 3. Fig. 8 is a sectional view taken vertically through the overhanging top portion of the eyelet on line 8 8, Fig. 1.

I will now proceed to describe the eyelet precisely as here shown.

The head or upper part *a* of the metallic tubular body or clinch-tube *b* of the eyelet consists of the annular flange, which is constructed with the series of separative radial members *cc*, each of which is outwardly tapered, although its end is comparatively wide or blunt. The radial members *cc*, when the eyelet-body is constructed, are of arching form—that is, they are overturned, with their extremities depending and somewhat inturnd toward the circular wall of the eyelet-body, whereby a series of marginal depending hooks having a considerable depth is acquired.

The body of the eyelet has the cylindrical upper portion *v* thereof of greater diameter than the lower and clinching portion *x*, whereby the annular rest or internal seat *y* is produced, into which the plastic may bottom, while covering the inner as well as the upper and outer and underneath parts of the top.

The plastic material *t* is molded about the top of the eyelet internally and externally by the employment of suitable dies, not necessary to herein describe, as they possess certain characteristics of novelty which will in due time constitute the subject-matter of a separate application for Letters Patent; but this is to be stated particularly of the molding operation; that the plastic material and the head of the eyelet are subjected to such considerable compression that the plastic material *t* not only surrounds and fills the spaces be-

tween the individual overturned members, and also the spaces within such members, but the overturned and somewhat inturned members are flattened vertically and further inturned or curled, whereby in effect a plurality of tubes are constituted, which acquire, as they are produced or perfected under the pressure of the dies, very important and valuable clinching engagements with the therein-embedded composition.

In the eyelet having the construction shown the bent-over, arched, or U-shaped and tapering members form a series of distinct anchorages not only against the internal surfaces thereof, but between their edges, wherein the spaces of keystone shape are found. Thus the pressure on the plastic material from or against the bottom thereof is resisted by the upwardly-convergent boundaries of the spaces between the series of metallic members.

It has been the particular aim in this invention to provide an eyelet or stud in which the plastic material will not and cannot scale or strip off from the metallic body, and it will be perceived that there can be no cracking off or breaking out of the material in such a way as could permit substantial portions thereof to become detached; and in this connection the fact will be appreciated that each marginal section of the covering may be cracked and even then not drop out.

In the eyelet constructed as above described the somewhat flexible condition of the curled or tubular members relative to the tubular body of the eyelet insures a peculiar and satisfactory metallic support at the under side of the overhanging top, always allowing said overturned members to yield to the pressure in the molding operation until they reach the true surface of the die thereunder, and thus eyelets of great uniformity are produced.

It is to be further observed that incidental to the formations illustrated, whereby the overturned, separated, depending, and inturned prongs or members are provided,

spaces are left of considerable size in and through which the plastic material may freely enter.

The plastic material meeting no resistance in the spaces between the tube-sections prevents the crushing or distortion of the shell, because the material is permitted to enter and be embedded within the curled or tubular members at the sides; and finally it will be stated that the radial members—hooked, tubular, or curled—being somewhat flexible in their relations to the more rigid body of the eyelet, equalize or prevent any undue strain upon the covering, they nevertheless always possessing sufficient strength to resist all ordinary strains in use.

What I claim is—

1. An eyelet or analogous fastening having its metallic body constructed at its upper portion with a series of separated marginal members which have besides their radial extensions also hooked or curling formations, whereby the applied plastic covering material in addition to having a multiplicity of separate engagements or anchorages between and surrounding the said members, each as a whole, also is embedded within each thereof, substantially as described.

2. An eyelet consisting of a body having at its top a series of separate radially extending outwardly tapered members which are overturned and inwardly deflected leaving, between them, downwardly opening and upwardly convergent spaces and the plastic material covering the top of the eyelet and surrounding and engaged with the said members, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 10th day of April, 1895.

ALBERT LATHAM.

Witnesses:

J. W. NOURBOURN,
REUBEN ROBERTS.