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C. KINNEY & E. P. HARRIS.
ANTIFRICTION REIN GUIDE.
APPLICATION FILED JULY 14, 1906.

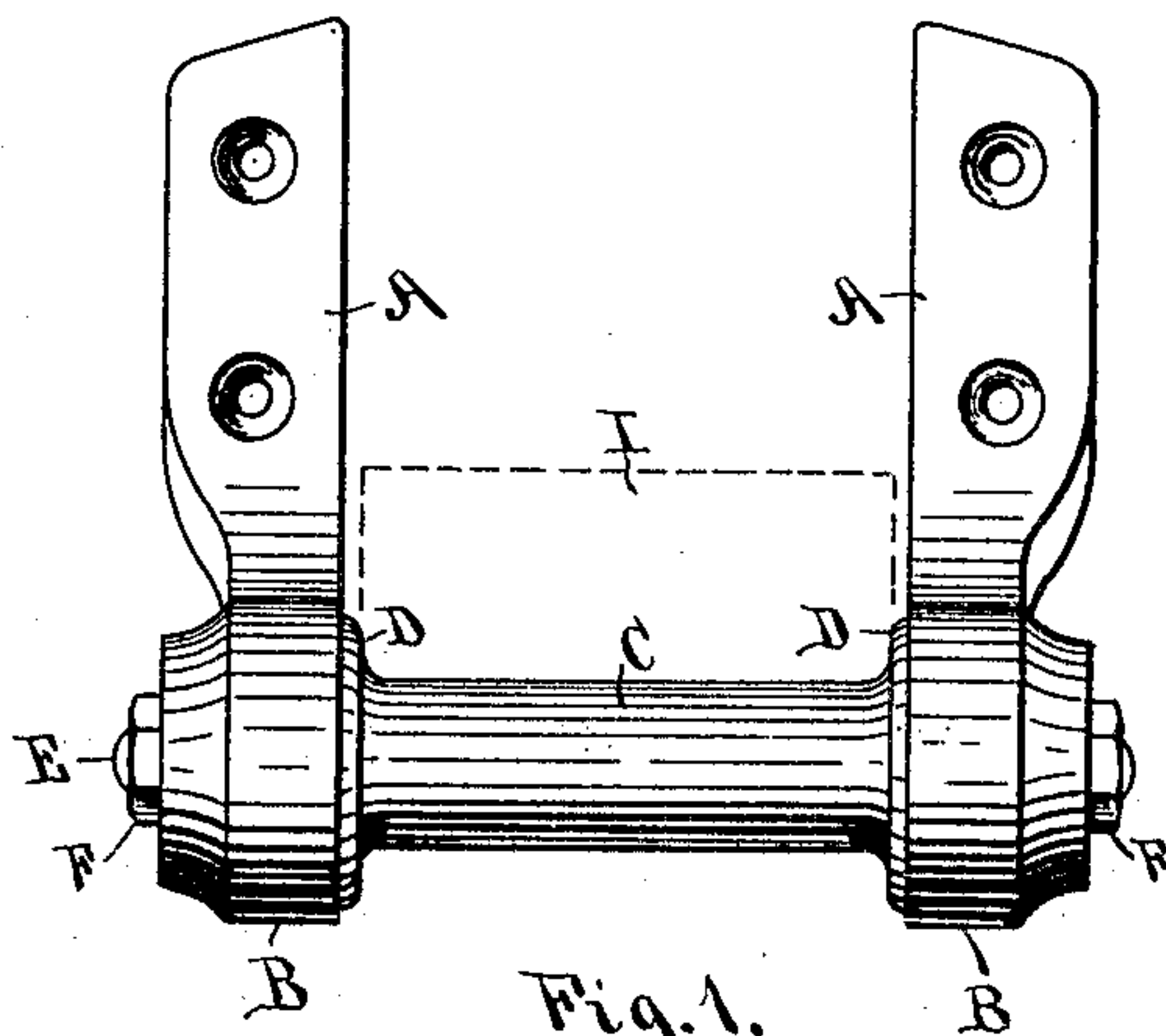


Fig. 1.

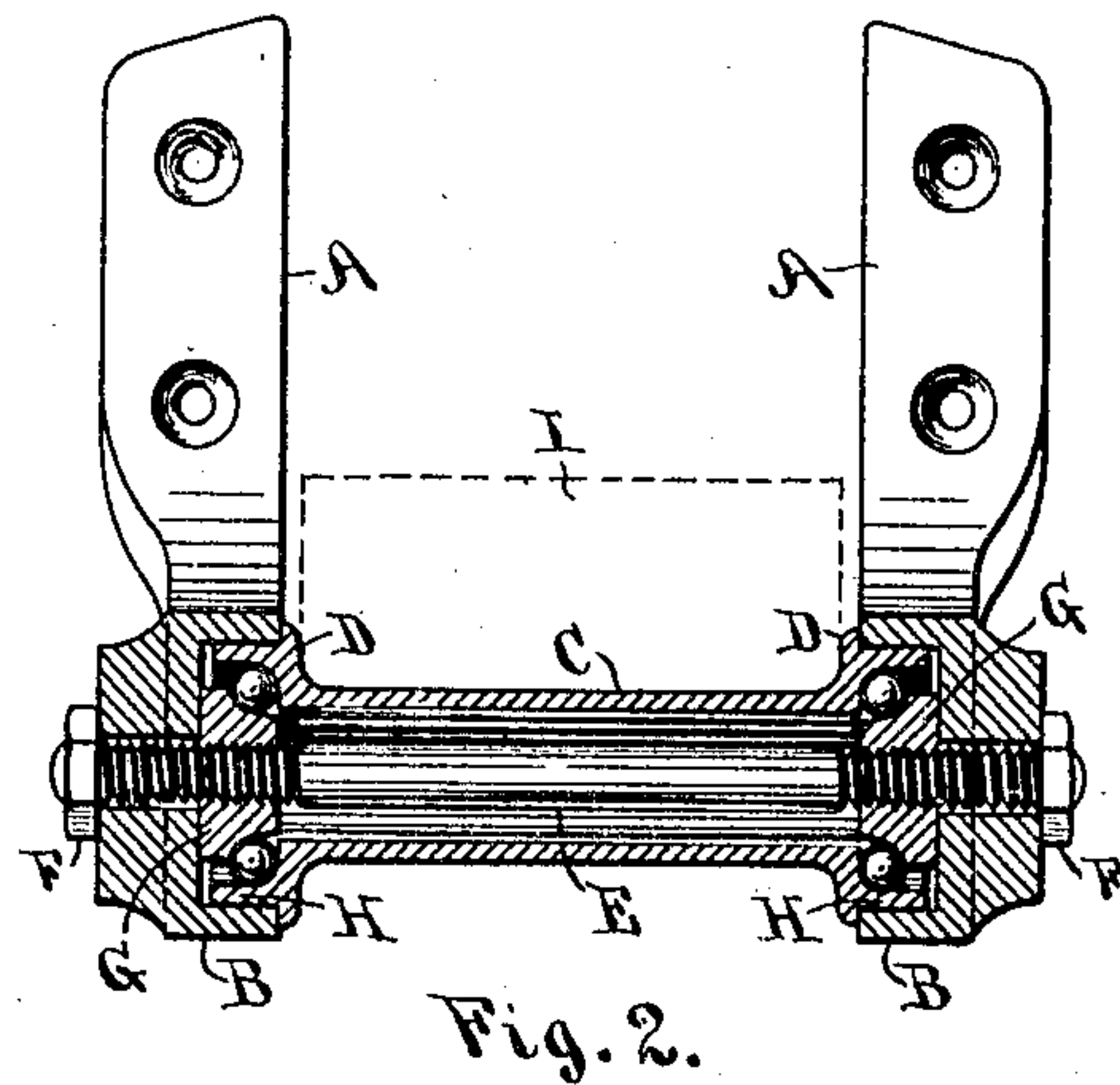


Fig. 2.

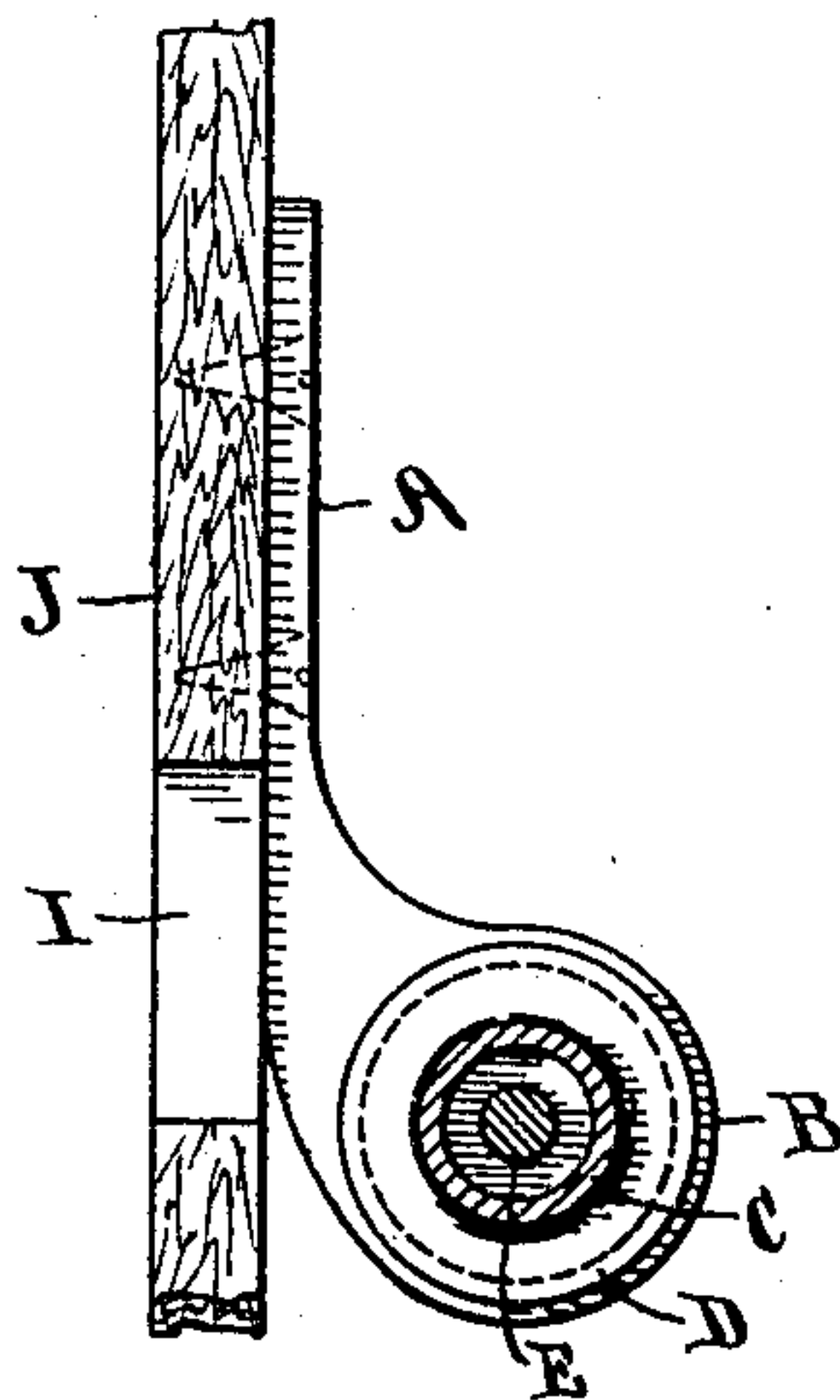


Fig. 3

WITNESSES

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ANTIFRICTION REIN-GUIDE.

No. 871,596.

Specification of Letters Patent.

Patented Nov. 19, 1907.

Application filed July 14, 1906. Serial No. 326,241.

To all whom it may concern:

Be it known that we, CHARLES KINNEY and ELI P. HARRIS, citizens of the United States, residing at Elmira Heights and town of Horseheads, respectively, in the county of Chemung and State of New York, have invented a new and useful Antifriction Rein-Guide, of which the following is a specification.

10 This invention relates to improvements in roller carrying rein guides, and has to do particularly with guides adapted to be applied to the fronts of inclosed delivery wagons and the like, where the reins pass through slots or
15 openings provided therefor in the end-closures, our object being to relieve the reins from wear and friction where they pass through the closures and also to prevent the wearing away of the woodwork at the slots.

20 Heretofore, in milk wagons and delivery wagons of similar construction, it has been customary to simply pass the reins through the front closures by way of slots provided therefor in the sheathing or frame work; and
25 the constant reciprocation of the reins in guiding the horse, or due to the motion of the horse's head, causes the lines to be worn away and the slotted openings to be cut and enlarged. To overcome this fault we provide, for each rein, a pair of brackets having
30 a flanged roller mounted between them, and adapted to be attached to the inside of the front closure back of the slots, or other openings, in position to carry the reins out of contact with the bottom and sides of the slots,
35 as illustrated in the accompanying drawings, in which—

40 Figure 1 represents one of such rein guides in elevation; Fig. 2, a similar view, with the roller and its bearings shown in section; and Fig. 3, a transverse section through the roller and a portion of a wagon front.

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

45 Each guide comprises a pair of right and left brackets A—A provided with screw holes, whereby they may be attached to the front sheathing or framework of the wagon adjacent the openings therein through which
50 the reins are passed. At the lower end of these brackets, sockets B—B are formed, which constitute housings for the bearings, upon which is mounted the roller C. This

roller is hollow and is provided at each end with flanges D—D and with cups for ball 55 bearings. A spindle E passes through the roller and is secured at each end to the sockets B by means of the nuts F. Cones G for the ball bearings are screwed upon the spindle and, in assembling the guides, these 60 cones will be set up on the spindle so as to permit the roller C to ride freely thereon, after which the nuts F will be set up to fasten the brackets to the spindle. These guides will be furnished in pairs, one for each 65 rein, and will be positioned back of the slots I in the front end-closure J of the wagon, as illustrated in Fig. 3 and indicated in Figs. 1 and 2. The rollers C will be positioned slightly above the bottom of the slots, so as 70 to raise the reins clear therefrom, and the side flanges D will prevent the edges of the reins from contacting with the sides of the slots. As so positioned, the guides maintain the reins at all times upon the rollers, and 75 the reins are caused to slide freely and without friction back and forth through the openings. Instead of attaching these guides back of slotted openings, they may be secured to the frame-work above a window or 80 other opening, the brackets and roller, together with the upper frame-work of the opening, then forming the slots through which the reins pass. The guides are also susceptible of being applied in other ways 85 than as above described.

What we claim as our invention and desire to secure by Letters-Patent is:

A rein guide comprising a pair of brackets adapted to be attached to a wagon front adjacent an opening therein, said brackets having right and left sockets formed thereon, a spindle passing through said sockets and screw-threaded at each end, ball bearing cones secured upon the spindle within the 90 sockets, a flanged roller mounted on said bearings, and nuts on the ends of the spindle outside the sockets.

In testimony whereof we have affixed our signatures, in presence of two witnesses.

CHARLES KINNEY.
ELI P. HARRIS.

Witnesses:

H. J. BROOKER,
J. H. O'BRIEN.