

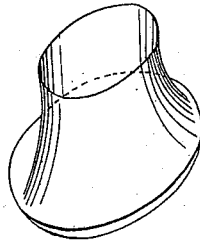
*J. F. Richards*

*Eyelet,*

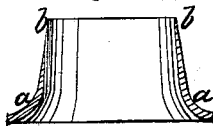
*N<sup>o</sup> 53,234.*

*Patented Mar. 13, 1866.*

*Fig. 1.*



*Fig. 2.*



*Witnesses;*  
*J. A. Barden*  
*Frank O. Barden*

*Inventor;*  
*Jose F. Richards*

# UNITED STATES PATENT OFFICE.

JESSE F. RICHARDS, OF ATTLEBOROUGH, MASSACHUSETTS, ASSIGNOR TO  
THE AMERICAN EYELET COMPANY, OF PROVIDENCE, RHODE ISLAND.

## IMPROVEMENT IN EYELETS.

Specification forming part of Letters Patent No. 53,234, dated March 13, 1866.

*To all whom it may concern:*

Be it known that I, JESSE F. RICHARDS, of Attleborough, in the Commonwealth of Massachusetts, have invented a new and Improved Eyelet; and I do hereby declare that the following specification, taken in connection with the drawings making part of the same, is a full, clear, and exact description thereof.

Figure 1 is a perspective view of my improved eyelet. Fig. 2 is a section on the line through the center.

On the 4th day of October, A. D. 1864, Letters Patent of the United States were granted to me for a machine for making eyelets, the distinguishing principle of which machine is that it forms the eyelet from sheet metal by the use of a series of moving instruments consisting of a male cutter, a former, and a punch, working in combination with a series of stationary instruments consisting of a female cutter, a die, and another female die or cutter, such combination of devices effecting the result by first cutting out a circular planchet; secondly, forming the same into a bell-shaped cup with the flange turned around the edge; and, thirdly, giving the final form to the eyelet by the action of the punch, which is one of the above-named series of moving instruments, forcing the cup farther into the die, wherein it is formed, and at the same time cutting out its top.

Before the time of the invention of my machine above mentioned the making of eyelets had not commenced in this country, but all of those articles in use were of foreign manufacture.

The eyelets made upon the principle employed by my said machine are an improvement upon those in use before my invention in the following respect: The metal which composes the cylindrical portion is drawn out or attenuated at the tip, so that the upper edge appears to the eye to be chamfered, whereas in all eyelets before known the metal is of uniform thickness from the flange to the tip. From the uses to which eyelets are put the fact that the cylindrical portion is so drawn out or attenuated is of great importance in diminishing the liability of the metal to split when the edge is turned.

This drawing out of the barrels of the eyelets

thinner toward the tip is an incident of the principle of forming them employed in my machine. It is accomplished by the thrusting action of the male punch (designated in the schedule accompanying said patent as 1) when the same cuts out the circular top of the eyelet. That the result so effected—of attenuating the metal of the cylindrical portion of the eyelet—is novel is evidenced by the fact that all eyelets before my invention were, as appears from an inspection of the edges of the same, either made two at once, in the form of a long cylinder with flanges at the ends, and sawed apart by a separate operation, or stamped into the form of a bell-shaped cup in a die with a solid bottom, the top of the eyelet being subsequently cut off with a file or a grinding-wheel.

The utility of the invention is apparent from the fact that eyelets made with my improvement can be secured around the edges of a hole cut in leather, cloth, paper, or other material with which an eyelet is used, and instead of showing one flange cracked and jagged, both will appear equally smooth and continuous.

In the accompanying drawings, Fig. 2 shows, in section, my improved eyelet on an enlarged scale. It will be seen that the metal which composes the same has its maximum thickness at *a a* near the flange, and that it is drawn out thinner toward the tip *b b*.

It is immaterial by what machinery the result is accomplished, whether by the means specially described in my patent before mentioned or by any other which will accomplish the same result; neither is it necessary that the metal of the barrel of the eyelet shall be tapering throughout its entire length from flange to tip; but it is within my invention if the barrel at or near the tip is made tapering for the distance which will be required to turn the flange.

What I claim as my invention, and desire to secure by Letters Patent, is—

The improved eyelet, possessing the characteristics substantially as herein described.

JESSE F. RICHARDS.

Witnesses:

FRANK J. BARDEN,

THOMAS A. BARDEN.