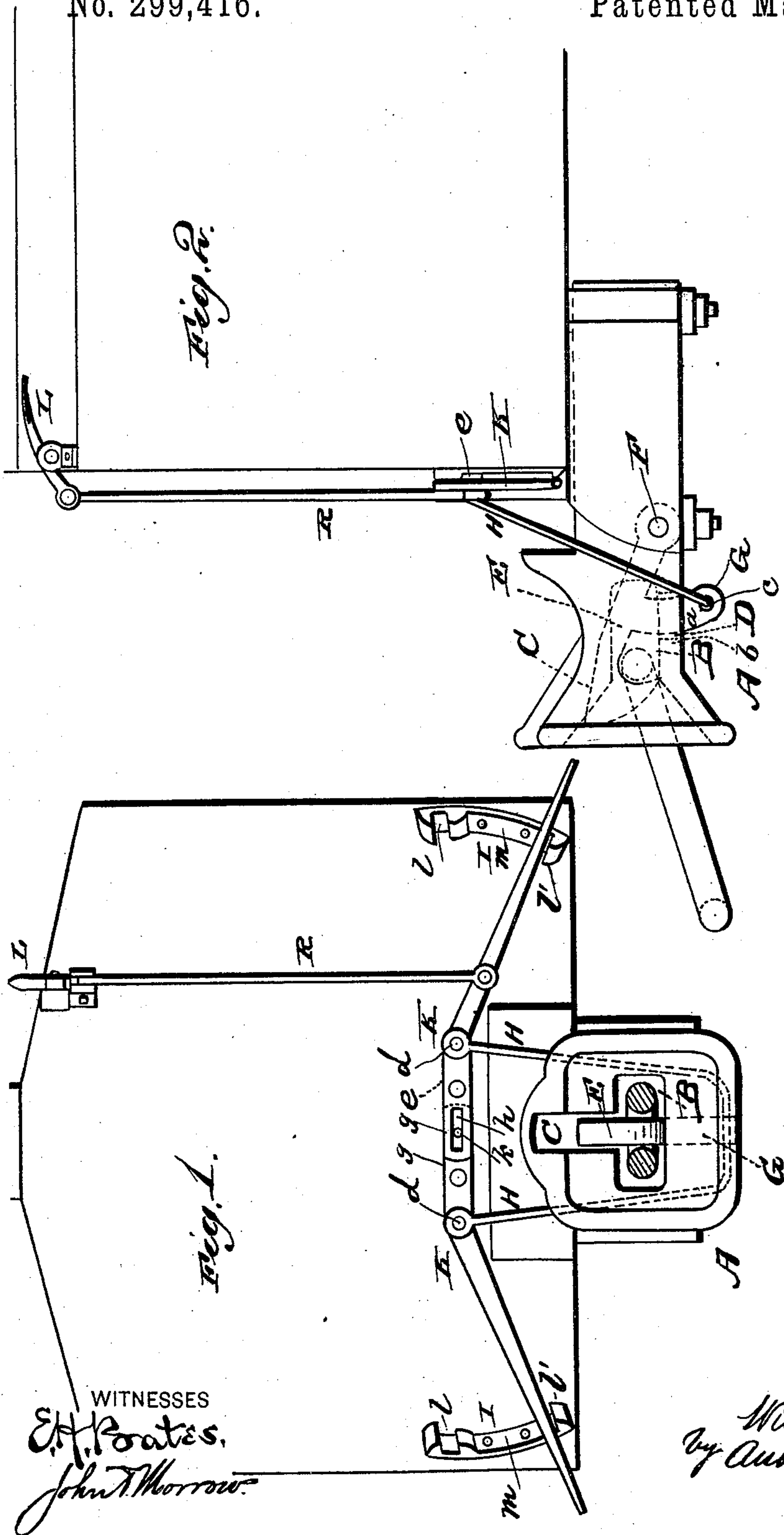


(No Model.)

W. F. NINE.
CAR COUPLING.

No. 299,416.

Patented May 27, 1884.



WITNESSES
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UNITED STATES PATENT OFFICE.

WILLIAM F. NINE, OF SULLEY, IOWA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 299,416, dated May 27, 1884.

Application filed March 31, 1884. (No model.)

To all whom it may concern:

Be it known that I, W. F. NINE, a citizen of the United States, residing at Sulley, in the county of Jasper and State of Iowa, have
5 invented certain new and useful Improvements in Car-Couplers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
10 pertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a front view of
15 my device, and Fig. 2 is a side view of the same.

This invention has relation to means for coupling cars; and it consists in the construction and novel arrangement of devices, as here-
20 inafter set forth, and particularly pointed out in the appended claims.

In the accompanying drawings, the letter A designates the draw-head, which is made with flaring mouth and laterally-extended throat B,
25 from the upper portions of which extends upward a vertical chamber, C. Through the floor of the draw-head, at the back part of the throat, is made a central slot, D.

E represents a drop-catch, which is located
30 centrally and longitudinally in the cavity of the draw-head, its rear end being connected to the walls of the draw-head by a transverse pivot-bolt, F. The front end of the catch is made in hook form, as shown, the face of the
35 hook being inclined forward.

From the middle portion of the shank of the catch an arm or lug, G, of arc form, extends downward through the slot D in the floor of the draw-head. The front or convex edge, a,
40 of the lug is designed to work in contact with the front wall, b, of the slot D, so that when the link is in operation the strain will be borne, to a great extent, by this lug, relieving the pivot-bolt.

Through the lower end of the lug G is formed
45 an opening, c, to receive the transverse portion or bearing of the arms H, which extend up, one on each side of the draw-head, above the same, to the levers K K, to which said arms
50 are respectively pivoted, as shown at d d. These levers K K are respectively pivoted on bearings e e, secured to the end of the car, and

are formed with lapping extensions g g, which extend from the pivotal portions of the levers past each other sufficiently to form a slip-
55 joint, as shown. One of these extensions is slotted, as shown at h, and the other is pivoted with a stud or pin, k, which engages the slot h, so that a compound lever is formed having a slide-bearing. The handle portions of
60 these levers extend to or slightly beyond the sides of the car, and engage rack-bearings I, secured to the lateral portions of the end of the car. Each rack I is formed with an upper catch or bearing, l, in which the handle
65 of the lever is held when said handle is raised. In this position the drop-catch is held up by means of the arms H.

Below the bearing l each rack has a long bearing, m, at the lower end of which is a stop-
70 lug, n. This long bearing gives sufficient play to the handle of the lever to allow for the introduction of the link under the hook, which raises the drop-catch to a certain extent. After the link is introduced, the drop-catch falls,
75 and the handles of the levers fall at the same time to the lower stops, n, of the racks. When either branch of the compound lever is operated, the other is moved at the same time in the same manner, so that the arms of the drop-
80 catch work together.

In order to provide means for operating the compound lever from the top of the car, it is designed to employ a short lever, L, which is
85 pivoted to a bearing at the top of the car, as shown, and is connected to one of the levers K by a vertical rod, R, the upper and lower ends of which are respectively pivoted to the upper and lower levers. The short lever L is connected to a low bearing, and is designed to
90 be operated for uncoupling by the foot, a simple pressure of this lever serving to raise the branches of the compound lever, and thereby the drop-catch.

By varying the pressure on the compound
95 lever, the link in engagement with the drop-catch can be adjusted with reference to the proper degree of inclination which it should have to enter the opposite draw-head.

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

1. In a draw-bar having a central upward extension of its cavity, and a central slot

through its floor at the back part of the throat, the drop-catch E, pivoted at its rear end to the sides of the draw-bar, and having the bearing lug or arm G, extending downward from
5 its middle part through the slot of the draw-head, and engaging said slot by its convex front edge, substantially as specified.

2. The combination, with the draw-head and its pivoted drop-catch, having a bearing-
10 lug, G, extending downward through a slot in its floor, of the compound uncoupling-lever

consisting of the branch levers K K, connected by a slip-joint, the foot-lever at the top of the car, the vertical connecting-rod, and the lateral holding-racks, substantially as specified. 15

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

WILLIAM F. NINE.

Witnesses:

W. W. DRYDEN,
C. R. DIXON.