

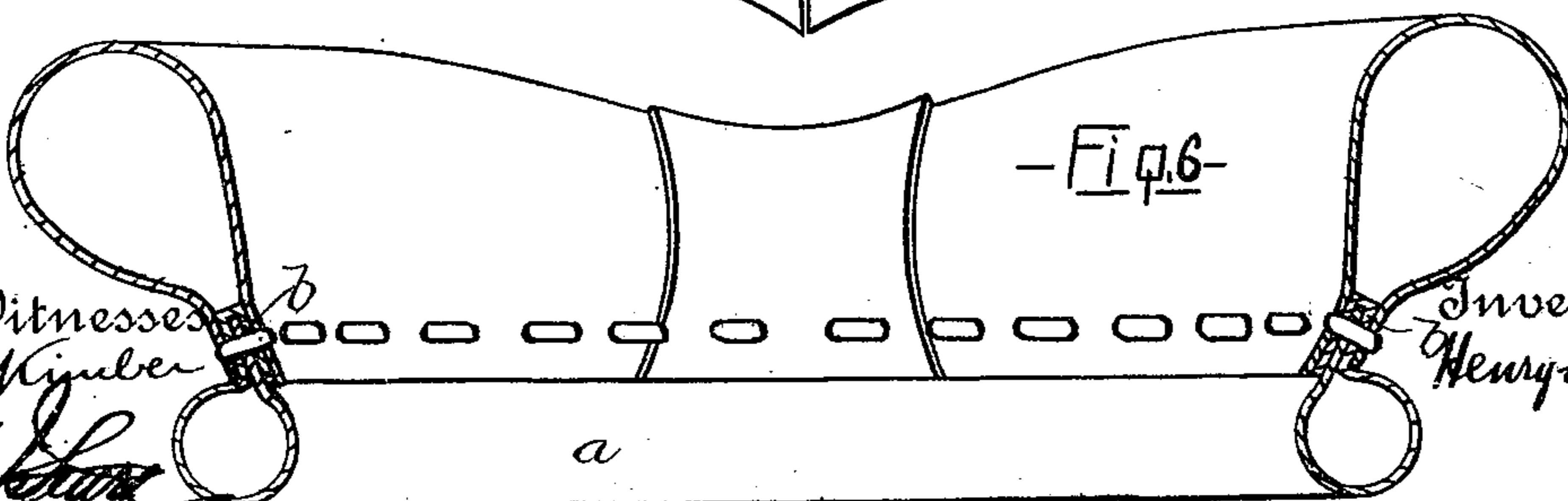
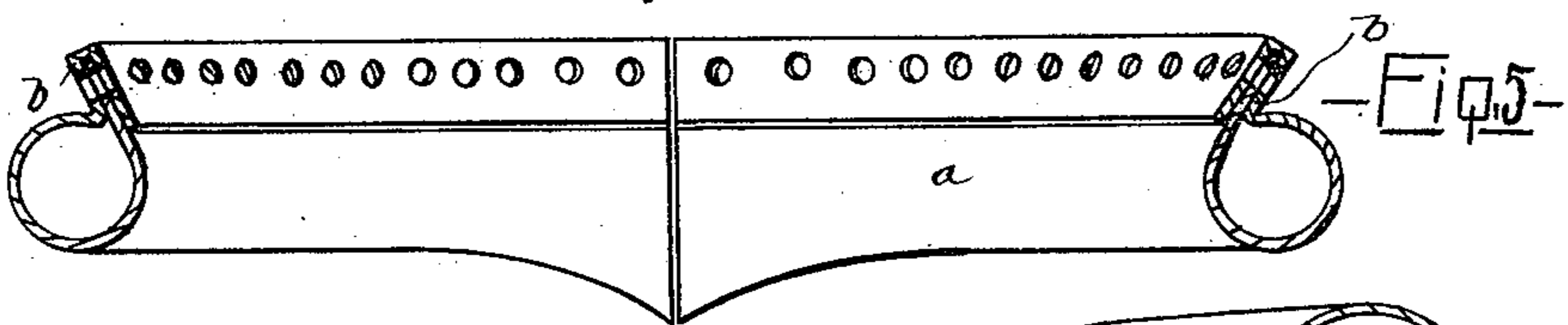
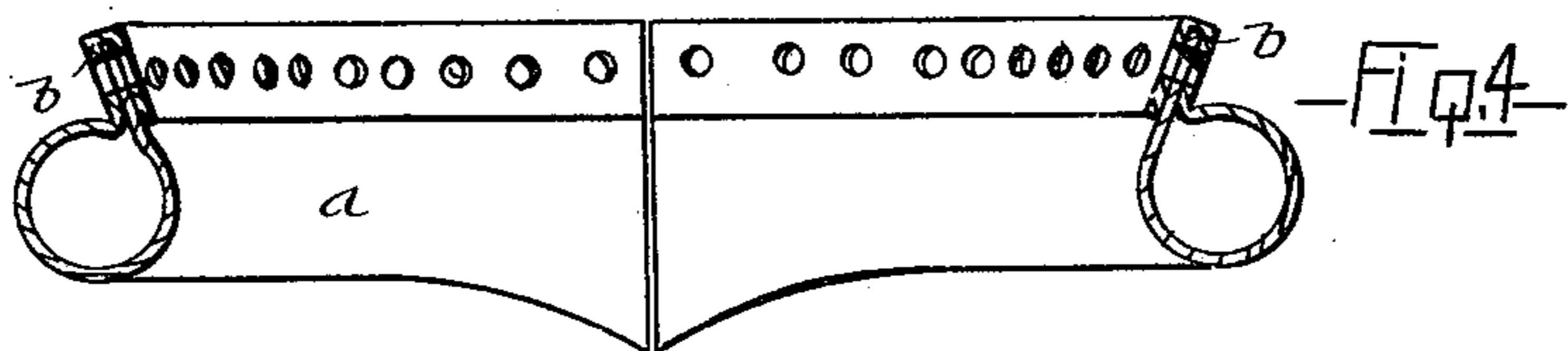
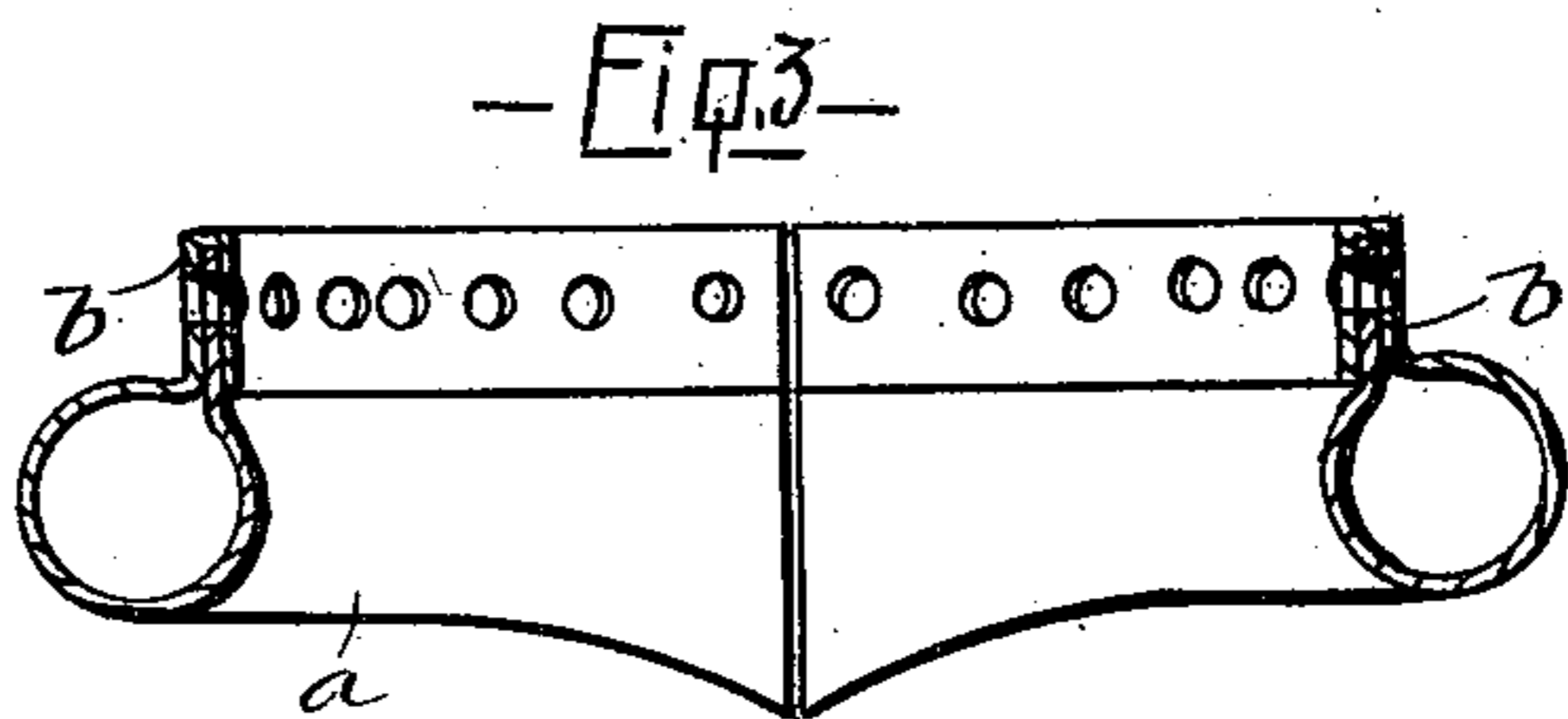
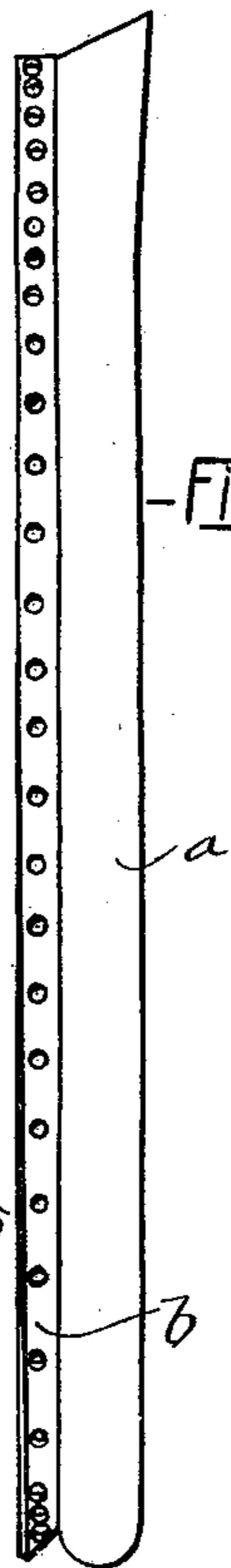
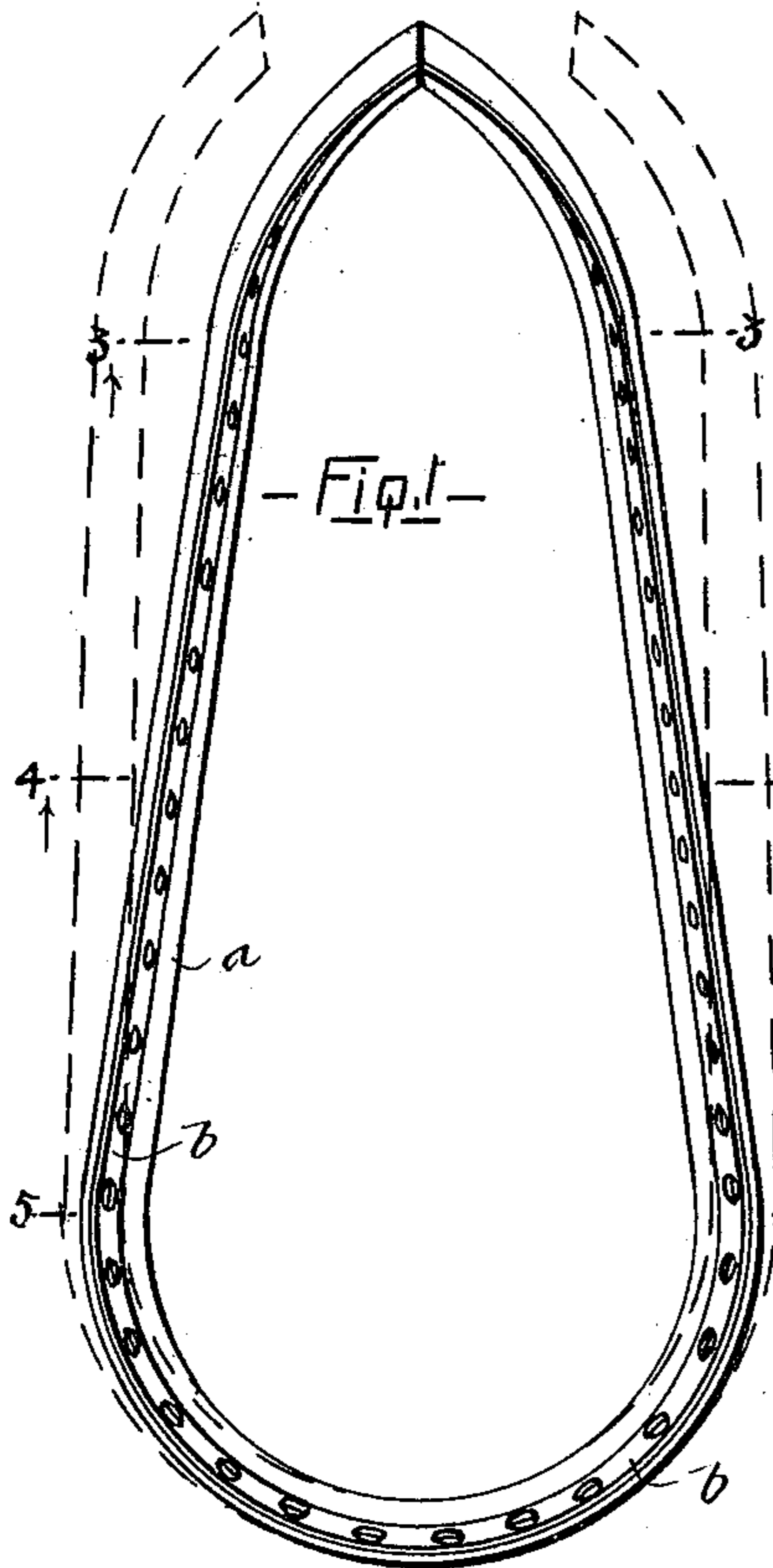
No. 641,691.

Patented Jan. 23, 1900.

H. L. GULLINE.
COLLAR.

(Application filed Apr. 18, 1898.)

(No Model.)



Witnesses
R. A. K. H. J. L. B. E. R.
[Signature]

Inventor
Henry L. Gulline

By his Attorney

[Signature]

UNITED STATES PATENT OFFICE.

HENRY LAWRENCE GULLINE, OF GRANBY, CANADA.

COLLAR.

SPECIFICATION forming part of Letters Patent No. 641,691, dated January 23, 1900.

Application filed April 18, 1898. Serial No. 678,095. (No model.)

To all whom it may concern:

Be it known that I, HENRY LAWRENCE GULLINE, of Granby, in the county of Shefford and Province of Quebec, Canada, have invented certain new and useful Improvements in Horse-Collars; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention relates more particularly to the rims of horse-collars, and has for its object to produce a metal rim of simplified and improved construction.

The invention consists of a horse-collar rim of tubular form with a closed flange extending the full length thereof, said rim and flange consisting of a single strip of metal curved into tubular form and having one of its side edges extending in a continuous straight line from the curve, the other side edge offset and doubled over said straight edge.

For full comprehension, however, of the invention reference must be had to the accompanying drawings, forming a part of this specification, in which like symbols indicate corresponding parts, and wherein—

Figure 1 is a rear view of a metal rim constructed according to my invention; Fig. 2, a side view of the same; Figs. 3, 4, and 5, cross-sectional views of the same, respectively, on lines 3 3, 4 4, and 5 5, Fig. 1; and Fig. 6, a cross-sectional view of a complete collar provided with the improved rim.

The metal rim is formed of a single piece of metal *a* of such resiliency as will allow it when bent into the tubular body form shown and provided with the tangential flange *b*, extending throughout its entire length, to be bent into rim form and opened and closed at the peak at will, thus dispensing with any form of hinge or catch at the throat portion and making the rim in one piece instead of two separate sections. The rim in cross-section has one of its side edges extending in a continuous straight line from the curve and the other side edge offset and doubled over said straight edge, so that in bending the tubular length into the rim form there will be no chance of the tube opening along its length.

It will be at once apparent that by my improvement a vast saving in the cost of manufacturing these metal rims is effected besides the imparting of great additional strength thereto and the doing away with any possibility of breaking at the throat portion through insecure or imperfect riveting, which might occasionally arise in the construction of horse-collar rims made in two halves and joined together at the throat by a hinge or other attachment.

In order to manufacture my improved rim, I first cut the sheet metal into strips of a sufficient width to enable them to be folded in a folding-machine to produce a straight tube having a closed flange extending the full length thereof. One end of this tube is then closed by a temporary plug and the tube filled with molten resin, sulfur, or other like material, which is allowed to cool, this filling being to prevent buckling when the tube is being bent and to allow of the tube being bent while cold. The tube is then bent midway of its length over a mandrel of a diameter equal to that required for the throat portion of the rim, and the ends are then and preferably in the same operation bent toward one another over a second mandrel of such form as will produce the desired shape at the peak, the closing of the flange serving, as before mentioned, to prevent any possibility of the tube opening along its length.

What I claim is as follows:

As a new article of manufacture, a horse-collar rim of tubular form with a closed flange extending the full length thereof, said rim and flange consisting of a single strip of metal curved into tubular form and having one of its side edges extending in a continuous straight line from the curve, the other side edge offset and doubled over said straight edge, as set forth.

In testimony whereof I have affixed my signature in presence of two witnesses.

HENRY LAWRENCE GULLINE.

Witnesses:

OWEN N. EVANS,
FRED. J. SEARS.