H. T. KRAKAU.

UNCOUPLING DEVICE.

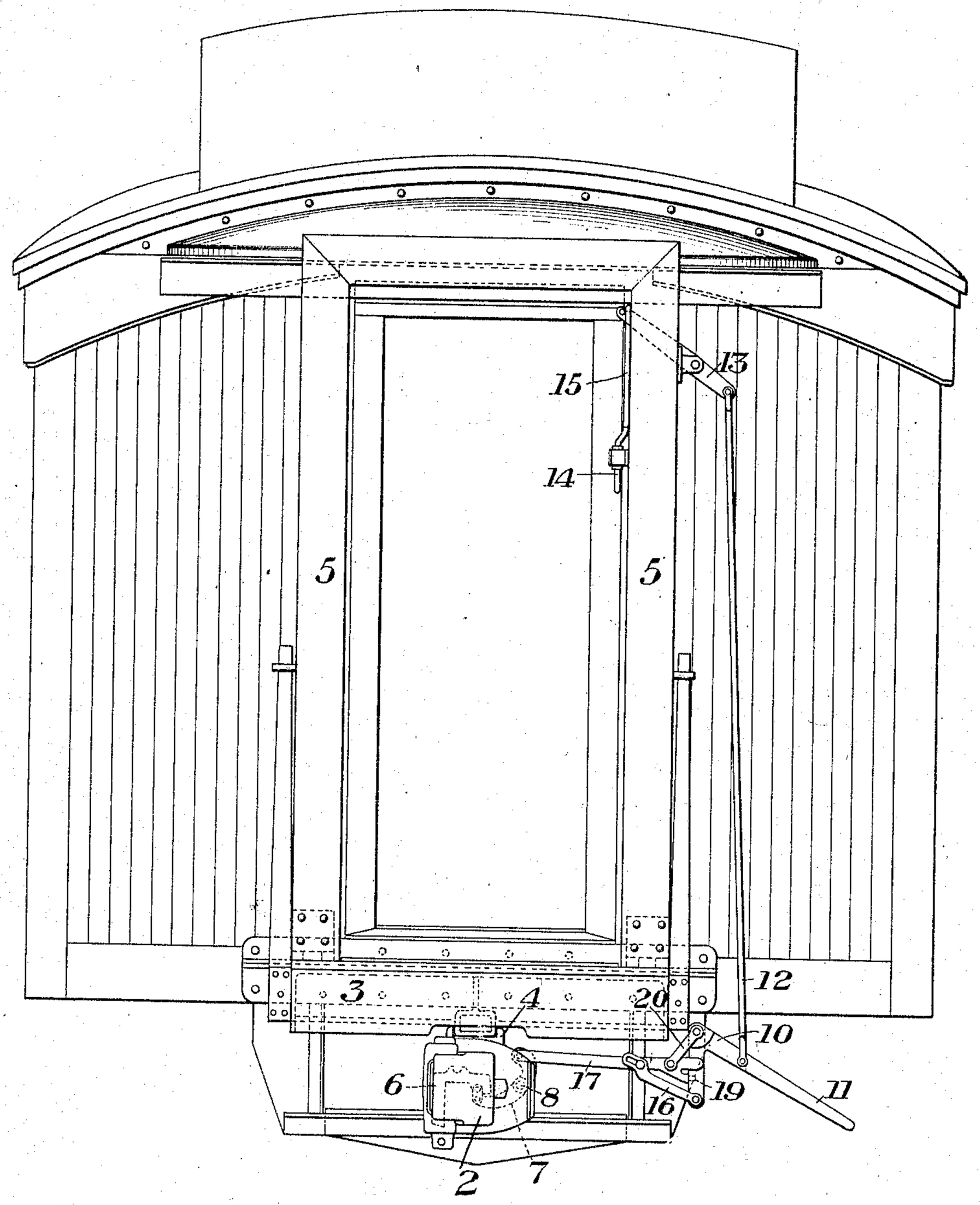
APPLICATION FILED JUNE 20, 1907.

947,243.

Patented Jan. 25, 1910.

3 SHEETS—SHEET 1.

Fig. 1.



WITNESSES

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3 SHEETS—SHEET 2.

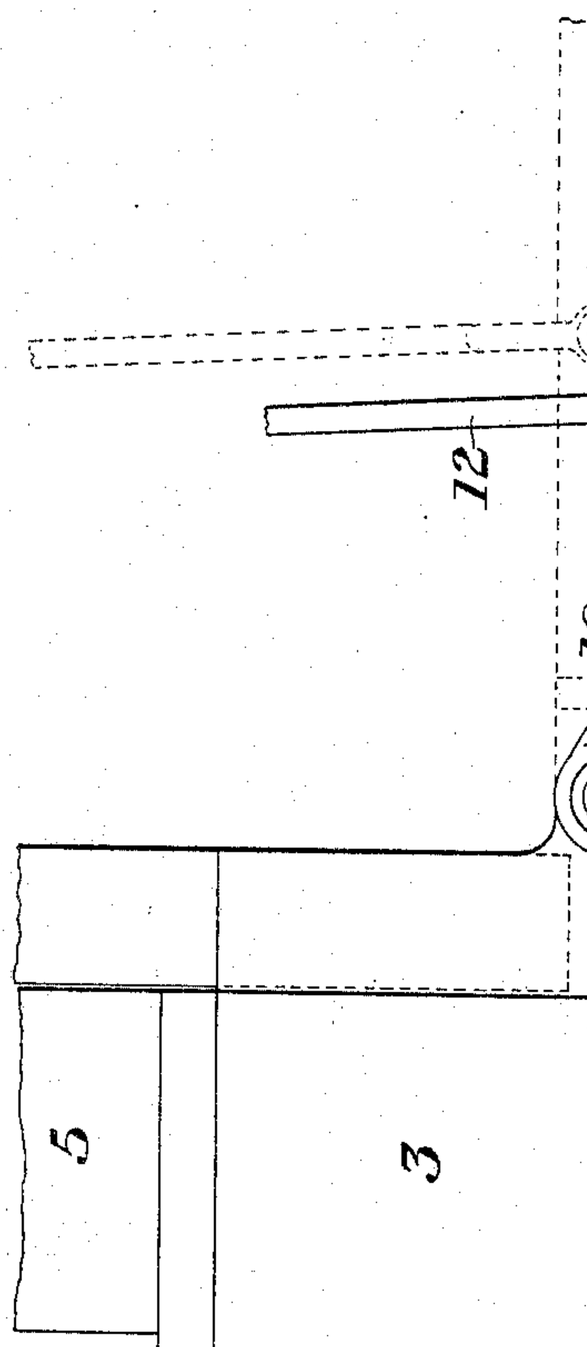

Fig. 2.

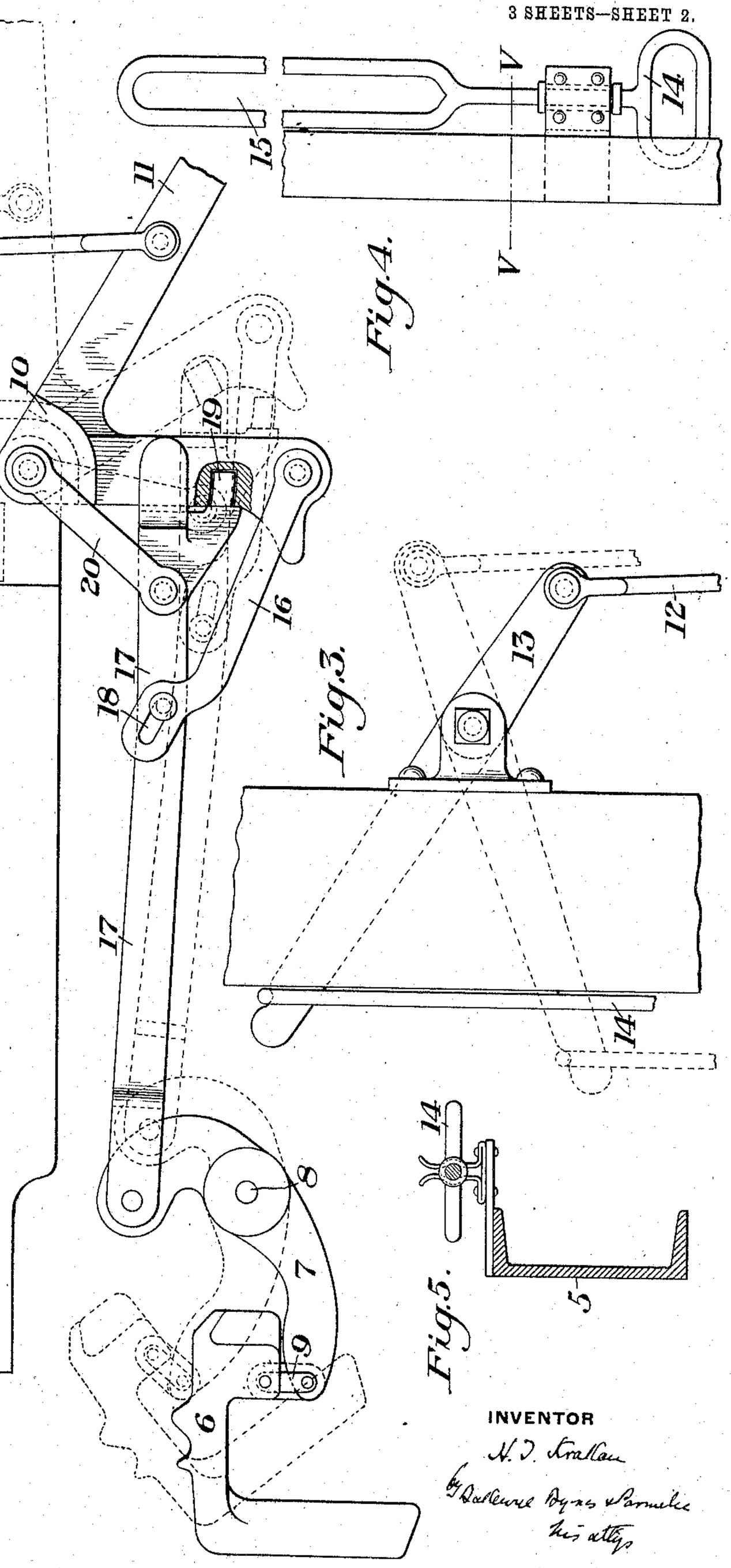

Fig. 4.

Fig. 3.

Fig. 5.

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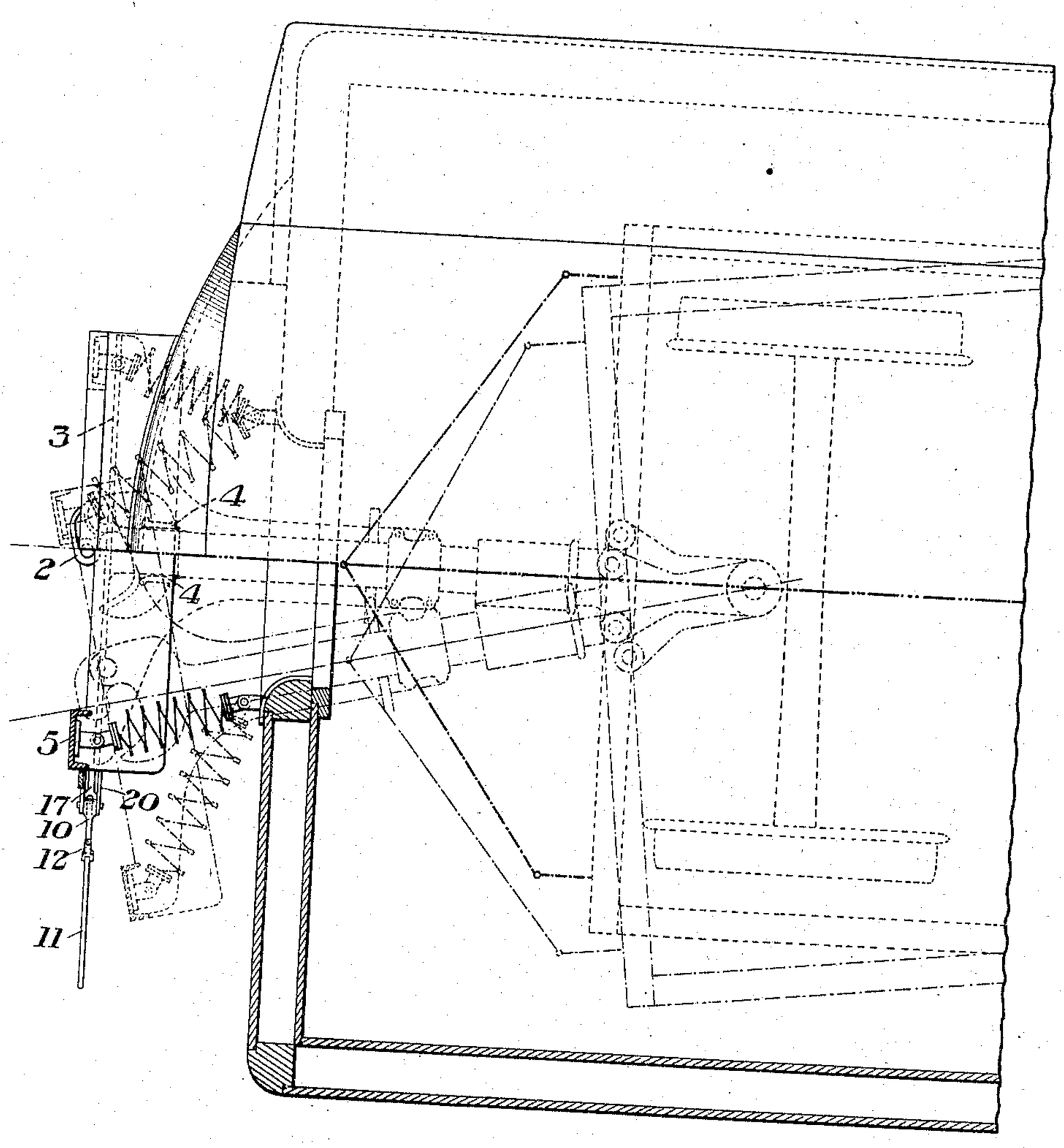
3 SHEETS—SHEET 3.

Fig. 6.



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UNITED STATES PATENT OFFICE.

HARRY T. KRAKAU, OF CLEVELAND, OHIO, ASSIGNOR TO THE NATIONAL MALLEABLE CASTINGS COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

UNCOUPLING DEVICE.

947,243. Specification of Letters Patent. Patented Jan. 25, 1910.

Application filed June 20, 1907. Serial No. 379,872.

To all whom it may concern:

Be it known that I, HARRY T. KRAKAU, of Cleveland, Cuyahoga county, Ohio, have invented a new and useful Uncoupling Device, of which the following is a specification, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a front elevation of a car provided with my improved device; Fig. 2 is a front elevation on a larger scale showing the connection of the device to the coupler lock; Fig. 3 is a detail view of one of the parts; Fig. 4 is a detail view of the operating handle in the vestibule of the car, and Fig. 5 is a horizontal section on the line V—V of Fig. 4. Fig. 6 is a plan view partly in section, showing the radially swinging coupler and buffer.

My invention provides an uncoupling device which is especially useful with radially swinging draft gears and also with radially swinging buffer and vestibule, and it provides reliable means by which a coupler can be operated and can be held in locked position.

In Fig. 1, 2 represents the coupler, the shank of which is radially mounted in a manner which is now familiar in the art, and 3 is a radially swinging buffer which is engaged with the coupler at 4 and moves laterally therewith as the car passes around curves. 5 is the vestibule, which is mounted upon the buffer and moves therewith.

In Fig. 2, 6 is the coupler lock, which may be of ordinary construction, and 7 is a lever which is pivoted at 8 to the coupler-head and is connected by a link 9 or any other suitable connection, with the head of the lock. 10 is a bell-crank lever which is pivoted to the radially swinging buffer of the car and is operated either directly by a handle 11 at the side of the car, or by a rod 12 which extends upwardly from the handle to a lever 13 pivoted to the vestibule and having an operating handle 14 within the vestibule. This handle is preferably slotted at 15 and fits over the lever 13 so that by pulling down the handle the main lever 10 may be operated for the purpose of uncoupling, and so that when the uncoupling is effected by the lower lever 11 the lever 13 will operate without moving the handle 14. The bell-crank lever 10 is connected by a link 16 to a rod 17 by a slot connection 18. This rod 17 extends from the coupler-operating lever 7 and is forked around the arm of the bell-crank lever 10, and also has a projecting tongue 19 which fits within a socket in the bell-crank lever, forming a locking connection as described below. The rod 17 is also connected with the axis of the bell-crank lever 10 by a guiding link 20.

The operation is as follows: By raising the outer arm of the bell-crank lever 10 as shown by dotted lines in Fig. 2, the rod 17 is drawn to the right, the lever 7 is rocked, and the coupler lock is elevated as shown by dotted lines, so as to free the knuckle of the coupler. The first motion of the bell-crank lever 10 releases the socket from the projection 19 by reason of the loose motion permitted by the slot 18 so as to permit the motion of the rod 17 and lever 7. The lock cannot be moved except by moving the bell-crank lever 10, for if force be applied to the lock 6 or to the lever 7 or rod 17, the engagement of the projection 19 with its socket, and the connection of the link 20 with the rod 19, will effectually lock the parts and prevent any such motion. In this way, a lock to the lock is afforded.

As the lever 10 is connected to the buffer which swings with the radial draft gear, the proper relation of the parts is at all times maintained, so that the coupler can be unlocked while the car is passing around or standing upon curves.

Within the scope of my invention as defined in the claims, the parts may be modified in many ways, since

What I claim is:

1. The combination of a coupler and an uncoupling device extending from the coupler to the operating station, and a locking mechanism interposed in the uncoupling device adapted to be released automatically when the uncoupling device is operated.

2. The combination of a coupler, an uncoupling device having an operating member, a connection from the operating member to the coupler lock, said connection having a loose engagement with the operating member, and a locking part upon the connection for locking engagement with the operating member; substantially as described.

3. The combination of a coupler and an uncoupling device having an operating member, a connection extending from the

operating member to the coupler lock, said connection having a loose connection with the operating member and also having a locking part engaged with the operating member, and a guiding link coöperating with the locking part; substantially as described.

4. The combination with a coupler lock, of an operating member, a connection extending from the operating member to the coupler lock, a link having a slotted connection with said connecting part, said connecting part having a locking engagement with the operating member, and a guiding link therefor; substantially as described.

5. The combination of a coupler and an uncoupling device extending from the coupler to the operating station, and a locking mechanism interposed in the uncoupling device adapted to be released automatically when the uncoupling device is operated, said uncoupling device extending rigidly from the locking mechanism to the coupler; substantially as described.

In testimony whereof, I have hereunto set my hand.

HARRY T. KRAKAU.

Witnesses:
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