

(No Model.)

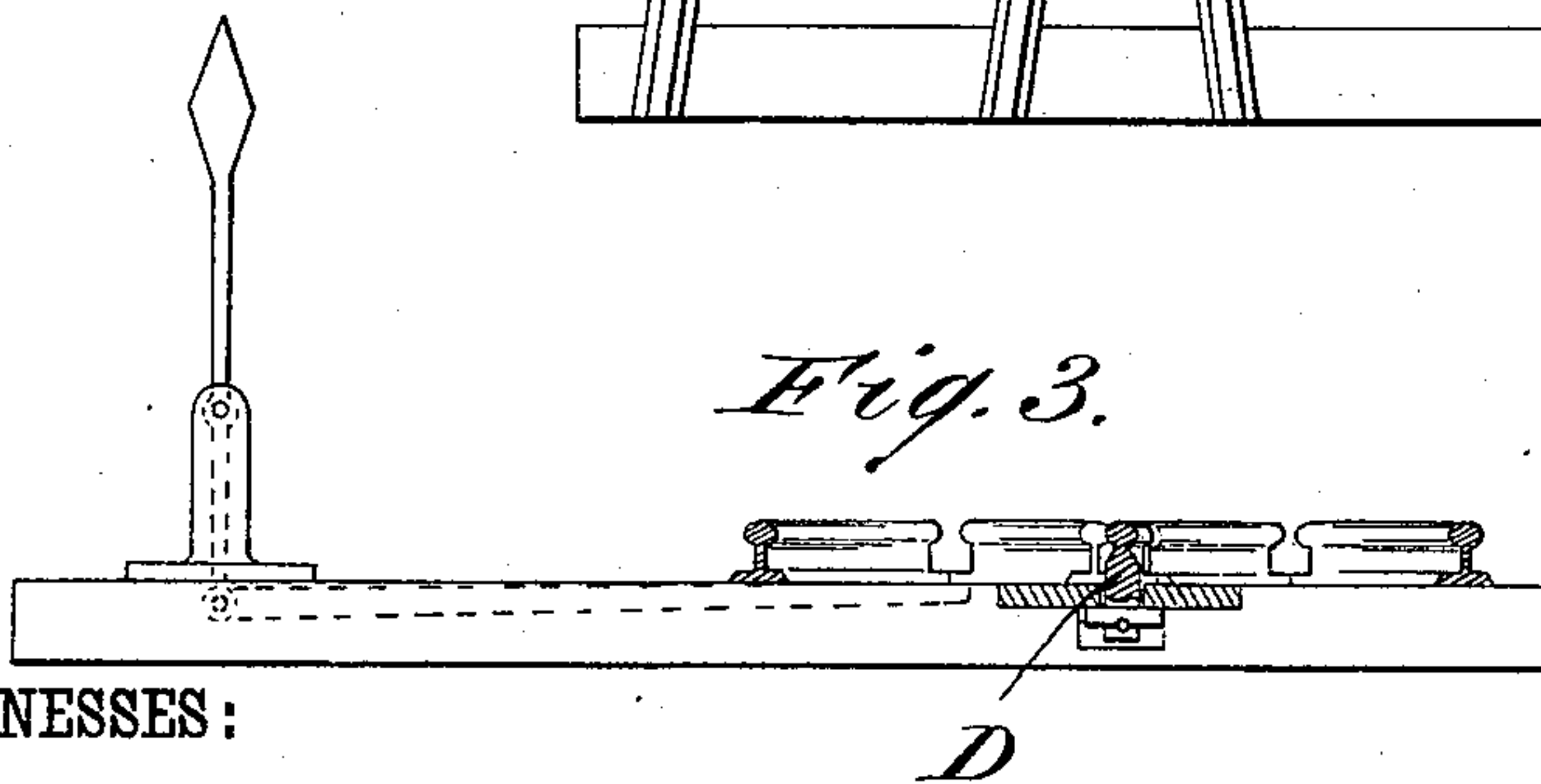
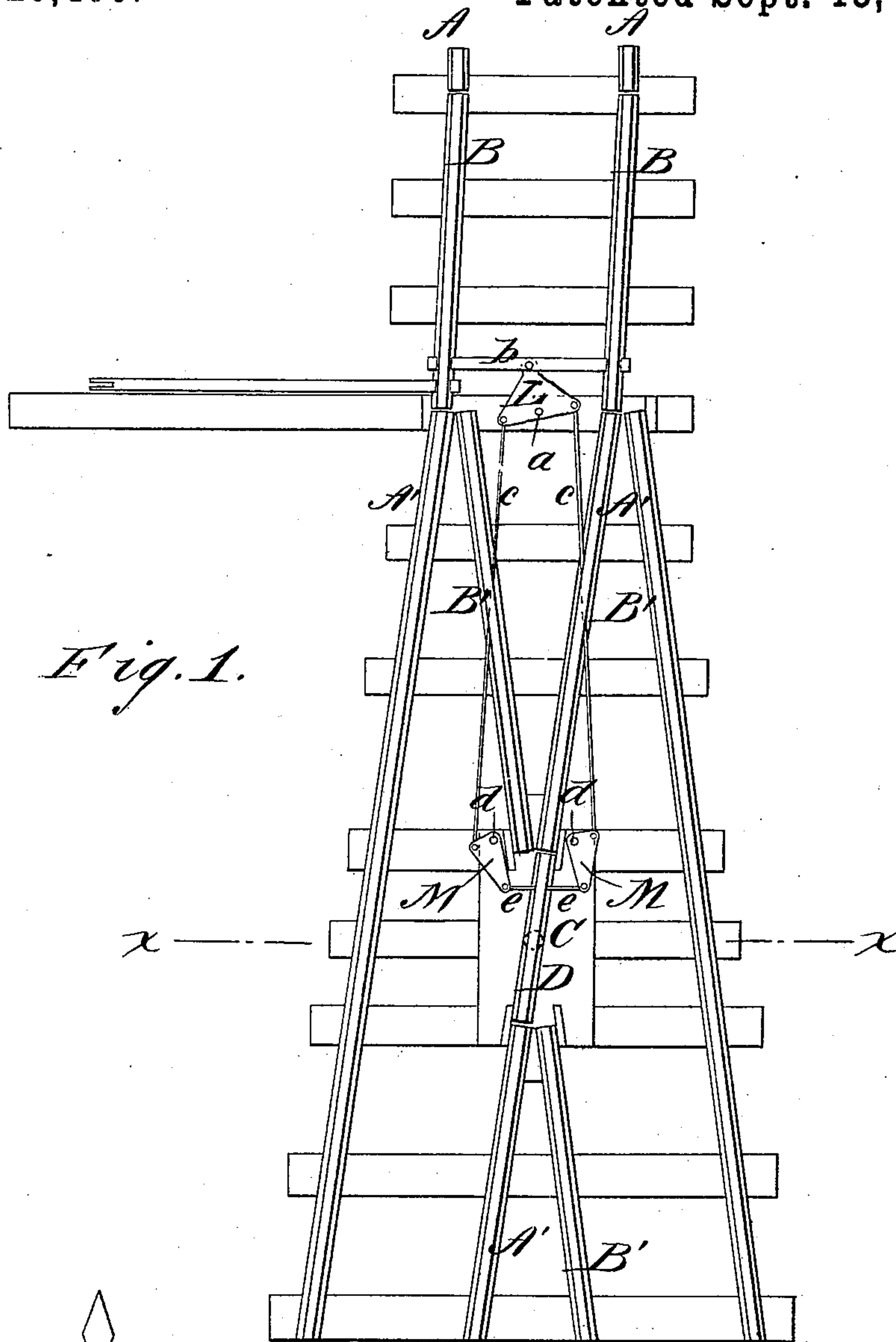
2 Sheets—Sheet 1.

W. J. DAVIES & W. PENGLASE.

RAILWAY SWITCH.

No. 326,406.

Patented Sept. 15, 1885.



WITNESSES:

C. Bischoff.
C. Sedgwick

INVENTOR:

W. J. Davies

W. Penglase

BY

Smith & Co.

ATTORNEYS.

(No Model.)

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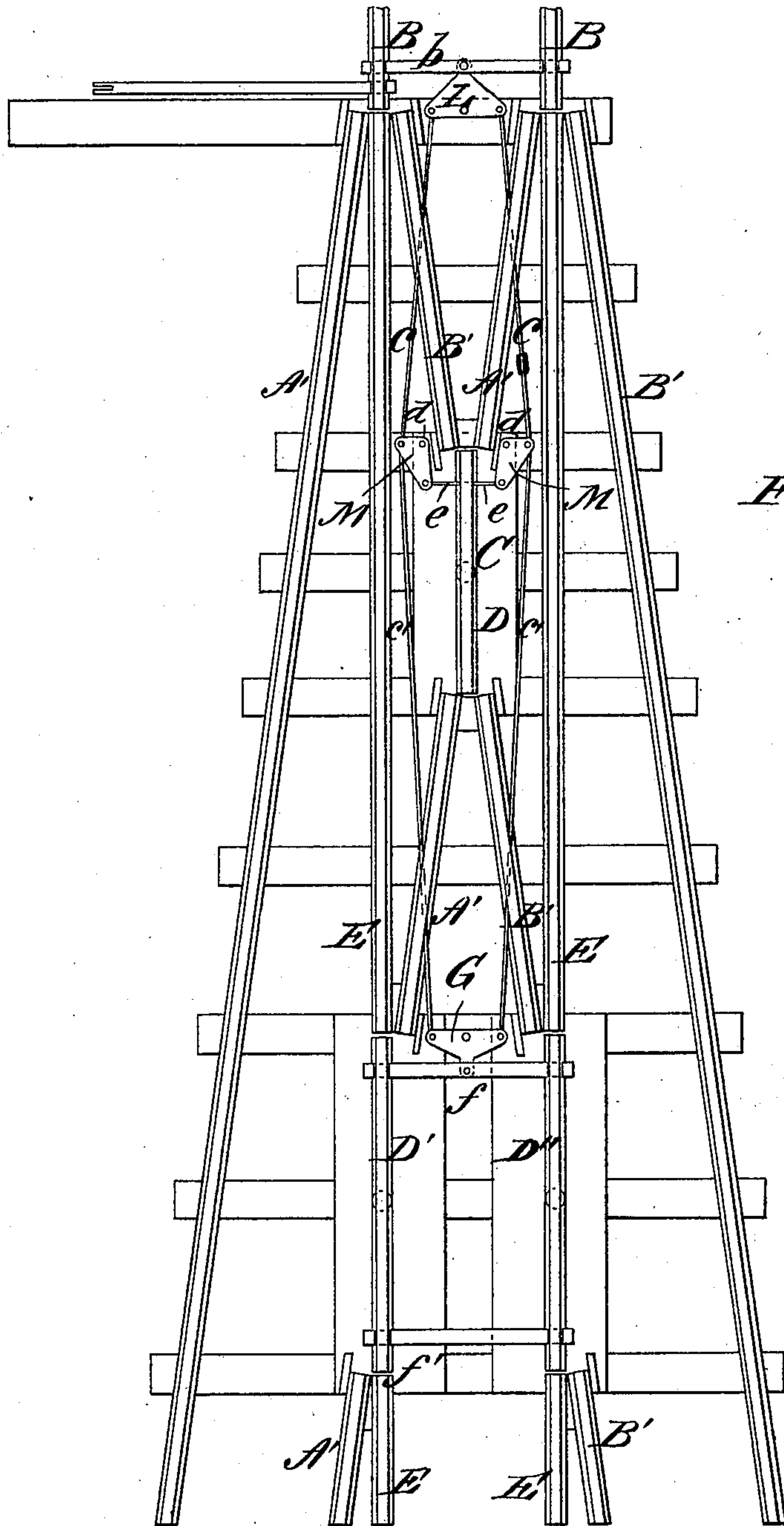


Fig. 2.

WITNESSES:

C. Bischoff
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UNITED STATES PATENT OFFICE.

WILLIAM J. DAVIES AND WILLIAM PENGLASE, OF STONEVILLE, MICHIGAN.

RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 326,406, dated September 15, 1885.

Application filed June 28, 1884. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM J. DAVIES and WILLIAM PENGLASE, of Stoneville, Marquette county, Michigan, have invented a new and Improved Railway-Switch, of which the following is a full, clear, and exact description.

The object of our invention is to provide a simple, easily-constructed, and safe switch for railways, in which the parts subject to wear may be readily removed, and which will be adapted to two or three tracks.

Our invention consists in a novel arrangement of rails and swinging rail-sections, and levers and rods for operating the same.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of our improved switch applied to two tracks. Fig. 2 is a plan view of the same applied to three tracks, and Fig. 3 is a transverse section taken on line *x x* in Fig. 1.

The main-track rails *A A* are provided with the usual swinging switch-rails, *B B*, the free ends of which are capable of connecting with the rails *A' A'* and *B' B'*, forming two branches of the track. At the intersection of the inner rails, *B'* and *A'*, instead of the usual frog, a pivot, *C*, located at the point of intersection supports a short section of rail, *D*, which is capable of turning on the pivot, so as to coincide with the direction of either rail *A' B'*. A three-arm lever, *E*, turning on a fixed pivot, *a*, is connected with the tie-bar *b*, attached to the free ends of the swinging rails *B B*. This lever is also connected by rods *c c* with the right-angled levers *M*, turning on fixed pivots *d*, and connected by rods *e* with the pivoted track-section *D*. When the swinging rails *B B* are moved by the switch-lever so as to connect with the rails *A' A'*, the swinging section *D*, by virtue of its connection with the cross-bar *b*, is turned on its pivot, so as to form a part of the inner rail *A'*, and render the track continuous over the rails *A A*, *B B*, and *A' A'*. When the swing-rails *B B* are turned so as to connect with the rails *B' B'*, the swinging section *D* is turned so as to form a part of the inner rail *B'*, and render the track continuous through the rails *A A*, *B B*, and *B' B'*.

When our improvement is applied to a three-

rail section, as shown in Fig. 2, two extra swinging rails, *D' D''*, are interposed in the central track formed of the rails *E E*, so that when the swinging switch-rails *B B* coincide with the rails *E E*, the swinging rails *D' D''* form a part of the central track. The swinging sections *D' D''* are connected near opposite ends by cross-bars *f f'*, and the bar *f* is connected with one arm of the three-arm lever *G*, whose remaining arms are connected by rods *c'* with the rods *c*. When the swinging rails *B* are turned so as to connect with the rails *A'*, the swinging rail-sections *D' D''* are also turned, by virtue of their connection through the lever *G* and rods *c' c'* with the rods *c c*, and the pivoted rail-section *D'* then forms part of the inner rail *A'*, and renders the track formed of the rails *A' A'* continuous; and when the swinging rails *B B* are moved opposite the rails *B' B'*, the rail *D''* is turned so as to form a portion of the inner rail *B'*, rendering the track formed of the rails *B B*, *B' B'* and pivoted section *D''* continuous, the pivoted rail *D* acting as in the case before described.

Our improved switch requires neither frogs nor guard-rails. It is safe, and renders the track practically continuous. It is not liable to get out of repair, as all the operations are performed by rods under tensile strain. It is readily adjusted by turn-buckles placed on each rod, and the swinging sections are securely locked when the switch is secured.

We are aware that it is not new to employ two V-shaped rail-angles, one capable of movement to permit either one or the other of its rails to be shifted into alignment with one or the other of the rails of the other fixed angle.

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

The combination of the pivot track-sections *D D' D''*, levers *G L M*, rods *c c'*, swinging switch-rails *B B*, and track-rails *A'*, *B'*, and *E*, substantially as specified.

WILLIAM J. DAVIES.
WILLIAM PENGLASE.

Witnesses:

WILLIAM N. HAGER,
ROBERT BANKES.