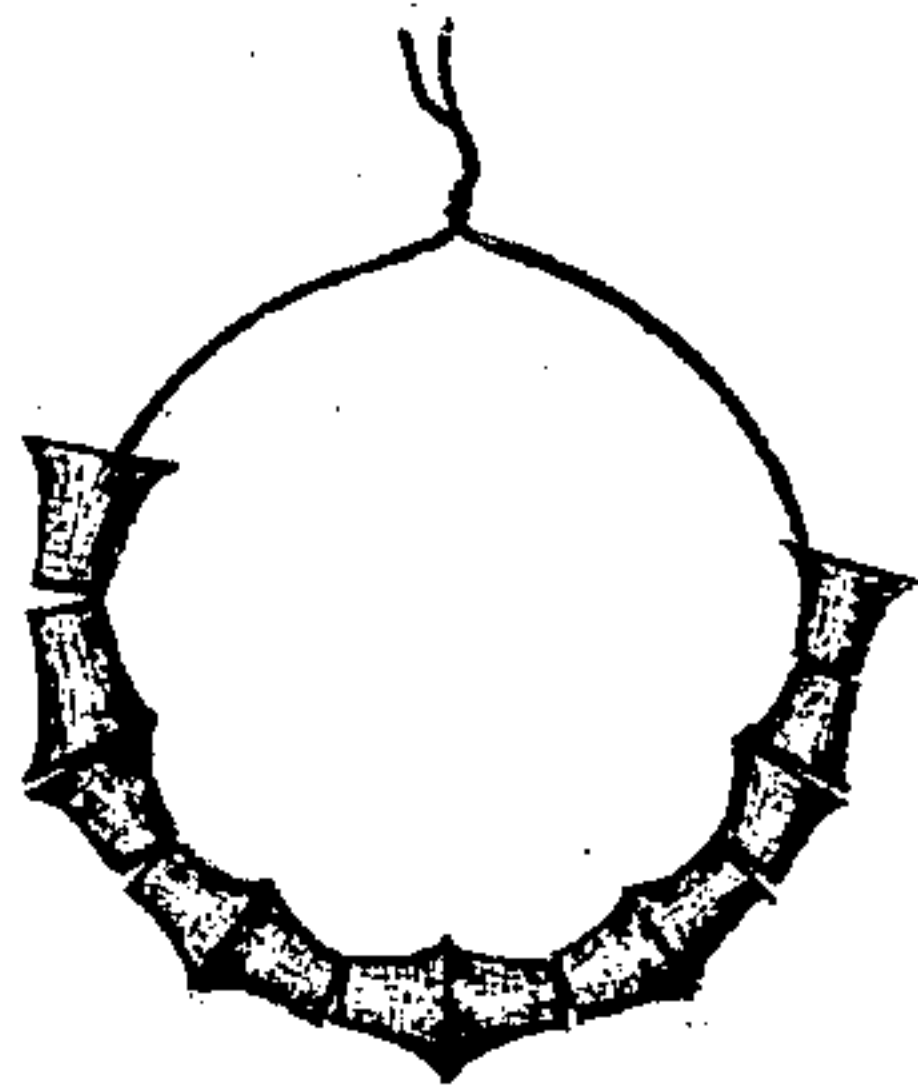


T. Garrick,

Eyelet.

No. 104,013.

Patented June 7. 1870.



Witnesses:

L. P. Child

Isaac A. Bonnell

Inventor:

Thomas Garrick

United States Patent Office.

THOMAS GARRICK, OF PROVIDENCE, RHODE ISLAND.

Letters Patent No. 104,013, dated June 7, 1870.

IMPROVEMENT IN EYELET.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, THOMAS GARRICK, of the city and county of Providence, in the State of Rhode Island, have invented a new and improved Eyelet; and I do hereby declare that the following is a full and exact description of the same.

My invention consists of an eyelet made in the usual form from iron.

Heretofore, eyelets have been almost exclusively made from brass, copper, or other metal of equal pliability, from the fact that only such soft metals could be practicably wrought into the eyelet form, and that all attempts to work the harder metals (such as iron) into this form resulted simply in punching or bursting open the metal before it was brought into the form required for an eyelet. It is obvious, however, that if, by some method, it is possible to make eyelets from iron, a great improvement in the art will result from the fact that not only is the cost of the eyelet stock reduced more than one-third, but the eyelet produced from such stock is certainly far more firm and durable.

The iron is prepared in a suitable condition for being wrought into eyelets by first rolling a strip of the metal to the thickness of No. 30, 31, or 32 standard wire-gauge, according to the size and suitable thickness of the proposed eyelet. This metal sheet or strip is then folded or coiled loosely, and placed in a closed iron box or vessel, with layers of fine charcoal or bone-dust filling the spaces between each coil or fold of the metal, and the entire space around the metal filled close and solid with the charcoal or bone-dust. This box is then placed in a furnace, and the

whole heated red hot, and then the fire allowed to die out, and the whole to gradually become cold, or nearly so, after which the metal is taken from the box and plunged into a bath of muriatic acid, which removes the scale, and leaves the surface of the metal clean and bright. The metal is then plunged into a bath of blue vitriol or sulphate of copper, by which a thin film or coating of copper is deposited on the surface of the iron. It is then washed from the vitriol with water, and is ready to be stripped up into widths suitable to be fed to the eyelet-making machine, wherein it is operated upon, to convert it into eyelets, by the same tools or appliances which are employed to make eyelets from brass, copper, &c., the coating of copper on the iron effectually preventing the abrasion of the dies and punches by which the metal is wrought into the eyelet.

The iron which I prefer to use is the best "Norway iron," although others of first quality and pliability may be used.

Care should be exercised in annealing the iron that the folds or coils be separated from each other, or the annealing will not be uniform. Iron annealed properly in this way, and coated with copper, can be easily and practically drawn and wrought into eyelets.

I claim as my invention—

The iron eyelet, substantially as described, as a new article of manufacture.

THOMAS GARRICK.

Witnesses:

L. P. CHILD,
ISAAC A. BROWNELL.