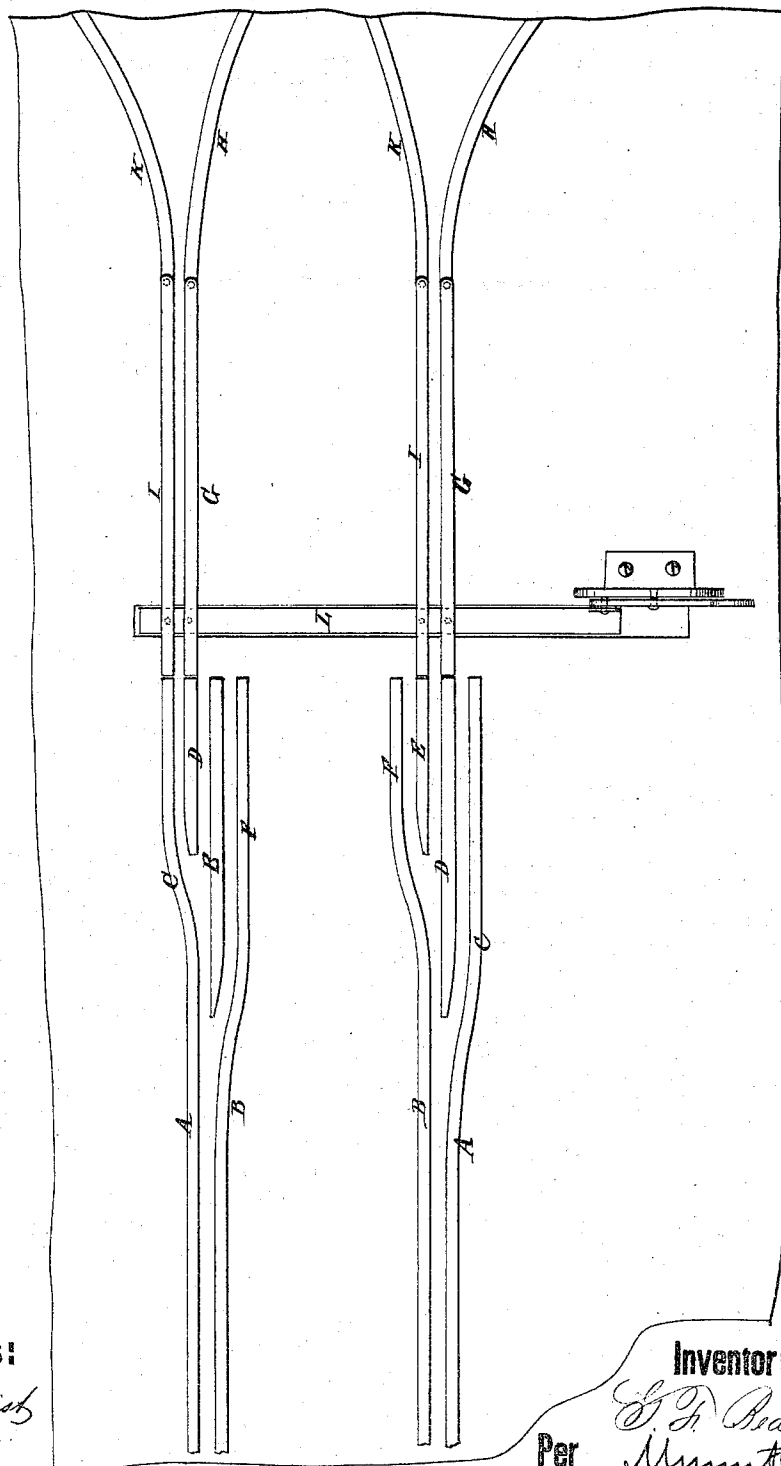


G. F. BEATTY.
Railway Switches.

No. 144,014.

Patented Oct. 28, 1873.



Witnesses:

A. W. Almquist
Almquist

Inventor:

G. F. Beatty
Per *Mumt*

Attorneys.

UNITED STATES PATENT OFFICE.

GEORGE F. BEATTY, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN RAILWAY-SWITCHES.

Specification forming part of Letters Patent No. **144,014**, dated October 28, 1873; application filed August 16, 1873.

To all whom it may concern:

Be it known that I, GEORGE F. BEATTY, of Boston, Suffolk county and State of Massachusetts, have invented a new and Improved Railroad-Switch, of which the following is a specification:

My invention consists of a combination of guard-rails with the main rails at the junction of the switch with the main rails in a manner calculated to prevent the running of the trains off, no matter how the switch may happen to be adjusted.

The drawing is a plan view of the switch arranged according to my invention.

A represents the main rails; B, long inside guard-rails; C, portions of the main rails, bent outward to form guard-rails; D, short rails, forming prolongations of the main rails in their right lines; E, short guard-rails between rails D and the portions F of the long inside guard-rails B, which are bent inward of the short guards E, which are prolongations of the rails B in their right lines. G represents the switch-rails of the branch H, and I the switch-rails of the branch K. The switch-rails of one side coincide with the rails D and E when those of the other side coincide with the rails C D.

The object is to run the trains from the branches onto the main rails by the direct

course over the short rails D, and for that purpose the switch-rails, of whichever branch the train is to come from, will be adjusted by the switch-bar L to coincide with said rails D; but should the rails G be adjusted to them by mistake when the train is to come from the branch K, it must still run onto the main rails, but it will pass between E and F on one side, and D and C on the other; and in case the rails I should be set to the rails D when the train is to come from the branch H, still the train will ultimately run on the main rails, going between D and C on one side, and E and F on the other side, so that in both cases (which are the only misplacements which can be made, owing to the limit of movement of the switch-bar) the trains will only be caused to run indirectly, but will go on the main rails all right.

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

The main rails A, having the outward bend C, the inside long guard-rails B, having the inward bends F, and the short guard-rails D and E, and the switch-rails I G, all combined and arranged substantially as specified.

GEORGE F. BEATTY.

Witnesses:

W. C. LAMBERT,
R. A. DUGGAN.