

C. F. HORNBECK.

Car Coupling.

No. 98,770.

Patented Jan. 11, 1870.

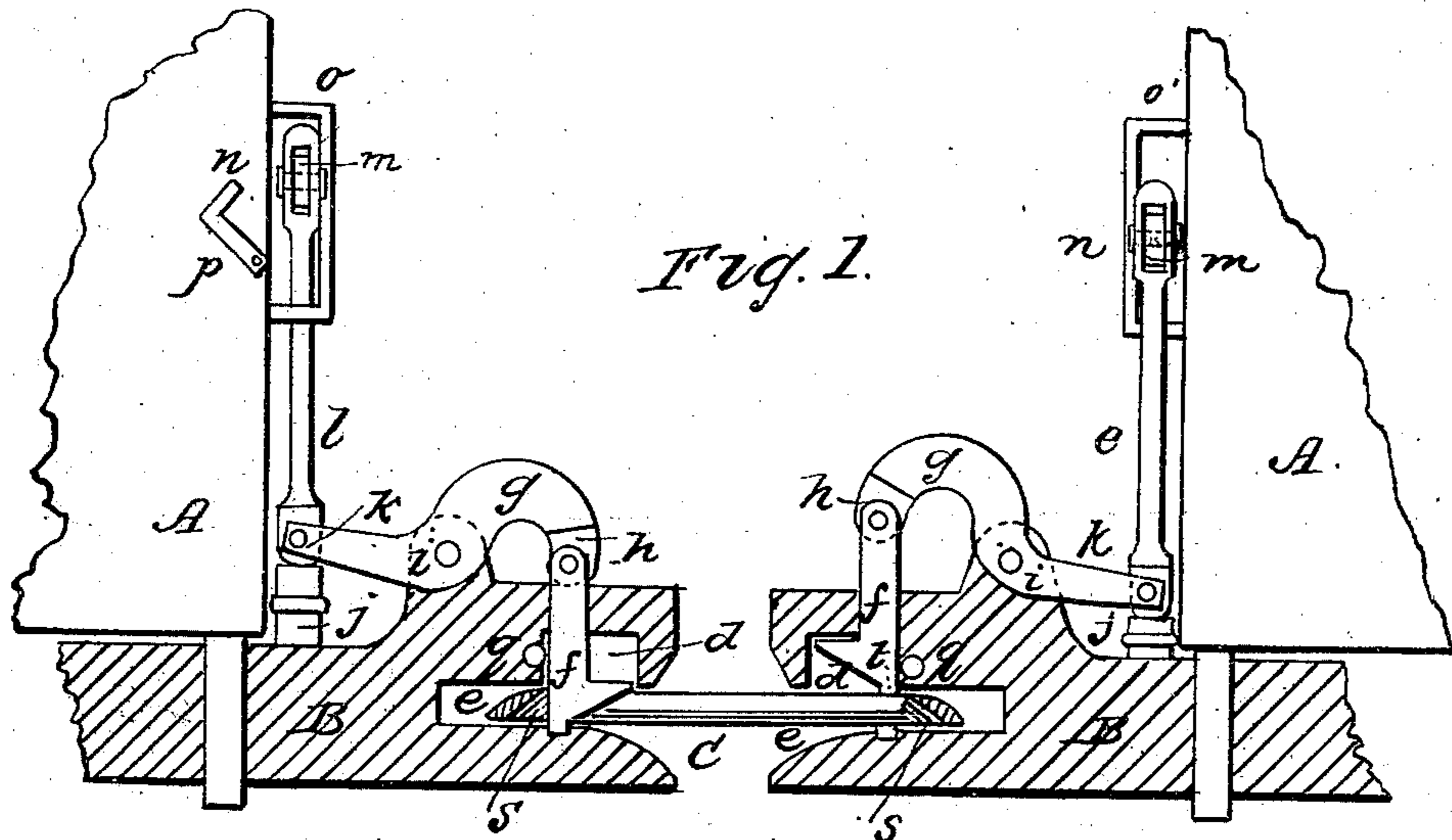


Fig. 1.

Fig. 2.

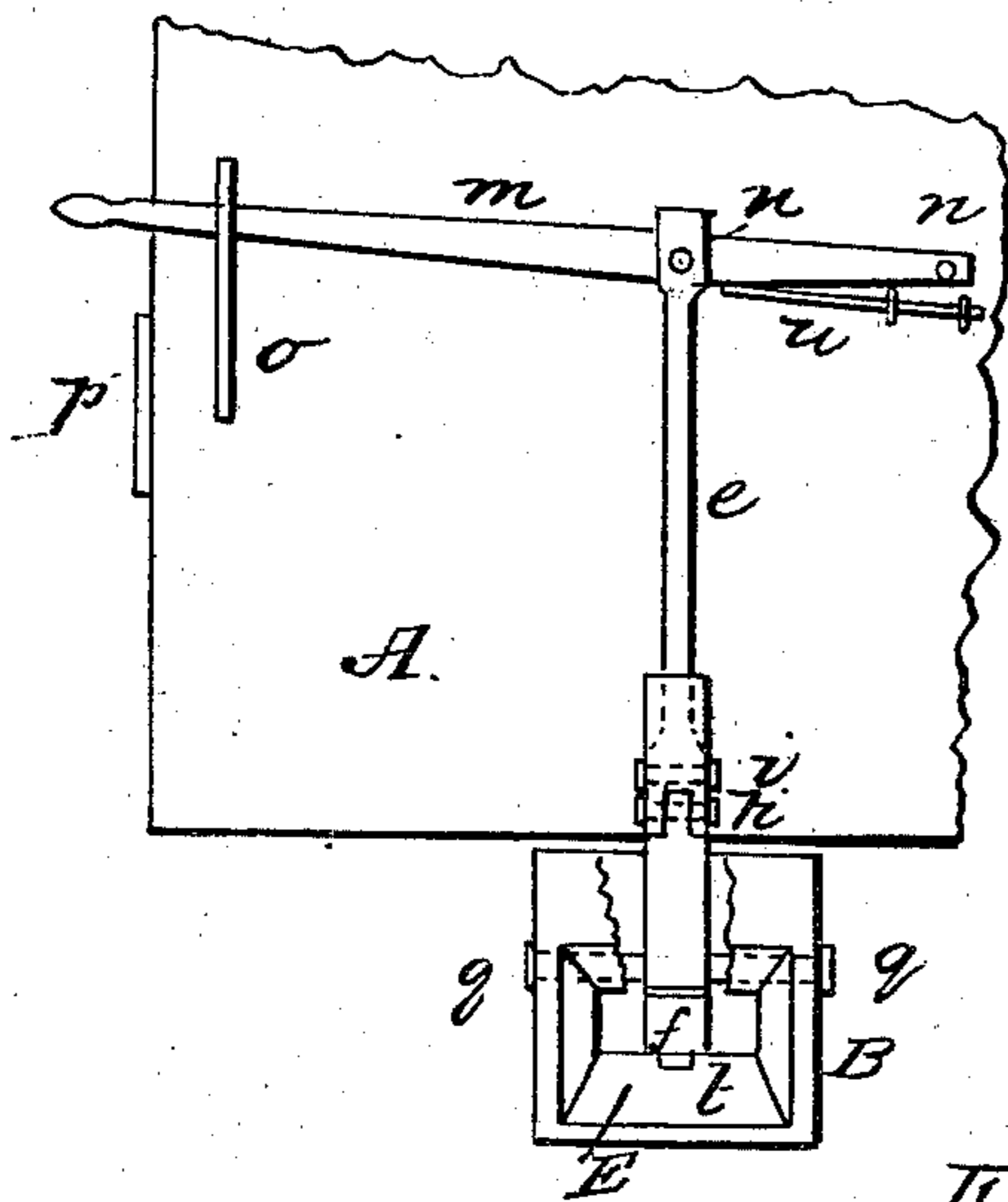


Fig. 3.

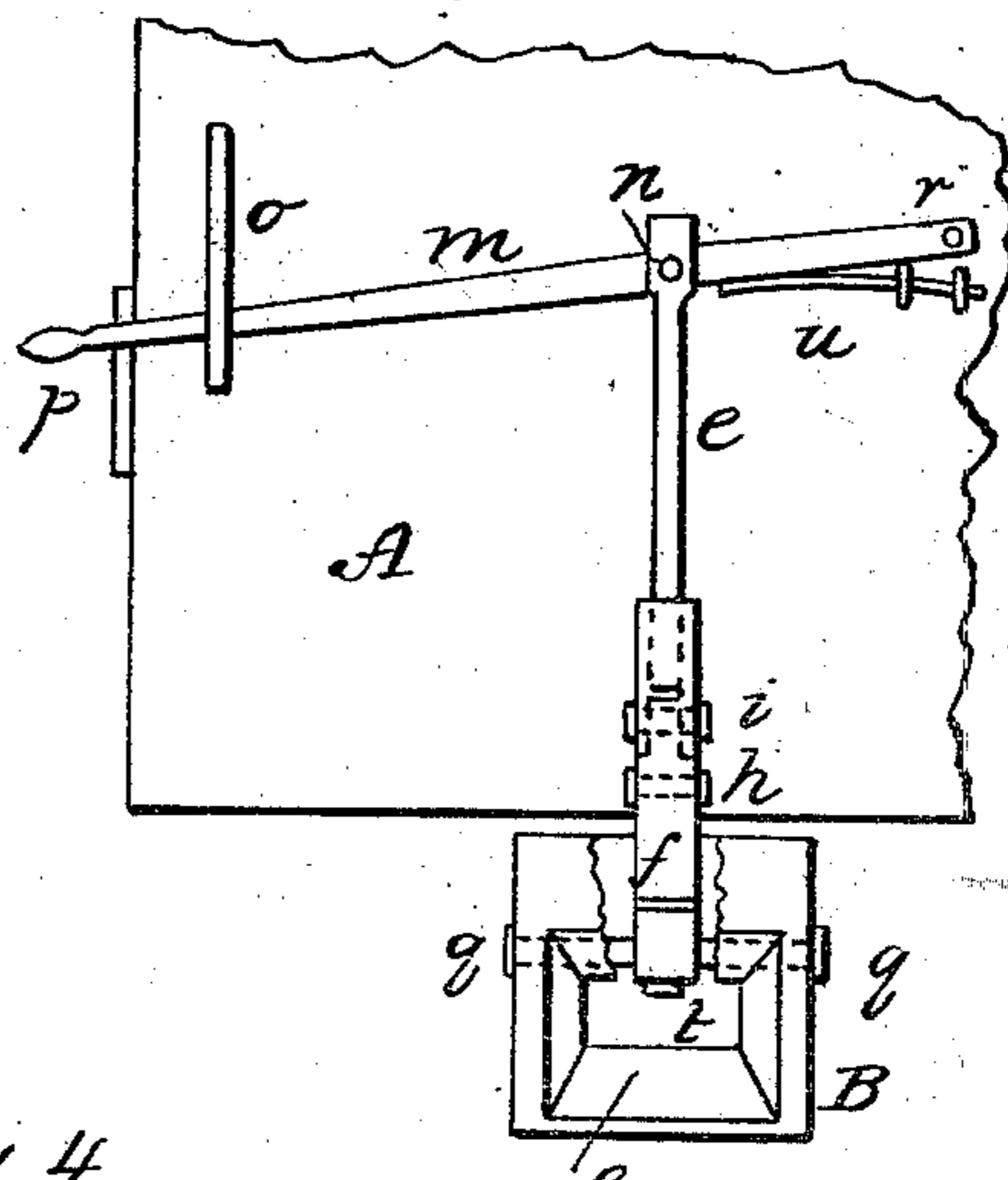


Fig. 4.



Fig. 5.



Witnesses

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CORNELIUS F. HORNBECK, OF SLATERSVILLE, NEW YORK.

Letters Patent No. 98,770, dated January 11, 1870.

## IMPROVEMENT IN CAR-COUPLING.

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

I, CORNELIUS F. HORNBECK, of Slatersville, in the county of Tompkins, and State of New York, have invented certain Improvements in Car-Coupling, of which the following is a specification.

My invention relates to the combination of levers, catches, bolts, bars, standards, springs, rollers, links and openings, or apertures, in such manner that the same shall be capable of effecting the coupling of railway-cars, when said invention is attached to the same, or to the headings or bumpers thereof.

The object of my said invention is to secure a speedy, self-acting, and safe method of coupling cars, and other vehicles of that nature, without the aid of the hands, and without the danger and risk attending the use of the same; and I will now proceed to describe the said invention so those skilled in the art may be able to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 represents a side view of my invention, with the near half thereof cut away, to show its construction, and the manner of working the same;

Figure 2, an end view of my invention, showing the same in use;

Figure 3, an end view thereof, showing the same in the position it will be when it is not desired to work;

Figure 4, a surface view of the link used by me in connection with and as a part of my invention; and

Figure 5, a view of the springs used in connection with my said invention.

Similar letters of reference indicate like parts.

A is the end of a common car.

B is the heading or bumper to the same.

C is an iron link, each end of which is of a wedge-like shape, and has a flat groove therein, as shown at S.

d is an aperture in the heading or bumper, so made to allow the hook-shaped bolt f to slide up therein.

E is an ordinary opening in said heading or bumper, a little more flaring, however, on the under side than those in common use.

f is a bolt, made with a slide or plane inclined downward, so constructed for the purpose of allowing the link C to slip under the same, by help of the flat groove S, its object being to fasten or retain said link when inserted, as aforesaid.

g is an arm or lever, working upon the pivot i, and attached to the bolt f, by the bolt h, and with the bar or standard l, by the bolt k.

j is an elliptical spring, so placed under the end of the arm or lever g as to have a tendency to press the bolt f downward.

m is a lever, fastened to the bar or standard l, by the bolt n, and working upon the point r.

o is a strap, for the purpose of keeping the lever m close to the side of the car.

p is a catch to hold the lever m down, thereby pressing and retaining the bolt f out of use when desired, as is more fully shown in fig. 3.

q is a roller placed in the bumper, to relieve the bolt f from all possible friction when sliding up or down.

t is a point at the lower end of the bolt f, which is made to fit in the notch in the heading or bumper immediately under said bolt, said notch being constructed for the purpose of receiving and holding the said point t, and thereby prevent the bolt f from being pulled out by the strain resulting from the weight of the cars thereon.

u is a spring, so placed as to work on the lever m, and perform the service of the spring j, if desired.

The left-hand side of fig. 1, in the accompanying drawings, represents my invention as it appears when the cars are coupled, while the right-hand side thereof represents it in the act of coupling.

The coupling, as will be seen, is effected by pressing the wedge-like link C under the bolt f, which is done by the weight of the cars, as they come in contact, the link being held in the proper position for that purpose, by the heading or bumper of the other car, and the point t sliding through the flat groove s.

After the link is inserted far enough to catch the bolt f, it is thrown into position by the spring j or the spring u acting on the lever or arm g, or on the lever m, as the case may be, and the point t, aforesaid, being caught in the notch before mentioned, the bolt is held firmly in position.

To uncouple, bear down on the lever m, by which means the end k of the lever or arm g is borne down, and the bolt f raised sufficiently to allow the link C to escape.

If it is desired to prevent the coupling of the cars when they come in contact, bear down on the lever m, as before, and retain it in that position, by means of the catch p, as fully shown in fig. 3, in the accompanying drawings.

Having thus described my invention,

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

1. The combination of the wedge-shaped link C, the groove s therein, the aperture d, the bolt f, the point t, at the end thereof, and the notch opposite thereto, the lever or arm g, the spring j, and the roller q, substantially as and for the purpose hereinbefore set forth.

2. The combination, with the link C, the aperture d, the bolt f, the lever or arm g, the roller q, and the spring j, of the bar or standard l, the lever m, the spring u, the strap o, and the catch p, substantially as and for the purpose hereinbefore set forth.

CORNELIUS F. HORNBECK.

Witnesses:

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