

(No Model.)

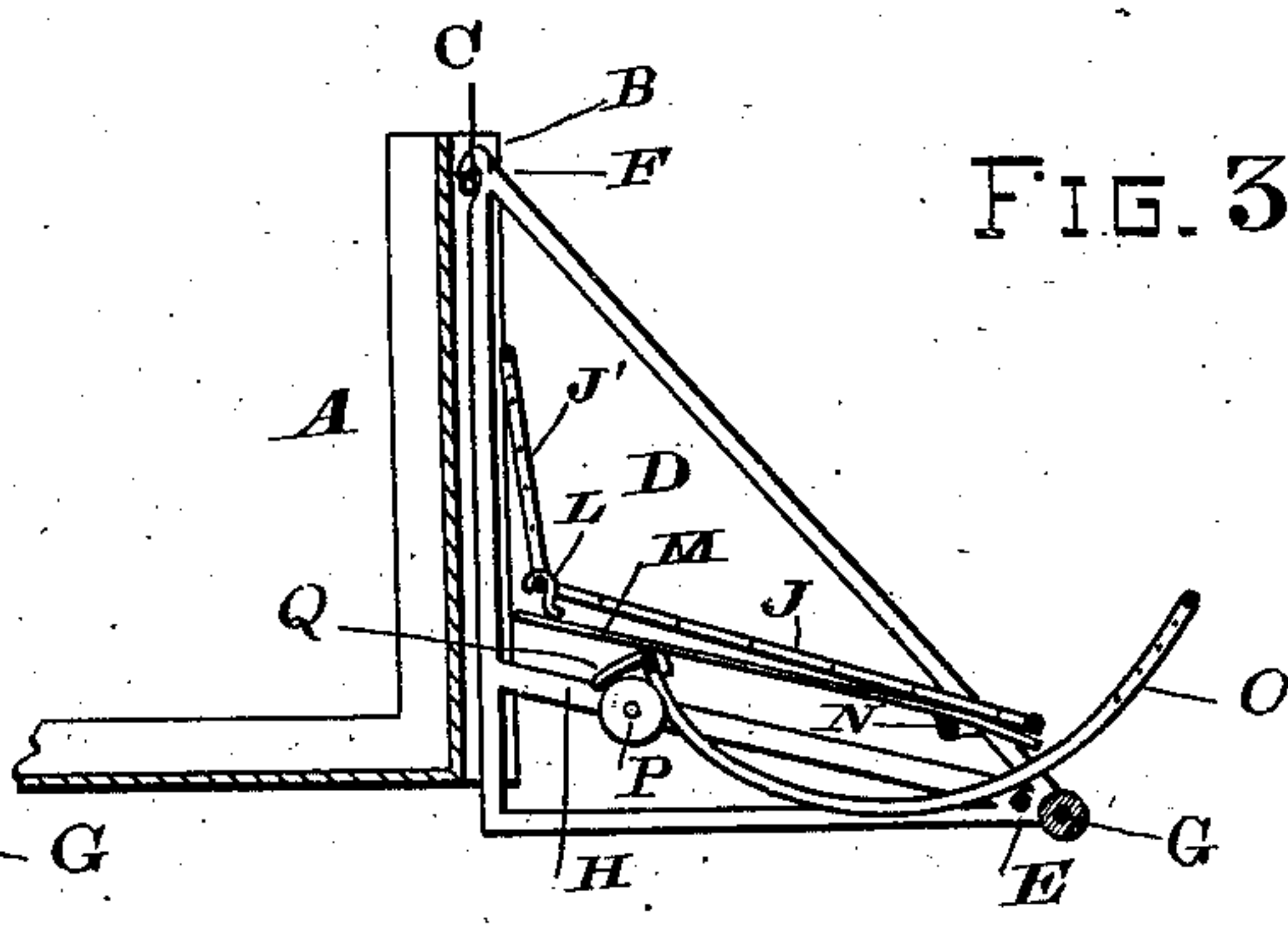
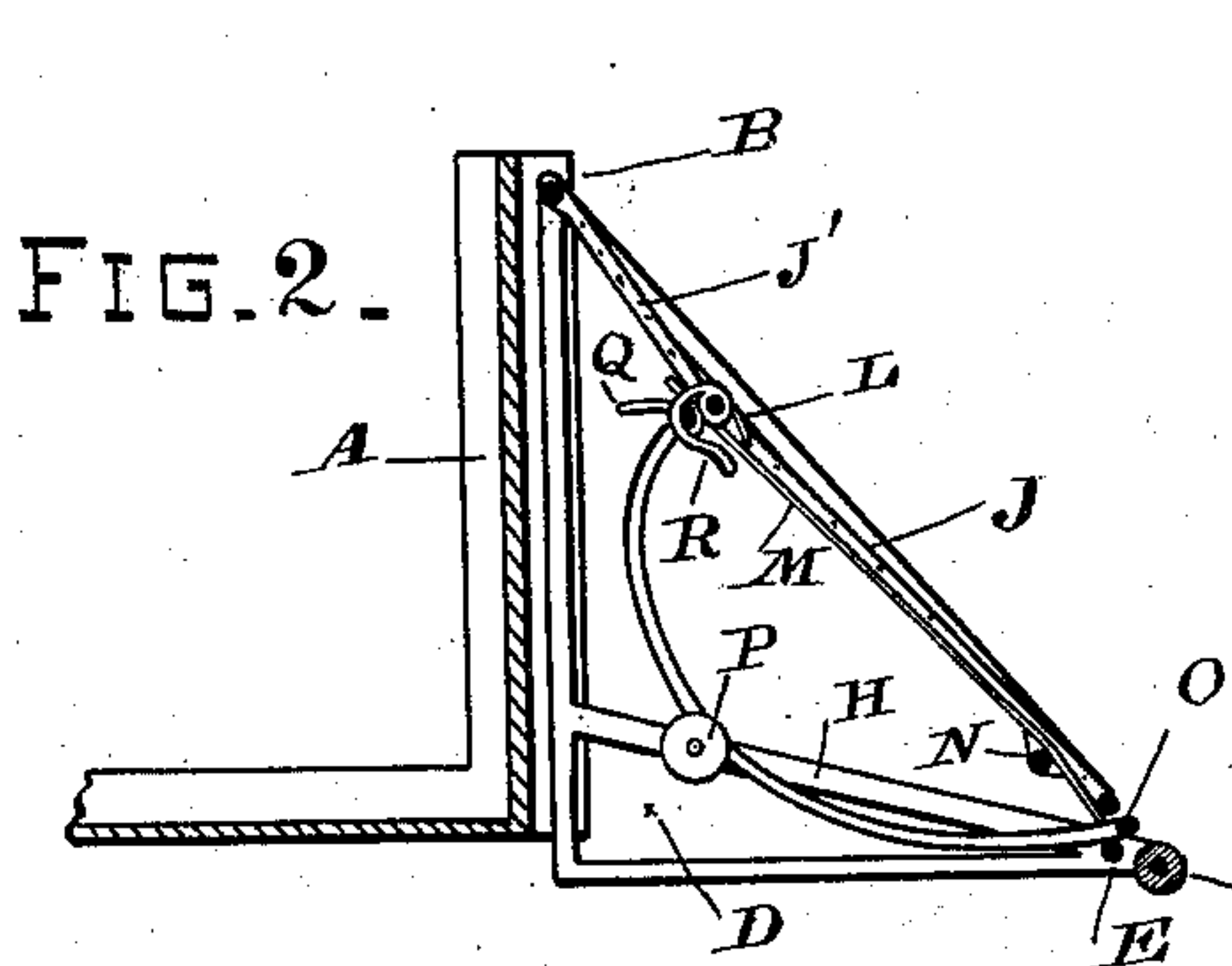
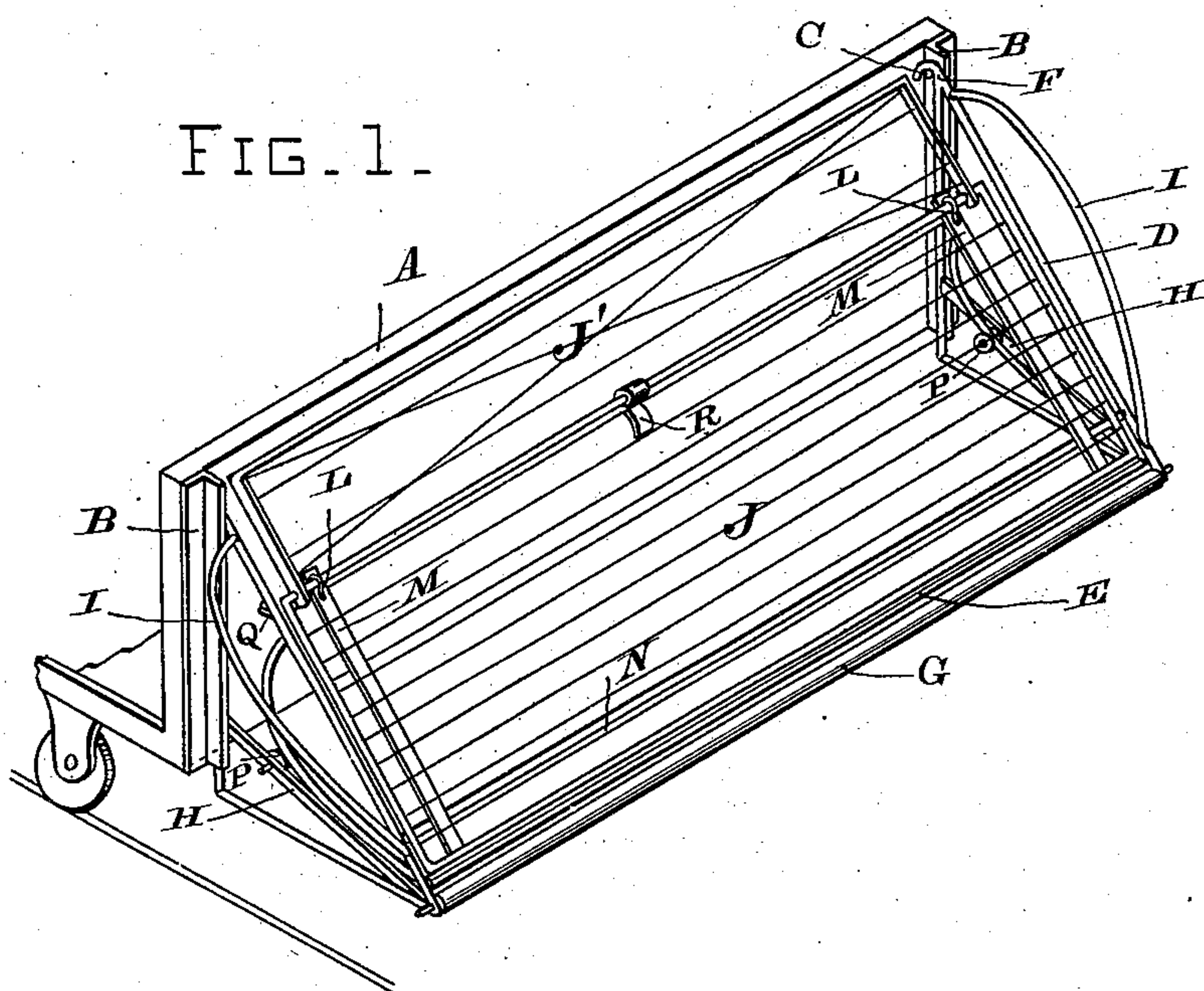
2 Sheets—Sheet 1.

W. U. BOHM.

PILOT OR GUARD FOR CARS OF CABLE ROADS.

No. 292,624.

Patented Jan. 29, 1884.



WITNESSES.

*Wilbur Bradford*  
*Edwin Derby*

INVENTOR.

*Wm U. Bohm*  
*Per* *Chas Smith*  
*Attorney*

(No Model.)

2 Sheets—Sheet 2.

W. U. BOHM.

PILOT OR GUARD FOR CARS OF CABLE ROADS.

No. 292,624.

Patented Jan. 29, 1884.

FIG. 4.

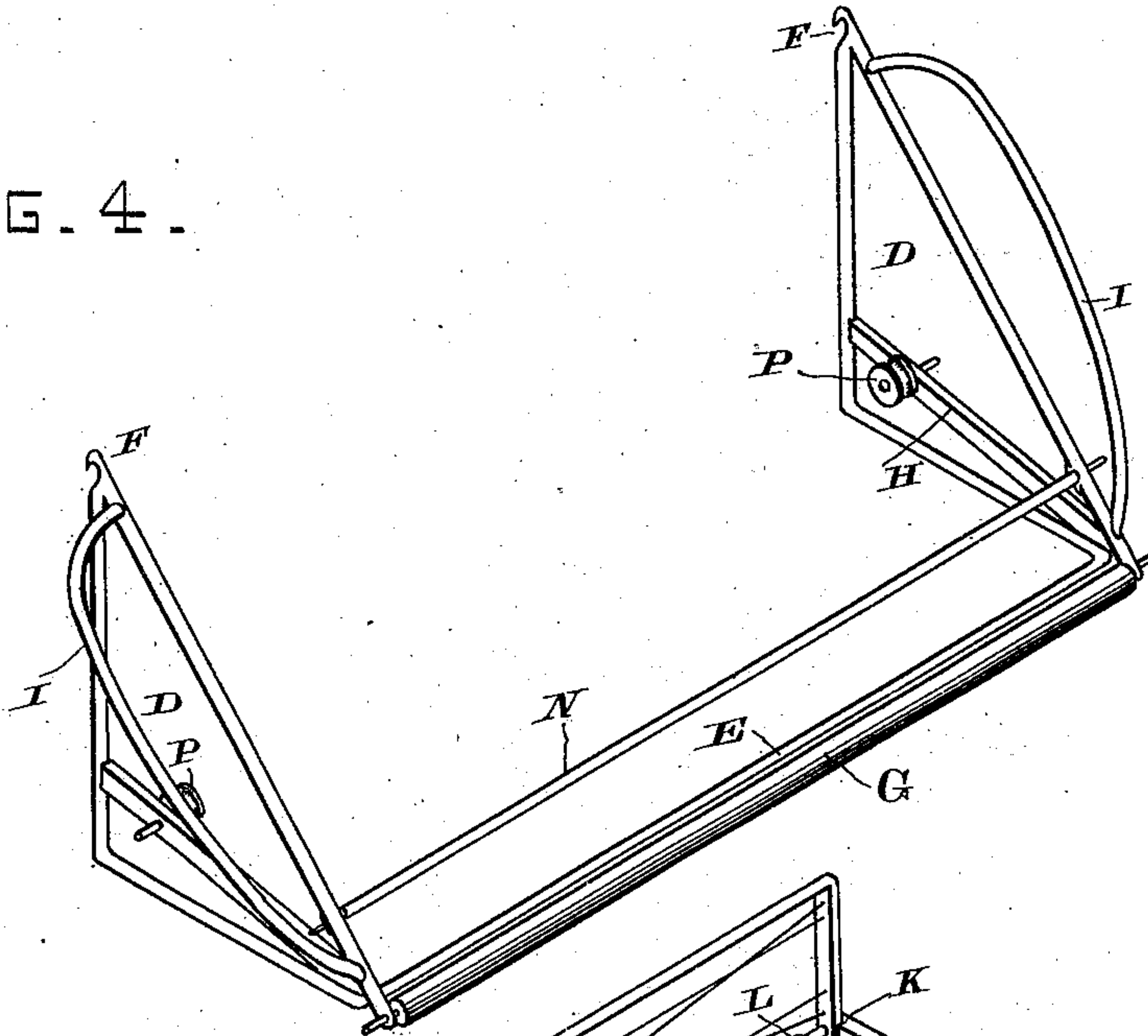


FIG. 5.

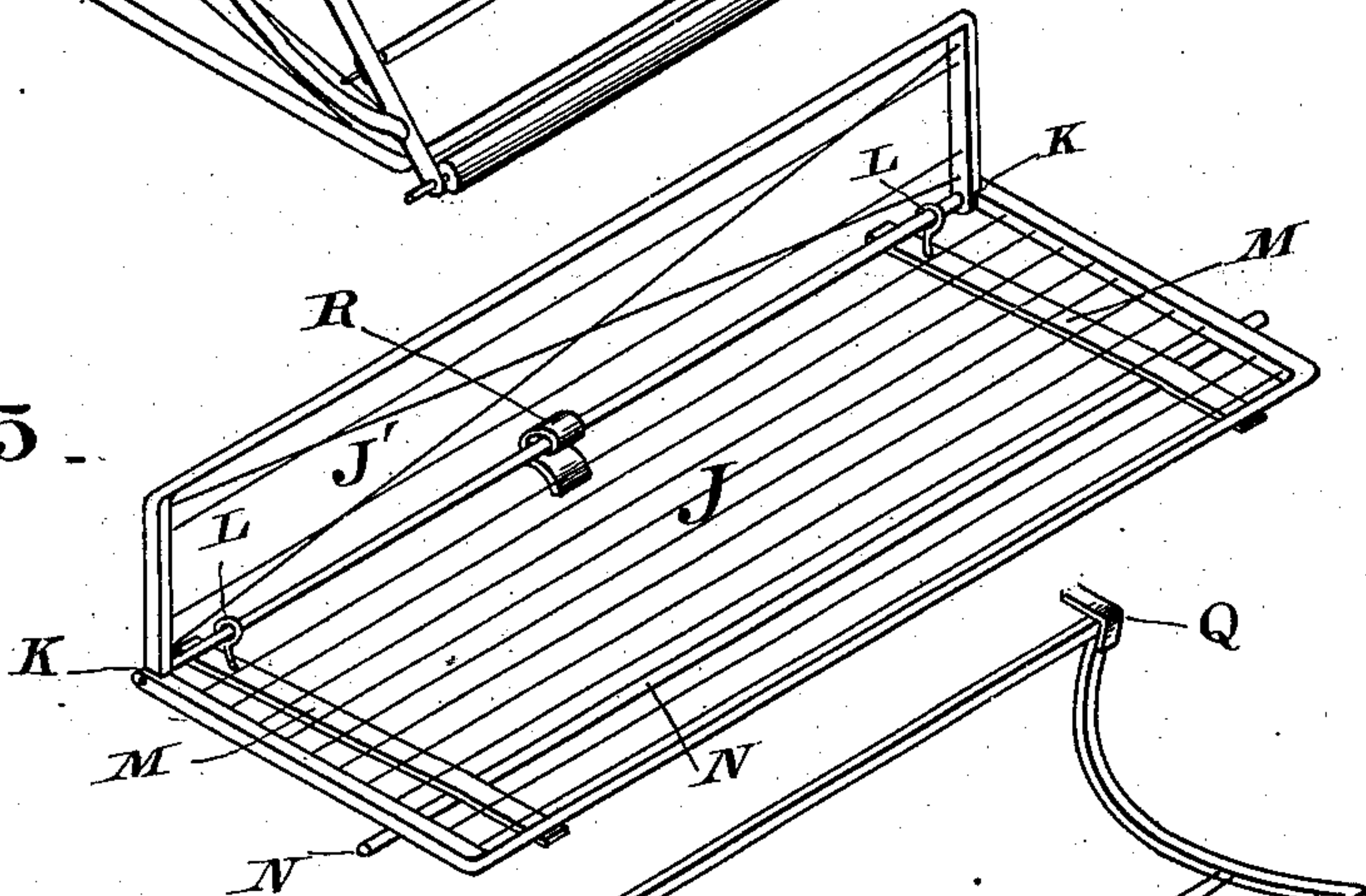
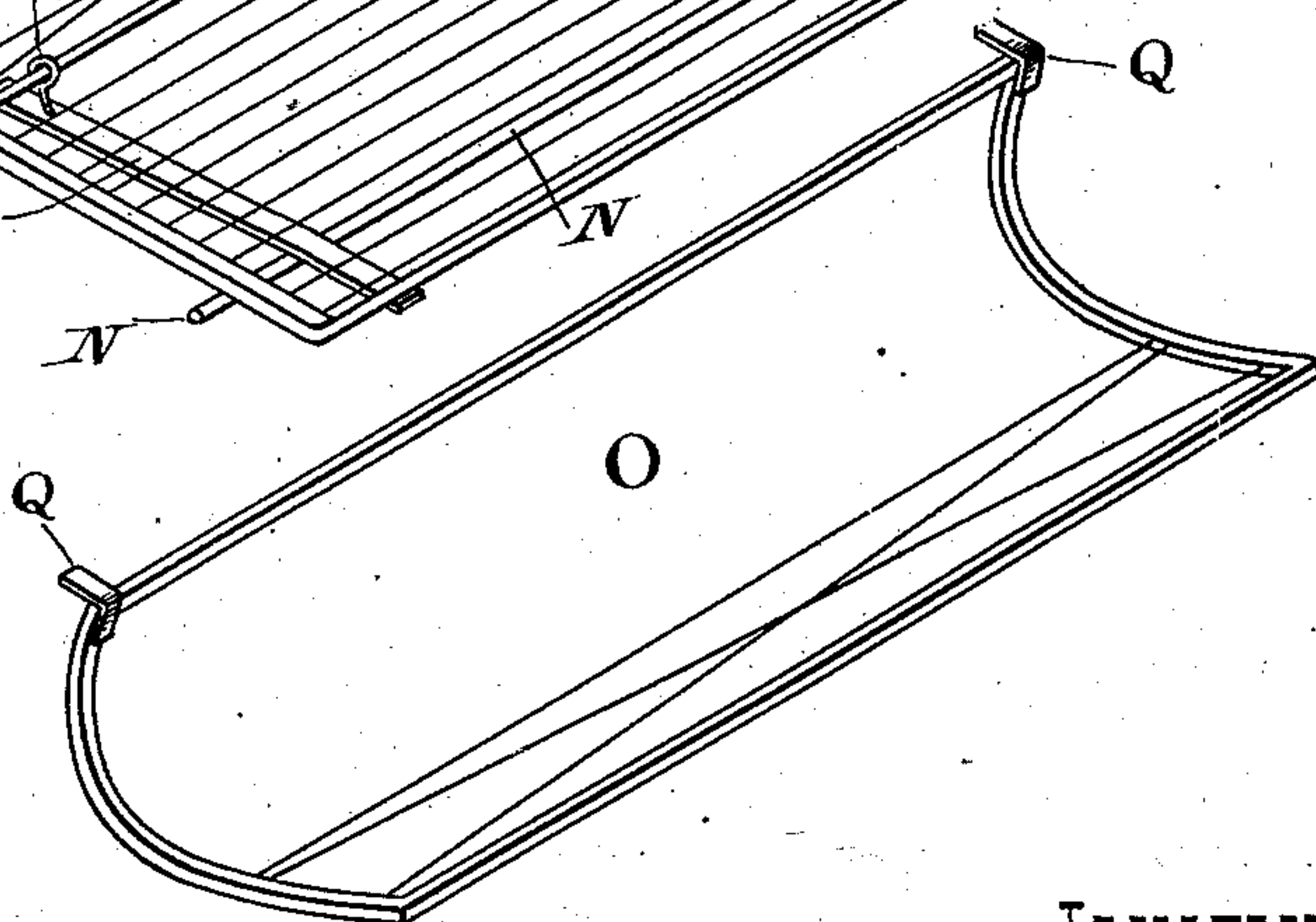


FIG. 6.



WITNESSES

*Wilbur Bradford*  
*Edwin Derby*

INVENTOR.

*Wm U Bohm*  
*Per C W M Smith*  
*Attorney.*



# UNITED STATES PATENT OFFICE.

WILLIAM U. BOHM, OF SAN FRANCISCO, CALIFORNIA.

## PILOT OR GUARD FOR CARS OF CABLE-ROADS.

SPECIFICATION forming part of Letters Patent No. 292,624, dated January 29, 1884.

Application filed May 4, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM U. BOHM, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented a new and useful Pilot or Guard for Cars of Cable-Roads, of which the following is a specification.

This invention relates to an improved pilot or front-rail guard for the dummy-cars of underground-cable railroads; and the objects of my improvements are, first, to provide a dummy-car with a removable pilot, adapted to be shifted from one dash-rail to the other when the dummy has been switched off to or upon the return-track; second, to provide a pilot for cable-railroad dummies or cars with an automatic cradling and tripping device, whereby the legs or feet of a passing pedestrian may be knocked outward from under him and his body be allowed to fall into the cradle of the pilot, from which he may easily arise when the progress of the train has been arrested; third, to provide a means whereby the tripping device may be held in a retracted position, and the cradling device held flat and smooth when not in active use. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view, showing my improved pilot applied to a dummy. Fig. 2 is a transverse section through the pilot, showing the position of the parts when at rest. Fig. 3 is a cross-section, showing the position of the parts when in active use. Figs. 4, 5, and 6 are perspective views, showing the various parts in detail.

Similar letters of reference are used to indicate like parts throughout the several views.

A represents the front portion of a cable-road dummy provided upon its outer face with guide-strips B, to the top portion of which pins or bolts C are properly attached. These pins C serve as supports for a pilot-frame, which is made with two triangular ends, D D, connected together at their forward ends by a rod, E, as seen in Fig. 4. The apices of these triangles are provided with a hook, F, which hooks over the pins C, and thus hold the pilot at a proper elevation. The vertical sides or rods of the triangle rest against the front side of the dash-board, and lateral motion of the same is prevented by the guide-strips B B, as seen in Fig.

1, while immediately in front of and slightly below the stay-rod E, I place a gutta-percha-covered rod, G, which serves to lessen the concussion or shock caused by striking any obstruction. These triangular ends are further braced by the bars H H, extending from the lower front corner to the vertical rod, and are provided with grooved friction-rollers P P, for a purpose to be hereinafter described. A supplemental guard or hand rail, I, is attached to the inclined rod forming the triangle, and serves as a fender, or affords facilities for the more ready removal and transfer of the pilot from one end of the dummy to the other.

The cradle is made in two parts, J J', each rectangular in form, and hinged together, as shown in Fig. 5, the forward movement of the upper portion being controlled by notches K K, cut in the upper ends of the metallic rods forming the sides of the lower section. Small lugs L L are attached to either end of the horizontal rod forming the lower edge of the top section, J', and these lugs bear against flat springs M M, attached to the lower cross rod or rail of the lower section, J, and thence up and over a cross-rail, N, attached to the lower end of the inclined rod of the triangular supporting-frame, and thence up and under the said lugs L L, and by this means the two sections are held flat, so as to present a smooth plain surface having a like degree of inclination when the parts are in their normal position, as seen in Fig. 1.

The tripper O is constructed with curved end pieces and straight top and bottom rails, as seen in Fig. 6. These curved ends rest upon the grooved friction-rollers P P, and their upper ends are provided with right-angled clips or lugs Q Q, which limit the downward and outward travel of the tripper, as seen in Fig. 3.

When not in active use, the device is placed in the position shown in Fig. 1, in which the cradle portion will be held in position by means of the flat springs M M, while the tripper is held up by its upper rail passing over the tongue of the spring-clip R, secured upon the lower rail of the top cradle-section, J'. Should the moving dummy now come in contact with any obstruction, the rubber-covered bar G will be the first portion struck, and in the case of a man he will be thrown down against the flattened cradle, which will instantly drop, and the



lower portion, J, will assume a nearly horizontal position and support the body of the unfortunate, while at the same moment the top rail of the tripper will be released from the spring-clip R, and be forced downward by the descending cradle, causing the lower rail of the tripper to fly forward and upward, knocking the man's feet from under him and lifting them sufficiently high to prevent their being caught by the pavement and dragged under the body of the dummy.

It should here be remarked that the cradles and tripper are to be covered with a netting made of either wire or rope, for the purpose of receiving and sustaining the weight of the person's body.

I am aware that locomotive-pilots have been formed of a three-sided receptacle, and that a curved centrally-pivoted cradle has been placed in such receptacles, and held in usual position by a hinged beam, which serves as a front guard when the cradle is operated, said cradle being locked in position by a pawl and ratchet. This, however, I do not claim; but,

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

1. A removable pilot for cable-road cars, consisting, essentially, of a supporting framework, a hinged cradle, and a sliding foot-tripping device, combined and arranged to operate substantially in the manner and for the purpose set forth.

2. In a pilot for cable-road cars, the supporting-frames D D, connected by transverse rails, and having a rubber-covered rod, G, and friction-rollers P P, substantially as shown, and for the purpose set forth.

3. In a pilot for cable-roads, the supporting-frames D D, lower and upper hinged cradles, J J', having flat springs M M, lugs L L, and spring-clip R, in combination with the tripper O, having curved end pieces and lugs or clips Q Q, substantially as shown, and for the purpose specified.

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

WILLIAM U. BOHM. [L. S.]

Witnesses:

C. W. M. SMITH,

CHAS. E. KELLY.