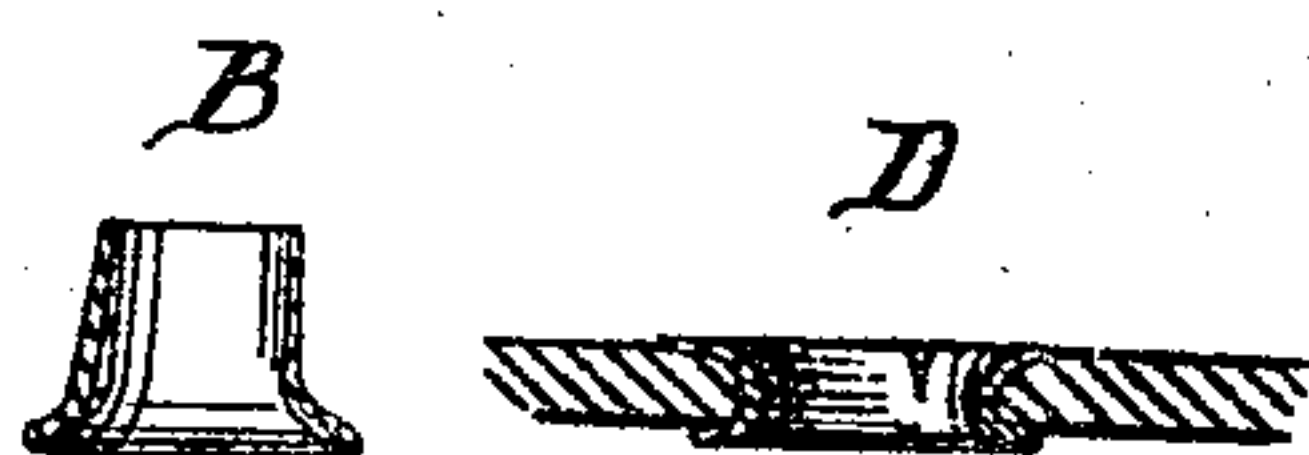
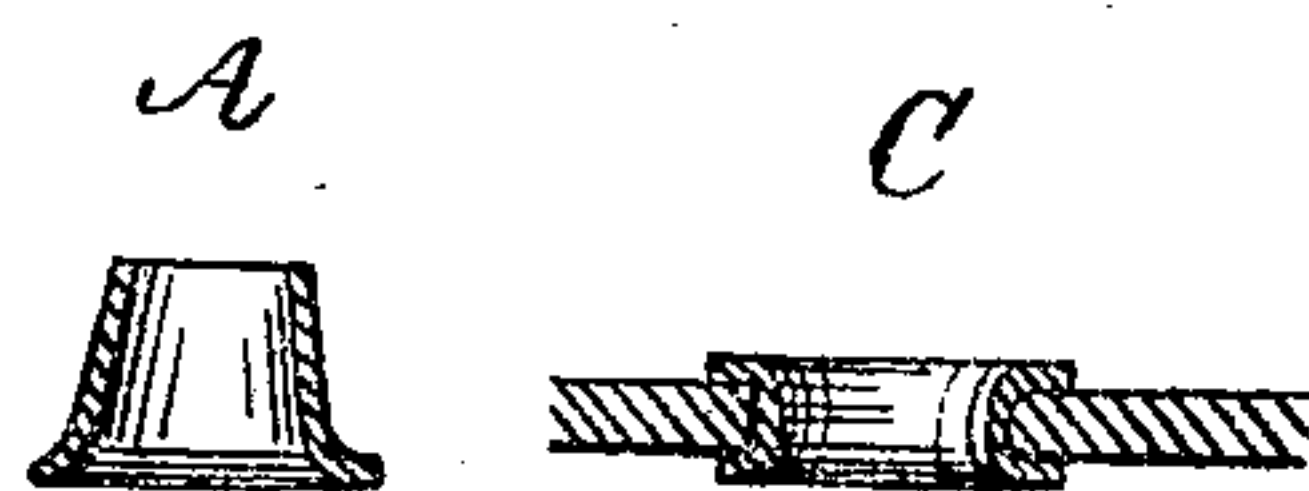


G. B. Brayton.
Making Eyelets.

N^o 72790

Patented Dec. 31, 1867.



witnesses

H. Gould
W. B. Gleason

Inventor

George B. Brayton
By his atty
J. B. Crosby

United States Patent Office.

GEORGE B. BRAYTON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND J. W. HOARD, OF BRISTOL, RHODE ISLAND.

Letters Patent No. 72,790, dated December 31, 1867.

IMPROVED METHOD OF MAKING EYELETS.

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, GEORGE B. BRAYTON, of Boston, in the county of Suffolk, and State of Massachusetts, have invented a new and improved Method of Making Eyelets; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention, sufficient to enable those skilled in the art to practise it.

In the manufacture of metal eyelets, the practice is, so far as I know, to strike them up from sheet metal, the effect of which process is to leave the flange forming the base of the eyelet of about uniform thickness with the plate, while from the base to the top the metal is so drawn or attenuated as to be very thin at the upper end of the eyelet. When the eyelet so made is applied, the turning over of the upper end to clinch the eyelet in the work is apt to rend the eyelet. The two surfaces of the clinched eyelet are not uniform in appearance, and the weakness of the flange, formed by the thin end, causes the eyelet to tear from the leather or fabric to which it is applied, the flange not having strength or rigidity enough to resist strain brought to bear upon it by a lacing cord.

The object of this invention is the production of an eyelet free from these defects, and this is attained by making the eyelet from a metal tube, in contradistinction to striking it up from a plate or sheet of metal, the eyelet so made being of uniform, or practically uniform, thickness of metal throughout, and having the metal forming the upper end so disposed that when clinched the two flanges shall correspond in condition and appearance. It is, therefore, a new method of making eyelets, and of uniform, or practically uniform, thickness of metal throughout, that constitutes this invention.

A, in the drawing, represents a section of an eyelet (enlarged) of this construction. B shows a similar view of the common form of eyelet.

In striking up the eyelet B from a plate or sheet of metal, it will be obvious that the metal must be drawn from the condition or thickness shown at the base, which is about the normal thickness of the plate, to the thinness shown at the top of the same, and that when the top part is still further drawn out by upsetting it outwards to clinch it upon the goods to which it is applied, the metal will either rend, or will have such weakness as to be incapable of resisting any considerable strain upon it, tending to detach it from the goods. But by cutting the eyelet A from a metal tube, both the base and the top retain very nearly the uniform thickness of metal existing in the tube, and when applied both must correspond in form and appearance, each part having been only subjected to the strain necessary to form it into a clinching flange, one of which is formed, or partially formed, in making the eyelet, and the other by the action of the setting tools.

The respective conditions of the two eyelets, when applied, will be understood by reference to D and E in the drawing. The eyelet A may be formed automatically by mechanism, which shall cut the length necessary to form each eyelet from the end of the tube, and then feed it upon a die, which shall impart a slightly conical form to its body and a flare to its base; or the operation of cutting and forming may be effected by separate machines. The tube having been previously, by any suitable means, drawn down to the proper size, it is then cut transversely into pieces or sections of the length adapted to the length of the eyelet to be formed. A desirable mode of accomplishing this I find to be by the use of a series of disk-cutters and intervening rings, the whole set firmly on a revolving shaft, so that many sections may be cut from a tube simultaneously, or nearly so.

It is evident, however, that other modes of severing the tube will answer in practising my invention. Each of these sections of the tube is then made into the form of an eyelet by means of a punch and die. It is evident that by interposing between the disk-cutters rings of greater or less thickness, the cutters may be adjusted nearer to or farther apart from each other, to admit of cutting from the tube sections of whatever length may be required.

Constructing eyelets from a tube has the further advantage over their formation from a plate, in that they can be made of any length from a tube, while the attenuation of the metal consequent upon striking them from a plate, limits the length to which they can be so formed, as will be readily understood.

Claim.

I claim, as a new method of manufacturing eyelets, the cutting of sections from a metal tube, and then forming these into shape, substantially as described.

GEO. B. BRAYTON.

Witnesses:

F. GOULD,

J. B. CROSBY.