

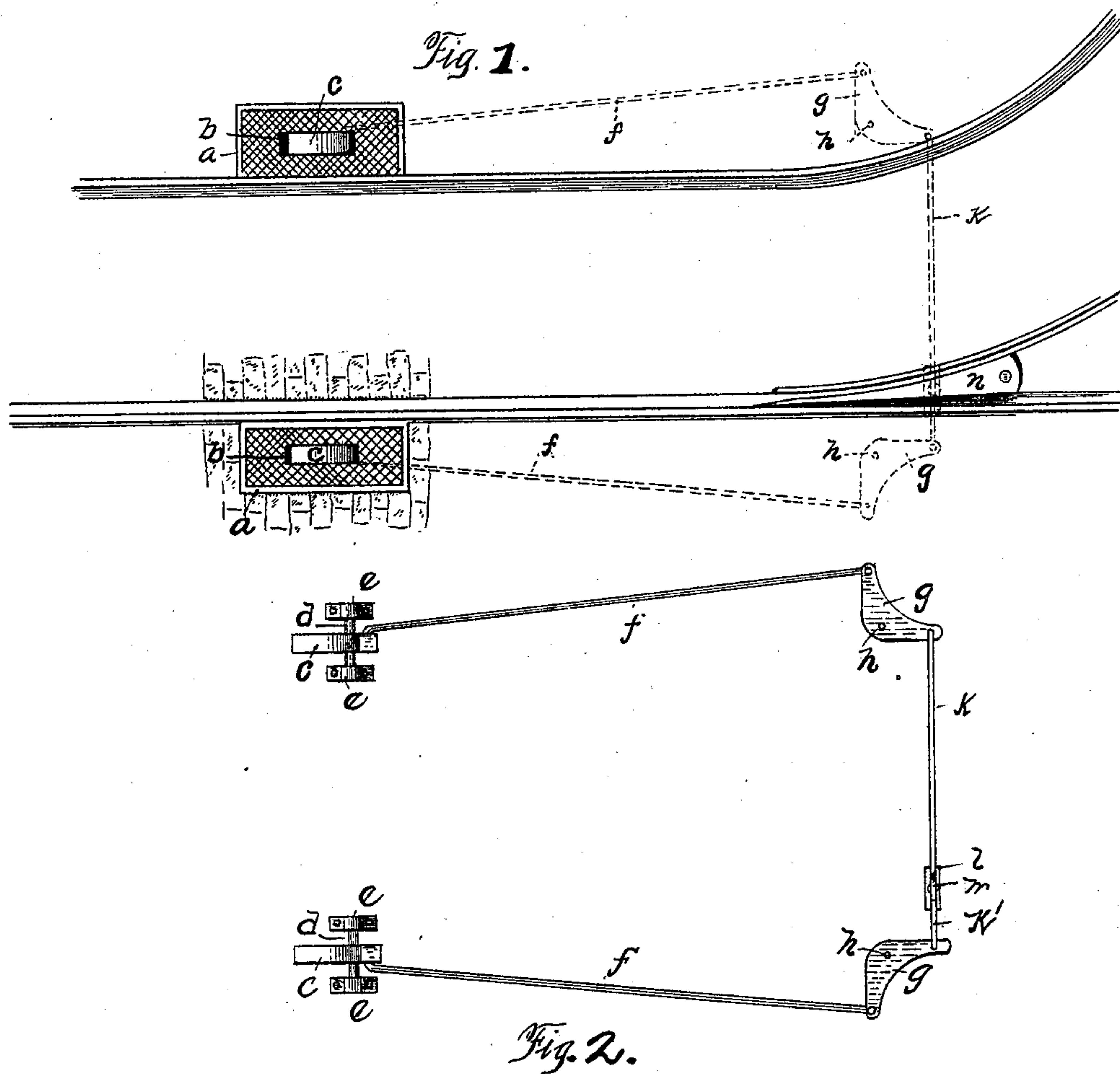
(No Model.)

2 Sheets—Sheet 1.

A. F. RAIRIGH.
RAILROAD SWITCH.

No. 594,215.

Patented Nov. 23, 1897.



Witnesses
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A. M. Wilson

Inventor
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By Henry C. Evert, Attorney

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

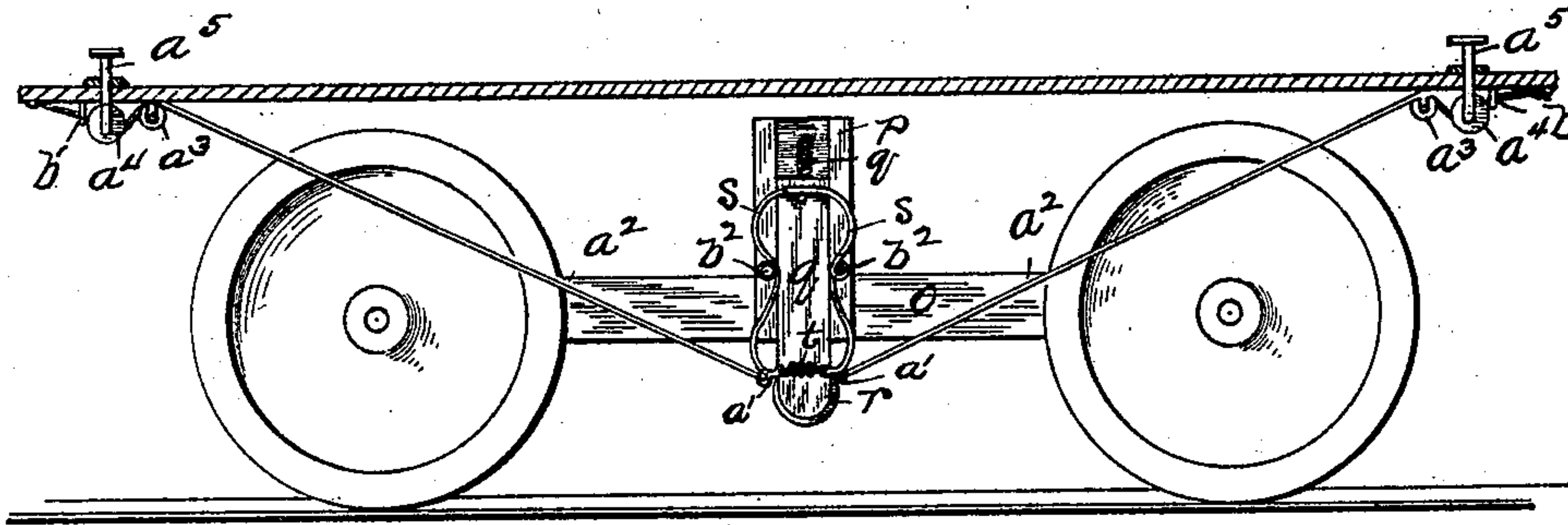
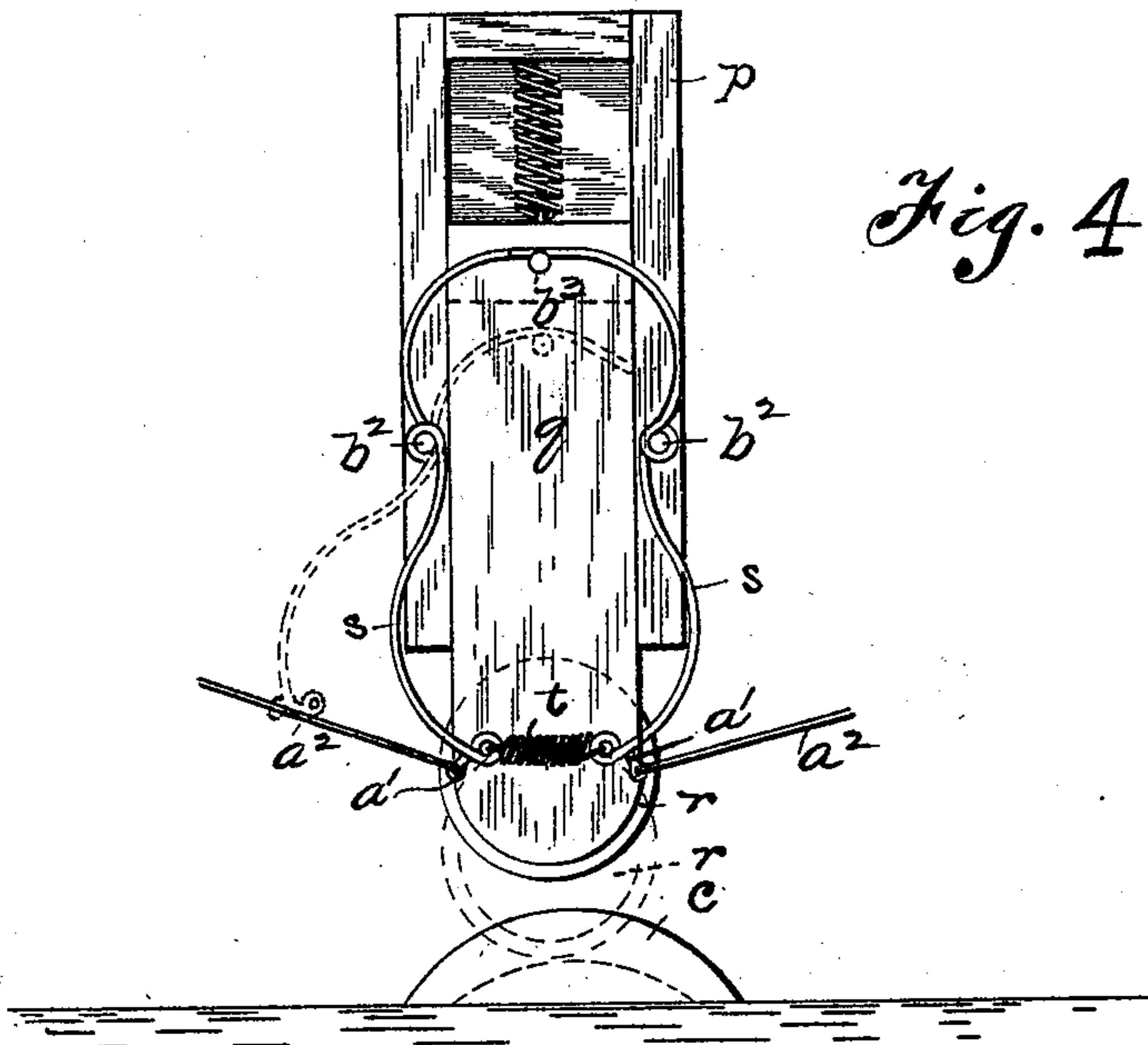


Fig. 4.



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UNITED STATES PATENT OFFICE.

ARCHIE F. RAIRIGH, OF BARNARD'S, PENNSYLVANIA.

RAILROAD-SWITCH.

SPECIFICATION forming part of Letters Patent No. 594,215, dated November 23, 1897.

Application filed March 12, 1897. Serial No. 627,152. (No model.)

To all whom it may concern:

Be it known that I, ARCHIE F. RAIRIGH, a citizen of the United States of America, residing at Barnard's, in the county of Armstrong and State of Pennsylvania, have invented certain new and useful Improvements in Railroad-Switches, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in automatic switches, and is particularly adapted for use on street-railways and the like, and has for its object to provide a switch which may be conveniently and easily operated from the car.

To this end the invention resides in the novel construction, combination, and arrangement of parts to be hereinafter more specifically described, and particularly pointed out in the claim, said construction being arranged in such a manner that vehicles in passing over the trips provided to operate the switch will not injure the same.

The invention further resides in its simplicity of construction, durability, effectiveness, and cheapness in the cost of manufacture, and in describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like letters of reference indicate similar parts throughout the several views, in which—

Figure 1 is a top plan view of a portion of a track with the switch and all parts in position. Fig. 2 is a detail view of the operating mechanism. Fig. 3 is a longitudinal sectional view of a portion of a car, showing the mechanism provided to engage the trip and operate the switch. Fig. 4 is a detail view of the same.

Referring now to the drawings by reference-letters, *a* represents a casing which is arranged at the sides of the rail and is adapted to be flush with the paving, and extending upward through a slot *b* in said casing is the trip *c*, which is supported on a shaft *d*, journaled in bearings *e e* within the casing. Attached to these trips, one of which is provided at each side of the track, is a rod *f*, the other end of which is pivotally attached to triangular-shaped levers *g g*, fulcrumed at *h* and connected by rods *k* and *k'* to a plate *l*,

which carries an upwardly-extending pin *m*, engaging in the switch-rail *n*.

In order to depress the trips from the car-platform and thus operate the switch, I have secured to the side brace *o* of the truck a block *p*, which is recessed to receive the slide *q*, carrying at its lower end a roller or wheel *r*, which engages the trip *c*. This slide is actuated by curved rods or levers *s*, having their lower ends connected by a spring *t* and provided with eyelets *a'* to receive the operating-cords *a²*, which extend upwardly over pulleys *a³*, secured on the underneath side of the car-platform, and beneath pulleys *a⁴*, carried by a foot-lever *a⁵*, the end of said cord being secured by a keeper *b'*, and to the car-floor. The curved rods or levers *s* are fulcrumed at *b²* to the block *p* and extend inwardly and engage upon a pin *b³*, carried near the upper end of the slide *q*, said slide being retracted by means of a spring *b⁴*, attached to the upper end thereof and to the block *p*. One of these trips being arranged at each end of the car, the operation is as follows: The operator depresses the foot-lever *a⁵* and through this medium draws the lever end of one of the curved rods or levers outward, and by reason of the upper end of the curved rod engaging the pin *b³* will force the slide downward, bringing the roller *r* into engagement with the trip *c*, depressing the same and operating the switch-tongue through the medium of the rod *f*, angle-lever *g*, and rod *k* or *k'*, as the case may be.

It will be noted from reference to Fig. 3 that the device is so arranged that the switch may be operated from either end of the car, and also that as soon as the foot-pressure has been relieved from the lever *a⁵* the spring *b⁴* will retract the slide *q*, withdrawing the roller *r* from its engagement.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

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

In an automatic switch a casing arranged at the sides of the track, a trip journaled in said casing, connections between said trips and the switch-tongue, in combination with an operating mechanism attached to the car-

track, consisting of a slide arranged in a block,
a curved rod or lever pivotally secured to said
block, one arm of said lever engaging a lug
near the top of the slide, an operating-rope
5 secured to the opposite end of the curved le-
ver, and engaging a foot-lever operating in
the car-platform, springs adapted to return
the curved levers to their normal position,

and a spring adapted to retract the slide, sub-
stantially as shown and described. 10

In testimony whereof I affix my signature
in presence of two witnesses.

ARCHIE F. RAIRIGH.

Witnesses:

JOHN NOLAND,
GEO. B. PARKER.