M. GALLY.

Car Coupling.

No. 62,625. Patented Mar. 5, 1867.

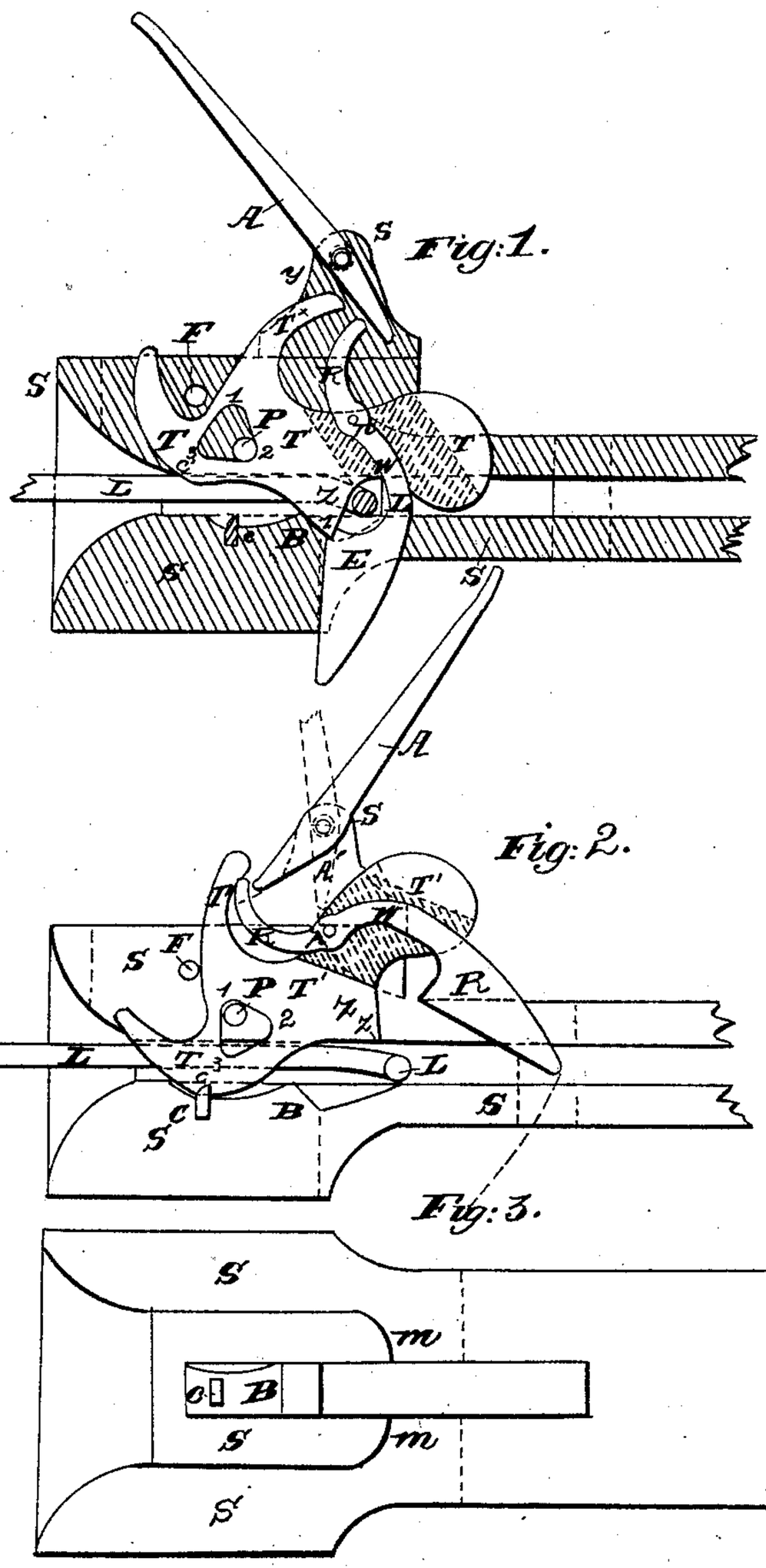

Fig: 1.

Fig: 2.

Fig: 3.

Witnesses

Emmons Mundy

Albert B Short

Inventor

Merritt Gally

United States Patent Office.

MERRITT GALLY, OF MARION, NEW YORK.

Letters Patent No. 62,625, *dated March* 5, 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 I, MERRITT GALLY, of Marion, in Wayne county, and State of New York, have invented a new and improved "Self-Acting Car-Coupling;" and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and the letters of reference marked thereon.

The nature of my invention consists in so constructing a coupling for cars as to render it not only "self-acting" in the process of coupling, but also "self-setting," always being in readiness to receive the link; avoiding in its construction the use of springs or other appendages liable to get out of order; easily uncoupled while under draught or at rest. When uncoupled, at rest, (the cars remaining together and the link within the coupling,) it may be so set as to remain uncoupled any length of time until the link is drawn out, which movement, of itself, sets it again for recoupling, requiring no attention, and therefore no loss of time, in its adjustment; certain in its movements, simple in construction, and reliable as to strength and durability.

Figure 1 represents a sectional view of the coupling, with the link L L in place grasped within the compound drop-latch Z R.

S S S is the shell of the coupling. T T′ T″ is an iron tumbler, so constructed as to combine lever and cam movements. 1, 2, 3, is a triangular slot in tumbler for the insertion of the pivot P, on which the tumbler hangs during its movements. C′ is a mortise-catch in the front cam of tumbler, for receiving the catch-tooth C at the base of the opening of shell. T× is a projection of the tumbler forming a lever for throwing the tumbler. F is a fulcrum for changing the movement of tumbler. T″ is the end of tumbler farthest from the pivot P, made heavy to act as a drop-weight in bringing the tumbler into position. Z is an angular projection which, combined with the catch-hook R, forms the "compound drop-latch" for holding the link. Z′ is a gain for receiving the point of the catch-hook R when the latch is closed. W is a diagonal slot, for the movement of the catch-hook R, which turns upon a pivot in the tumbler at *p*. R× is a projection of the catch-hook R for opening the catch R Z. B is a bevel, in the base of the shell, to hold the tumbler in position while under draught. A is a hand-lever, acting in combination with the lever projections of the tumbler T× and R.× Y is a fetch-up for the lever.

Figure 2 represents a sectional view of the coupler while uncoupled and set, with the link remaining in the shell, the cars being at rest.

Figure 3 represents the plane of the base of the opening in the shell. *m m* are projections for preventing the link from sliding too far into the shell.

The operation is easily understood, and is as follows: By drawing upon the lever A the projecting lever of the catch-hook (fig. 1) is driven forward, opening the compound catch Z R. The lever A then strikes the lever projection of the tumbler T×, releasing the link. If the cars are at rest, and the link is not to be immediately withdrawn, the lever A may be moved still farther, driving the tumbler against the fulcrum F, throwing the tumbler upon the catch-tooth C which enters the mortise-catch C′. When the link is withdrawn it first strikes the cam surface of the tumbler behind the mortise-catch, raising the tumbler and releasing the link; the tumbler then drops into position ready for recoupling. When coupling, fig. 1, the link is driven into the shell against the projection of the tumbler Z, which is driven up and back until the pivot P reaches the angle S of the triangular slot; the link then strikes the front of the catch-hook R, opening the combined catch R Z, which, being pressed downward by the weight T″, grasps the link, as in fig. 1. Should the coupler be accidentally set while the link is out in the manner shown by fig. 2, it will couple by first driving the link against the front cam of the coupling and releasing the catch C C′. When the link is driven into the shell, as in fig. 1, the tumbler is prevented from setting itself to uncouple by the weight end of the tumbler striking against the short end of the lever A. The link cannot come in contact with the tooth C, as it is in an excavation beneath the path of the link. The link is held and directed into the mouth of the opposite coupling by the weight of the tumbler pressing upon its rear extremity, but is allowed play when additional power is applied.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. I claim the tumbler T T′ T″, with cams, slots, and lever projections, combined and constructed as herein described.

2. I claim the catch-hook R with lever projection R×, in combination with the angular projection Z of tumbler, forming the "compound drop-latch" Z R, substantially as herein set forth.

3. I claim the catch-tooth C, in combination with its counterpart mortise C′, substantially as described.

4. I claim, in combination with the tumbler T T′ T″, the fulcrum F, for the purpose herein set forth.

MERRITT GALLY.

Witnesses:

EMMONS MANLEY,

ALBERT B. SHORT.