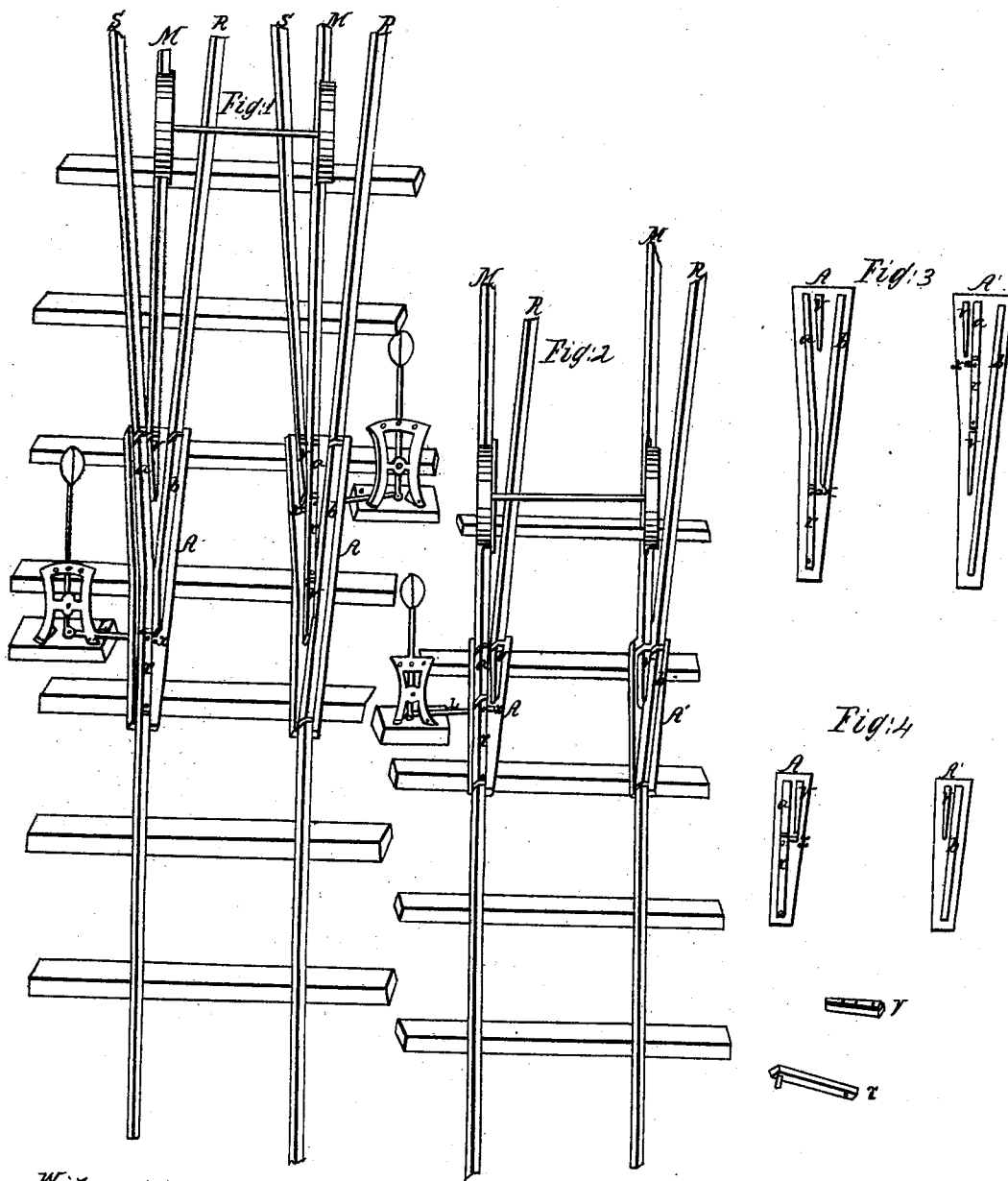


A. Rosewater. *Railroad Switch.*

Nº 89,691.

Patented May 4, 1869.



Witnesses

Cornelius B. Griffin
Charles F. Palmer

Inventor

Andrew Rosewater

United States Patent Office.

ANDREW ROSEWATER, OF OMAHA, NEBRASKA.

Letters Patent No. 89,691, dated May 4, 1869.

IMPROVED RAILWAY-SWITCH.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ANDREW ROSEWATER, of the city of Omaha, county of Douglas, and State of Nebraska, have invented a new and useful machine, to be known as a "Railroad-Switch Chair," and used for the purpose of guiding cars or trains from main to side and side to main tracks; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, forming a part of this specification, in which—

Figure 1 represents a perspective view of the railroad-switch chairs, as constructed when applied to two side tracks;

Figure 2 represents a perspective view of the railroad-switch chairs, as constructed when applied to one side track;

Figure 3 shows a plan of the railroad-switch chairs, as constructed for two side tracks; and

Figure 4 represents a plan of the railroad-switch chairs, as constructed for one-side track, and details of two rails common to both chairs, and marked *v* and *r*.

The chair A, figs. 1 and 3, consists of an iron plate, cast with the raised rails *a*, *b*, and *v*, shaped, constructed, and arranged as shown in the drawings.

The rail *v* and wedge-shaped portion of the rail *b* are secured from the wear of car-wheels by a covering of steel plate riveted to the rails, as shown in *v*, fig. 4.

In front of the pointed or narrow end of the rail *b* of the chair A, figs. 1 and 3, is a groove, X, cut through the entire thickness of the plate, and of sufficient size to admit the free lateral motion of the bolt extending from the under portion of the rail *r*, fig. 4.

The rail *r* of chair A, figs. 1 and 3, consists of a rectangular bar of cast or wrought-iron, secured to the plate by a movable bolt or pivot, which is held in its place by a nut at its lower end. The opposite end of the rail *r* is movable over the groove X by a bolt passing through it, with a thread cut at its lower end, and riveted to the rail, if the rail is of wrought-iron, and secured in the rail, if of cast-iron, while being cast.

The movable rail *r* can be adjusted to the main or side track at pleasure, by the switch-lever, which moves the arm L, to which said rail is attached by the projecting bolt and secured by a nut.

The chair A', figs. 1 and 3, consists of a cast-iron plate with raised rails *a*, *b*, *v*, and *v*, constructed and arranged as shown in the drawing.

The upper surface of the rails *v v* is protected by steel plates similar to those previously described, and shown in *v*, fig. 4.

The rail *r* is of the same size, and constructed and applied similarly to the rail *r* of chair A, figs. 1 and 3, as shown in detail in *r*, fig. 4.

Figs. 2 and 4 represent the chairs, as constructed when applied to one side track.

The construction and arrangement of the wedge-shaped rails *v v* and movable rail *r* are similar to those of the lower end of the chairs A and A', figs. 1 and 3.

The rail *a* in chair A, figs. 4 and 2, terminates at the point. It is represented to angle to the left in figs. 1 and 3, and it connects directly with the main-track rail M.

The application of chairs, fig. 3, to two side tracks is explained by the fact that the momentum of a car or train moving on a straight line tends to keep it moving in the same direction, unless prevented by an obstruction.

If, then, the movable rails *r r* are adjusted to the main-track rails M M, the cars coming from either direction can move straight without obstruction. The wheels passing over the wedge-shaped rails *v v* will, when over their narrowest point, rest partly on the rails adjoining them, on the same principle which allows them to pass over railroad-frogs in ordinary use. Upon the same principle, cars coming from side tracks will move upon the main track, their wheels being guided by their flanges, as on ordinary curves.

The advantage gained by the use of these switch-chairs consists in the saving of time usually occupied in stopping and switching when moving from side to main tracks.

When moving from the main track toward a switch, cars are guided to the right-hand side track by the switch-lever, which moves the rail *r* of chair A, figs. 1, 2, 3, and 4, and to the left-hand track by the lever connected with the movable rail *r* of the chair A' of the same figure.

Should either of the movable rails *r r* be left adjusted to the wrong track, the danger of cars being thrown off the track, would be materially less than on an ordinary switch, there being in this combination of chairs always one rail connected in direct line with the main track.

Claims.

1. I claim the plate of the switch-chair A, cast with the groove X, and the raised rails *a b v*, and provided with the movable rail *r*, all arranged as described for the purpose specified.

2. I also claim the switch-chairs A' and A, figs. 1 and 3, as constructed, combined, and applied to one main and two side tracks, and the chairs A and A', figs. 2 and 4, as constructed, combined, and applied to one main and one side track, as herein set forth.

ANDREW ROSEWATER.

Witnesses:

WM. KIP,
EDWARD ROSEWATER.