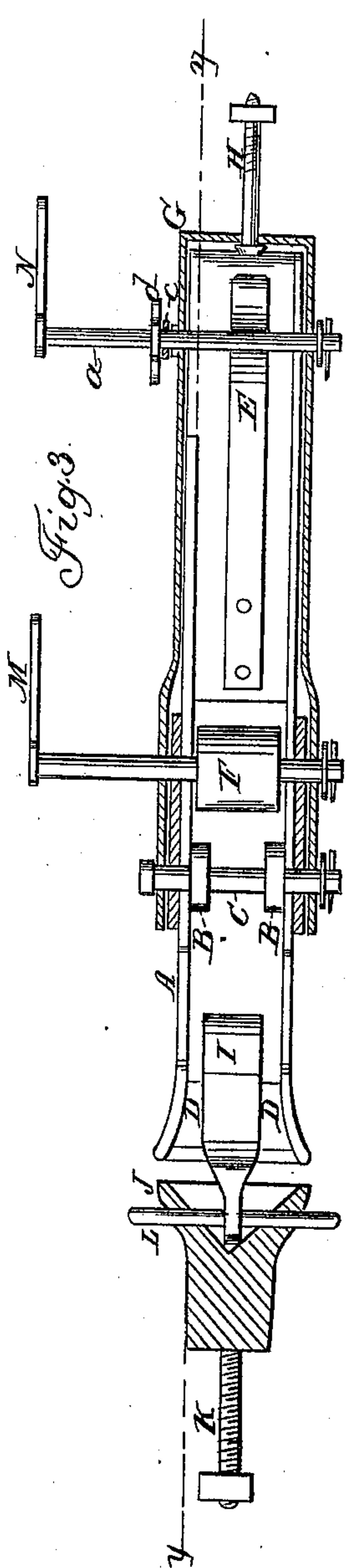
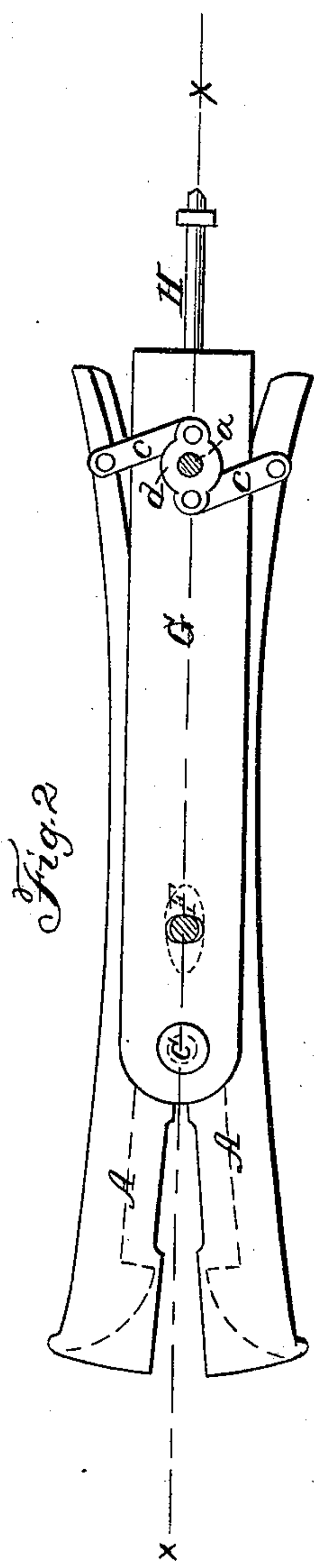
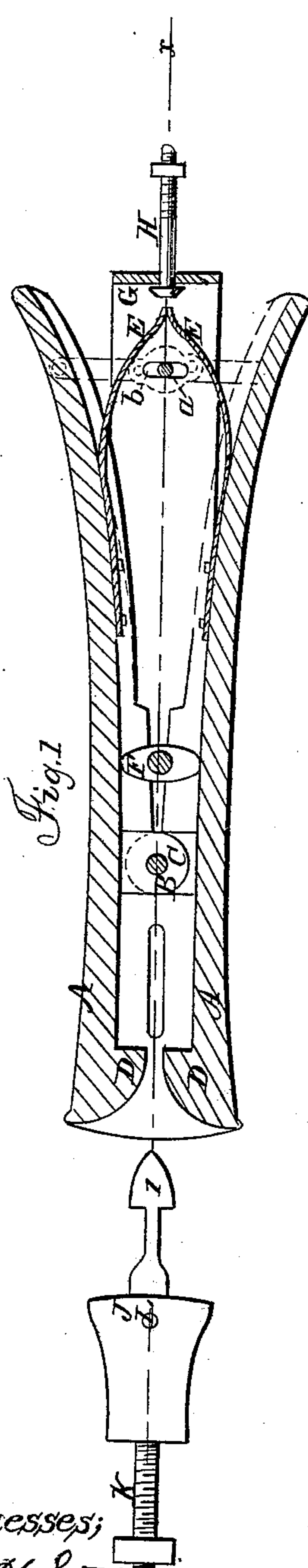


G. H. HENFIELD
Car Coupling.

No. 68,439.

Patented Sept. 3, 1867.



Witnesses;
Geo H S Troy
C W M Smith

Inventor;
George H Henfield
By his Atty's Dewey & Co

United States Patent Office.

GEORGE HARDY HENFIELD, OF SAN FRANCISCO, CALIFORNIA.

Letters Patent No. 68,439, dated September 3, 1867.

IMPROVED CAR-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, GEORGE HARDY HENFIELD, of San Francisco city and county, State of California, have invented certain new and useful improvements in "Railroad Car-Couplings;" and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

The nature of my invention is to provide an improved "shackle" or "car-coupling," which is designed to obviate many of the difficulties attendant upon the use of those of the present mode of construction. It consists of two sides attached to one car, and hinged together, having jaws at one end to retain the attaching link or bar from the other car. Springs at the opposite end serve to close these jaws, which are then secured by a cam or a clasp on the outside. The attaching-bar from the other car is released, when desired, by means of levers, which open the jaws, the whole being easily operated, and with perfect safety. To more fully explain my invention, reference is had to the accompanying drawings, forming part of this specification, of which—

Figure 1 is a horizontal section, showing the springs, cam, and the jaws closed.

Figure 2 is a top view, with the jaws open.

Figure 3 is a side sectional elevation.

A A are movable sides, hinged together at B, and turning on the pin C. These sides may be constructed of iron, and have the jaws D D at their outer ends. Springs E E are placed at the inner end, which, by their elasticity serve to close the jaws D D. A double cam, F, operated by the handle M, secures the jaws when closed, and prevents their accidental opening; or a strap of iron may be made to clasp the sides A A, serving the same purpose. G is a strap of iron extending above and below the side pieces to the pin C, to which it is attached. The bolt H passes through it and secures it to the car. The coupling-bar I is attached to the head J by the pin L, and has a head, as shown, which keeps it secure when within the jaws D D. This bar may be double-headed, so that when both cars have the same mechanism it can be easily used, while by leaving holes for a coupling-pin any car which does not possess this arrangement can be readily coupled to one of these. *a* is a shaft, passing through the strap G, and having the cam *d* fastened to it. In the line of its longest diameter and near the ends are attached two bars, *c c*, connected with the sides A A by pins, so that when the handle N, on the top of the shaft *a*, is turned, the jaws D are opened or closed. The strap G has transverse slots, through which the shaft *a* passes, so made in order to allow the necessary side play when the cars are in motion.

When two cars are to be coupled together the lever N is turned till the cam *d* is in the position shown in fig. 2; this opens the jaws D D so as to admit the head of the coupling-bar I, when, by releasing the lever N, the springs E separate the inner ends of the sides A A, thus closing the jaws D D. The lever M is then turned so as to place the cam F as shown in fig. 1, which effectually prevents the jaws from releasing the head I. The cars are uncoupled by simply turning the two levers M and N, thus releasing the bar I.

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

The cam F, operated by the lever M, in combination with the jaws D, closed as herein described.

I also claim the sides A, jaws D, spring E, cams D and F, and levers M and N, together with the bar I, the whole operating as a coupling, substantially as herein described.

In witness whereof I have hereunto set my hand and seal.

GEORGE H. HENFIELD. [L. s.]

Witnesses:

C. W. M. SMITH,

GEO. H. STRONG.