

(No Model.)

T. A. TAYLOR & G. W. S. AUSTIN.
CAR COUPLING.

No. 540,281.

Patented June 4, 1895.

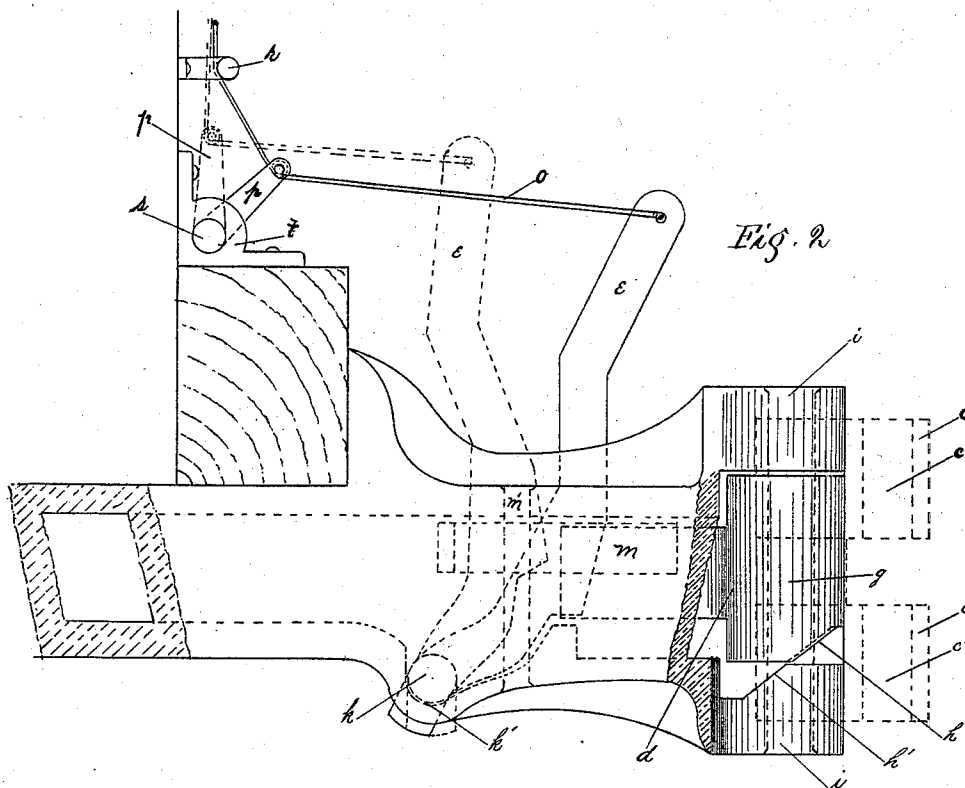
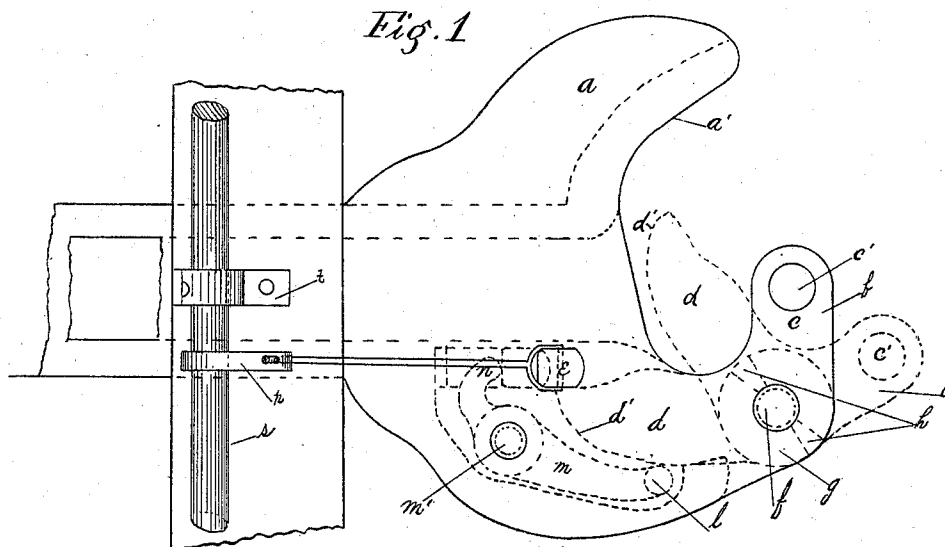


Fig. 1



Witnesses
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per E. O. Hudgens Atty.

UNITED STATES PATENT OFFICE.

THOMAS A. TAYLOR AND GEORGE W. S. AUSTIN, OF KENTON, OHIO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 540,281, dated June 4, 1895.

Application filed January 3, 1895. Serial No. 533,717. (No model.)

To all whom it may concern:

Be it known that we, THOMAS A. TAYLOR and GEORGE W. S. AUSTIN, citizens of the United States, residing at Kenton, in the county of Hardin and State of Ohio, have invented a new and useful Improvement in Car Couplers and Uncouplers, of which the following is a specification.

Our invention pertains to an improvement in car couplers and uncouplers by which a new form and new attachments are applied to a variety of car couplers now in common use, by which it is possible to couple or uncouple cars automatically or to couple or uncouple them by levers either from the top or side of the car to which they are attached. The coupling feature of the device is intended, the same as all other automatic couplers, to obviate the dangers to life and limbs attended with the old method of coupling cars. The uncoupling feature has equally, if not a greater object in avoiding the destruction of both life and property incident to wrecks that are frequently caused by draw bars breaking loose from their fastenings and falling to the track and becoming entangled with the axles or other parts of the running gear and causing derailment of cars and the consequent wreck of an entire or part of a train. It is this well known and frequent cause of wrecks that our uncoupler is designed to avoid, as well as to provide a convenient means of uncoupling cars without the danger of going between them.

The device by which we accomplish the various objects thus far described, is illustrated in the accompanying drawings, in which—

Figure 1 is a plan view, and Fig. 2 is an elevation, of the device.

The head of the coupler will be practically of the form shown and the entire coupler will be attached to the car by its long shank in the ordinary manner.

The general form of the horn *a* and the jaw *b* will be recognized as that of the Janney coupler. The horn *a* will be of the form shown having a face *a'* the full depth of the head. The jaw *b* is new in form being provided with the two arms *c* having the hull *c'* through them for the reception of a coupling pin when necessary to couple with the link of an ordinary drawhead. The jaw *b* is also provided

with the arm *d* which engages with the coupling lever *e* when coupled. The jaw *b* is connected into the head of the coupler by means of a pin *f* passing through the hub *g*, the bottom or bearing face of which is provided with the inclined gravity planes *h* which engage with the corresponding planes *h'* on the upper face of the lower boss *i* of the head of the coupler. The planes *h* and *h'* are located in such relation to each other that they will be in contact with each other when uncoupled, thus holding the jaw *b* open to avoid the necessity of going between the cars to open the jaw *b* if jarred shut by motion of the cars as is now frequently necessary with this class of couplers. The act of coupling swings the jaw shut at the same time raising the faces *h* and *h'* over each other until the highest faces of the hub *g* and the boss *i* are in contact with each other.

The lever *e* will be made of the form shown and pivoted near its lower end by the trunnions *k* which will bear in the sockets *k'* in the under side of the head. In its natural position the lever *e* will drop forward in a position to hold the arm *d* coupled as shown. When the jaw *b* stands open or uncoupled and the arm *d* thrown around, its curved face *d'* in being thrown back into the coupled position will strike the lever *e* and throw it back sufficiently to allow the end of the arm *d* to pass it when its gravity will again bring it in position to lock the arm *d* as shown. If the gravity of the lever *e* should not be sufficient in some cases to overcome friction and bring it back to the locked position it will be thrown forward by the action of the arm *d* striking against the end *l* of the lever *m* causing its other end *n* to strike the lever *e* quickly and throw it forward and lock.

When the lever *e* is pulled back against *n* the lever *m* performs the function of throwing the arm *d* forward far enough to bring the faces *h* and *h'* in contact with each other sufficiently to enable the gravity of the jaw *b* to swing of itself into the open or uncoupled position.

When it is desired to uncouple two cars it may be accomplished either by pulling on the chain *o* which passes from the lever *e* to the lever *p* and through the pulley *r* to the top of the car, or it may be done at the side of the

car on the ground by turning the shaft *s* which extends across the front of the car through the bearings *t* and is provided with a crank at each end at the side of the car. By thus turning the shaft *s* the lever *p* is thrown back toward the end of the car and the chain *o* pulls the lever *e* back and uncouples the jaw *b*.

The arrangement for uncoupling automatically is intended to operate only in case of the draw bar being broken loose while a train is in transit in which case the draw bar as soon as torn loose from its fastenings will draw out of the guide timbers and fall to the track in the case of couplers generally in use; but with our device the draw bar as soon as pulled loose will be held by the chain *o* which will at once pull back and unlock the lever *e* and uncouple from the balance of the train and relieve the draft so that the strength of the chain *o* will be sufficient to prevent the draw bar from being drawn any farther out of the guide timbers between which it sets, thus keeping it from falling to the track and causing a wreck.

Having shown and described the various elements and working parts of our device, we claim and pray to have secured by Letters Patent of the United States—

1. In a car coupler of substantially the form shown the combination of the horn *a* with face *a'*, the jaw *b* having the arms *c*, the hole *c'*, the arm *d*, face *d'*, the hub *g* inclined face *h*, pin *f*, the bosses *i*, one having the inclined face *h*, the lever *m* having ends *l* and *n* and pin *m'*, the lever *e* having the trunnions *k*, the sockets *k'*, the chain *o*, pulley *r*, the shaft *s*, having the lever *p* and the bearings *t* substantially as shown for purposes stated.

2. In a car coupler of substantially the form shown the combination of the jaw *b* having the arms *c*, the hole *c'*, the arm *d*, face *d'*, the hub *g* having inclined face *h*, the bosses *i*, the

lower one having the inclined face *h'*, the pin *f*, the lever *m* having ends *l* and *n*, the pin *m'*, the lever *e* having trunnions *k* the sockets *k'*, the chain *o*, pulley *r*, the shaft *s*, having the lever *p* and the bearings *t* substantially as shown and described.

3. In a car coupler of substantially the form shown the combination of the jaw *b* having the arms *c*, hole *c'*, the hub *g* pin *f* the arm *d*, face *d'*, the bosses *i*, the lever *m* having ends *l* and *n*, the pin *m'*, the lever *e* having the trunnions *k*, the socket *k'*, the chain *o*, pulley *r*, the shaft *s*, having the lever *p* and the bearings *t* as and for purposes stated.

4. In a car coupler of substantially the form shown the combination of the jaw *b*, the pin *f*, the lever *m*, the pin *m'*, the lever *e*, the chain *o*, the pulley *r*, shaft *s* and lever *p* substantially as shown and described.

5. In a car coupler of substantially the form shown the combination of the lever *m* having ends *l* and *n*, the pin *m'*, the lever *e* having trunnions *k*, the socket *k'*, the chain *o*, the pulley *r*, the shaft *s* having the lever *p* and the bearings *t* substantially as shown and described.

6. In a car coupler of substantially the form shown the combination of the jaw *b* having arms *c*, hole *c'*, arm *d* face *d'* the pin *f*, the lever *e* having trunnions *k*, the chain *o*, the pulley *r*, the shaft *s*, lever *p* and bearings *t* as and for purposes stated.

7. In a car coupler of substantially the form shown the combination of the lever *e* having the trunnions *k*, the chain *o* the pulley *r*, the shaft *s* having the lever *p*, and the bearings *t* substantially as shown and set forth.

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Witnesses:

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