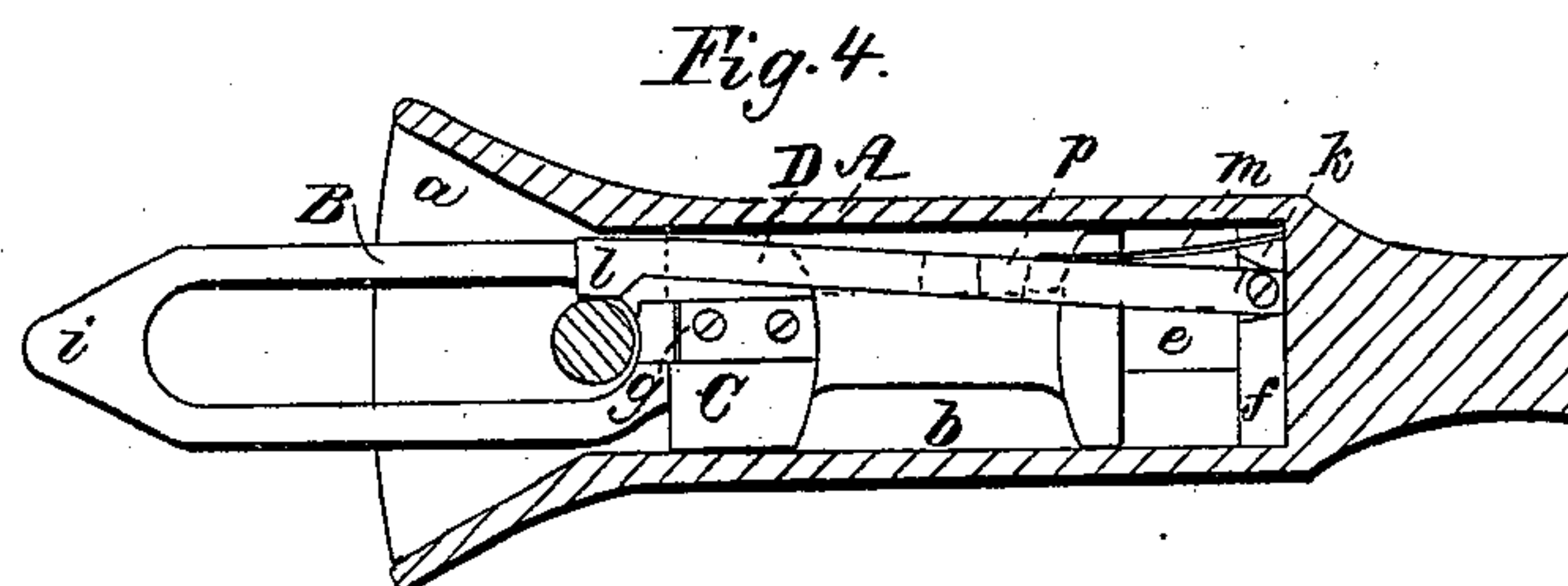
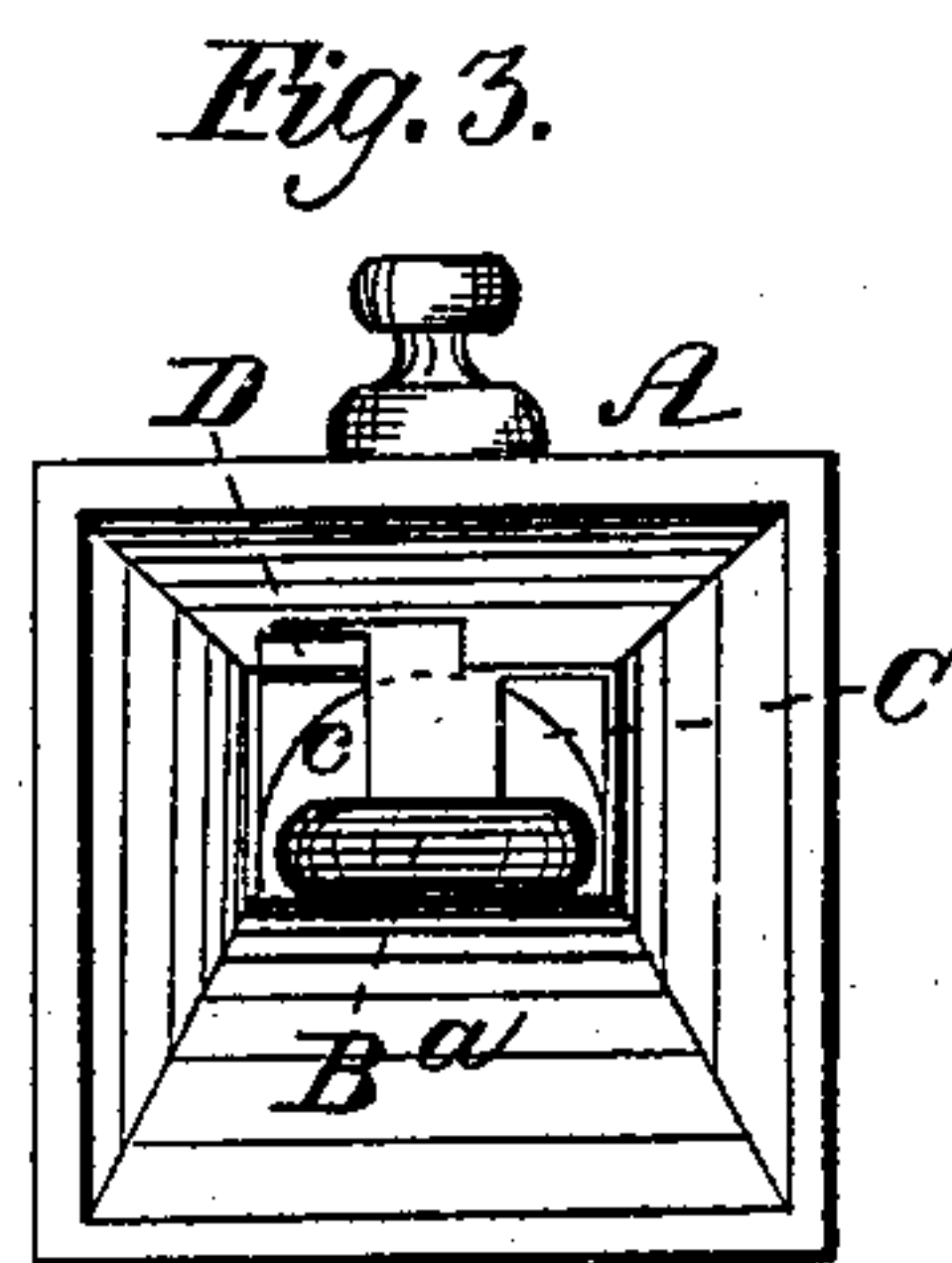
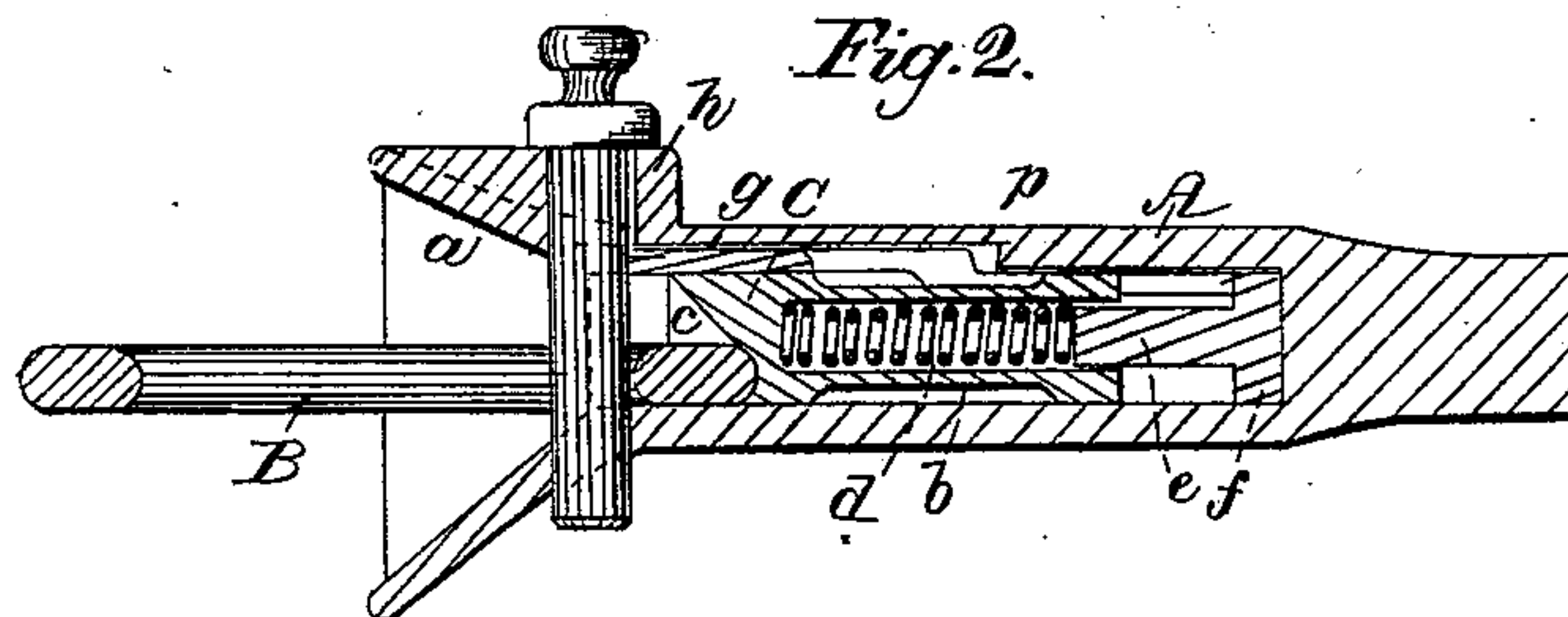
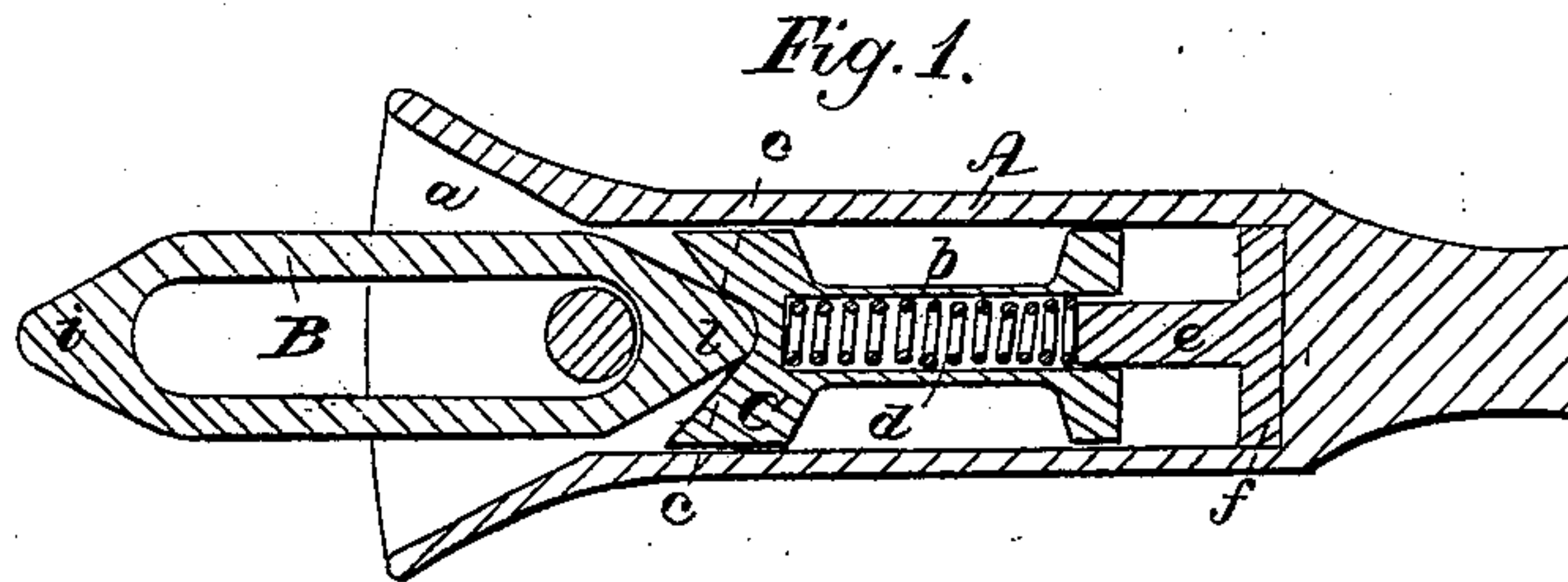


O. M. WHITMAN.

Car Coupling.

No. 93,381.

Patented Aug. 3, 1869.



Witnesses:

S. N. Piper
S. S. Stout

Inventor:

O. M. Whitman.
by his attorney
H. M. Eddy

United States Patent Office.

ORIN M. WHITMAN, OF NORTH HAVERHILL, NEW HAMPSHIRE.

Letters Patent No. 93,381, dated August 3, 1869.

IMPROVED RAILWAY-CAR COUPLING.

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

To all persons to whom these presents may come :

Be it known that I, ORIN M. WHITMAN, of North Haverhill, of the county of Grafton, and State of New Hampshire, have made a new and useful invention, having reference to Railway-Car Couplings; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a horizontal and longitudinal section;

Figure 2, a vertical and longitudinal section; and

Figure 3, an end view of a draw-bar, and coupling-link and pin, having my invention applied to them.

Figure 4 is a horizontal section, taken through the auxiliary pin-supporter, to be hereinafter described.

In such drawings—

A denotes the draw-bar;

B, the link; and

C, the link-holder.

The draw-bar has a trumpet or flaring mouth, *a*, opening from a rectangular chamber, *b*, extended lengthwise in the bar.

The link-holder C, formed with a truncated conical recess, *c*, in its front end, is arranged within the chamber *b*, so as to be capable of sliding lengthwise in it.

The truncation of the cone of the recess is in a line parallel to the axis of such cone, and a little below it.

A helical spring, *d*, arranged within the link-holder C, bears against a pin, *e*, projected from the middle of a block, *f*, which is disposed at the rear end of the chamber *b*.

There is a projection, *g*, applied to the top of the link-holder, and extended beyond its front end, in manner as represented.

When the link-holder is advanced to its foremost position, this projection comes directly underneath the upper hole *h* of the link-pin passage *h k*, which goes down through the mouth of the draw-bar.

The purpose of the projection *g* is to support the link-pin in a raised position preparatory to the entrance of the link into the draw-bar, and in order that after it may have effected its entrance therein, the pin may fall down and through the link, so as to couple the link to the bar.

The link, while passing into the draw-bar, will be driven against the front end of the link-holder, and will crowd back such holder, so as to cause the link-supporter or projection *g* to be forced away from underneath the pin.

The link I form pointed or tapering at and near each extremity, in manner as shown at *i i* in the drawings.

The part *i*, by entering the conical recess of the link-holder, will so fit to it as to cause such recess to hold the link either in a horizontal position or at any desirable inclination relatively thereto.

In carrying out my invention, I have combined with the link-holder and its pin-supporter, a movable auxiliary pin-supporter, which is shown at D.

It consists of a bar or arm, pivoted, at its rear end, to the block *f*, so as to be capable of being turned horizontally on the pivot *k*.

It has extended from its front part and toward the main pin-supporter, a trapezoidal projection, *l*, such being arranged in manner as represented.

A spring, *m*, having one end fixed to the block *f*, bears, at its other end, against the auxiliary pin-supporter, and presses it toward the main pin-supporter.

The link-holder, on having attained its extreme advanced position, will be arrested by a stop, *p*, arranged in the draw-bar in manner as represented.

The purpose of the auxiliary pin-supporter is to sustain the pin in an elevated position, or, after being drawn upward out of the link, in case the main pin-supporter may not be in a position to so hold up the pin.

If frequently happens, that while the cars may be at rest, the link will be so pressed into the draw-bar as to force and hold the link-holder so far back as to carry the main pin-supporter so far away from the pin-hole in the upper part of the mouth of the draw-bar, that were the pin to be drawn out of the link, there would be nothing to support the pin in an elevated position in the said hole, as the link would prevent the link-holder from advancing far enough to carry the pin-supporter underneath the hole.

In such case, were the pin placed in the hole, such pin would immediately fall into its lowest position or through the link, and thus, while it might be there, it would be impossible to draw the link out of the draw-bar so as to separate the cars.

With my auxiliary pin-supporter, the case will be different, for, it will be seen, that such supporter, on the link-holder being forced back, by the pressure of the link, will be advanced laterally, by its spring, up to the pin, and as soon as the pin may be raised above it, such supporter will be still further moved laterally so as to project underneath the upper pin-hole, and afford support to the lower end of the pin, provided the pin be left or allowed to stand in such hole.

As the car may separate from that one next in rear of it, the link-holder will advance and force the main pin-supporter against the hypotenusal side of the trapezoidal projection of the auxiliary pin-supporter, and thereby cause the latter supporter to be moved laterally away from the pin, the main pin-supporter, at the same time, passing underneath the pin, so as to keep it in an elevated position, after the auxiliary supporter may have been thus moved away from it.

From the above, it will be seen that a car-attendant, preparatory to a separation of two cars, has only

to pull up the pin and allow it stand in the upper hole of the pin-passage.

In case the main pin-supporter may be forced so far back by the link as not to be in a condition to support the pin, the auxiliary pin-supporter will perform the office, and while the cars may be in the act of being drawn apart, will be moved away from the pin by the main supporter, which will move up and take the place of the auxiliary supporter underneath the pin.

The pin will thus be held up ready for another coupling of the car with another car, and when this takes place, the link of the latter will be driven into the draw-bar of the former, and will push back its

link-holder, so as to force the main pin-supporter away from the pin, and allow the latter, by the force of gravity, to descend into the link and connect it with the draw-bar.

What I claim, is—

The combination and arrangement of the auxiliary pin-supporter and its operative spring with the main pin-supporter and the link-holder, applied to the draw-bar, substantially in manner, and so as to operate therein as set forth.

ORIN M. WHITMAN.

Witnesses:

JOHN W. JACKSON,
N. M. SWASEY.