

No. 618,600.

Patented Jan. 31, 1899.

W. B. COLCLAZER & P. C. MUNGER.

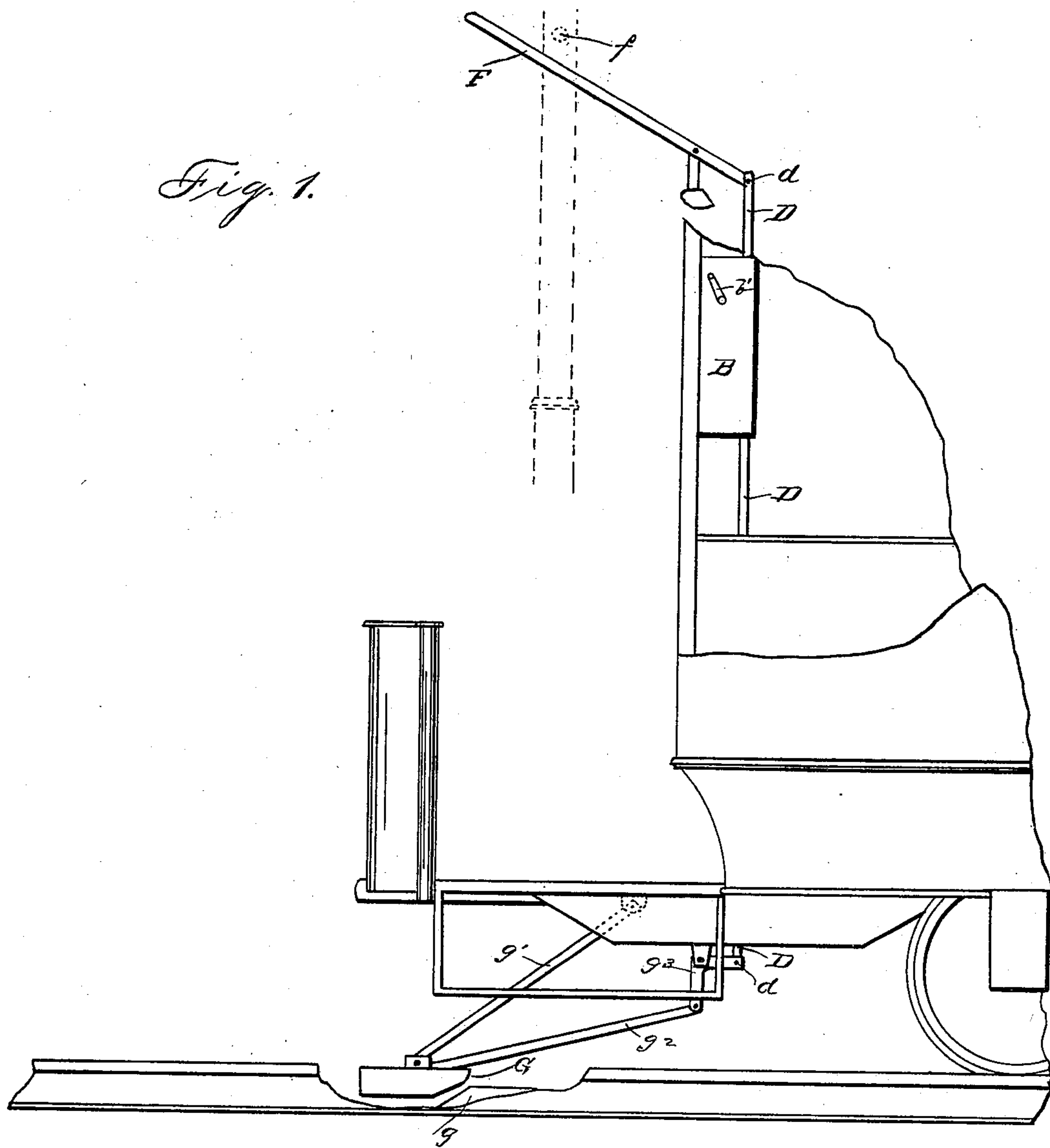
STATION INDICATOR.

(Application filed May 28, 1898.)

(No Model.)

3 Sheets—Sheet 1.

Fig. 1.



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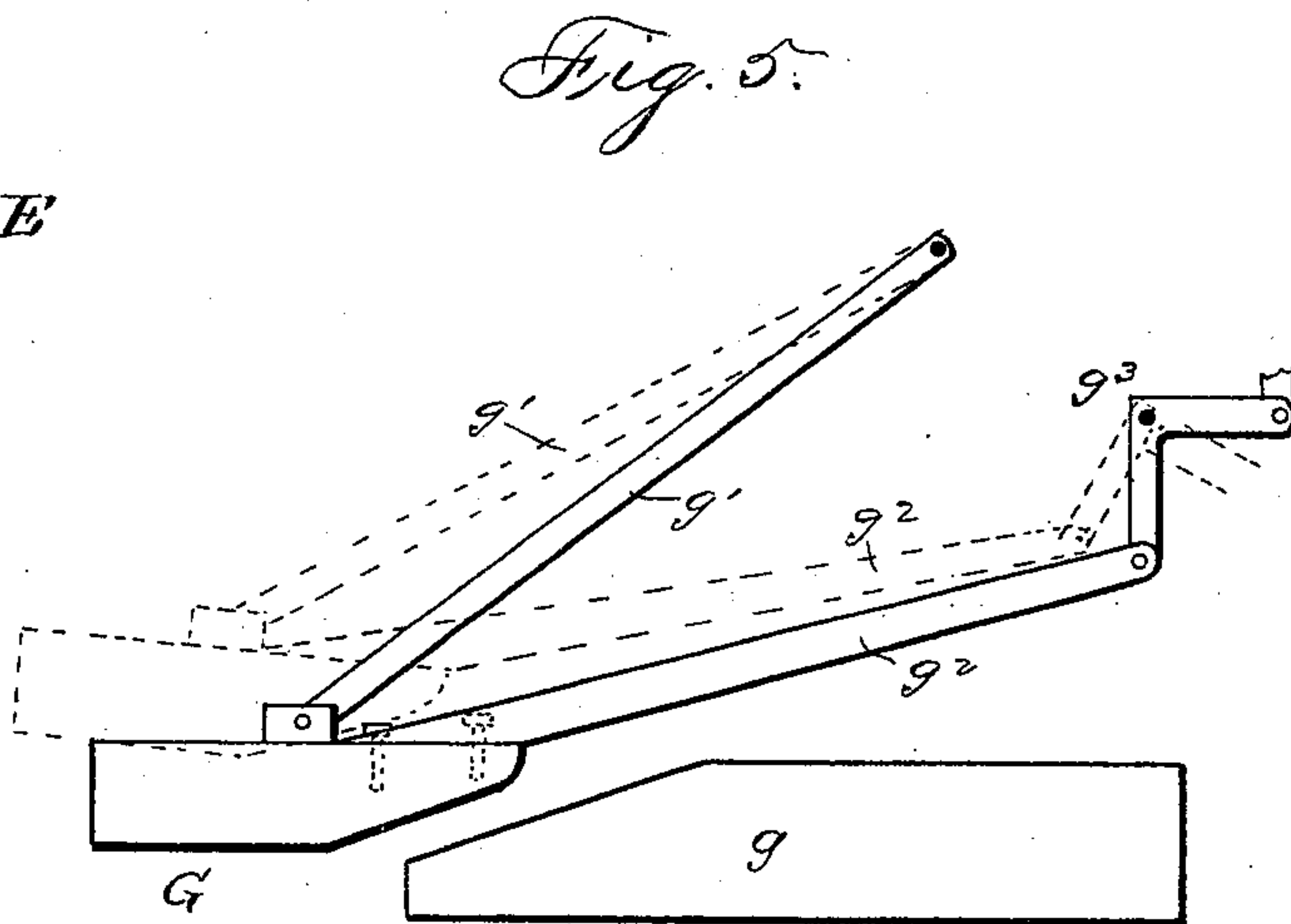
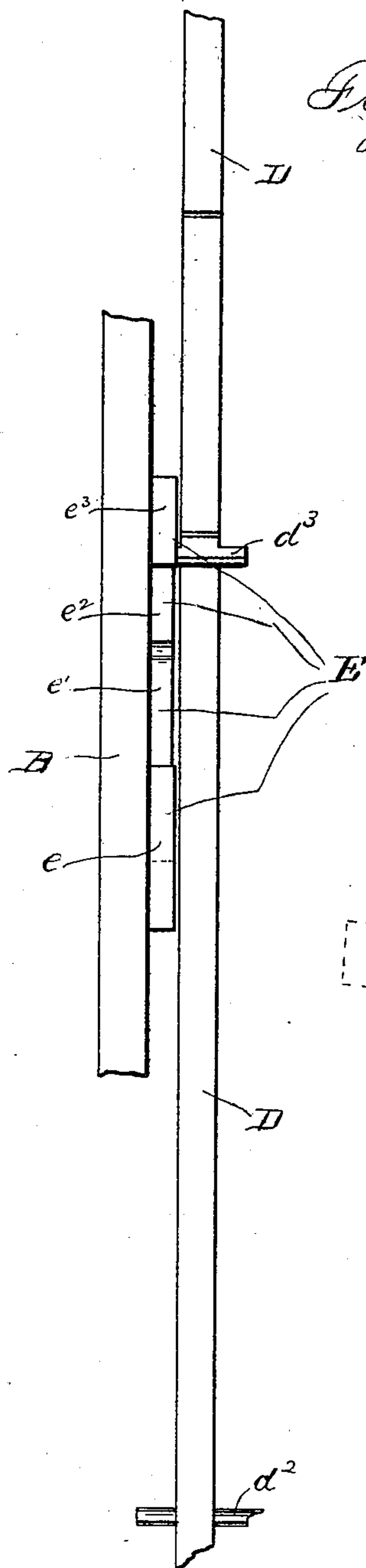
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UNITED STATES PATENT OFFICE.

WILLIAM B. COLCLAZER AND PRESTON C. MUNGER, OF EVANSVILLE,
INDIANA, ASSIGNORS OF ONE-THIRD TO E. HORN, OF SAME PLACE.

STATION-INDICATOR.

SPECIFICATION forming part of Letters Patent No. 618,600, dated January 31, 1899.

Application filed May 28, 1898. Serial No. 682,016. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM B. COLCLAZER and PRESTON C. MUNGER, citizens of the United States, residing at Evansville, in the county of Vanderburg and State of Indiana, have invented certain new and useful Improvements in Station-Indicators; and we do 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 the letters of reference marked thereon, which form a part of this specification.

Our invention relates generally to station-indicators; and it consists in improvements resulting in economy of space and in cost of manufacture. These improvements are embodied in the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an outline view of the preferred form of an entire construction. Fig. 2, Sheet 2, is a side elevation of the indicator-cabinet with the near side removed. Fig. 3 is a front projection of Fig. 2, showing the indicator mechanism with the front of the cabinet removed. Fig. 4, Sheet 3, is a detail view of the upright actuating-rod and trip-return, viewed from the rear; and Fig. 5 is a detail view of the track-shoe and station-trip.

Like letters of reference denote corresponding parts in the several views of the drawings.

A represents the ratchet-drum, and A' the band-drum.

a a are the drum-heads, having peripheral notches to engage the ends of the rods a' a', which are connected in endless succession by the bands a² a², and a³ is the actuating ratchet-wheel on the axle of the upper drum A.

B is the cabinet, in which the indicator operates.

b b are bearings for the axle of the drums, and b' is a hand-crank for setting the indicator.

C C are placards, each one attached by one edge to a rod a' and adapted to swing upon it.

D is the vertically reciprocating or operating rod, having the upper and lower pivot connections d d. It has a forward-and-backward oscillating movement on a pivotal check-

pin d², which engages the slot d', and is further provided with the cross pin or lug d³. This rod D is continually acted upon by the lateral spring d⁴, pressing its front edge and which tends to incline it backward, and the lifting-spring d⁵, acting through the pin i, to move it upward.

E is the trip-return mechanism, consisting of a rest block or plate e³, rigid guide e, and curved spring-guide e'. The block e³ and guide e are fixed to the side of the cabinet B. The upper part of the spring-guide e' is prolonged vertically to form the track e², and its lower point is curved to make contact with the guide e. The block e³ and the guide e and e² and the bell-hammer h are engaged by the part of the lug d³ which projects on their side of the rod D. The part which projects on the other side of the rod D engages the notches in the drum-heads. The rod D may be actuated at its upper end by the lever F and at its lower end by the track-shoe G or by either one of these means, and the lever F may be replaced by any equivalent element performing the function of depressing the rod D when deflected by the projections f f. The shoe G is elevated by contact with the projections g g; but the elevation of the shoe is accompanied by a very marked backward movement, caused by the inclined pivoted rod g', which connects the shoe to the car-body. The backward motion of the shoe is transmitted through the rod g², which connects the shoe to the bell-crank g³, which is fulcrumed to the car-body and in its turn draws down the rod D. Each downward movement of the pin d³ rings the bell H (shown in dotted lines) by tripping the clapper h. (Shown partly in dotted and partly in solid lines.)

I is a projection for supporting the placards until they are turned past it.

The operation of our indicator is as follows: When the car passes a projection, which operates either the lever F or shoe G, the depressible rod D, which in its normal position bears, with the lug d³, upon the rest-plate e³ under the action of the spring d⁴ and is supported by the spring d⁵, is drawn or forced downward, and the pin d³ passes the lower end of the rest-plate e³ and immediately with the motion

of the rod D, actuated by the spring d^4 , strikes the bell-hammer and engages a ratchet, tooth and, continuing downward, turns the drums the distance between the contiguous rods, and a placard C, resting upon the projection I, drops into view at the window of the cabinet. When this has been accomplished, the lug d' will have reached the guide e , by which it is directed away from the ratchet-wheel a^3 and past the spring-guide e' , when the rod D can go no farther on account of the pin d^2 , and when released from the station-trip is lifted by the spring d^5 , the lug d^3 passing upward before the spring-guide e' along the vertical track e^2 , and, finally, by action of the spring d^4 , after it passes the upper end of the track e^2 , stops upon the rest-plate e^3 .

The arrangement of the placards to overlap saves much space and much wear. The backward movement of the shoe G, which is necessary before the rod D can be moved, insures against any accidental operation of the indicator by the jolting of the car. The entire construction is neat, simple, and practical.

Having described all that is necessary to a full understanding of our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a station-indicator, a shoe adapted to engage a station-trip, an inclined rod g' pivotally connecting the shoe to the car-body, and a rod g^2 , connecting the shoe to a bell-crank, and through said crank, actuating the reciprocating rod D, for the purpose specified.

2. In a station-indicator, having a cabinet

and a vertical reciprocating rod, a rest-plate e^3 , a guide e , spring-guide e' , and track e^2 , fixed in the cabinet, and a lug on said rod adapted to engage said plate, guides, and track, for the purpose specified.

3. In a station-indicator, a depressible operating-rod, a slot in said rod, a pivoted check-pin to engage said slot, a lateral pin i on the rod, a lower lifting-spring d^5 engaging said pin, an upper spring d^4 to incline the rod backward; a cross-lug on said rod, a fixed rest-plate, a fixed guide, a spring-guide connected with a fixed track, and a pivoted bell-hammer, said plate, guides, track, and hammer, disposed to be operated on by said lug, and a bell adapted to be struck by said hammer, substantially as described.

4. In a station-indicator having a cabinet with window and containing revoluble drums bearing an endless chain provided with hinged placards, a ratchet-wheel on the upper drum, engaged by a lug on the reciprocating rod, a rest-plate e^3 , a guide e , spring-guide e' , and track e^2 fixed in the cabinet; said rest-plate, guide, spring-guide, and track, being also engaged by said lug, and all adapted to present said placards, serially, at said window, substantially as herein described.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM B. COLCLAZER.

PRESTON C. MUNGER.

Witnesses:

E. HORN,

FRED KRACH.