(No Model.)

N. CORT.

CROSS OVER SWITCH.

No. 332,641. Patented Dec. 15, 1885.

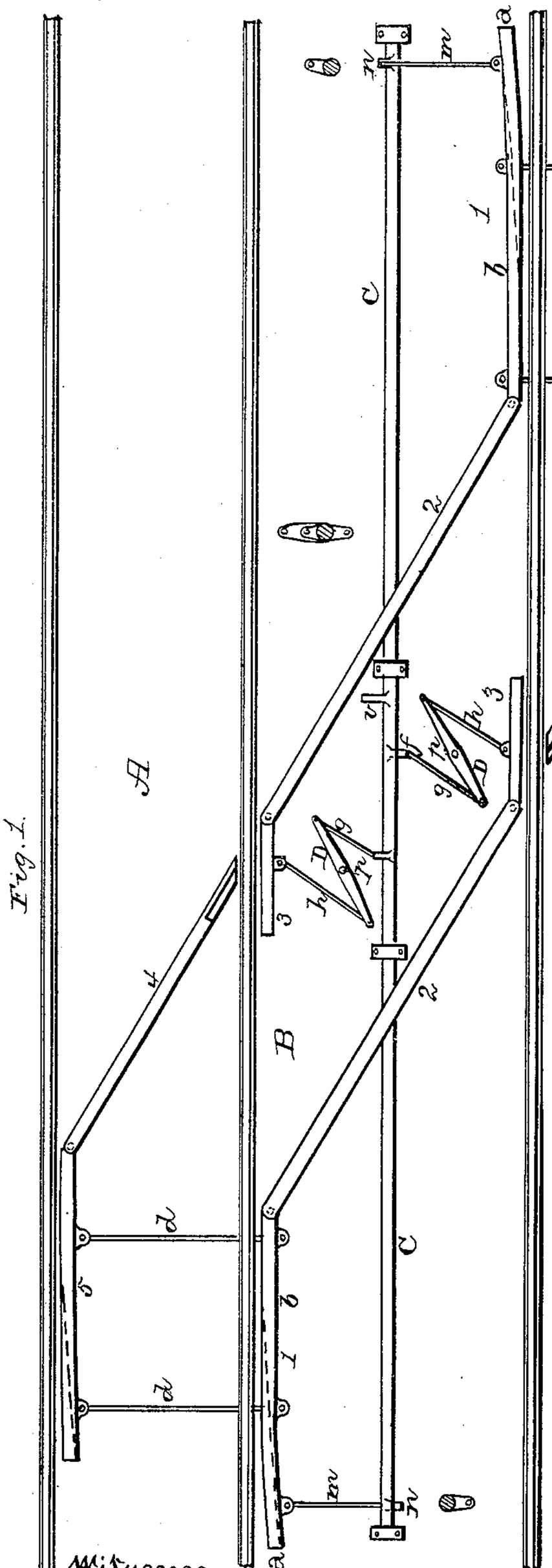

Fig. 1.

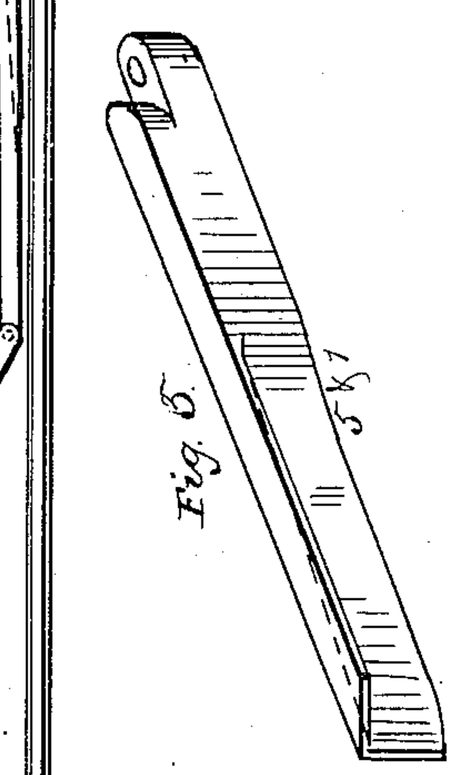

Fig. 5.

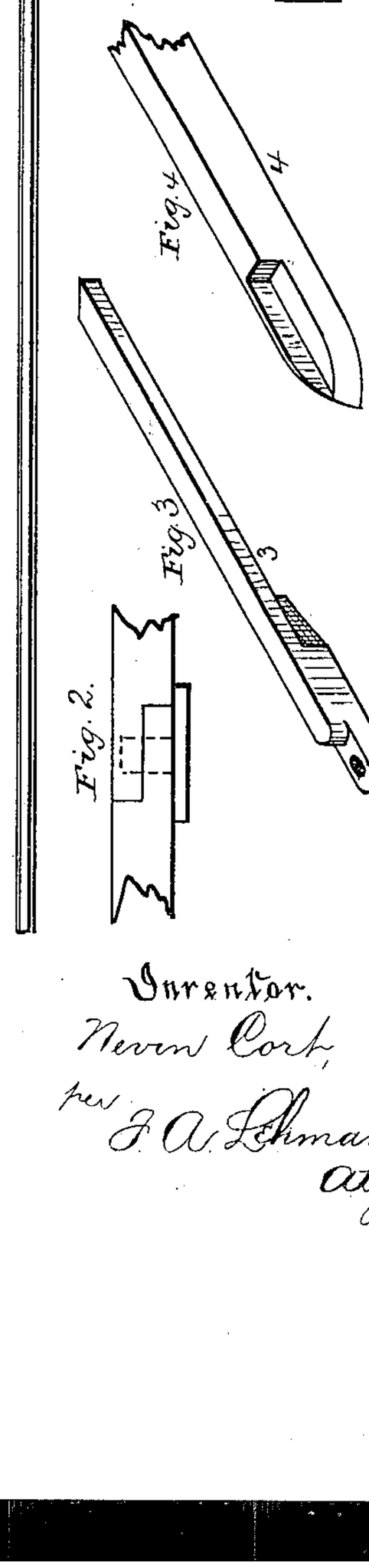

Fig. 4.

Fig. 3.

Fig. 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

NEVIN CORT, OF NEW FLORENCE, PENNSYLVANIA.

CROSS-OVER SWITCH.

SPECIFICATION forming part of Letters Patent No. 332,641, dated December 15, 1885.

Application filed February 24, 1885. Serial No. 156,876. (No model.)

To all whom it may concern:

Be it known that I, NEVIN CORT, a citizen of the United States, residing at New Florence, in the county of Westmoreland and State of Pennsylvania, have invented a new and useful Cross-Over Switch for the use of Railroads, of which the following is a specification.

My invention relates to an improvement in cross-over switches for the use of railroads; and it consists in a device to make cars pass from one main track to another parallel with it without breaking the main lines and without the use of frogs by the operation of a lever on a tumbling shaft or rod that controls or moves the switch on or away from the main lines, as will be fully described hereinafter.

The accompanying drawings represent my invention.

Figure 1 represents a plan of the switch and track; Fig. 2, a side elevation of joints; Fig. 3, a perspective view of parts 3; Fig. 4, a perspective view of parts 4; Fig. 5, a perspective view of parts 1 and 5.

A A represent two tracks of a main line of a railroad parallel to each other with the usual distance of six feet between them. B is a switch that extends diagonally from one track to the other. Both ends of the switch are alike. The receiving-points *a* of the switch at the side first encountered by the wheels of an engine or car are about three feet in advance of the opposite side, and gradually rising from *a* to *b*, to carry a train onto the switch from one main track to the other. The surface of the switch is level and at a height to prevent a contact of wheels with the underlying main track. The two sides of the switch, each composed of five pieces, 1 2 3 4 5, are alike, and the pieces 1 and 5, opposite to each other, are held together by rods *d*, by which they are simultaneously drawn over or away from the rails. The pieces 1 are at the outside of the inner rail of the main track, and the pieces 5 near the inside of the outer rail, both pivoted to the ties in a manner that their outer ends can be pushed over the rails of the main track or removed from it. The pieces 1 are pivoted to pieces 2, that extend diagonally over the space between the two tracks from one to the other, and are rendered immovable. To the pieces 2 are jointed the ends of shorter pieces 3, which pieces, leaving one end unattached, can be made to extend along the inner rails of the main lines, or to reach across them to join the pieces 4, by which they are supported. The pieces 4, which serve as braces to the pieces 3 when the switch is completed, are fixed and form the continuation between the pieces 5 and 3. All joints by which the parts of the switch are held together are half lap-joints. Between the two tracks of the main line, equidistant from both, is a lever or tumbling-shaft, C, of a length equal to that of the switch, and secured to the ties in a manner to be turned upon its axis. On this shaft C, between the pieces 2 of the switch, are two pins, *f*, one on top and one underneath, that serve for the attachment of arms *g* on double levers D, fulcrumed at *p*. The other arms, *h*, of the levers D are pivoted at the inside of the pieces 3, so that by turning the shaft C the free ends of pieces 3 are either pushed over the rails into the recesses on pieces 4 to close the switch or drawn away from it to leave the main track open. At both ends of shaft C are pins *n*, placed on top and underneath, to which pins rods *m* are attached that are jointed to the outer ends of pieces 1, so that when the shaft C is turned the ends of the switch are moved simultaneously with pieces 3 either on or off the rails of the main line, and with them the pieces 5. The lever *v* on the shaft C is for turning the switch on or away from the main line.

Having thus described my invention, I claim—

1. The combination of the partially-revolving shaft C, rods *m*, connected to opposite ends thereof, the switch-rails 1 5, and connecting-rods *d*, the ends of the rails 1 being placed in advance of the ones 5, substantially as shown.

2. The combination of the main tracks A and cross-over rails 2 4, extending across them, with the shaft C, rods *m*, rails 1 5, and rods *d*, substantially as described.

3. The combination of the main tracks A, the shaft C, rods *g h*, levers D, and the switch-rails 3, substantially as set forth.

4. The combination of the partially-revolv-

ing shaft C, rods *m*, connected to opposite ends thereof, the switch-rails 1 5, connected together, and the cross-over rails 2 3 4, the rails 3 being connected to the shaft C so as to be moved at the same time as the ones 1 5, substantially as specified.

5. The combination of the main tracks A, the shaft C, switch-rails 1 5, connected together and to the shaft, the rails 2 4 3, rods *g h*, and levers D, substantially as described.

NEVIN CORT.

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