H. N. HOPKINS.
Railroad-Switch.

No. 219,475. Patented Sept. 9, 1879.

Fig. 1.

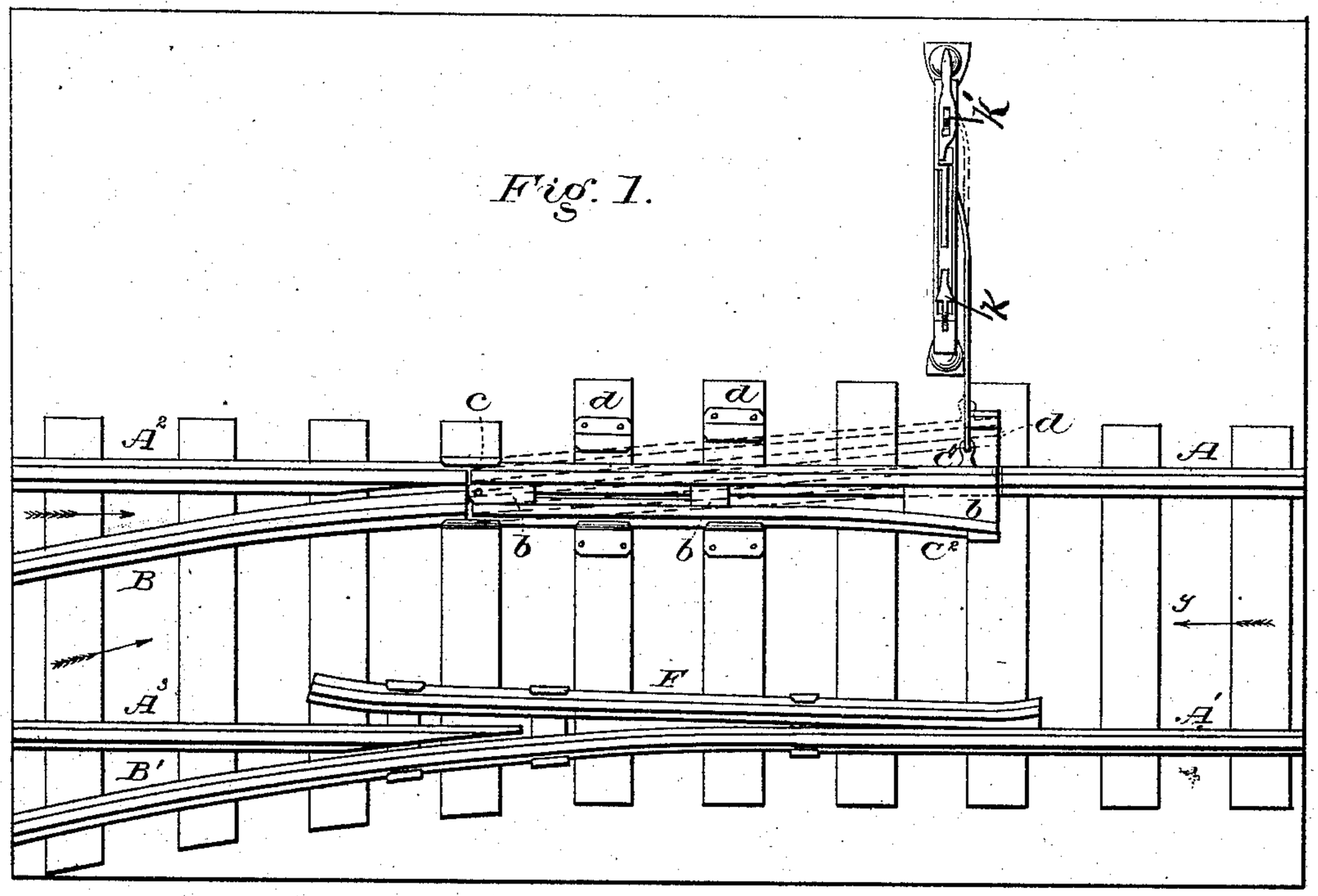
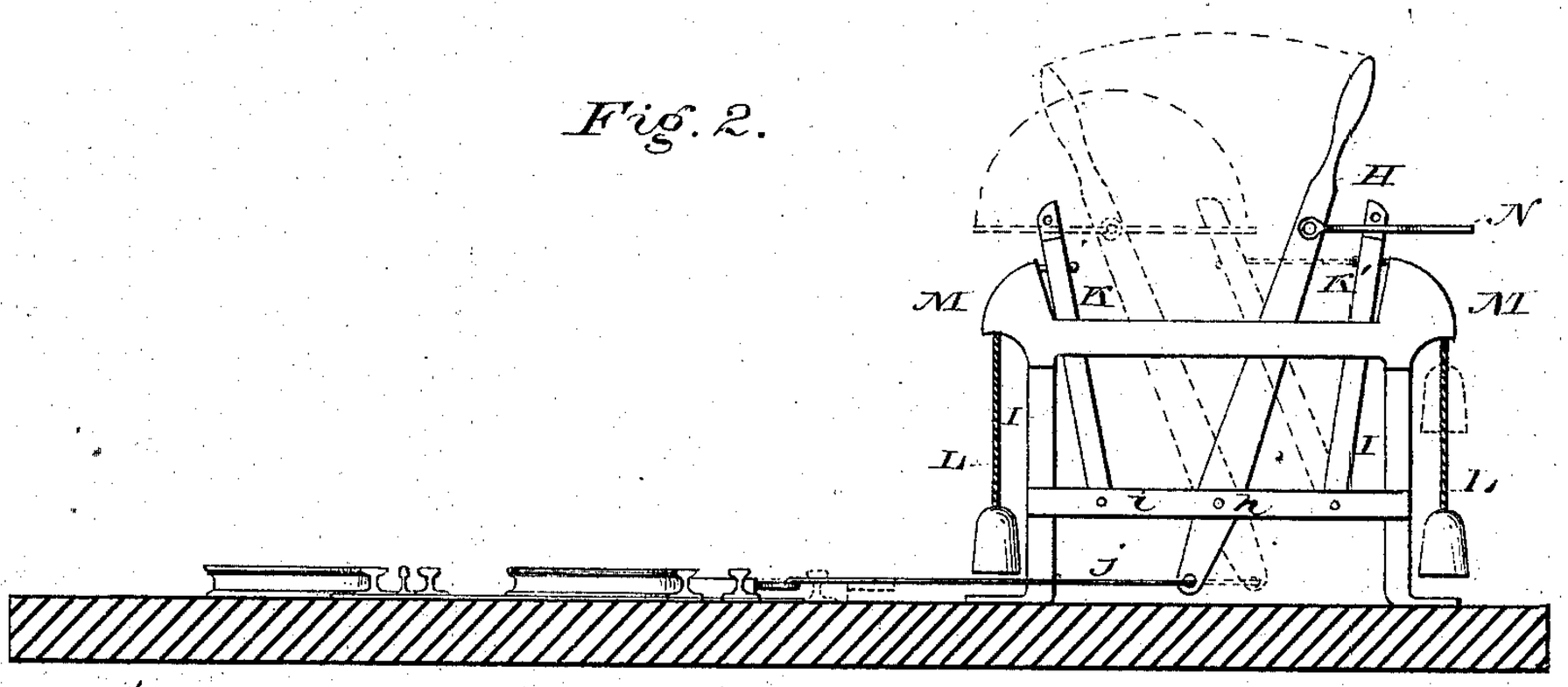


Fig. 2.



Witnesses:
J. M. Cushman
J. C. Reynolds

Inventor:
Henry N. Hopkins

UNITED STATES PATENT OFFICE.

HENRY N. HOPKINS, OF TAUNTON, MASSACHUSETTS.

IMPROVEMENT IN RAILROAD-SWITCHES.

Specification forming part of Letters Patent No. **219,475**, dated September 9, 1879; application filed January 3, 1879.

To all whom it may concern:

Be it known that I, HENRY N. HOPKINS, of Taunton, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Railroad-Switches; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top-plan view, showing the application of my improvements to constitute an automatic switch; and Fig. 2 is a side elevation of the same.

Similar letters of reference in the several figures denote the same parts.

My invention relates to improvements in devices for shifting and adjusting the movable rails of railroad-switches; and it consists in the construction and combination of parts which will be hereinafter described.

In the switch which I have represented in the drawings to illustrate the working of my improvements, A A^1 represent the rails of the main track; A^2 A^3, the rails of the continuation of the main track; B B′, the rails of the side track; C^1 C^2, the movable switch-rails separated by blocks *b* and pivoted at *c*, and adapted to be moved back and forth in bed, plates *d d*, to direct trains approaching on the main track either upon the side track or upon the continuation of the main track, as occasion may require; and F, a guard-rail.

The devices which constitute my invention are as follows: H is a hand-lever, pivoted at *h* to cross-bar *i* of a standard, I, at the side of the track. A stout rod or bar, *j*, connects the lower or shorter arm of this lever to the outer end of the switch-rails, and by moving the lever back and forth the switch-rails may be adjusted to direct the trains either upon the continuation of the main track or upon the side track.

It is often desirable that the switch-rails be so adjusted as to allow trains approaching on the main track in the direction of the arrow *y*, Fig. 1, to pass uninterruptedly onto the continuation of the main track, and yet be capable of being temporarily shifted to accommodate trains approaching from the side track onto the main track. To accomplish this result I arrange a pair of pivoted levers or arms, K K′, in the standard I upon opposite sides of the hand-lever H, and connect with said arms cords L, weighted at their lower ends, and passing over pulleys M, located near the upper corners of the standard. A catch or arm, N, pivoted to the hand-lever H, is adapted to engage with the upper end of the lever K or lever K′, accordingly as the said hand-lever is moved to the right or to the left.

When the switch is set to keep the switch-rail C^1 normally closed to the main-track rail A, as in Fig. 1, the catch or arm N is swung over and engaged with the lever K′. While in this position a train coming onto the main track from the siding will shift the switch-rails to the position indicated by the dotted lines, and cause the lever to be moved to the left and raise the weight. When the train has passed the weight drops back by gravity to its former position, and thus resets the switch. To keep the movable switch-rail C^2 normally adjuteds to rail A of the main track, the lever H is moved to the opposite side of the standard and connected to the other weighted lever, as will be readily understood.

I do not claim herein the combination of main and side tracks, pivoted switch-rails, and guard-rails, the same being shown and claimed in the patent to B. F. Farrar, No. 66,136, dated June 25, 1867; but

What I do claim is—

The combination of the standard I, pivoted hand-lever H, catch or arm N, weighted levers K K′, and connecting-rod *j* with the movable switch-rails, substantially as described, for the purpose specified.

HENRY N. HOPKINS.

Witnesses:

J. M. CUSHMAN,

J. C. REYNOLDS.