

(No Model.)

H. P. WHITE.
CIRCUIT CONTROLLER.

No. 466,519.

Patented Jan. 5, 1892.

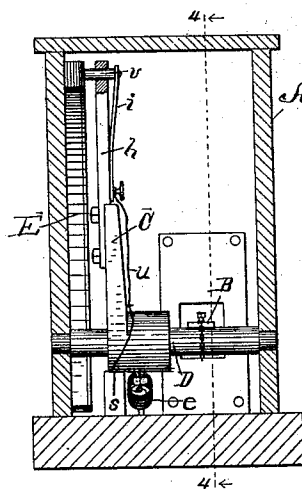
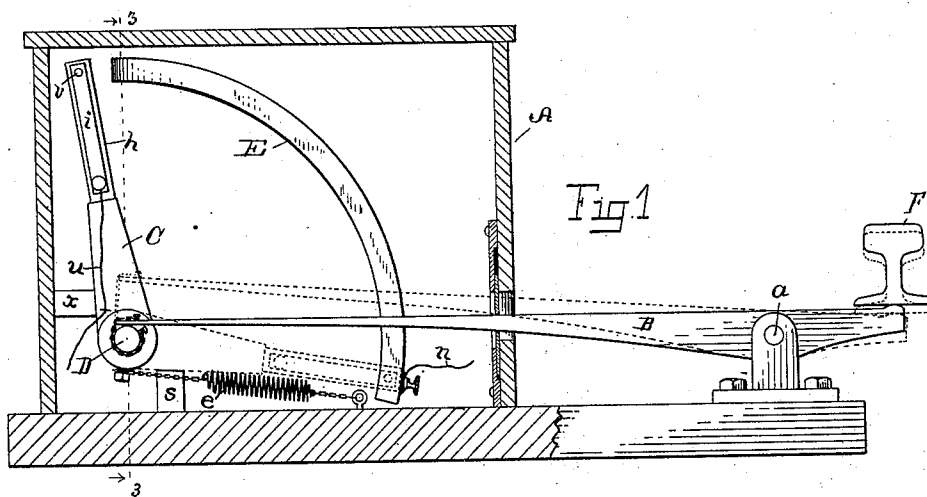


Fig. 2

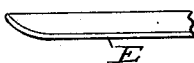


Fig. 3

Witnesses:

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Inventor.

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Att'y.

UNITED STATES PATENT OFFICE

HENRY P. WHITE, OF KALAMAZOO, MICHIGAN.

CIRCUIT-CONTROLLER.

SPECIFICATION forming part of Letters Patent No. 466,519, dated January 5, 1892.

Application filed April 29, 1891. Serial No. 391,001. (No model.)

To all whom it may concern:

Be it known that I, HENRY P. WHITE, a citizen of the United States, residing at Kalamazoo, county of Kalamazoo, State of Michigan, have invented new and useful Circuit-Controllers, of which the following is a specification.

The object of this invention consists in a construction whereby the natural yielding of a rail of a railway-track operates a circuit-controller of an electric circuit.

In the drawings, forming part of this specification, Figure 1 is an elevation, parts being in section, on dotted line 4 4 in Fig. 2. Fig. 2 is a section on line 3 3 in Fig. 1, looking from a point at the left, parts being illustrated by full lines; and Fig. 3 is a broken-lettered detail from Fig. 1.

Referring to the lettered parts of the drawings, F represents one of the rails of a railway-track. A lever is shown at B, fulcrumed at *a* to a suitable support near the rail F. This lever is so arranged in relation to rail F that it extends laterally at right angles from said rail, one end of said lever being extended beneath the rail, so as to come in contact with the under side thereof, as shown in Fig. 1.

Mounted in a case A is a shaft D, and projecting upwardly from said shaft is an arm C, which arm represents one of the terminals of an electric circuit and also one of the elements constituting the circuit-controller. One of the wires *u* is attached to said arm C, or, more correctly speaking, to the metal spring *i*, which spring is attached to the upper end *h* of the lever C, said upper end being insulated from the lower part of said lever. Attached to the upper end of said spring is a lateral projection *v*, which passes through the upper end of the lever in position to come in contact with the circular metal plate E when closing the circuit. The other wire *n* of the circuit is attached to said metal plate E. Hence when the projection *v* is brought in contact with the plate E the circuit is closed. A chain or cable is attached to the shaft D and wound around the same, the free end of said chain being attached to the free end of the lever B,

as shown in Figs. 1 and 2. By this means, when the weight of the cars presses down on rail F, the lever B is thrown to the position shown by dotted lines in Fig. 1, which action unwinds the chain or cable and rotates the shaft D and swings the lever C from its upright position downward, thus bringing the projection *v* in contact with the plate E, and closing the circuit and keeping it closed until the entire train has passed by the point where this circuit-controller is located. The plate E, being curved and of a considerable length, admits of the arm C fluctuating between the extreme points of its movement still keeping the circuit closed.

At *s* is a stop with which the lever C comes in contact whenever said lever reaches its extreme down position.

At *e* is shown a spring, one end being attached to the bottom of the case A and the other end being attached to the shaft D, the design of said spring being to assist in bringing the lever C back to its normal upright position after the train has passed.

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

The combination of a rail of a railway-track, a fulcrumed lever having one end beneath and in contact with the under side of said rail, a swinging lever constituting one of the terminals of the circuit, a chain attached to the axis of said swinging lever and to the free end of the fulcrumed lever which is acted upon by the rail, and the metal plate constituting the other terminal of the circuit in position for the swinging lever to come in contact therewith when the rail is borne down by the weight of the cars, whereby the circuit is closed, substantially as set forth.

In testimony to the foregoing I have hereto subscribed my name in the presence of two witnesses.

HENRY P. WHITE.

Witnesses:

RUFUS M. GREEN,
D. D. MCALPINE.