E. F. SNEIDER.

Car Coupling.

No. 100,204. Patented Feb. 22, 1870.

Fig. 1

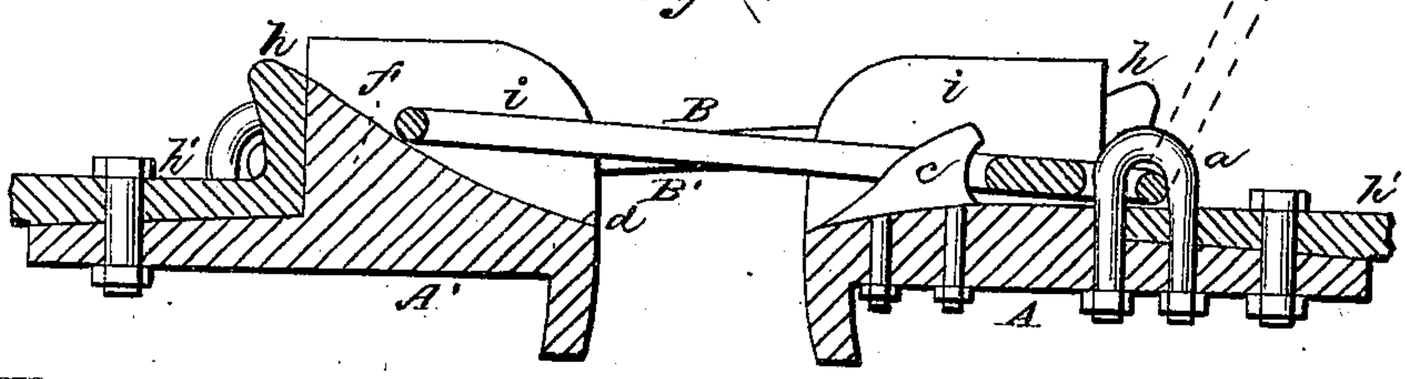



Fig. 2

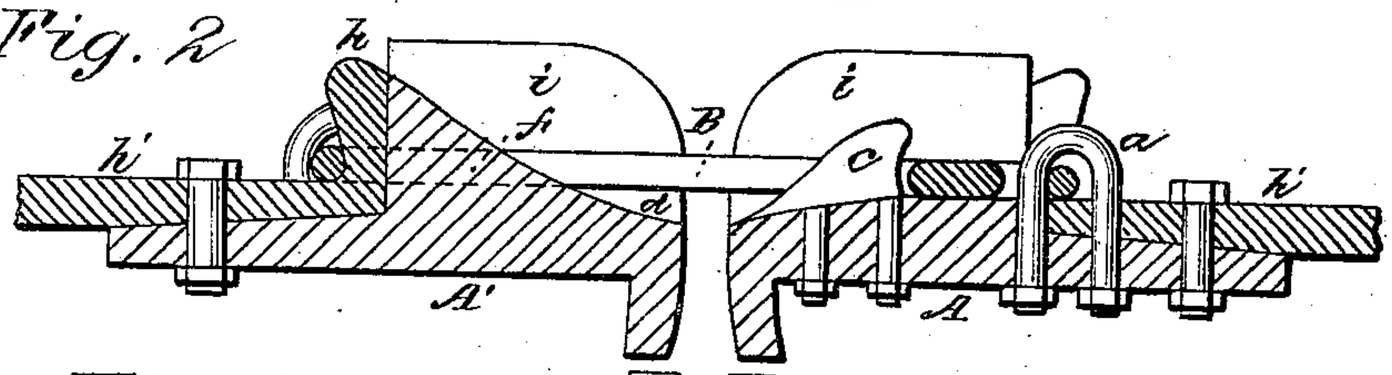



Fig. 3

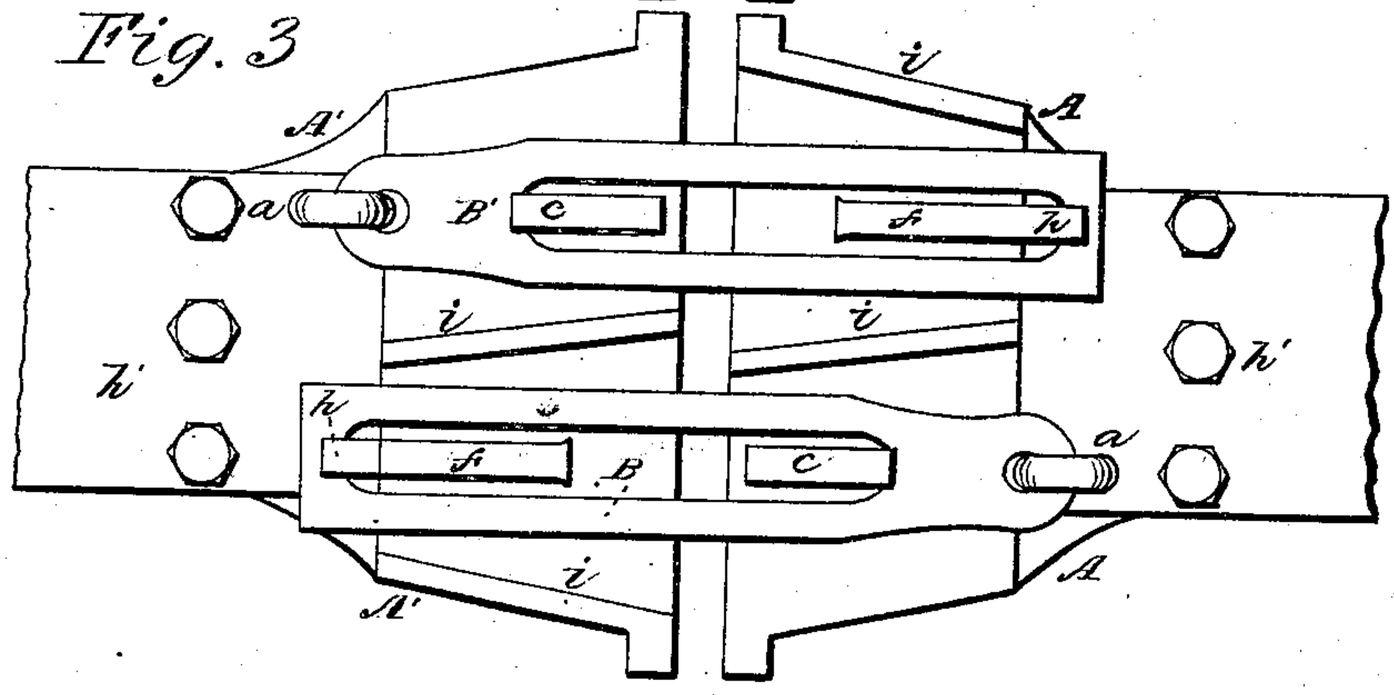
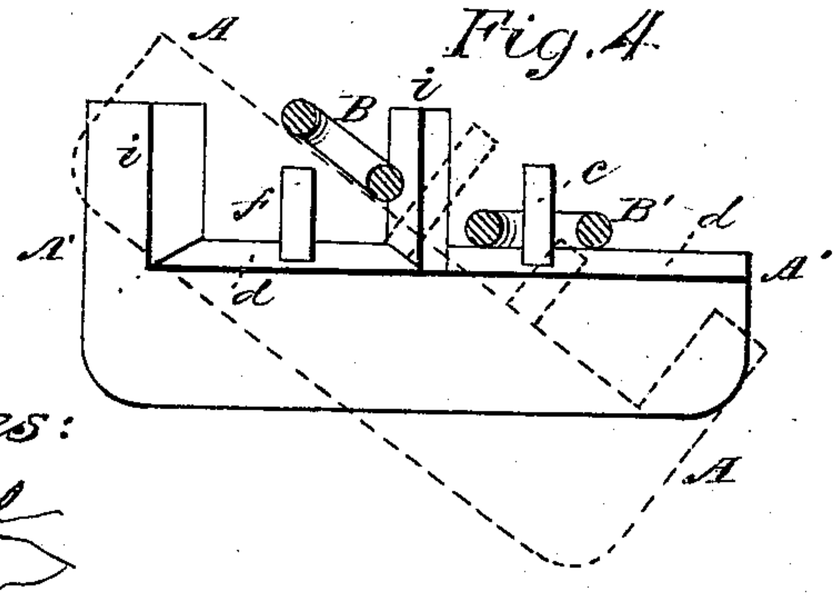



Fig. 4

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N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

ELIAS F. SNEIDER, OF WEST PENN, PENNSYLVANIA.

## IMPROVED RAILWAY-CAR COUPLING.

Specification forming part of Letters Patent No. **100,204**, dated February 22, 1870; antedated February 16, 1870.

*To all whom it may concern:*

Be it known that I, ELIAS F. SNEIDER, of West Penn, county of Schuylkill, State of Pennsylvania, have invented an Improvement in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention consists of a car-coupling constructed and operating in the peculiar manner fully described hereafter, and possessing the following advantages:

It is entirely automatic in its action, secure, and free from danger, as no attendant is required to stand between the cars, while, if a car should be thrown from the track or over an embankment, it will become instantly disconnected without endangering the remaining cars of the train.

In order to enable others skilled in the art to make and apply my invention, I will now proceed to describe its construction and operation, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figures 1 and 2 are sectional views of my improved car-coupling, with the parts in different positions.

Figure 3, a plan view of fig. 2; and

Figure 4, an end view of one of the coupling-blocks, showing the other in dotted lines.

Similar letters refer to similar parts throughout the several views.

A is a coupling-block, of cast-iron, secured to the bumper-beam of a car in any suitable manner, and

A′ is a precisely similar coupling-block secured to the bumper-beam of another car.

To a staple, *a*, at the rear end, and close to one side of the coupling-block A, is hung a link, B, which, when depressed, rests upon the upper surface of the block, and is thus maintained in a horizontal position, and which passes over and is prevented from turning laterally to any great extent by a wrought-iron hook, *c*, which is bolted or otherwise suitably secured to the block.

A similar link, B′, is, in like manner, hung to the coupling-block A′, and is also guided laterally by a hook, *c;* and it will be observed, on reference to fig. 2, that these links are hung to opposite sides of the coupling-blocks, and are so arranged that, when the latter are brought together, the said links shall overlap and pass each other until the end of each rests upon that block to which the other is hung.

Each of the coupling-blocks is beveled downward toward its front end *d*, as shown in figs. 1 and 2, and each, on the side opposite to that to which its link is hung, is furnished with a beveled projection, *f*, forming a continuation of the bevel *d*.

A wrought-iron hook, *h*, forming a part of a plate, *h′*, which is secured to the rear end of each of the coupling-blocks and to the bumper-beams, is fitted against the back of each of the beveled projections *f*, for a purpose described hereafter.

When two cars furnished with the above-described coupling-devices are caused to approach each other in the manner illustrated in fig. 1, the ends of the links (even if slightly depressed below a horizontal line) will strike the beveled surfaces *d*, and be slightly elevated by the same as they approach the inclined projections *f*, and, as the cars still continue to advance toward each other, the ends of the links will rise to the top of these inclined projections, and will finally pass over the hooks *h*, and fall to a horizontal position at the rear of the same, as seen in figs. 2 and 3.

This completes the operation of coupling, which is much facilitated by flaring ribs or guides, *i i*, on both sides of each of the inclined projections *f*, these ribs directing the ends of the links toward and onto the said inclined projections, and insuring a perfect connection when the cars are brought properly together.

The front edges *d* of the coupling-blocks may be beveled to a much greater extent than is illustrated in the drawing, in order to enable cars of varying heights to be coupled together in the above manner.

It will be observed, on reference to fig. 2, that whatever strain the links are subjected to after the cars have been coupled together is taken up by the wrought-iron hooks *h* and staples *a*, the castings, which would be liable to snap, being free from all strains whatever.

When—as is often the case—it is necessary to bring two cars together which are not to be coupled, the links can be thrown back to the position shown by dotted lines in fig. 1.

An ordinary car can be connected to one furnished with my improved coupling by passing its link over either of the hooks *c* or *h*, as may be most convenient.

The advantages of the invention may be enumerated as follows:

First. It is entirely automatic in its action, and does away with the necessity of an attendant standing between the cars.

Second. It is perfectly secure, there being two points of connection between the cars, instead of one, as heretofore.

Third. Although impossible for the cars to become disconnected by jolting or otherwise under ordinary circumstances, yet, if one of the cars should be thrown off the track or over an embankment, the links would disengage themselves immediately, and no accident to the remaining cars could possibly occur. (See fig. 4.)

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

1. A coupling-block, on the upper surface of which are arranged a link, B or B′, hooks *c* and *h*, an inclined projection, *f*, and guiding-ribs *i i*, all substantially as and for the purpose set forth.

2. The combination of the coupling-blocks A and A′, when constructed and arranged to operate with respect to each other substantstantially in the manner described.

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

ELIAS F. SNEIDER.

Witnesses:
E. W. ZIEGLER,
C. S. FRIDIRIRI.