J. D. AYCOCK.

Car-Coupling.

No. 225,040. Patented Mar. 2, 1880.

Fig. 1

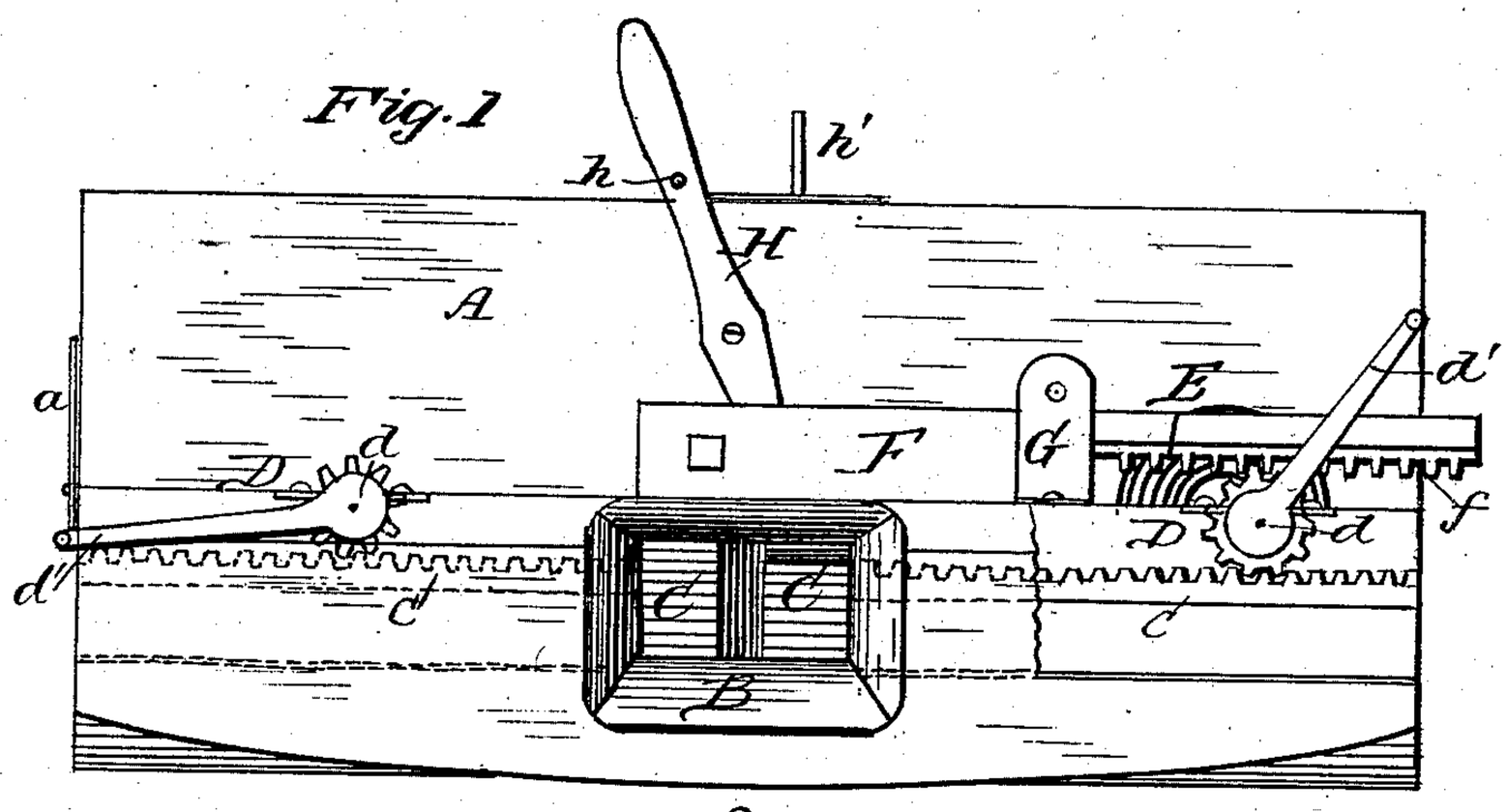


Fig 2

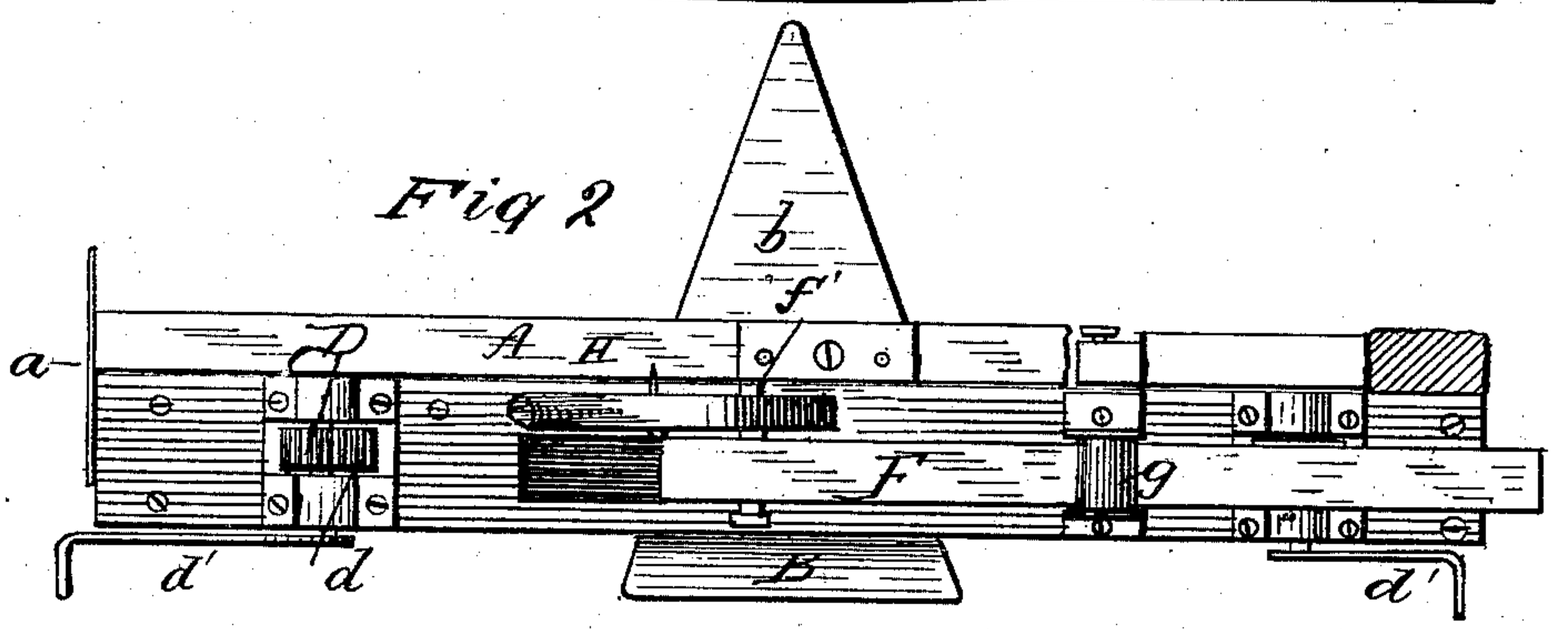


Fig. 4

Fig. 3.

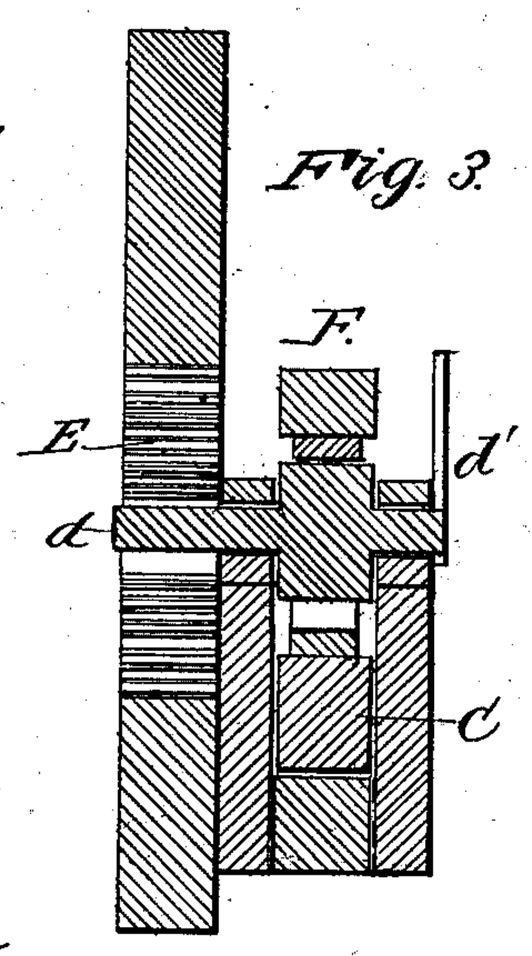
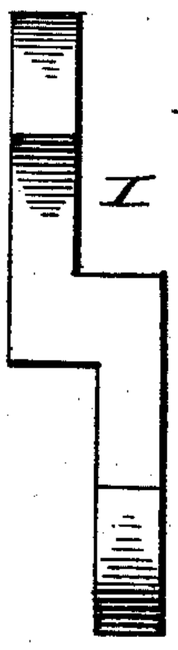


Fig 5



Witnesses

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UNITED STATES PATENT OFFICE.

JOSHUA D. AYCOCK, OF DEETSVILLE, ALABAMA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 225,040, dated March 2, 1880.

Application filed January 20, 1880.

To all whom it may concern:

Be it known that I, JOSHUA D. AYCOCK, of Deetsville, in the county of Elmore and State of Alabama, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being made to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 represents a front view of my improved coupler; Fig. 2, a top or plan view of the same; Fig. 3, a detail sectional view; Figs. 4 and 5, side views of different forms of coupling-hooks.

My invention relates to certain new and useful improvements in the class of couplers; and the invention consists in a novel construction, combination, and arrangement of parts, all as will be hereinafter fully described, and specifically pointed out in the claims.

To enable others skilled in the art to which my invention is most nearly connected to make and use the same, I will now proceed to describe its construction and operation.

In the drawings, A represents the front or rear portion of a car to which my improvements are applied.

B represents the usual draw-head, provided with a triangular recess, *b*, for the reception of the head of the coupling-bar.

C C represent the transverse locking-bars, provided on their upper faces with rack-bars *c c*, into which mesh pinions D D, mounted on shafts *d d*, and operated by cranks *d' d'*, mounted or secured on the ends of said shafts.

E represents an inclosed coiled spring, connected at one end to one of the shafts of the pinions D, and its other end secured in the casing, whereby turning said pinions to move the locking-bars transversely outward to release the coupling-bar will wind up the spring, so that the locking-bars will always be automatically returned to their original or lock position when not secured in an unlocked position by devices hereinafter described.

F represents a transverse bar, connected at one end to the inner end of one of the locking-bars E, said bar passing through a guide, G, provided with a friction-roller, *g*, bearing against the upper surface of the bar. The bar F is also provided, near its outer end, with a rack-bar, *f*, into which one of the pinions D meshes, whereby turning either one of said pinions will, through the medium of said rack-bar F, simultaneously move both of the locking-bars toward or from each other, as desired.

a represents a pivoted catch or pawl for engaging with the teeth of one of the rack-bars *c*, for securing the locking-bars in an unlocked position when desired.

The bar F is provided with a lug or pin, *f'*, with which the lower end of a pivoted lever, H, engages, and through the medium of which the locking-bars can be operated from the platforms of the car; or said lever can be extended up far enough to be operated from the top of the cars, said lever being provided with a lug or pin, *h*, with which a catch, *h'*, engages for securing the lock-bars in an unlocked position.

I I' represent two forms of coupling-bars, one of said bars, I, being adapted for cars of different height, and the other bar, I', for cars of the same height.

The operation of my improved car-coupler is as follows: When it is desired to uncouple or couple the cars the operator turns one of the cranks *d'* from the side of the car, or the lever H from the platform or top of the car, and thus, through the medium of the rack-bars and pinions, moving both of the locking-bars simultaneously outward, thus permitting the ready withdrawal or insertion of the locking-bars, said locking-bars being returned to their original or locking position by the spring E.

I am aware that similar locking-bars, operated through the medium of levers and springs, are common in car-couplings, and such I do not wish to be understood as claiming, broadly, as of my invention; but,

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a car-coupling, the combination of the transverse locking-bars C C, provided with the rack-bars *c c*, pinions D D, intermediate connecting rack-bar, F *f*, and operating mechanism, substantially as and for the purpose herein shown and described.

2. In a car-coupling, the combination of the

locking-bars C C, provided with the rack-bars *c c*, pinions D D, intermediate connecting rack-bar, F *f*, having lug or pin *f'*, pivoted lever H, and locking mechanism, the several parts constructed and relatively arranged to operate substantially in the manner as and for the purpose herein shown and described.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

JOSHUA D. AYCOCK.

Witnesses:

THOMAS G. PARRISH,

DELLAK R. NELSON.