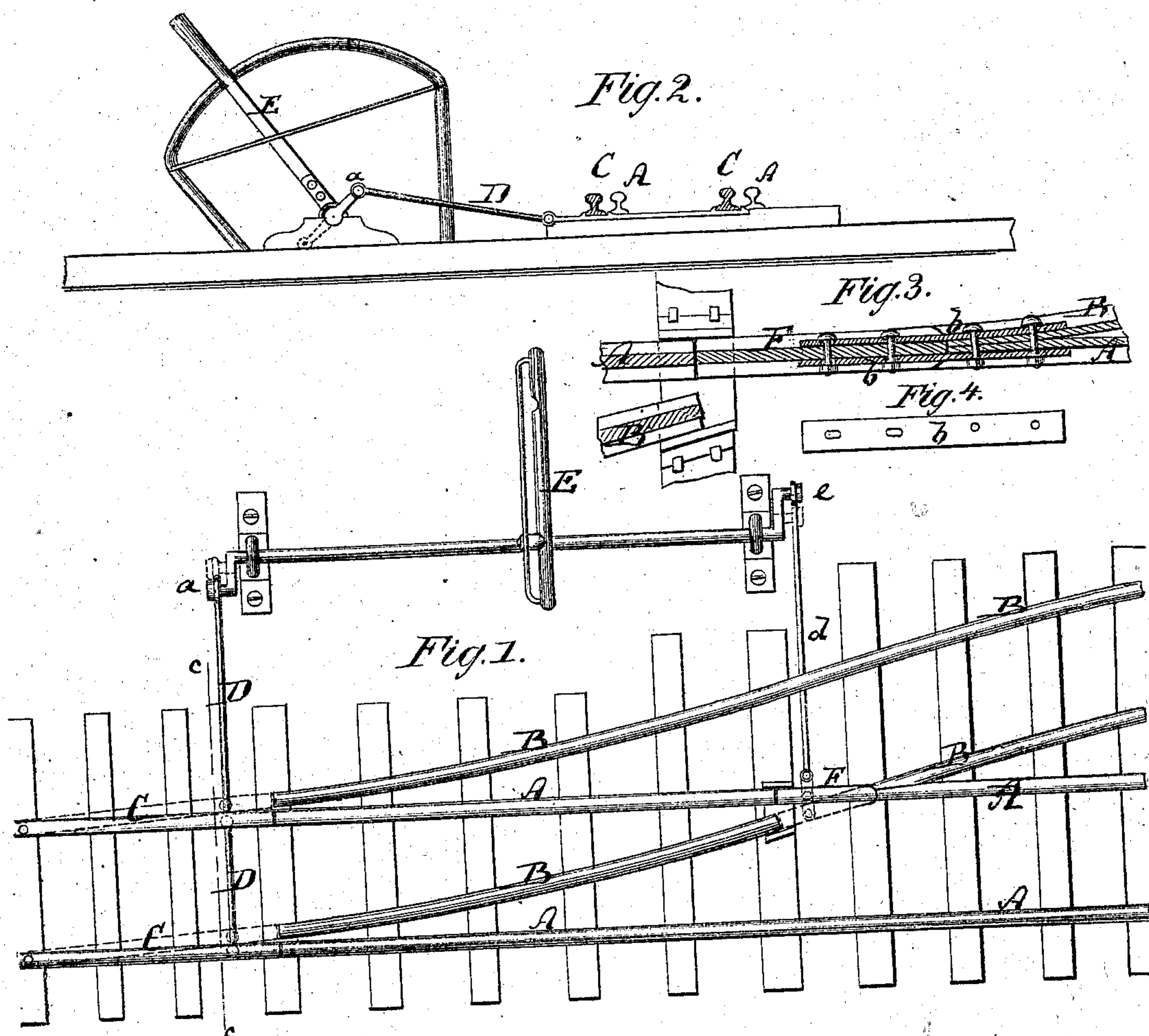


D. J. ARNOLD.
Railroad Switches.

No. 136,895.

Patented March 18, 1873.



Witnesses:
John Becker
Schmidt

Inventor:
D. J. Arnold
PER *Munn & Co.*
Attorneys.

UNITED STATES PATENT OFFICE.

DON JUAN ARNOLD, OF BROWNSVILLE, NEBRASKA.

IMPROVEMENT IN RAILROAD SWITCHES.

Specification forming part of Letters Patent No. 136,895, dated March 18, 1873.

To all whom it may concern:

Be it known that I, DON J. ARNOLD, of Brownsville, in the county of Nemaha and State of Nebraska, have invented a new and Improved Railroad Switch, of which the following is a specification:

Figure 1 is a top view of a railroad switch containing my improvement. Fig. 2 is a transverse section on the line *c c*, Fig. 1. Fig. 3 is a detail horizontal section of the movable frog-rail, showing the invention. Fig. 4 is a detail side view of one of the straps by which the same is fastened.

Similar letters of reference indicate corresponding parts.

The invention consists in the improvement of railroad switches, as hereinafter fully described and subsequently pointed out in the claim.

The letter A in the drawing represents the line of the main track, and B is a branch track entering the same. C C are the switch-rails, connected by a rod, D, with a crank, *a*, or equivalent device, to the switch-lever E, so that by moving said lever the switch-rail C may either be brought in line with the main track A, as by full lines in Fig. 1, or with the branch track B, as by dotted lines in the same figure. At the point where the rails of the two tracks A B cross each other, and where usually a triangular frog is placed, is arranged a movable short rail, F, which is, by straps *b b*, connected with the crossing-rails, as shown in Fig. 3, and which is further connected, by a rod, *d*, with another crank, *e*, of the lever E.

The straps *b b* are so made or constructed with elongated bolt-holes, as shown in Fig. 4, as to allow the frog-rail F to be swung into line with the rail A, or with the rail B, as may be desired. Being connected with the lever E, the frog-rail F will be moved simultaneously with the switch-rails C, but in opposite direction thereto, in such manner that when the switch is brought in line with the main track A the frog-rail also will be brought into line with that rail of the track A in which it is placed, as is clearly shown by the full lines in Fig. 1; and when the switch is brought in line with the track B the frog-rail F will be brought in line with that rail of the track B in which it is placed, as indicated by dotted lines in Fig. 1. In either case the wheels of the train passing over the connected track will find continuous rails, and no obstructions similar to those usually offered by railroad frogs.

I am aware that the movable short rail is not new in itself, and I do not wish to be understood as making any claim thereto.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The straps *b b* connecting the swinging frog-rail F to the crossing-rails A B, and made with elongated bolt-holes to allow the requisite vibration of the rail F, as set forth.

DON JUAN ARNOLD.

Witnesses:

J. F. LIVINGSTON,
F. A. HACKER.