R. Harper,

Railroad Switch,

No. 52,361. Patented Jan. 30 1866.

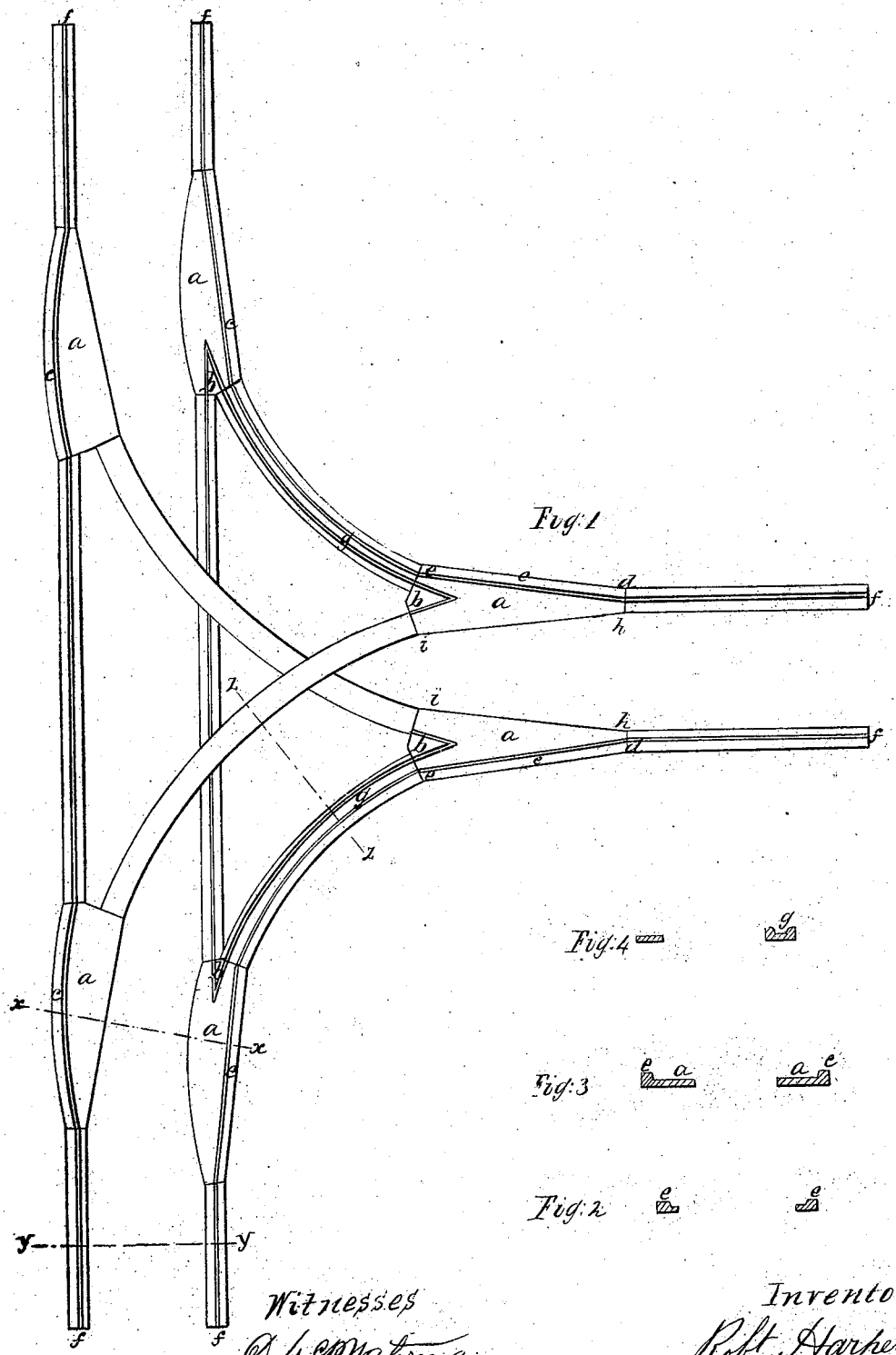

Fig: 1

Fig: 4

Fig: 3

Fig: 2

Witnesses
D. McPherman
M. M. Pettis

Inventor
Robt Harper

UNITED STATES PATENT OFFICE.

ROBERT HARPER, OF CHELSEA, ASSIGNOR TO E. C. HARRINGTON, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN RAILROAD TURN-OUTS.

Specification forming part of Letters Patent No. **52,361**, dated January 30, 1866; antedated January 17, 1866.

To all whom it may concern:

Be it known that I, ROBERT HARPER, of Chelsea, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Rails for Car-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 accompanying drawings, forming a part of this specification, in which—

Figure 1 is a plan showing the application of my improved rail for turning cars at the forks or branches of railroads. Fig. 2 is a section of the rail commonly in use for street-cars, as shown at the dotted lines *y y*. Fig. 3 is a section of my improved rail as applied to the fork or turn of the track, as shown at the lines *x x*. Fig. 4 is a section of the rails used on the curve of a track, as shown at the dotted line *z z*.

The nature of my improvement consists, first, in constructing the rails at the forks or turn of a track for street-cars, so that a car may be drawn upon either branch of the road or track without the use of a movable switch; second, the construction of a fixed wedge or tongue, in combination with the rail, to aid in turning the car.

In order to enable others skilled in the art to make and use my improvement, I will now proceed to describe its construction and the operation of the same.

I construct the rails or sections of the tracks at the point where the road-track branches or forks with a wide flat base, as shown at *a a*, Fig. 1. I construct, instead of a movable switch, a fixed block or tongue, *b b*, Fig. 1, forming the termination or commencement of a fork or branch. The block may be cast upon the base of and form a part of the rail, or it may be constructed separate from the rail and applied to it in any obvious manner.

The flange *c* on the rail, the shape of which is shown in Fig. 2, is constructed on a straight line from *d d* to *e e*, Fig. 1, so that as a car approaches the forks from the point *f f* it may be drawn upon either track, and whichever way it is turned the flange *c* will guide it past the point of the tongue into the grooved rail *g*, the shape of which is shown in Fig. 4.

The base of my rail is widened from *h h* to *i i*, as shown in Fig. 1, so that as the wheels of the car are drawn along and against the flange of the rail on one side the wide base of the rail presents a smooth surface for the wheels to roll upon as they pass on the inside of the wedge or tongue on the opposite side.

As the flange of the rails are constructed on a straight line past the point of the tongue or fork, as shown in the drawings, it is obvious that, if a car is drawn by a team, whichever way the team turns the car will readily follow, thus obviating the necessity for a movable switch to turn a car.

Where a track branches from a straight or nearly straight one the flange *c* (dotted line) on the rail opposite from the tongue may be curved a little outward to give sufficient room for the wheels to pass entirely clear from the tongue, thus insuring the cars passing upon the straight track when desired. It will also aid in preventing the car from running over the flange and off from the track as it passes from the curved track upon the straight one.

It is plain that from the simplicity of my device it can be cheaply constructed, and is also very durable, whereas most devices for this purpose are liable to get out of order, and are expensive to construct; and as the use of my improvement will enable persons to dispense with the use of movable switches and the expense of attending them, its advantages will be obvious to those having experience with street-cars.

What I claim as new, and desire to secure by Letters Patent, is—

1. The rails *c c*, constructed and used at the fork or branch of a railroad, for cars to be drawn over by any kind of power, substantially as described, and for the purpose specified.

2. The base *a a* of the rails, constructed and used substantially as described, and for the purpose specified.

3. The tongue or wedge *b*, constructed and used substantially as described, and for the purpose specified.

4. Making the flange *c* of the said rails on a curve, when combined with the turn-out rails, and with wedge *v*, substantially as described, and for the purpose specified.

ROBT. HARPER.

Witnesses:
D. McP. WATERMAN,
M. M. PETTES.