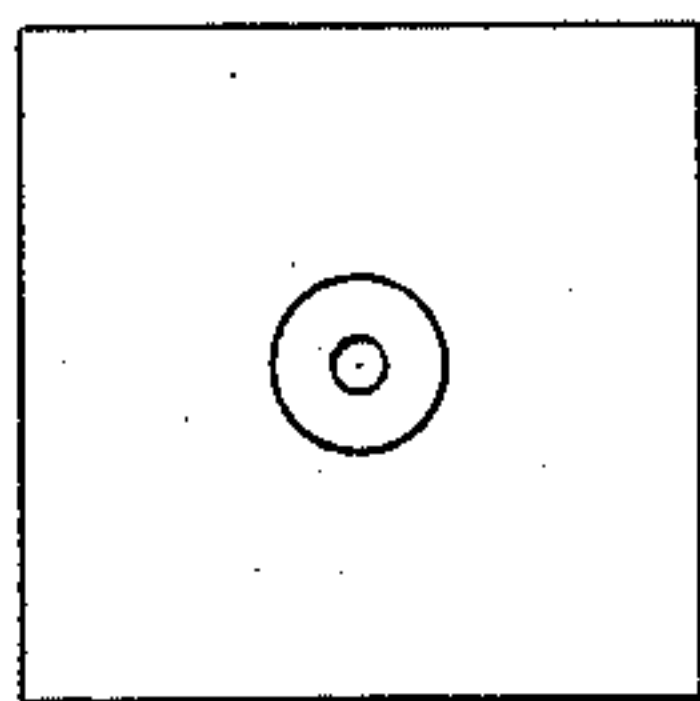


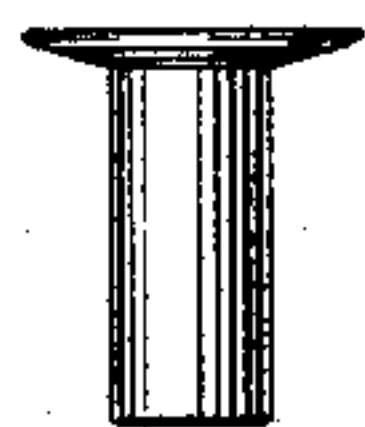
M. BRAY.  
Rivet.

No. 216,719.

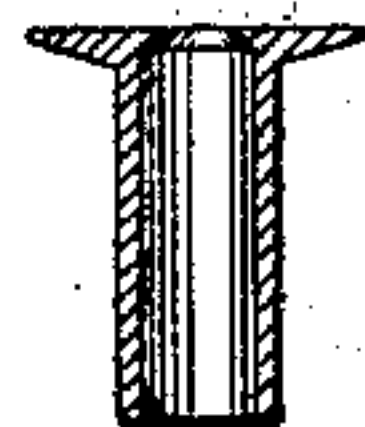
Patented June 24, 1879.



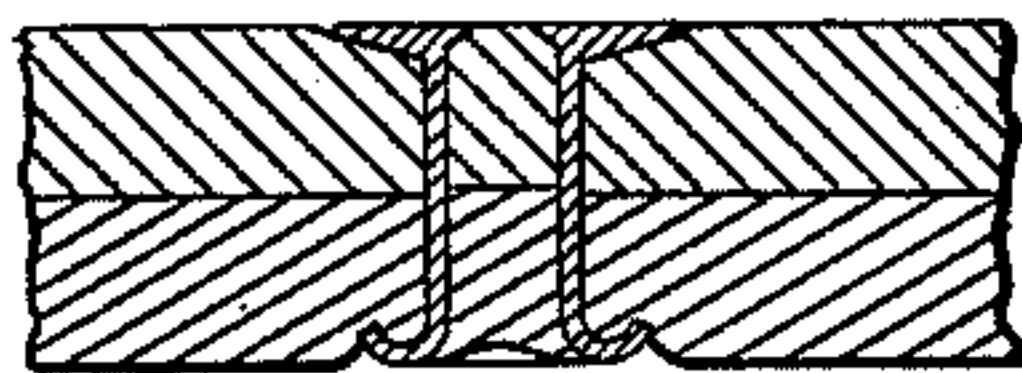
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Fig. 4.*

**Witnesses:**

*W. W. Luzzin*  
*H. A. Orsted*

**Inventor:**

*Mellen Bray*

# UNITED STATES PATENT OFFICE

MELLEN BRAY, OF NEWTON, MASSACHUSETTS.

## IMPROVEMENT IN RIVETS.

Specification forming part of Letters Patent No. **216,719**, dated June 24, 1879; application filed April 7, 1879.

*To all whom it may concern:*

Be it known that I, MELLEN BRAY, of Newton, in the State of Massachusetts, have invented an Improved Rivet, of which the following is a specification.

This invention is an improvement upon the rivet patented to me in Letters Patent dated November 24, 1874; and consists in perforating the head of the said earlier rivet in such manner as to form a shoulder or flange therein, which will assist in holding the core of material cut by the rivet and retained within its walls to give them strength.

This rivet, like the rivet upon which it is an improvement, is made from a wire blank, by upsetting the true head to the required size, and then so drilling out the end opposite to the head that the walls of the tube formed thereby shall have a sufficiently sharp edge and the requisite strength to cut through the material to be riveted; but in this rivet, unlike the other, the drilling is continued until the beveled point of the drill has penetrated through and nearly cleared the head, leaving a slight edge or flange projecting inward from the walls of the tube, as shown.

These rivets are much used in belt-making, and in setting them no punch is required.

The new rivet, like the rivet of my said patent, is placed upon its head, and the material of which the belt is to be formed is placed upon the opposite end of the tube, when a blow upon the material causes the rivet to cut through the material, and at the same time upsets the second head. The core is retained

within the tube, and a portion of it is, by the blow, forced into the perforation, closing around or over the projecting flange. Thus the true head when perforated, as above directed, sinks farther into the leather or other material than when full and perfect. Consequently the belt has a somewhat smoother appearance than when made with other rivets. There is also a slight saving of metal attending the use of the rivet with a perforated head.

In the drawings, Figure 1 is a plan representing my improved rivet as driven, the part immediately within the rectangle being a piece of leather, the hollow circle or flat ring being the true head of the rivet, and the central disk being the core of leather. Fig. 2 is a side elevation, and Fig. 3 a sectional elevation, of the rivet on an enlarged scale; and Fig. 4 is a sectional elevation, on the same enlarged scale, of the rivet and two pieces of leather through which it has been driven—the core of leather, and also the true head of the rivet, with its inner flange, and the upset head, being all clearly seen.

I claim—

The improved rivet herein described, constructed with a cutting extremity and a tubular body extending to the head, which is perforated, so as to leave a flange within the walls of the tube, for the purpose specified.

MELLEN BRAY.

Witnesses:

W. W. SWAN,  
H. G. OLMSTED.