

No. 764,575.

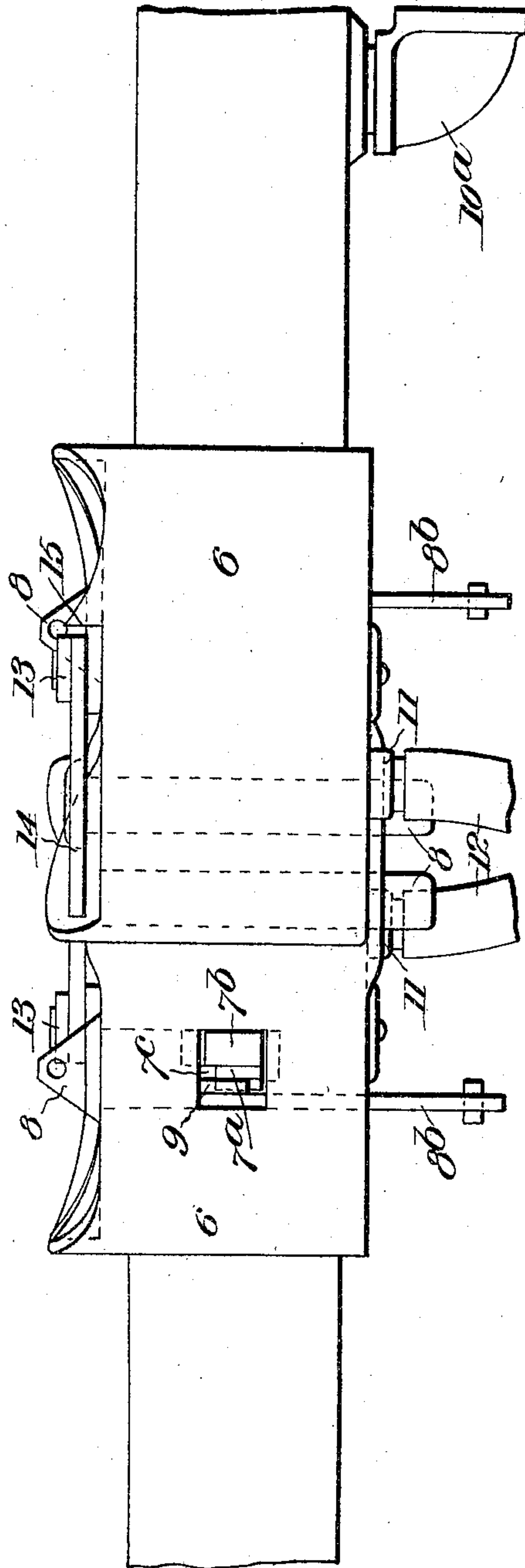
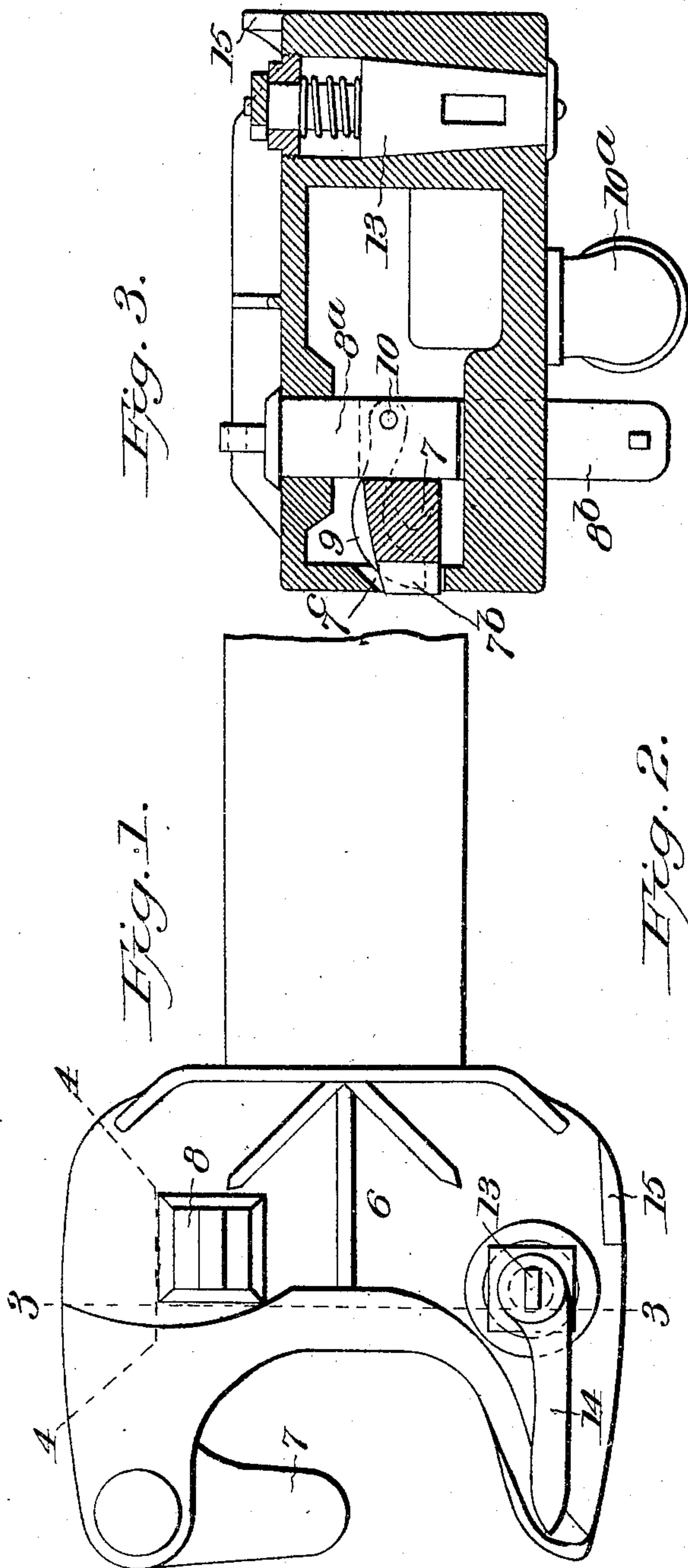
PATENTED JULY 12, 1904.

A. B. GARDELLA.
AUTOMATIC CAR COUPLING.

APPLICATION FILED FEB. 4, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

C. W. Walker.

Geo. E. Tew.

INVENTOR

Albert B. Gardella

BY

Mrs. B. Stevens & Co.
Attorneys

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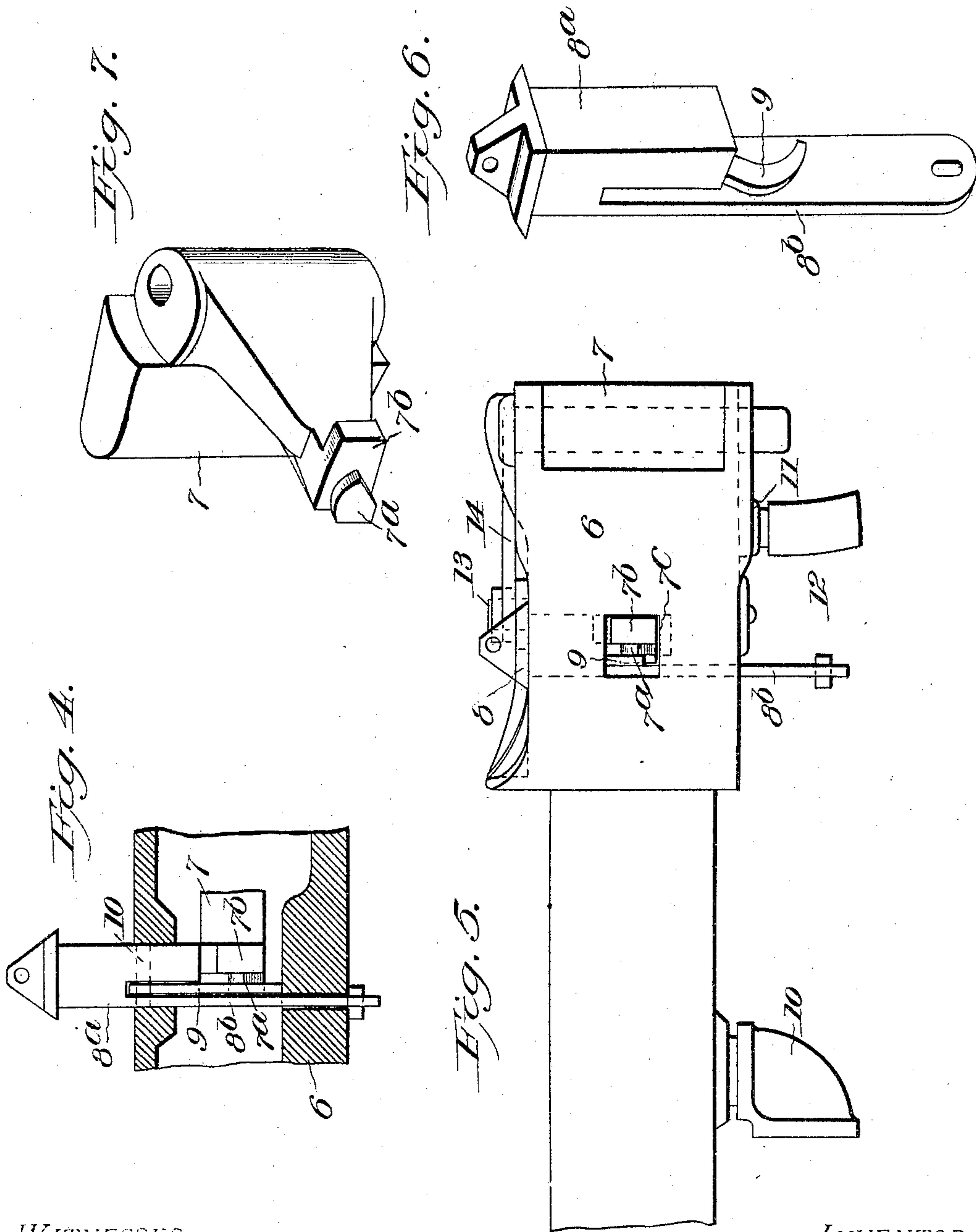
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WITNESSES:

C. H. Walker.
Geo. E. Jew

INVENTOR

Albert B. Gardella
BY
Miles B. Stevens & Co.
Attorneys

UNITED STATES PATENT OFFICE.

ALBERT B. GARDELLA, OF NEWBURG, OHIO.

AUTOMATIC CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 764,575, dated July 12, 1904.

Application filed February 4, 1904. Serial No. 192,005. (No model.)

To all whom it may concern:

Be it known that I, ALBERT B. GARDELLA, a citizen of the United States, residing at Newburg, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Automatic Car-Couplers, of which the following is a specification.

This invention relates particularly to automatic car-couplers of the Janney type; and its object is to provide an improved connection, in combination with a coupling-head, for the air-brake pipe.

In the accompanying drawings, wherein an embodiment of the invention is illustrated, Figure 1 is a plan view of a coupling-head embodying the invention. Fig. 2 is an elevation of two heads coupled. Fig. 3 is a cross-sectional view on the line 3 3 of Fig. 1. Fig. 4 is a sectional view on the line 4 4 of Fig. 1. Fig. 5 is a view in elevation of the "knuckle" side of the head. Fig. 6 is a perspective view of the locking-pin removed. Fig. 7 is a view of the knuckle removed.

Referring particularly to the drawings, 6 indicates the draw-head of the Janney type, having a pivoted knuckle 7, which is held by a locking-pin 8 in the general manner characteristic of this class of couplers. The locking-pin works up and down in the body of the draw-head in proper position to engage the tail of the knuckle and hold same when the coupling is closed. The pin has a stout or large upper portion 8^a, and depending from the rear side thereof is a thin guide portion 8^b, which extends through a guide slot or opening formed in the bottom of the draw-head.

At 9 is indicated a hooked and hinged latch-piece which is pivoted at 10 in position to hang down in front of the guide portion 8^b and below the lower end of the main pin 8^a. The tail or rear arm of the knuckle has a beveled projection 7^a, which when the knuckle is closed strikes the latch 9 and drops the pin. When the pin is lifted or set preparatory to coupling, the lower end of the latch 9 rests upon the body of the draw-head and supports the pin in raised or set position. When the knuckle comes around, the projection 7^a strikes the latch, as referred to above, and thereby withdraws the support for the pin, which then

immediately drops in front of the rear arm of the knuckle. To uncouple, the pin is pulled up, at which action the hooked latch 9 exercises a leverage against the projection 7^a, causing the knuckle to swing open. When the knuckle is closed, as in coupling, the latch is swung laterally out of line with the pin, permitting the pin to drop in the manner above described. Now when the pin is forcibly lifted the hooked latch, by contact of its back or upper edge with the upper wall of the cavity in which the tail of the knuckle swings, exercises a leverage on the tail of the knuckle, which has the effect of swinging the knuckle outward or open. The tail of the knuckle has also on the rear or back side thereof a lug 7^b, which when the knuckle is closed enters a recess 7^c, formed in the body of the draw-head, and engages behind the front edge of said recess, so that the draft on the knuckle is not wholly on its pivot-pin and locking-pin, but is sustained in part by the lug 7^b engaging the body of the draw-head.

With respect to the pipe-coupling, it particularly embodies the idea of putting the train-pipe line through the draw-head and having the angle-cock advantageously located in the coupling-head on the side opposite to the locking-pin. The benefit and effect of this is to shorten the flexible pipe connection, make the pipe-coupling and angle-cock more accessible to the trainmen, and avoid the necessity for separate fittings and casing for the angle-cock.

In the drawings the train-pipe is shown entering the draw-head at 10^a, whence it is continued through a bore in the draw-head to the outlet 11 on the under side of the coupling-head, at which place the flexible hose-coupling 12 is attached. The angle-cock 13 is let or located in the body of the coupling-head, across the pipe connection therein, which it controls in an obvious manner. Preferably the handle 14 of the angle-cock is so disposed that it will point straight ahead when the cock is open and will be stopped against a stop 15 when the cock is closed.

By setting the train-pipe cock in the coupling-head a firm and solid casing therefor is provided in very convenient position for ma-

nipulation by the trainmen. The long low-hanging coupling-pipes in common use are avoided, because the air-coupling is made at practically the middle line of the car and very little will have to be allowed for the variation in length incident to passing around curves. The handle of the angle-cock being on top of the draw-head it can be got at from either side very readily. It will not be necessary to get down under the coupling to get at the ends of the train-pipe, since the flexible train-pipe hose will be but a few inches in length—only long enough to cross from one head to the other. The seat for the valve and also the train-pipe section can be cored in the draw-head when it is cast.

With respect to the draw-head coupling, the locking-pin is supported by the latch in set position, and the closing of the knuckle effects with certainty the release and drop of the pin. Furthermore, the lift of the pin

causes the latch to swing down and be reset. The pin is always set when the knuckle is released.

What I claim as new, and desire to secure by Letters Patent, is—

The combination with a coupling-head of the Janney type, having a pivoted knuckle on one side thereof, of a train-pipe which enters the rear portion thereof and has an outlet at the front end adjacent the coupling, and a controlling-cock for the pipe, in the coupling-head, said outlet and cock being in the side of the head opposite the knuckle.

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

ALBERT B. GARDELLA.

Witnesses:

JOHN A. BOMMARDT,
LOTTIE NEWBURN.