

No. 641,690.

Patented Jan. 23, 1900.

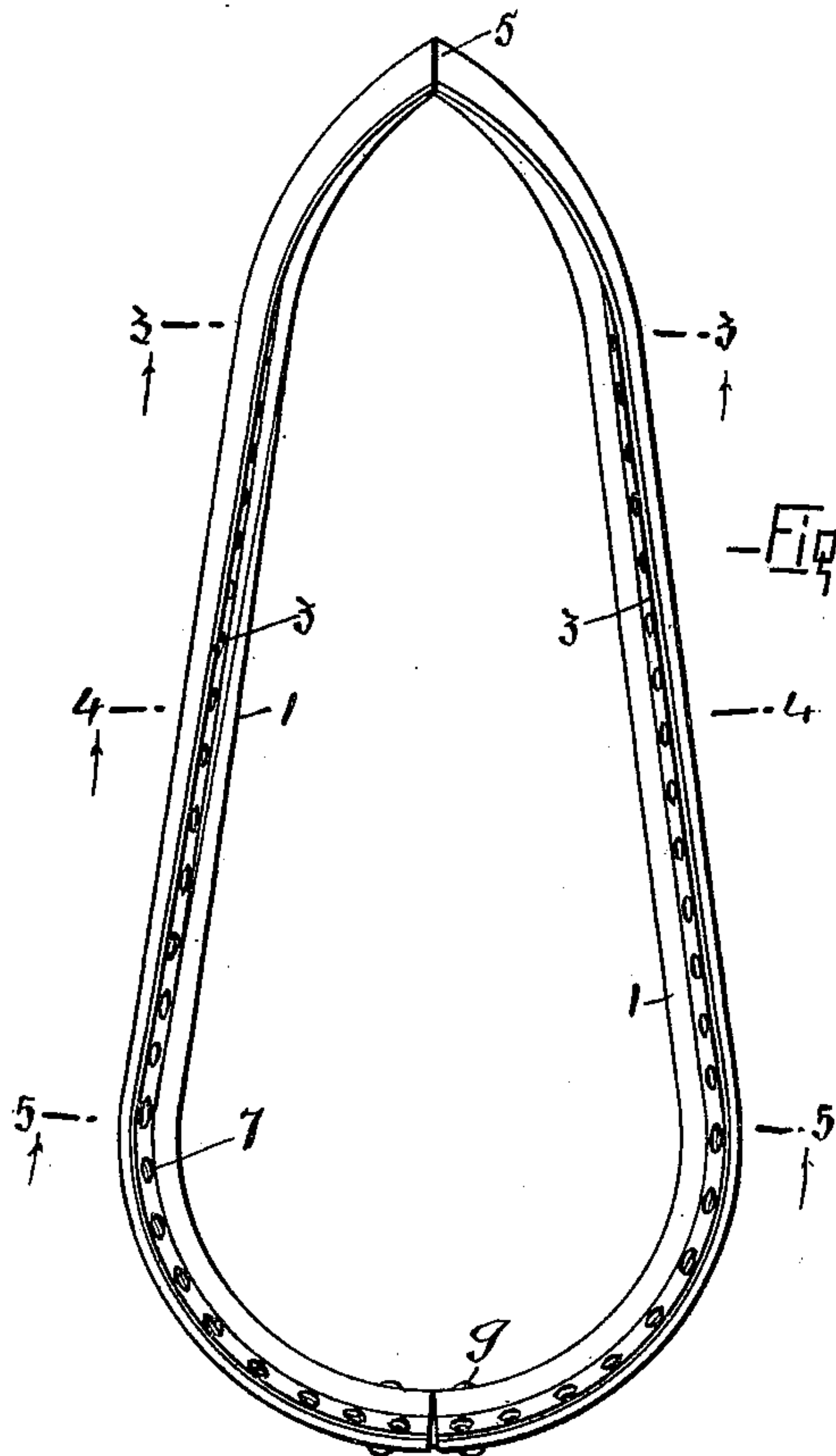
H. L. GULLINE.

COLLAR.

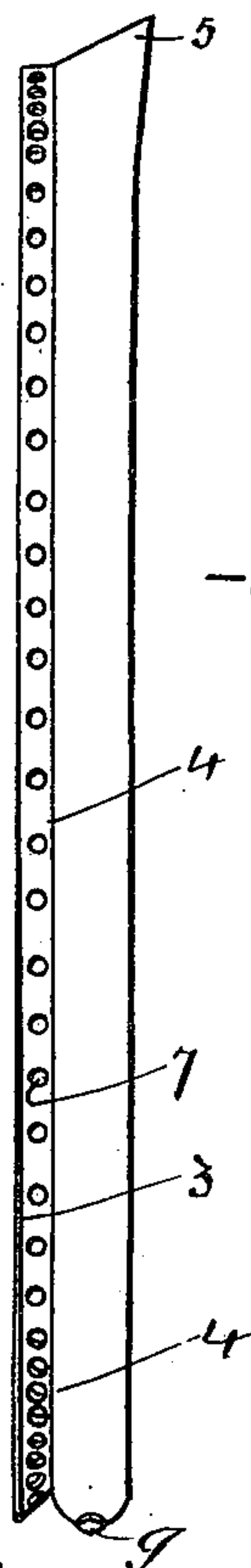
(Application filed Mar. 8, 1898.)

(No Model.)

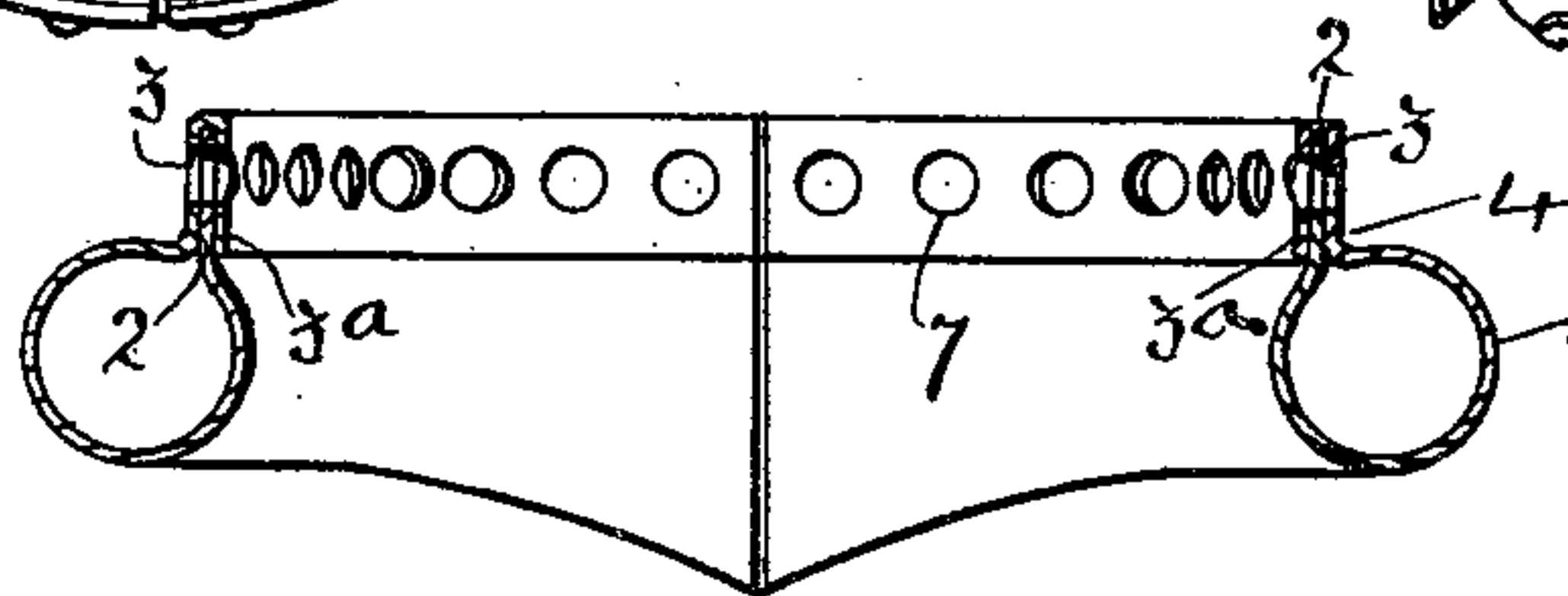
2 Sheets—Sheet 1.



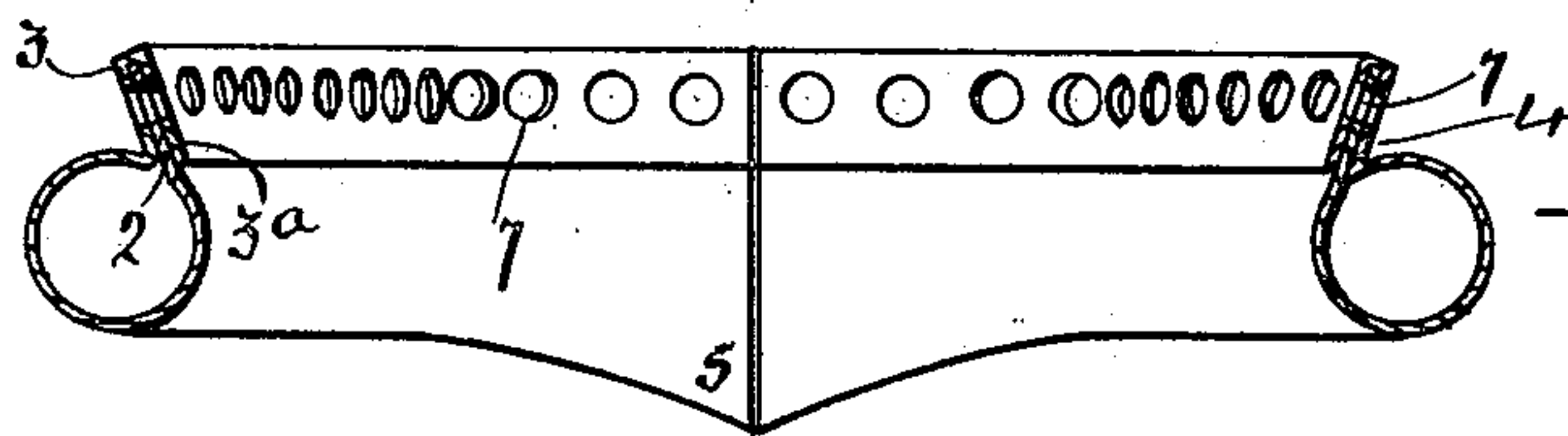
—Fig. 1—



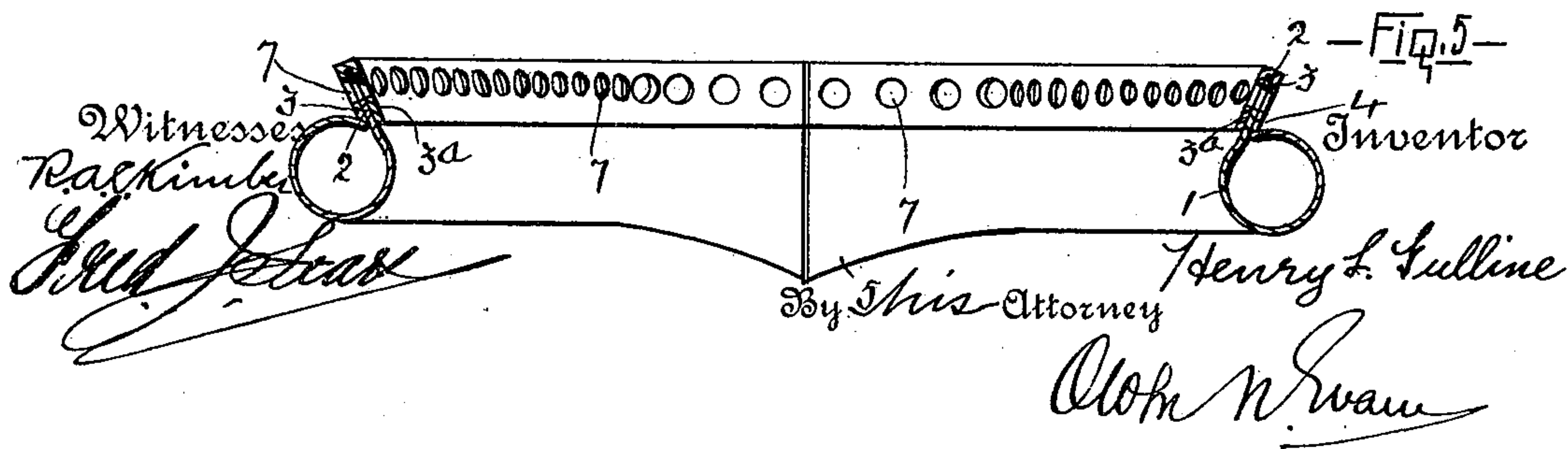
—Fig. 2—



—Fig. 3—



—Fig. 4—



—Fig. 5—

Witnesses
R. A. Kimball
J. M. Jones

Inventor

By this Attorney

Henry L. Gulline

Oliver N. Swan

No. 641,690.

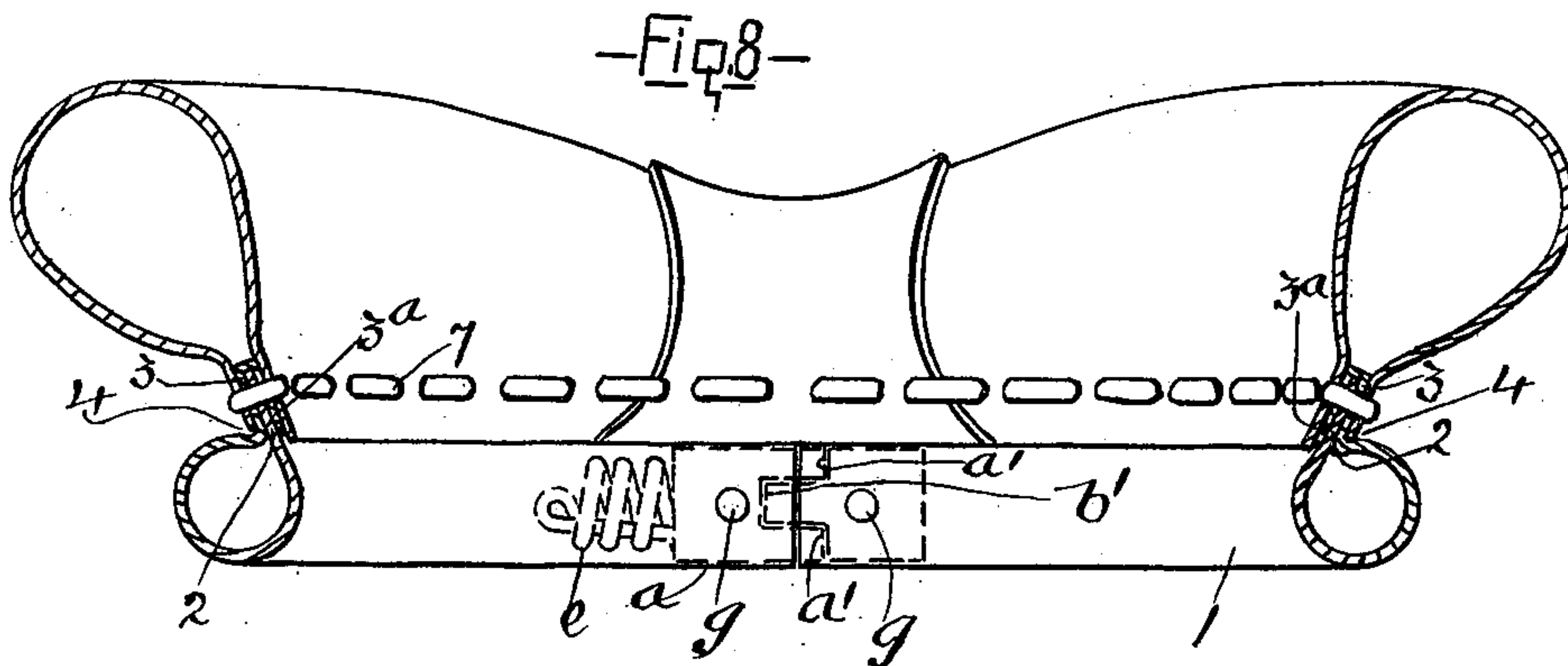
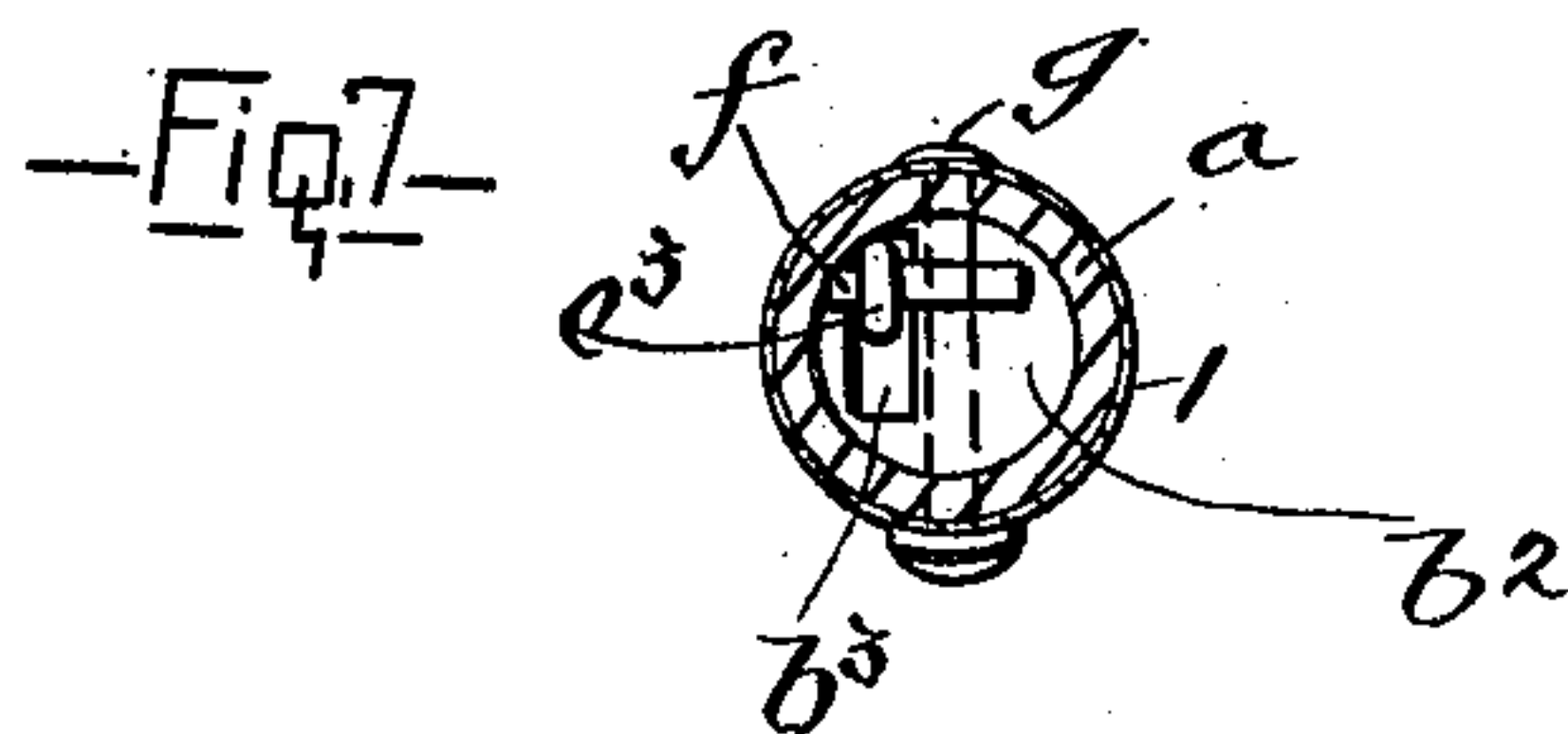
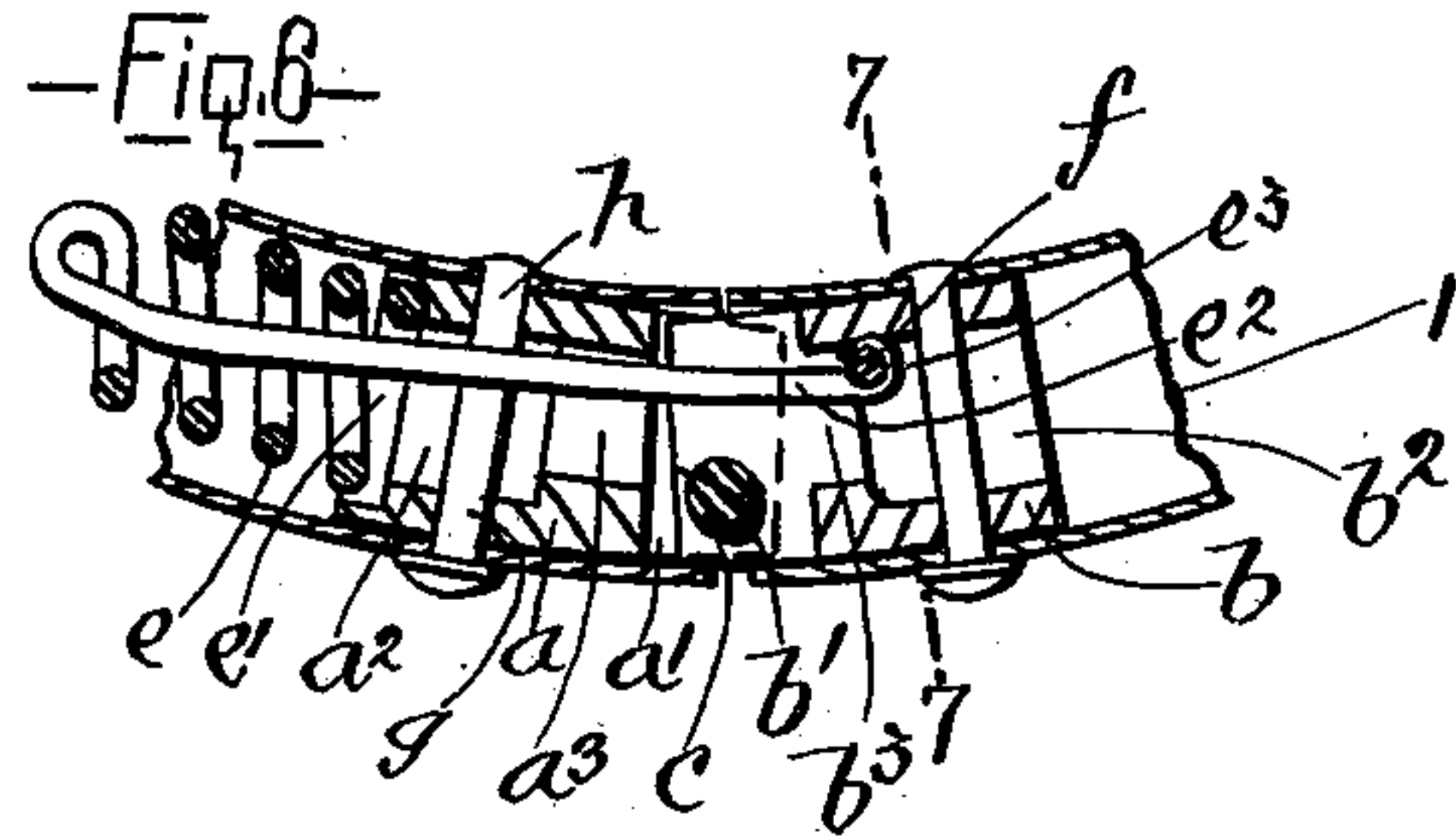
Patented Jan. 23, 1900.

H. L. GULLINE.
COLLAR.

(Application filed Mar. 8, 1898.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses
R. A. Kimber
[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. 641,690, dated January 23, 1900.

Application filed March 8, 1898. Serial No. 673,141. (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.

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

The invention consists in a hollow metal rim having a closed flange projecting in part tangentially therefrom; a further improvement consisting of a spring-hinge uniting the two ends of the sections of the rim at the throat portion.

For full comprehension, however, of the invention reference must be had to the annexed 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 the invention; Fig. 2, a side view of same; Figs. 3, 4, and 5, cross-sectional views of same, respectively, on lines 3 3, 4 4, and 5 5, Fig. 1. Fig. 6 is an enlarged detail longitudinal sectional view of the throat-end portions of the two sections of the rim; and Fig. 7, a cross-sectional view on line 7 7, Fig. 6, Fig. 8 being a cross-sectional view of a complete collar provided with the improved rim.

The metal rim is, as shown, composed of two like halves of the usual or any desired shapes of horse-collar rims and hinged together at the throat portion. Each half is formed with a hollow body portion 1, circular in cross-section except at the peak, preferably by rolling a single length of sheet metal into the required tubular form, but leaving sufficient unturned edge along each side to form flanges 2 and 3, the latter being about twice the width of the flange 2 in order that the extra portion 3^a may be folded and bent down over the flange 2, reaching to the base of same, so that a rigid compact three-ply flange may be formed closed at the edge throughout its entire length.

In order to afford freedom to the neck of the horse and at the same time afford a larger

hame space or recess, as at 4, the three-ply flange projects tangentially, as shown more clearly in Fig. 5, from the tubular body portion 1 and at an outward or flaring angle, the base of the flange being also more toward the inside of the contour of the body than the peripheral line thereof to afford, as before mentioned, greater recess for hame-space.

As will be observed in Figs. 3 and 4, the tangential angle of the flange becomes less acute toward the peak of the rim, where it is not required as much as at the throat portion.

The peak is formed by a gradual flattening out of the upper ends of the tubular body portions, as at 5, the flattening being complete at the extreme peak end of each body-half.

The two halves of the rim are hinged together at the throat portion in the following manner: A pair of short block-pieces *a b*, having knuckle ends *a' a' b'*, respectively, are pivoted together at *c* and partially hollowed out, as at *a² b²*, to accommodate a spring *e*, of spiral form, one end, *e'*, of which bears within the recess *a²*, while the other outer end portion, *e²*, is straightened and turned inward through the spiral and passing through slots *a³ b³* in the block-pieces has its extreme end crooked, as at *e³*, to take over a pin *f*, arranged transversely of and bearing against the transverse wall of the piece *b²*. The parts as just described are first set together and vertical rivet-holes *g* bored through the block-pieces, so that when inserted in the throat ends of the two halves of the rim rivets *h* can be passed through the holes *g* and corresponding rivet-holes in the rim ends to securely connect the parts together in spring-hinge fashion.

It will be noticed that the slots *a³ b³* are to one side of the block-pieces, so that the spring portion *e* will not interfere with the rivets *h*.

The spring-hinge tends to automatically close the collar at the peak end and yet allow it to be readily opened when fitting the collar on the horse.

To secure the rim to the body 6 of the collar, the three-ply flange of the rim is perforated, as at 7, to allow of the usual riveting or lacing the parts together, as shown in Fig. 8.

The peak ends of the rim may be secured together by any desired and customary fastening. (Not shown.)

What I claim is as follows:

1. A horse-collar rim made of metal and having a hollow body portion and a perforated flange projecting therefrom, the base of the flange being located near the inside of the contour of such body portion and the angle of flare of such flange varying throughout its length from the throat portion to the peak as shown and described.
2. A horse-collar rim composed of two like hollow metal halves united at the throat portion by a spring-hinge connection comprising block-pieces set in the ends of the rim-halves

and united by a knuckle-joint and a spiral spring with one end bearing in one block-piece and a portion of its length passed through the block-pieces so that its other end may bear upon the other block-piece, the block-pieces being hollowed and slotted to accommodate such spring, as set forth.

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

HENRY LAWRENCE GULLINE.

Witnesses:

FRED. J. SEARS,
R. A. KIMBER.