

(No Model.)

2 Sheets—Sheet 1.

E. G. ROBERTSON.
HARNESS SADDLE.

No. 393,926.

Patented Dec. 4, 1888.

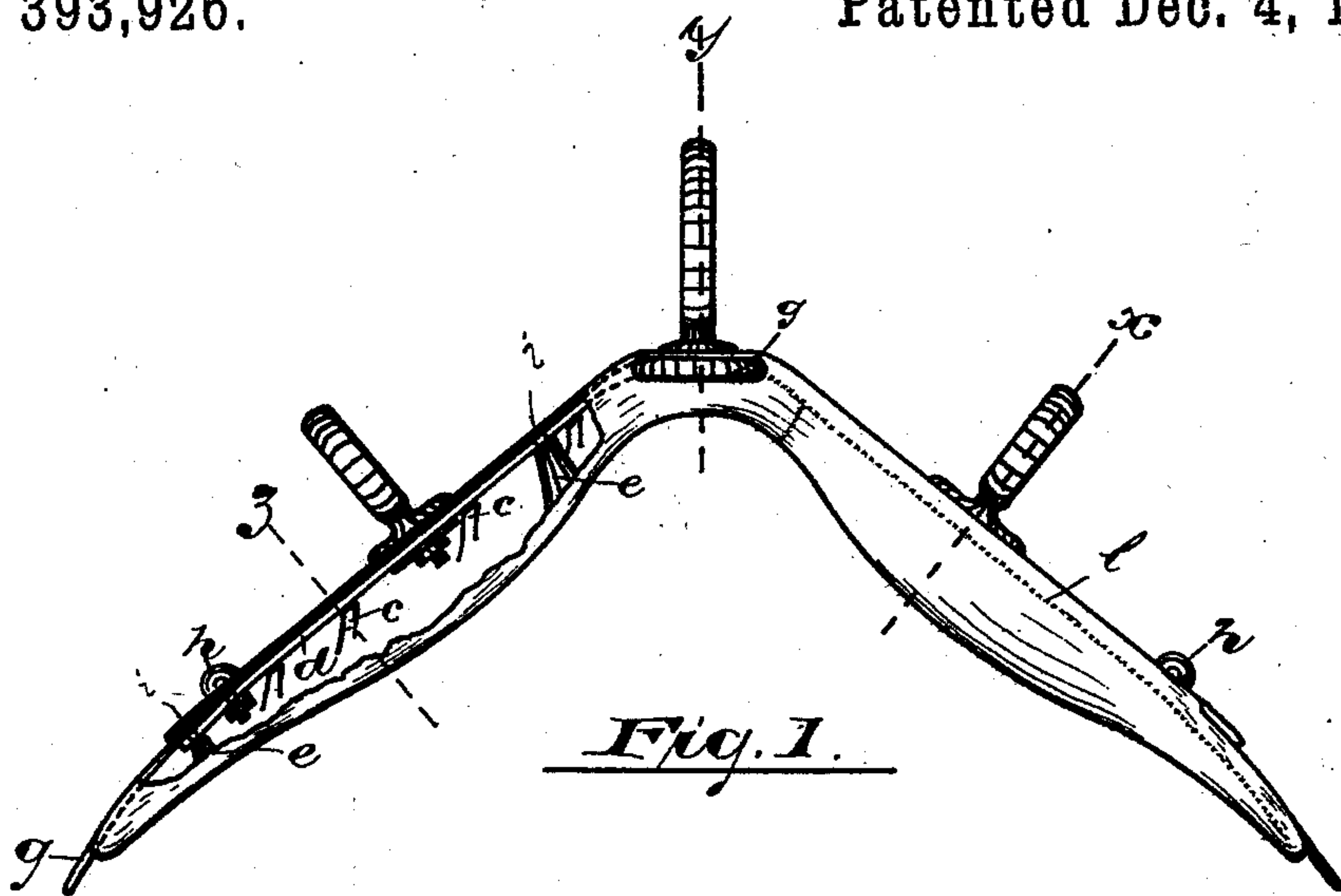


Fig. 1.

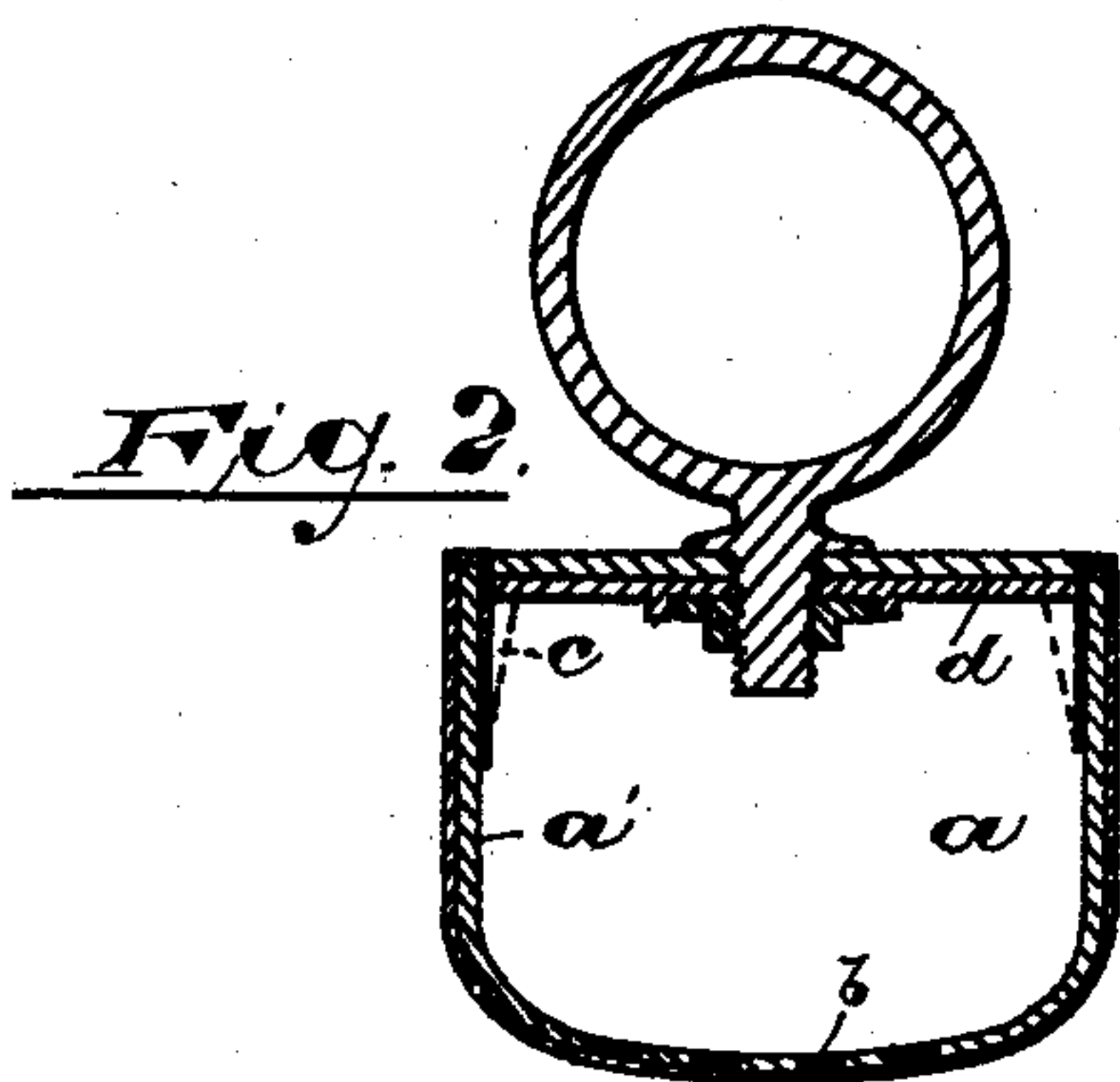


Fig. 2.

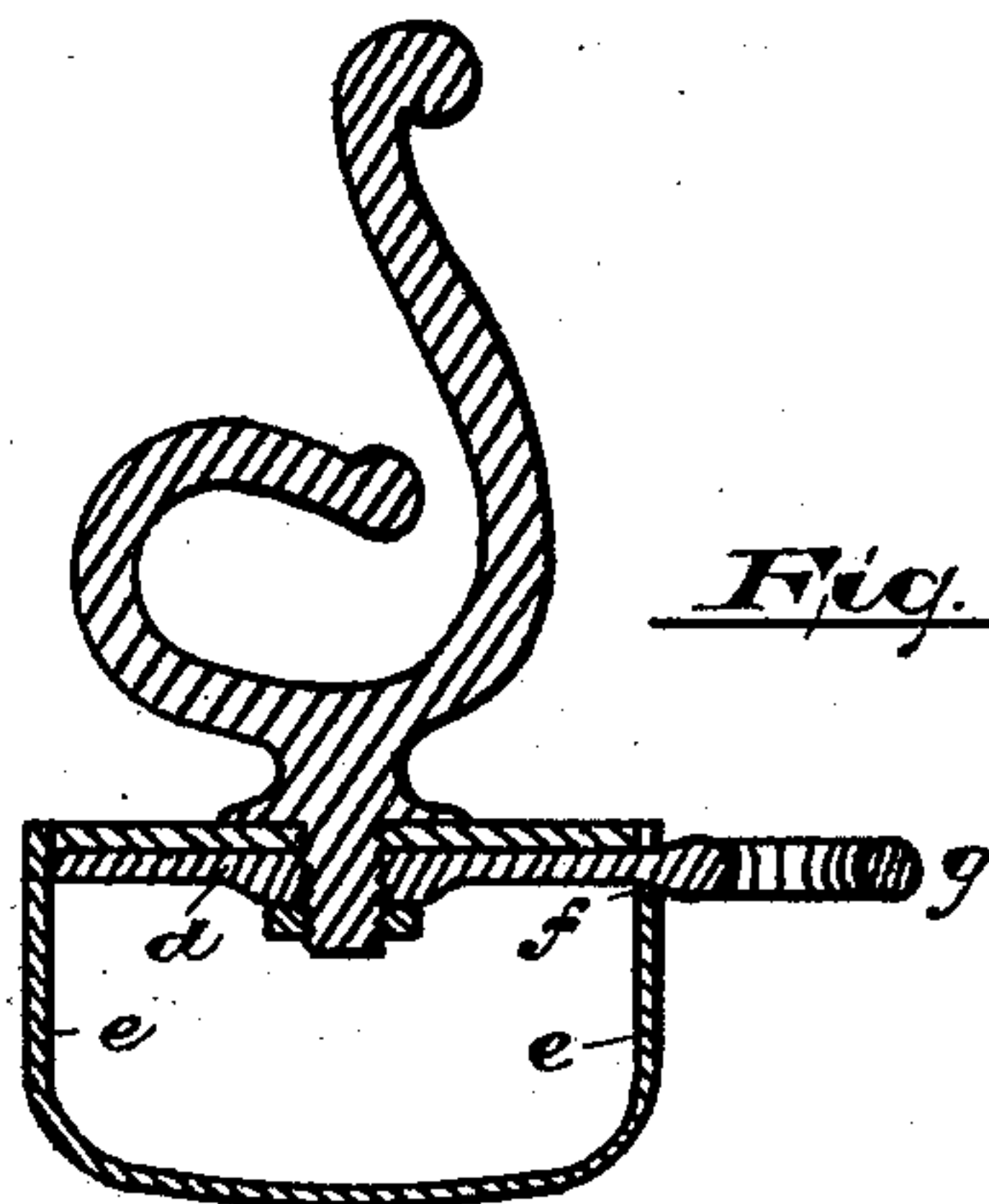


Fig. 3.

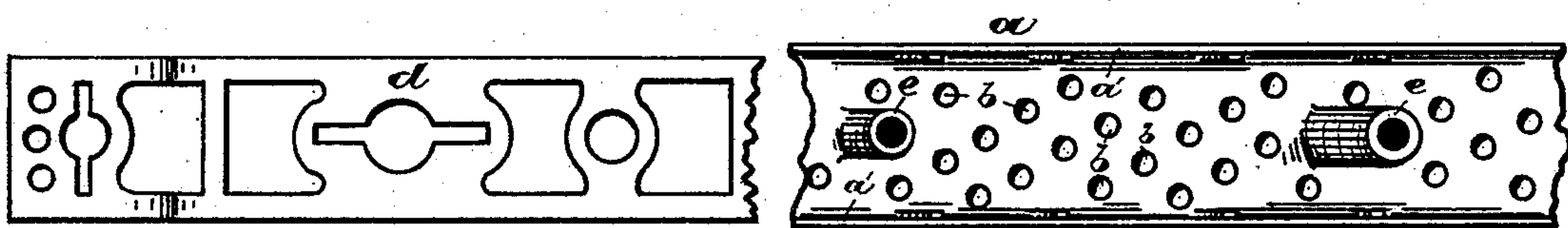


Fig. 4.

Fig. 5.

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Alfred Gartner.
E. L. Sheiman.

Edward G. Robertson,

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Inventor:

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2 Sheets—Sheet 2.

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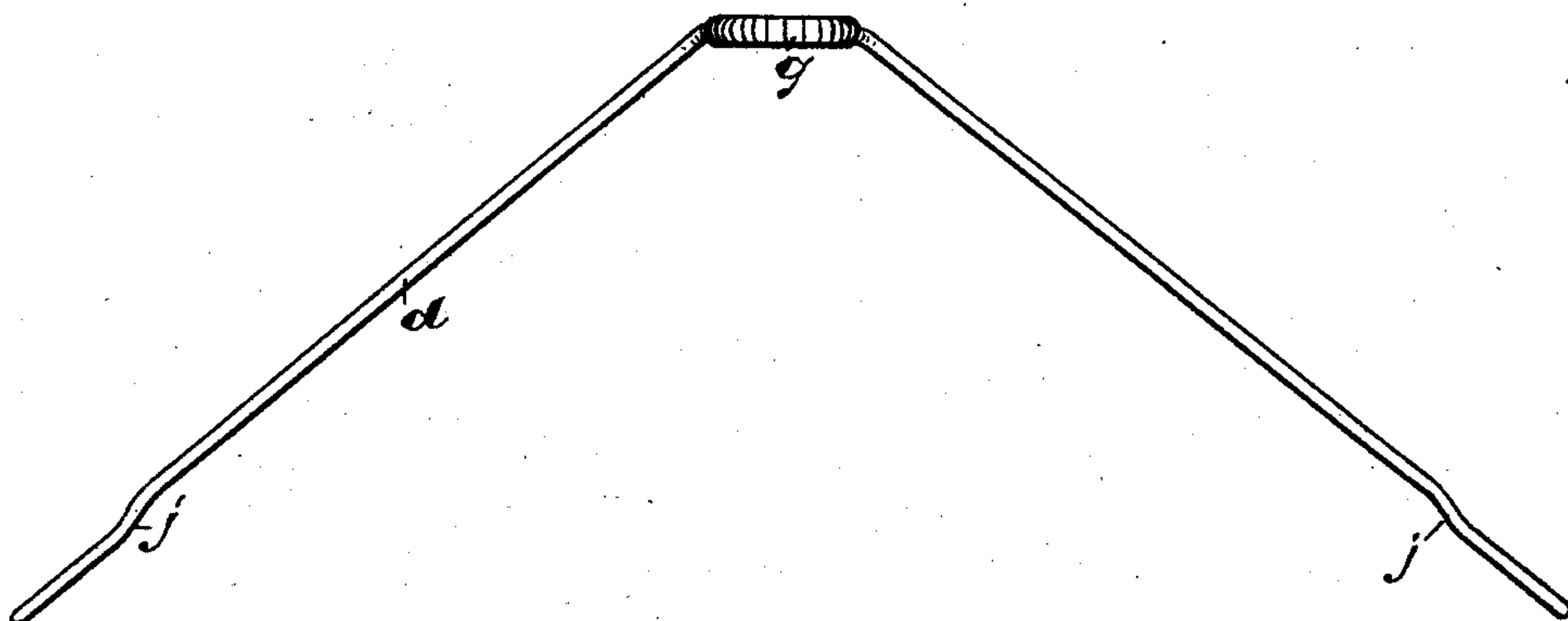


Fig. 6.

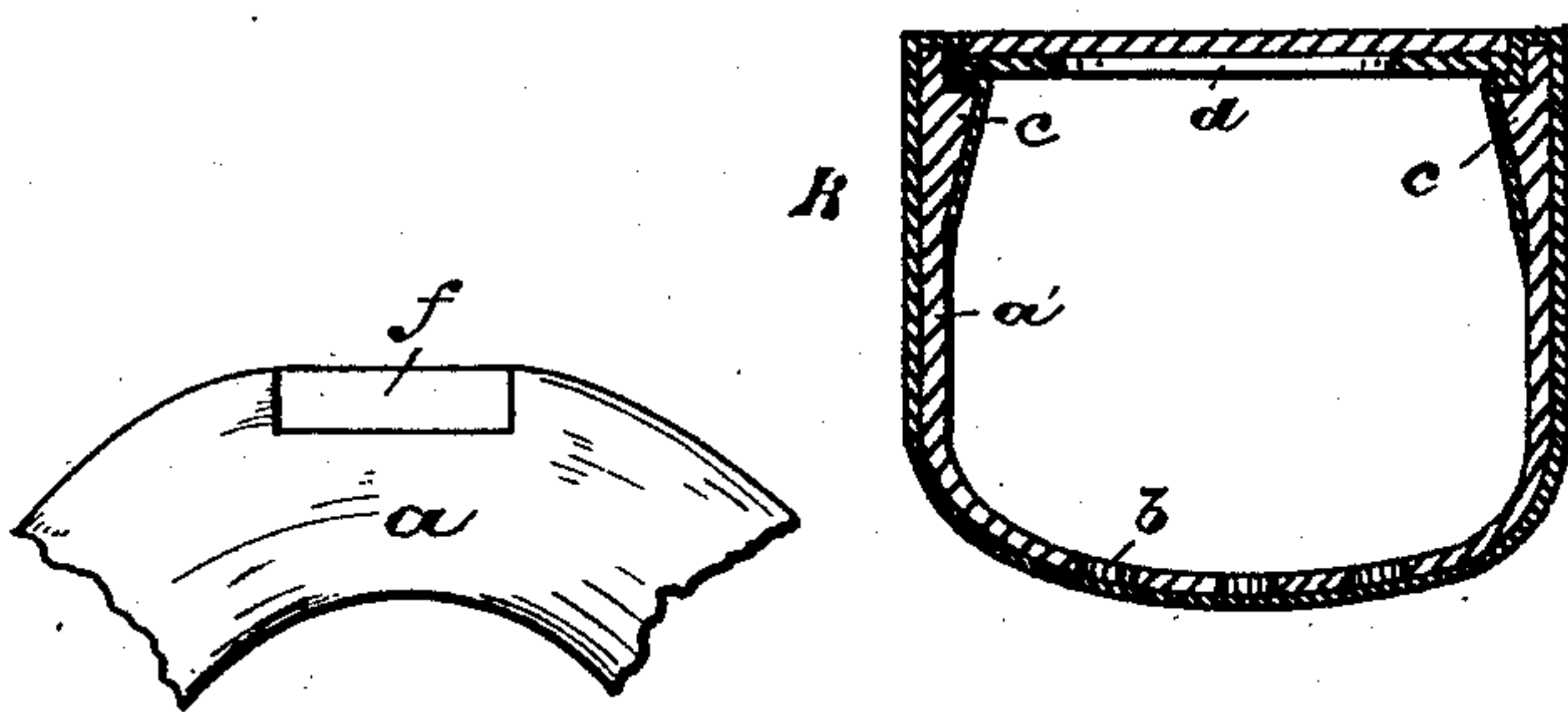


Fig. 7.

Fig. 8.

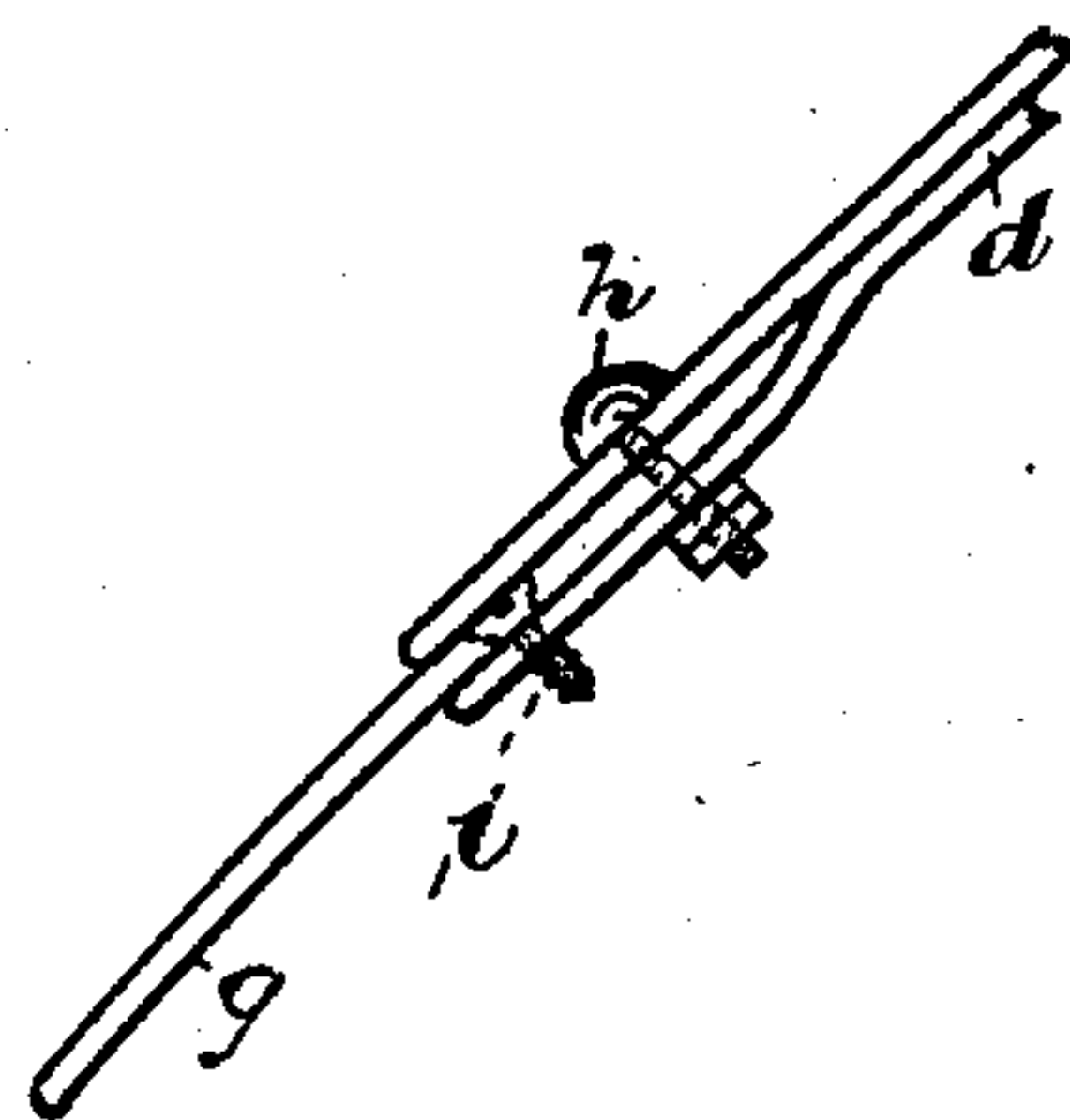


Fig. 9.

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UNITED STATES PATENT OFFICE.

EDWARD G. ROBERTSON, OF NEWARK, NEW JERSEY.

HARNESS-SADDLE.

SPECIFICATION forming part of Letters Patent No. 393,926, dated December 4, 1888.

Application filed August 1, 1888. Serial No. 281,616. (No model.)

To all whom it may concern:

Be it known that I, EDWARD G. ROBERTSON, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Coach-Pads or Saddle-Pads; and I do hereby 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.

The object of this invention is to provide a coach-saddle at a reduced cost of construction and one having increased strength, firmness, and durability, and to avoid the use of ordinary padding or filling, and to provide a device that will retain on the under side a proper formation, whereby a smooth rotund surface will be presented to the horse's back, free from projections such as would be formed after considerable wear by pad-screws, terrets, &c., working through the ordinary padding.

The invention consists in the combination and arrangement of parts, substantially as will be hereinafter set forth, and finally embodied in the clauses of the claims.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several figures, Figure 1 is a side elevation of my improved saddle, partly broken away to show the interior construction thereof. Fig. 2 is a section of the same taken on line *x*. Fig. 3 is a section taken on line *y*. Fig. 4 is a plan of a portion of a top plate, and Fig. 5 is a plan of a bottom plate. Fig. 6 is a side elevation of said top plate. Fig. 7 is a side elevation of a portion of the bottom plate, showing a certain recess in one of the upper edges thereof, adapted to allow the passage of the crupper-loop. Fig. 8 is a sectional view on line *z*, and Fig. 9 is an enlarged detail view showing the connection with the top plate before referred to of the leather top piece and side straps or skirt.

In said drawings, *a* indicates a bottom plate. This in cross-sections is deeply concave

or hollow, as illustrated in Figs. 2, 3, and 8, the said bottom plate in side elevation having the usual angular shape adapted to conform to the shape of the back of the horse. The said bottom plate is cast or formed in one integral piece and presents a pad-like roundness, such as is usually displayed in the ordinary coach-pads, the roundness of the metal bottom plate giving to the pad the roundness that is usually caused by filling or stuffing. The bottom of said bottom plate is perforated, as indicated in Fig. 5, where it engages the concavity in the horse's back at each side of the backbone. The said perforations serve to give greater lightness to the metal, and also serve as ventilating-apertures, the said perforations being useful for ventilation where the bottom plate is simply japanned and not covered with the leather facing, such as hereinafter referred to.

I am aware that heretofore plates forming pads in harness have been perforated at the sides away from the back of the horse; but in the present case the improved bottom plates are perforated where they engage the back, and thus serve to keep the back more cool by allowing access of air directly to the back beneath the saddle.

In the drawings the ventilating-perforations are marked *b*, and on the inner walls of the side flanges, *a'*, of the bottom plate, *a*, are formed a series of ribs or inward projections, *c c*, upon which a top plate, *d*, may rest, the said top plate being held down thereon by suitable screws—such as *i*—which pass into threaded posts *e*, formed upon the concaved side of the bottom plate projecting therefrom, as indicated in Figs. 1 and 5. One of said flanges *a'* of the bottom plate, at the angle in the saddle, is recessed, as indicated at *f* in Fig. 7, to allow the passage of the shank of the laterally-extending crupper-loop *g*.

The top plate, *d*, is formed to lie upon the upper bearings of the ribs or projections *c*, so that the upper face thereof will lie a little below the upper edges of the side flanges, *a'*, forming a recess at the top of said top plate of sufficient depth to allow of the insertion of the top leather and allow the same to lie approximately flush with the said side flanges. The said top leather is held in place on the

top plate by means of terrets, the check-hook, and the ordinary pad-screws, in any suitable manner.

The side straps or skirts, *g*, overlap the extremities of the top plate, as indicated in Figs. 1 and 9, and held thereon by the pad-screw *h* and independent screw *i*, the lug of said screw *i* serving, in addition, to hold the top plate into fixed relation with the bottom plate.

The top plate may be recessed or bent, as indicated at *j* in Fig. 6, to form depressions to receive the side straps or skirts without raising the top leather or forming thereon an unsightly break in its smoothness. At the angle in said top plate, formed integral therewith, is the crupper-loop *g*, the shank of which lies in the recess *f* in one of the side flanges, and thus the said top plate has a bearing on the bottom plate, where it receives the strain from the back-strap and checkrein.

Under some circumstances I prefer to cover the bottom plate with leather. In that case I turn the edges of the lining *k* inwardly over the edges of the side flanges, *a'*, as illustrated in Figs. 2 and 8, cementing the edges; or, when I desire, I cement the whole surface of the leather, so that it will adhere to the metal plate. This being done, the top plate is forced down to its place in the bottom plate, so that the said lining is clamped between the top plate and the bearing of the projections *c*, as illustrated in Fig. 8. Thus, should the cement lose its adhesive quality and the leather be loosened, it will be held firmly and securely by the top plate, the top and bottom plates then serving as clamps.

To represent the binding usually found at the edges of the flanges or near the upper face of the saddle at the side thereof, I have provided lines of indentation *l*, which serve to give the pad the appearance of one bound in the ordinary way.

By having the saddle devoid of the ordinary padding or stuffing, I present to the horse's back a pad which will be much cooler, and the expense of padding and other objections incident to the use of the same are avoided. While I prefer to make the top plate of one integral piece, it may be in two or more parts. Having thus described the invention, what I claim as new is—

1. The improved harness or coach saddle combining a concavo-convex bottom plate made angular to conform to the horse's back, the convex under side being regular and smooth, and the concave face being provided at the sides with projecting bearings *c* to support a top plate and with upwardly-extending threaded posts to receive the pad-screws, and a top plate adapted to cover said bottom

plate and forming a chamber therein, and said pad-screws for holding said plates together, substantially as set forth.

2. In the harness-saddle herein described, the combination of the bottom plate made to conform on its under side to the horse's back and provided with side flanges, *a'*, a top plate secured between said side flanges below the edges thereof and forming a recess for the top leather, and said top leather arranged in said recess and approximately flush with the edges of said flanges, substantially as and for the purposes set forth.

3. The improved harness or coach saddle provided with a concavo-convex bottom plate and a top plate forming a chamber therein, the said bottom plate provided at its bottom, where it engages the horse's back, with ventilating-perforations which open into said chamber, said parts being combined substantially as and for the purposes set forth.

4. In combination, in the saddle herein described, a concavo-convex bottom plate having a lining against its outer side, the edges of which are turned inward over the edges of said bottom plate and are cemented thereto, and a top plate adapted to clamp said lining to hold the same in place, substantially as and for the purposes set forth.

5. The improved harness-saddle herein described, combining therein a concave bottom plate, a top plate, a strap or skirt, *g*, overlapping said top plate, a screw, *i*, holding said skirt to said top plate and holding said top and bottom plates together, a lining covering said screw *i*, and a pad-screw, *h*, holding said lining-skirt and top plate together, substantially as set forth and shown.

6. In the harness-saddle herein described, the combination of the top plate, bent as at *j*, a side strap, a top leather, a screw, *i*, and pad-screw *h*, both of said screws passing through said side strap and co-operating and holding said strap in position, substantially as and for the purposes set forth.

7. In a saddle, a bottom plate having side flanges with bearings on the inner walls thereof, said bottom plate having posts projecting up from the bottom thereof, and on the under side said plate being made angular and rounded to engage the horse's back, substantially as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 28th day of July, 1888.

EDWARD G. ROBERTSON.

Witnesses:

CHARLES H. PELL,
C. H. BALDWIN.