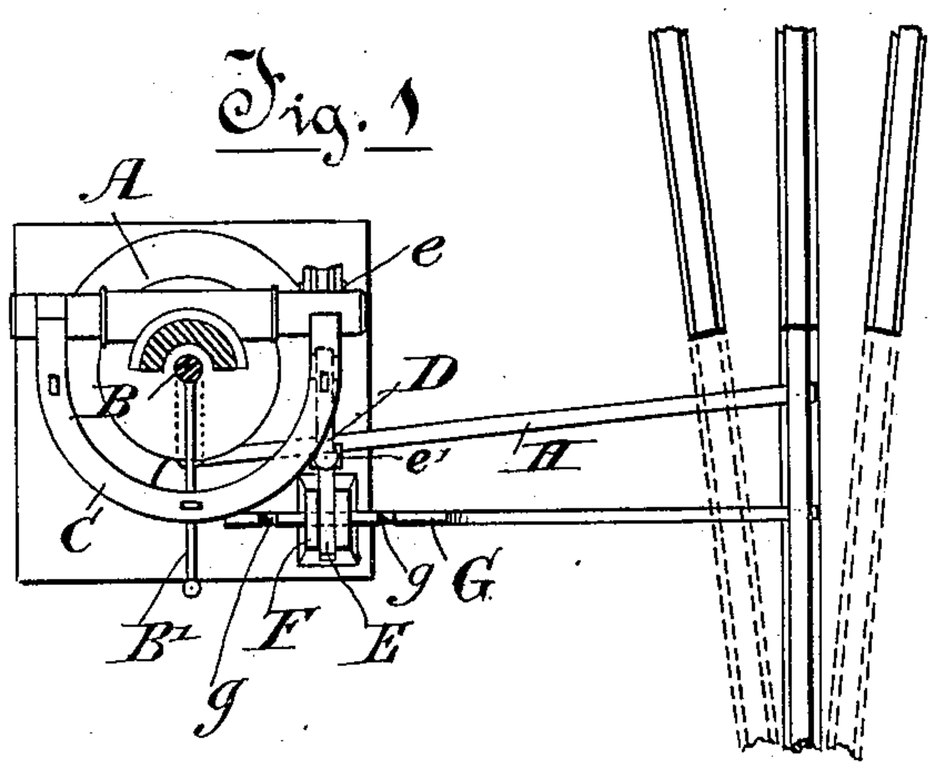
(No Model.) 2 Sheets—Sheet 1.

T. ROWLANDS.

LOCKING DEVICE FOR RAILWAY SWITCHES.

No. 308,434. Patented Nov. 25, 1884.

Fig. 1



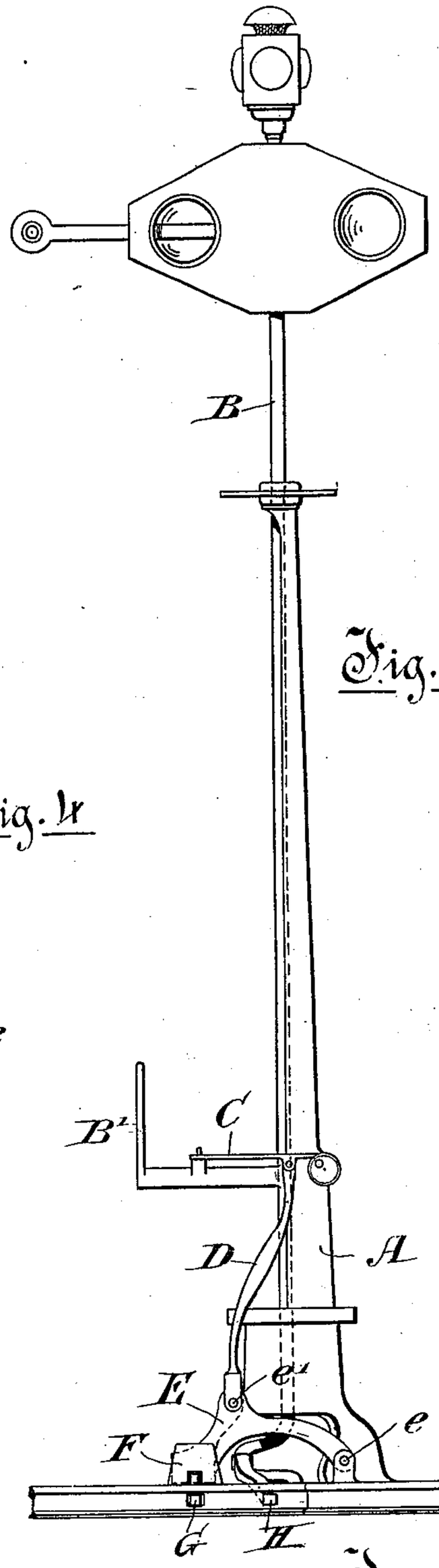
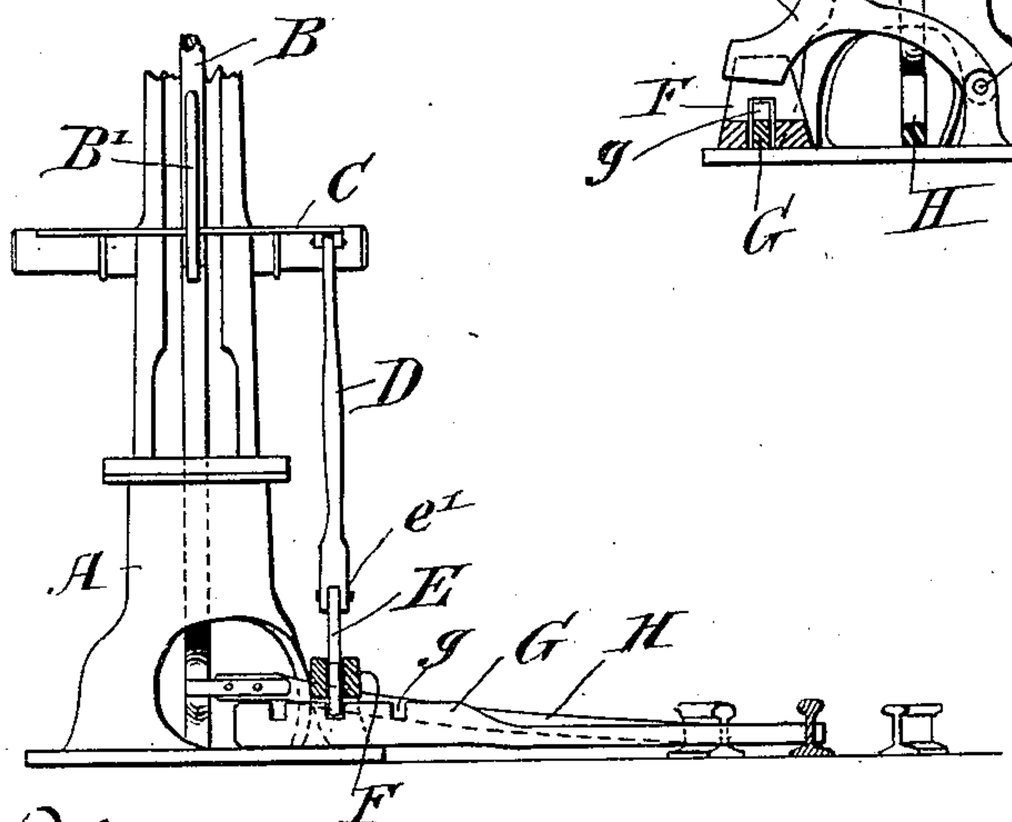


Fig. 3

Fig. 2



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(No Model.) 2 Sheets—Sheet 2.

T. ROWLANDS.

LOCKING DEVICE FOR RAILWAY SWITCHES.

No. 308,434. Patented Nov. 25, 1884.

Fig. 5

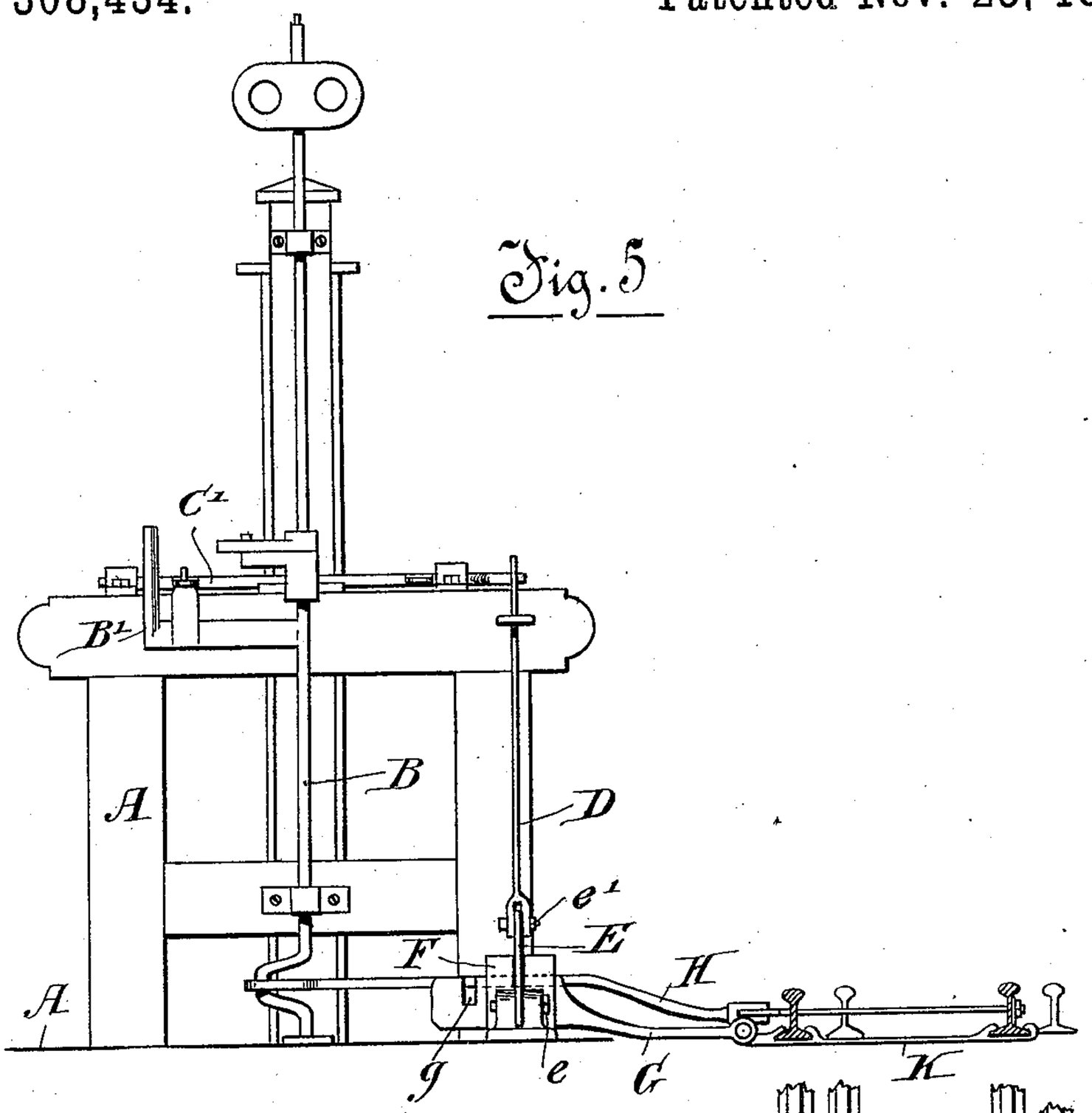
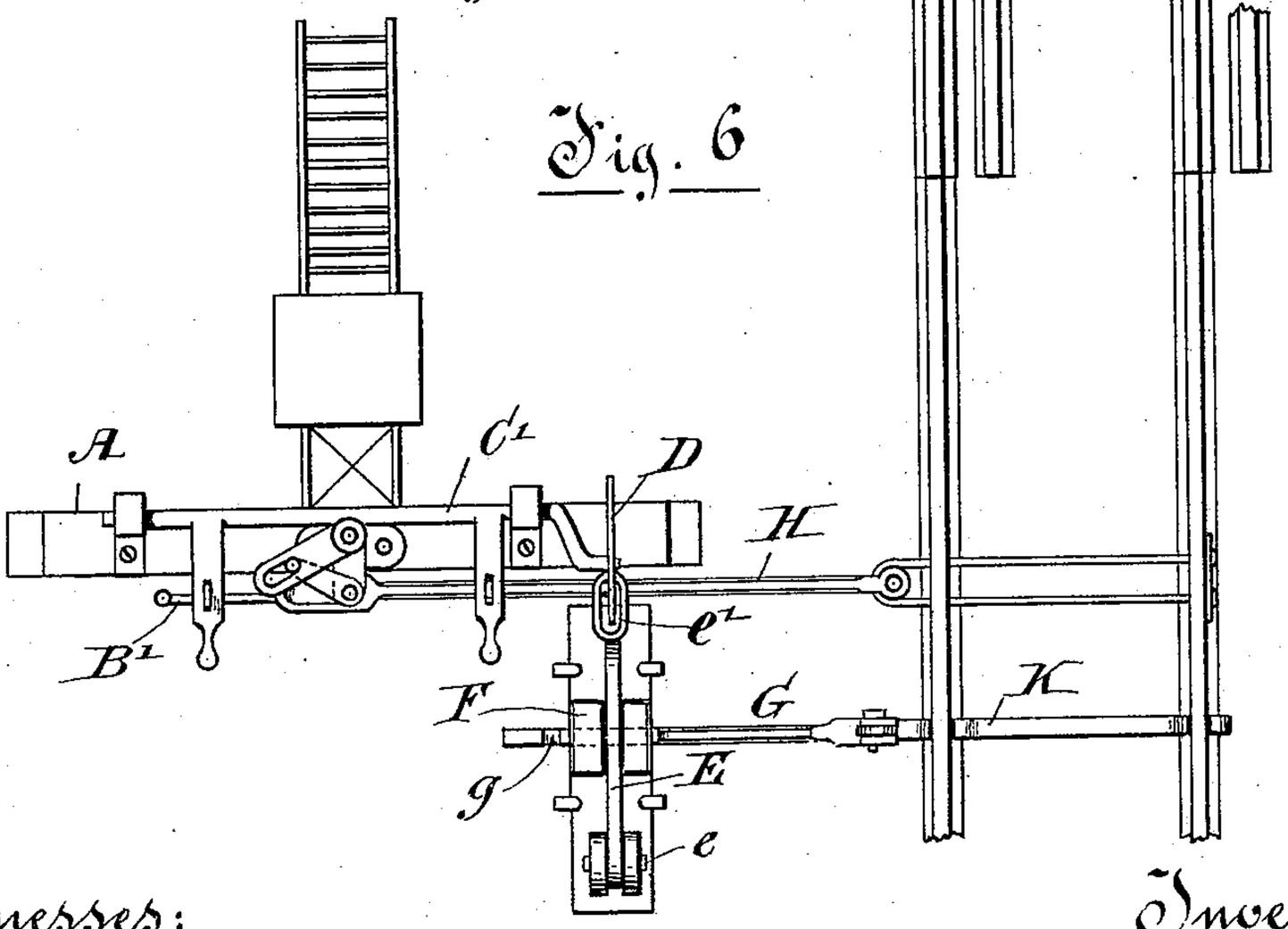


Fig. 6



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UNITED STATES PATENT OFFICE.

THOMAS ROWLANDS, OF MONTREAL, QUEBEC, CANADA, ASSIGNOR TO ARCHER BAKER, OF SAME PLACE.

LOCKING DEVICE FOR RAILWAY-SWITCHES.

SPECIFICATION forming part of Letters Patent No. 308,434, dated November 25, 1884.

Application filed August 13, 1884. (No model.) Patented in Canada December 21, 1882, No. 16,000.

To all whom it may concern:

Be it known that I, THOMAS ROWLANDS, of Montreal, in the District of Montreal, and Province of Quebec, Canada, have invented certain new and useful Improvements in Locking Devices for Railway-Switches; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to an improved device for locking railway-switches in position at the end of each throw, and is more especially applicable for use in connection with switch-stands. My invention has been patented in Canada by myself on the 21st December, 1882, No. 16,000, and is illustrated herein in connection with the form of device shown in Canadian patent to Archer Baker, No. 17,596, September 6, 1883.

My invention consists in the combination, with a switch-stand and with means for throwing the switch, of pivoted locking-levers and a notched locking-bar attached at one end to the rail, so as to slide therewith, and arranged to be locked automatically by one of said levers as each position is assumed by the rail.

For full comprehension of the improvement reference must be had to the accompanying drawings, in which letters similar to those used herein indicate like parts.

In these drawings, Figure 1 represents a plan view of one form of a switch-stand and rails, showing my improved locking-bar in position. Fig. 2 is a front elevation of same, partly in section. Fig. 3 is a side elevation showing drop-catch down. Fig. 4 is a substantially similar view, but with the drop-catch raised. Fig. 5 is a front elevation of another form of switch-stand, showing my locking device combined therewith; and Fig. 6 is a plan view of Fig. 5.

Referring to Figs. 1, 2, 3, and 4, A represents the switch-stand, through which passes the cranked target-rod B, connected to the switch-rod H, and having a handle, B′, by which it is turned. C is a radius-bar pivoted to the stand, and having a free movement on its pivot. The bar is slotted at intervals, and is adapted to engage with a pin on the handle B′, at any position of such handle, and thereby lock the target-rod.

In Figs. 5 and 6, A also indicates the switch-stand, B the target-rod, and B′ the crank operating the same. In both descriptions of switch-stands I connect to the radius-bar a rod or lifting-bar, D, to the lower end of which is pivoted a curved bar, E, and this bar E is pivoted at one end to the base-plate, or to a tie, while it is also free to act as a drop-catch, which will rise and fall with each oscillation of the radius-bar.

In Figs. 1, 2, 3, and 4 the rod or lifting-bar D is pivoted to the radius-bar C, which serves to actuate said rod, while in Figs. 5 and 6 the bar D is attached to and actuated by a rocking shaft, C′, which I include under the term "radius-bar." As seen particularly in Fig. 4, in one instance I pivot the bar E at one end (as at *e*) to a lug cast in one with the base of the stand, while its connection to the lifting-rod D is situated centrally on the bar E, as at *e′* in said figure, and the outer end of said bar acts as the drop-catch. In Figs. 5 and 6 the rod D is connected to the loose end of the bar E, (as at *e′*,) and the central part serves as the catch. In both cases a locking or holdfast block, F, is arranged at the base of the stand, and recessed to receive the drop-catch, and this block F is also grooved or slotted on its under side at right angles to the recess mentioned, and in this slot or groove slides my improved locking-bar G, the same having notches *g* in its upper edge, into one of which the bar E falls when the switch has assumed each position. This locking-bar is affixed to the same rail as that to which the switch-rod H is connected, as seen in Fig. 1, or it may be attached to the end of a tie-bar, K, (seen in Fig. 6,) connecting the two rails of the switch.

It will be seen that my improved locking-bar G will in this manner be moved in conjunction with the switch, and as the notches *g* are arranged at the proper intervals, the bar E will lock and keep the bar G firmly in position, hold the rails steady, and take the strain caused by passing trains away from the switch-rod and its connections.

What I claim is as follows:

1. In a switch-stand, the combination of the target-rod and switch-rod, the auxiliary bar G, connected to the switch-rail and having a series of notches, a pivoted catch adapted to engage with such notches, and a locking-block, F, substantially as described.

2. The combination, with the radius-bar of a switch-stand, of the bar or drop-catch E, connected with such radius-bar by rod D, pivoted thereto, and the locking-bar G, all as and for the purposes set forth.

Montreal, 2d day of August, A. D. 1884.

THOMAS ROWLANDS.

In presence of—

WILLIAM CROSS,
Of the City of Montreal, Engine-Fitter.

JOHN C. GRIFFIN,
Of the City of Montreal, Notary Public.