(No Model.)

A. ROW.

RAILROAD SWITCH.

No. 251,067. Patented Dec. 20, 1881.

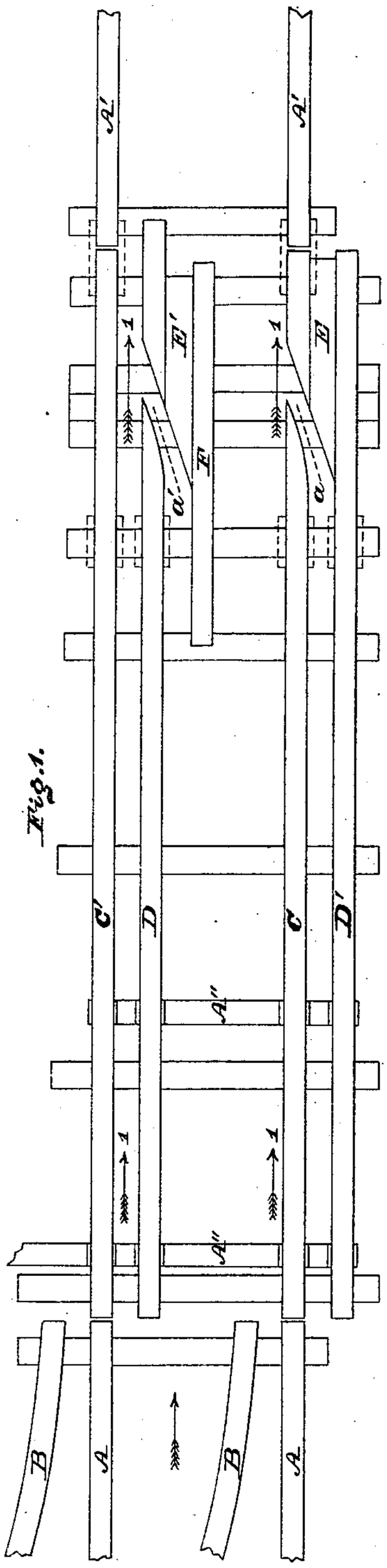

Fig. 1.

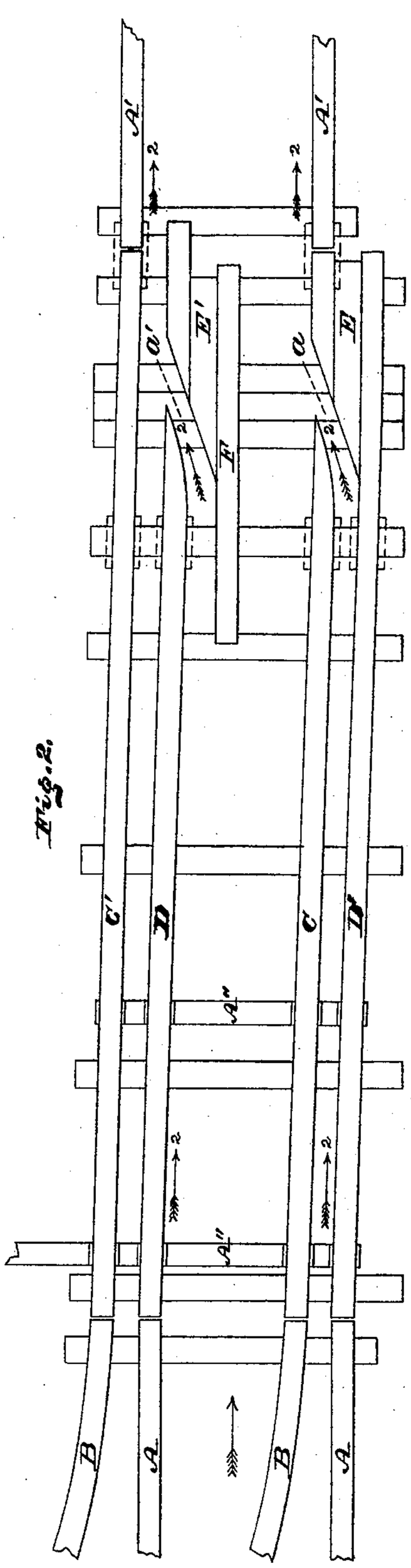

Fig. 2.

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AUGUSTUS ROW, OF PHILADELPHIA, PENNSYLVANIA.

RAILROAD-SWITCH.

SPECIFICATION forming part of Letters Patent No. 251,067, dated December 20, 1881.

Application filed September 27, 1881. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS ROW, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Railroad-Switches, which improvement is fully set forth in the following specification and accompanying drawings, in which the figures are plan views of the railroad-switch, in closed and open positions, embodying my invention.

The object of my invention is to guard against accidents resulting from the failure to reset or open the switch for the main track.

The invention consists in providing the switch-rails with auxiliary rails and appurtenances, substantially as hereinafter set forth, within the confines of the switch, said auxiliary rails being connected to the switch-rails so as to move as one, both rails of the main track and siding being immovable or bolted in position, whereby, when the switch-rails are in communication with sidings, turn-outs, &c., purposely or accidentally, the rails of the main track are in communication with the auxiliary rails, and the continuity of the main track is preserved, the cars thus running from the main track on the auxiliary rails of the switch at the head end thereof, and thereby regaining the main track at the butt-end of the switch, the present invention simplifying the construction of switches of this class and increasing the strength thereof.

Referring to the drawings, Figures 1 and 2 are plan views, showing the movable rails in their different positions.

A A′ represent the rails of the main track; B, the rails of a siding, turn-out, &c.; and C C′, the rails of the switch, both rails A A′ of the main track and both rails B of the siding or turn-out at the head end of the switch being immovable or bolted to the cross-ties.

D D′ represent rails which extend parallel with the switch-rails C C′, and are secured to the connecting-bars A″ thereof, said rails D D′ being separated from the rails C C′ equal to the space between the rails A′ B at the head end of the switch. The switch-rail C is cut transversely or separated near the butt-end of the switch, forming the throat *a*, which extends diagonally, and the auxiliary rail D is similarly cut or separated, forming the throat *a′*, the two throats being at coincident places of the two rails C D.

Interposed between the rails C D′, adjacent to the throat *a*, on the side toward the butt-end of the switch, is a filling-piece, E, the end of which facing the head of the switch is diagonal, and forms an extension of the th oat *a* to the rail D′.

Interposed between the rail D and a guard, F, on the inner side of the rail D, is a filling-piece, E′, which is adjacent to the throat *a′* on the side toward the butt-end of the switch. The end of the filling-piece E′ facing the head of the switch is diagonal, and forms an extension of the throat *a′* to said guard F. The filling-pieces and guard are firmly secured in position, and the butt-end of the switch is properly connected to the cross-ties. The head end of the switch has connected to it any suitable switch-lever, it being noticed that the auxiliary rails D D′ move as one with the switch-rails.

The operation is as follows: The switch is set or open for the main track, as in Fig. 1, and the train runs from the rails A of the main track over the switch-rails C C′, and so reaches the rails A′ of the main track beyond the switch, as shown by the arrows 1, Fig. 1. Should the switch be shifted from the main track to the siding, as in Fig. 2, and not be restored or reset to the main track, the cars coming on the rails A of the main track run on the auxiliary rails D D′, which are now in communication with said rails A of the main track, and are guided by the filling-pieces E E′ into the throats *a a′*, from whence they run on the rails C C′ at the butt-end of the switch, and so are directed on the rails A′ of the main track, as indicated by the arrows 2, Fig. 2.

It will be seen that in the position of the switch Fig. 2 the auxiliary rails D D′ are continuations of the rails A of the main track, so that although the switch-rails proper, C C′, are shifted the safety of the switch is not endangered, as for all practical purposes the switch is open to the main line for trains passing in the direction of the arrows, regardless of said rails C C′.

It is evident that the throats *a a′* may be disposed on the rails C D at the extreme butt-end of the switch, so as to be nearer the rails A′ of the main track than is shown; but in

either case it will be noticed that the throats of the switch are within the confines of the switch, so that the rails at the opposite ends of the switch are not necessarily disturbed or altered to locate the switch, excepting as far as it is requisite to provide the proper space for the length of the rails thereof.

The filling-pieces E E′, firmly bolted or secured in position, as has been stated, are braced on both sides, and, besides forming part of the throats *a a′*, increase the strength of the terminal portions of said throats where strain may be occasioned.

I am aware that it is not new to construct a switch of two parts, one part consisting of the rails of the main track, both movable, and the other part consisting of switch-rails, both movable, and auxiliary rails, both stationary, and disclaim such features; but in my invention the auxiliary rails and switch-rails are connected so as to move as one, and both rails of the main track and siding at the head end of said switch-rails are bolted down or fixed in position, whereby I avoid moving the rails of the main track and produce a strong, simple, inexpensive, and reliable switch.

Having thus fully described my invention and the advantages thereof, what I claim as new, and desire to secure by Letters Patent, is—

1. Switch-rails in combination with the auxiliary rails connected thereto, the throats, and the stationary rails of the main track and siding, whereby, when the switch is shifted to the siding, the auxiliary rails move with the switch-rails as one and preserve the continuity of the main track, said throats being within the confines of the switch, substantially as and for the purpose set forth.

2. The main track and siding, the switch-rails, the auxiliary rails, and the throats, in combination with the filling-pieces E E′, substantially as and for the purpose set forth.

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Witnesses:
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