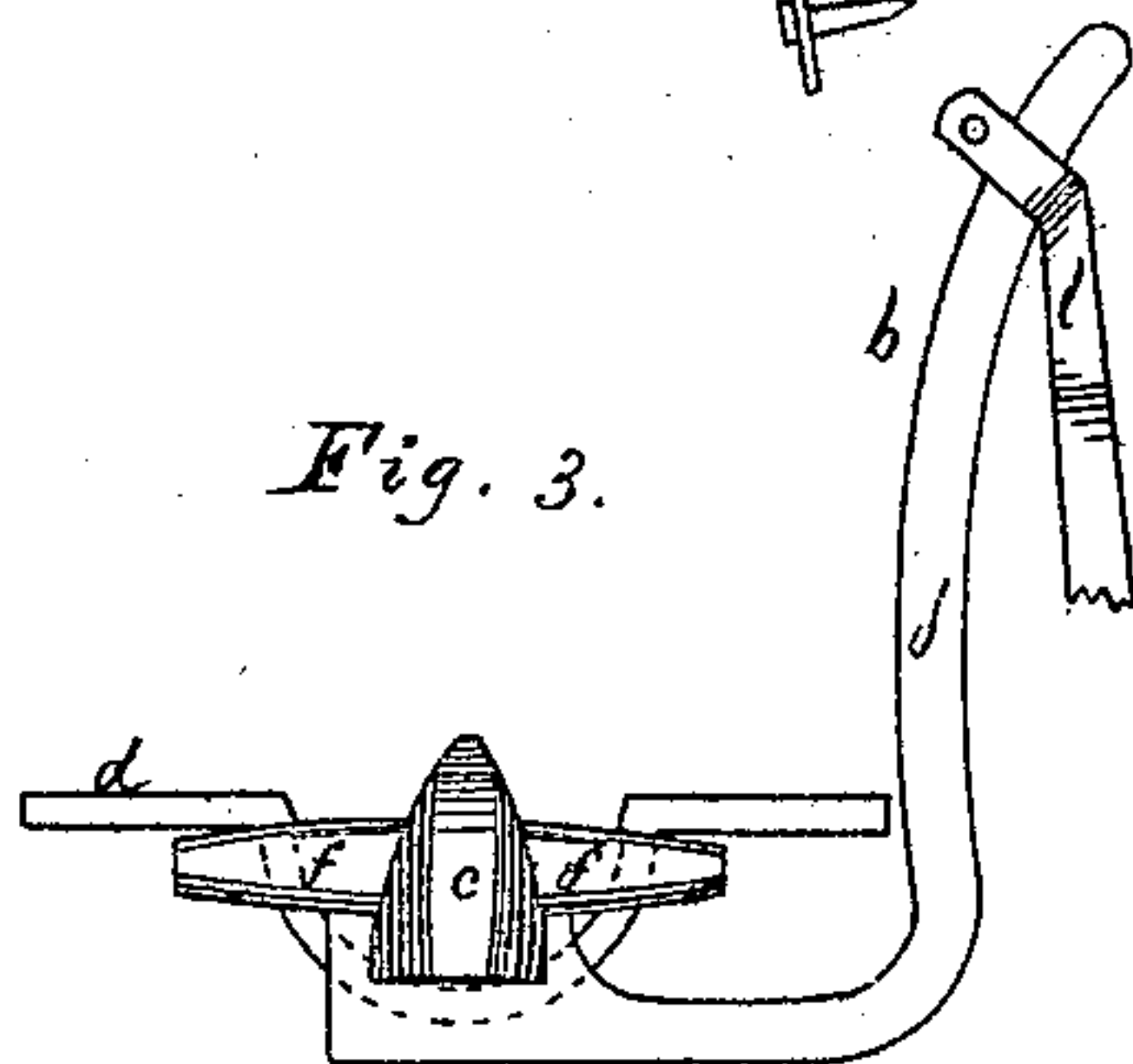
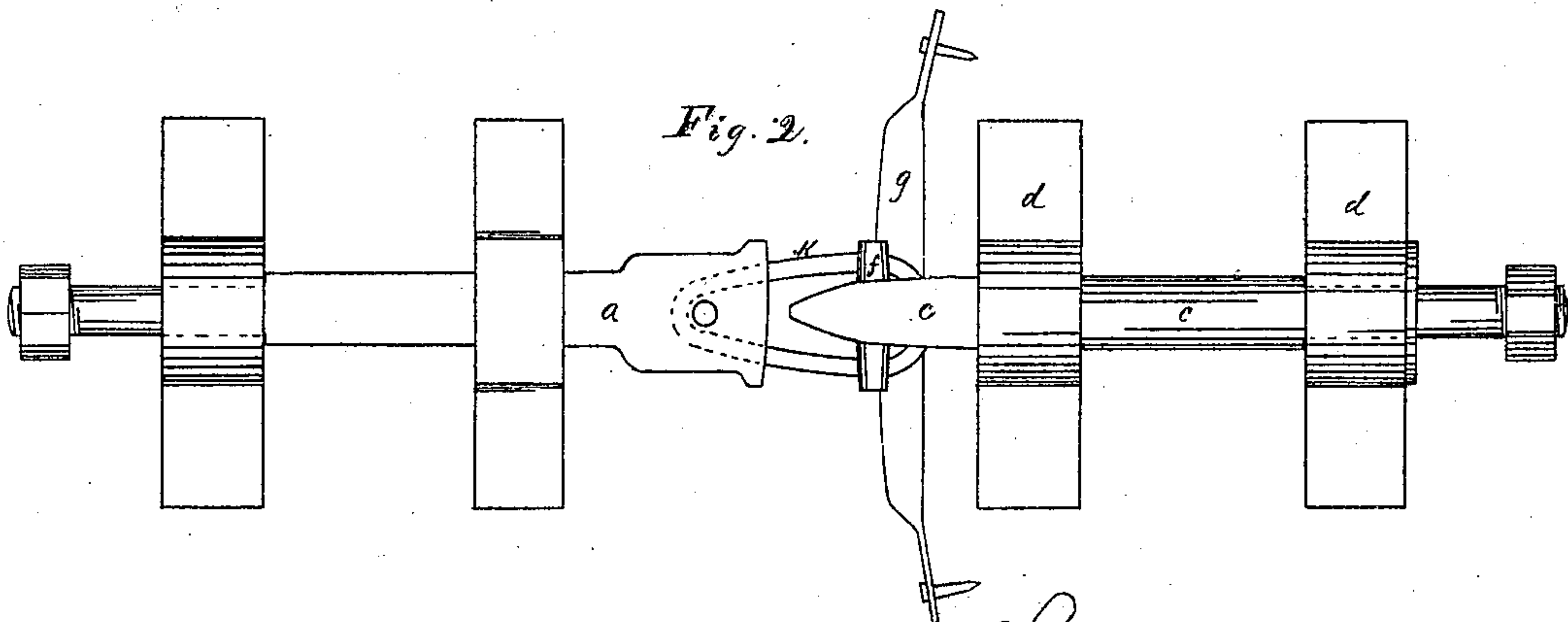
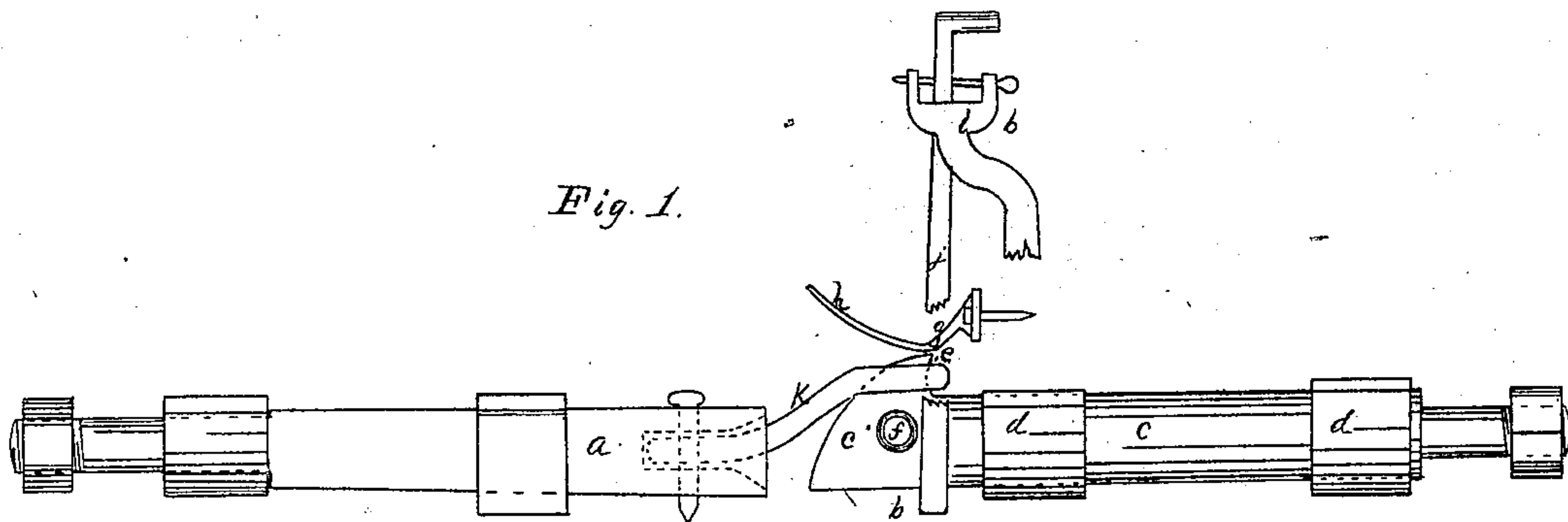


J. N. ANTHOINE.

Improvement in Car-Couplings.

No. 132,618.

Patented Oct. 29, 1872.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN NEAL ANTHOINE, OF BIDDEFORD, MAINE.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 132,618, dated October 29, 1872.

To all whom it may concern:

Be it known that I, JOHN NEAL ANTHOINE, of Biddeford, in the county of York and State of Maine, have invented a new and useful Car-Coupling; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, which is hereby made a part of this specification, in which—

Figure 1 is a side view of my invention; Fig. 2 is a top view of the same; and Fig. 3 is a view in detail of the mechanism for unshackling.

Same letters show like parts.

The object of my invention is to produce an improved coupling for railway cars which will obviate the necessity which exists, where the common form of link and pin is used, of passing between the cars to perform the operation of coupling or of uncoupling, and also, in the event of one car being thrown from the track, of immediately uncoupling the car so thrown off from others remaining upon the track. In the operations of coupling or uncoupling my invention is automatic to this extent: All the operations required to be performed by hand may be done when the cars are at any distance apart in the case of coupling, and the uncoupling may be performed by the operator upon the platform of the car, and may be done equally well when the car is in motion or at rest.

It will be understood from the drawing that my invention contemplates that the opposite ends of a car shall be provided with different mechanism, yet all intended to subserve to the action above described. Upon one end, at *a*, is seen a draw-bar similar in construction to those in common use with the link and pin, but having the bottom and top of the chamber which receives the link a plane, instead of having all the sides of said chamber in a conical form, as is most usually the case. This flat or level form of the interior of this chamber is for the purpose of holding the link in a more nearly horizontal position than would otherwise be the case, and thus facilitate the operation when brought in contact with the mechanism of the opposite draw-bar. To the other end of the car, however, I affix the mechanism shown at *b*, which I will now proceed to describe: The draw-bar *c c*, instead of being rigidly fixed, is made round and fits into the

supporting-irons *d d* in such a manner that, when desired, it will revolve upon its own center. This draw-bar *c* is made solid—*i. e.*, having no interior chamber—but has upon its upper side the hook *e*. On each side of said hook, as shown at *f*, two pins project for the purpose of throwing the link from the hook, as hereinafter described. Above the hook is placed the spring *g* having the projecting flange *h*. This spring *g* holds the link *i* in its position over the hook, and the flange *h* guides the link when entering the mechanism of the coupling. It will be observed that the end of the draw-bar *c c* is made in a semicircular form, and corresponds in shape and operation to the flange *h* above it, and by their united action the link is guided to its proper position. Connected with this revolving draw-bar *c c* the handle or lever *j* is seen, which passes upward to any convenient point upon the car, and may there be provided with the staple and pin, as shown, or any convenient device for holding the end of said lever.

Both of the herein-described draw-bars may have the springs or other devices usually employed to modify the strain upon them.

The operation of this device is as follows: The link being in the draw-bar *a*, and the lever being in a position so that the draw-bar *c* shall be squarely set with the spring *g*, or, in other words, so that the pins *f f* are horizontal and the cars forced or allowed to come together, the end of the link *k*, being guided by the flange *h* and the semicircular face or end of the draw-bar *c*, passes over the hook *e*, and the cars are coupled, and are prevented from uncoupling by the spring *g*. When it is desired to uncouple the cars a very obvious manipulation of the lever is all that is necessary: The draw-bar *c* is partially rotated upon its own center, the pins *f f* are thrown from their horizontal position, and the link released from the hook *e*. It will be observed, also, that, in case of an accident by which any car or cars of those composing the train are thrown from the track, the operation of the mechanism herein described will be to release the cars so thrown from the track from the remainder of the train.

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

1. The draw-bar *c*, as herein described, hav-

ing the hook *e*, the pins *f f*, and the semicircular front or face, all in the manner and for the purposes set forth.

2. The combination of the draw-bar *c* with the spring *g*, the lever *j*, and the staple *l*, all in the manner and for the purposes set forth.

3. The combination of the draw-bar *c*, having hook *e*, with the spring *g*, the pins *f f*, and

the lever *j*, all in the manner and for the purpose, as herein set forth, of forming an automatic safety car-coupling.

JOHN NEAL ANTHOINE.

Witnesses:

W. H. CLIFFORD,
D. W. SCRIBNER.