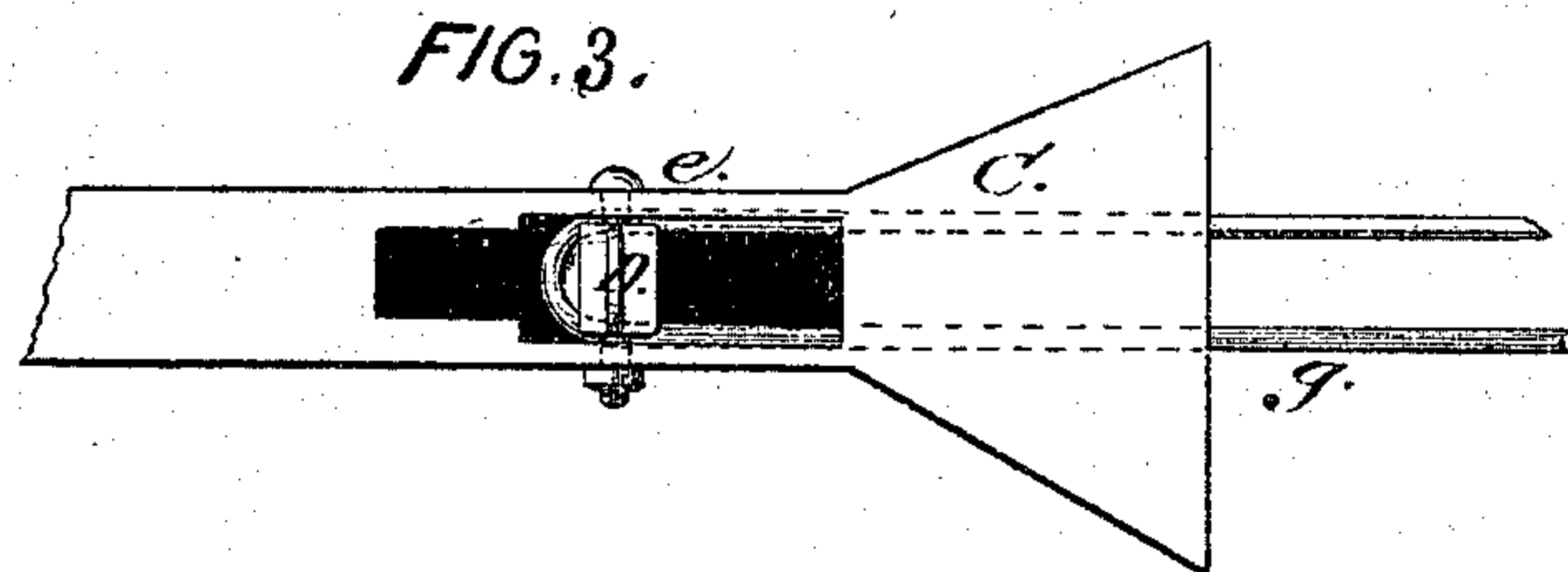
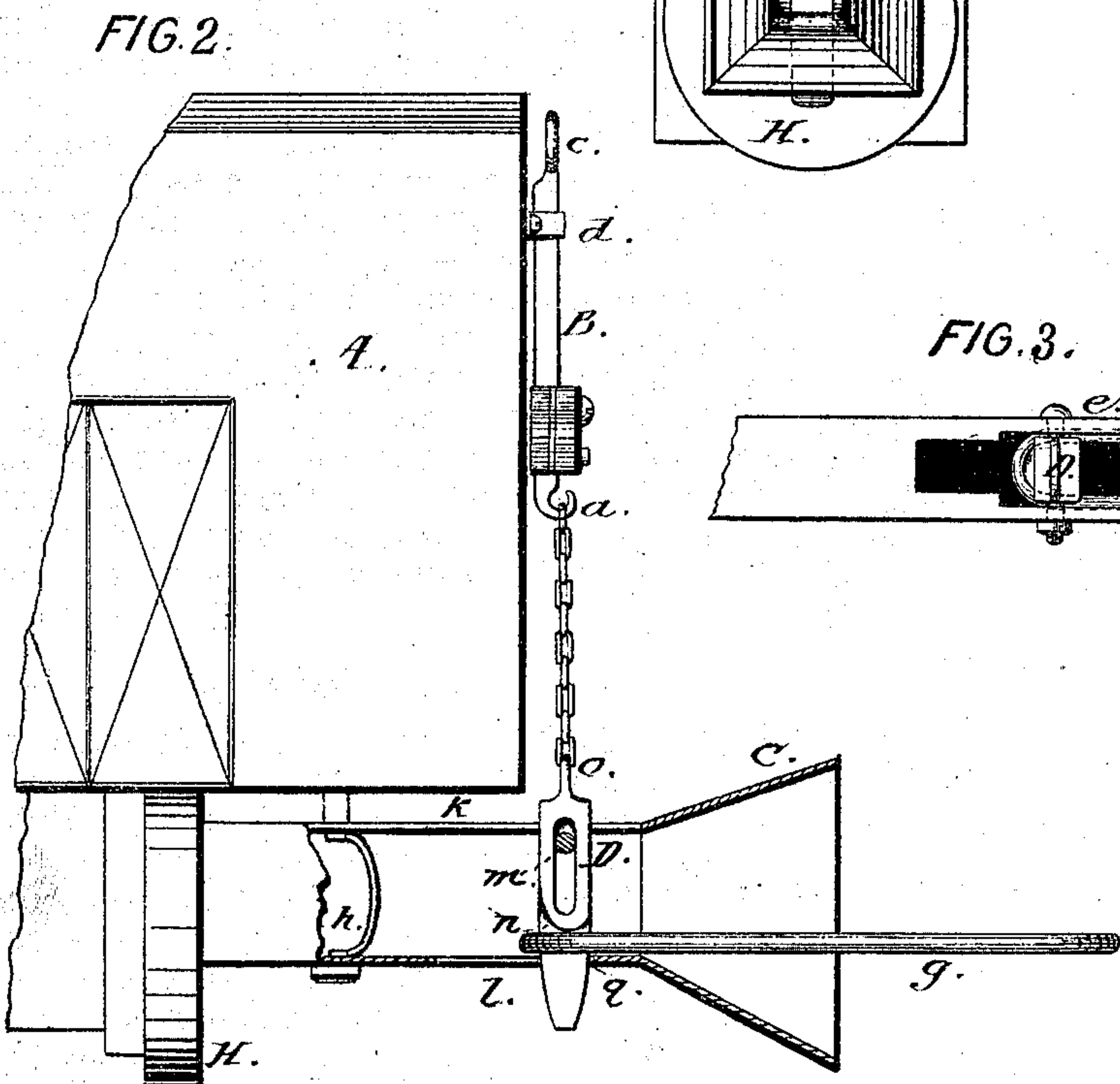
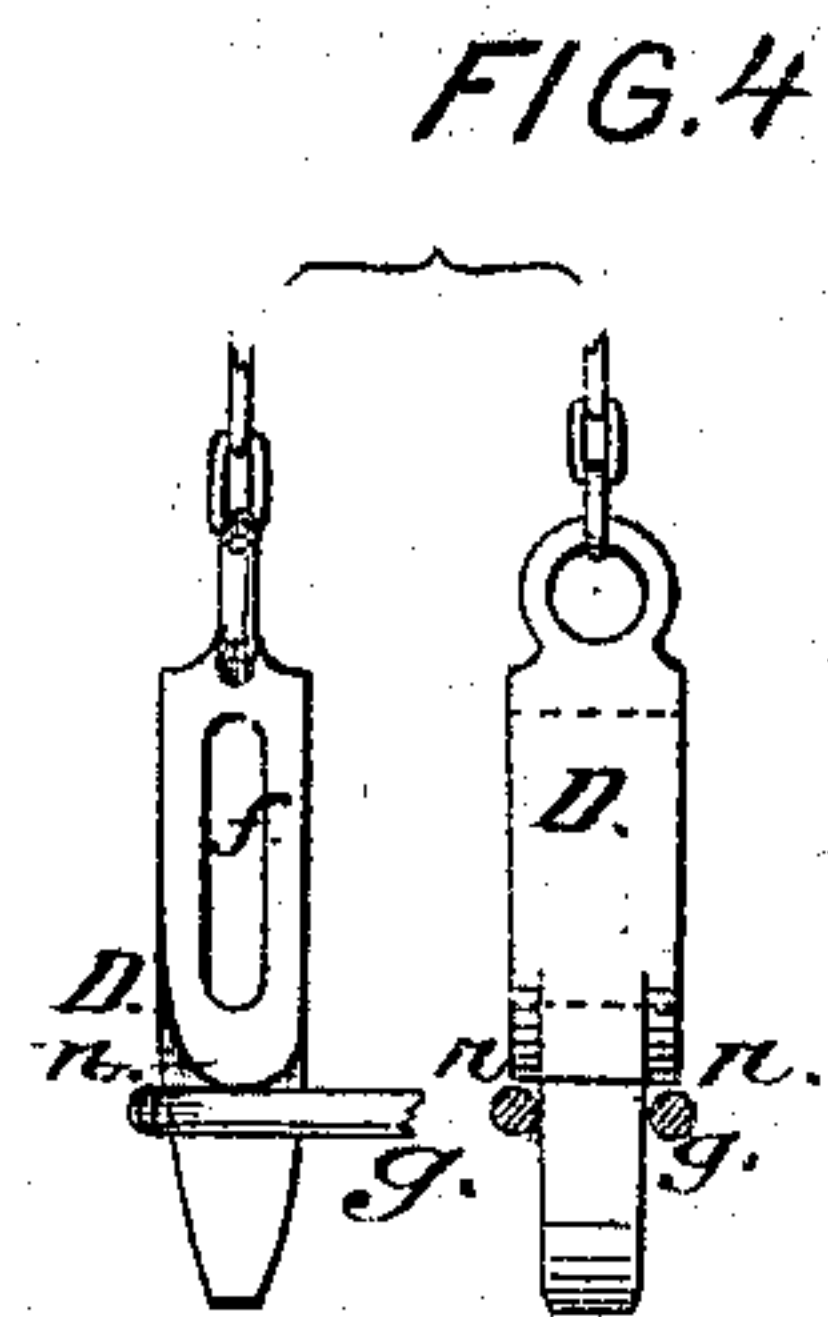
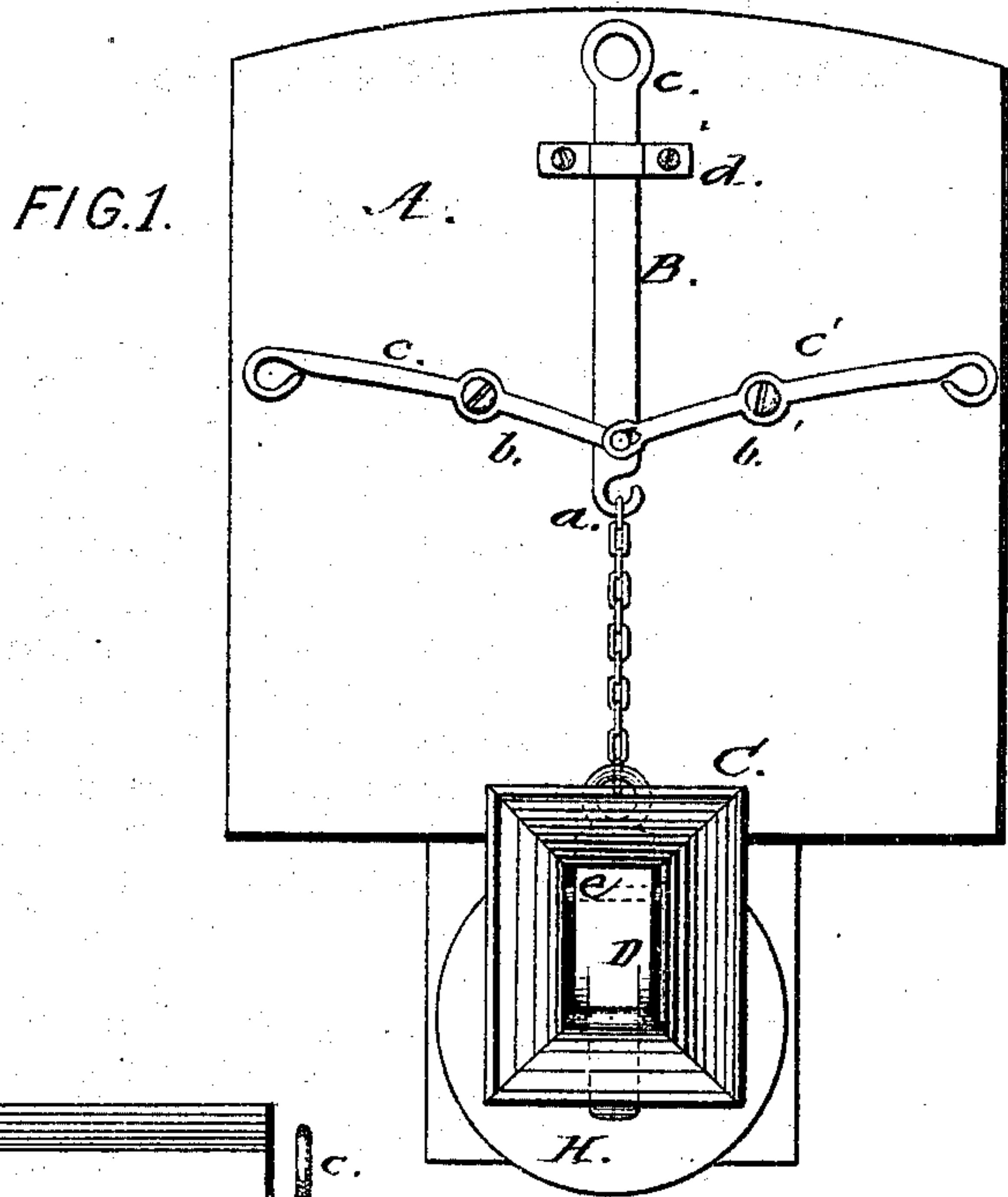


H. E. WOLCOTT.

Improvement in Car Couplings.

No. 124,648.

Patented March 12, 1872.



WITNESSES.

Edw. W. Down
Henry Aline

INVENTOR.

Henry E. Wolcott
per Saml. Gardiner atty.

UNITED STATES PATENT OFFICE.

HENRY E. WOLCOTT, OF ELBRIDGE, NEW YORK, ASSIGNOR OF ONE-FOURTH HIS RIGHT TO CHAS. G. MCGOWAN, AND ONE-FOURTH HIS RIGHT TO NATHAN MUNRO, OF SAME PLACE.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 124,648, dated March 12, 1872.

SPECIFICATION.

I, HENRY E. WOLCOTT, of the town of Elbridge, in the county of Onondaga, State of New York, have invented certain Improvements in Car-Couplers, of which the following is a specification:

Nature and Objects of the Invention.

My invention relates to a method of coupling cars automatically; and consists of a pin of a peculiar form, so arranged with reference to the bumper of a car and the coupling-link of the same as that, by its own weight, the pin falls and secures the connection of the cars without endangering human life or limb, forming at the same time a simple and economical arrangement for this purpose. In my device I employ a box of cast or boiler-iron, which I place under the platform of a car. This box is flared at its mouth in the usual manner, to accommodate the uncertain movement of the cars, either vertical or lateral, as they approach each other for coupling. In the top plate of the box or tube is a slot, to admit of the drop pin, which swings loosely on a pin which passes through, and is bolted or riveted to the sides of the box or tube before mentioned. There is also an opening or slot in the bottom plate of the box or tube, through which the end of the drop-pin hangs, as it is supported by the pin before mentioned. This under slot is sufficiently long to allow the drop-pin to swing longitudinally a distance sufficient to let the drop-pin swing clear as it is pushed inward by the link attached to the approaching car. The drop-pin is made quite heavy, and of wrought-iron; it has a slot, which is cut transversely through it, and runs vertically in the direction of its length. A pin or rivet passes through the slot of the coupling-pin, and serves as an axle to support and guide said pin in its upward or longitudinal movement. This pin has a shoulder, which, when in position, bears with its own weight, on the coupling-link. On the top of the coupling or drop-pin is formed an eye, which serves as a hand hold by which the pin is lifted to release and uncouple the cars.

My device may be applied either to passen-

ger or freight cars. When in the former a ring is attached to the eye of the drop-pin, and may be lifted by the hand when it is necessary to uncouple the cars. When the device is applied to freight-cars I attach to the loop aforesaid a chain, which extends upward, and is attached to a hook on the end of a rod which is strapped loosely to the car. The rod extends to the top of the car, and has a loop at the upper end for convenience in handling from above. Just above the hook in the lower end of said rod is a pin, to which is attached loosely two levers, one on either side of the rod just mentioned. These levers have their fulcrums formed by screws or bolts fixed to the head of the car. They may have eyes at the ends of their long arms, to which chains may be attached, so that the coupling may be accomplished from the ground when necessary. The car is provided with an elastic buffer to receive the shock caused by the sudden contact of the approaching car. In the box where the coupling is made, and just back of the coupling or drop-pin, is a thin piece of metal which forms a spring to receive a part of the shock, or at least as much as would come against the coupling-link in case the larger buffer was omitted. I mention this as a metal spring, although a piece of solid rubber might answer a better purpose.

Description of Drawing.

Figure 1 is an end elevation of a burden car with coupling attached; Fig. 2, side elevation of same; Fig. 3, top or plan of coupling; Fig. 4, details of drop-pin and link.

C is the box or bumper secured firmly to the car with rods or bolts. H is the rubber buffer, against which the box bears. K is the slot or opening in the box of the bumper at the top; l, the slot in the bottom of the box to give play to the drop-pin. D is the coupling or drop-pin, having the slot *f* inclosing the pin *m*, which serves to guide and keep in place said drop-pin either in the act of coupling or uncoupling the cars. *n* are the shoulders formed on the pin to bear on the coupling-link when it is in position. *g* is the coupling-link, to hold, with the pins, the cars together. A

person is enabled to release the link by using it as a lever, on the bottom of the bumper as a fulcrum, and to lift the coupling-pin by bearing against the shoulder, when the link may be withdrawn clear of the car. *o* is the loop to which the chain is attached. *B* is the rod strapped to the head of the car at *d*, having the loop *o* at the upper end and hook *a*, to which the chain is attached at its lower end. *c c'* are levers, having their fulcrums at *b*.

I operate the coupling as follows: The link *g*, approaching with the car to be coupled, is guided into the mouth of the bumper by its flaring jaws, strikes the coupling-pin, which of its own gravity is kept down, and forces it back until the link presses under it. The pin with its own weight drops forward until it bears against the shoulder formed by the metal at *q* in the bottom of the bumper-box. The coupling-link, which passes beyond the

drop-pin, is caught in its return, and is held by the same, which bears equally against the shoulder at *q* and the pin *m* in the slot *f*. The release is made by lifting the pin until it clears the link, which may be done by a man on the platform of a passenger-car handling the ring of the drop-pin, or from the ground by the chain, in the hands of a person on the ground, drawing down the levers and lifting the pin to the proper height.

Claim.

What I claim as new, and desire to secure by Letters Patent, is—

The slotted pin *D*, having shoulder *n n* for holding the link in a horizontal position, and all constructed and operating as described.

HENRY E. WOLCOTT.

In presence of—

CHANCEY H. SMITH,
ALOIS EBNER.