

No. 661,424.

Patented Nov. 6, 1900.

E. F. PFLUEGER.
HORSESHOE.

(Application filed Apr. 12, 1900.)

(No Model.)

4 Sheets—Sheet 1.

FIG. 1.

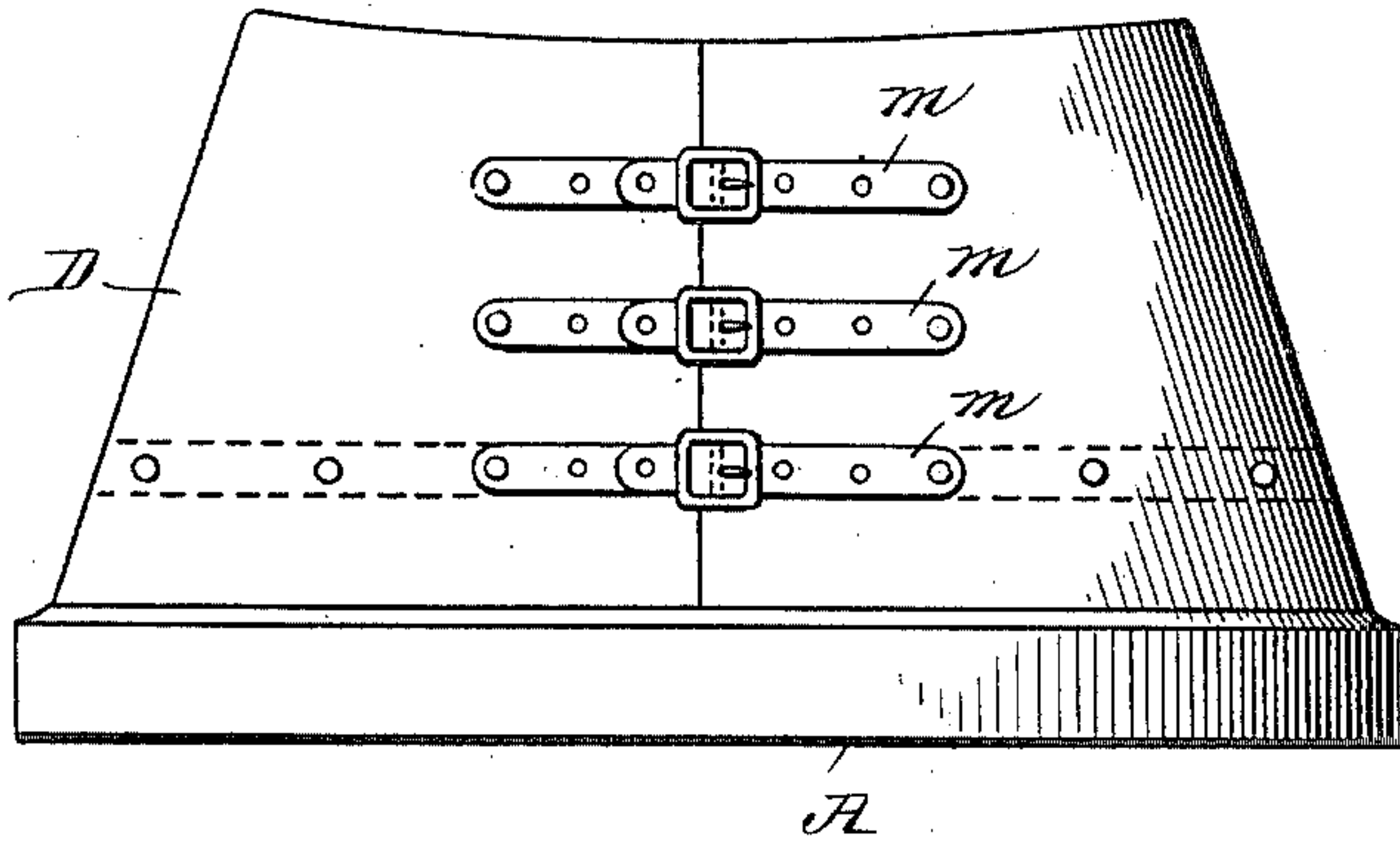


FIG. 2.

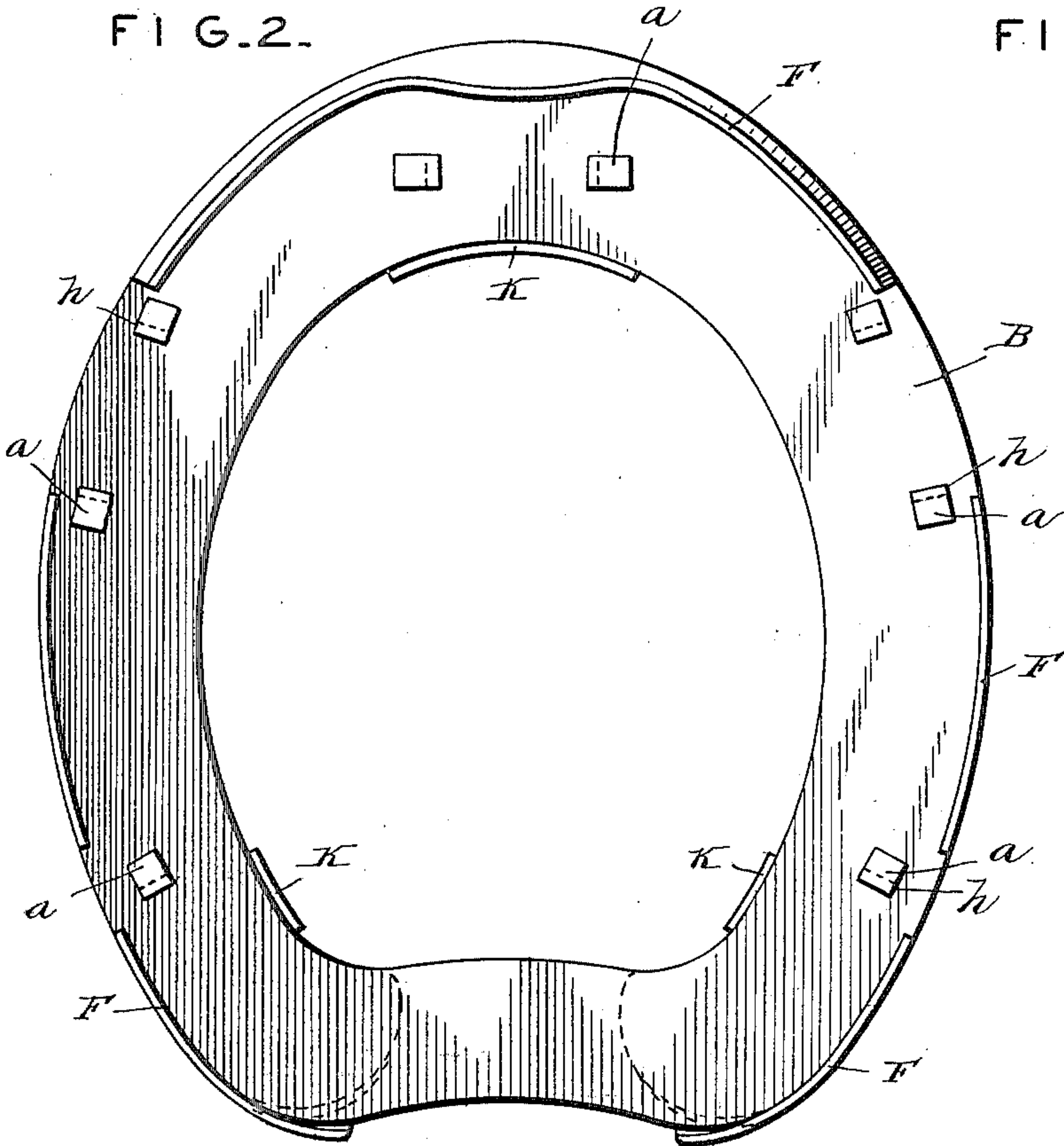
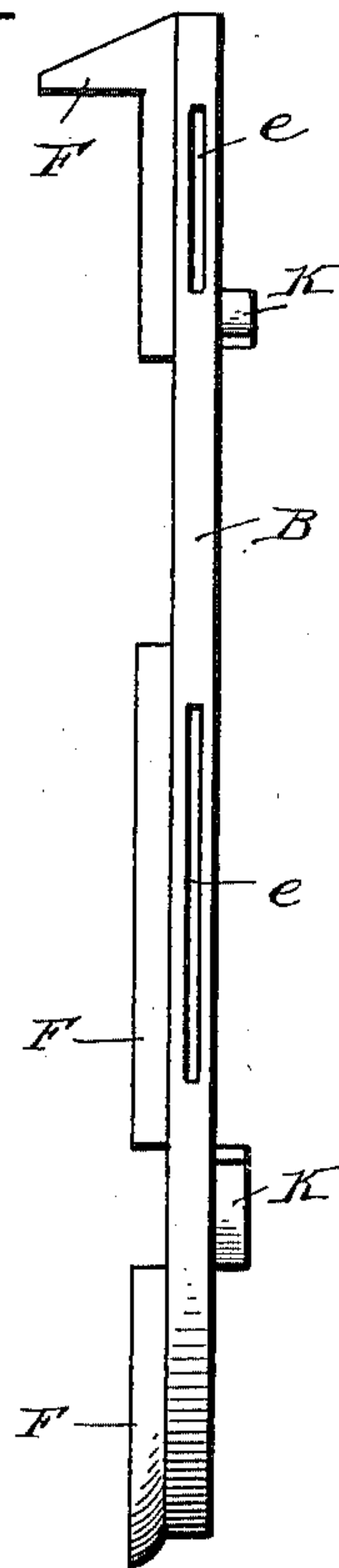


FIG. 3.



ATTEST-

Harry L. Amer,
G. M. Anderson

INVENTOR-

Ernest F. Pfeiffer,

By *E. W. Anderson*
his Atty.

No. 661,424.

Patented Nov. 6, 1900.

E. F. PFLUEGER.
HORSESHOE.

(Application filed Apr. 12, 1900.)

(No Model.)

4 Sheets—Sheet 2.

FIG. 6.

FIG. 7.

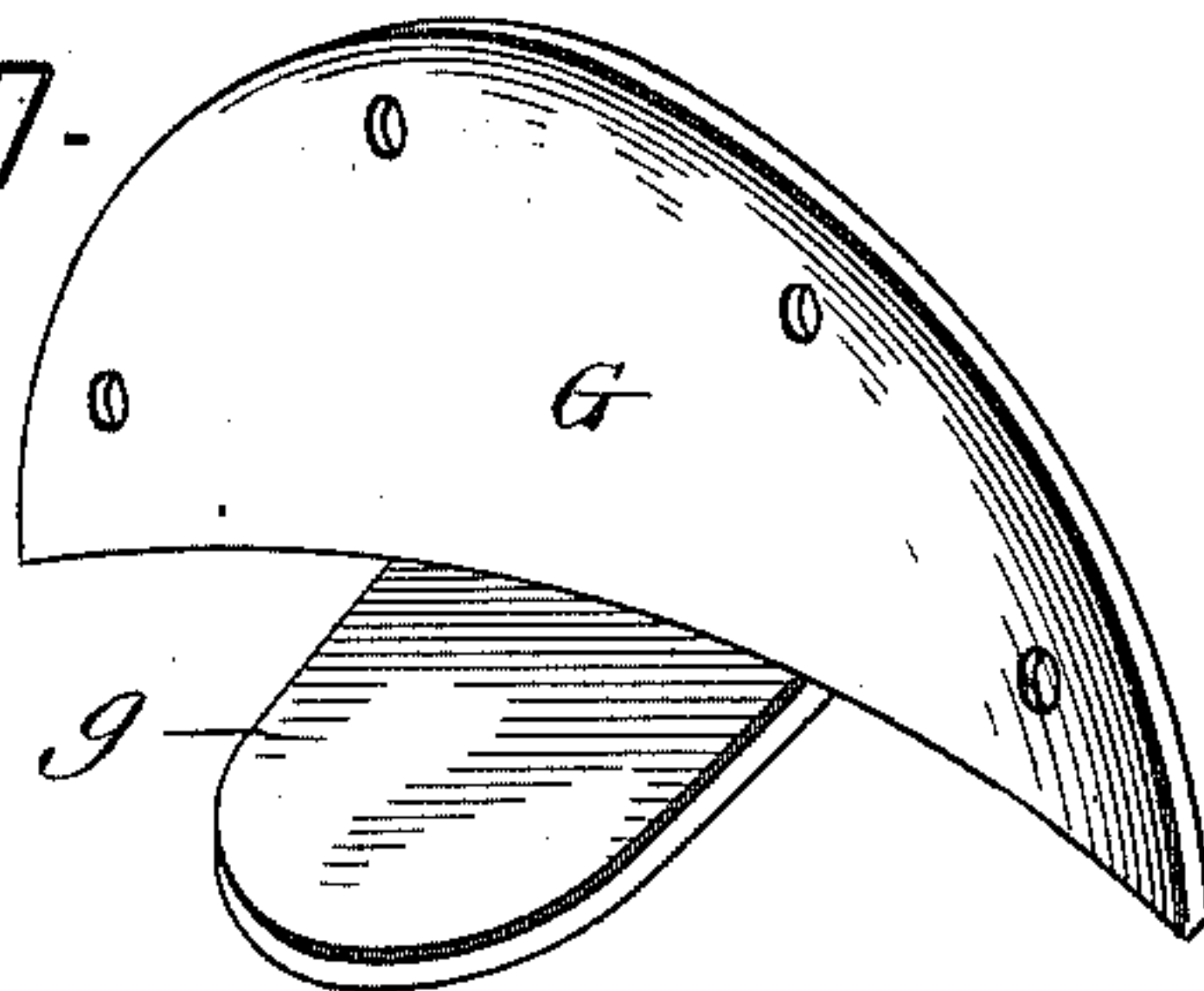
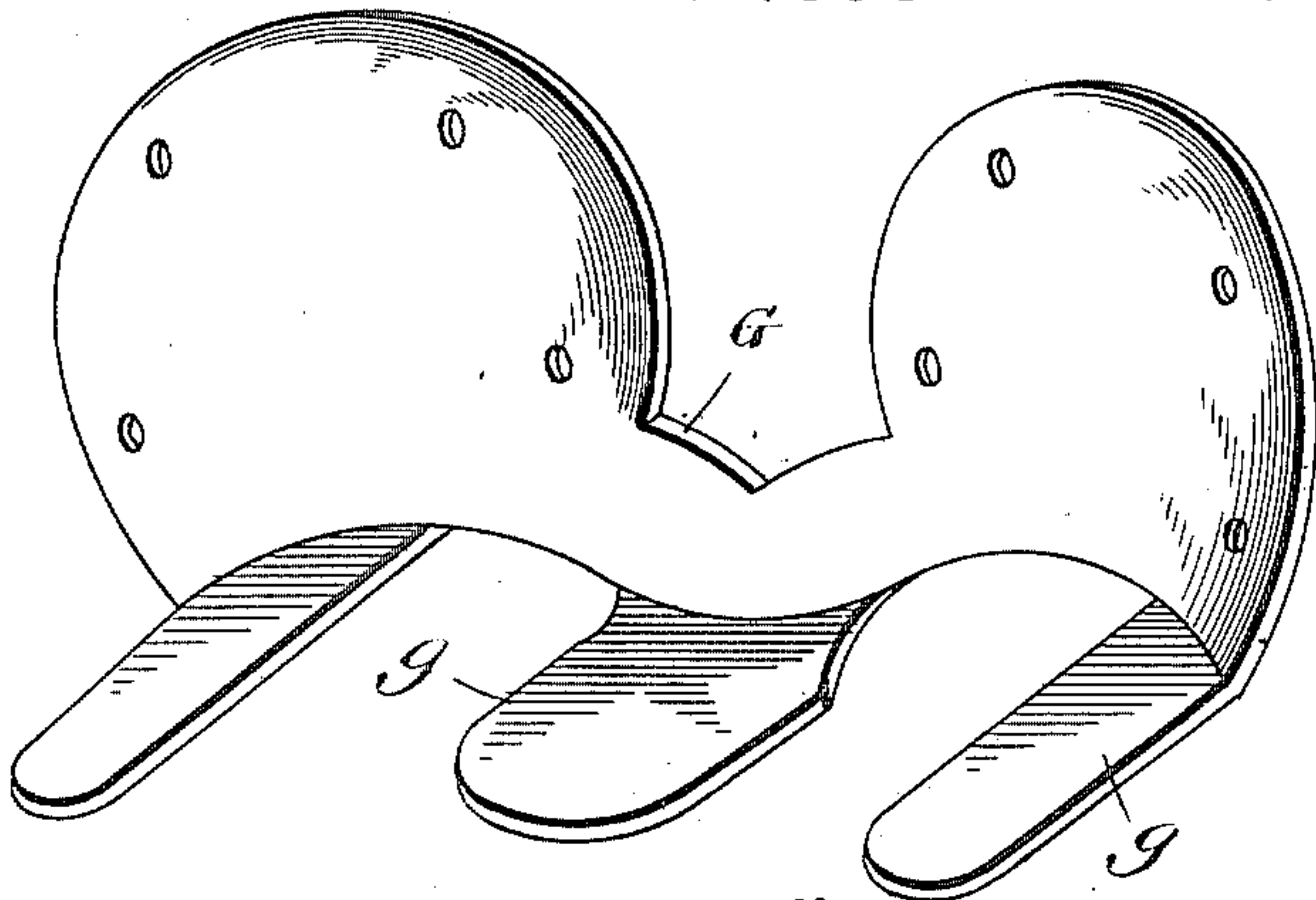


FIG. 8.

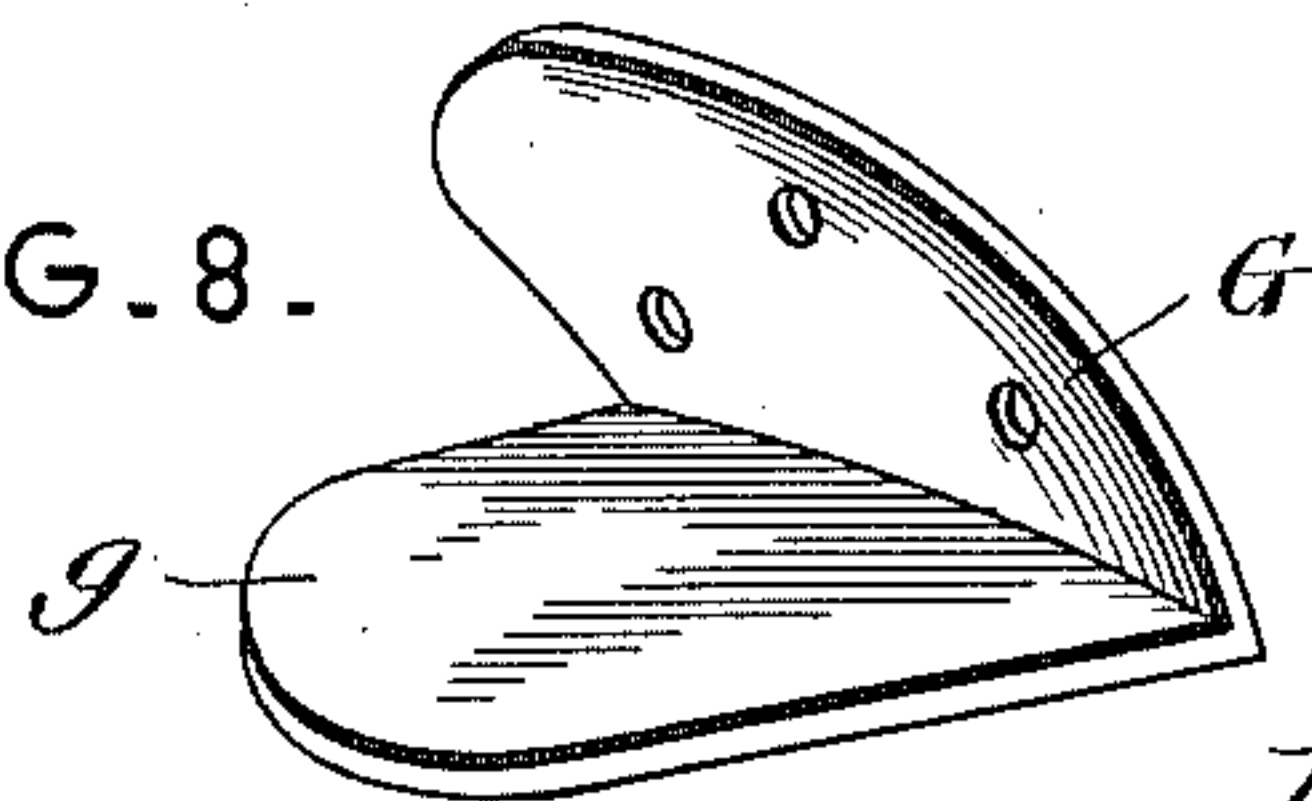


FIG. 4.

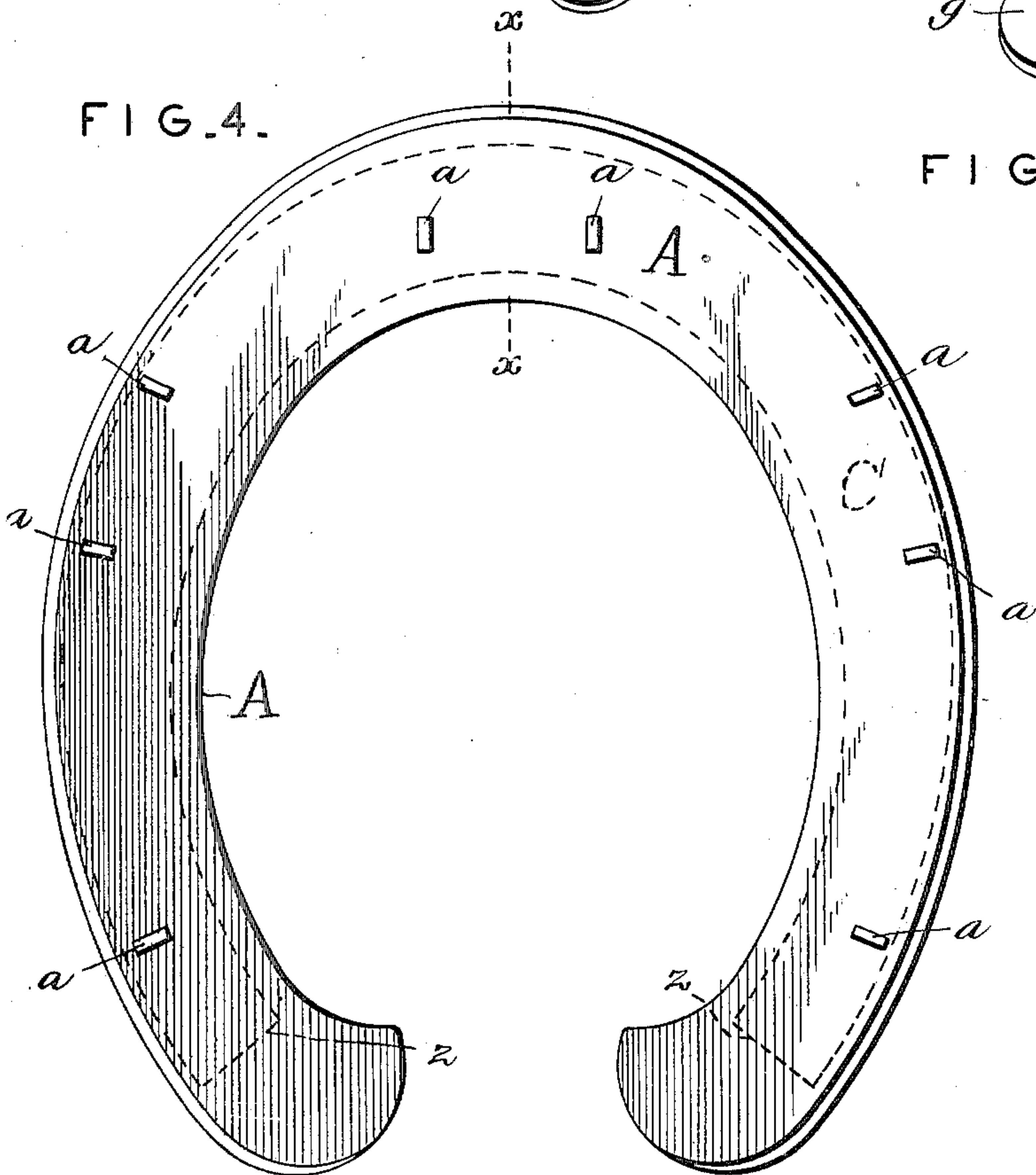
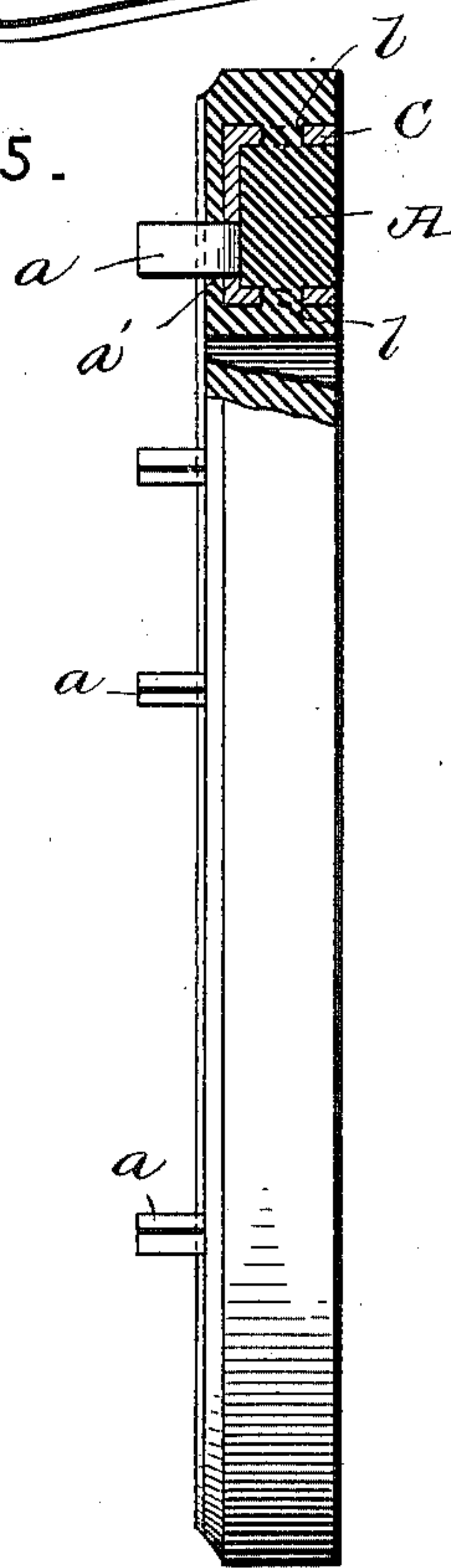


FIG. 5.



ATTEST-

Harry L. Amer.
G. W. Anderson

INVENTOR.

Ernest F. Pflueger.

By

G. W. Anderson

his Atty.

No. 661,424.

Patented Nov. 6, 1900.

E. F. PFLUEGER.
HORSESHOE.

(Application filed Apr. 12, 1900.)

(No Model.)

4 Sheets—Sheet 3.

FIG. 9.

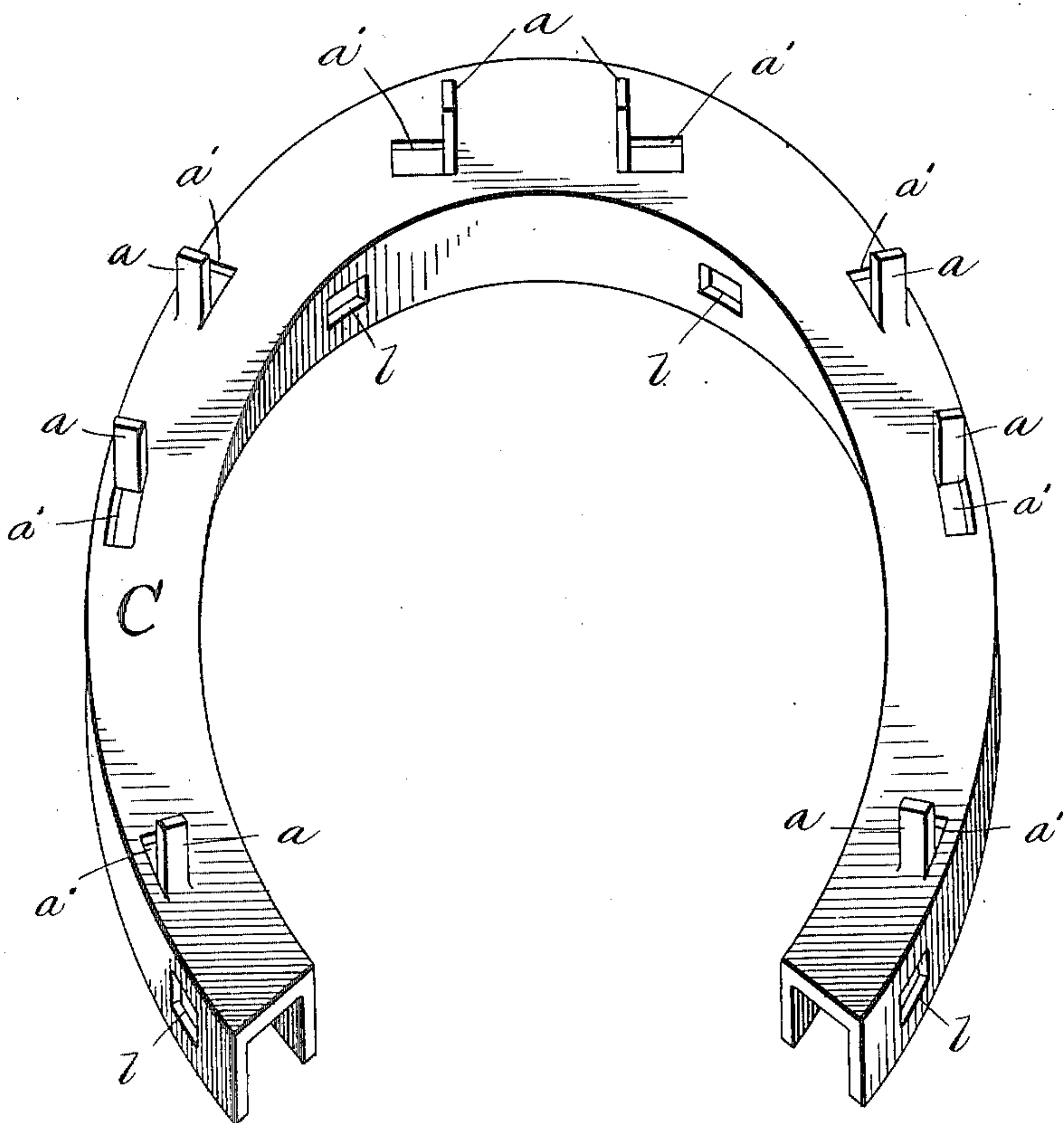
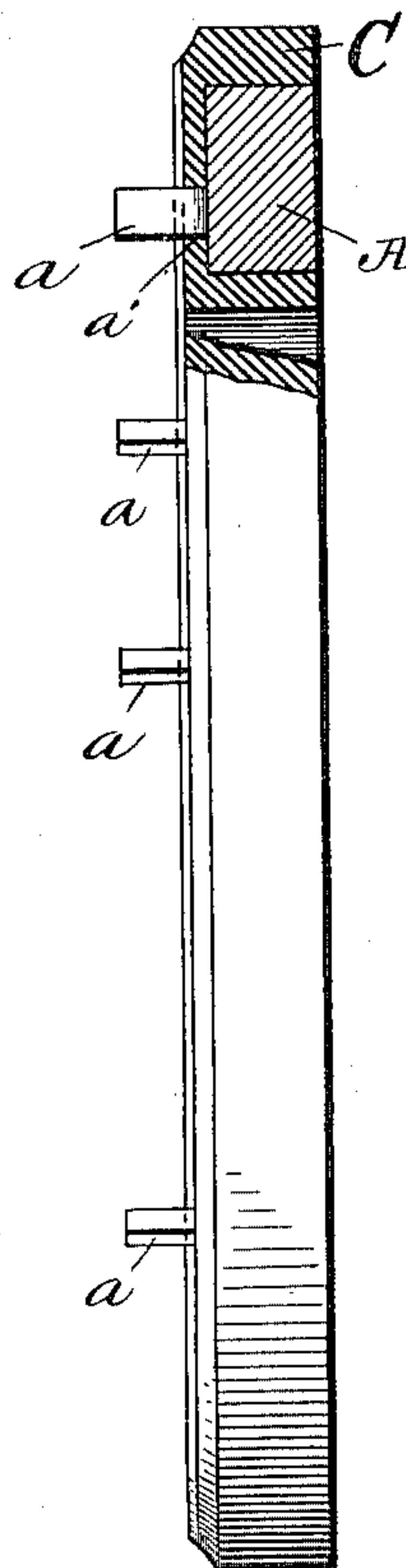


FIG. 10.



ATTEST-
Harry G. Amer.
G. W. Anderson

INVENTOR-
Ernest F. Pflueger.
By *G. W. Anderson*
his Atty.

No. 661,424.

E. F. PFLUEGER.
HORSESHOE.

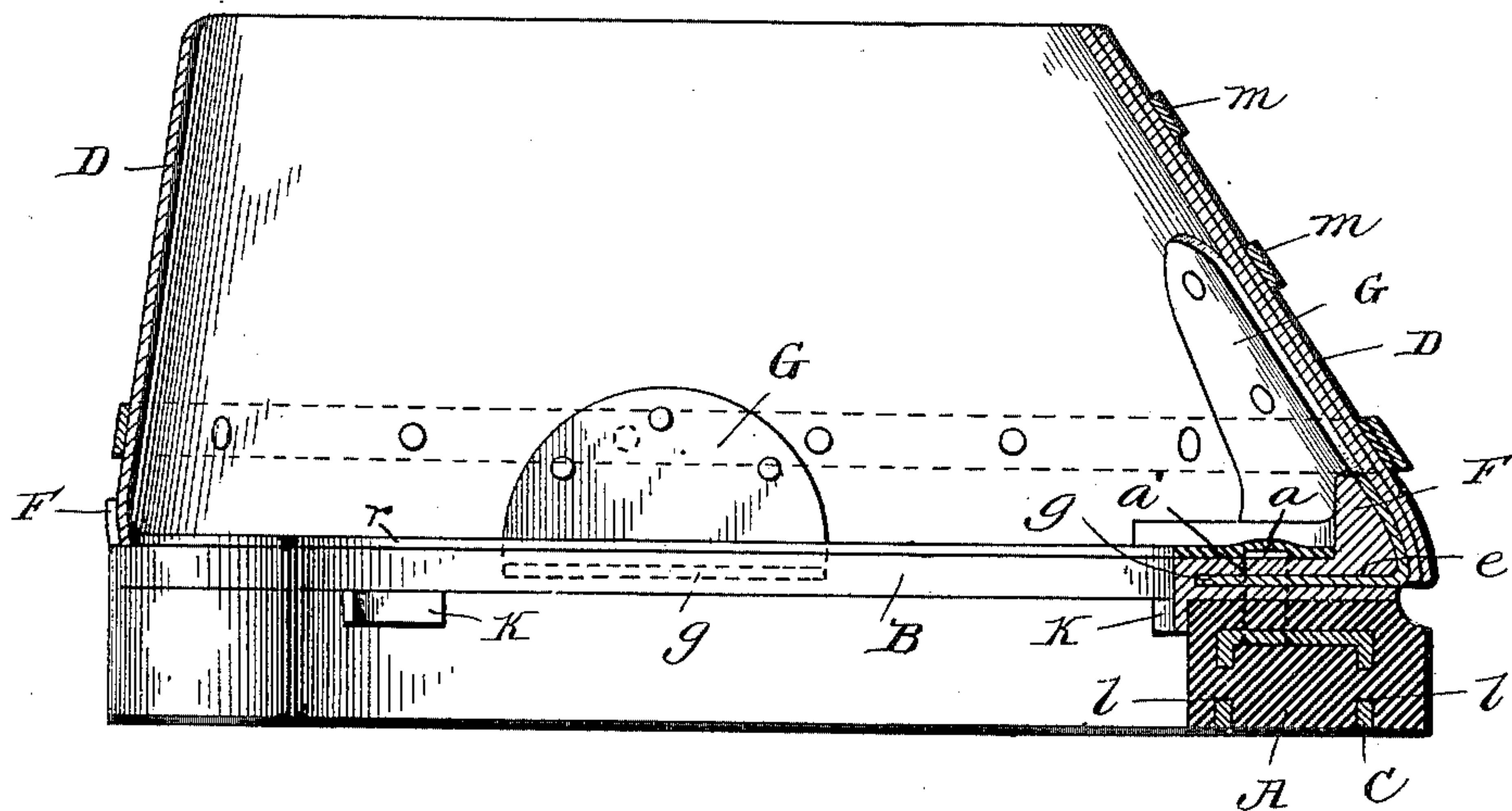
Patented Nov. 6, 1900.

(Application filed Apr. 12, 1900.)

(No Model.)

4 Sheets—Sheet 4.

FIG. II.



ATTEST-

Harry L. Amer.
George M. Anderson

INVENTOR.

Ernest F. Pflueger.

By E. W. Anderson -
his Atty.

UNITED STATES PATENT OFFICE.

ERNEST F. PFLUEGER, OF AKRON, OHIO.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 661,424, dated November 6, 1900.

Application filed April 12, 1900. Serial No. 12,621. (No model.)

To all whom it may concern:

Be it known that I, ERNEST F. PFLUEGER, a citizen of the United States, and a resident of Akron, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Horseshoes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

In the accompanying drawings, Figure 1 is a front view of my horseshoe. Fig. 2 is a top plan view of rubber sole A and sole-plate B, secured together. Fig. 3 is a side elevation of sole-plate B. Fig. 4 is a top plan view of rubber sole and steel holder and brace C, secured together. Fig. 5 is a section on the line *xx*, Fig. 4. Figs. 6, 7, and 8 are detail views of holding-plates G. Fig. 9 is a perspective view of holder C. Fig. 10 is a sectional view showing a modified form of steel holder and brace C with rubber sole A. Fig. 11 is a central longitudinal section through the complete shoe.

The invention relates to yielding shoes for horses, designed to protect them from shock when traveling on concrete streetways and hard roads; and the invention consists in the novel construction and combinations of parts, as hereinafter set forth.

In the accompanying drawings, illustrating the invention, the letter A designates the rubber sole; B, the metallic sole-plate; C, the steel holder and brace for the rubber sole, and D the cloth, leather, or rubber boot portion whereby the shoe is designed to be secured to the hoof without nails.

The sole-plate B is made in ordinary horseshoe form, being, however, large enough to have front and side upward flanges, as indicated at F, to engage the front and sides of the hoof and in this manner protect the boot. In the thin body of the plate are formed the narrow slotways or recess-bearings *e* for the reception of the broad thin flanges *g* of the holding-plates G, which are riveted to the lower portion of the boot. In the sole-plate are formed the short small slots *h*, which are arranged at varying angles and are designed

to receive the prongs of the holding-brace C. K K represent short flanges extending downward and designed to assist in holding the sole A in secured position with relation to said sole-plate.

The sole A is of thick rubber and is usually formed on the steel holder C, this being preferably a thin piece of steel of channeled form or U shape in cross-section, having the curvature of the shoe and being designed to extend nearly the length thereof, its ends however being covered in and protected, as indicated at *z*. This steel holding-plate is designed to provide a brace and anchor for the rubber body of the shoe. It is provided with prongs *a*, which project upward, and having been passed through the short slots *h* of the sole-plate and clenched on its upper surface serve to secure the sole to the sole-plate. The holding-plate should also have apertures *l* through its lateral walls in order to allow a bond to be formed between the outer and inner portions of the rubber body. For the same reason the prongs *a* should be formed by stamping them out of the plate in such a manner as to have apertures, as at *a'*. Sometimes, however, I may make the steel holder and brace solid, Fig. 10.

The boot portion D is designed to be attached to the sole-plate by means of the flanged holding-plates G, which are riveted to its lower portion, as hereinbefore described. It may also be provided with one or two metallic strengthening-bands, extending around it horizontally and riveted to it as well as to the fastening-straps *m*, whereby the boot is secured on the hoof.

I usually provide a thin covering of rubber *r* for the upper bearing-surface of the sole-plate.

The only part of this shoe which is subject to abrasive wear is the rubber sole A and its holder C, which are of economic construction and easily replaced.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with the rubber sole, and the steel brace and holder embedded therein, of the boot portion and the sole-plate, connected to said boot and holder, substantially as specified.

2. In a horseshoe, the rubber sole and the steel brace and holder embedded in said sole, of channeled form of U shape in cross-section, and having the edges of its lateral walls arranged to form a part of the wearing-surface, substantially as specified.

3. In a horseshoe, the rubber sole, and the steel brace and holder of channeled horseshoe form of U shape in cross-section and entirely embedded in said sole with the exception of the edges of its lateral walls, which are arranged to form part of the wearing surface or tread, substantially as specified.

4. In a horseshoe, the rubber sole and the steel brace and holder embedded in said sole, of channeled horseshoe form of U shape in cross-section, having apertures in its side walls for influx of the rubber, and having the edges of its lateral walls arranged to form part of the wearing surface or tread, substantially as specified.

5. In a horseshoe, the combination with the sole-plate adapted to be secured to the hoof of a horse, and having apertures therein, of a rubber sole, and a steel brace or holder of channeled form embedded in said sole, and having attachment projections extending through the apertures of said plate, substantially as specified.

6. In a horseshoe, the combination with the sole-plate adapted to be secured to the hoof of a horse, and having apertures therein, of a rubber sole, and a steel brace or holder of channeled horseshoe form embedded in said sole, and having attachment projections extending through the apertures of said plate, substantially as specified.

7. In a horseshoe, the combination with the boot, having inwardly-extending metallic projections, of a sole-plate, having edge recesses for the reception of said projections, a rubber sole, and a steel brace and holder embedded in said sole, and means for securing said sole to said sole-plate, substantially as specified.

8. In a horseshoe, the combination with the boot having inwardly-extending metallic projections, of a sole-plate having edge recesses for the reception of said projections, a rubber sole, and a steel brace and holder of channeled form embedded in said sole and having attachment projections engaging apertures of said sole-plate, substantially as specified.

9. In a horseshoe, the sole-plate, having attachment devices for a rubber sole, and edge recesses for the attachment of a boot portion, substantially as specified.

10. In a horseshoe, the sole-plate having apertures for the attachment of a rubber sole, and edge recesses for the attachment of a boot portion, substantially as specified.

11. The horseshoe, consisting of the rubber sole and its embedded brace and holder having prongs extending through the rubber, and the edge-flanged sole-plate, having apertures for the reception of the prongs of the brace and holder, substantially as specified.

12. The horseshoe comprising the rubber sole, its embedded brace and holder having fastening-prongs, the boot portion having the flanged attachment-plates, and the sole-plate having apertures for said fastening-prongs, edge recesses to engage said flanged attachment-plates, and edge flanges to engage the hoof, substantially as specified.

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

ERNEST F. PFLUEGER.

Witnesses:

T. W. WAKEMAN,
D. GALEHOUSE.