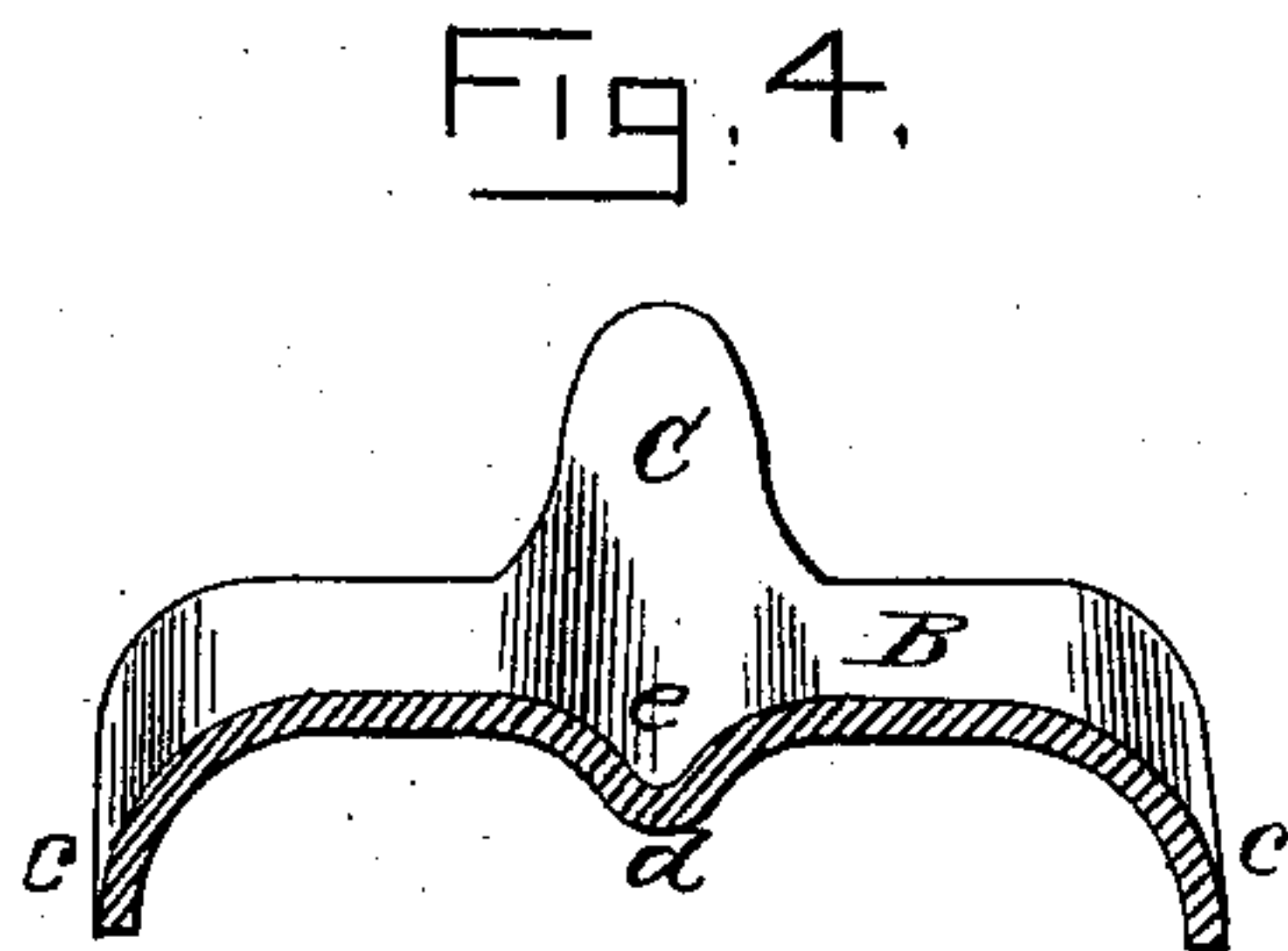
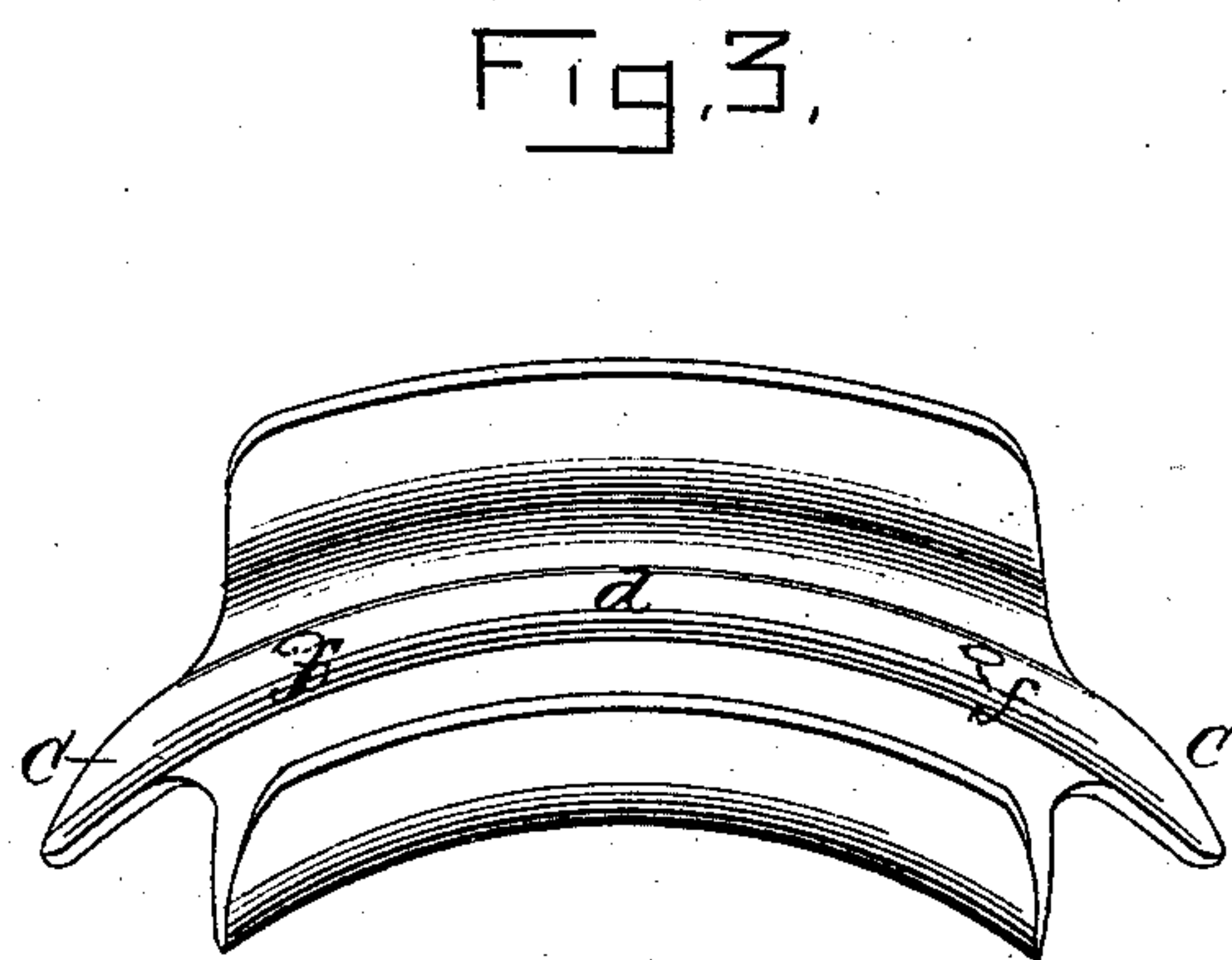
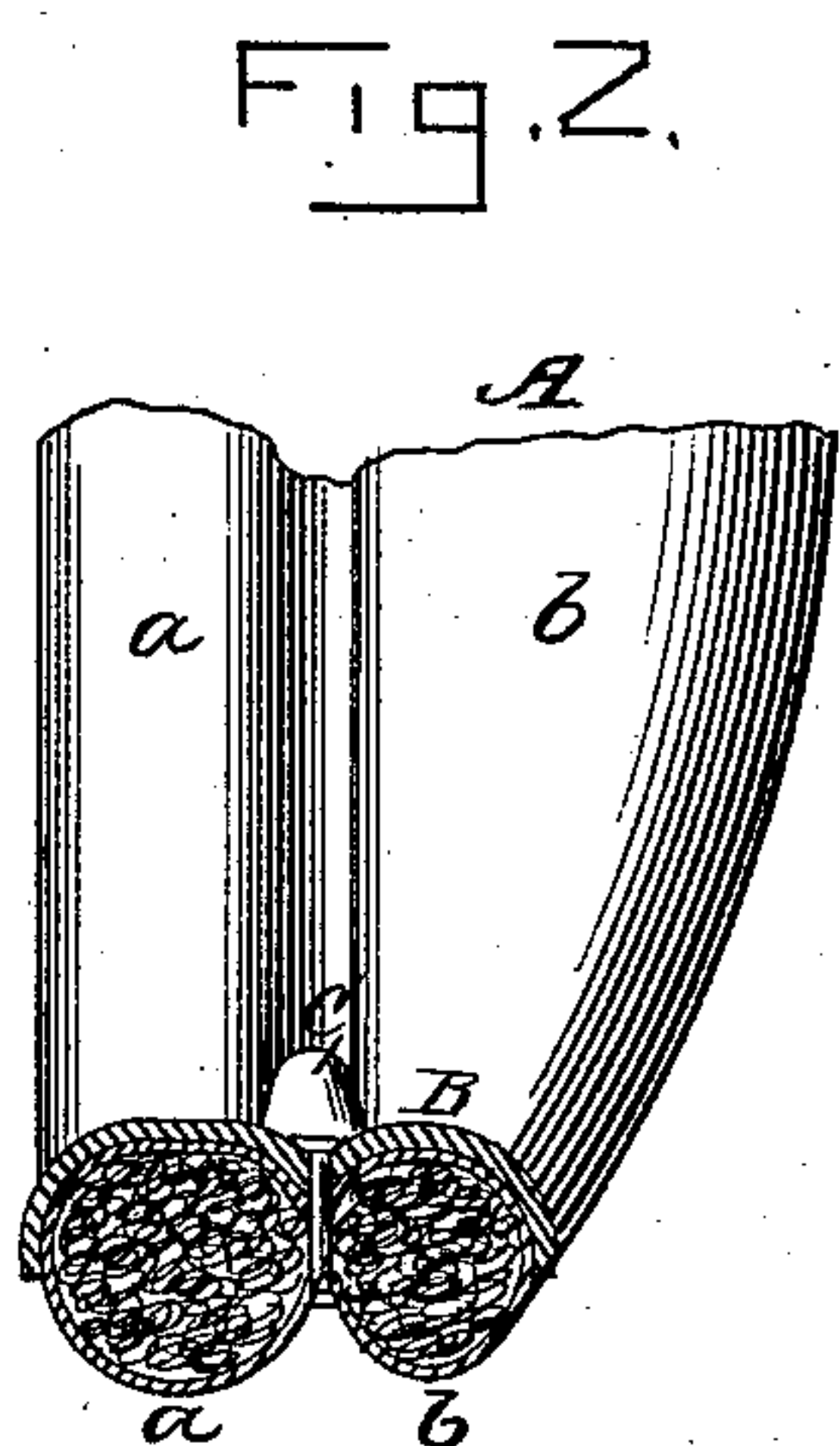
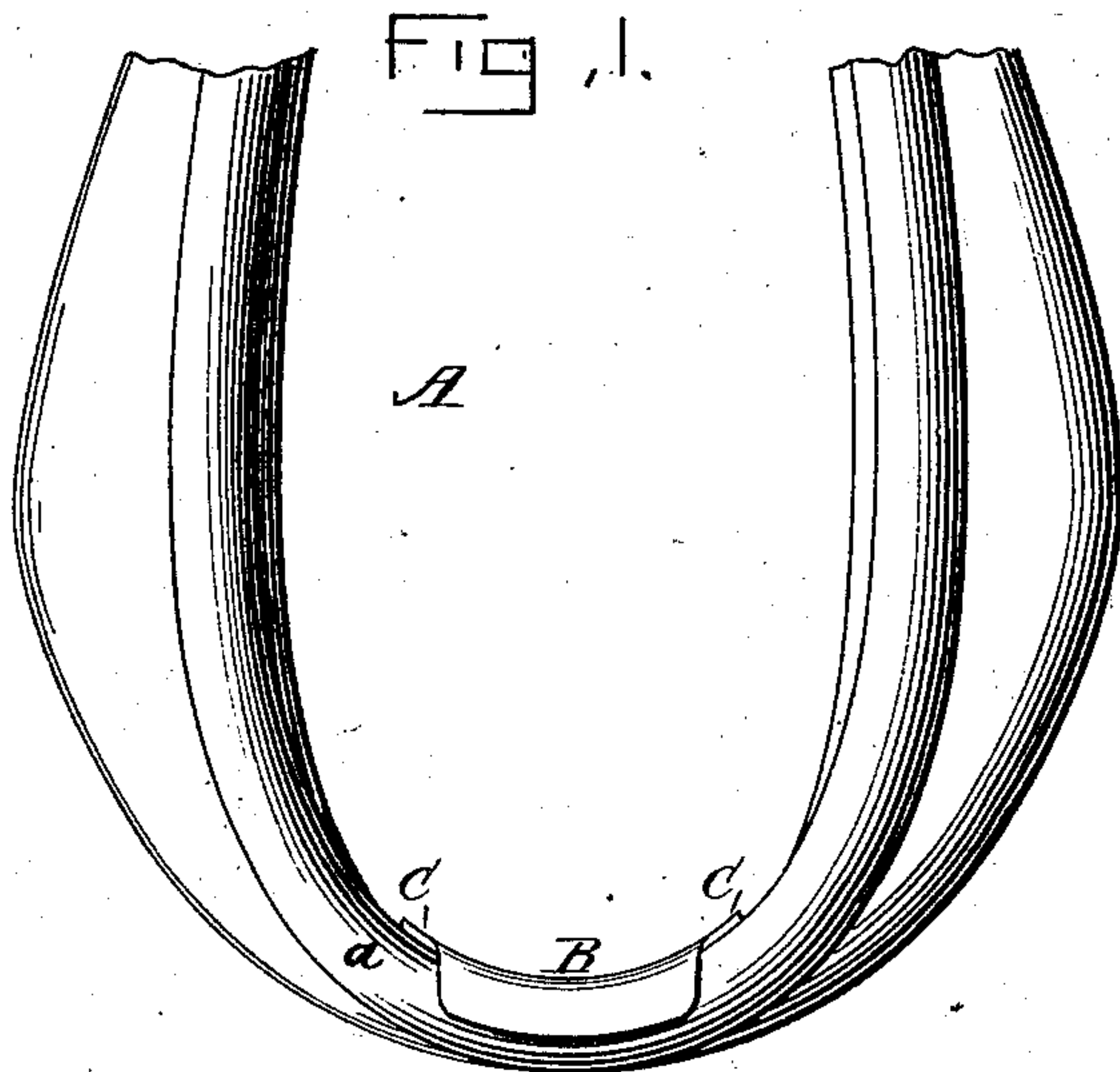


(No Model.)

C. B. JOHNSON.
HORSE COLLAR PROTECTOR.

No. 301,896.

Patented July 15, 1884.



WITNESSES:
S. A. Clark,
L. L. Miller.

INVENTOR,
Charles B. Johnson
per Cha. H. Fowler
Attorney

UNITED STATES PATENT OFFICE.

CHARLES B. JOHNSON, OF NEW CASTLE, OHIO.

HORSE-COLLAR PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 301,896, dated July 15, 1884.

Application filed April 29, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES B. JOHNSON, a citizen of the United States, residing at New Castle, in the county of Coshocton and State of Ohio, have invented certain new and useful Improvements in Horse-Collar Protectors; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings represents a portion of a horse-collar with improved protector connected thereto; Fig. 2, a cross-section thereof; Fig. 3, a perspective view of the under side of the protector on an enlarged scale, and Fig. 4 a cross-section of the protector.

The present invention has relation to that class of protectors for horse-collars formed of sheet metal and bent or curved to conform to the inner sides of the rolls of the collar, and providing the protector with a longitudinal corrugation to fit in between the rolls.

The object of the invention is to improve the construction of the above-mentioned class of devices, whereby it will serve the double purpose of a protector and a brace to prevent the collar from pulling down to a point at the bottom thereof.

A further object of the invention is to form the longitudinal corrugation rounding upon its under side, so that when the protector is in place upon the collar there will be no sharp edges to cut the stitches or leather between the rolls.

These objects I attain by the construction, substantially as shown in the drawings and hereinafter described and claimed.

In the accompanying drawings, A represents a portion of a horse-collar having the usual rolls, *ab*, and to the bottom of the collar, upon its inner side, is secured my improved protector B. This protector is stamped or otherwise constructed of sheet metal with depending flanges *c* at its sides to overlap the rolls of the collar.

The longitudinal corrugation or rib *d*, instead of having a sharp edge, or V shape in cross-section, as heretofore, I construct of semi-circular form or rounding, as shown in Fig. 1, thus giving it a smooth surface with no sharp edges to cut the leather or stitches between the rolls of the collar.

As these protectors are composed of metal, the importance of constructing them so that they will not injure the collar by any sharp edges coming in contact with the leather will be at once appreciated, and the particular shape or form of the longitudinal corrugation or rib obviates this objection. This rib or corrugation *d* is designed to fit between the rolls *ab* of the collar, and a central longitudinal groove, *e*, is provided for the heads of the rivets to bring them flush with or below the upper surface of the protector, so that no projecting heads of the fastenings will come in contact with the horse, perforations *f* being formed in the protector for the rivets.

Unlike the protectors heretofore referred to, the protector B at its ends terminates in braces C, the longitudinal rib or corrugation *d* extending out the entire length of the braces, if so preferred. The addition of these braces C is considered of very great importance in this class of sheet-metal protectors, as they brace the collar where most needed, and keep it from pulling down to a point at the bottom, which would tend to spoil the shape of the collar, as well as causing it to break at the bottom.

These protectors with the braces at the ends may be made of various sizes, to fit large or small collars, thus avoiding the necessity of bending them to adapt them to collars of different sizes, and they can be attached to the collar by most any one with comparatively little trouble.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A sheet-metal protector for horse-collars, formed with side flanges to overlap the rolls of the collar, and provided with extensions at its ends to form braces to prevent the collar from pulling down to a point, and a longitudinal rib or corrugation formed rounding upon its under side, to fit between the rolls and prevent injury to the leather or stitching, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES B. JOHNSON.

Witnesses:

T. J. HOLL,
H. M. ALMACK.