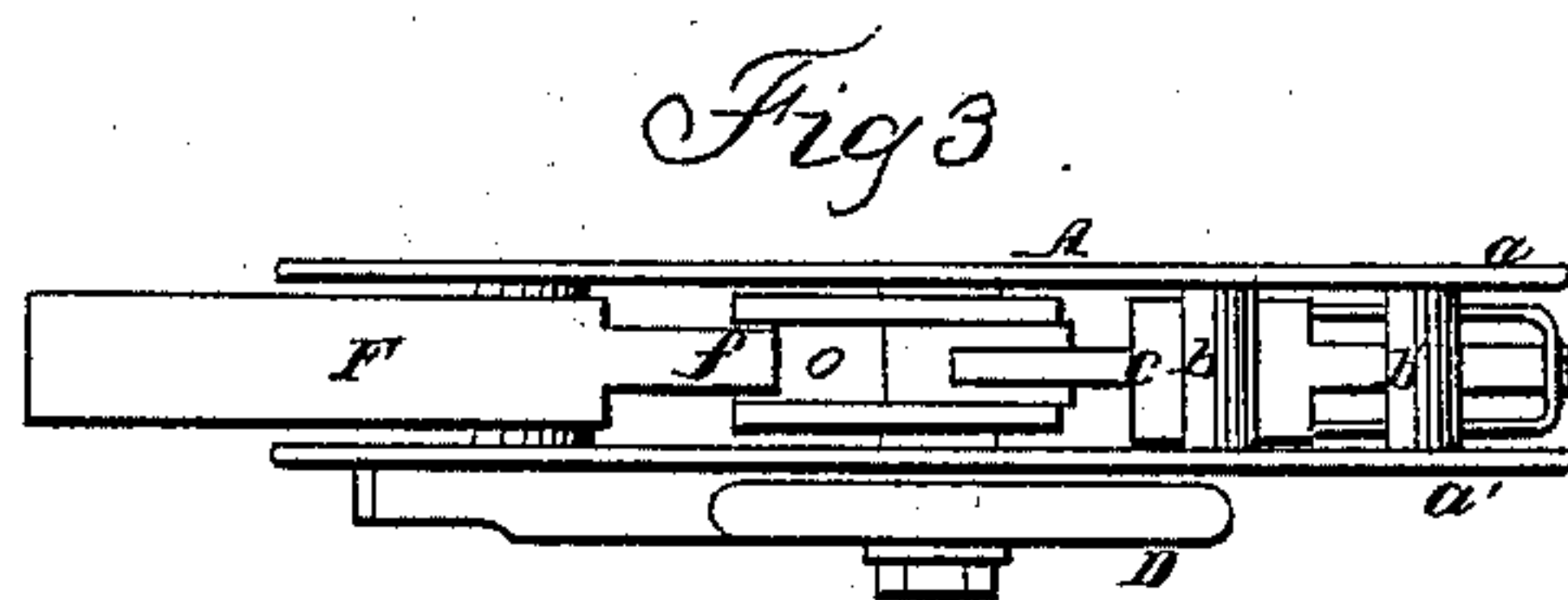
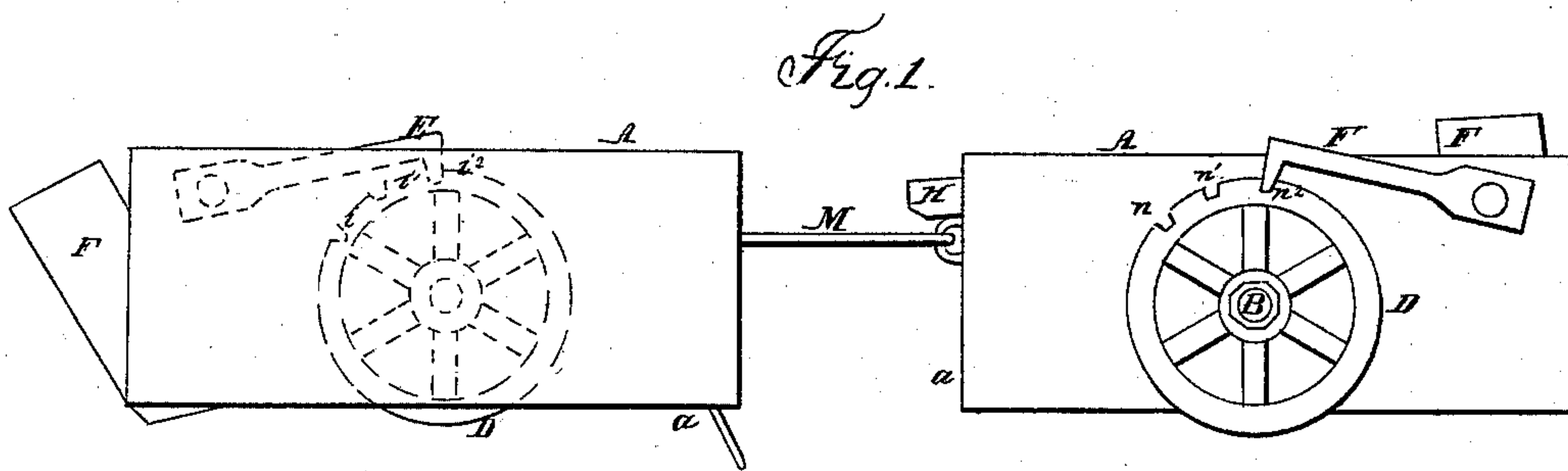
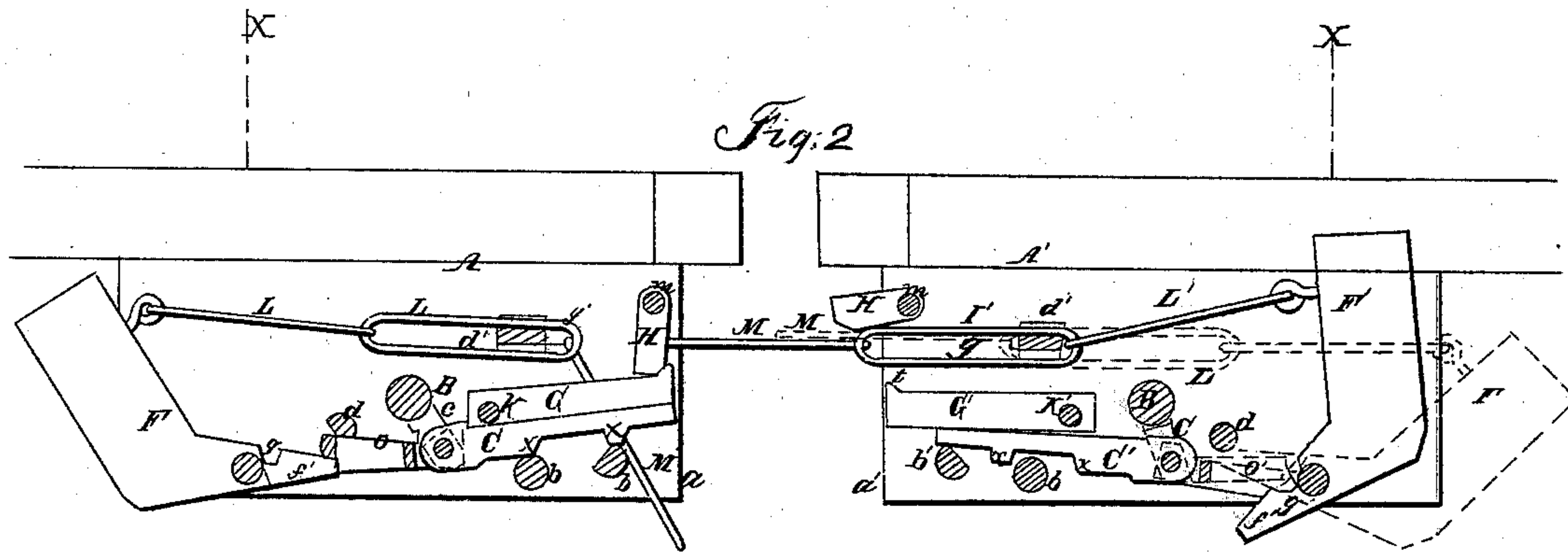


W. BERGMAN.

Car Coupling.

No. 55,989.

Patented July 3, 1866.



Witnesses: John Parker  
Hornie Godwin

Inventor;  
W. Bergman  
By his Atty  
J. H. Howson

# UNITED STATES PATENT OFFICE.

WILLIAM BERGMANN, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVED CAR-COUPLING.

Specification forming part of Letters Patent No. 55,989, dated July 3, 1866.

*To all whom it may concern:*

Be it known that I, W. BERGMANN, of Philadelphia, Pennsylvania, have invented an Improved Car-Coupling; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists of certain casings secured beneath the platforms of railway-cars, and containing devices constructed and operating, as fully described hereinafter, so that the cars may be readily connected to or detached from each other.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is an exterior view of my improved car-coupling; Fig. 2, a longitudinal section, and Fig. 3 an inverted plan view.

A and A' are two casings, each of which consists of two parallel plates, *a a'*, connected by cross-bars *b b' d d'*, and on the inner side of each plate, near the bar *d'*, is a projection, *y*. The casing A is secured beneath the platform of a car, X, and the casing A' is secured beneath the adjacent platform of a car, X'.

In the casing A turns a shaft, B, to an arm, *c*, on which is jointed one end of a bar, C, the latter resting on the cross-bars *b b'*, and having at the under side two inclined projections, *x x*.

To the outer end of the shaft B, which projects beyond the side of the car, is secured a hand-wheel, D, to notches *i i' i''* in the edge of which is adapted the end of a pawl, E, hung to the side of the car.

To the arm *c* is hung a link, O, which projects beneath the cross-bar *d*, and at the rear end of the case is hung a weighted lever, F, the short arm *f* of which bears against the under side of the link, there being a recess, *g*, in the upper edge of the arm *f*, for a purpose described hereinafter.

To a pin, *k*, is hung the rear end of a lever, G, which rests on the bar C, and at the front end of the lever is a lip, *t*.

To a pin, *m*, is hung a dog, H, the lower end

of which is adjacent to the front end of the lever G.

On the cross-bar *d'* slides a link, I, which is connected by a rod, L, to the weighted lever F, and to the front end of this link I is hung another link, M.

In the casing A' turns a shaft, B', to the outer end of which is secured a hand-wheel, D', and in the edge of the latter are recesses *n n' n''*, each adapted for the reception of the end of a pawl, E', hung to the side of the car X'.

In the case A' are links I', M', and O', levers F' and G', as well as a dog, H', and a bar, C', all of which are constructed and arranged in the same manner as the devices within the case A.

The devices in the case A are arranged as shown in the drawings, and those in the case A' are brought to the position shown in red lines, Fig. 2, when the cars may be coupled by bringing them together, the link M' passing beneath the dog H, which first rises, and then falls within the link as the end of the latter moves from contact with the same. As the lip *t* prevents the link H from swinging forward, the cars will remain coupled so long as the lever G is not moved from its position.

When the cars have to be uncoupled the attendant turns the wheel D until the end of the pawl E can be introduced into the recess *i'*, when the bar C will be drawn back, the projections *x x* will pass from contact with the cross-bars *b b'*, and the bar C, with the lever G, which bears on the same, will descend until the lip *t* is no longer in contact with the dog H, when, on moving the cars apart, the dog will swing forward and permit the link to escape.

When it is desired to introduce the end of the link M into the casing A' the wheel D is turned until the pawl E can be introduced into the opening *i*, when the end of the link O will be brought over the recess *g* in the arm *f* of the weighted lever, and the latter will fall back until the forward end of the link I is brought against the cross-bar *d'*. As the link I is moved back the inner end of the link M will be carried over the projections *y y*, and will thus be brought to a horizontal position, its inner end resting against the side of the cross-piece *d'*. The devices in the casing A' are now brought



to the position first occupied by the devices in the casing A by turning the wheel D' until the end of the pawl E' can be introduced into the notch n, when, on bringing the cars together, the end of the link M will be secured by the dog H' in the same manner as the link M' was previously secured by the dog H.

The devices in the casings may, if desired, be operated from inside the cars.

Without confining myself to the precise construction and arrangement of parts herein described,

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

The casings A and A', with their dogs H H', levers F F', and links M M', in combination with the within-described devices, or their equivalents, for operating the levers and securing the dogs, the whole being constructed and operating substantially as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM BERGMANN.

Witnesses:

CHARLES E. FOSTER,  
JOHN WHITE.