No. 844,209. PATENTED FEB. 12, 1907.

G. E. STEWART.

RAILWAY SWITCH.

APPLICATION FILED OCT. 23, 1906.

FIG. 1.

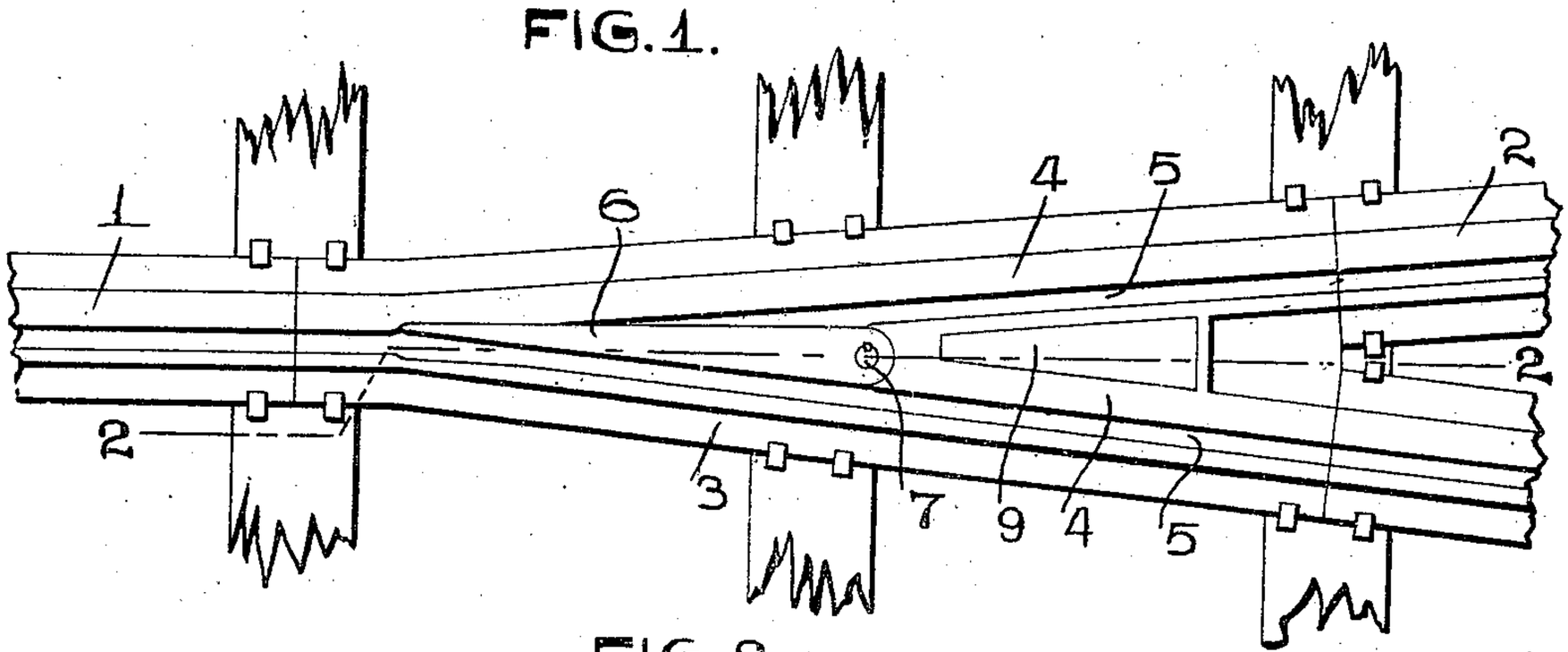


FIG. 2.

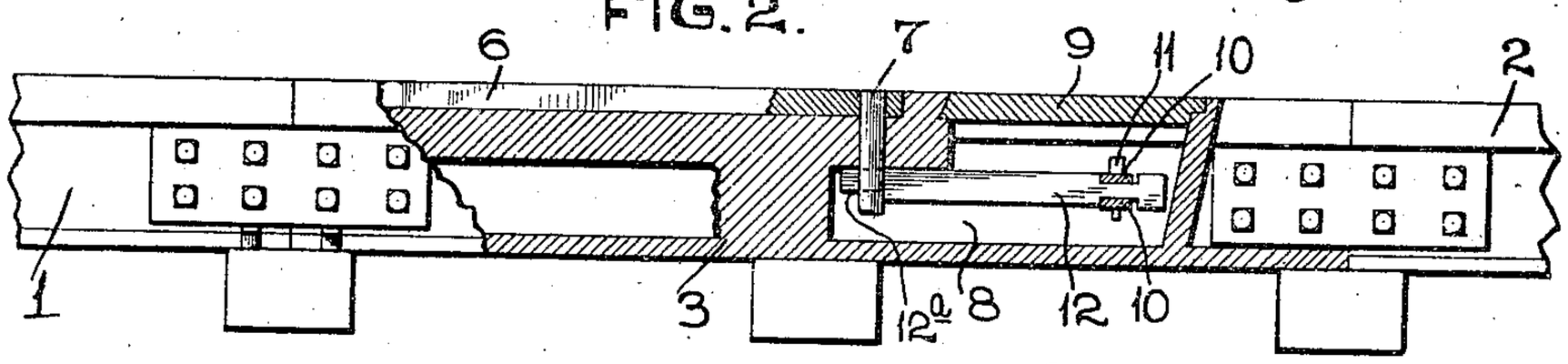


FIG. 3.

FIG. 4.

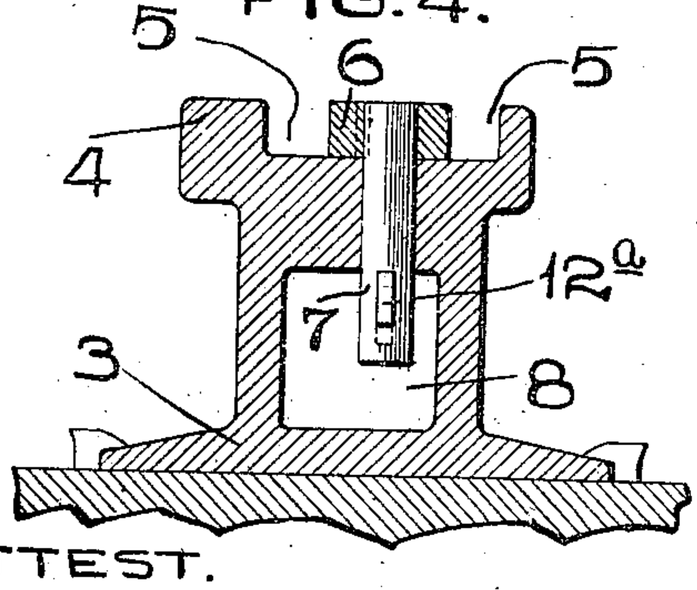
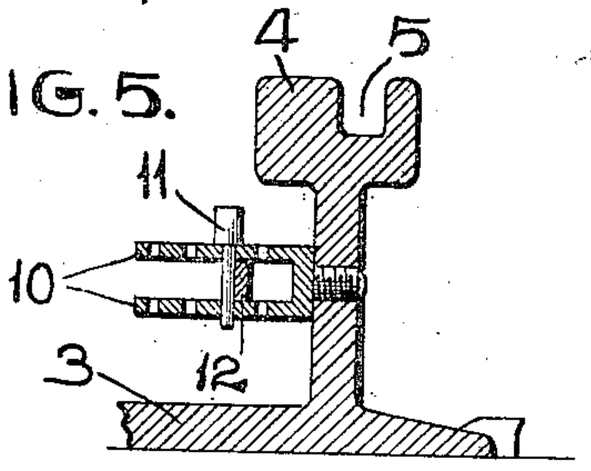


FIG. 5.



ATTEST.

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UNITED STATES PATENT OFFICE.

GEORGE E. STEWART, OF EAST ST. LOUIS, ILLINOIS.

RAILWAY-SWITCH.

No. 844,209. Specification of Letters Patent. Patented Feb. 12, 1907.

Application filed October 23, 1906. Serial No. 340,218.

To all whom it may concern:

Be it known that I, GEORGE E. STEWART, a citizen of the United States, and resident of East St. Louis, Illinois, have invented certain new and useful Improvements in Railway-Switches, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to a railway-switch wherein the switch-tongue is spring-actuated in order that it will automatically return to its normal position after having been engaged and thrown to one side by the flanges of the car-wheels passing along the side-track rail adjacent said switch-rail.

By my improved arrangement the switch-rail is always maintained in a proper position to direct the wheels of an approaching car, and it is unnecessary that said switch-rail be shifted by a person on the car.

To the above purposes my invention consists in certain novel features of construction and arrangement of parts, which will be hereinafter more fully set forth, pointed out in the claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of diverging rails with my improved switch-tongue thereon. Fig. 2 is a vertical section taken on the line 2 2 of Fig. 1. Fig. 3 is an enlarged plan view of the switch-tongue with parts broken away to illustrate the spring which controls said switch-tongue. Fig. 4 is a cross-section taken on the line 4 4 of Fig. 3. Fig. 5 is a transverse section taken on the line 5 5 of Fig. 3.

Referring by numerals to the accompanying drawings, 1 1 designate the main-track rails, and 2 the side-track rail, between which is arranged in the usual manner the plate 3, having its upper portion provided with the usual balls 4 and grooves 5, which coincide with the balls and grooves of the rails 1 and 2. Arranged on top of the plate 3 is the usual movable switch-tongue 6, which is utilized to deflect or switch the car-wheels over the proper rails, said switch-tongue being rigidly fixed to the upper end of a pin 7, which is journaled in the upper portion of the plate 3, its lower end extending into a pocket 8, formed in said plate, and which pocket is normally closed by a cover-plate 9. Rigidly fixed to the inside of a portion of the plate 3 within the pocket 8 is a pair of horizontally-arranged ears 10, which are provided with vertically-alined pairs of apertures and through which is adapted to pass a pin 11.

12 designates a leaf-spring, the forward end of which is notched, as designated by 12^a, and said notched end is positioned in a suitably-arranged slot in the lower end of the pin 7, and the outer end of said spring passes between the ears 10 and engages against the pin 11 carried thereby. When this spring 12 is bent to the proper degree and its free end held by means of the pin 11, tension is maintained in said spring, which holds the point of the switch-tongue 6 normally to one side of its throw and in such position as to deflect or switch the car-wheels along the main-track rails and over that portion of the plate 3 corresponding to said main-track rails. Thus said switch is yieldingly held in proper position, and when a car approaches along the side track the flanges of the car-wheels will bear against the rear portion of the switch-tongue 6 and swing the same over against the resistance offered by the spring 12, and after said wheels have passed the switch-tongue the same will automatically return to its normal position, owing to the resiliency or tension of the spring 12.

The cover-plate 9 is provided for the pocket 8 in order that access may be readily had to the ears 10 and pin 11, which pin may be readily shifted from one of said apertures to the other in order to change the tension of the spring 12.

A switch of my improved construction is simple, strong, and durable, comprises a minimum number of parts, is easily adjusted, and is applicable for all points on railway-tracks where a side track enters the main track.

By arranging the spring in the pocket 8 and providing the cover-plate 9 for said pocket said spring is very thoroughly protected from dirt and the like, which might render said spring inoperative, and the spring is also protected from water, which when frozen would prevent the successful operation of the device.

I claim—

1. In a railway-switch, a movable switch-tongue arranged at the juncture of the track-rails, a pin carried by the rear end of said switch-tongue and which pin is journaled for horizontal rotation, a leaf-spring fixed at one

end to said pin, and means whereby the tension of said leaf-spring is varied; substantially as specified.

2. In a railway-switch, a movable switch-tongue arranged at the juncture of the track-rails, a vertically-arranged pin the upper end of which is fixed to the rear end of the switch-tongue, a leaf-spring fixed to the lower end of said pin, a pair of ears fixed to one of the track-rails between which ears the rear end of the spring passes, and a pin adjustably arranged in the ears for engaging the rear end of said spring; substantially as specified.

3. In a railway-switch, a plate, the upper portion of which conforms with the track-rails, there being a pocket formed in one end of said plate, a movable switch-tongue arranged on top of said plate, a pin fixed to the rear end of said switch-tongue and which pin is journaled for horizontal rotation, a leaf-spring fixed at one end to the lower end of said pin, which leaf-spring is positioned in the pocket, and means arranged in said pocket for engaging the free end of the spring to create tension therein; substantially as specified.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

GEORGE E. STEWART.

Witnesses:
M. P. SMITH,
E. L. WALLACE.