

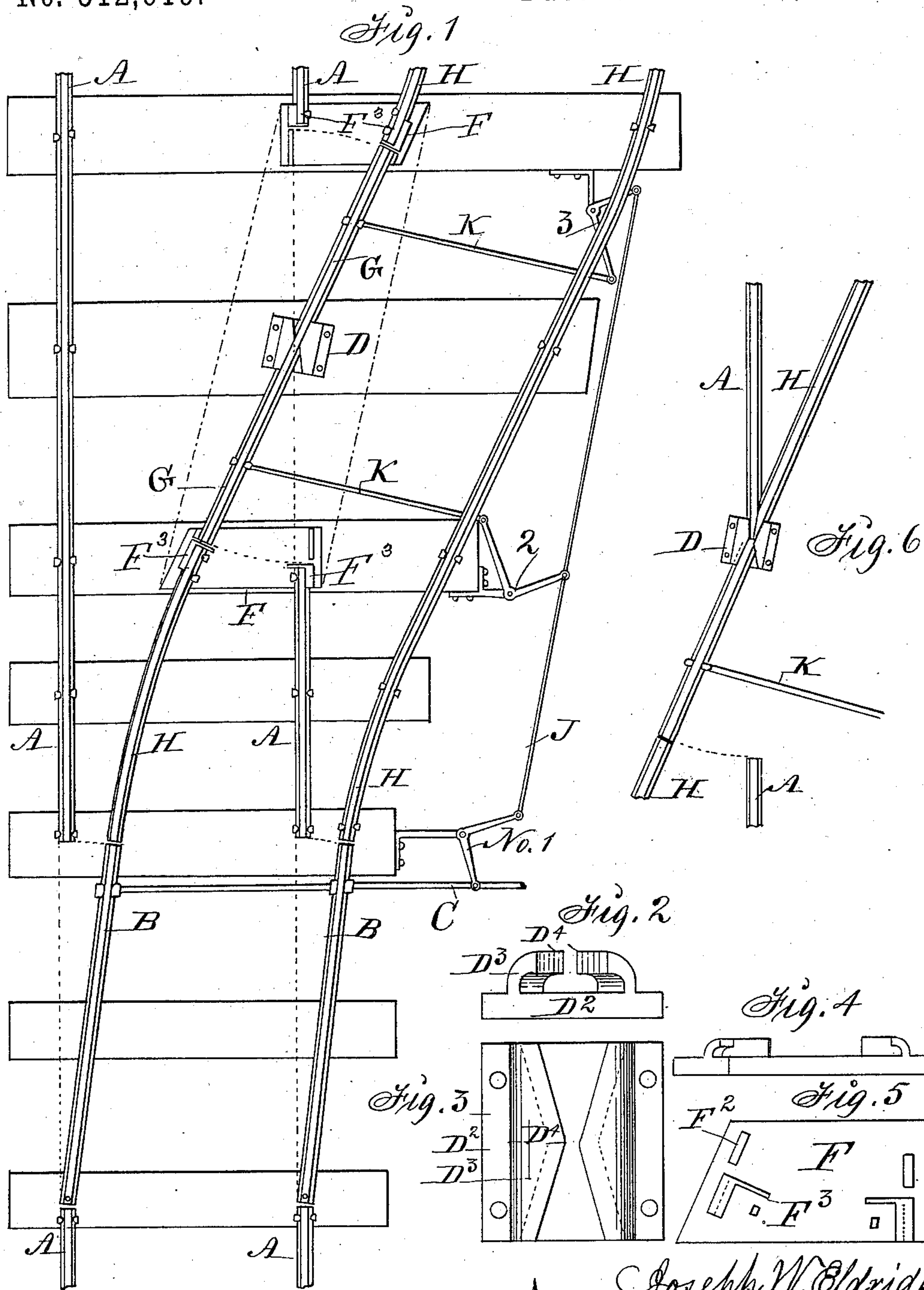
(No Model.)

J. W. & F. N. ELDRIDGE.

ADJUSTABLE RAILWAY FROG AND SWITCH COMBINED.

No. 312,619.

Patented Feb. 24, 1885.



Witnesses:
M. V. Anderson.
Orra L. Moore.

Inventors: { Joseph W. Eldridge,
Frank W. Eldridge,
By Thomas G. Orwig, Att'y.

UNITED STATES PATENT OFFICE.

JOSEPH W. ELDRIDGE AND FRANK N. ELDRIDGE, OF STUART, IOWA.

ADJUSTABLE RAILWAY FROG AND SWITCH COMBINED.

SPECIFICATION forming part of Letters Patent No. 312,619, dated February 24, 1885.

Application filed May 6, 1884. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH W. ELDRIDGE and FRANK N. ELDRIDGE, of Stuart, in the county of Guthrie and State of Iowa, have
5 invented an Adjustable Railway Frog and Switch Combined, of which the following is a specification.

Our object is to dispense with the fixed frogs and guard-rails commonly used in rail-
10 ways for guiding cars from one line of rails to another, and to avoid the dangers and accidents, maiming of persons, and loss of life and property incident to the use of such devices.

15 Our invention consists in the construction and combination of railway-chairs adapted for an adjustable rail-section, a pivoted rail-section, fixed parallel track-rails, a railway-switch, and operating mechanism, as herein-
20 after fully set forth, in such a manner that the pivoted rail-section and the switch can be simultaneously operated and adjusted, by one motion of the switch-lever, to guide a car or train of cars from one line of rails or complete
25 track to another.

Figure 1 of our accompanying drawings is a top or plan view of our complete device. Fig. 2 is an end view, and Fig. 3 a top view, of our
30 chair adapted for supporting an adjustable rail-section. Fig. 4 is an end view, and Fig. 5 a top view, of one of our chairs adapted for fixed rails, and also an adjustable section.

Jointly considered, these figures clearly illustrate the construction, operation, and utility
35 of our complete invention.

A A represent the parallel rails of a main track fixed to cross-ties.

B B are the pivoted sections that form the switch in the same main track.

40 C represents the rod by which the switch is moved, by means of a lever, in a common way.

D represents our chair adapted to support an adjustable rail-section. It consists of a flat plate and base, D², that is adapted to be
45 spiked fast upon a cross-tie, and two angular and arched flanges or projections, D³, that extend toward each other to engage the web of a piece of T-rail, that can be slipped between them to rest upon the base when it is stationary, and to slide therein when it is moved up-
50 on the pivotal points D⁴ of the arched projec-

tions D³, that engage the opposite sides of the web of the rail.

F F represent our two chairs in position as required to support the ends of fixed rails, 55 and also the ends of the adjustable section G, pivoted in the chair D. Each chair F is composed of a plate and base that has two vertical projections, F², that are in inclined positions relative to each other and at the opposite ends 60 of the base to restrict the movements of the adjustable rail G, and two right-angled projections, F³, in line with the projections F².

H H are the parallel rails of a branch track. The ends of the contiguous rail-sections A and 65 H, at the opposite ends of the pivoted section G, engage the right-angled projections F³ on the chairs F, to which they are fixed by means of spikes driven through perforations in the chair down into the ties, or in any suitable 70 way.

Nos. 1 2 3 are elbow-shaped levers or bell-cranks that have their bearings fixed to the cross-ties or some other suitable supports. They are connected with each other by means 75 of a rod, J, and with the pivoted rail-section G by means of rods K, and with the switch-operating rod C, as clearly shown in Fig. 1, or in any suitable way, so that the reciprocating motion of the switch-operating rod C will 80 actuate them and vibrate the pivoted rail-section G, as required, to direct a car or train from the main track A A to the branch track H H.

In Fig. 6 the ends of the rails A and H are 85 shown joined together in the chair D and the pivoted section G reduced in length.

From the foregoing description of the construction and function of each part the practical operation and advantages of our com- 90 plete invention will be obvious to practical railway-men.

We claim as our invention—

1. A railway-chair composed of a base adapted to be fixed upon a cross-tie or other solid 95 support, and two vertical projections that extend toward each other to overlap the flange of a rail, and that terminate in pivotal points to engage the web of an adjustable rail-section, as set forth, for the purposes specified. 100

2. The combination of a main railway-track, A A, a switch, B B C, a chair, D, two chairs,

F, an adjustable rail-section, G, and a branch track, H H, to operate in the manner set forth, for the purposes specified.

3. The railway-track A A, the switch-rails
5 B B, having an operating rod and lever combined therewith, the chair D D² D³ D⁴, the two chairs F F² F³, the adjustable rail-section G, the branch track H H, the levers Nos. 1 2 3, and the rods J K K, arranged and combined

substantially as shown and described, to operate in the manner set forth, for the purposes specified.

JOSEPH W. ELDRIDGE.
FRANK N. ELDRIDGE.

Witnesses:

J. M. GEORGE,
F. A. AGNEW.