

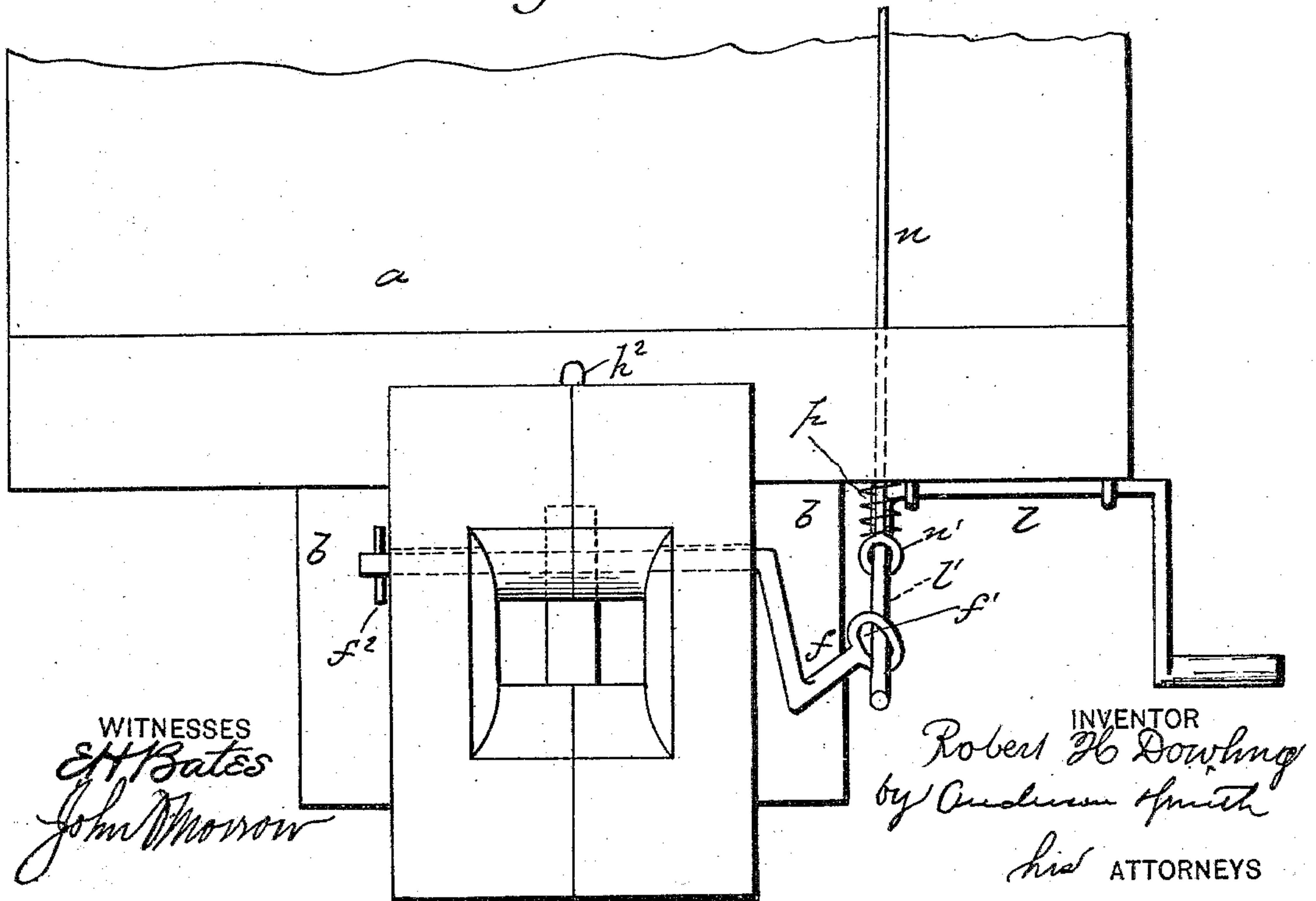
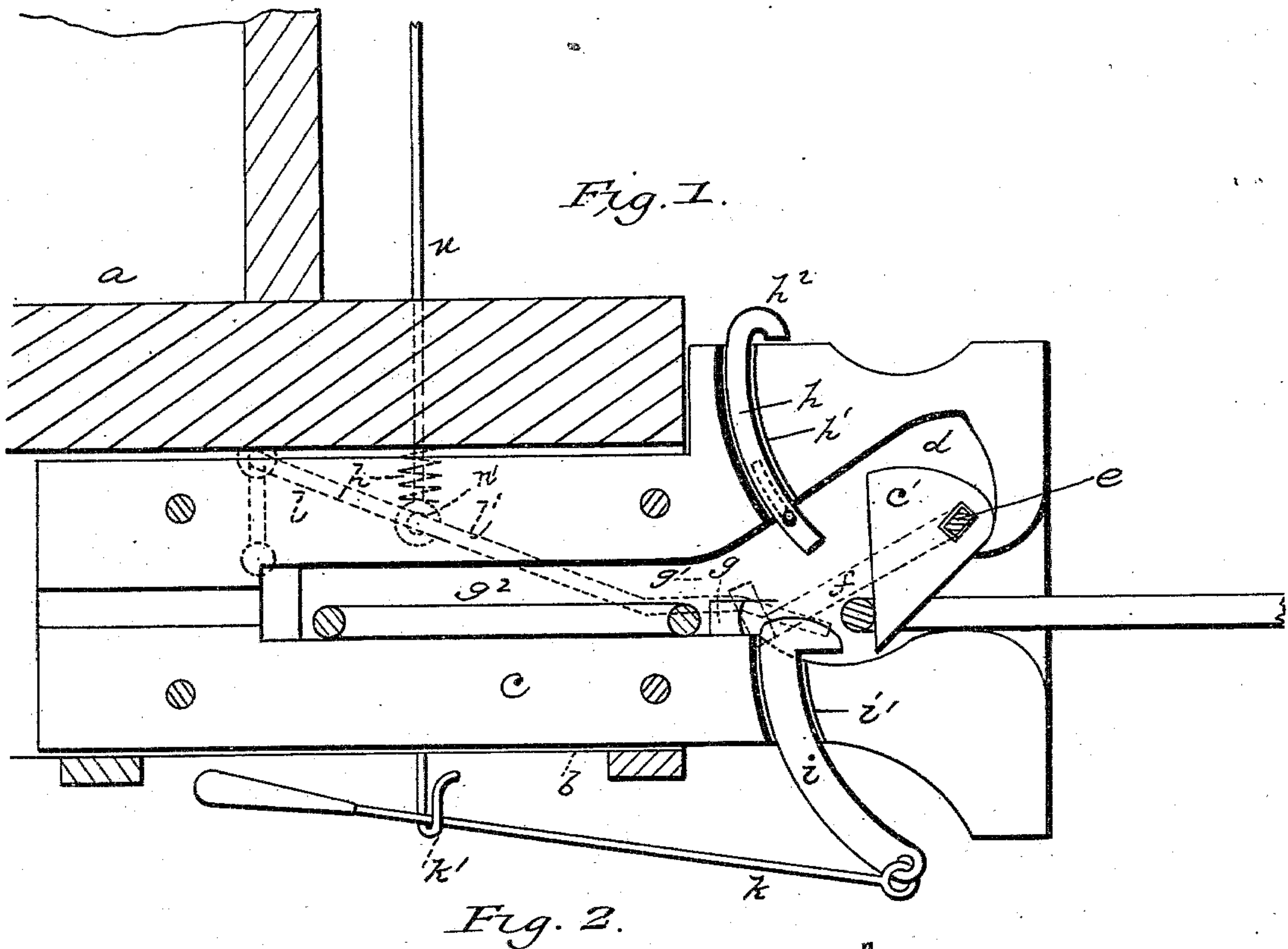
(No Model.)

R. H. DOWLING.

CAR COUPLING.

No. 295,372.

Patented Mar. 18, 1884.



WITNESSES
Ed Bates
John Morrow

INVENTOR
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UNITED STATES PATENT OFFICE.

ROBERT H. DOWLING, OF NEWARK, OHIO, ASSIGNOR OF TWO-THIRDS TO
WILLIAM BAKER AND CHARLES H. FOLLETT, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 295,372, dated March 18, 1884.

Application filed July 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, R. H. DOWLING, a citizen of the United States, residing at Newark, in the county of Licking and State of Ohio, have invented certain new and useful Improvements in Car-Couplers; and I do 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a vertical sectional view. Fig. 2 is a front view.

This invention has relation to automatic car-couplings; and it consists in the construction and novel arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claims appended.

Referring by letter to the accompanying drawings, *a* designates the car-body, *b* the bumper, and *c* the draw-head.

c' designates a triangular-shaped coupling-block of steel, which is perforated laterally through its upper corner, which works in a recess, *d*, in the lower face of the upper wall of the draw-head, on a shaft, *e*, passing through lateral perforations in the vertical walls of the draw-head and through lateral perforations in the steel coupling-block *c*. The shaft *e* is provided at one end with a crank, *f*, having a hole, *f'*, at its outer end. A cross-pin, *f²*, passes through the opposite end of the shaft *e*, and prevents its accidental withdrawal from the perforations in the draw-head and coupling-block. The mouth of the draw-head is made flaring to receive and guide the link of an opposing draw-head to place when set for making a coupling. An abutment, *g*, is provided in the draw-head in rear of the coupling-block *c*, and is slotted about midway of its height in each side, at *g'*, to permit the link, when not in use, to be pushed through said slots back into a receptacle, *g²*, in rear of the abutment *g*, and thereby prevent the loss of the link, and at the same time have it convenient for use when needed. A curved gravitating catch-hook, *h*, operates in an opening, *h'*, in the upper wall of the draw-head, in rear of the steel coupling-block, in a position where

it will automatically engage the point of the coupling-block when the latter has been elevated by operating the crank, and will hold it in this elevated position until the hook has been purposely disengaged therefrom. A cross-pin near the lower end of this hook prevents its withdrawal upward, and a hook, *h²*, at its upper end prevents it from gravitating too far downward into the draw-head.

i designates a curved flat hook working in a recess, *i'*, in the lower wall of the draw-head, directly beneath the opening in which the gravitating catch-hook *h* works. The lower end of this hook *i* is provided with a swinging rod, *k*, having a handle, and a hook-rest, *k²*, is provided on each side of the draw-bar, in which the free end of the swinging rod rests when not in use.

A crank-shaft, *l*, has its bearings on the under face of the bumper, and extends from near the draw-bar out to the side of the car, so that the operator need not go between the cars to couple or uncouple them. The arm *l'* at the inner end of this crank-shaft *l* extends forward through the hole *f'* in the end of the crank *f* of the shaft *e*, so that by turning the crank of the shaft *l* forward the crank *f* of the shaft *e* will be moved backward and upward, thereby carrying the steel coupling-block, which is fixed to the shaft *e*, up into engagement with the gravitating catch-hook, and thereby releasing the link. A rod or chain, *n*, having an eye, *n'*, on its lower end, passes up through a hole in the bumper, said hole being located near the draw-bar, and extends through a hole in the top of the car. A spring, *p*, encircles the lower end of the rod *n* above the eye *n'*, and its upper end rests in a seat in the hole in the bumper. This spring holds the coupling-block normally down in the mouth of the draw-head, and also holds the crank of the shaft *l* vertically down. The arm *l'* of the shaft *l* passes through the eye *n'* at the lower end of the rod *n*, so that the coupling and uncoupling of the cars may be performed from the top of the car by manipulating the rod *n*. After the coupling-block has been put into engagement with the gravitating catch-hook, the latter must be raised before the coupling-block will return to its normal position, and this raising of the catch-hook may be effected by

lifting the catch-hook at the top or by pushing it up with the curved flat hook, using the swinging rod to manipulate it. Another use for the curved flat hook is to adjust the link in the draw-head to couple with draw-heads of different heights from the one in which the link is placed. To do this the curved flat hook should be pushed up into the draw-head and the link placed under the hook. Then by means of the swinging rod the link can be operated upon within the draw-head to raise or lower its projecting end, so that it may be guided into a draw-head either higher or lower than the one in which it rests. A crooked link can also be used with this coupling. In fine, this coupling can be used to couple with any coupling now in use.

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

1. In an automatic car-coupling, the draw-head *c*, having the recess *d* in its upper wall, in combination with the triangular-shaped

steel coupling-block *c'* on the shaft *e*, having bearings in the said walls of the draw-head, and being provided with the crank *f*, having hole *f'*, the gravitating catch-hook *h*, and the crank-shaft *l*, having its arm *l'* passed through the eye *f'*, substantially as specified. 25

2. In a car-coupling, the combination, with the draw-head, having the steel coupling-block *c'* on the shaft *e*, provided with the crank *f*, the catch-hook *h*, and the crank-shaft *l*, having its arm *l'* passed through the eye *f'*, of the rod *n*, having the eye *n'*, through which the arm *l'* of the crank-shaft *l* passes, and the spring *p*, encircling the rod *n*, and having its bearings against the eye *n'* and in a seat in the bumper, substantially as specified. 30 35

In testimony whereof I affix my signature in presence of two witnesses. 40

ROBERT H. DOWLING.

Witnesses:

EDWARD KIBLER,
W. S. WEIANT.