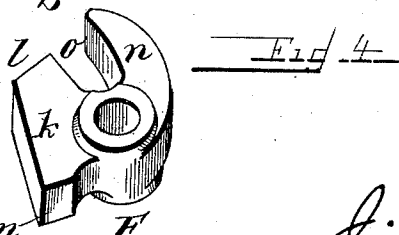
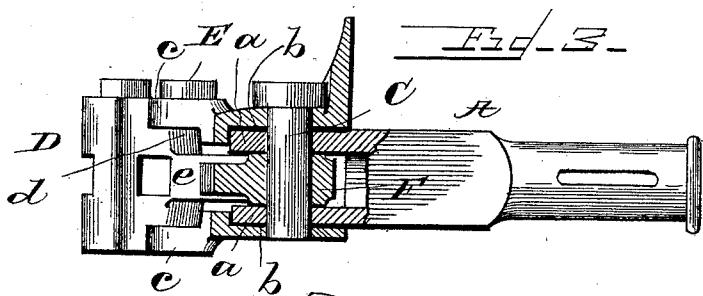
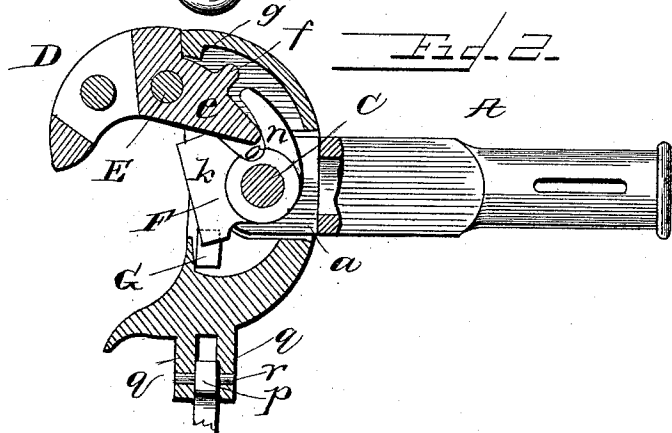
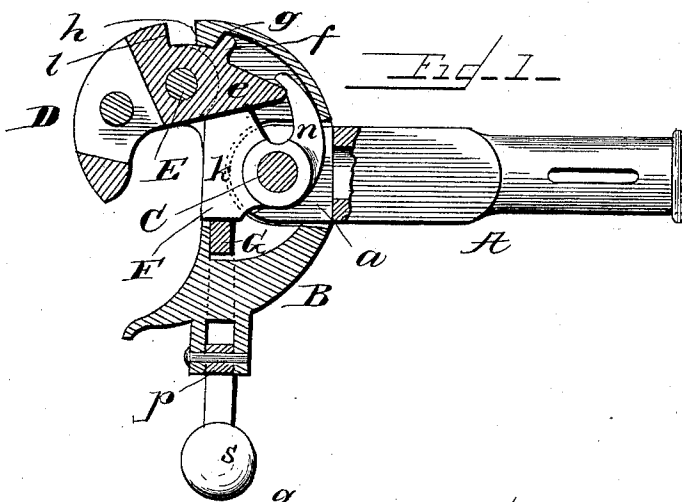


(No Model.)

J. COUP.
CAR COUPLING.

No. 464,958.

Patented Dec. 15, 1891.



Witnesses

G. W. Taubenschmidt.
H. B. Reinohl

Inventor

J. Coup
By Johnstone, Reinohl & Co.
Attorneys

UNITED STATES PATENT OFFICE.

JOHN COUP, OF CLEVELAND, OHIO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 464,958, dated December 15, 1891.

Application filed April 21, 1891. Serial No. 389,847. (No model.)

To all whom it may concern:

Be it known that I, JOHN COUP, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Automatic Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to automatic car-couplings, and has for its object certain improvements in construction, which will be hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, which form part of this specification, Figure 1 represents a horizontal section of my improved coupling, with the parts shown in position when locked or engaged with another similar coupling; Fig. 2, a similar view showing the parts in uncoupled position; Fig. 3, a vertical longitudinal section, and Fig. 4 a perspective of the latch.

Reference being had to the drawings and the letters thereon, A indicates the shank or draw-bar, and B the head, pivotally connected thereto by a pin C, which passes through the head and through extensions or lugs *a a* on the front end of the shank. The lugs *a a* rest in recesses *b b* in the upper and lower walls of the head, which are wider than the lugs, to admit of lateral movement of the head to accommodate curves in the railway and avoid straining the timbers of the cars and the coupling. On one side of the head B are formed lugs *c c*, between which the coupling-hook D is pivotally secured by a pin E, which passes through the lugs *c c* and the lug *d* on the hook. From the lug *d* extends a tongue or finger *e*, which operates a latch F, pivotally secured to the pin C between the lugs *a a* of the shank A, and from the rear side of the finger *e* extends a projection *f*, which engages with shoulder or seat *g* on the inside of the head and forms a stop to limit the swing of the hook D inward, and a seat *h* on the head and shoulder *i* on the hook limit its outward movement. The latch F is provided with bosses on both sides to fill the space between the lugs *a a* and with a rectangular bar *k*, the

end *l* of which rests against the face of the finger *e*, and the opposite end *m* rests against the dog G when the several parts are in coupled position, and with a hook *n*, between which and the end *l* of the bar *k* is a recess *o*, into which the end of the finger *e* extends and operates upon the bar *k* and the hook *n* of the latch to move it into and out of locked position for coupling and uncoupling with an adjacent car. The dog G is of a width equal to the space between the end *m* of the bar *k* and the wall of the head B at the horn side of the head, and when the dog is elevated, after the several parts have been moved into position for coupling, the latch F is securely locked and the hooks D of the two couplings are interlocked. The dog is secured to the horn of the head by an arm *p*, which is pivotally secured to lugs *q q* by a pin *r*, and is provided with a counterbalancing-weight *s* to cause the dog to rise as soon as the end *m* of the bar *k* has passed over the dog, and is limited in its downward movement by the shoulder on the arm and seat on the lugs. (Not shown.)

By the construction of the hook and the locking device shown the coupling will disengage itself when turned to an angle of forty-five degrees, and thus permit one car which has left the track and been turned over on its side to disengage itself from the train.

Having thus fully described my invention, what I claim is—

1. In an automatic car-coupling, the combination of a swinging hook, a vibrating latch provided with a bar and operated by the swinging hook, and a dog between one end of said bar and the wall of the head.

2. In an automatic car-coupling, the combination of a shank or draw-bar, a head pivotally connected to said draw-bar, a swinging hook secured to the head, a vibrating latch provided with a bar, a recess in said latch, with which the finger on the hook engages, and a dog between one end of the bar and the side of the head.

3. In an automatic car-coupling, the combination of a swinging hook, a vibrating latch provided with a rectangular bar and a recess, with which the finger of the hook engages, and a gravity-dog tripped by said latch and engaging with one end of the bar of the latch.

4. In an automatic car-coupler, the combination of a shank or draw-bar having horizontal lugs at its front end, a head pivotally secured to said lugs, a vibrating latch supported between said lugs by a pin connecting the head to the shank, a swinging hook engaged with said latch, and a dog for locking the several parts.
5. In an automatic car-coupling, the combination of a head, a swinging hook provided with a finger and with a projection on the rear side of the finger, a seat on inside of the head, with which said projection engages, a shoulder on the hook, a seat on the outside of the head, with which it engages, a vibrating latch having a bar, and a hook and a dog for engaging with said bar.
6. In an automatic car-coupling, the combination of a head, a swinging hook provided with a rearwardly-extending finger, a vibrating latch in constant engagement with the swinging hook, and a dog engaging the latch.
- In testimony whereof I affix my signature in presence of two witnesses.
- JOHN COUP.
- Witnesses:
D. E. CHRISTIAN,
W. H. HUDSON.