No. 777,518. PATENTED DEC. 13, 1904.

J. LACY & S. W. ROGERS.

RAILWAY GATE.

APPLICATION FILED JULY 12, 1904.

NO MODEL. 2 SHEETS—SHEET 1.

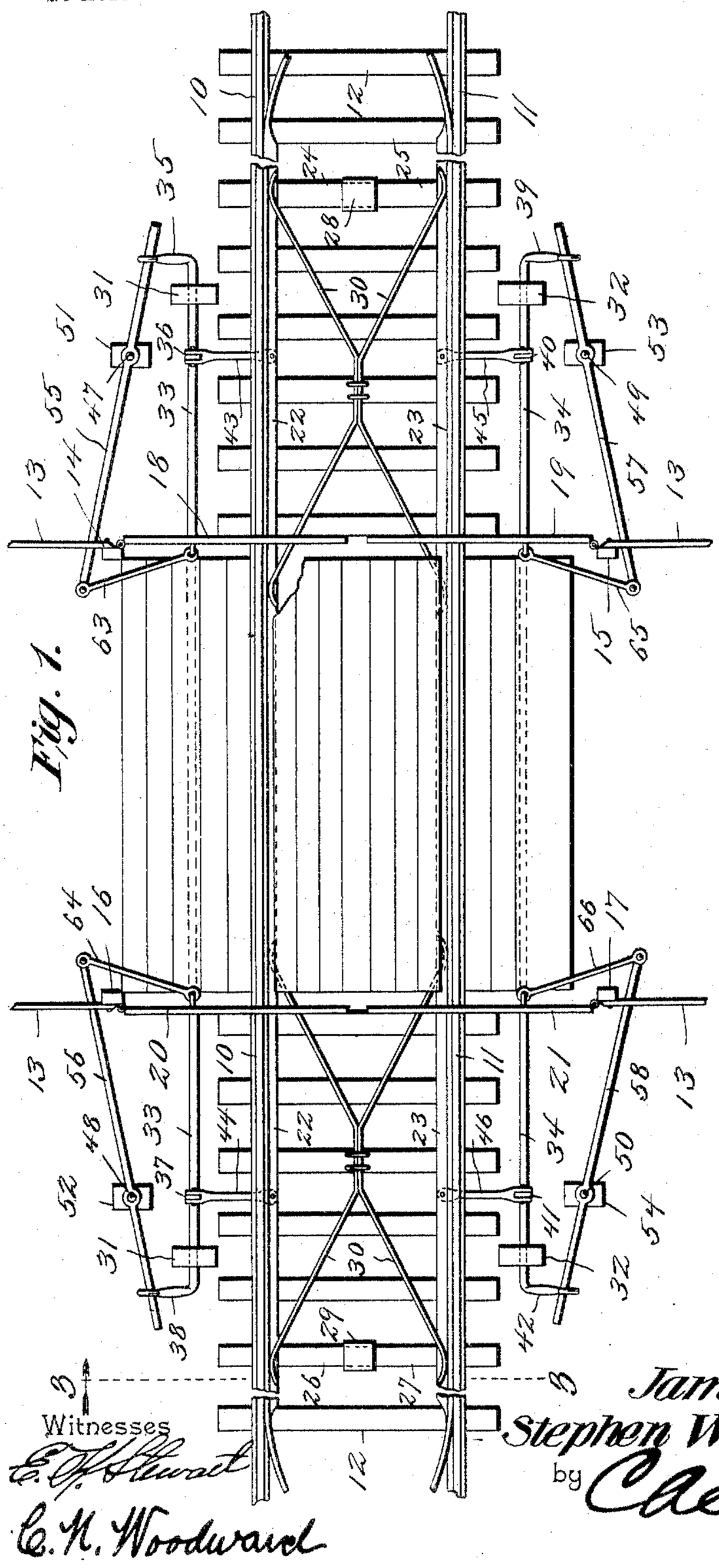

Fig. 1.

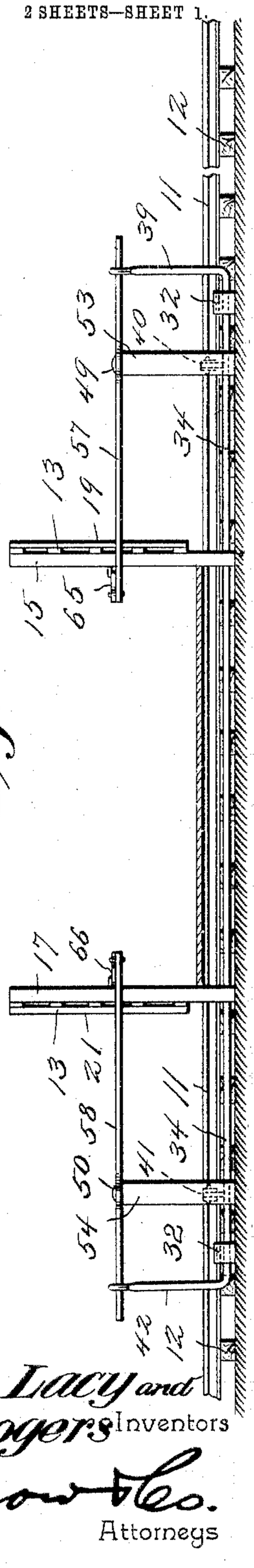

Fig. 2.

Witnesses
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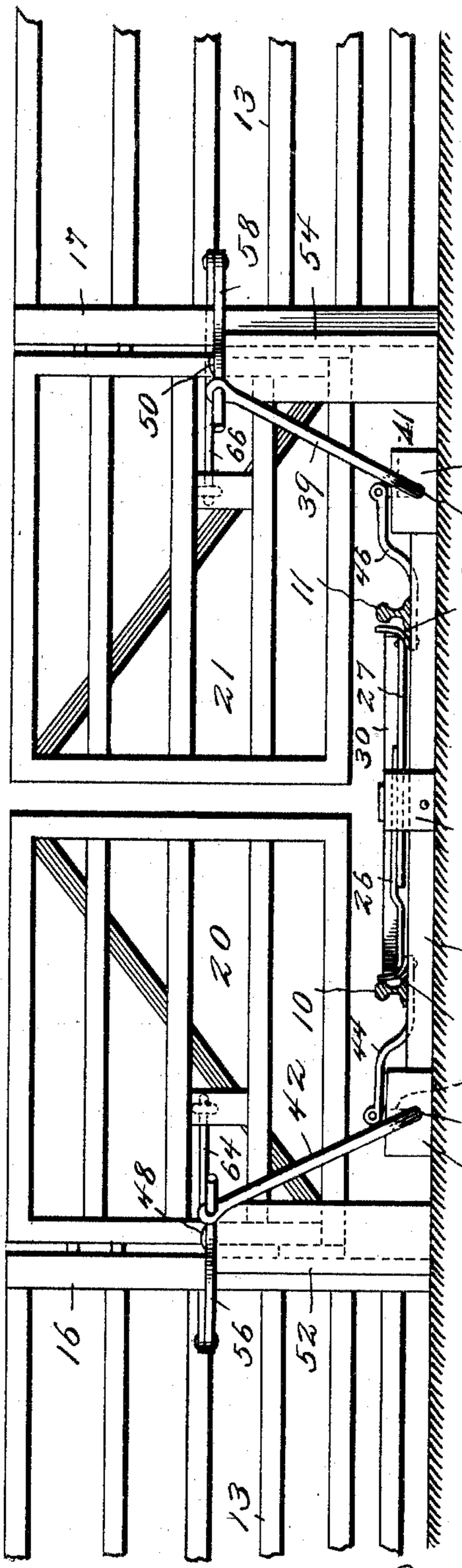

Fig. 3.

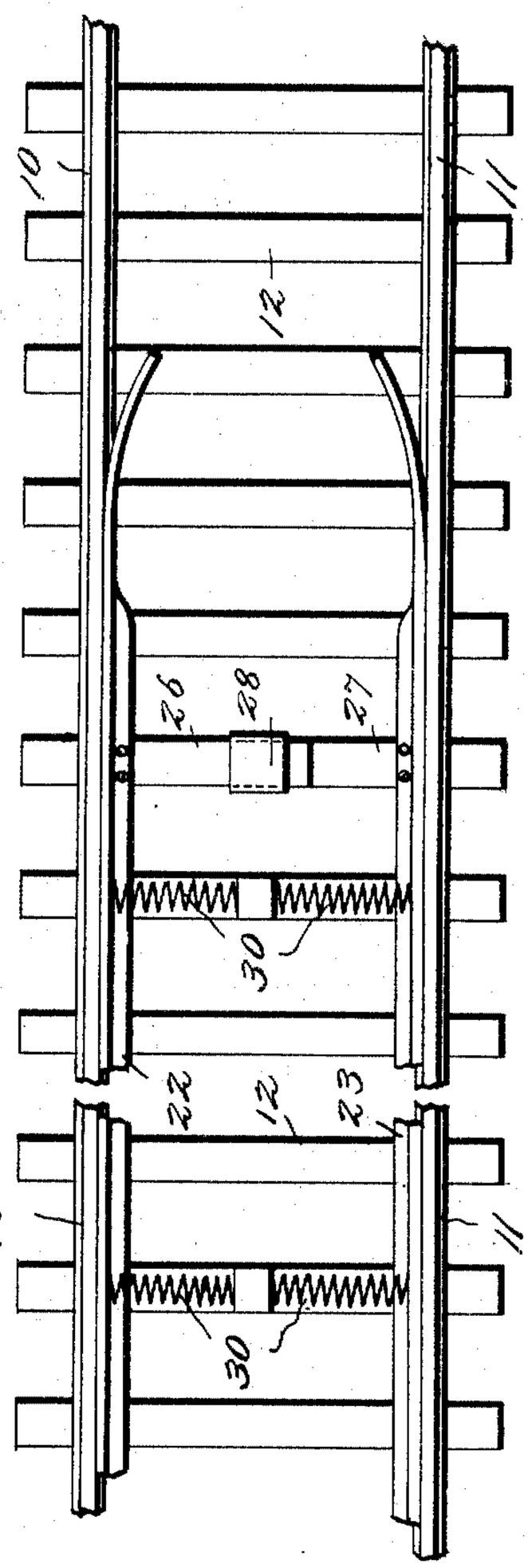

Fig. 4.

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No. 777,518. Patented December 13, 1904.

UNITED STATES PATENT OFFICE.

JAMES LACY AND STEPHEN W. ROGERS, OF MENA, ARKANSAS.

RAILWAY-GATE.

SPECIFICATION forming part of Letters Patent No. 777,518, dated December 13, 1904.

Application filed July 12, 1904. Serial No. 216,243. (No model.)

To all whom it may concern:

Be it known that we, JAMES LACY and STEPHEN W. ROGERS, citizens of the United States, residing at Mena, in the county of Polk and State of Arkansas, have invented a new and useful Railway-Gate, of which the following is a specification.

This invention relates to gates employed for preventing passage from ordinary roadways to railway-tracks, more particularly to the class of such devices wherein the wheels of the passing trains are utilized to operate the same, and has for its object to improve the construction and produce a simply-arranged device of this character which may be easily erected, will be certain and efficient in action, and entirely automatic in its operation.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of the embodiment of the invention capable of carrying the same into practical operation, it being understood that the invention is not necessarily limited thereto, as various changes in the shape, proportions, and general assemblage of the parts may be resorted to without departing from the principle of the invention or sacrificing any of its advantages, and the right is therefore reserved of making all the changes and modifications which fairly fall within the scope of the invention and the claim made therefor.

In the drawings thus employed, Figure 1 is a plan view. Fig. 2 is a side elevation. Fig. 3 is a transverse section, enlarged, on the line 3 3 of Fig. 1. Fig. 4 is a detail view illustrating a modified form of construction.

Gates of the class herein described are usually erected at the crossing of common roads and railway-tracks to shut off access to the portion of railway-track beyond the common road except when trains are passing and likewise shut off access to the portion of the track which crosses the common road prior to and during the passage of trains. For the purpose of illustration a crossing of this character is represented in which the railway-rails 10 11 and ties 12 are of the usual form, and the common road is defined by lines of fencing 13, having gaps bounded by posts 14 15 16 17 at opposite sides of the railway-track and at opposite sides of the roadway.

Gates 18 19 20 21, of any suitable construction, are hinged to the posts above mentioned for swinging over the track when turned in one position to prevent access to the portion of track which lies beyond the roadway and likewise across the roadway to shut off access to the portion of the track which crosses the roadway when turned into their other positions.

Resting upon the ties 12, contiguous to the inner faces of the treads or heads of the rails 10 11, are trip-rails 22 23, preferably L-shaped in transverse section and extending across the roadway and for a considerable distance upon each side, with their extremities curving inwardly. The trip-rails may be of any required length; but in practice it has been ascertained that the same should extend at least twenty-four feet beyond the gates when the latter are closed across the railway-track, which with a sixteen-foot gap between the posts will require a total length of sixty-four feet besides the outwardly-curving terminals, which would add from four to six feet; but it will be understood that these dimensions are merely suggestive and may be varied to any desired extent or as circumstances may require. Near their ends the trip-rails 22 23 are provided with inwardly-extending bars 24 25 26 27, overlapping at their inner ends and provided with keepers 28 29, connected to two of the ties 12 to form guides to the bars. By this means the trip-bars are guided in their movement laterally of the railway-rails and thereby prevented from displacement. The trip-rails are provided with springs 30, operating outwardly to maintain them yieldably in their outward positions.

Mounted in bearings 31 32 alongside the track are rock-shafts 33 34, having rocker-arms 35, 36, 37, 38, 39, 40, 41, and 42 extend-

ing therefrom. The arms 36 37 are connected by rods 43 44 to the trip-rail 22 near its ends, and the arms 40 41 are similarly connected to the trip-rail 23 by rods 45 46.

Pivoted at 47 48 49 50 to posts 51 52 53 54 are lever-arms 55 56 57 58, connected, respectively, at one end to the rocker-arms 35, 38, 39, and 42, while the other ends of the lever-arms are connected by rods 63 64 65 66 to the gates 18, 19, 20, and 21.

By this arrangement when the springs 30 are left free to exert their force upon the trip-bars they will also retain the gates yieldably in closed position across the railway-tracks and effectually shut off all access to the portion of the same beyond the roadway, so that cattle, horses, or other animals cannot stray upon the track and be endangered from passing trains. When a train approaches and the flanges of the pilot-wheels engage the trip-rails, the same will be moved inwardly, or toward each other, causing the rods 44 46 or 43 45, as the case may be, to rock both of the shafts 33 34 their entire length equally, and thus uniformly and instantly operate all the gates simultaneously and throw them squarely across the roadway at each side of the railway-track and effectually shut all access to the railway-track, and these positions of the gates will be maintained until the whole train has passed or until the flanges of the last wheels have passed from engagement with the trip-rails. Thus the trip-rails by extending a sufficient distance beyond the gates at either side of the roadway will insure the proper action upon the gates for a sufficient distance in advance of the train to move them out of its way and prevent closing until a train has safely passed.

The parts will preferably all be of metal except the posts and gates, and these may also be of metal, if required.

The springs 30 may be of the leaf or strap form, as shown in Figs. 1 and 3, of the coiled form, as in Fig. 4, or of other forms or combinations of forms as may be desired, and we do not, therefore, wish to be limited to any specific form or arrangement of the springs.

When employed to simply close a gap in a single line of fence crossing a railway-track, one set of the gates only will be required; but the other parts of the device will be substantially the same, and such a modification would not be a departure from the principle of the invention, as the same results would be accomplished by substantially the same means.

Having thus described the invention, what is claimed is—

In a device of the class described, the combination with the railway-track having gates mounted to swing thereover, trip-rails movably mounted between the rails of said track and having inwardly-extending overlapping bars, said trip-rails positioned to be moved laterally by the flanges of the passing wheels, keepers connected to the ties and inclosing said overlapping bars and forming guides therefor, springs connected to maintain said trip-rails yieldably in distended position, and connecting means between said trip-rails and said gates.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

JAMES LACY.
STEPHEN W. ROGERS.

Witnesses:
J. B. HANS,
E. W. ALLEY.