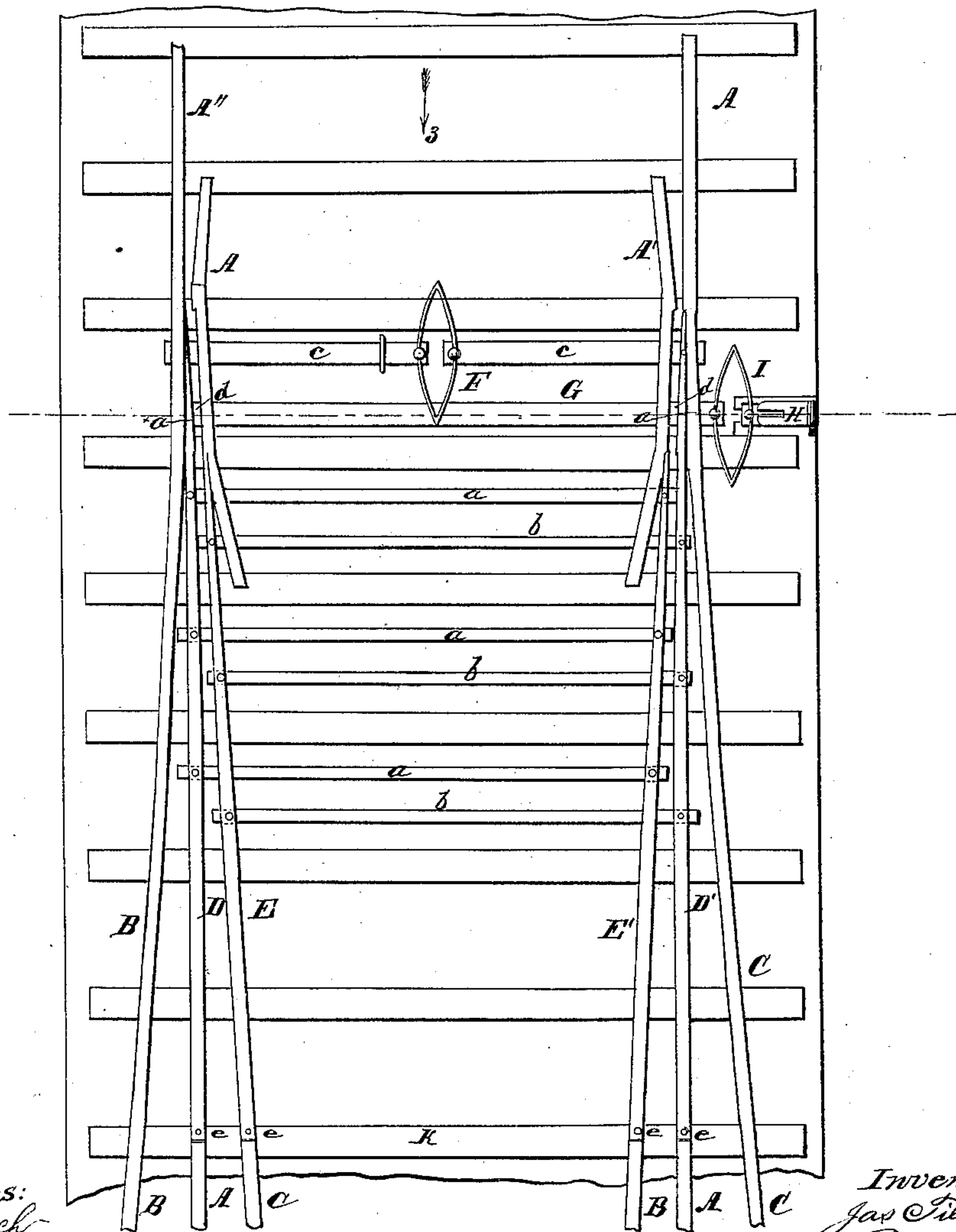
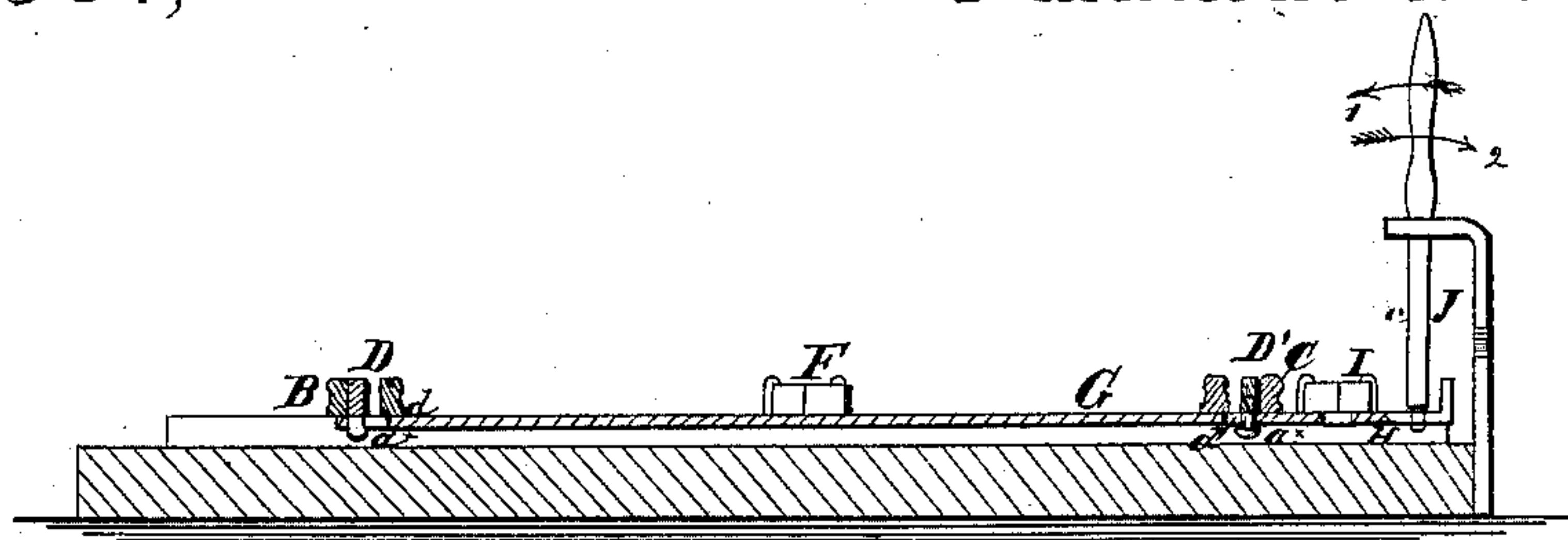


J. Tillinghast,

Railroad Switch,

Nº 63,337,

Patented Mar. 26, 1867.



Witnesses:
Geo. Fusch
J. A. Sewell

Inventor:
Joe Tillinghast
Per Murray & Co
Attorneys

United States Patent Office.

JAMES TILLINGHAST, OF BUFFALO, NEW YORK.

Letters Patent No. 63,337, dated March 26, 1867.

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, JAMES TILLINGHAST, of Buffalo, in the county of Erie, and State of New York, have invented a new and improved Triple Switch for Railways; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and improved triple switch for railroads, and it consists in constructing the switch in such a manner that it may be set in line with either of two branch tracks, so that a train may pass from the main track upon either of the branch tracks, as desired, and in case of the switch not being reset in line with the main track after a train has passed upon a branch track, a train on the main track in passing upon the switch in an opposite direction will be capable of adjusting the switch properly in line with the main track. The object of the invention is to avoid accidents by a wrong adjustment of the switch, a contingency of not unfrequent occurrence, especially in those cases where triple switches are employed. In the accompanying sheet of drawings—

Figure 1 is a transverse vertical section of my invention taken in the line *x x*, fig. 2.

Figure 2, a plan or top view of the same.

Similar letters of reference indicate corresponding parts.

A A represent the rails of the main track of a railroad, and B B, C C, the rails of two branch tracks, all of which are shown clearly in fig. 2. The switch is composed of four rails, D D' E E', all of which are also shown in fig. 2, two rails, D E, being at one side of the track, and the other two, E E', at the other side. The rails D E' of the switch are connected by cross-bars *a*, and the rails E D are connected by cross-bars *b*, and the rails D D' are connected at their free or disengaged ends by bars *c c*, the inner ends of the latter being connected by an elliptic spring, F. These bars, *a b* and *c c*, are all connected to their respective switch-rails by pivots, so that no independent play is allowed them in the operation of the switch. G is a cross-bar connected to the two switch-rails D D' by pivots, *a x*, which pass through oblong slots, *d d*, in said bar, as shown clearly in fig. 2, and the cross-bar G is connected at one end with a bar H, by means of an elliptic spring, I, a hand-lever J being connected to bar H, as shown clearly in fig. 1. The switch-rails are pivoted at one end to a sleeper or tie, K, as shown at *e*, fig. 2.

From the above description it will be seen that the spring F has a tendency to keep the free or disengaged ends of the switch-rails D D' in contact with the main rails A A, and also to keep the pivots *a x* of said switch-rails in the outer parts of the oblong slots *d d*. When the lever J, therefore, is not actuated, the switch-rails D D' will be in line with the main rails A A of the track, as shown clearly in fig. 2. When it is desired to adjust the switch in line with the branch track C C, the lever J is moved in the direction indicated by the arrow 1, and the bar G moves the free or disengaged end of the switch-rail D' in contact with the adjoining guard A', the spring F being thereby compressed, and the switch-rail E moved from D' by the cross-bars *b*, so that the free or disengaged end of E will be in contact with the switch-rail D. In order to adjust the switch in line with the branch track B B, the lever J is moved in the opposite direction, as indicated by the arrow 2, and the free or disengaged end of the switch-rail D is moved in contact with the adjoining guard A'', and the switch-rail E' is moved from D by means of the cross-bars *a*, so that the free or disengaged end of E' will be in contact with D'. It will be seen that the oblong slots *d d*, in the cross-bar G, perform an important function, to wit, they admit of the switch-rails D D' being moved separately or independently of each other. The springs F I are also an important feature, as they admit of the flanges of the car-wheels adjusting the switch-rails when the former are passing off from a branch track with which the switch is not set in line. In case a train is passing along on the main track in the direction indicated by arrow 3, and the switch-rails should be set in line with one of the branch tracks, and it is designed to have the train continue on the main track, no accident could occur, only a trifling loss of time would be incurred. The arrangement, as a whole, is extremely simple and efficient, may be applied at a small cost, and there are no parts liable to get out of repair or become deranged by use.

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

A triple switch for railroads, composed of the rails D D' E E', connected respectively by the cross-bars *a b*, with the cross-bar G applied to the rails D D', through the medium of the oblong slots *d d*, and pivots *a x*, and connected to the lever-bar H by the spring I and the bars *c c*, connected by the spring F, and attached to the switch-rails D D', all arranged to operate substantially in the manner as set forth.

JAMES TILLINGHAST.

Witnesses:

WM. H. GRIMES,

D. F. GATES.