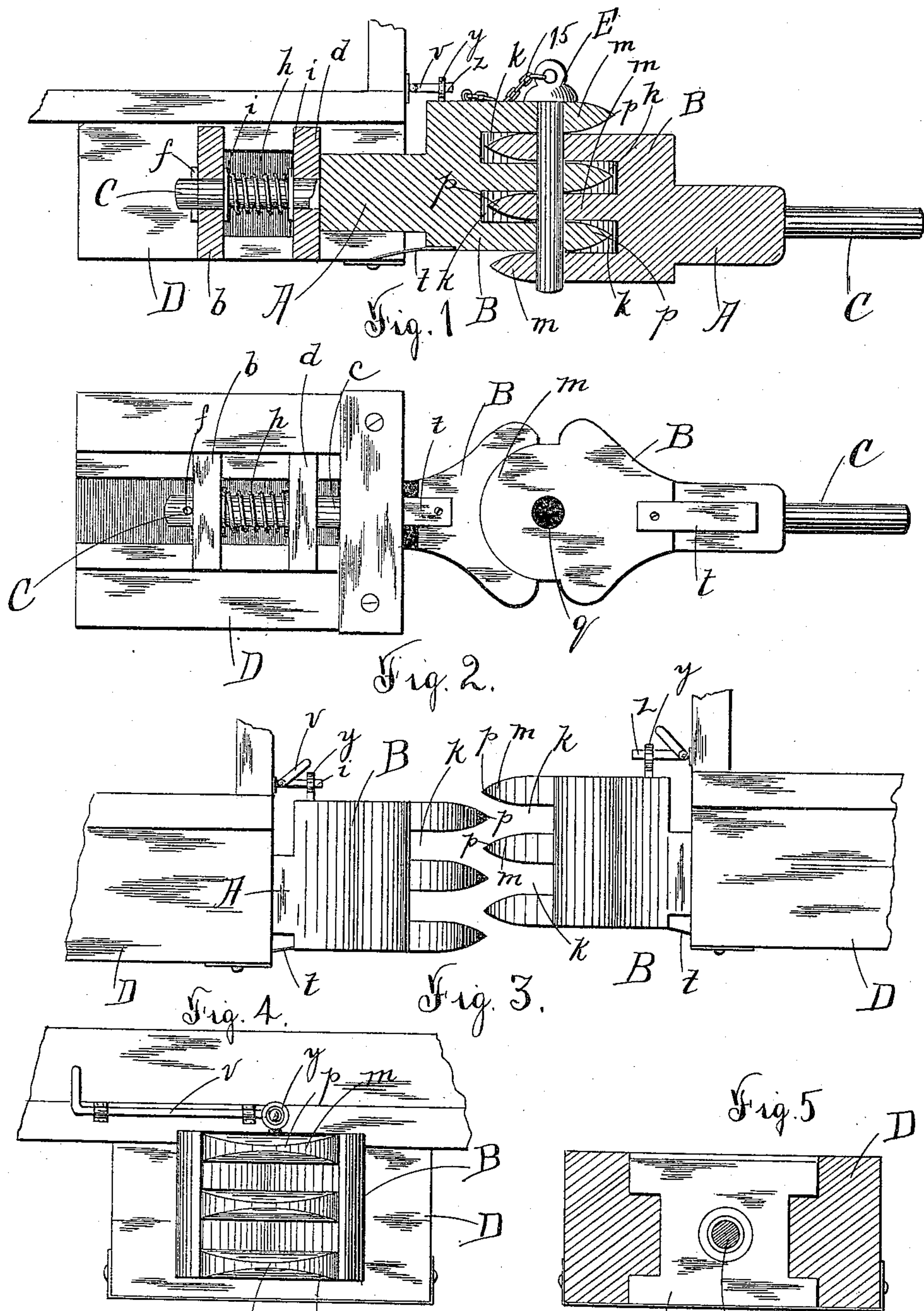


(No Model.)

F. A. CANALES.
CAR COUPLING.

No. 430,110.

Patented June 17, 1890.



Witnesses: p m
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UNITED STATES PATENT OFFICE.

FREDERICK ALONZO CANALES, OF EVERETT, MASSACHUSETTS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 430,110, dated June 17, 1890.

Application filed April 15, 1890. Serial No. 347,971. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK ALONZO CANALES, of Everett, in the county of Middlesex, State of Massachusetts, have invented certain new and useful Improvements in Car-Couplings, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical longitudinal section of my improved car-coupler; Fig. 2, a plan view of the same; Fig. 3, a side elevation representing companion coupler-heads disconnected; Fig. 4, an end elevation, and Fig. 5 a vertical transverse section.

Like letters and figures of reference indicate corresponding parts in the different figures of the drawings.

My invention relates especially to that class of car-couplers which are provided with a pin; and it consists in certain novel features hereinafter fully set forth and claimed, the object being to produce a simpler, cheaper, and more effective device of this character than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation:

In the drawings, A represents the draw-bars provided with a head B at one end and a spindle C at the opposite end. A box D is secured to the body of the car, and the body A of the draw-bar, which is preferably rectangular in cross-section, is fitted to slide longitudinally therein. A rectangular plate *b* is secured within the box, and a companion plate *d* is fitted to travel in said box and is mounted on the spindle C in engagement with the body A. A pin *f* passes through the inner end of the spindle to prevent it being withdrawn through the plates *b* *d*. A coiled spring *h* is disposed around said spindle between said plates, and wear-plates *i* are arranged thereon at each end of said spring, the purpose of said spring being to cushion the draw-bar when coupling the car.

The head B of the coupler has two or more

horizontally-arranged chambers or sockets *k* therein, the partitions or lips *m* between said chambers being rounded or curved in plan, as shown in Fig. 2, and have their outer edges *p* drawn to a sharp edge. Each lip or partition *m* has a vertical pin-opening *q* therein, said openings being adapted to register when the heads of the companion draw-bars are in engagement, as shown in Figs. 1 and 2.

The draw-bar has a slight vertical play in the box D, a flat spring *t* on the under side of said box preventing said bar from falling too low.

A horizontally-arranged lever *v* is pivoted on the car-body and has an arm *z* projecting through an eye *y* on the head B, said lever being employed to elevate the draw-bar without passing between the cars while coupling them.

An ordinary coupling-pin E is adapted to be inserted in the pin-holes *q* of the draw-bar heads, and is secured to one of said heads by a chain 15.

In the use of my improvement, by means of the series of chambers *k* and the lips *m* cars varying considerably in height may be coupled together, said lips being fitted to enter either of the chambers *k* of the opposite coupler-section, and their pin-holes *q* being arranged to register and receive the pin E in any position. By means of the lever *v* the coupler may be moved vertically to direct the heads B when coming in contact.

By constructing the lips or partitions *m* circular, as described, sufficient lateral movement is allowed to prevent the coupler from binding while the cars are passing around curves.

Having thus explained my invention, what I claim is—

1. In a car-coupler, a spring-cushioned draw-bar fitted to slide on the car-body, a supporting-spring for the head thereon, a lever on said car-body working in a pin secured to said draw-bar, whereby said bar may be elevated, and a series of horizontally-arranged segmental chambers in the draw-bar head, the partitions thereof being reduced to an edge and provided with vertical pin-holes in alignment, substantially as described.

2. In a car-coupler, the combination of the
spring-cushioned draw-bar A, provided with
the head B, having the horizontal chambers
k, and segmental partitions *m*, provided with
5 pin-holes *q*, the supporting-spring *t*, the lever
v on the car-body provided with the arms *z*,
working in an eye on said head, and the pin

E, adapted to be inserted in said pin-holes,
substantially as and for the purpose set forth.

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Witnesses:

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