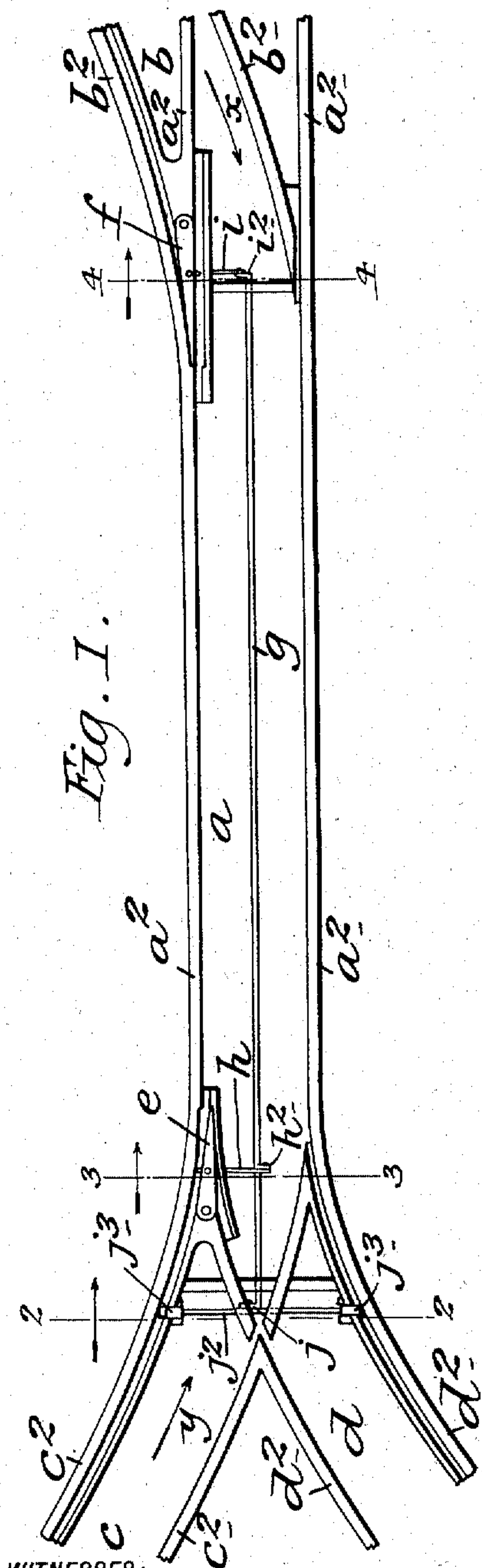


F. P. LANE.  
RAILWAY SWITCH AND SWITCH OPERATING DEVICE.  
APPLICATION FILED MAR. 19, 1910.

982,833.

Patented Jan. 31, 1911.



WITNESSES:

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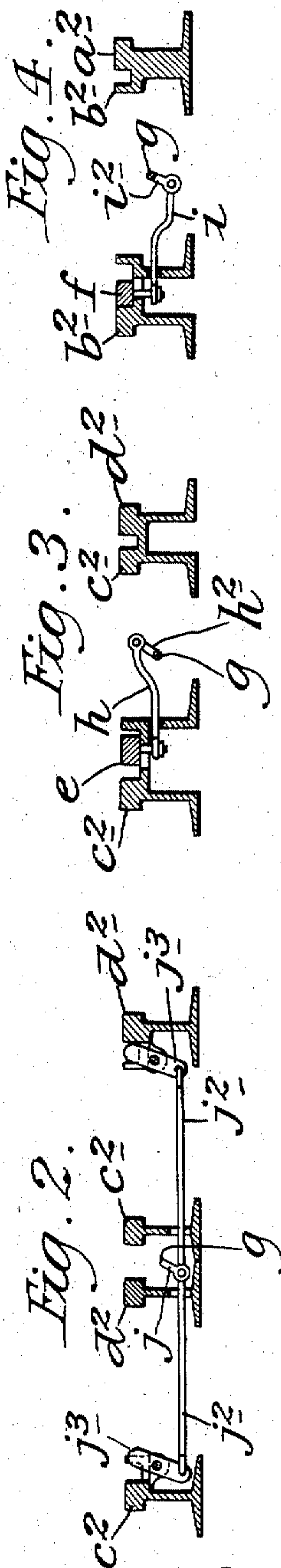


Fig. 2.

Fig. 3.

Fig. 4.

BY

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# UNITED STATES PATENT OFFICE.

FRANK PORTER LANE, OF NEWARK, OHIO.

RAILWAY-SWITCH AND SWITCH-OPERATING DEVICE.

982,833.

Specification of Letters Patent.

Patented Jan. 31, 1911.

Application filed March 19, 1910. Serial No. 550,340.

*To all whom it may concern:*

Be it known that I, FRANK P. LANE, a citizen of the United States, and residing at Newark, in the county of Licking and State of Ohio, have invented certain new and useful Improvements in Railway-Switches and Switch-Operating Devices, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to railway switches and means for operating the same, and the object thereof is to provide a switch or switches of the class specified with improved means for operating the same whereby said switch or switches may be operated by the wheels of a car of a train as it passes over the said switch or switches.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which;—

Figure 1 is a plan view showing the construction, arrangement and operation of my improved switch operating mechanism; Fig. 2 is a transverse section on the line 2—2 of Fig. 1; Fig. 3 a transverse section on the line 3—3 of Fig. 1, and;—Fig. 4 a transverse section on the line 4—4 of Fig. 1.

In the drawing forming part of this specification I have shown at  $a^2$  the rails of a main track  $a$ , at one end of which are the rails  $b^2$  of a side track  $b$ , and at the other end the rails  $c^2$  of the side tracks  $c$ , and  $d^2$  of the side tracks  $d$ , and at the point where the outer rail  $c^2$  of the side track  $c$  connects with the corresponding rail of the main track  $a$  is a pivoted switch tongue  $e$ , and at the point where the outer rail  $b^2$  of the side track  $b$  connects with the rail  $a^2$  of the main track  $a$  is a pivoted switch tongue  $f$ .

Arranged longitudinally of the track  $a$  and supported in any desired manner is a rod  $g$ , and connected with the switch tongues  $e$  and  $f$  are transverse link members  $h$  and  $i$  which are also connected with crank arms  $h^2$  and  $i^2$  with which the rod  $g$  is provided. The rod  $g$  extends outwardly of and beyond the switch tongue  $e$  and the end thereof is provided with a crank arm  $j$  with which is connected a transverse link or rod member  $j^2$ , the ends of which are connected with dogs  $j^3$  pivoted to the outer rails  $c^2$

and  $d^2$  of the side tracks  $c$  and  $d$ , and these dogs  $j^3$  are adapted to be operated by the wheels of the car of the train passing over the tracks  $c$  and  $d$  as will be readily understood, and the operation of said dogs will operate the transverse rod or link member  $j$ , and said rod or link member will operate the rod  $g$ , and said rod  $g$  through the link members  $h$  and  $i$  will operate the switch members  $e$  and  $f$ .

In Fig. 1 of the drawing the switch tongue  $f$  is in the closed position and the switch tongue  $e$  in the open position, and if a train be moving in the direction of the arrow  $x$  on the track  $b$  the wheels thereof, as said train enters onto the track  $a$  will operate the tongue  $f$  and close the switch tongue  $e$  and as said train proceeds it will take the track  $d$ . This will leave the switch tongue  $f$  open and the switch tongue  $e$  closed, and if a train be moving on the track  $c$  in the direction of the arrow  $y$  the wheels thereof will operate one of the dogs  $j^3$  and the switch tongue  $f$  will be closed, and as the said train proceeds it will continue on the track  $a$ . Other operations of the switch tongues  $e$  and  $f$  by the wheels of the trains will also be apparent, but it will also be apparent that the wheels of the cars of a train entering on the track  $a$  from the track  $c$  will operate the switch tongue  $e$  to open the same and the switch tongue  $f$  to close the same independent of the transverse rod or link member  $j^2$  and the dogs  $j^3$ , and the wheels of the train entering on the track  $a$  from the track  $b$  will operate the switch tongue  $f$  to open the same and close the switch tongue  $e$  independent of the transverse rod or link member  $j^2$  and the dogs  $j^3$ .

Having fully described my invention what I claim as new, and desire to secure by Letters Patent is;—

In a railway switch and switch operating mechanism, a main track provided at one end with a branch track having a pivoted switch tongue and at the opposite end with two branch tracks, one of which has a pivoted switch tongue, said switch tongues being adapted to be operated by the wheels of a car or train and the outer rails of the two branch tracks at one end of the main track being provided with pivoted dogs adapted to be operated by the wheels of a car or train, a main operating rod arranged centrally and longitudinally of the main

track, transversely arranged link members  
connecting said rod with said switch tongues  
and a transversely arranged bar connecting  
said dogs and with which said rod is con-  
5 nected.

In testimony that I claim the foregoing  
as my invention I have signed my name in

presence of the subscribing witnesses this  
18 day of Feby., 1910.

FRANK PORTER LANE.

Witnesses:

JAMES R. FITZGIBBON,  
JAS. T. MURPHY.