

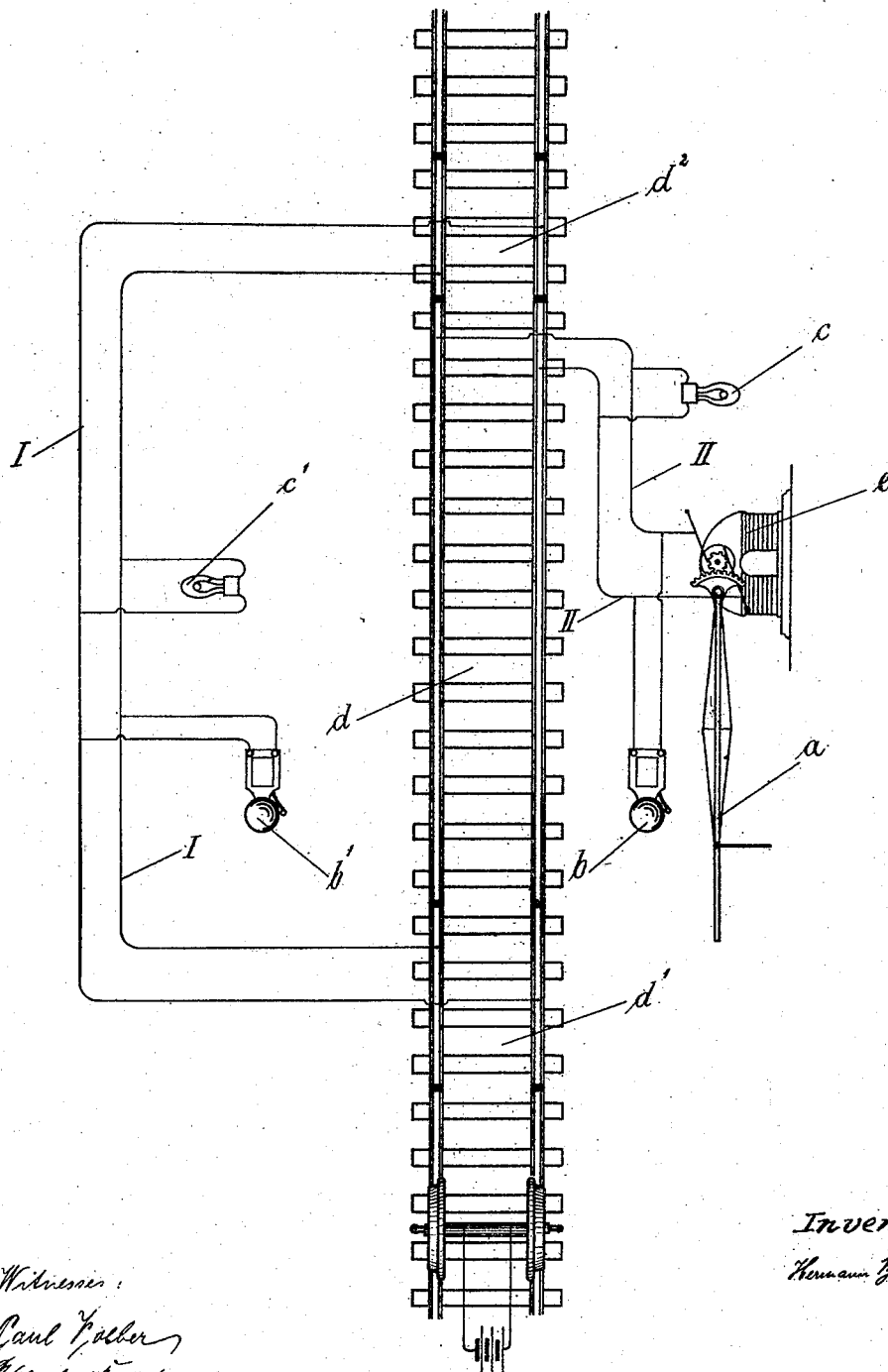
(No Model.)

H. BIERMANN.

ARRANGEMENT FOR CLOSING OR OPENING BARS AT RAILROAD CROSSINGS.

No. 578,853.

Patented Mar. 16, 1897.



Witnesses:
Paul Foller
Wilhelm Foller

Inventor:
Hermann Biermann

UNITED STATES PATENT OFFICE.

HERMANN BIERMANN, OF Breslau, GERMANY.

ARRANGEMENT FOR CLOSING OR OPENING BARS AT RAILROAD-CROSSINGS.

SPECIFICATION forming part of Letters Patent No. 578,853, dated March 16, 1897.

Application filed April 6, 1896. Serial No. 586,445. (No model.)

To all whom it may concern:

Be it known that I, HERMANN BIERMANN, merchant, residing at 5 Paradiesstrasse, Breslau, in the Province of Silesia, Kingdom of Prussia, German Empire, have invented new and useful Improvements in Arrangements for Closing or Opening Bars at Railroad-Crossings, of which the following is a specification.

10 The object of the present invention is an arrangement in which in connection with railroad-crossings the stop-bar is opened and closed by the passing train by means of an electric current generated in the train itself
15 and which serves at the same time to illuminate the railroad-crossing by the electric light and to actuate the alarm-signals. The rail-section is divided before the guard into the fields d d' d^2 by the insertion of isolating-
20 pieces. Of these three fields the two outer ones d' and d^2 are connected with an alarm-bell b' and lamp c' by means of a conductor I , and both apparatuses must be considered to be arranged on the guard. The center field
25 d is, on the other hand, connected by means of a conductor II with stop-bar a and also with another bell b and a lamp c , which are also arranged on the stop-bar. If a train enters the field d' or d^2 , the electric current
30 flows from the train through the conductor I to the bell and lamp c' , actuating both. An alarm-signal will therefore be heard, and an

illumination of the railroad-crossing will be brought about as long as the train is moving in one of the outer fields d' d^2 , while, besides, 35 a closing of the stop-bar is effected as soon as the train enters the center field d .

If the train leaves the center field d , the conductor II will be without circuit, and the guard may open automatically, while the bell 40 b ceases to sound and the lamp c is extinguished. As long as the train is within one of the outer fields d' d^2 , b' and c' are actuated, but which are at once set out of work if the conductor I is deprived of its current 45 while the train leaves the fields d' d^2 .

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

An apparatus for automatically actuating 50 a crossing-gate and sounding an alarm comprising a rail in three insulated sections, an alarm connected to the outside sections and an electric motor controlling the gate connected to the central section, substantially as 55 described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

HERMANN BIERMANN.

Witnesses:

EWALD BÖEHM,
HERMANN BARTSCH.