

W. L. BRADDOCK.

Car Coupling.

No. 88,440.

Patented March 30, 1869.

Fig. 1

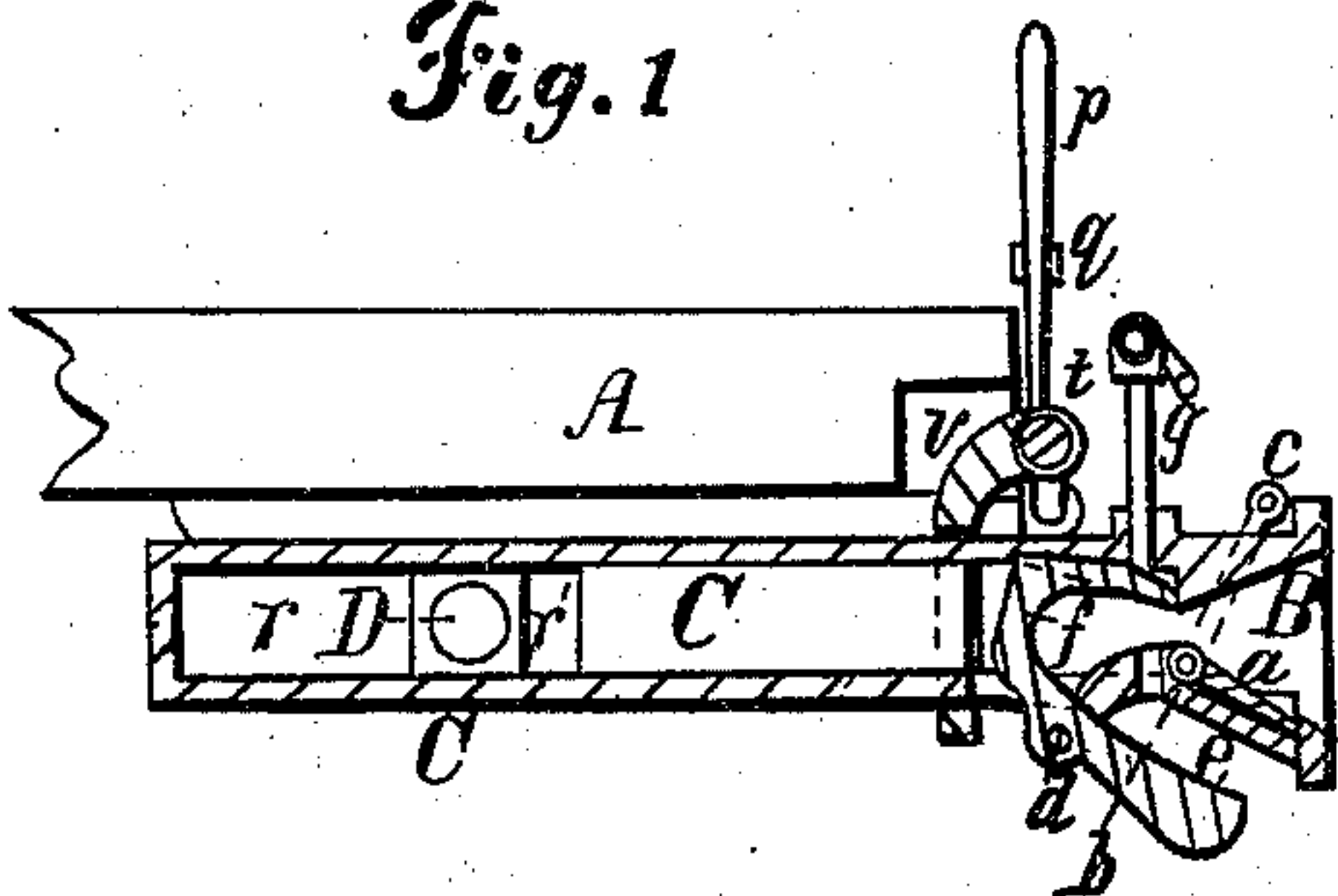


Fig. 2

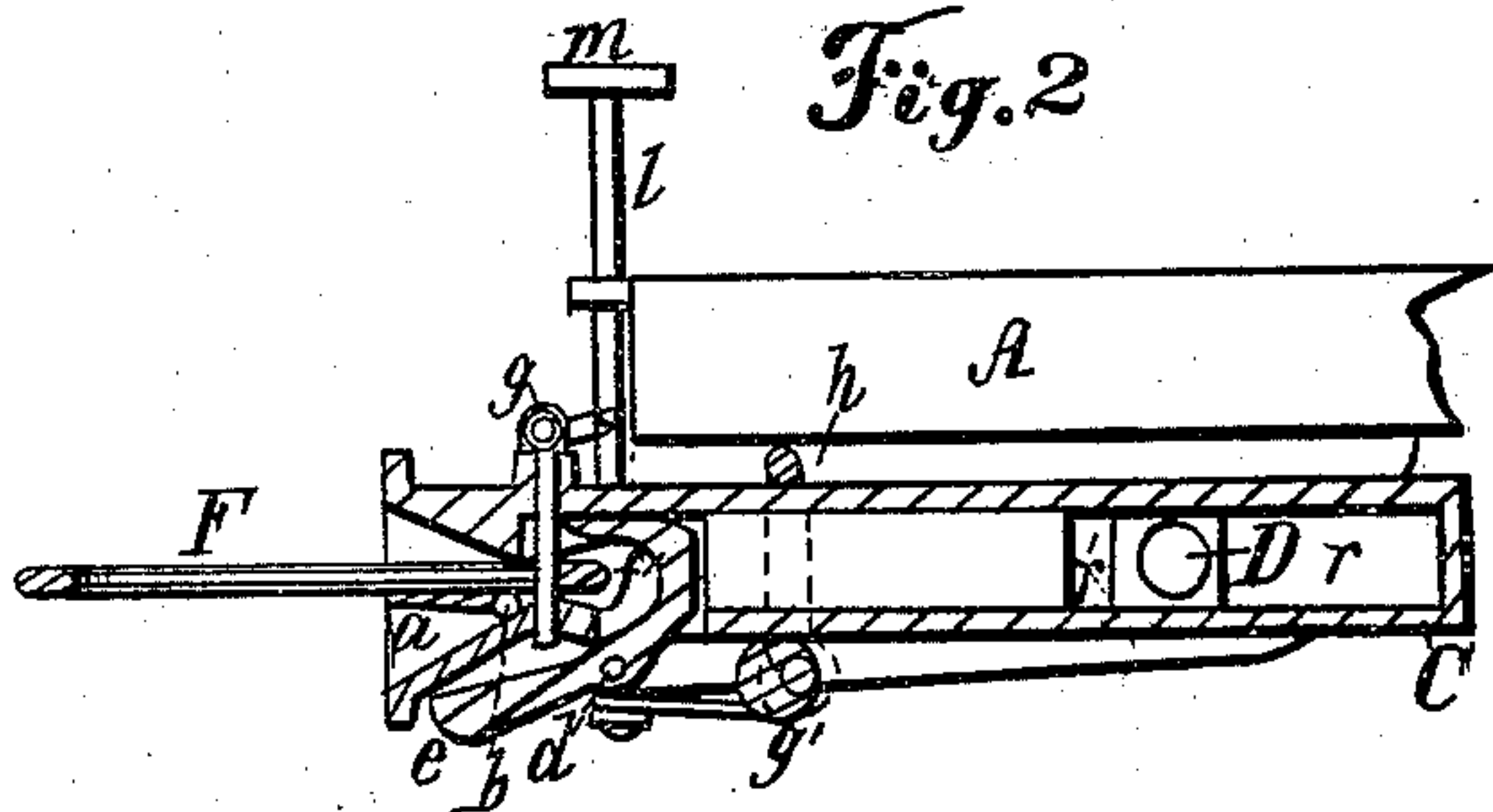


Fig. 3

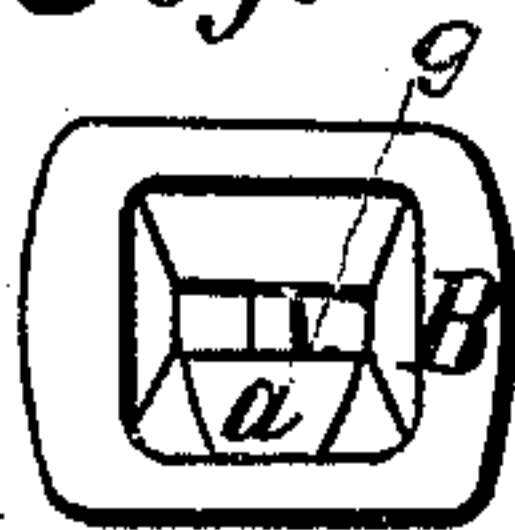


Fig. 4

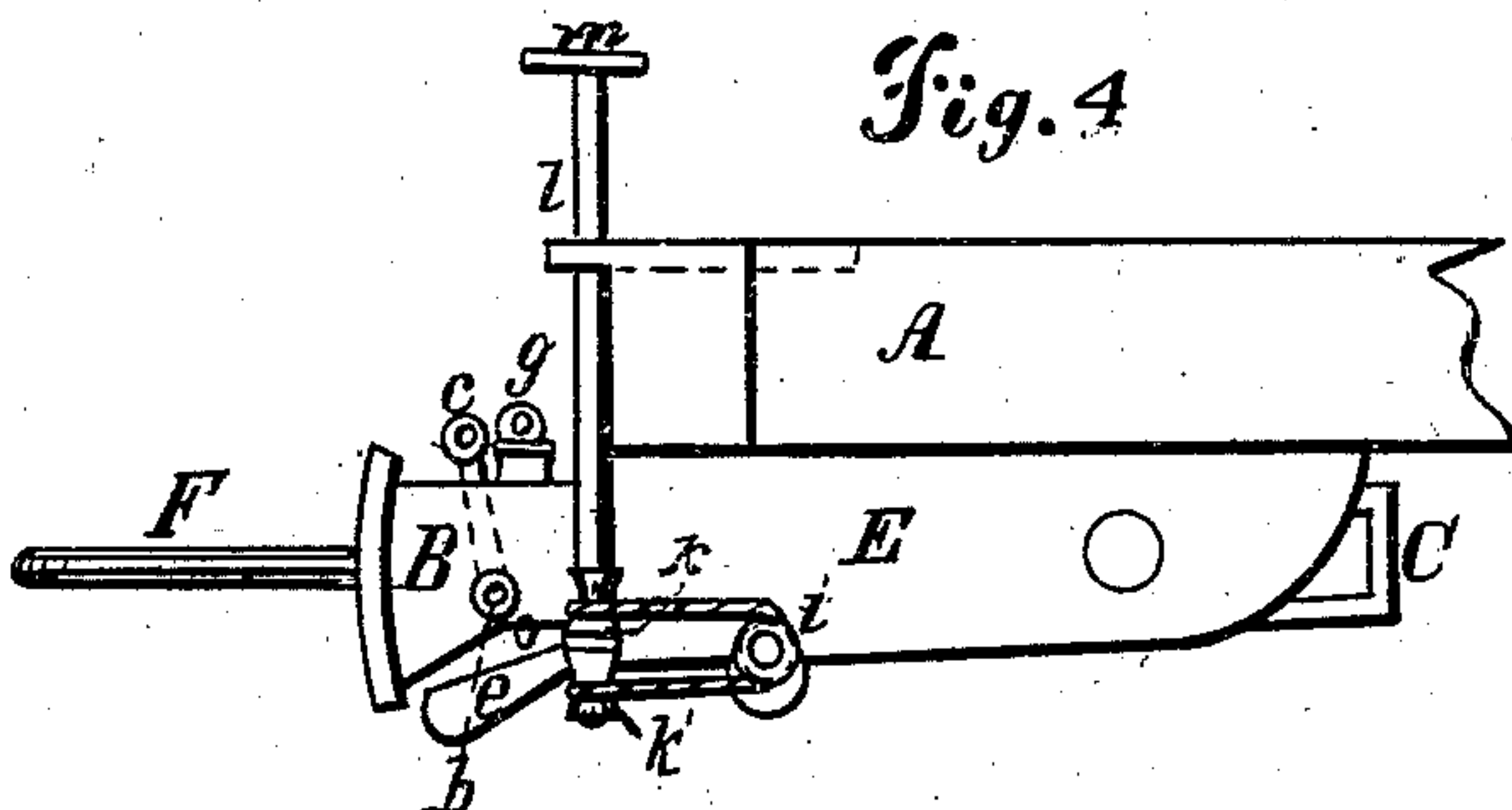


Fig. 5

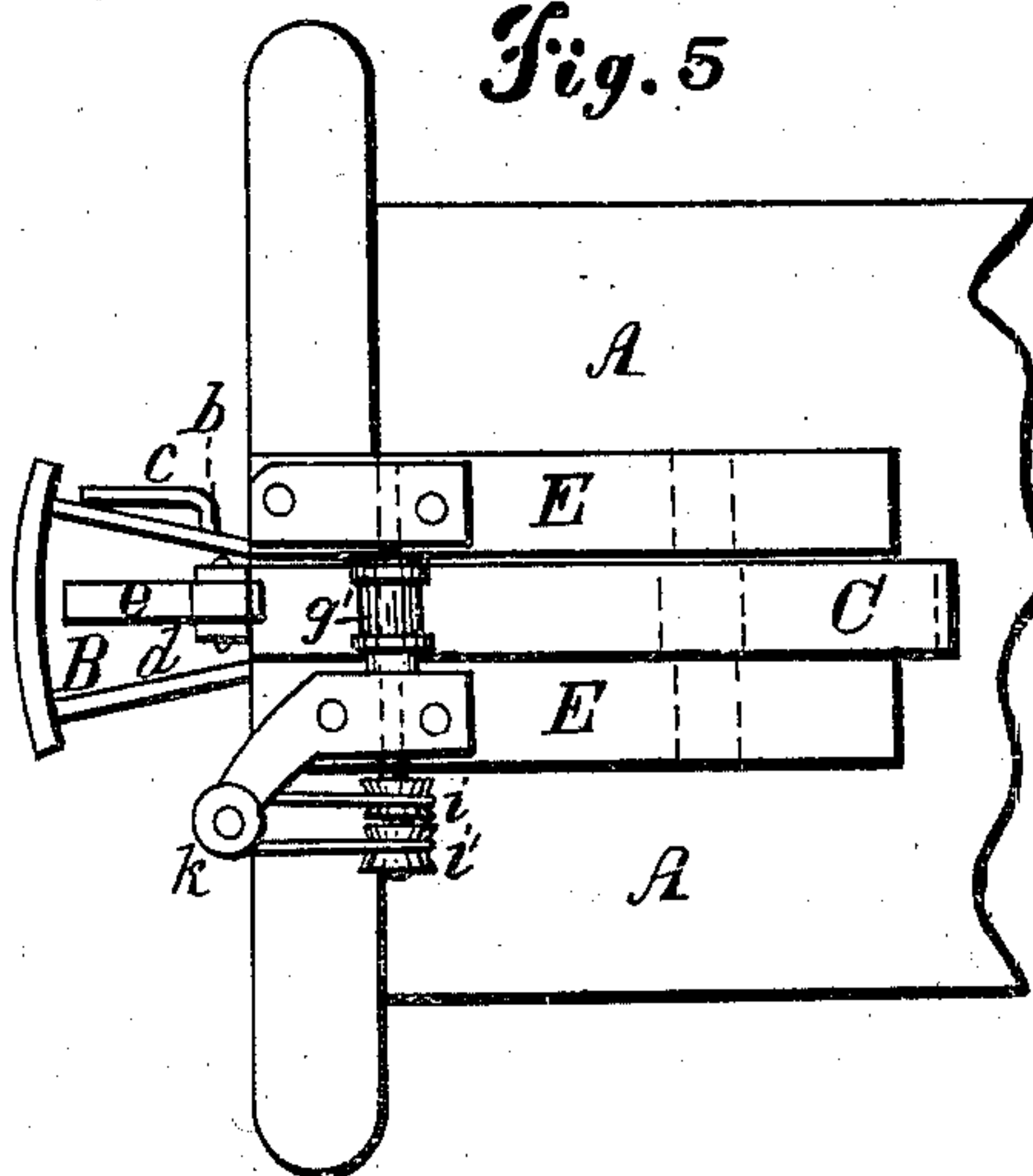
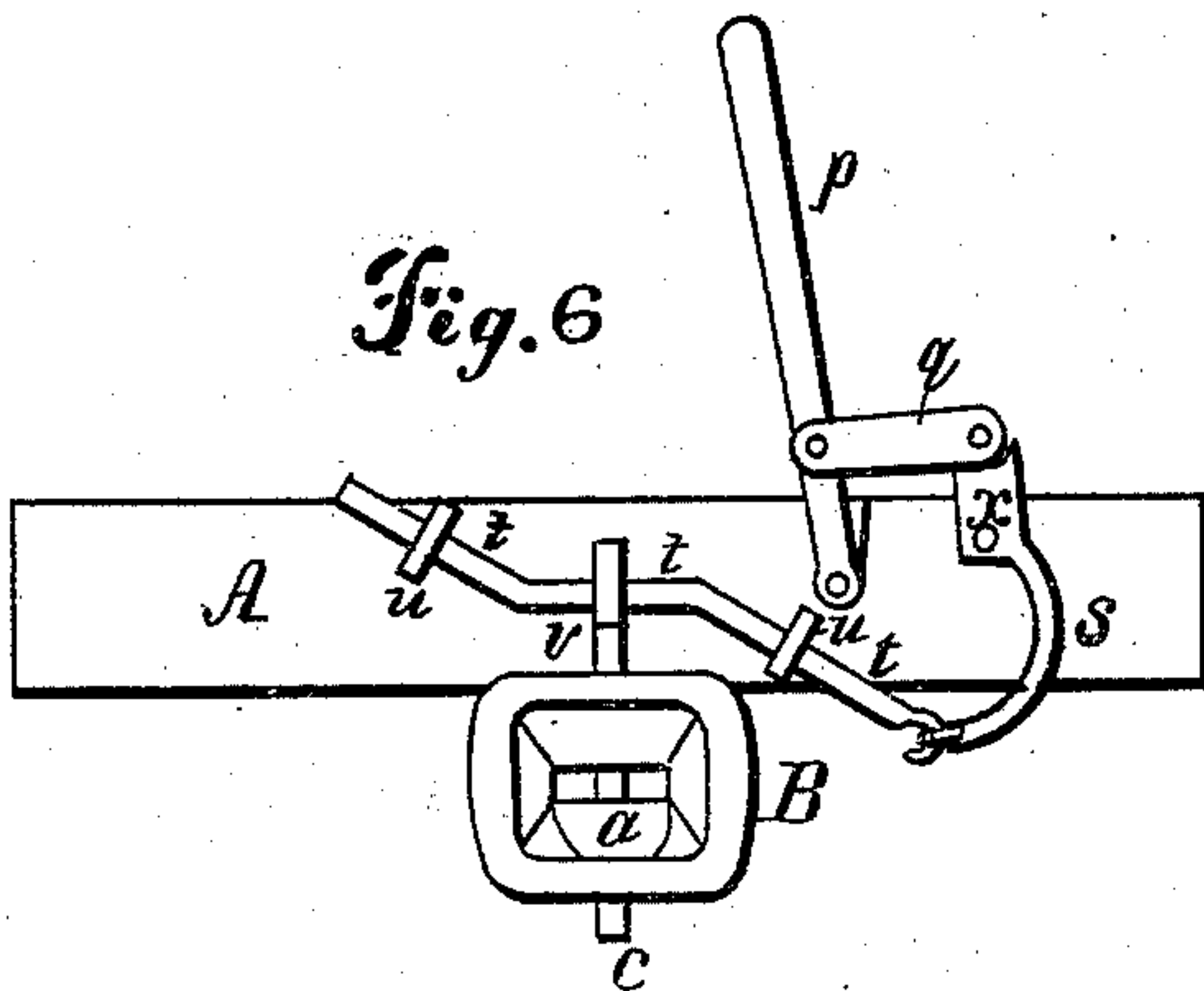


Fig. 6



Witnesses.

M. S. G. Wilde  
S. Winslow

Inventor.

W. L. Braddock  
by Counsel. Wright atty



# United States Patent Office.

WARREN L. BRADDOCK, OF BOSTON, MASSACHUSETTS, ASSIGNOR  
TO HIMSELF AND C. H. MINOR, OF SAME PLACE.

Letters Patent No. 88,440, dated March 30, 1869.

## 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, WARREN L. BRADDOCK, of Boston, in the county of Suffolk, and State of Massachusetts, have invented a new and improved "Car-Coupling;" and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of the specification, in which—

Figure 1 represents a longitudinal sectional view of a coupling embodying my improvement.

Figure 2 represents a longitudinal sectional view of the opposite coupling, with the link attached.

Figure 3 is a front view of a coupling.

Figure 4 is a side elevation of the same, attached to the platform of the car.

Figure 5 is a plan view of fig. 4, looked upon from below.

Figure 6 shows a modification of fig. 4, and is also represented in fig. 1.

The object of my invention is to produce a coupling for cars, in which the link can be guided into the jaw of the opposite coupling, without endangering the attendant; further, to adjust the couplings, and make them conform to cars of different heights; and finally, to make them self-locking, when the link is pushed into them; all the operations to be performed either from the platform above the coupling, or from any other convenient place, without the necessity of the attendant stepping between the cars which are to be coupled; and

My invention consists in raising the link by means of a vibrating plate, within each of the couplings, in such a position as to cause it to enter the opposite jaw.

Further, in suspending the coupling to the car by means of a sliding axle, cushioned on either side by rubber springs, and by raising and dropping the coupling thus pivoted within a limited distance, thus connecting cars whose couplings are not on a level.

Further, in the combined raising of links and couplings, allowing a difference between the axes of two couplings to be of twelve inches, or as much as will be required in any case.

My invention consists also in the construction of a lever, pivoted underneath and to the coupling, one arm of which is curved, and within the coupling, and stopping the bolt from dropping, when the link is removed, the other arm forming a weight, with the object of throwing the curved arm forward, while the entering link forces the curved arm back, until the bolt drops, and thus locks the couplings together.

Referring to the drawings—

A is a platform of a car.

B, the jaw of a coupling.

C, the elongation, forming a slot, through which passes the axle D, attached to projections E E, of a platform A.

r r' are rubber cushions, for counteracting the jarring and concussions consequent to the attaching and

moving of the cars. While the axle D will keep its position in the projections E E, the coupling C is allowed to vibrate in longitudinal direction.

At the smallest section and lower portion of the jaw of the coupling B, is the plate *a*, attached to pin *b*, at the end of which, outside the coupling or the car, as the case may be, is the crank, or arm *c*.

The link F is held by pin *g* passing behind plate *a*, and supported by the upper portion of the jaw, in such a manner that when the crank *c* is turned toward the platform of the car, the plate *a* is moved upward from the lower side of the jaw, carrying with it the link F.

A double lever, pivoted at *d*, to the coupling, projects with the upper and curved arm *f*, into the coupling, while the arm *e* is thickened, so that the preponderance in weight over that of the curved arm *f*, throws the latter forward, and thus prevents the lifted bolt *g* from dropping through the jaw, when the link is removed.

When the cars are to be shackled together, the link F being already attached to one of the cars, enters the opposite coupling, pushes back the arm *f*, and thus allows the pin *g* to drop and hold the link.

Near the front of platform A, (see fig. 2,) the elongated coupling C is encircled by a stirrup, *h*, the lower portion *g'* of which is eccentric, and held by a spindle to the projections E E, of platform A.

To one end of said spindle is attached a double chain-wheel, *i i'*, which, by means of corresponding chain-wheels *k k'*, on vertical shaft *l*, and hand-wheel *m*, receives a rotating motion.

The eccentric, or cam *g'* being in contact with coupling C, raises and lowers the latter to the extent of its eccentricity, which may be three inches, or any other suitable distance. By this means the coupling B is raised and lowered, so as to meet the opposite one, in case the latter should be on a different level.

Fig. 6 shows a modification for elevating the coupling B, by means of inclines *t t*, lever *s*, attached to platform A, and oscillating on pin *x*, link *q*, and hand-lever *p*. The stirrup *v* is attached to rod *t t t*, and the forward or backward motion of the rod *t t t* effects the raising and lowering of the stirrup *v*, and with it the coupling B.

Having thus fully described my invention,

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

The coupling B, with lever *f e*, plate *a*, crank *c*, link F, axle D, cushions *r r'*, stirrup *h*, cam *g'*, chain-wheels *i i'*, *k k'*, and shaft *l*, in the manner and for the purpose above specified.

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

WARREN L. BRADDOCK.

Witnesses:

CARROLL D. WRIGHT,  
ARTHUR O'NEAL.