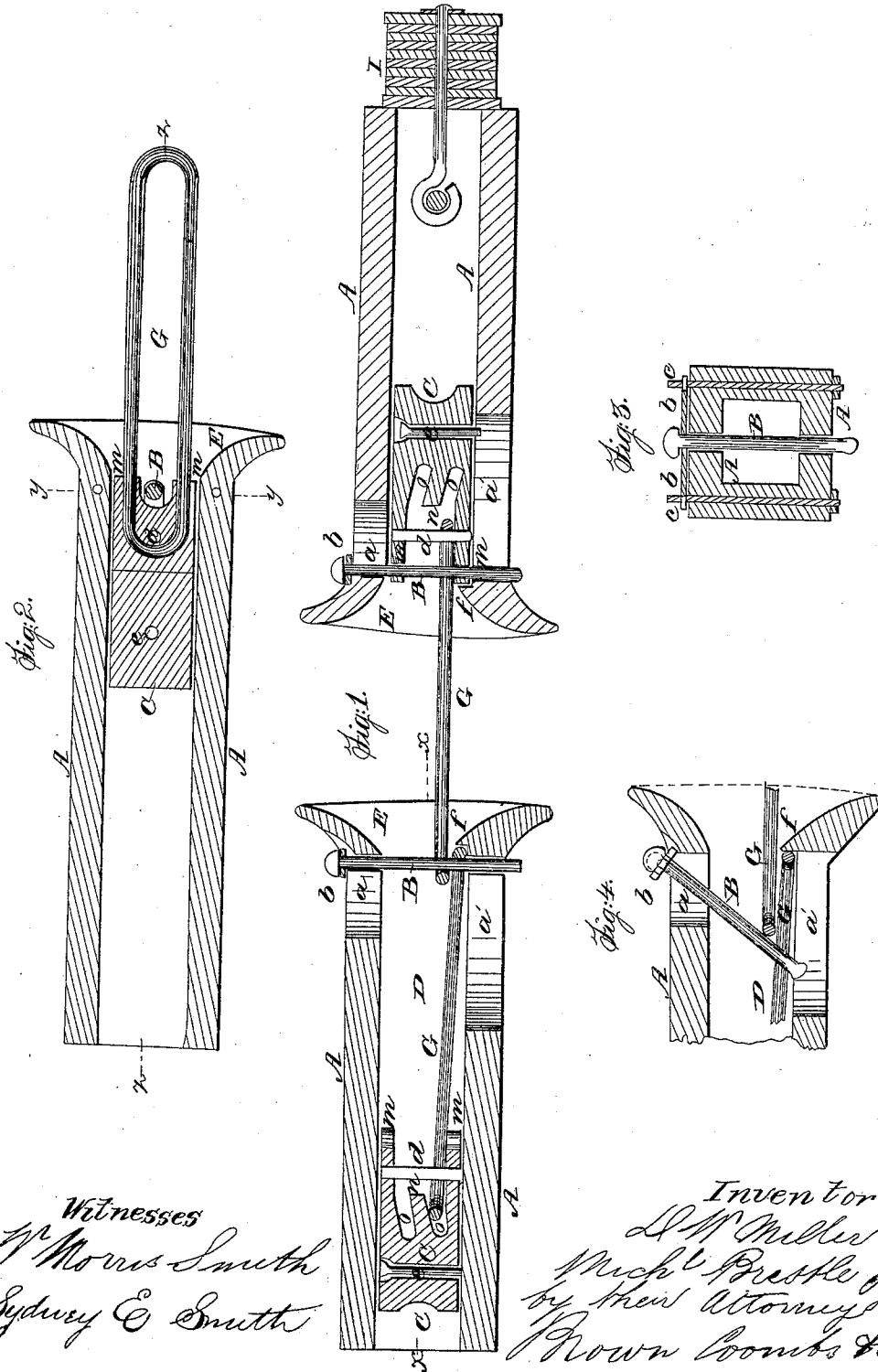


D. W. MILLER & M. BRESTLE, Jr.

Car Coupling.

No. 69,464.

Patented Oct. 1, 1867.



Witnesses
W. Morris Smith
Sydney E. Smith

Inventor
D. W. Miller
M. Brestle Jr.
by their Attorneys
Brown, Lomb & Co

United States Patent Office.

DANIEL W. MILLER AND MICHAEL BRESTLE, JR., OF MIDDLETOWN
PENNSYLVANIA.

Letters Patent No. 69,464, dated October 1, 1867.

IMPROVED CAR-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, DANIEL W. MILLER and MICHAEL BRESTLE, Jr., of Middletown, in Dauphin county, and State of Pennsylvania, have invented a new and useful improvement in "Car-Couplings;" and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, through letters of reference marked thereon, forming part of this specification, in which—

Figure 1 represents a vertical-longitudinal section of two couplings combined as in use.

Figure 2 is a horizontal section taken on the line $x x$ of fig. 1.

Figure 3 is a transverse section on the line $y y$ of fig. 2.

Figure 4 is a section on the same line as fig. 1, but showing the coupling-pin in position as if in the act of coupling.

The same letters of reference appearing in the several figures indicate corresponding parts.

Our invention relates to that class of car-couplings termed automatic or self-coupling; and it consists in a novel construction and combination of parts, all of which are securely connected, so that no single part is liable to be lost or mislaid; it also consists in combining with the buffer or sheath of the coupling a sliding retaining-block, for the permanent connection of the coupling-link, in such manner that when said link is not in use it shall be securely retained within the sheath, and is thus guarded against loss or injury.

To enable others to make and use our invention, we will proceed to describe its construction and operation by referring to the drawings, in which—

A represents the box, sheath, or casing, in which all other parts are arranged and operated. This sheath is of rectangular form in its cross-section, as shown in fig. 3, and having its opposite sides parallel for its entire length, except the outer end or mouth part E, which is made flaring, for the more ready and sure entrance of the protruding link of another car, which will be more fully described hereinafter. This sheath or casing, A, is provided with a short slot, a , in its upper side, and a longer one, a' , in its lower side, the front ends of each being in the same vertical plane, and immediately in rear of the flaring part of said sheath. The bolt or draught-pin B of the coupling passes vertically through these slots at their front end, and through a rocking cross-piece, b , which is supported by its trunnions at each end in ears or bearings c , which are firmly attached to the sheath, one on each side of the slot a . The length of these slots rearward is sufficient to allow the pin B to swing, as represented in fig. 4, to such an angle as will allow the end of the link of another coupling to pass under its point, when it will immediately fall, passing through the link and resuming the position represented in fig. 1. Within the sheath A is fitted a block, C, which is capable of motion longitudinally therein from one end to the other, and is provided with a drop-bolt, e , for securing it in its forward position by dropping into the slot a' , whilst the forward end has projections m at the upper and lower sides, which, one or both, abut against lips f at the mouth of the sheath, and are thus retained in position. To this block C the link G is secured, by a pin, d , passing vertically through them, and which is a permanent retainer of the link. On the face of the block C, between and parallel with the projections m , are one or more projections, n , extending only such a distance forward as will leave space between their front ends and the pin d sufficient to admit of the link being raised or lowered between them. These projections, n , form spaces o between them and the projections m sufficiently wide vertically to admit the end of the link G, and are slightly inclined downward to the rear, so that when the link is pushed back into either of them it will be held in a horizontal position.

When the coupling is out of use the drop-bolt e is to be pushed up from the slot a' , and the block C slipped back until the outer end of the link G drops in rear of the lip f , by which it is retained out of harm's way, and not being detachable is always in place ready for use.

It will be apparent that this coupling may be used in connection with another of the same kind, or with any other link-coupling, its manipulation being as follows: Suppose two couplings of this same kind are to be connected, the link of one will be left in the position represented at D, and that of the other pulled forward until the bolt e secures the lock e in its forward position, the rear end of the link being placed in one of the spaces o , higher or lower, and thereby retained in a horizontal position corresponding with the height of the coupling to which it is to be connected, or for coupling with a very low car it may be left to hang loose, when

it will droop to a considerable angle. This being arranged the cars are run together, when the projecting link will enter the mouth of the other coupling, pushing back the pin B until its point falls through the link and thus secures the connection. When it is desired to detach them, the link G being in the slightest degree slack, the pin B may be withdrawn in a vertical direction through the rocking cross-head b until the point is clear of the link, but it is prevented from being withdrawn entirely by its lower end being slightly enlarged.

If desirable spring-bumpers may be attached to the rear end of the coupling, as represented at I, fig. 1, or in any suitable manner.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The sliding block C, provided with pin or bolt e, and constructed with recesses o, (one or more,) when said recesses are arranged at an angle to the horizontal plane, substantially as and for the purposes set forth.
2. The sliding block C and its pin d, combined with the link G and sheath A, all constructed, arranged, and operating substantially as herein set forth.

DAN'L W. MILLER,
MICHAEL BRESTLE, JR.

Witnesses:

H. C. ELLIOTT,
SIDNEY E. SMITH.