

(No Model.)

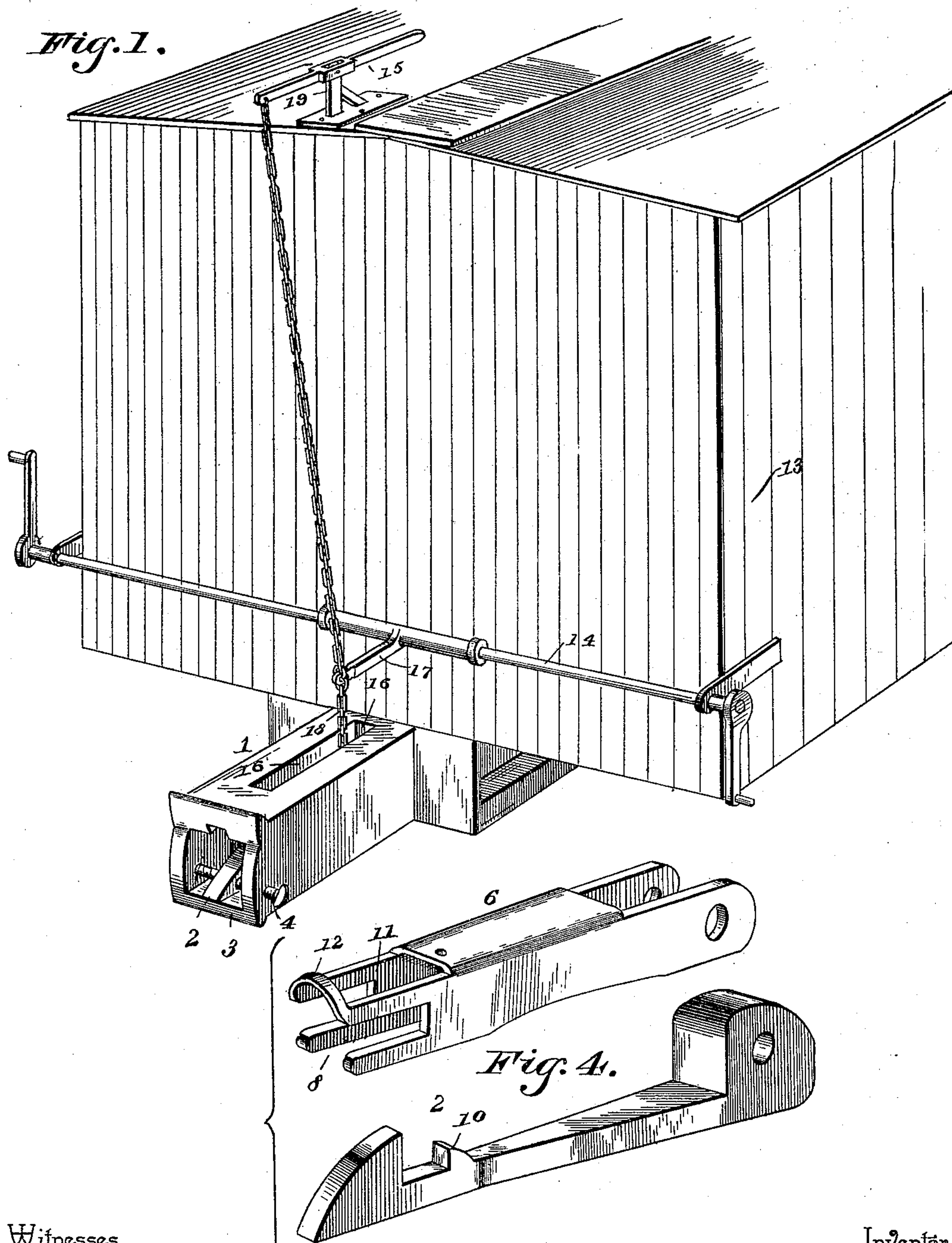
2 Sheets—Sheet 1.

J. W. MILLICAN.
CAR COUPLING.

No. 488,571.

Patented Dec. 27, 1892.

Fig. 1.



Witnesses
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Inventor

By *his* Attorneys,

Joel W. Millican.

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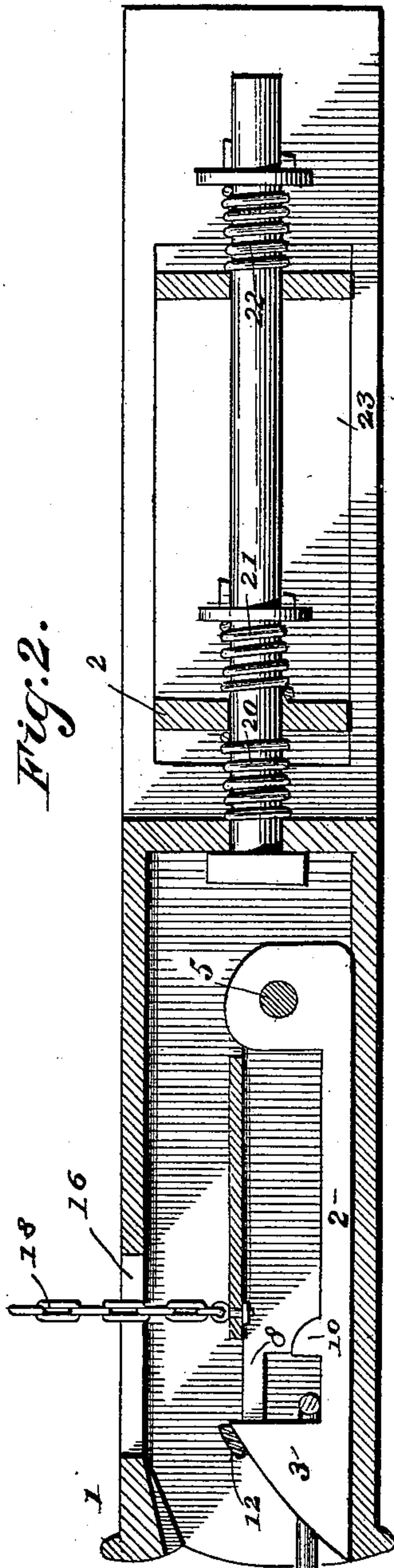
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2 Sheets—Sheet 2.

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No. 488,571.

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Witnesses

Joel W. Millican, Jr.
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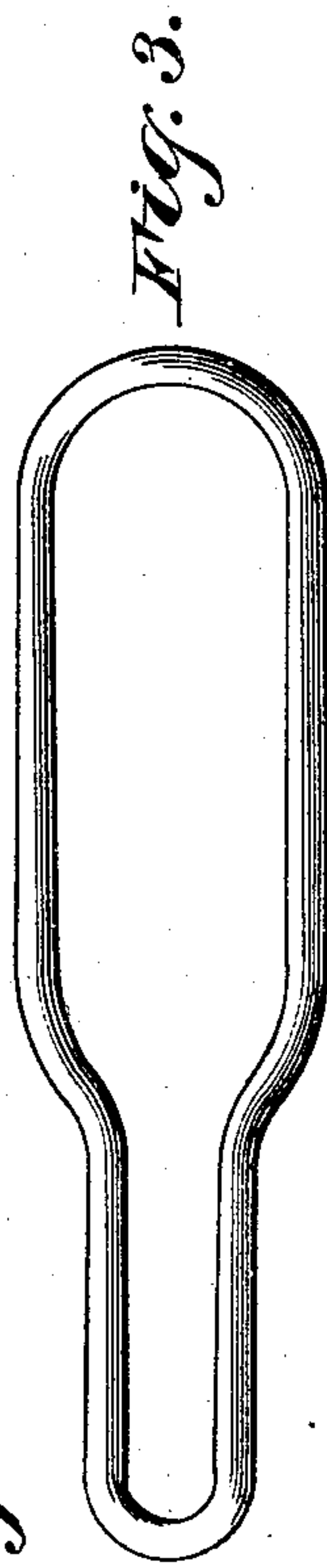
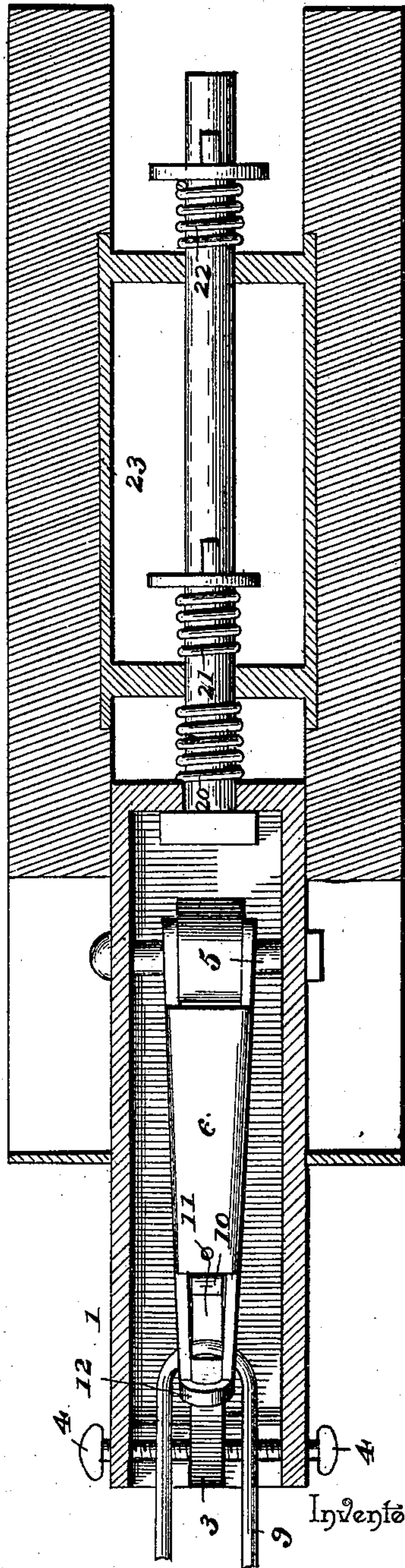


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOEL W. MILLICAN, OF GRAPE VINE, TEXAS, ASSIGNOR OF ONE-HALF TO
FINLY C. MILLICAN, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 488,571, dated December 27, 1892.

Application filed September 17, 1892. Serial No. 446,163. (No model.)

To all whom it may concern:

Be it known that I, JOEL W. MILLICAN, a citizen of the United States, residing at Grape Vine, in the county of Tarrant and State of Texas, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car couplings.

10 The object of the present invention is to improve the construction of car couplings, and to provide an automatic one, which may be readily coupled and uncoupled without necessitating a person going between cars, and
15 which may be used in connection with the ordinary pin and link couplings.

20 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended.

25 In the drawings—Figure 1 is a perspective view of a car coupling constructed in accordance with this invention. Fig. 2 is a vertical longitudinal sectional view. Fig. 3 is a horizontal sectional view. Fig. 4 is a detail perspective view of the draw hook and latch detached. Fig. 5 is a detail view showing a modification of the link.

30 Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a draw-head having a longitudinal link opening in which is disposed a draft hook 2 provided at its front end with a head having a beveled front edge 3, and adjustably secured at the middle of the draw-head by oppositely disposed adjusting screws 4. The rear end of the shank of the hook is enlarged, and is secured to the draw-head by a transverse pin 5 which passes through the enlarged portion of the shank of the hook, and which also hinges a latch 6 to the rear end of the hook. The latch 6 is capable of vertical
45 swinging, it is approximately U-shaped in cross-section and receives the body of the hook between its sides, and it has its top cut away at its rear end to form rearwardly extending ears which are perforated to receive the transverse pin 5. The front end of the latch is
50 horizontally bifurcated at 8 to receive the link

9 which rides up the beveled front edge 3 of the head of the hook and drops back of the shoulder and lies between the latter and a lug 10. The link engages the hook when the latch is slightly elevated, and it enters the bifurcation of the latter, and causes the latch to drop with it, whereby its weight upon the lower portion of the bifurcation will hold the latch firmly down upon the hook, and the upper portion of the latch closes the hook back of the head and retains the link in engagement with the hook. The top of the latch at the front end thereof is provided with an opening 11, and the latter forms a cross-piece 12 at the front end of the latch to rest upon the head of the hook. In uncoupling, the latch is lifted, thereby carrying the link upward out of engagement with the hook, and the operation of uncoupling may be performed from the top and either side of a car 13, by means of a rock shaft 14 and a lever 15. The rock shaft is journaled in suitable bearings, and extends transversely of the car near the bottom thereof, and is provided at each end with a crank handle, and intermediate of its ends with an outwardly projecting arm extending over the top of the draw-head which is provided with a slot 16. The arm 17 of the rock shaft is connected by a chain 18 with the latch, the chain passing through the opening 16 and being secured to the latch back of the opening thereof. The arm of the rock-shaft is also connected with the outer end of the lever 15 by a chain; and the lever is fulcrumed on a support 19, and arranged at the top of the car.

The rear end of the draw-head is connected with a draw-bar and arranged between timbers of the car, and is cushioned by springs 20, 21 and 22 disposed on the draw-bar, and interposed between the outer end of a metal frame 23, and the inner end of the draw-head, and located on the rear faces of both ends of the frame.

It will be seen that the car coupling is simple and comparatively inexpensive in construction, that it is automatic in its operation, and that it may be readily uncoupled from the top and sides of a car, and that it does not necessitate persons going between cars.

The link shown in Fig. 5 has one end reduced, and is adapted to couple with other

forms of draw-heads from that shown in the preceding figures.

What I claim is—

1. In a car coupling, the combination of a
5 draw-head having a longitudinal opening, a
draw-hook arranged within the draw-head
and having its inner end pivoted thereto, and
provided at its outer end with a head having
a beveled front edge and being adjustably se-
10 cured between the sides of the draw-head,
substantially as described.

2. In a car coupling, the combination of a
draw-head, a draft hook having its front end
beveled and having its rear end pivoted be-
15 tween the sides of the draw-head and set-
screws arranged at the front of the draw-head
at opposite sides thereof and engaging the
sides of the hook and adjustably securing the
same in the draw-head, substantially as de-
20 scribed.

3. In a car coupling, the combination of a
draw-head, a draft-hook mounted therein and
provided at its front end with a head and hav-
ing a lug in rear thereof, a transverse pin
25 passing through the draw-head and through
the rear end of the draft-hook, and a latch

U-shaped in cross-section receiving the body
of the hook and provided at its rear end with
perforated ears to receive the transverse pin,
and having its front end horizontally bifur- 30
cated and provided at the top with a cross-
piece resting upon the head of the hook, sub-
stantially as described.

4. The combination, in a car coupling, of a
draw-head having a longitudinal opening and 35
provided in its top with a longitudinal slot, a
draft hook mounted in the draw-head, an up-
ward swinging latch hinged at its rear end
and having its front end horizontally bifur- 40
cated to receive a link, a chain passing through
the slot of the draw-head and having its lower
end secured to the latch, and means connected
with the chain for operating the latch from
the top and sides of the car, substantially as
described. 45

In testimony that I claim the foregoing as
my own I have hereto affixed my signature
in the presence of two witnesses.

JOEL W. MILLICAN.

Witnesses:

THOS. B. DORRIS,
F. C. MILLICAN.