

(No Model.)

D. V. PUTNAM.
CAR COUPLING.

No. 327,018.

Patented Sept. 29, 1885.

Fig. 3.

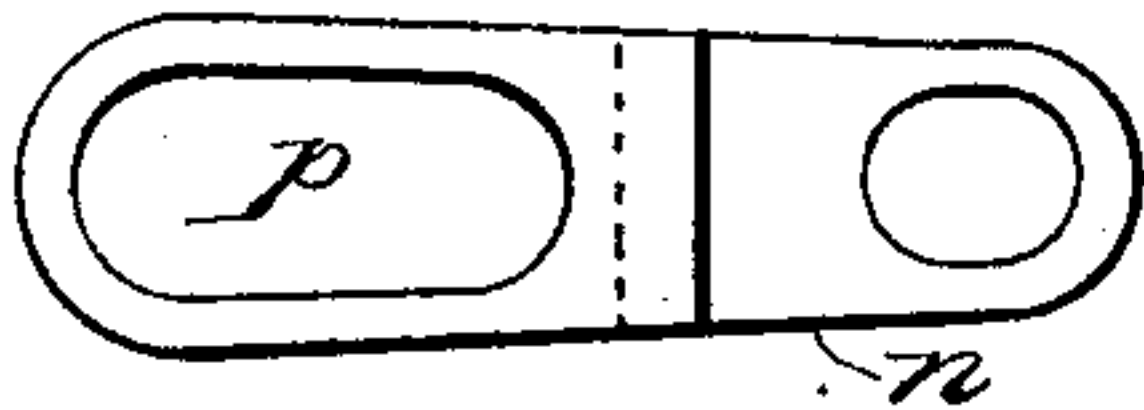


Fig. 4.



Fig. 7.

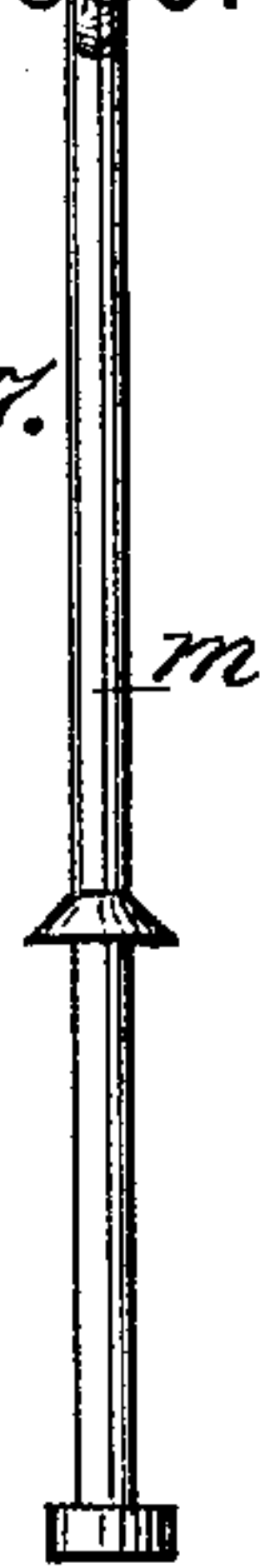


Fig. 1.

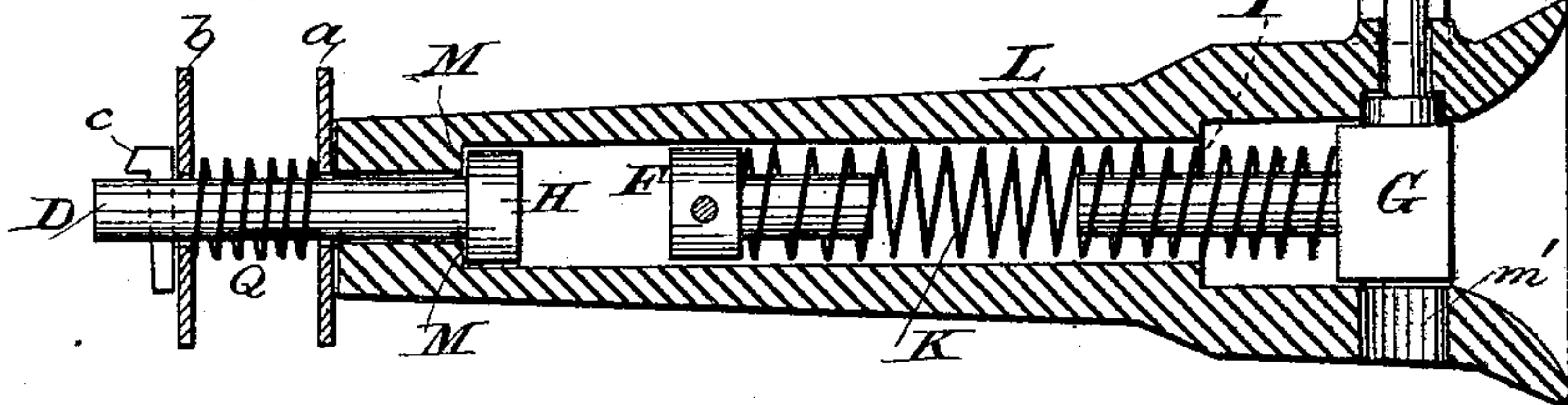


Fig. 6.

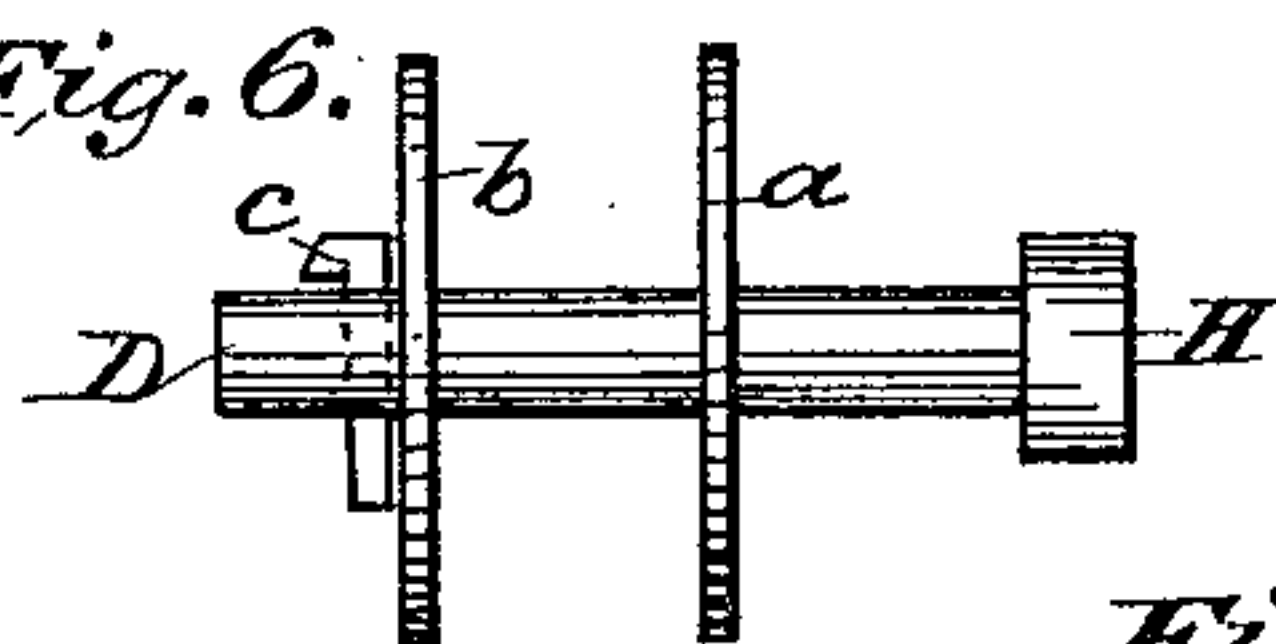


Fig. 2.

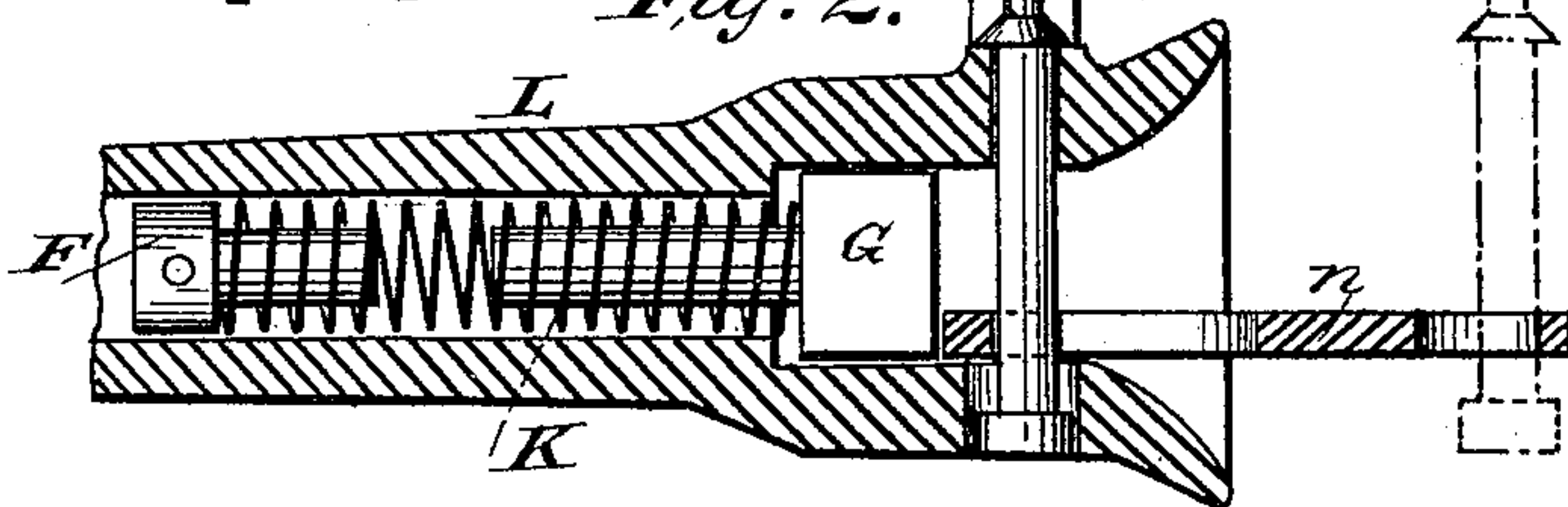


Fig. 11.

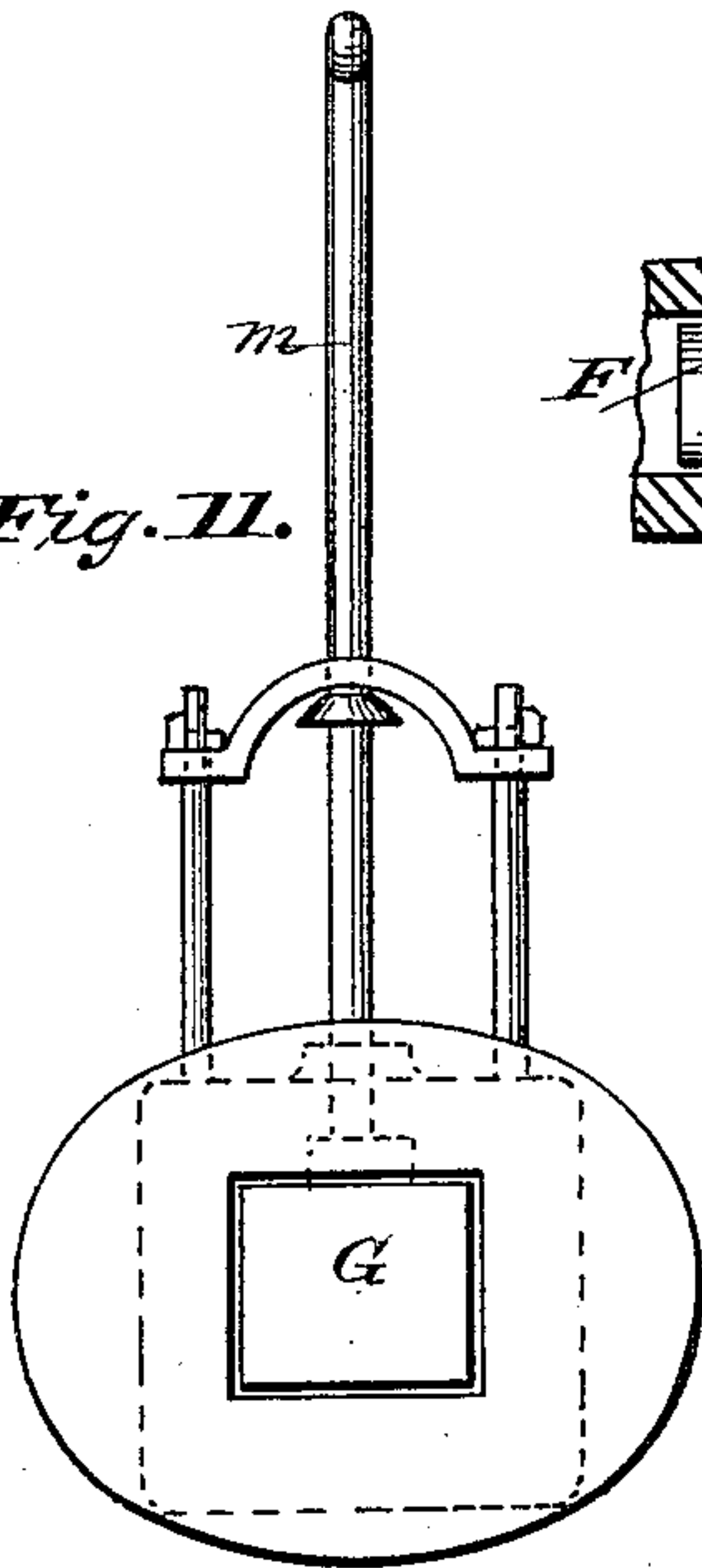


Fig. 8.

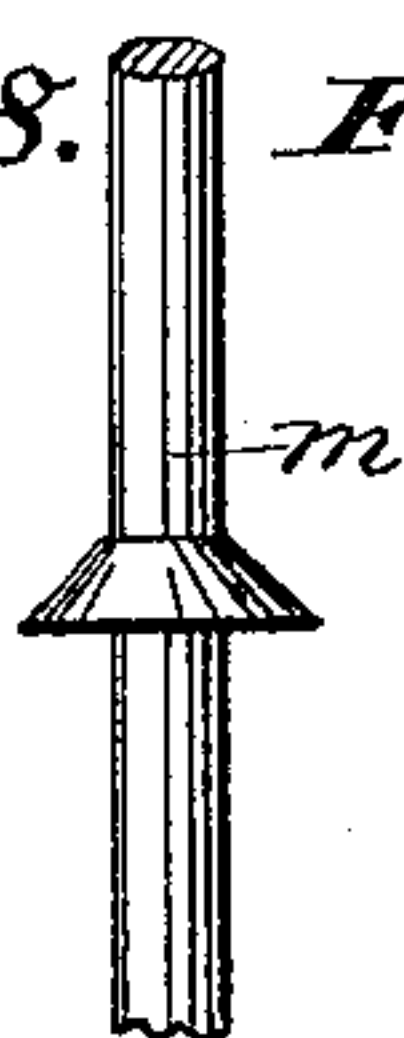


Fig. 9.

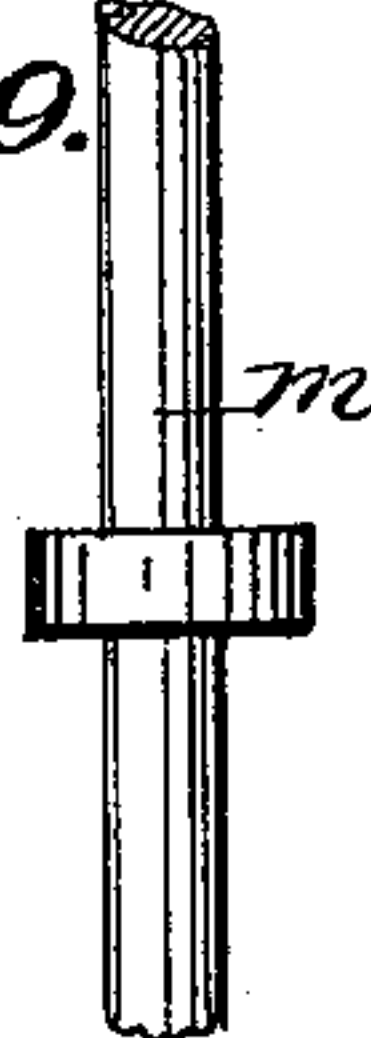


Fig. 10.

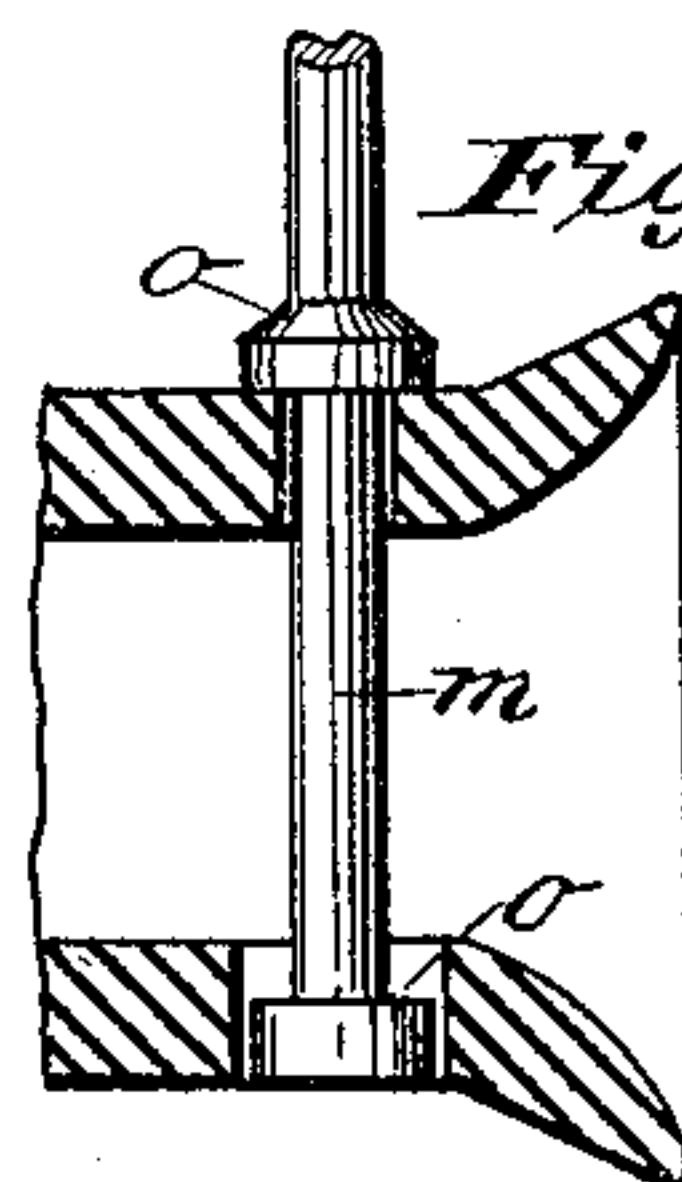


Fig. 5.



Witnesses:

T. C. Brecht,
Pennington Halsted

Inventor:

D. V. Putnam
by Chas. R. Bell
his Attorney.

UNITED STATES PATENT OFFICE.

DAVID V. PUTNAM, OF NOLENSVILLE, TENNESSEE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 327,018, dated September 29, 1885.

Application filed August 11, 1884. (No model.)

To all whom it may concern:

Be it known that I, DAVID V. PUTNAM, a citizen of the United States, residing at Nolensville, in the county of Williamson and State of Tennessee, have invented a new and valuable Improvement in Car-Couplers, of which the following is a full, clear, and exact description, reference being made to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The nature of my invention will be readily understood from the following:

In the drawings, Figure 1 is a sectional view of the coupler and its devices in entirety. Fig. 2 shows the coupler when coupling has been effected. Figs. 3 and 4 show two forms of link which may be employed. Fig. 3 is a top, and Fig. 4 is a sectional, view. Fig. 5 is a detail drawing of the coupling-slide. Fig. 6 is a detail. Fig. 7 is the coupling rod or pin in detail. Figs. 8, 9, and 10 show forms of the coupling rod or pin which may be employed. Fig. 11 is a yoke which may be attached to the top of coupler to hold the coupling rod or pin in position.

G is a slide quadrangular at its outer and cylindrical at its inner end, and connected by a spiral spring, K, with the stationary piece F, which is also cylindrical in form, and of greater diameter at its inner end than at the outer, which is presented toward slide G, as shown in the drawings.

It is not absolutely necessary that spring K should be attached to F or G, provided its ends rest, respectively, on each in such manner as to allow of contraction and resilience. The piece F is fastened in the coupler L by a bolt or screw, e, and is immovable.

The coupler L at I is square or quadrangular where a break occurs, for the purpose of preventing the slide G from moving farther back from the mouth of the coupler. The interior of the coupler widens outward until the mouth is reached, and is cylindrical except as above specified.

At t, and resting on the coupler, is a ring-shaped piece, a, which is connected with another ring-shaped piece, b, by means of a spiral spring, Q, the function of which is to break

or deaden the concussion which is liable to result at the moment of contact of two cars while coupling. The ring-shaped piece b is held in place and prevented from sliding or slipping from D by c, which is a pin passing through D, and which may also be utilized in fastening the coupler to the car.

D is a cylindrical rod having a cylindrical flat head, H, of greater diameter than the other portion of the rod, for the purpose of keeping it in place in the manner shown in Fig. 1, by which it will be seen that the coupler L has an interior projection or break, M, against which H rests. The coupler has also another interior projection or break at I, which has already been described and, partially, its use. When coupling, the slide G moves backward in the coupler until it touches I. This is the proper moment for coupling, and I prevents further and unnecessary movement of G backward.

m is the coupling rod or pin, which works in holes m' m', and when the coupling has taken place passes through coupler L and link n. This pin should be made with shoulders o o, in some suitable and effective form, to prevent the pin from leaving the coupler. When the car is uncoupled, the pin rests on slide G.

The links may be of various shapes, according to requirement. The ordinary form may be used. Two varieties are shown in Figs. 3 and 4. Fig. 3 is a form for even and Fig. 4 a form for uneven cars. In the drawings, p is a hole through which passes the coupling-pin attached to the adjoining car, and by which the link n is connected therewith.

Having described the main features of my invention, I will now explain its operation.

Coupling by my devices occurs as follows: The link n being attached, as described, to one of the two cars to be coupled, either of said cars may be moved up to the other. When the link n comes in contact with the slide G, and with the proper degree of force, pressure is exerted on G, which is communicated to spring K, which in consequence contracts, and thereby causes slide G to recede or move backward until stopped by the interior projection, I, of the coupler. When the slide G has been forced backward to this point by the link n,

the hole or slot *r* therein is brought directly underneath the rod or pin *m*, which has heretofore been resting upon and supported by the slide *G*. The rod or pin *m*, having now no
5 longer any support, falls and passes through the hole or slot *r* and through the lower part of the coupler *m'*, thus completing the coupling. To uncouple, it is only necessary to withdraw the rod or pin *m*, thus releasing the
10 spring *K*, which immediately expands or rebounds, thus forcing slide *G* back to its former place, and it thus resumes its proper position for recoupling.

An advantage of my invention consists in
15 its capability of attachment to the ordinary or to any style of car in common use, since it

does not require any special construction of the same in order to be utilized.

What I claim as my invention, and desire to secure by Letters Patent, is— 20

In a car-coupler, the combination of the quadrangular slide *G* with its cylindrical stem, the stationary cylindrical piece *F*, the spiral spring *K*, the rod *D*, the ring-shaped pieces *a* and *b*, the spring *Q*, the pin *c*, the
25 coupling rod or pin *m*, and the coupling-link *n*, all operating as specified, and substantially as described.

D. V. PUTNAM.

Witnesses:

J. A. FITZHUGH,
C. B. GREEN.