

(No Model.)

J. E. CATTERSON.
CAR COUPLING.

No. 495,580

Patented Apr. 18, 1893.

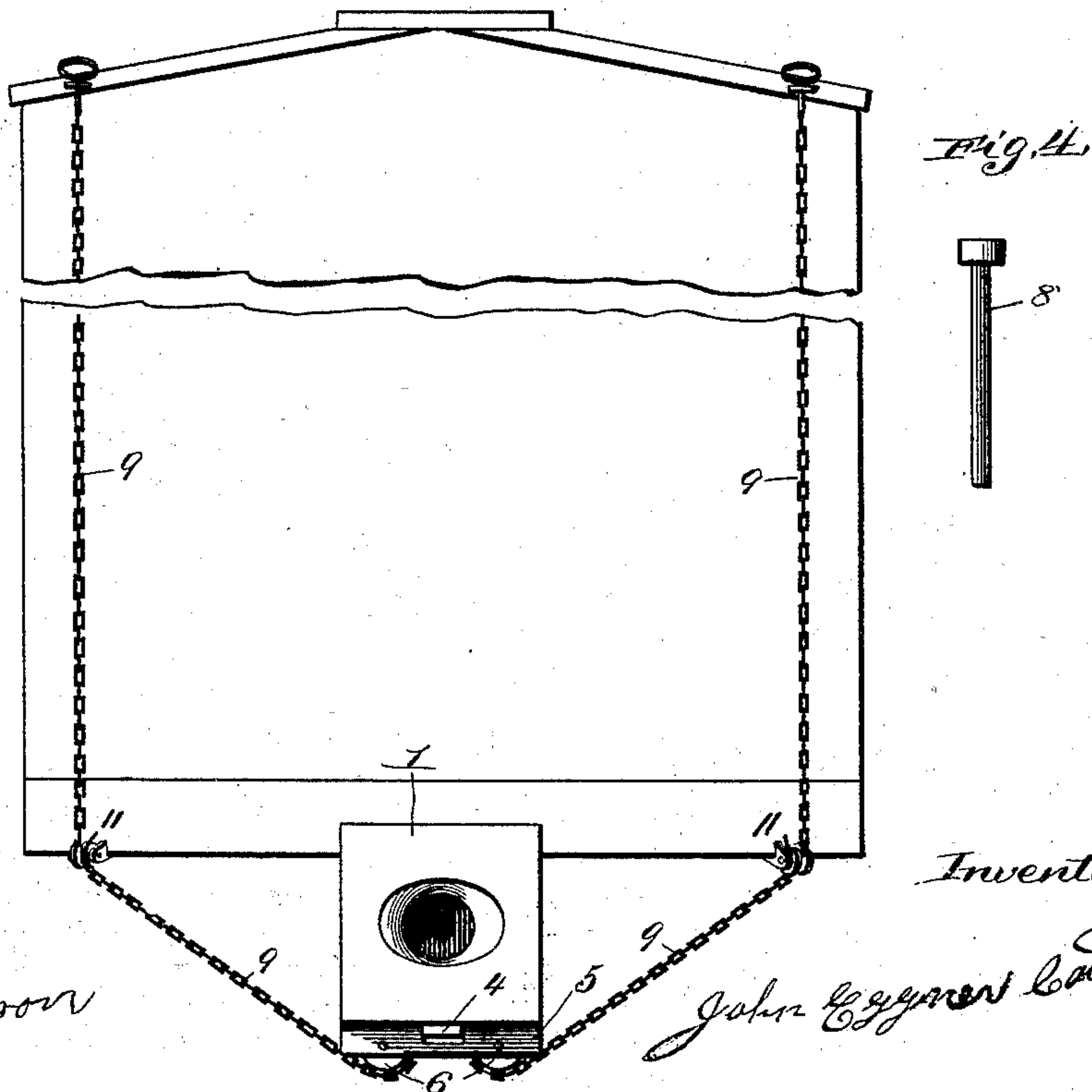
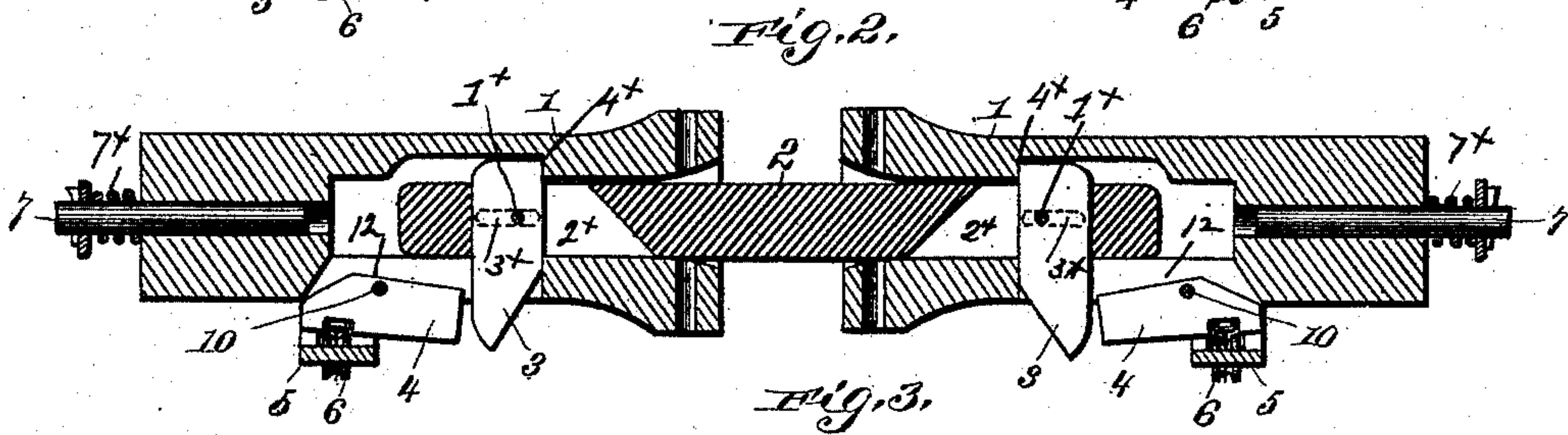
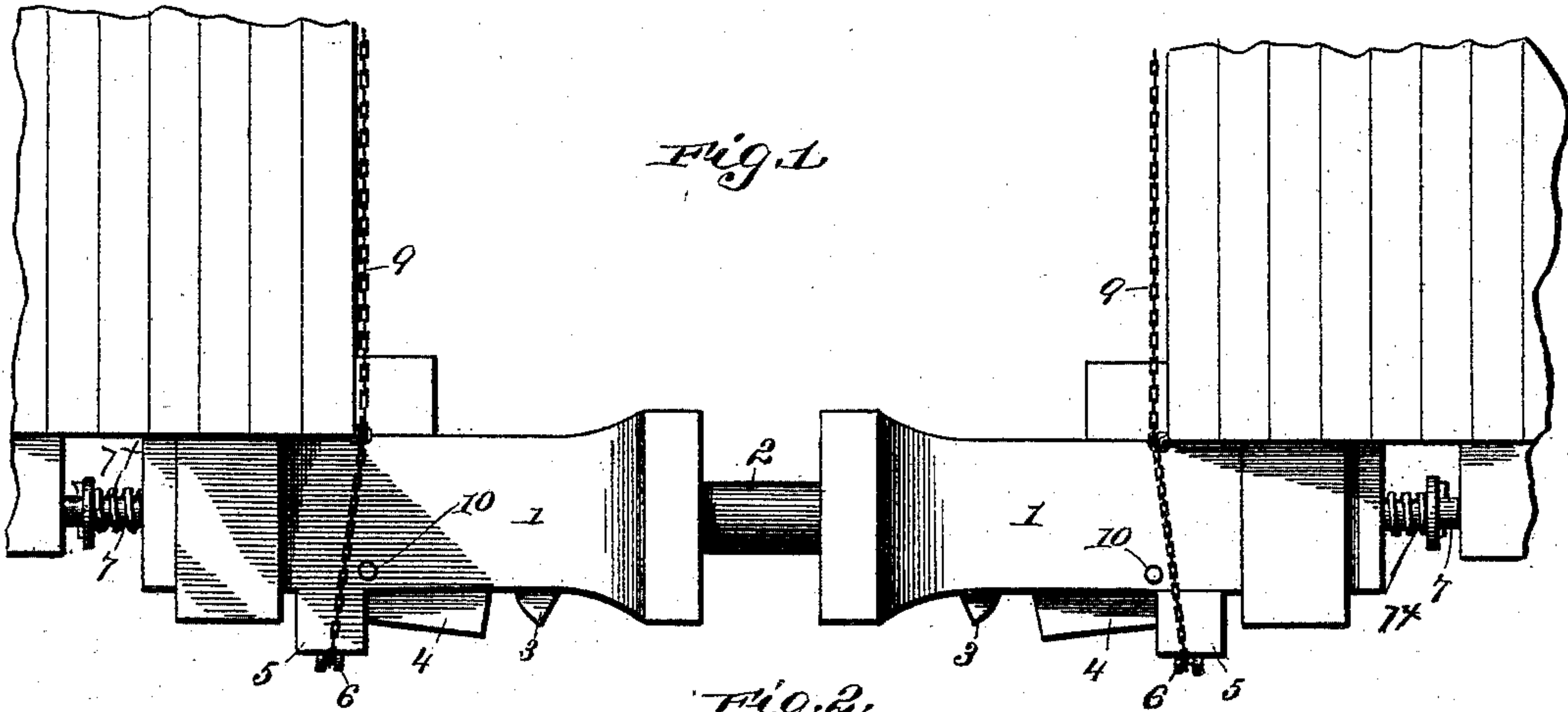
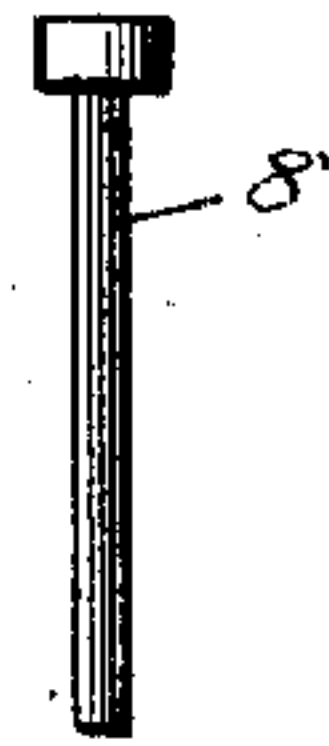


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN EGGNER CATTERSON, OF DAYTON, WASHINGTON.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 495,580, dated April 18, 1893.

Application filed July 6, 1892. Serial No. 439,190. (No model.)

To all whom it may concern:

Be it known that I, JOHN EGGNER CATTERSON, a citizen of the United States, residing at Dayton, in the county of Columbia and State of Washington, have invented a new and useful Car-Coupler; and I do hereby declare that the following is a full, clear, and exact description.

This invention relates to certain new and useful improvements in car couplings and it has for its objects among others to provide an improved coupler which shall be automatic in its coupling action, which shall be simple in its construction, durable and efficient in operation.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be specifically defined by the appended claims.

The invention in the present instance resides in the peculiar combinations, and the construction, arrangement and adaptation of parts, all as more fully hereinafter described, shown in the drawings and then particularly pointed out in the claims.

The invention is clearly illustrated in the accompanying drawings, which, with the numerals of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side elevation of my improvement applied to two cars a portion of which is shown and the couplings engaged. Fig. 2 is a central vertical longitudinal section through two couplers connected together. Fig. 3 is an end elevation of a car showing the chains for uncoupling. Fig. 4 is a view of a pin.

Like numerals of reference indicate like parts throughout the several views in which they appear.

Referring now to the details of the drawings by numerals, 1 designates the drawhead provided with a recessed mouth as usual, and 2 is the coupling link which is provided near each end with a slot or vertical recess 2^x in which are pivoted the gravity dogs 3 each of which is supported and pivoted upon the pin 1^x which is arranged in the longitudinal slot 3^x of the link so as to have limited play bodily in the slot of the link. The drawheads are provided with the vertical passages as seen in Fig. 2 so that an ordinary coupling pin 8, seen

in Fig. 4, can be used at either or both couplings when desired. The dogs 3 have inclined upper outer faces as seen in Fig. 2 and when in their vertical positions they are adapted to be held against further movement by the shoulders 4^x within the mouth of the drawhead as seen in Fig. 2.

4 are levers pivoted on the pivots 10 held in the walls of the drawhead and having inclined outer ends to engage a corresponding wall in the drawhead, as seen in Fig. 2. These levers work in chambers or recesses in the pieces 5 secured transversely across the under side of the drawheads and in which are journaled shafts carrying the rollers 6 over which the hoisting ropes or chains pass. These chains or ropes 9 are attached to the under side of the levers 4 and pass downward through suitable holes in the pieces 5, over the rollers and thence up through suitable guides to the top of the car as seen in Figs. 1 and 3 where they may be provided with suitable handles as seen in Fig. 3, passing over rollers as 11 where necessary to diminish friction.

7 are the rods at the rear ends of the drawheads and around which are arranged the springs 7^x acting in the usual manner.

The operation will be readily understood from the foregoing description when taken in connection with the annexed drawings. Supposing a car provided with my improvement and having the link held therein come against another car provided with one of my improved drawheads; the end of the link enters the mouth of the drawhead and in so doing the gravity dog 3 will be forced into its slot in the link until the said dog reaches the opening 12 in the underside of the drawhead, which is an extension of the recess in which works the lever 4 when the gravity dog will assume a vertical position by its own weight and held against movement outward by engagement with the vertical wall of said opening as seen in Fig. 2. It has sufficient play by reason of its pivot being held in the slot in the end of the link. When it is desired to uncouple the chains are pulled upon, the lever 4 is raised at its outer end throwing the gravity dog within its recess so that the link can be withdrawn.

The cars can be uncoupled from the top or from the side of the car.

The device is automatic and positive in its action and is not liable to become injured in the ordinary uses to which it should be put.

What I claim as new is—

- 5 1. A coupling link for car couplings having a recess near each end and a gravity dog arranged in each recess and having its pivot working in a longitudinal slot in the link, as set forth.
- 10 2. The combination with the drawhead and the lever pivoted at the under side thereof and working in a recess in the under side of the drawhead, and a coupling link provided with a gravity dog adapted to engage behind the
15 lever, as set forth.
3. The combination with the drawhead and

the lever pivoted on the under side thereof, of the coupling link provided with gravity dog, and a chain connected to the lever, as set forth.

4. The combination with the drawhead pro- 20
vided with mouth and slot upon its under side, of the lever pivoted to work in said slot, a coupling link provided with a gravity dog pivoted in a recess in the link and having its pivot arranged to work in a longitudinal slot 25
in the link and having inclined face, and a chain connected with the lever, substantially as and for the purpose specified.

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Witnesses:

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