

T. T. CARSON & P. F. WHITING.

CAR-COUPLING.

No. 169,891.

Patented Nov. 16, 1875.

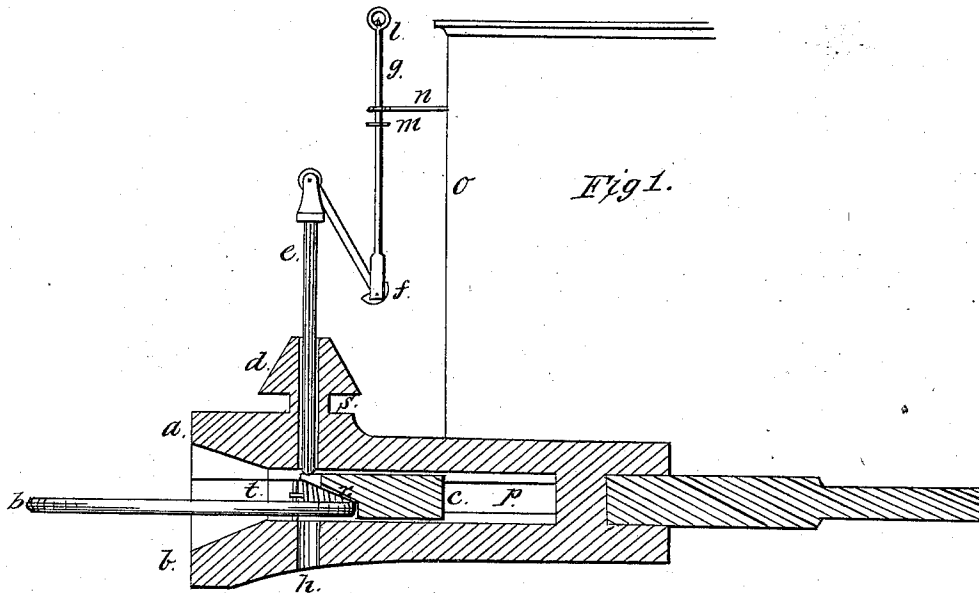
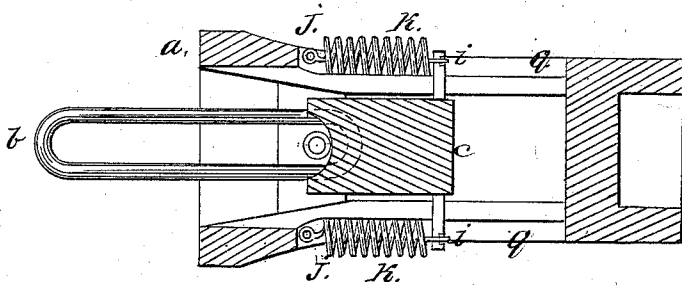


Fig 2.



Witnesses:

John Morris
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Inventors:

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UNITED STATES PATENT OFFICE.

THOMAS T. CARSON AND PHILIP F. WHITING, OF MORRISTOWN, TENN.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **169,891**, dated November 16, 1875; application filed February 24, 1875.

To all whom it may concern:

Be it known that we, THOMAS T. CARSON and PHILIP F. WHITING, of Morristown, Tennessee, have invented certain new and useful Improvements in Car-Couplings; and we do hereby declare that the following is a full, clear, and exact description thereof, that will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings and to the letters of reference marked thereon, forming a part of this specification.

Figure 1 shows a side sectional elevation, and Fig. 2 a top sectional view, of our invention.

The object of our invention is to produce a self-acting link and pin car-coupling, in order to obviate the necessity of passing between the cars to perform the operation, and at the same time render the action certain, safe, and speedy.

To do this we construct a draw-head of cast or wrought iron, of the ordinary shape, with the mouth or entrance considerably longer, in order to give a wider opening for the entering of the link from cars of different height, as between a loaded car and an empty one. In the back part of the draw-head is a recess, *p*, in which plays a sliding block, *c*, having on its face or front end a projection, *r*, and on the back end two arms, *i i*, to each of which is attached a spiral spring, *k k*. Directly in front of each spring is a small bolt or pin, *J J*, to which the springs are attached. These spiral springs play in a slot or groove, *q q*, at each side of the recess *p*. Attached to the upper end of the pin *e* is an anchor-shaped hook, *f*, to which is fastened a rod, *g*, having a joint or cross-bar, *m*, and at its upper end a handle, *l*. To the car *o* is attached a staple or loop, *n*, through which the rod *g* extends. On the top of the draw-head is a turret-shaped elevation, *d*, having a conical head with a groove, *s*, on its under side, and a hole, *h*, for the reception of the pin.

The operation of our invention is as follows: The link *b*, when driven into the mouth of the draw-head *a*, forces back the sliding

block *c*, upon which rests the pin *e*, thus liberating the pin and allowing it to fall through the link *b*, and thus complete the coupling. The link or shackle is held in position by means of the spiral springs *k k* drawing forward the block *c*, which, with its beveled face *r*, exerts a downward, as well as a forward, pressure upon the inner end of the link, thus holding up the outer end ready for the entering of another car. When the pin drop it is held in position by means of the anchor-shaped hook *f*, which falls in the groove *s*, under the head of the turret *d*, and holds the pin in position, thus obviating the danger of an accidental uncoupling. The anchor is detached and the pin withdrawn from the top of box-cars by means of the rod *g*. When the pin is withdrawn the spiral springs pull forward the block *c*, thus covering the pin-hole *h*, and affording a resting-place for the pin *e*. To prevent the complete withdrawal of the pin when uncoupling box-cars the rod *g* is provided with a cross-bar or large joint, *m*, below the staple *n*, allowing the rod *g* to be drawn only up to the proper height for uncoupling. On passenger-cars and "flats" the rod *g* may be dispensed with, and the uncoupling performed by using the anchor *f* as a handle for the pin *e*.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The combination, with the draw-head, having an extended opening or mouth, as shown, the movable block *c*, with its beveled face *r*, arms *i i*, and springs *k k*, all substantially as set forth.

2. The pin *e* and anchor *f*, in combination with the turret *d* and groove *s*, whereby the pin is locked in position, substantially as herein described.

In testimony that we claim the foregoing we have hereunto set our hands this 20th day of February, 1875.

THOMAS T. CARSON.
PHILIP F. WHITING.

Witnesses:

JEHU MORRIS,
J. M. SMITH.