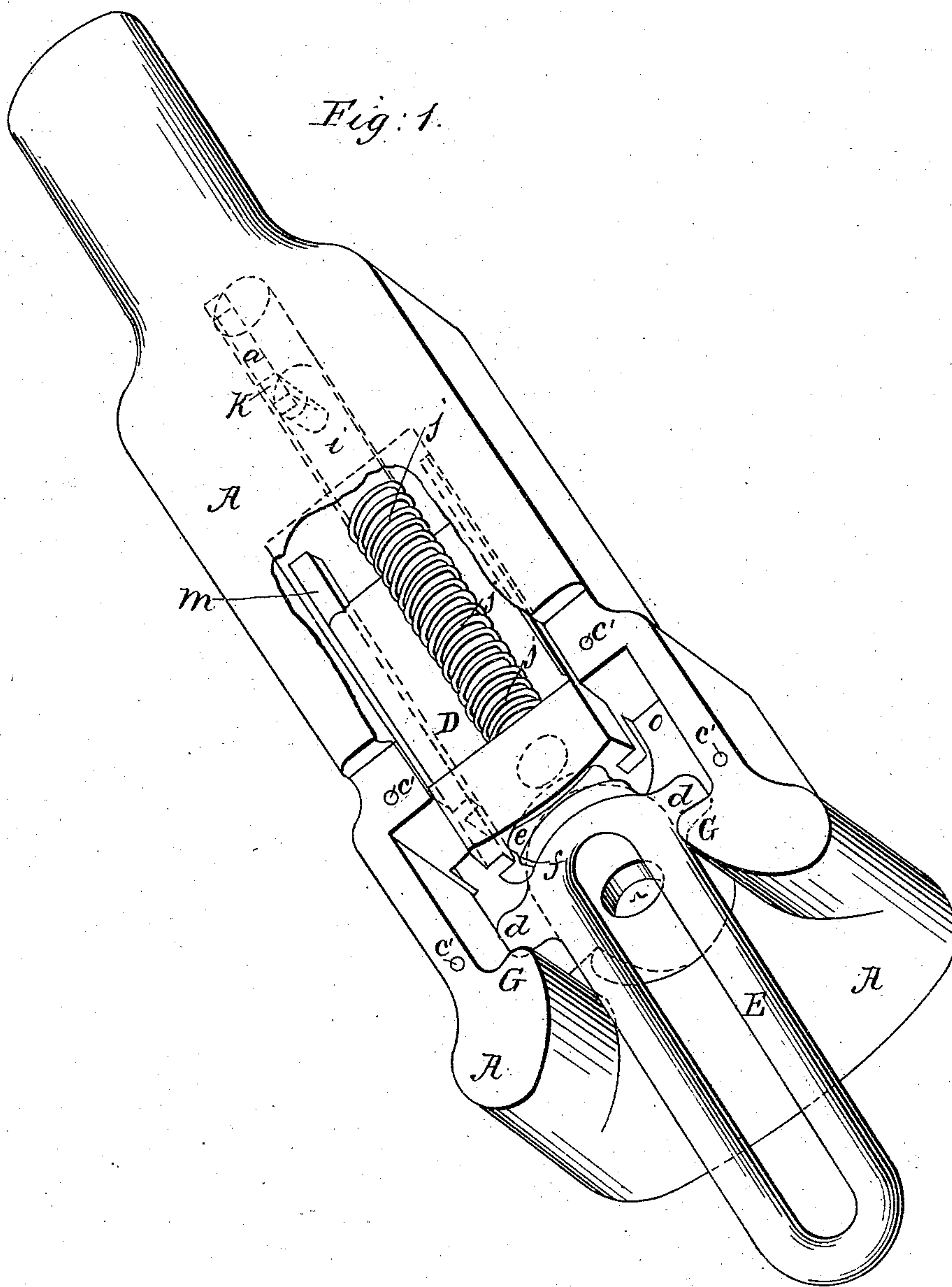


O. L. SMITH.
Car Coupling.

No. 88,337.

Patented March 30, 1869.



Witnesses.
L. D. Blake.
J. L. Hutton

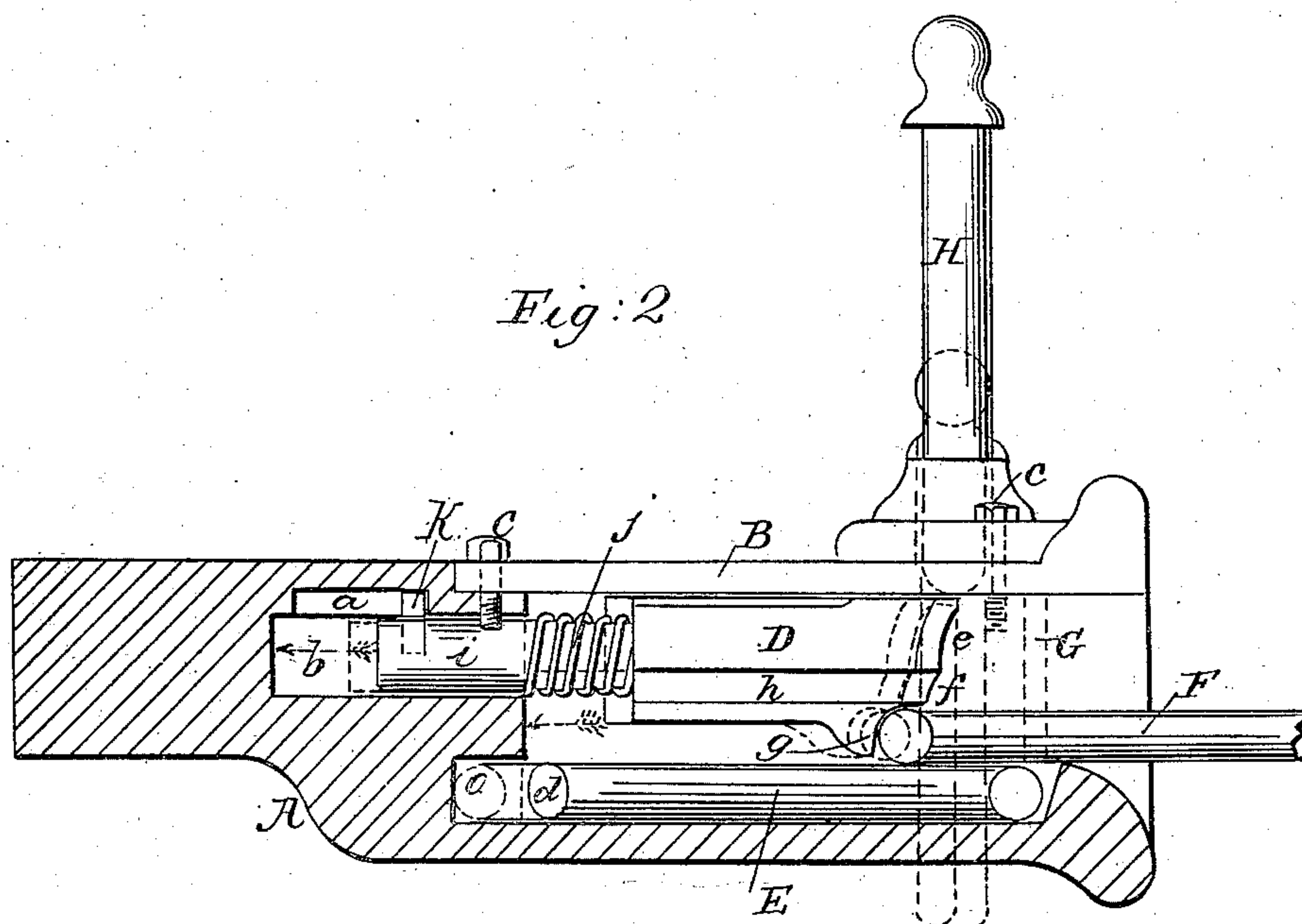
Inventor
O. L. Smith.

O. L. SMITH.

Car Coupling.

No. 88,337.

Patented March 30, 1869.



Witnesses
L D Blake
Jm D Kettner.

Inventor.
Oley L Smith.

UNITED STATES PATENT OFFICE.

OLNEY L. SMITH, OF PROVIDENCE, RHODE ISLAND.

IMPROVED RAILWAY-CAR COUPLING.

Specification forming part of Letters Patent No. 88,337, dated March 30, 1869.

To all whom it may concern:

Be it known that I, OLNEY L. SMITH, of the city and county of Providence, State of Rhode Island, have invented a new and Improved Bunter, Link, Link-Saver, and Self-Coupler for the Coupling of Railroad-Cars; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in providing a bunter, made of cast-iron or other metallic substance, with a link in it, so constructed that it cannot get out of the bunter. At the same time this link can be put out of the way, and any other common link usually used can be used in this bunter.

This improved link, when desired to be used to couple it with another car, can be taken and put into its place, and the piston, with a spring behind it, will hold it in place until the bunter comes up and strikes against it—that is, upon the other car—and then the pins will fall and couple the two together, while the brakeman stands upon the platform of the car, and so prevents the crushing of his body or jamming his fingers, as is so often the case with the coupling now in use.

To enable others skilled in the arts to make and use my invention, I will proceed to describe its construction and operation, reference being had to the accompanying drawings.

Figure 1 is a perspective view.

A represents the bunter, with the cap B off, showing the external and internal view of the bunter. C is the tap-bolt that holds the cap B to the bunter A, and is made in this form to get the link E into the chamber of the bunter A. D is the piston, that has a rod, *i*, attached to the rear end of it, that works in a hole in the bunter, to support the back end of it and have it move in a straight line, and also to have a spiral spring on this rod *i*, to press the piston forward onto the link E, to keep it in position for the purpose of coupling the cars, and also to keep the link E up against the pin H. This piston D has two grooves, one on each side of it, that work in two guide-rods, *h*. These two grooves in the piston-head are represented by the letter M. The end of this piston that bears against the link E is cut out to fit the end of the link E, as is shown by the

letter C in Figs. 1 and 2, and in Fig. 2 by the red lines. E is the improved link, with arms on each side of it, and is constructed in this wise so, if the pin H should break, the arms on each side of the link represented by the letter *d* will bring up against the bunter A at the point G, as represented in Fig. 1; and to prevent the car from breaking away from the train or the other car that it is attached to, the link E in each bunter can be used, and so have a double link, and in that case the cars cannot be uncoupled unless both pins H break.

Fig. 2 is a section through center of bunter, showing the link E in its place of deposit when any other link is used, and showing the pin H elevated, ready to couple the cars when another car is to be coupled to this, and when it is coupled and the pin in its place, by the red lines. The red lines in this view on the piston D are the recesses for the link E to rest in.

This view shows the link coupled and the pin down when another link is used, showing that any other link can be used. This spare link is represented by the letter F.

The object of this bunter, made in this wise, over any other yet known, is, that the link cannot be lost or stolen from its place by any means; that any other link can be used without interfering with this improved link.

If the pin H breaks, the arms on the link E come in contact with the projection C in the bunter A, and so prevent the car from uncoupling.

And another great object is, that you do not have to go between the cars to enter the link into the bunter A when this improved link is used, for the two arms on the link E are always held in their place against C by the piston D, by means of the spring J, when the pin H is up. When the other cars to which the bunter is attached come in contact, one with the other, they press the piston D back, and the pins H fall into their places, and the piston D always keeps the link up to the pin H, and avoids that unpleasant sensation, jerking of the cars by the backlash or play on the pin.

The great advantages of this improved bunter must be obvious to any one at all conversant with the operation of railroads, and will commend itself to the judgment of all superintendents and employés on the railroads throughout the country—first, for the lives and limbs

it will save; second, for the saving of links in the course of each year, which is no small bill where there is a large business on a long line of road.

This piston and the spiral springs are not new. They have long been used upon our railroads for the purposes of having a self-coupler.

Having thus given a full and exact description of my improved bunter and link, I here disclaim the piston D and spring J when not used in connection with my improved link E; but

What I do claim as new, and desire to secure by Letters Patent, is—

The combination of the bunter A with the link E, piston D, spring J, and pin H, constructed and arranged to operate substantially as herein described.

Dated the 4th day of January, 1869.

OLNEY L. SMITH.

Witnesses:

WM. HYDE,
EDWIN E. MARVIN.