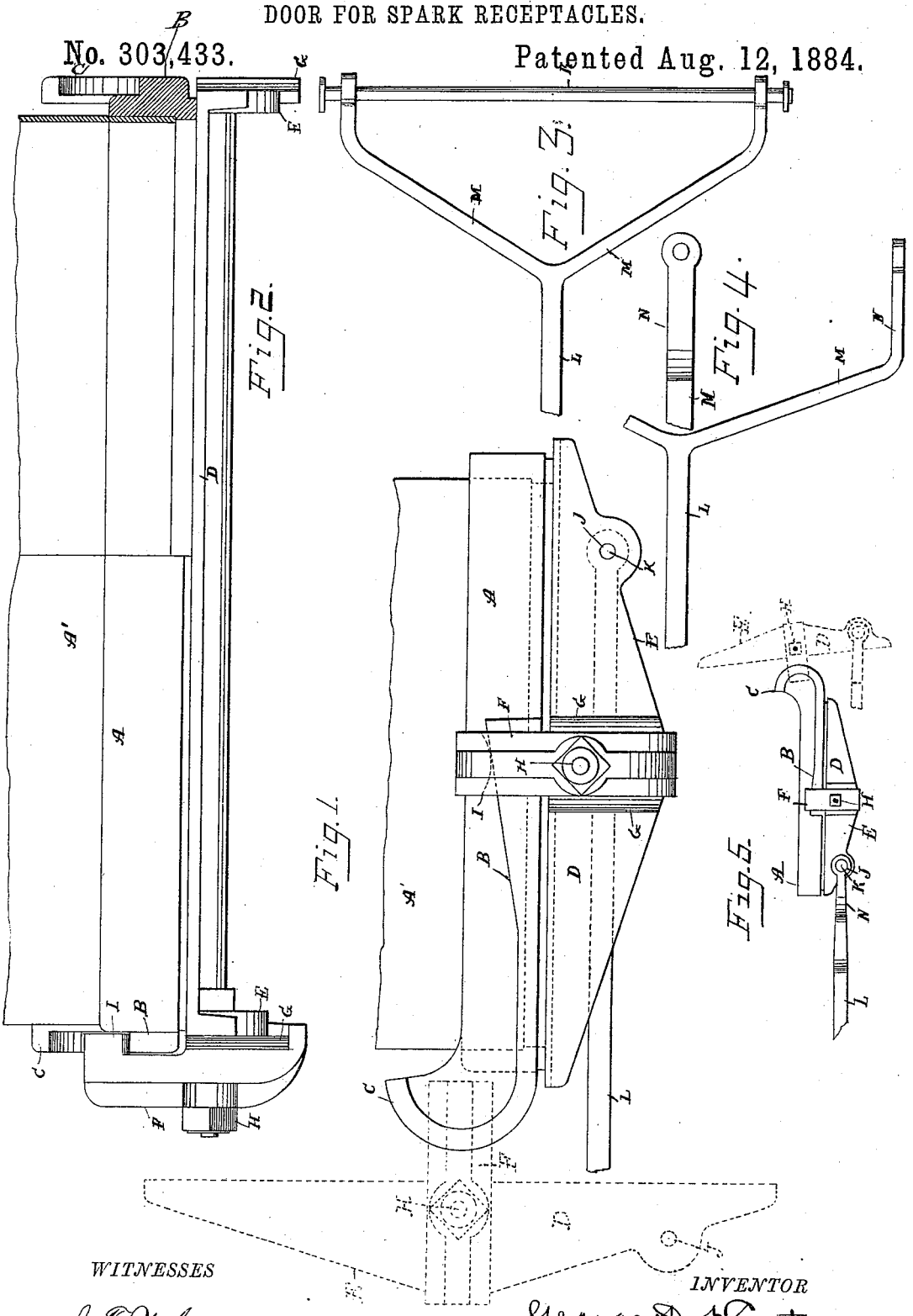
(No Model.)

G. D. HUNTER.

DOOR FOR SPARK RECEPTACLES.

No. 303,433. Patented Aug. 12, 1884.



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE D. HUNTER, OF TERRE HAUTE, ASSIGNOR OF TWO-THIRDS TO MORTON C. HUNTER AND THOMAS C. VAN NÜYS, OF BLOOMINGTON, INDIANA.

DOOR FOR SPARK-RECEPTACLES.

SPECIFICATION forming part of Letters Patent No. 303,433, dated August 12, 1884.

Application filed April 2, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEO. D. HUNTER, a citizen of the United States, residing at Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and useful Improvements in Doors for Spark-Receptacles, 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 doors for locomotive spark-receptacles of the character shown and described in Letters Patent granted to me October 2, 1883, for a spark-arrester and spark-extinguisher, numbered, respectively, 285,899 and 285,900.

The invention has for its objects, first, to provide a door adapted to be connected with such receptacle, so as to slide backward or forward, and swing entirely clear of the mouth of such receptacle thereby effecting a free discharge of the contents thereof; and, second, to provide a frame adapted to be connected with such receptacle and with the door in such a manner that by moving the latter in one direction it will be brought in close contact with the frame, and when moved in the opposite direction will be cleared therefrom, so as to be swung backward or forward away from the mouth of the receptacle.

In the accompanying drawings, forming a part of this specification, and on which like letters of reference indicate the same or corresponding features, Figure 1 represents a side elevation of my improved door and its attachments, showing in dotted lines the door when swung back; Fig. 2, a front elevation of the door and its attached devices, showing the frame partly in cross-section; Fig. 3, a plan view of the operating bar and yoke; Fig. 4, a modified form of the same; and Fig. 5, a side elevation of the door and its attachments, showing the door in dotted lines when swung forward.

The letter A designates a frame, preferably constructed of cast-iron, and adapted to be connected with the mouth of a spark-receptacle, A′, such as described in my Letters Patent above referred to. This frame is provided on its opposite sides with tracks or ways B. These tracks terminate in inclined planes in one end, and at the other in curves C.

The letter D indicates the door, the same being also constructed of cast-iron, and of such size and configuration as to occupy the entire area embraced by the frame. This door at either side is provided with depending flanges E, which are broadened about the middle, as seen in Fig. 2, so as to afford considerable strength as well as bearings for the connecting-brackets F. These flanges are provided with ribs or beads G, between which the said brackets fit, a bolt and nut, H, being employed to firmly fasten the flanges and brackets together. The lower ends of the brackets project under and embrace the lower edges of the flanges, so as to afford additional strength, while the upper ends of the brackets terminate in lugs I, which fit upon the ways or tracks B, their lower surfaces being rounded, as seen in Fig. 1, so as to agree with the curves C and allow the door to be swung in the position shown in dotted lines. The flanges E are also provided with holes J, which receive the rod K, whereby the operating-yoke L is connected with the sliding door. The operating-rod at one end connects with a suitable lever, which is located in the cab of the locomotive, and terminates at the other in the arms M, which fit between the flanges E.

When it is desired to operate the door toward the forward part of the engine, which is made necessary by the construction of the trucks of some engines, the curved portion of the tracks or ways is placed toward the front of the engine, (see Fig. 5,) and the form of operating-rod shown in Fig. 4 is adopted. This rod is applied, as shown in Fig. 5, the arms M of which embrace the outer sides of the flanges E, and their parallel portions N are of such length as to allow that part of the door to clear the arms M when it is swung forward, as shown in dotted lines in Fig. 5.

It is observable that in some instances the frame A may be dispensed with, and the mouth of the receptacle constructed with the ways or track B.

It is also observable that my invention may be used in connection with any other analogous class of receptacles which have an opening designed to be opened and closed.

I also contemplate providing the door or the frame with a stop which shall act to prevent the brackets from sliding too far on the

ways, whereby they are prevented from binding or clamping.

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

1. The combination, in a receptacle-door, of a receptacle having tracks inclined at one end and curved at the other, with a door having depending flanges, and the brackets embracing the under edges thereof and secured thereto, and provided with rounded lugs which fit upon said tracks, and the operating-rod whereby the door is moved on said tracks and swung clear of the opening in the receptacle.

2. The combination, in a receptacle-door, of a receptacle having tracks inclined at one end and curved at the other, with a door having depending flanges provided with ribs, and the brackets fitting within said ribs embracing the under edges of the flanges and secured thereto, and provided with rounded lugs which fit upon said tracks, and the operating-rod terminating in arms and connected with the door.

3. The combination, in a receptacle-door, of the frame provided with tracks on opposite sides, inclined at one end and curved at the other, with the door having flanges provided with ribs, and the brackets fitting within said ribs, embracing the under edge of the flanges, and secured thereto, and having lugs rounded on the under side, and the operating-rods terminating in arms which connect with the door.

4. In a receptacle-door, the combination, with the door having ribs on the outer side thereof, of the brackets fitting within said ribs, embracing the under edge of the door, and secured thereto, and provided with lugs adapted to travel upon said track.

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

GEO. D. HUNTER.

Witnesses:
SAMUEL R. HAMILL,
GEORGE W. FAIRS.