

(No Model.)

2 Sheets—Sheet 1.

C. W. BURGTORF.

HARNESS.

No. 316,443.

Patented Apr. 28, 1885.

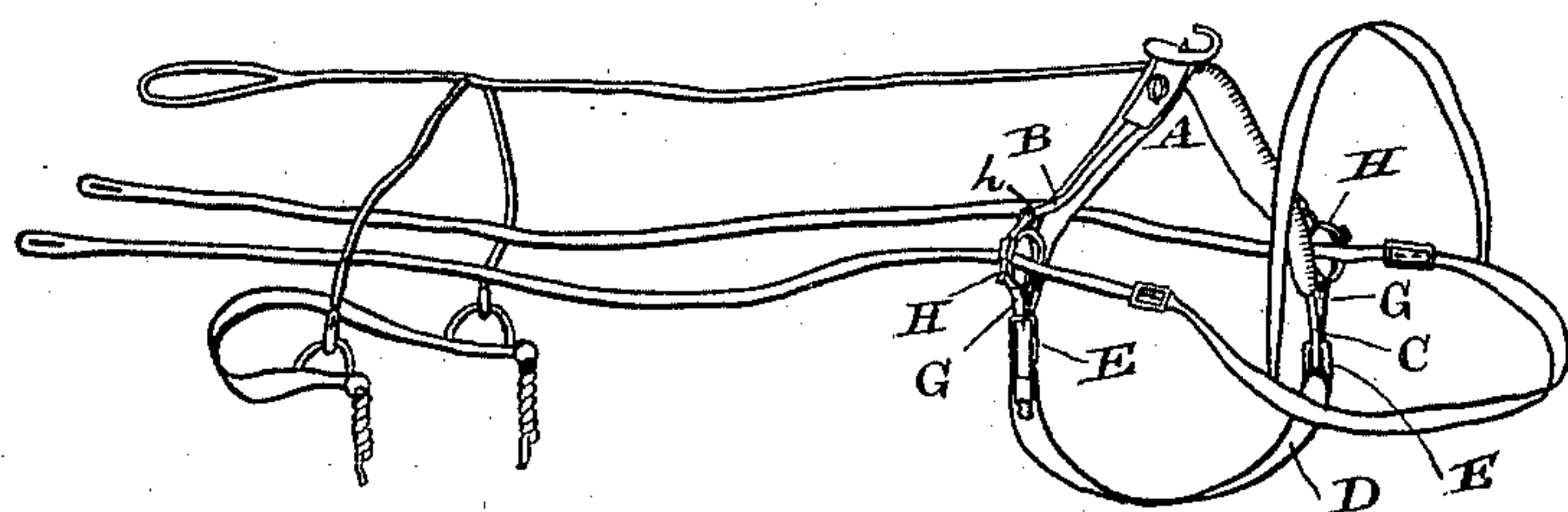


FIG. 1.

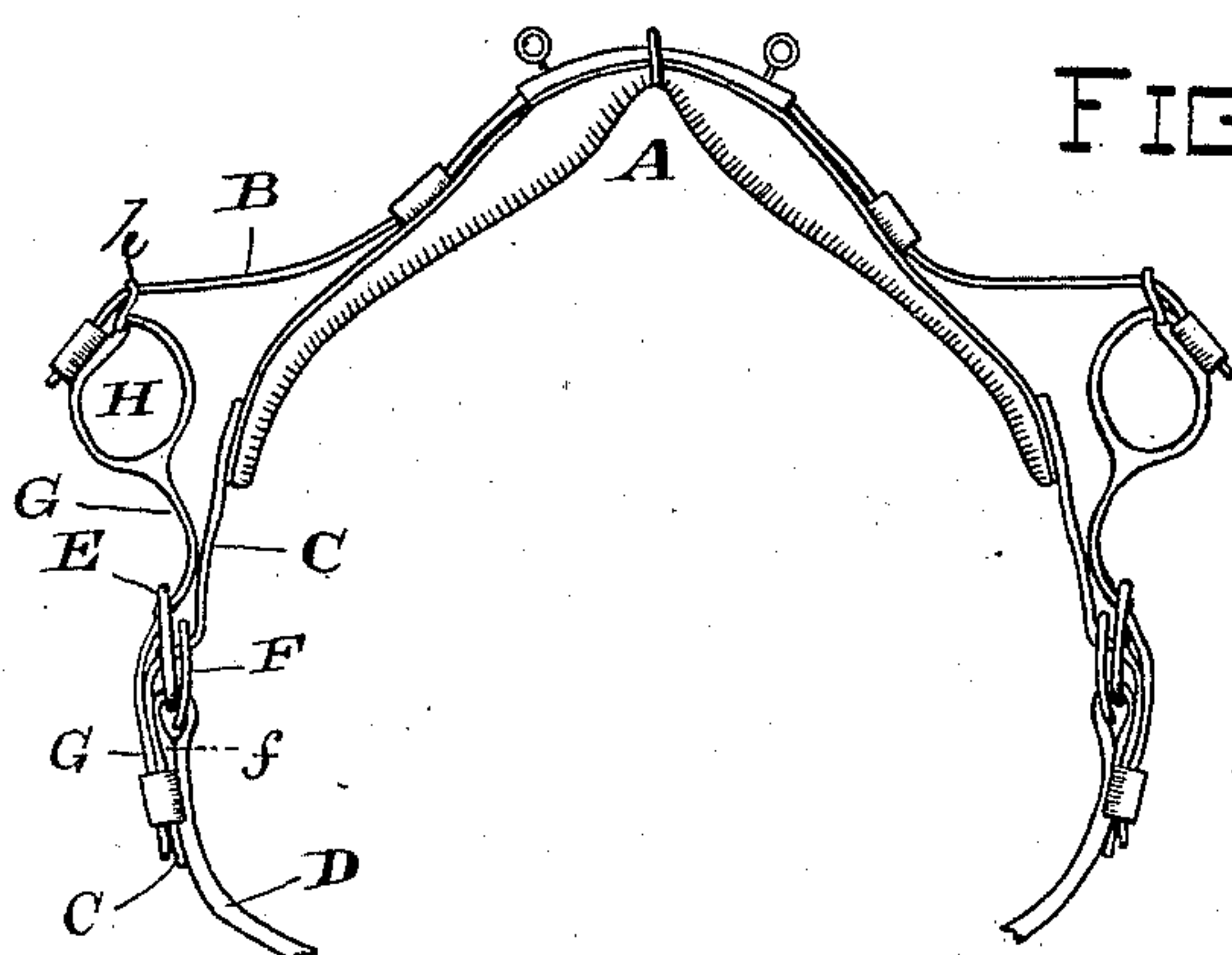


FIG. 2.

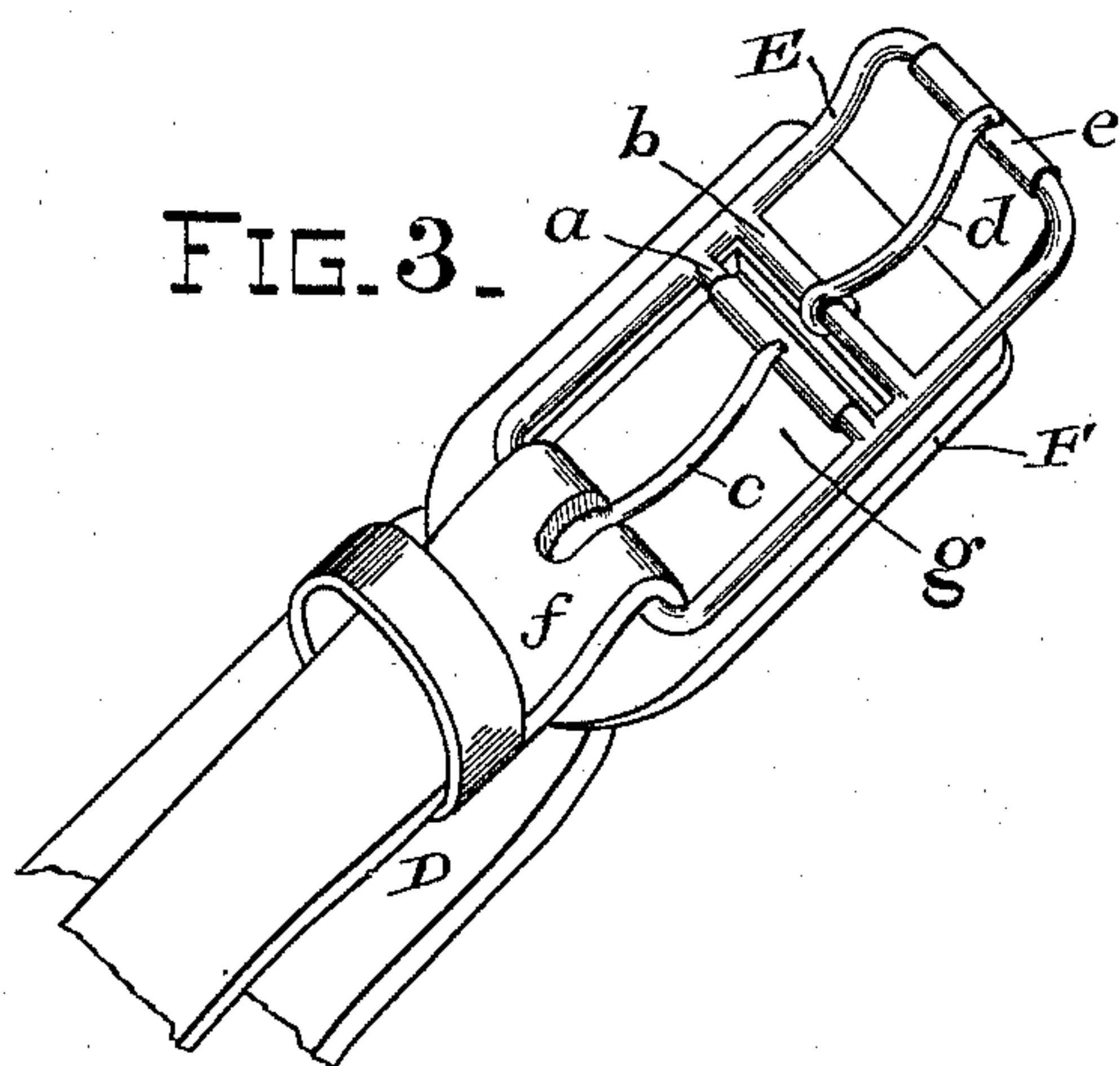


FIG. 3.

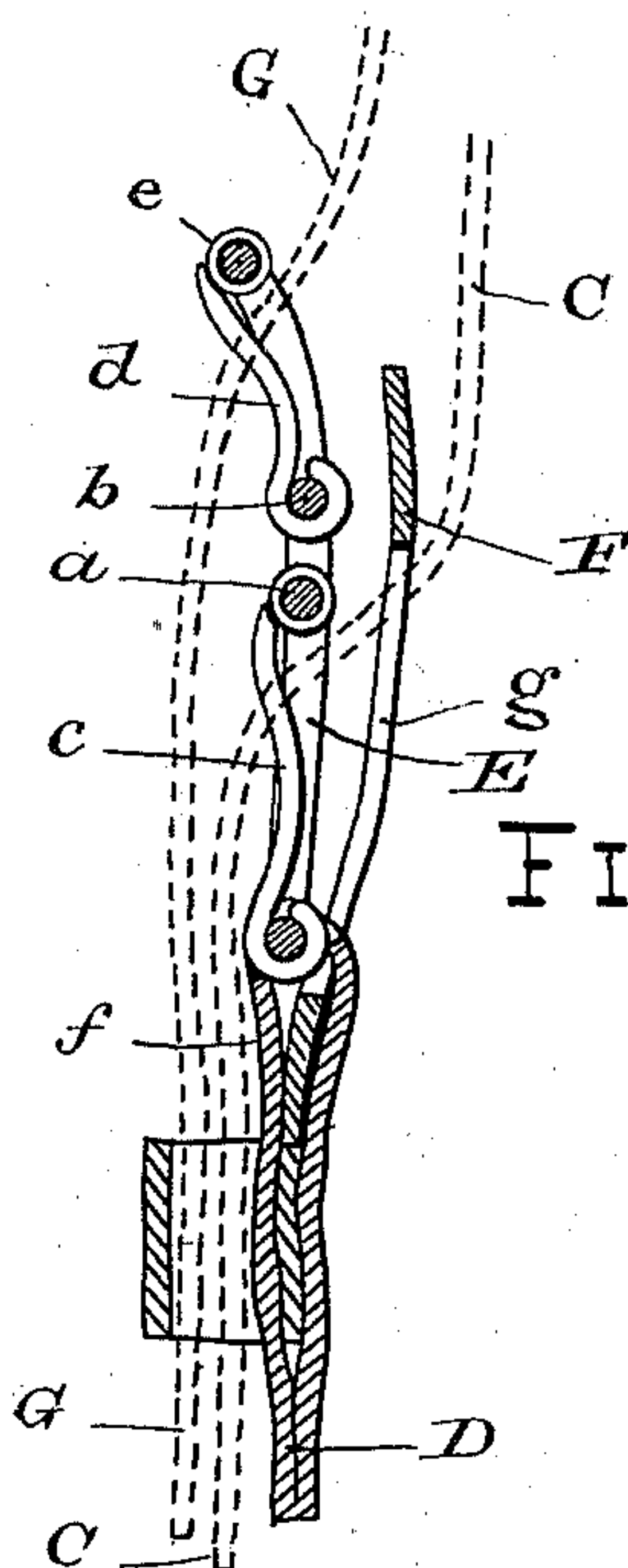


FIG. 4.

WITNESSES.

Wilmer Bradford
A. R. Brown.

INVENTOR.

Charles W. Burtorf
By L. W. M. Smith
Attorney.

(No Model.)

C. W. BURGTORF.

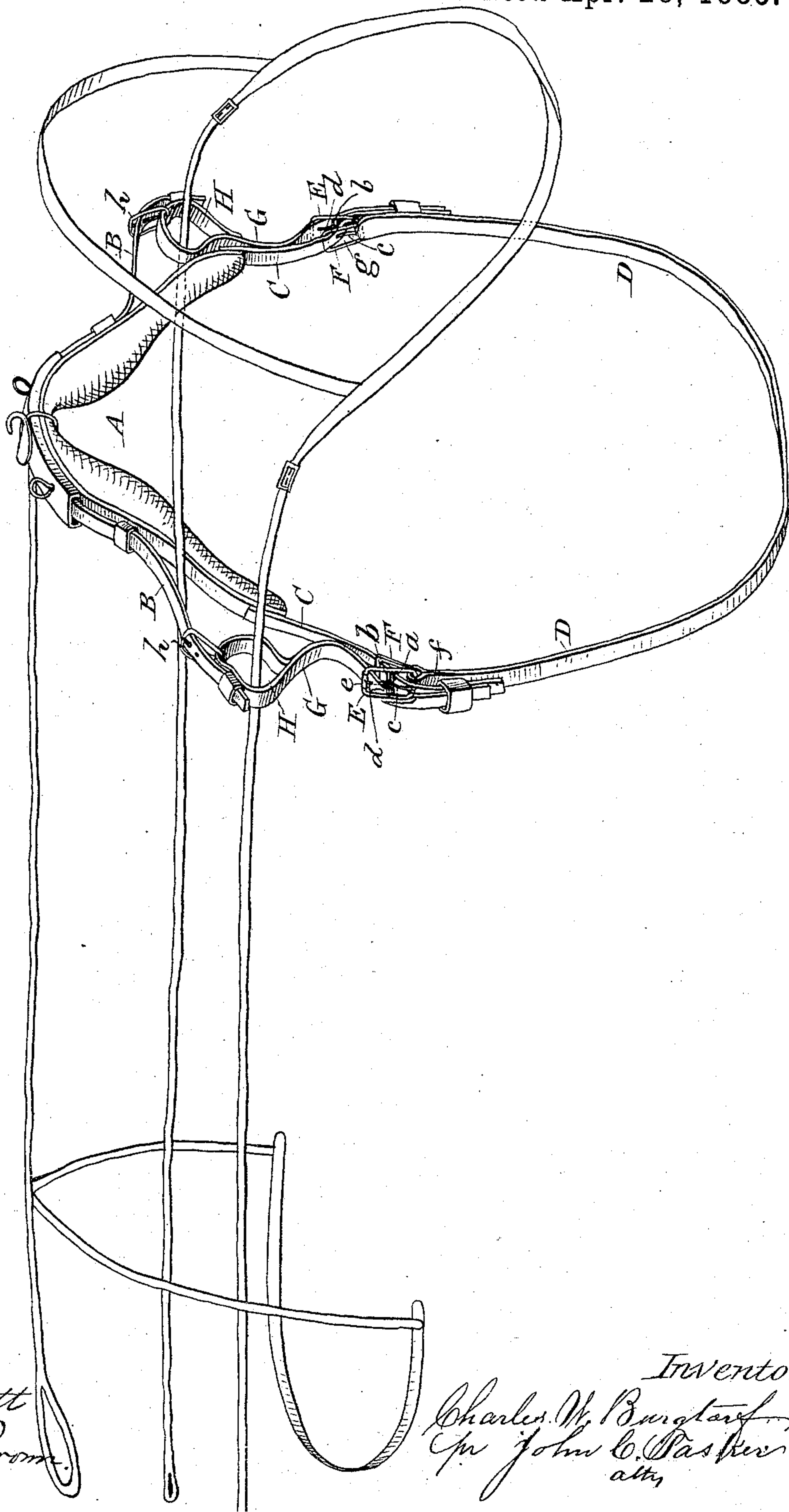
2 Sheets—Sheet 2.

HARNESS.

No. 316,443.

Patented Apr. 28, 1885.

FIG-5-



Attest:

H. H. Schott

A. R. Brom.

Inventor:

Charles W. Burtorf
By John C. Parker
att'y

UNITED STATES PATENT OFFICE.

CHARLES W. BURGTORF, OF PETALUMA, CALIFORNIA.

HARNESS.

SPECIFICATION forming part of Letters Patent No. 316,443, dated April 28, 1885.

Application filed July 6, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. BURGTORF, a citizen of the United States, residing at Petaluma, in the county of Sonoma and State of California, have invented certain new and useful Improvements in Single Harness, of which the following is a specification.

My invention consists in the construction and combination of the parts of a single harness, as hereinafter more specifically described and claimed.

In the annexed drawings illustrating the invention, Figure 1 is a perspective view of a set of single harness embodying my improvements. Fig. 2 is a front elevation of the gig-saddle with attached shaft-loops, girth, and connections forming part of my improved single harness. Fig. 3 is a detail view in perspective showing the slotted pad and a portion of the girth with attached buckle. Fig. 4 is a longitudinal section through the pad, buckle, and a portion of the girth, the position of the girth-strap and one of the shaft-loop straps being shown in dotted lines. Fig. 5 is an enlarged perspective view of my improved single harness, illustrating the arrangement and connection of its parts.

Like letters of reference designate like parts throughout the several views.

A is the gig-saddle, to which are attached the upper shaft-loop straps, B, and the girth-straps C.

The girth D is provided upon each end with double-loop buckles E E and slotted pads F F, the latter being extended upward along the inner faces of the buckles and serving to keep them from direct contact with the animal's sides.

The buckles E are each provided centrally with two transverse bars, *a b*, one of which, as *a*, is provided with a roller-bearing for the end of a tongue, *c*, that is pivoted to the lower end of the buckle-frame. To the other transverse bar, *b*, is pivoted a tongue, *d*, the end of which is arranged to bear on a roller, *e*, at the upper end of the buckle. The construction of the buckle E is clearly shown in Figs. 3 and 4, and its position in the harness is indicated in Figs. 1, 2, and 5, its precise form, however, being obscured in said figures by adjacent parts of the harness, the buckle, when in proper po-

sition, being almost entirely concealed by the strap C and the lower shaft-loop strap, G.

It will be seen by reference to Fig. 4 that the upper end of the buckle E is bent outward, so as to facilitate the insertion of the lower shaft-loop strap, G, after the strap C has been buckled down to place.

The double-loop buckles E are arranged one on each side of the harness, and are attached to the ends of the girth D by means of the girth-straps *f*, which also connect the girth and the slotted pads F. In practice I first pass the strap C on each side through the slot or opening *g* in the adjacent pad F, and then pass it (the strap C) through the lower division or loop of the buckle E, and confine it by means of the tongue *c*, as shown by dotted lines in Fig. 4. I then pass the lower strap, G, of the shaft-loop H through the upper division of the buckle and confine it by the tongue *d*.

The ordinary elevation of the shafts is regulated by taking up or letting out the straps B B, that are connected with the upper part of the gig-saddle at one end and buckled at the other end through ordinary buckles, *h*, on the shaft-loops H, as shown in Fig. 1, the upward movement or tilting of the shafts being controlled by the lower shaft-loop straps, G, which can be adjusted in the buckles E, as desired.

I am thus enabled to dispense with one of the two girths usually employed, and at the same time connect the remaining girth to the gig-saddle strap and lower shaft-loop strap by means of one buckle on each side, so as to prevent the upward tilting of the shafts, the double-end strap *f* serving to retain the buckle and also the slotted pad F firmly in place.

In my former patent, No. 290,530, dated December 18, 1883, is shown a single girth in connection with a buckle having a single central cross-bar provided with a roller which forms a bearing for the buckle-tongue, a loop being formed at one end of the buckle for the reception of the shaft-straps. While the buckle shown in my former patent is adapted to serve the double purpose of a girth-buckle and a bottom buckle, it will be observed that its construction is different from the buckle herein described, in that it has only one tongue and one roller-bearing. The arrangement of the

harness-straps in this and the former patent is also different, so that each requires a peculiar form of buckle.

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

In a single harness, the combination of the
gig-saddle A, having straps B C on each side,
the shaft-loops H H, having straps G G, the
10 girth D, having end straps, *f f*, the slotted
pads F F, and the double-loop buckles E E,

having two central cross-pieces, *a b*, one of which is provided with a roller-bearing, the tongues *c d*, and the end roller-bearing, *e*, as and for the purpose described.

In testimony that I claim the foregoing I
have hereunto set my hand and seal. 15

CHARLES W. BURGTORF. [L. s.]

Witnesses:

WILMER BRADFORD,
CHAS. E. KELLY.