

No. 785,615.

PATENTED MAR. 21, 1905.

E. W. HENRY.
RAILWAY SWITCH.
APPLICATION FILED MAR. 9, 1904.

2 SHEETS—SHEET 1.

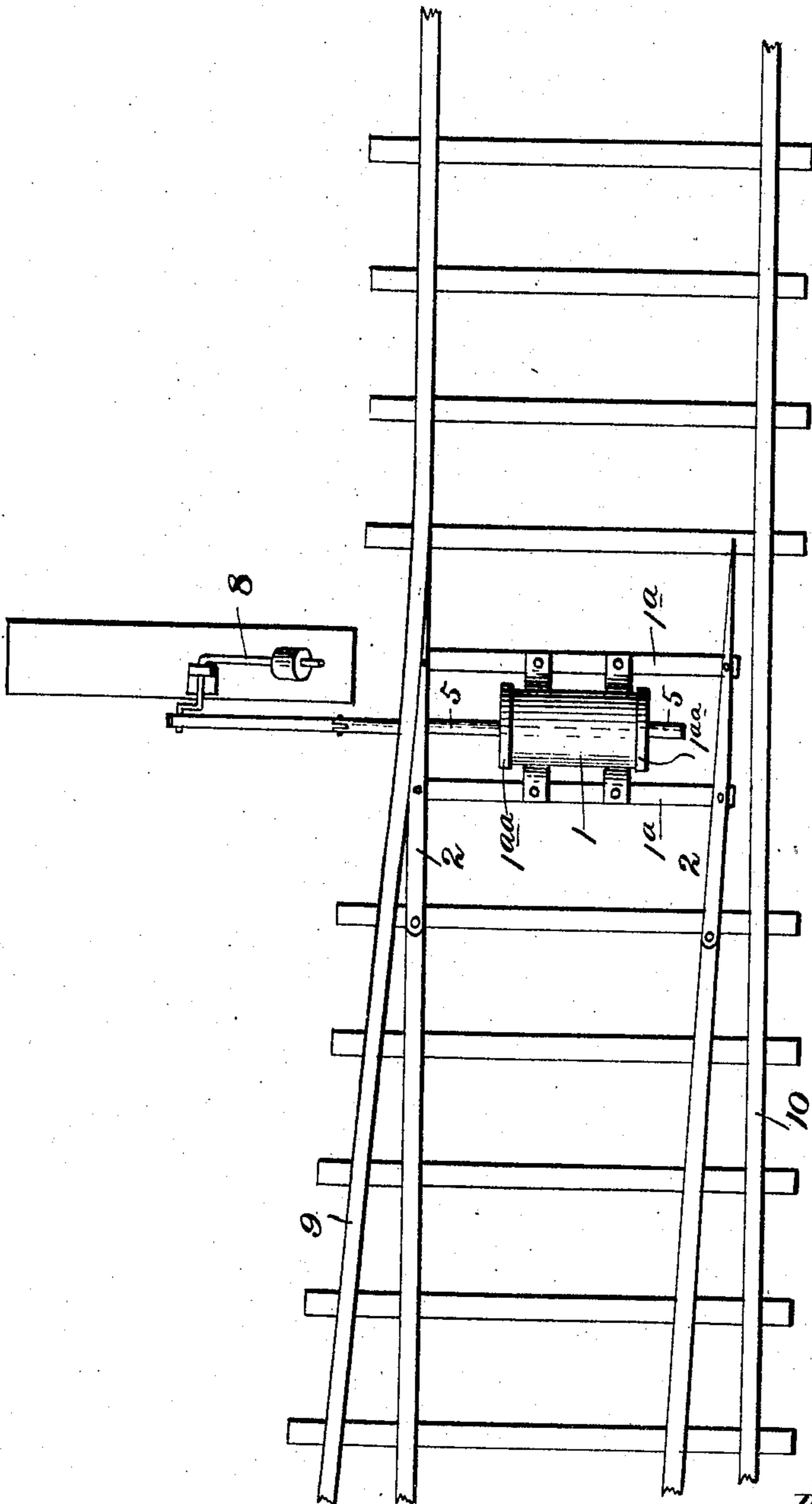


Fig. 1.

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2 SHEETS—SHEET 2.

Fig. 4.

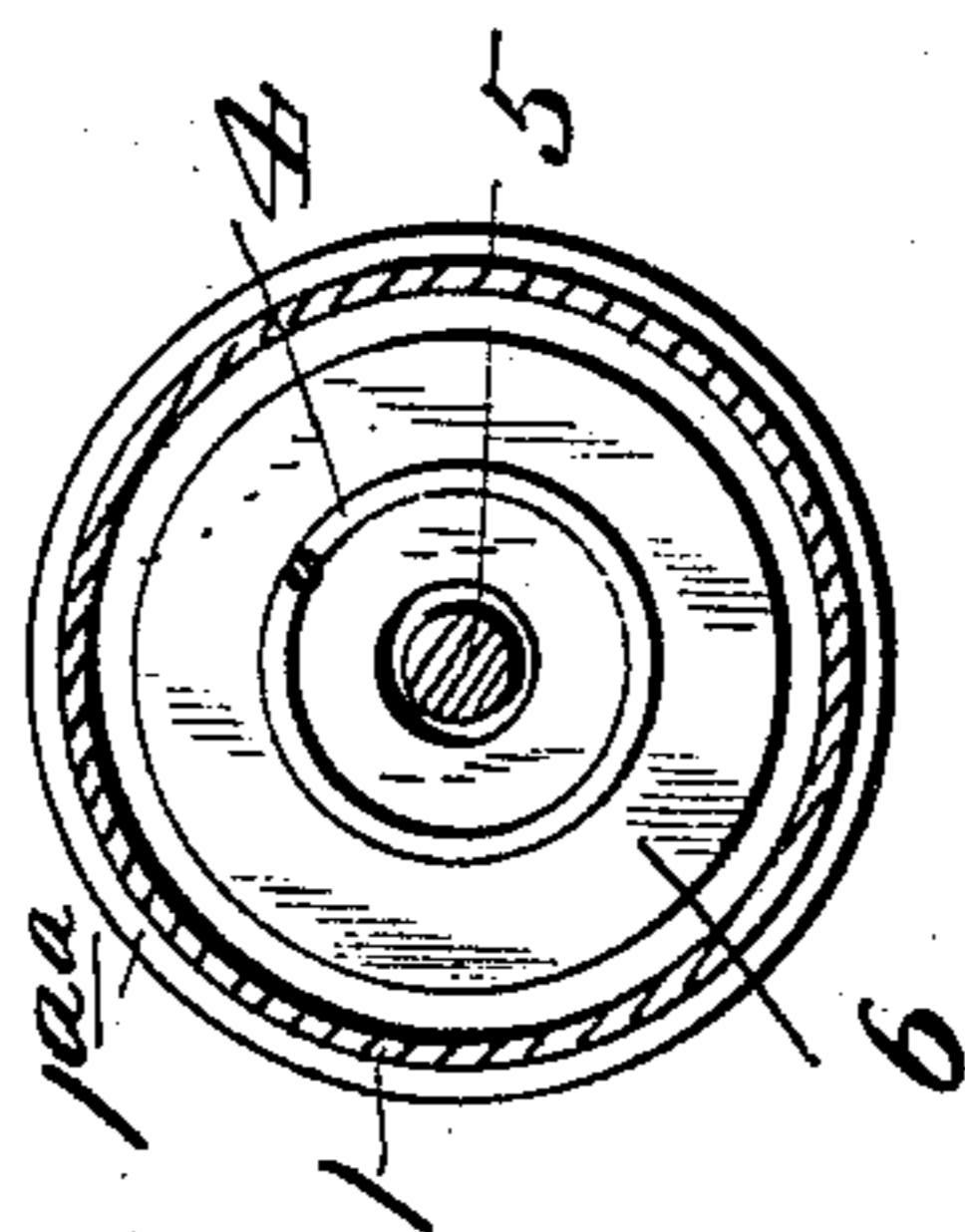


Fig. 3.

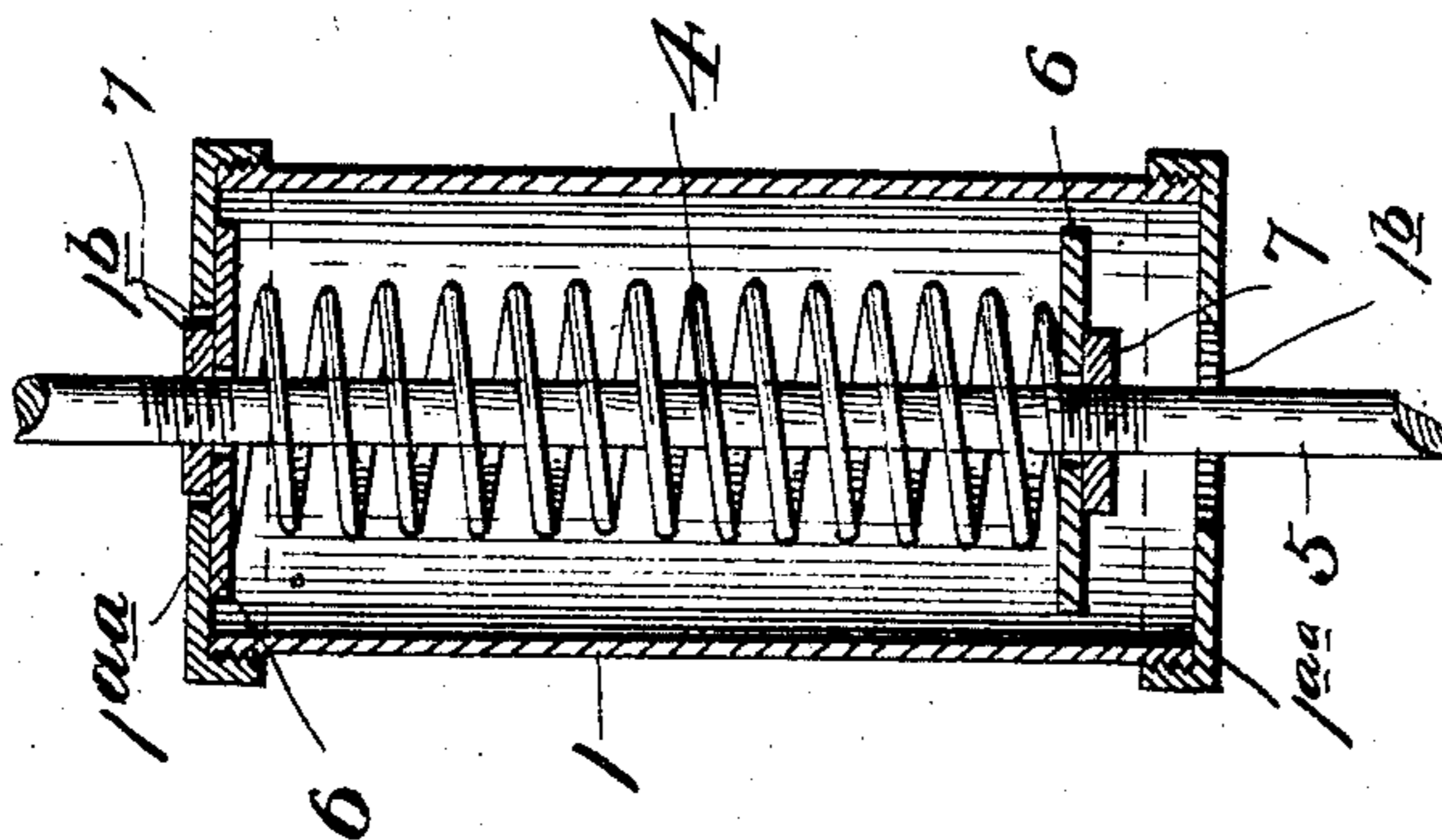
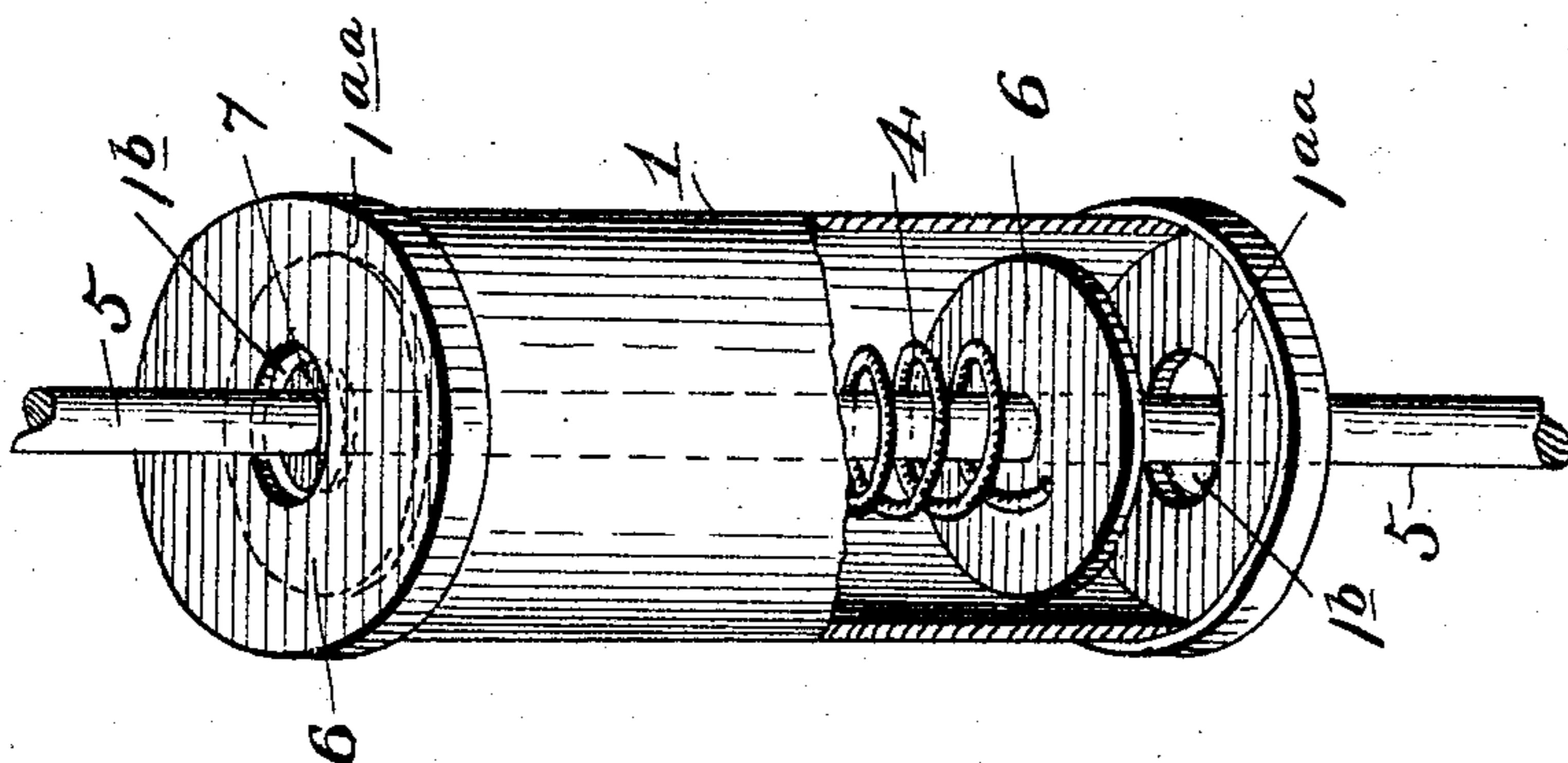


Fig. 2.



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UNITED STATES PATENT OFFICE.

ESCA W. HENRY, OF GLASGOW, MISSOURI.

RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 785,615, dated March 21, 1905.

Application filed March 9, 1904. Serial No. 197,331.

To all whom it may concern:

Be it known that I, ESCA W. HENRY, a citizen of the United States, residing at the city of Glasgow, in the county of Howard and State of Missouri, have invented certain new and useful Improvements in Railway-Switches, of which the following is a specification.

My invention pertains to improvements in railway-switches.

Said invention has for its main object to provide for the shifting of the switch-rails, as in a train passing from the "siding" to the main track, without manually throwing said switch-rails, and yet effect the automatic replacement of the switch-rails after the passage of the train, therefore providing an open switch as to the siding, consequently a "through" or clear main track; also, when the switch-rails may be adjusted to shift a train from the main track upon the siding to allow a train coming from the opposite direction to still keep to the main track without manually throwing or actuating the switch-rails, and yet allow, as in the passage of the train from the siding to the main track, the automatic replacement of the switch-rails while the switch is still open as to the siding.

Said invention consists of the combination and arrangement of parts, substantially as hereinafter more fully described, and particularly pointed out by the claim.

In the accompanying drawings, illustrating the preferred embodiment of my invention, Figure 1 is a plan view thereof as applied for practical use. Fig. 2 is an enlarged broken perspective view showing the salient features of said invention. Fig. 3 is a longitudinal section produced through the spring-containing casing or cylinder. Fig. 4 is a transverse section of the same.

In the carrying out of my invention I provide a preferably cylindric casing 1, suitably adapted for attachment to the parallel tie-bars 1^a of the pivoted switch-rails 2, as shown, or otherwise, said rails tapering to the usual or required thinness toward their free ends, either adapted to lie or rest flat against one or the other of the main-track rails, as well understood.

Within a cylinder or casing 1, having

screwed thereon heads 1^a, through which are produced enlarged openings 1^b, is contained a heavy or strong, preferably coiled, spring 4, having a bar or rod 5 passing therethrough and arranged between disks or followers 6, receiving the pressure or end thrust of said spring and adapted to deliver said pressure upon said cylinder, said disks or followers being held upon said rod by internally-screw-threaded collars or nuts 7, engaging screw-threads, as 5^a, upon said rod. The enlarged openings 1^b of the cylinder-heads 1^a permit the passage therethrough of the collars or nuts 7 as the action of the spring 4 is transmitted to the cylinder or casing 1, the purpose of which will more fully appear hereinafter. By this arrangement of parts it will be noted that the cylinder 1 has longitudinal movement independent of the rod or bar 5, suitably connected to the throwing-lever 8, arranged at the switch-stand, and is therefore subjected to and controlled by the action of the spring 4 to effect thereby the automatic replacement of the switch-rails, to which are connected the bars 1^a, through which is transmitted the movement of said cylinder, as will be presently seen.

It will be observed that as a train passes, say, from the siding 9 to the main track 10 the flange of one of the engine forward wheels will engage the contiguous switch-rail and effect the throwing or shifting of the other switch-rail to the corresponding main-track rail, the spring 4 in the casing 1 being simultaneously compressed thereby, consequently permitting the required movement of said cylinder, together with that of the switch-rails, and accordingly providing for such passage, and that after permitting such passage said switch-rails will be automatically replaced by the delivery of the recoil action of said spring upon said cylinder, causing the reverse movement thereof, the latter carrying with it said switch-rails, thus disposing the last named in open position and maintaining a "clear" or through main track. This action of parts, it will also be noted, is repeated upon a train coming in the opposite direction along the main track, although the switch may have been adjusted or thrown, as by hand, from

the switch-stand for the passage of an engine or train from the main track to the siding, thus still maintaining a clear main track and an open switch.

- 5 Latitude is allowed as to details herein, as they may be changed as circumstances suggest without departing from the spirit of my invention and the latter still be protected.

I claim—

- 10 A railway-switch, employing pivoted switch-rails, tie-bars rigidly connecting the latter, a cylindric closure having fixed connection with said tie-bars and openings in their heads, a rod or bar passing freely through said open-
15 ings with its free end projecting beyond one head of said closure and the other end portion likewise projecting beyond the other head of

said closure and connected to a switch-lever, said rod or bar having screwed thereon stop-nuts entering or receiving in said cylinder- 20
head openings, disks arranged upon said rod interiorly of said stop-nuts, and a spring encircling said rod and delivering its pressure or stress upon said disks and, through them, to said closure, whence said pressure is trans- 25
mitted via said tie-bars to said switch-rails as set forth.

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

ESCA W. HENRY.

Witnesses:

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G. H. SELLMEYER.