E. H. SCHMIDT.

COUPLING MECHANISM FOR LOCOMOTIVES.

APPLICATION FILED NOV. 13, 1909.

1,016,782.

Patented Feb. 6, 1912.

2 SHEETS—SHEET 1.

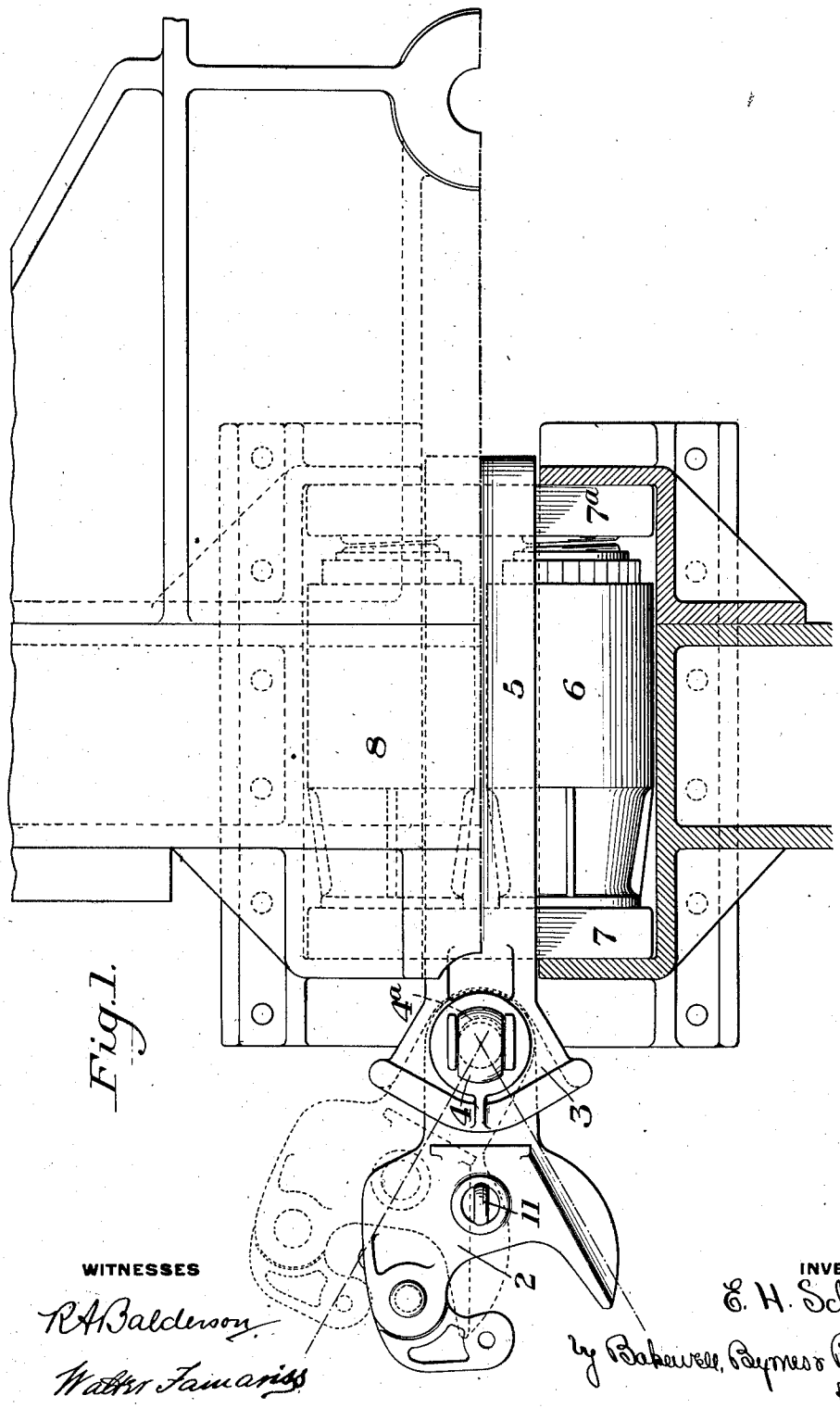

Fig. 1.

WITNESSES

R. A. Balderson.

Walter Fairaries

INVENTOR

E. H. Schmidt,

by Bakewell, Byrnes & Parmelee,

his Attys.

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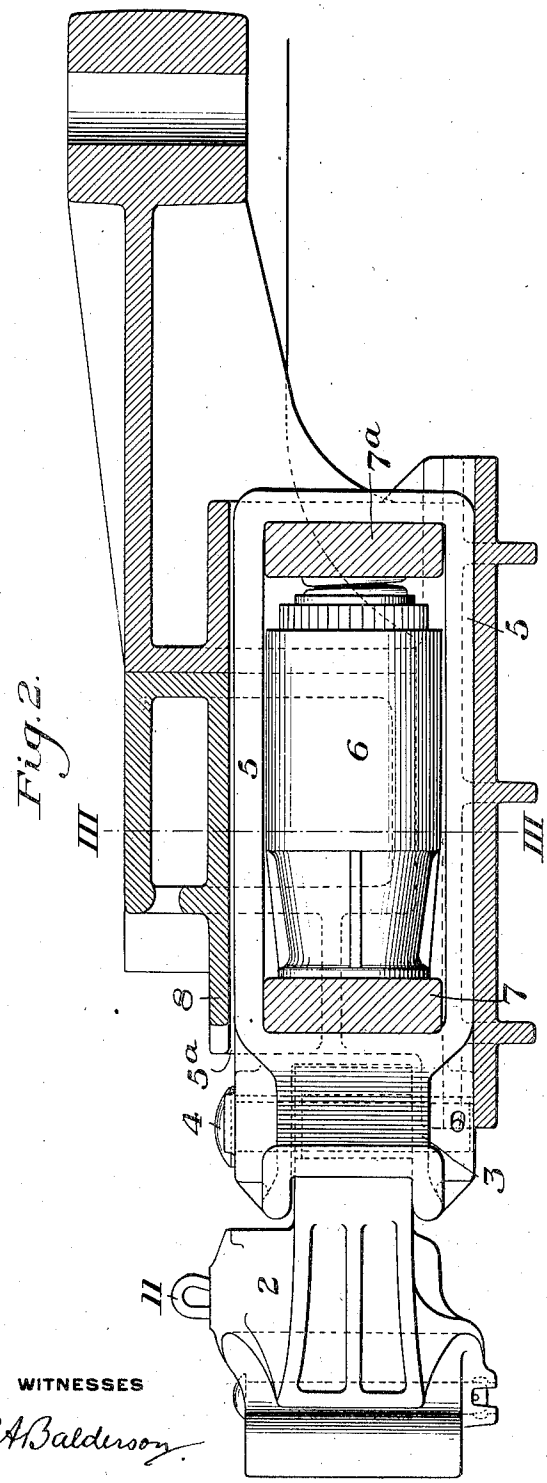

Fig. 2.

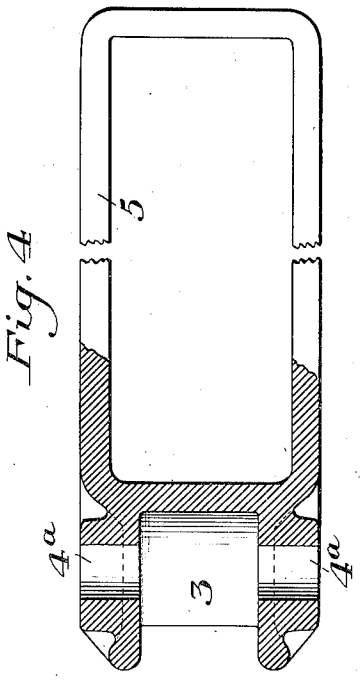

Fig. 4

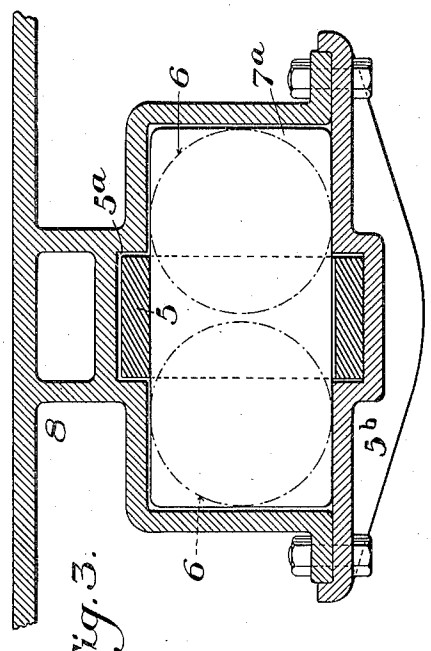

Fig. 3.

WITNESSES

R. A. Balderson

Walter Famariss

INVENTOR

E. H. Schmidt,

by Bakewell, Byrnes & Parmelee,

his Attys.

UNITED STATES PATENT OFFICE.

ERNEST H. SCHMIDT, OF CLEVELAND, OHIO, ASSIGNOR TO THE NATIONAL MALLEABLE CASTINGS COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

COUPLING MECHANISM FOR LOCOMOTIVES.

1,016,782. Specification of Letters Patent. **Patented Feb. 6, 1912.**

Application filed November 13, 1909. Serial No. 527,809.

To all whom it may concern:

Be it known that I, ERNEST H. SCHMIDT, of Cleveland, Cuyahoga county, Ohio, have invented a new and useful Coupler Mechanism for Locomotives, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view partly in section illustrating my invention in its application to the pilot end of a locomotive; and Fig. 2 is a sectional side elevation of the same; Fig. 3 is a section on the line III—III of Fig. 2; and Fig. 4 is a detail view, partly in section and partly in side elevation of the combined pocket yoke.

My invention has relation to coupler mechanism for the pilot ends of locomotives.

The common method of application of an automatic coupler to the pilot end of a locomotive, is to pin a very short shank coupler within the mouth of a pocket, which, in turn, is bolted rigidly to the bumper or pilot beam. The formation of the pocket and of the specially shaped shank of the coupler permits of the movement of the coupler head in a horizontal direction about its pin connection within the pocket, this rotation being usually limited to a certain number of degrees to either side of the center line of the coupling. Except for this lateral motion of the coupler, the connection is usually a rigid one with no cushioning device to receive the shocks of pulling and buffing and for transmitting such shocks to the engine framing, although springs have sometimes been used between the coupler and the pocket.

My invention is designed to provide means of novel character, whereby the pocket within which the coupler head is pivoted, is adapted to have a longitudinal motion in the line of draft, said motion in both forward and rearward directions being resisted by spring, frictional, or other suitable resistance.

The precise nature of my invention will be best understood by reference to the drawings, in which I have shown the preferred embodiment thereof, and which will now be described, it being premised, however, that various changes may be made in the details of construction and arrangement of parts by those skilled in the art without departing from the spirit and scope of my invention.

In these drawings, the numeral 2 designates a top opening pilot coupler head of the usual form having its shank extending within the mouth of a pocket 3 within which it is pivotally secured by the vertical pin 4. This pocket has cast integral therewith, or is otherwise provided with, a yoke 5 of suitable dimensions to receive a draft rigging 6, which is interposed between a front follower 7 and a rear follower 7^a. The draft rigging 6 is a well known type of friction gear, but it will be understood that I do not limit myself to the use of any particular form of shock cushion. The pilot beam 8 is formed with a suitable recess 5^a within which to receive the combined pocket yoke 5. The portion 5 operates in the same manner as the usual yoke of a draft rigging. The holes 4^a for the pin in the pocket are elongated slightly in a longitudinal direction so that in buffing the blow is not transmitted through the pin but from the rounded rear end of the coupler shank to the front wall of the pocket 3 and thence to the front follower 7. The pulling strains are transmitted by the pin from the coupler to the pocket and thence to the yoke and the rear follower 7^a. Two or more of the draft riggings 6 may be placed in parallel within this yoke portion 5, as shown, so as to give any desired amount of resistance. The bottom wall of the recess 5^a is formed by a removable plate 5^b so as to permit of the insertion and removal of the rigging from the bottom.

The coupler 2 may be of any well known type. A top-opening coupler is shown having a vertically movable coupler locking member, to which is connected the lifting link 11.

The advantages of my invention will be readily understood by those skilled in the art, since it makes it possible to apply to a locomotive pilot coupler and draft rigging having any desired amount of cushioned resistance to receive buffing and pulling shocks and transmit such shocks to the locomotive frame.

It will be obvious that various changes may be made in the details of construction and arrangement of the several parts without departing from the spirit and scope of

my invention. Thus, the form of the combined pocket yoke may be changed; any suitable draft rigging or riggings may be used in connection therewith; and various other changes may be employed.

What I claim is:—

A pilot beam for locomotives, comprising an upper horizontal portion and a depending portion, said depending portion being of hollow box form to form a pocket for a draft rigging, said box portion having an open bottom, and a removable plate normally closing the open bottom, substantially as described.

In testimony whereof, I have hereunto set my hand.

ERNEST H. SCHMIDT.

Witnesses:

CHESTER K. BROOKS,

HARRY E. ORR.