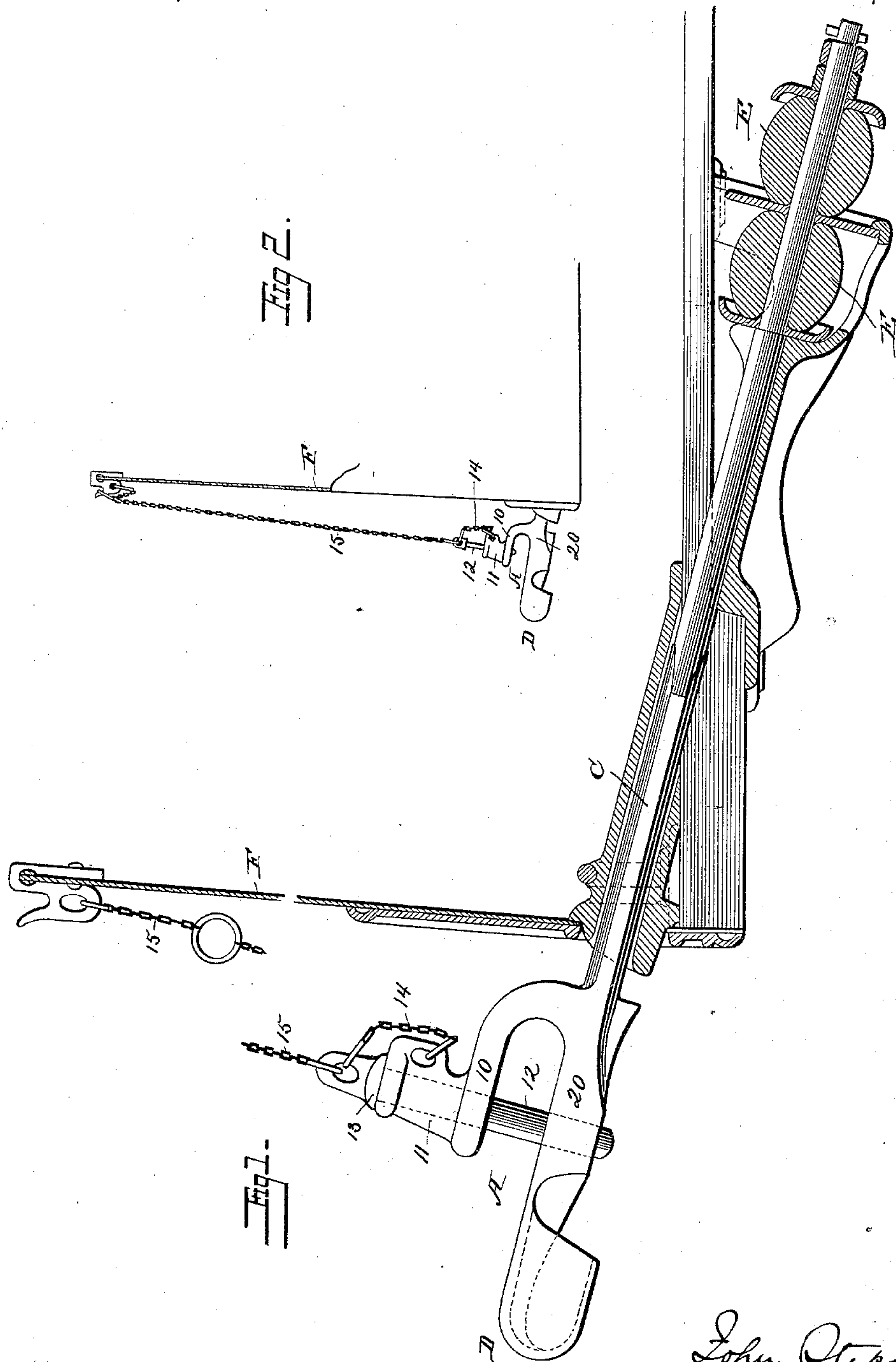


(No Model.)

J. STEPHENSON.
DRAW BAR FOR TRAM CARS.

No. 378,479.

Patented Feb. 28, 1888.



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UNITED STATES PATENT OFFICE.

JOHN STEPHENSON, OF NEW YORK, N. Y.

DRAW-BAR FOR TRAM-CARS.

SPECIFICATION forming part of Letters Patent No. 378,479, dated February 28, 1888.

Application filed July 21, 1887. Serial No. 244,920. (No model.)

To all whom it may concern:

Be it known that I, JOHN STEPHENSON, a citizen of the United States, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Jaw Draw-Heads and Safety-Pins, of which the following is a specification.

The improvement is illustrated in the accompanying drawings, in which—

Figure 1 is a sectional elevation of a draw head and bar provided with my improvement, and also showing a portion of a car-platform and dash-board; and Fig. 2 is a complete elevation thereof upon a reduced scale.

My improved draw-head A is capable of attachment with the usual draw-bars; but I prefer the spring draw-head with sliding bar C, especially when its outer end is a whiffletree support and bunter D, having at its inner end double-acting springs E, which prevent rude jerk of the horses in starting the car, and also cushions the recoil of the slide-bar and prevents the annoying thump or click caused by the stepping motion of the horses.

For the purposes defined I make the draw-bar A to project in front of the car-platform and form two open jaws, 10 20. On the upper jaw, 10, is a turret, 11, through which vertically passes the draw-pin 12, till stopped by its head 13, from which drops a short check-chain, 14, with its lower end connected to the draw-bar, or, as shown, to its turret 11, the chain having slackness sufficient to permit the draw-pin to be lifted, clearing the open mouth of the draw-bar, as is shown in Fig. 2. The lifting-chain 15 connects with the head of the draw-pin 12, and extends to within convenient reach of the car-driver. The draw-pin holds the whiffletree within the jaws, and the rotating disposition of the pin, caused by the action of the whiffletree, soon takes up the slack of the short check-chain 14 and prevents further rotation of the pin, and consequently the lifting-chain is not twisted to lift the pin, nor could the pin work up, because the short check-chain is already "taut" and prevents such movement.

The draw-head lower jaw, 20, projects to form the whiffle-support D, and terminates in a buffer-head for butting contacting cars, and accomplishes this work more satisfactorily by the spring or the sliding bar arranged to be double-acting—i. e., so that when in a state of rest the butting of a contacting car or the jerk of starting the car will act against springs either way and relieve the car from abrupt jerks.

The draw-pin 12 is provided with a lifting-chain, 15, passing loosely from the head of the draw-pin to the upper part of the dash F, where it is secured within convenient reach of the driver.

I claim—

1. A tram-car jaw draw-head with sliding bar in a socket, the sliding bar having at its tail end a yielding spring and at its front end mouthless jaws for receiving the whiffletree, which crosses the jaws and is retained between the jaws by a draw-pin passing vertically through jaws and whiffletree and turret-chamber, as and for the purpose described.

2. A tram-car draw-head having on its upper jaw a turret-chamber in which is a draw-pin held up vertically by a hand-chain hooked to the dash, as and for the purpose described.

3. A tram-car draw-head holding the whiffletree in mouthless jaws by a vertical draw-pin passing upward through a turret-chamber and lifted by a hand-chain to the desired elevation and there limited by a check-chain, as and for the purpose described.

4. A tram-car draw-head consisting of a bar, C, having jaws 10 20, a support and bunter, D, on one jaw and a turret, 11, on the other jaw, and coupling-pin 12, substantially as described.

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

JOHN STEPHENSON.

Witnesses:

S. A. STEPHENSON,
JOHN A. TACKABERRY.