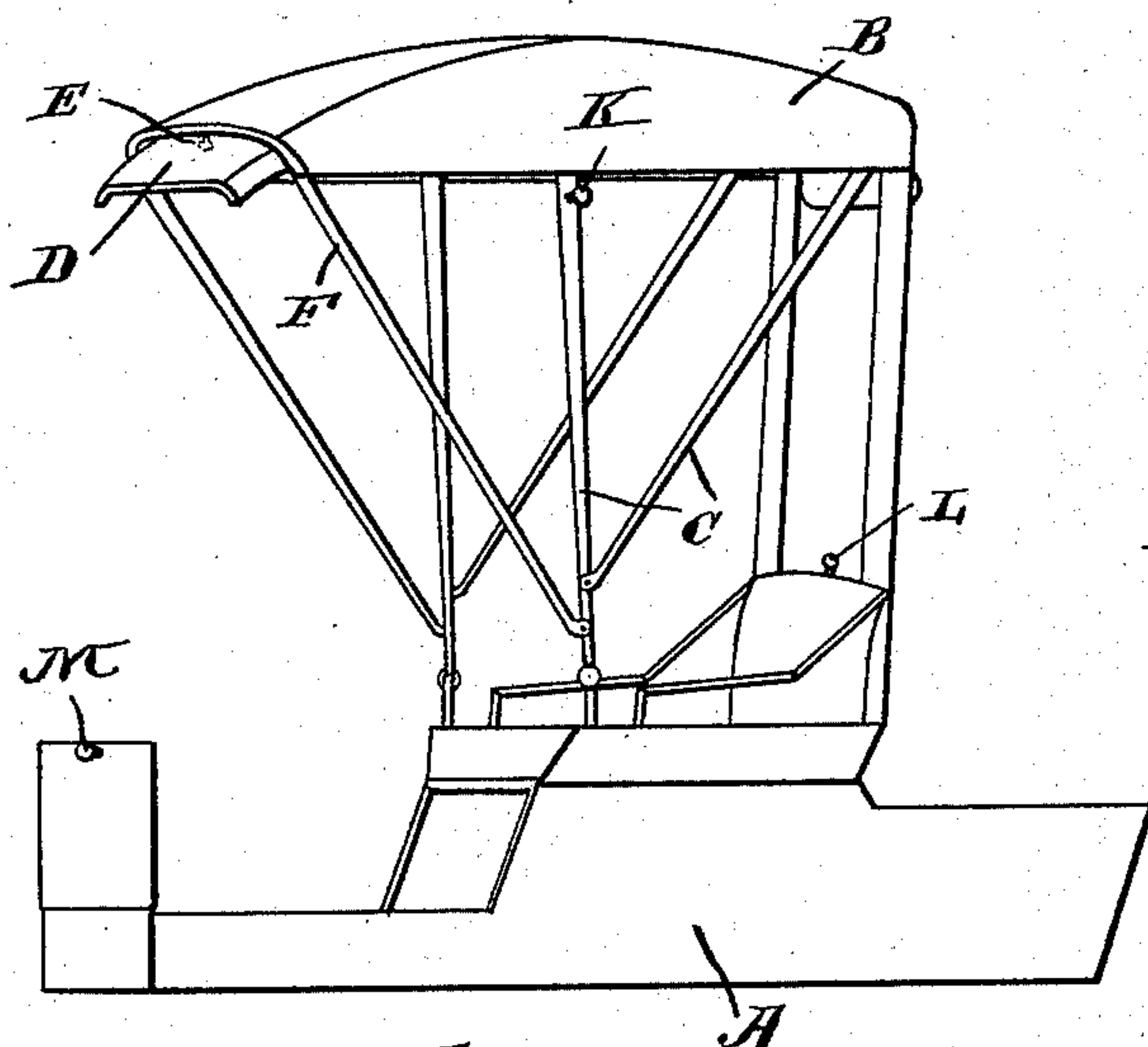


(No Model.)

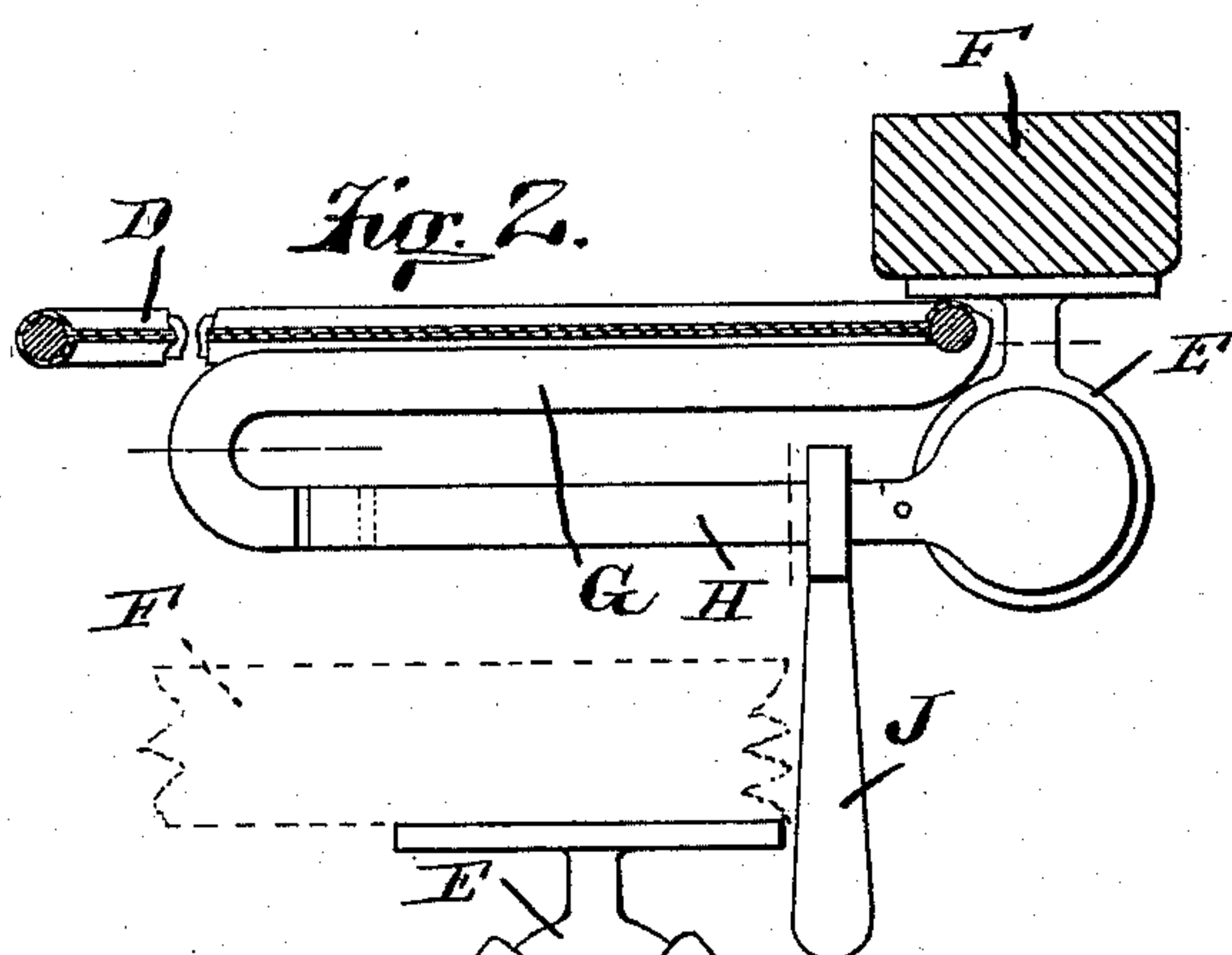
H. CLAWSON.  
VEHICLE FENDER.

No. 413,493.

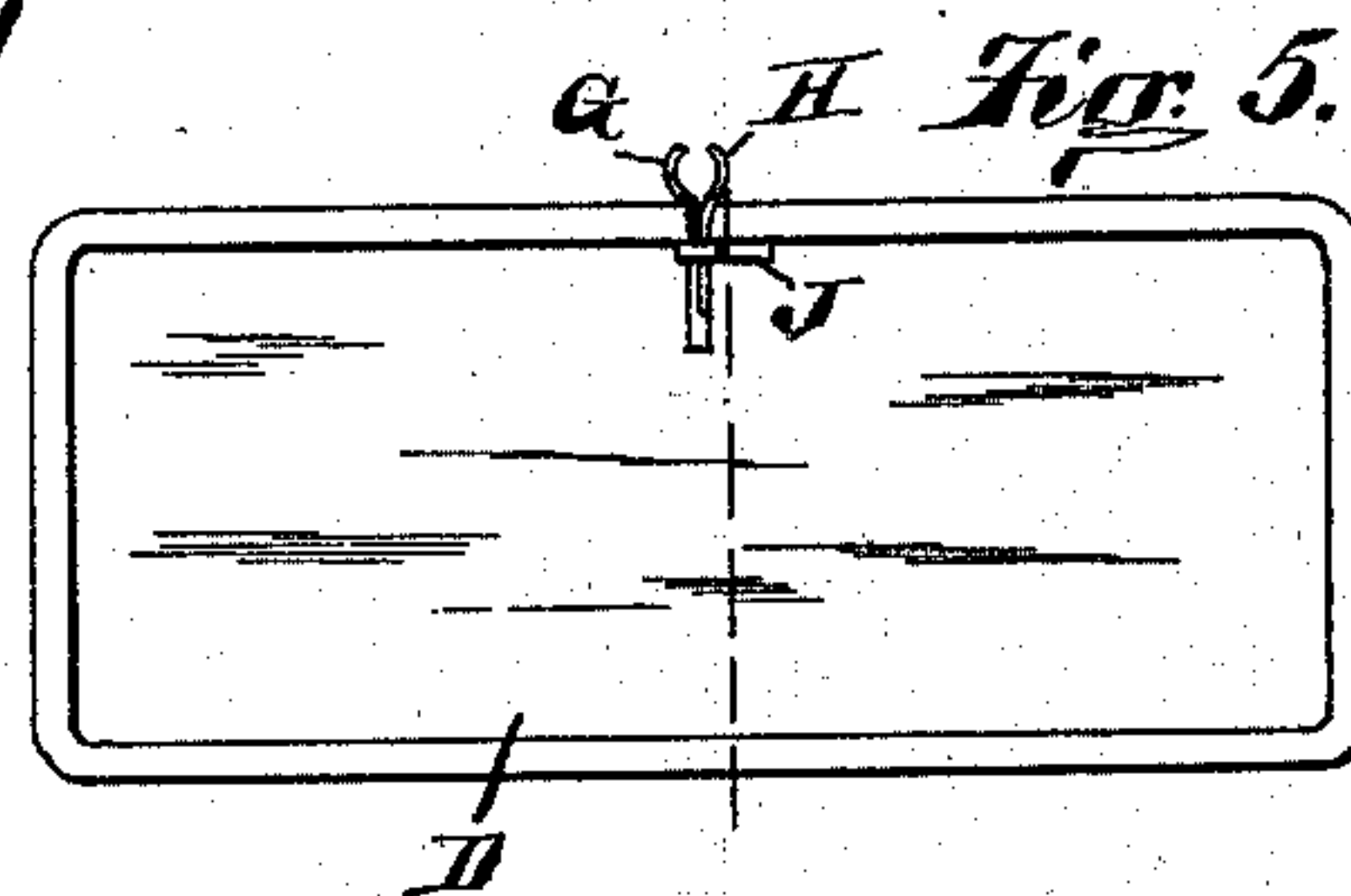
Patented Oct. 22, 1889.



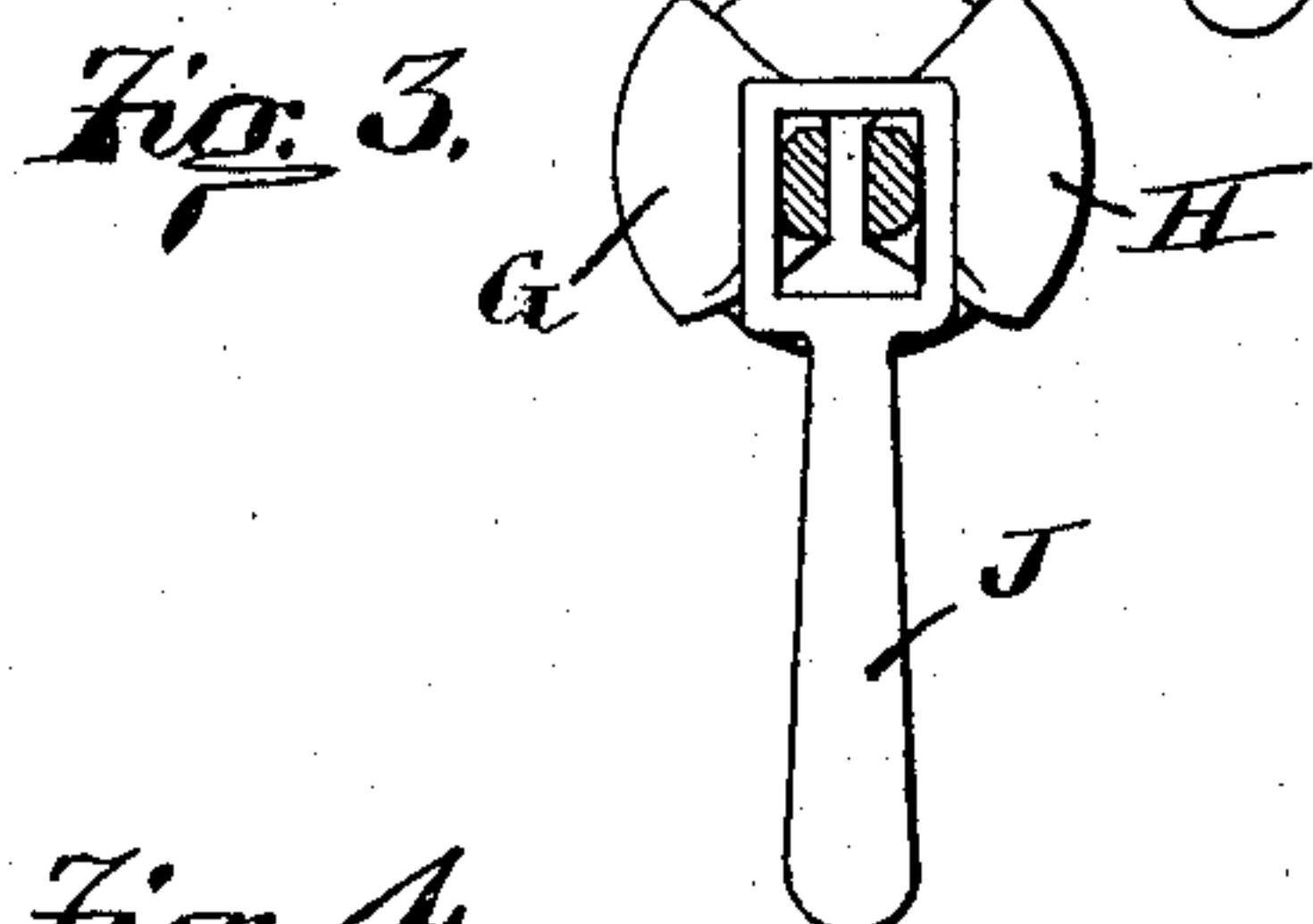
*Fig. 1.*



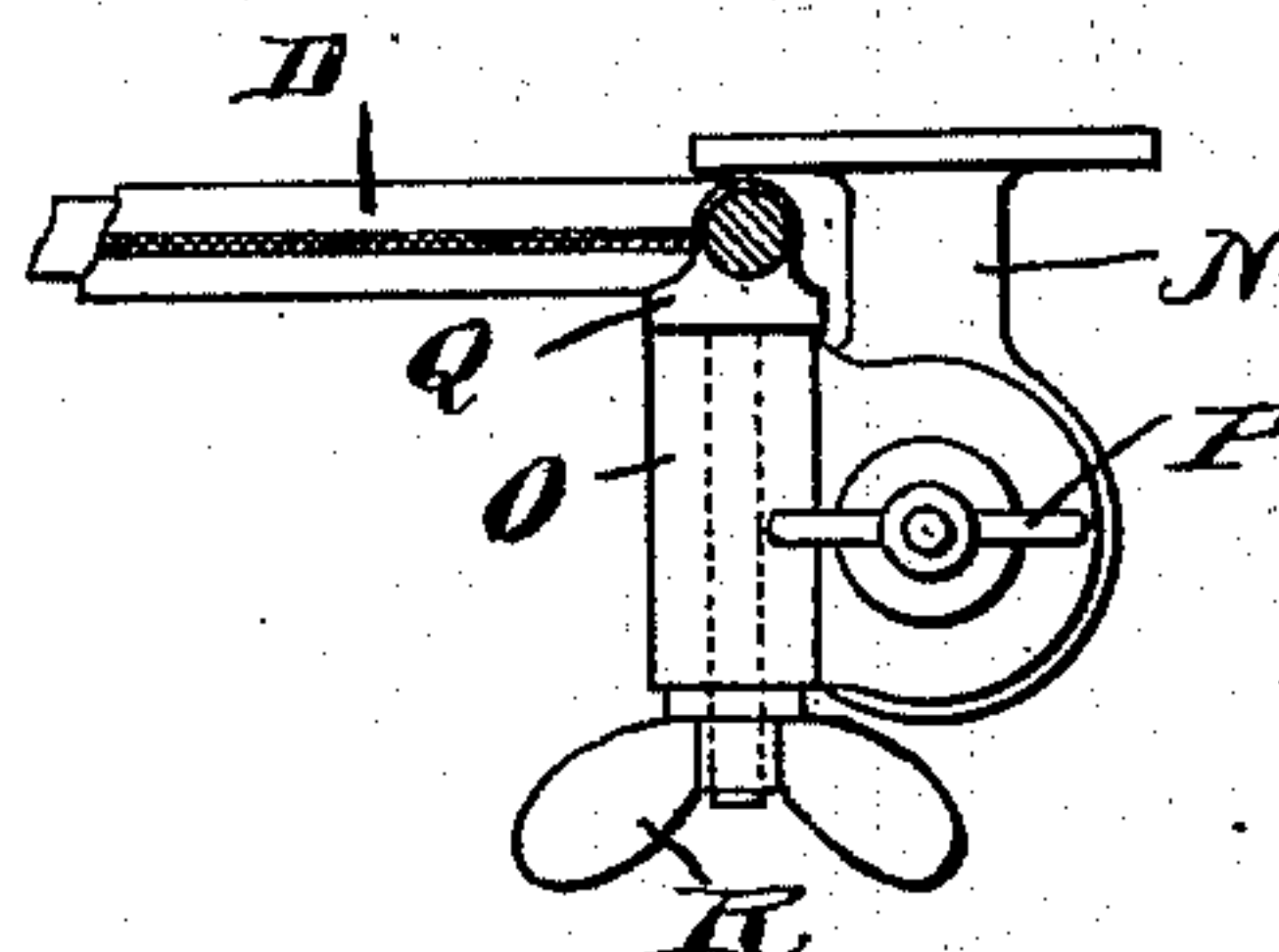
*Fig. 2.*



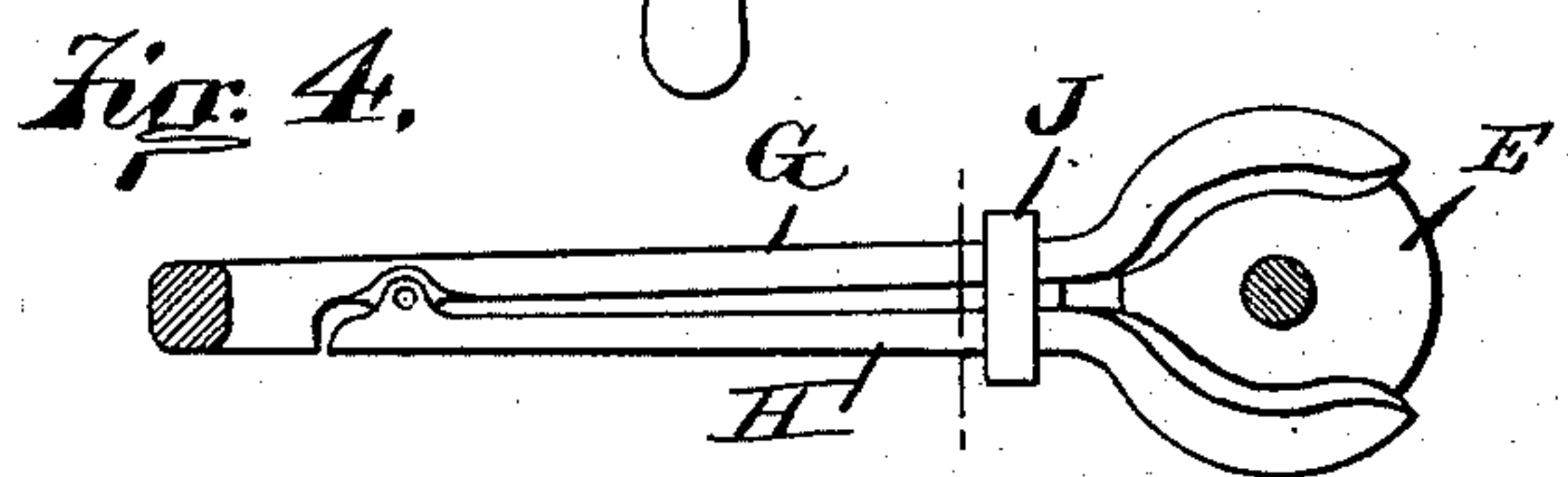
*Fig. 5.*



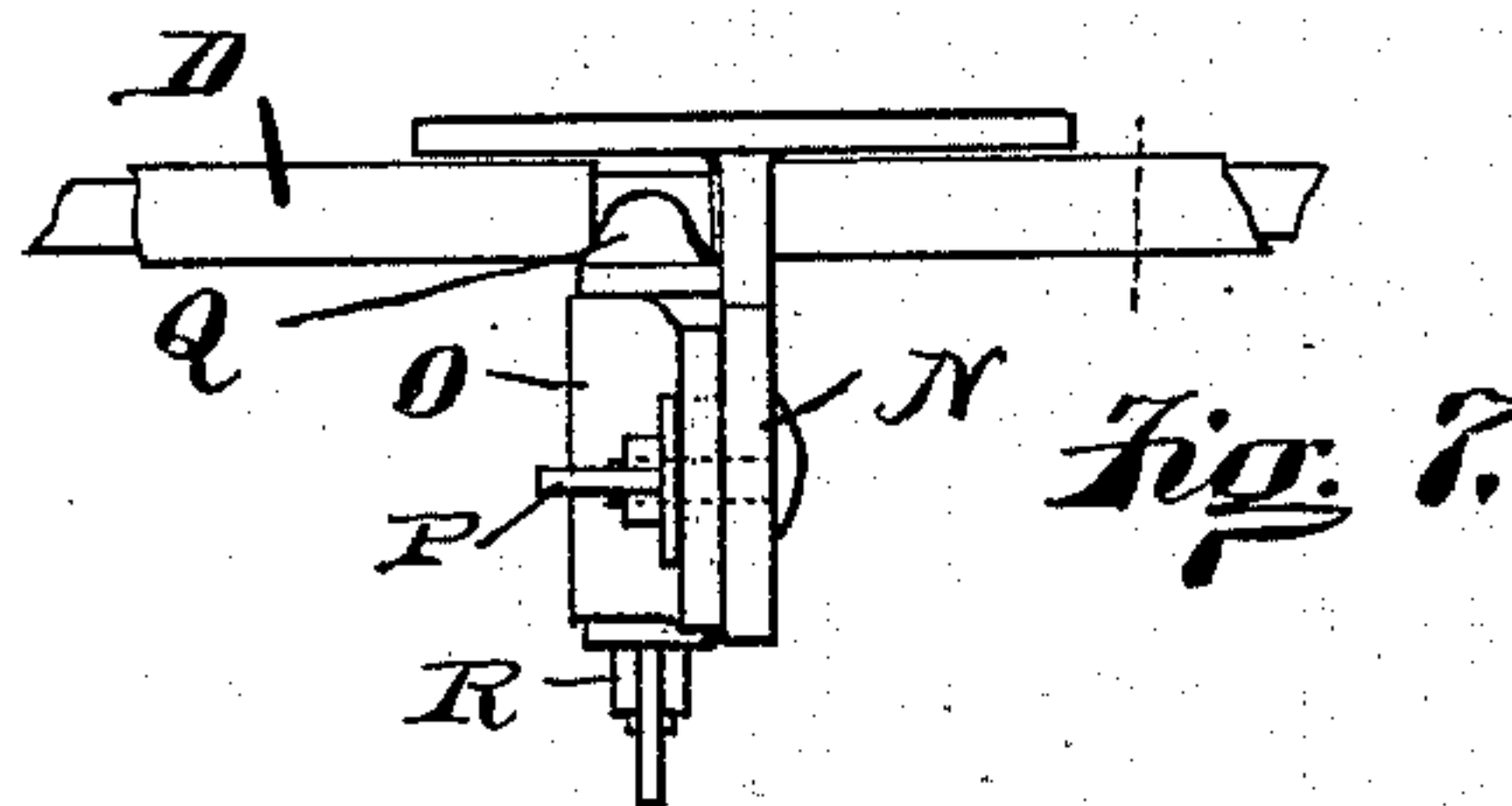
*Fig. 3.*



*Fig. 6.*



*Fig. 4.*



*Fig. 7.*

WITNESSES.  
A. C. Rogers.  
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# UNITED STATES PATENT OFFICE.

HIRAM CLAWSON, OF CLAWSON, OHIO.

## VEHICLE-FENDER.

SPECIFICATION forming part of Letters Patent No. 413,493, dated October 22, 1889.

Application filed August 12, 1889. Serial No. 320,444. (No model.)

*To all whom it may concern:*

Be it known that I, HIRAM CLAWSON, of Clawson, Butler county, Ohio, have invented certain new and useful Improvements in Vehicle-Fenders, of which the following is a specification.

This invention pertains to fenders for use in connection with vehicles, to be attached at will to various parts of the vehicle to serve as a protection against sunlight or storm or mud.

My improvements will be readily understood from the following description, taken in connection with the accompanying drawings, in which—

Figure 1 is a perspective view of the body portion of a buggy provided with my improved fender, shown as projecting, hood-like, from the front edge of the buggy-top; Fig. 2, a vertical transverse section of the fender, showing the attaching pivot-clamp in side elevation; Fig. 3, a vertical section of the pivot-clamp, showing a portion of the front buggy-bow in dotted lines; Fig. 4, a plan of the pivot-clamp; Fig. 5, a face view of the under side of the fender, shown detached from the vehicle and provided with its pivot-clamp; Fig. 6, a view similar to Fig. 2, but showing a modified form of a pivot-clamp; and Fig. 7, a rear elevation of this modified pivot-clamp. Fig. 5 is drawn to a scale about double that of Fig. 1, and Figs. 2, 3, 4, 6, and 7 are enlarged.

In the drawings, omitting for the present any consideration of Figs. 6 and 7, A indicates the body of a buggy; B, the buggy-top; C, the usual bows of the buggy-top; D, the fender, shown in Fig. 1 as projecting inwardly and downwardly from the front of the buggy-top and forming a front hood thereto, this fender consisting of a light metallic frame or margin, to which is affixed a light web formed, preferably, of leather or rubber or other waterproof fabric upon the upper surface of the fender, and of cloth or other ornamental fabric upon the under surface of the fender, the preference being that the under surface of the fender should be of a material corresponding with the material with which the buggy-top is lined; E, a ball secured by means of a shank to the under portion of the top or the

front bow of the buggy at the center of width of the top, this ball forming a pivot by means of which the fender may be attached in place and on which it is adjusted; F, the front bow of the buggy; G, a pivot-clamp secured at the rear edge of the fender, at the center of length thereof, and adapted to engage the ball E, whereby the fender becomes united to the ball, so as to be adjusted thereon or made rigid therewith or removed therefrom, as desired; H, the loose jaw of the pivot-clamp, one end of this jaw being adapted to grasp one side of the ball E, while the other end of the jaw is pivoted to the main portion of the pivot-clamp, the pivot-clamp having a fixed jaw corresponding with the pivot-jaw, so that the two jaws may close upon and grasp the ball; J, a clamp-tightener consisting of a short lever provided with an oblong opening, engaging the shanks of both jaws of the pivot-clamp, the dimensions of this opening being such that when the tightener is turned one way the opening will present its narrower dimension to the exterior surface of the jaw-shanks and cause them to grasp the ball firmly, while when the tightener is turned the other way the longer dimension of the opening will permit the jaw-shanks to separate sufficiently to loosen the jaws somewhat from the ball; K, Fig. 1, a ball identical with ball E, but secured to the side portion of one of the buggy-bows; L, a similar ball at the back of the buggy at the top of the seat, and M a similar ball secured to the dash of the buggy. The balls K, L, and M are intended simply to exemplify the fact that pivot-balls like ball E may be attached to various parts of the vehicle wherever it is likely the attachment of the fender will be desired. These pivot-balls or equivalent pivot elements are to be provided wherever desired about a buggy or other vehicle, and the fender can thus be attached conveniently wherever an attaching-pivot has been provided.

In Fig. 2 the fender is illustrated as projecting outwardly horizontally beyond the front bow. In this position it is firmly held by means of the pivot-clamp engaging the ball, the rear edge of the fender projecting under the bow, so as to make a fair joint. By turning the tightener upwardly the clamp



will become loosened and the front edge of the fender may be depressed to any angle desired, after which the clamp may be again tightened. The fender may be disposed in a vertical plane, if desired. In these adjustments of the fender the ball has furnished a pivot-connection whose axis is horizontal; but when the fender hangs vertically it may be revolved upon the ball, which thus furnishes a vertical pivot. A half-revolution on this axis being given to the fender brings the water-proof face of the fender to the rear. The fender may then be turned rearwardly and upwardly until it lies closely up against the under surface of the buggy-top, in which condition it will present its ornamental face to view and will not project at all beyond the buggy-top. The universal character of the pivot permits of an oblique adjustment of the fender, so as to give greater protection against the sun coming from one side of the buggy.

By turning the tightener so that the jaws are loosened from the ball and then sliding the tightener forwardly on the shanks of the jaws the jaws may be opened sufficiently to permit the clamp to be detached entirely from the ball. The fender may then be readily attached to the ball K and adjusted thereon in most any position desired, or it may be attached to any other ball which may be provided about the vehicle. It may be attached to the ball L as a mere storage-place, or it may be attached to the ball M and adjusted to any angle desired to serve as a mud-fender, the universal character of the attaching-pivot permitting the water-proof side of the fender to be presented downwardly.

The ball-pivot which has been shown and described as an exemplification of my improved manner of mounting vehicle-fenders furnishes an attaching-pivot with two axes—one vertical and one horizontal. Two axes thus combined provide means for a universal adjustment, and any arrangement of such two axes at the center of one edge of the fender will exemplify my improved manner of mounting a vehicle-fender. Thus in Figs. 6 and 7 I illustrate a construction in which the two axes, while acting together, are independent.

In this construction N is a pivot-hanger to be attached to the vehicle similarly to the ball E. O is a pivot-clamp secured to this hanger by the thumb-screw P, which forms the horizontal pivot of the clamp. Q is the vertical pivot of the clamp, attached to the fender D and united to the clamp O by the thumb-screw R. By loosening screw P the fender may be adjusted on its horizontal axis, and by loosening screw R it may be adjusted on its vertical axis, thus permitting the oblique adjustment, and also permitting the fender to be turned up inside a vehicle-top with its inner side presenting downwardly.

I claim as my invention—

1. In a vehicle-fender, the combination, substantially as set forth, of a rectangular fender, a pivot-clamp attached thereto at one of its edges, and a pivot fixed to the front edge of the vehicle-top and adapted to be separably engaged by said pivot-clamp.

2. In a vehicle-fender, the combination, substantially as set forth, of a rectangular fender, a pivot-clamp attached to such fender at the center of length thereof at one edge, and a pivot fixed to the front edge of the vehicle-top and adapted to be separably engaged by said pivot-clamp.

3. In a vehicle-fender, the combination, substantially as set forth, of a fender having one water-proof face and one ornamental face, a pivot attached to the front of the top of the vehicle, and a pivot-clamp attached to one edge of such fender and adapted to engage said pivot in such manner as to be capable of universal motion thereon, so that said fender can be adjusted to angles with either of its faces upwardly.

4. In a vehicle-fender, the combination, substantially as set forth, of a pivot attached to the vehicle-top, a similar pivot attached to the vehicle-dash, a rectangular fender, and a pivot-clamp attached to one edge of such fender and adapted to engage either of said pivots when either side of said fender is presented upwardly.

HIRAM CLAWSON.

Witnesses:

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E. A. BELDEN.