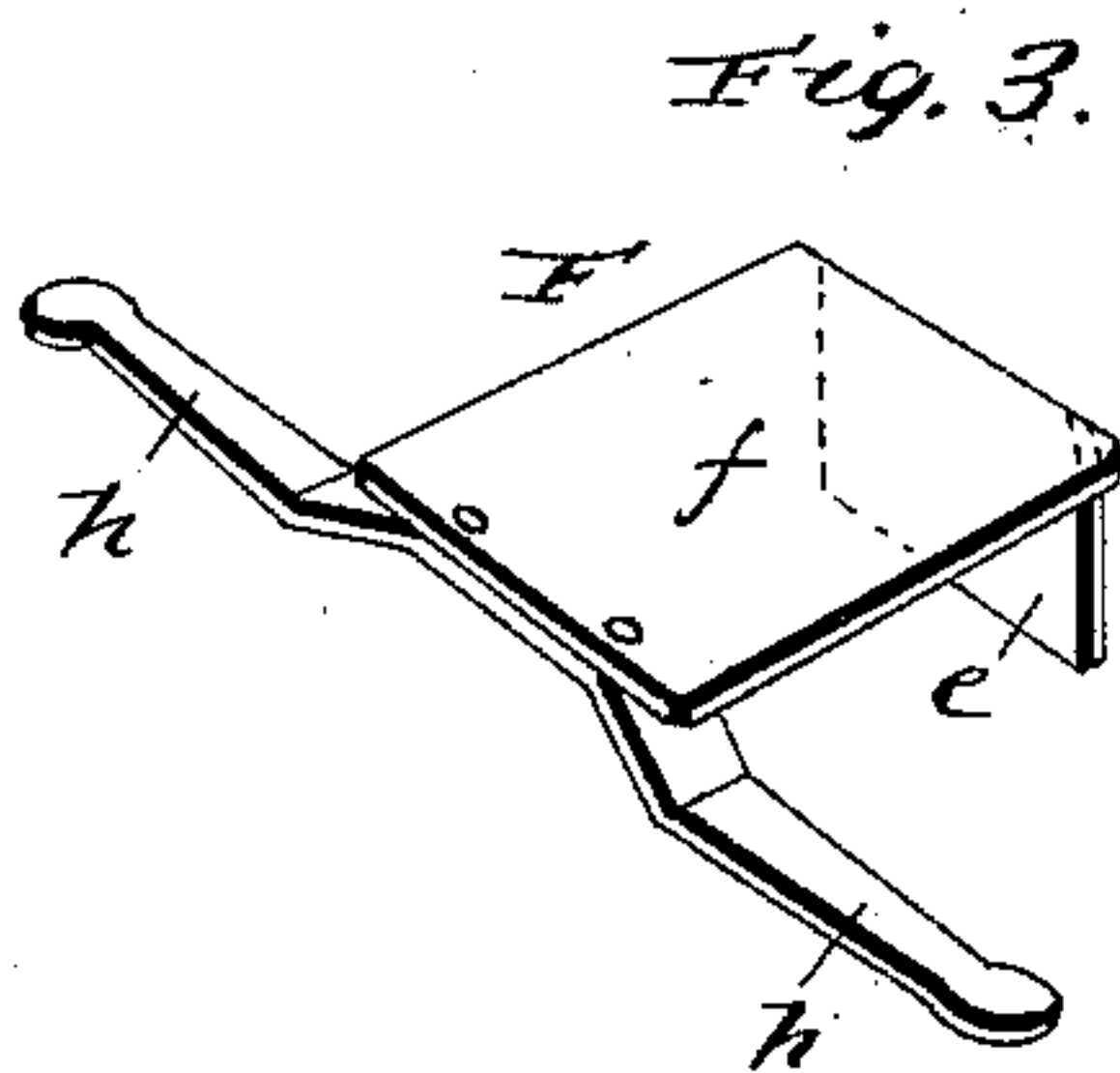
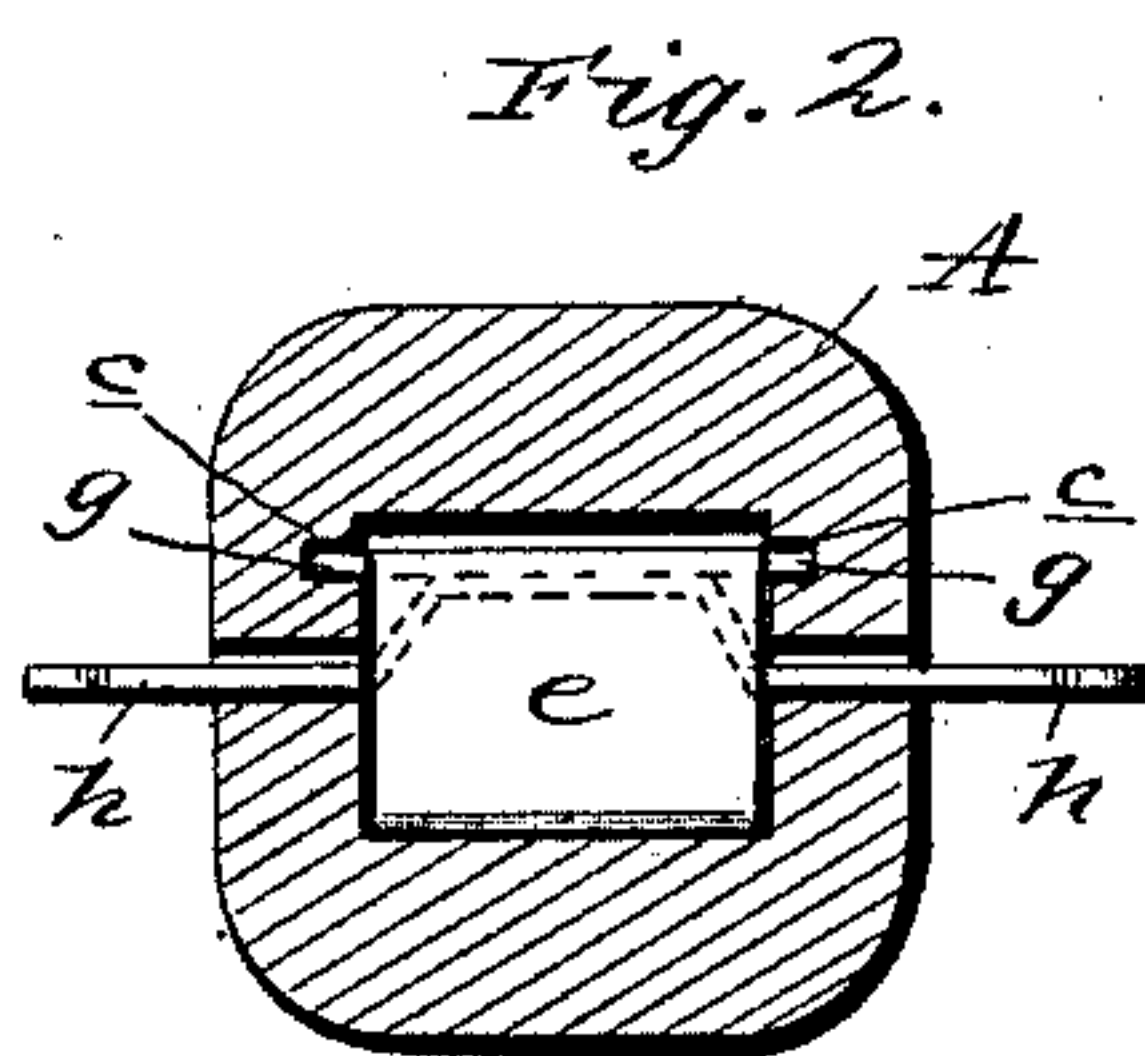
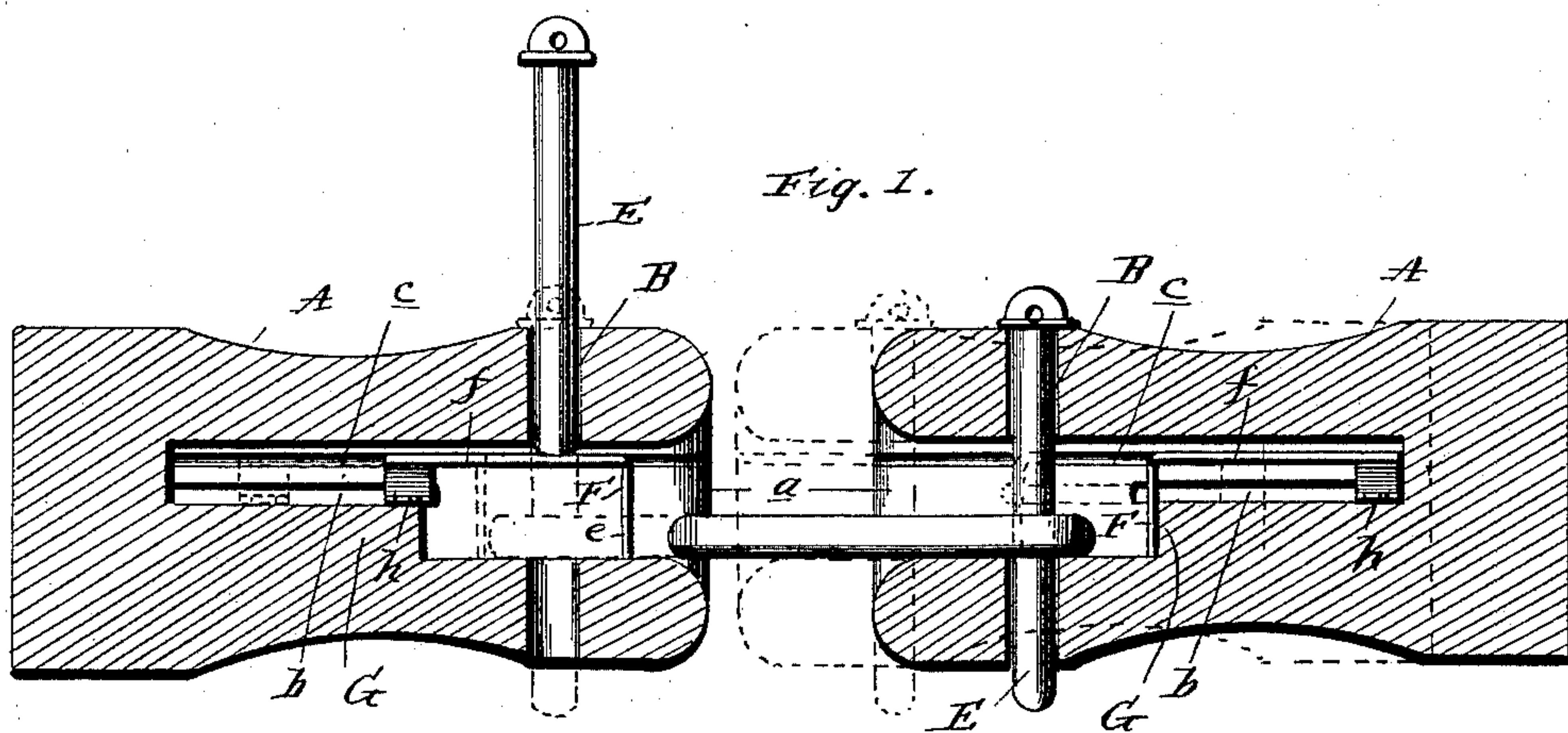


(No Model.)

J. O. COLLINS.
CAR COUPLING.

No. 434,978.

Patented Aug. 26, 1890.



Witnesses:

O. Haeder

Chas. E. Tupper

Inventor

John O. Collins
by *James Sheehy*
Attorney

UNITED STATES PATENT OFFICE.

JOHN OVERTON COLLINS, OF FARMVILLE, VIRGINIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 434,978, dated August 26, 1890.

Application filed June 10, 1890. Serial No. 354,898. (No model.)

To all whom it may concern:

Be it known that I, JOHN OVERTON COLLINS, a citizen of the United States, residing at Farmville, in the county of Prince Edward and State of Virginia, have invented certain new and useful Improvements in Automatic Car-Couplings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has relation to improvements in devices for coupling cars, and is more particularly adapted for use on freight-cars.

The invention will be fully understood from the following description and claims, when taken in connection with the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view of a pair of draw-heads with my improvements applied, showing a link and a pin in position in one of the heads and the pin of the opposite head in a position to effect an automatic coupling. Fig. 2 is a cross-sectional view of one of the draw-heads. Fig. 3 is a perspective view of the pin-supporting slide.

Referring by letter to the said drawings, A indicates a draw-head, which may be of any ordinary or approved construction. This draw-head, which is provided with the usual flaring mouth *a*, is also provided with a transverse slot *b*, and above the slot, within the draw-head, are grooves *c*, which are designed to serve as guides for the proper movement of the slide, as will be presently explained. The draw-head is also provided with the usual pin-aperture B, to receive the coupling-pin E. The slots *b* extend laterally through the draw-head at a sufficient distance from its outer end for the passage of manipulating-arms extending from the slide, as shown.

F indicates the slide, which is designed to support the pin and hold the same in a position to effect an automatic coupling when two cars are brought together. This slide is preferably made of stout sheet metal, having its forward end bent downwardly at *e* at right angles to the main body portion *f*. This main body portion is of a greater width than the depending branch *e*, so as to form lateral projections *g*, designed to enter the grooves *c*

in the inner walls of the draw-head, as better shown in Fig. 2 of the draw-head.

Secured to the rear end of the body portion *f* of the slide are lateral arms *h*, which extend in opposite directions through the slots *b* in the side walls of the draw-head to a sufficient distance to be conveniently reached by an operator. These arms *h*, which I have shown as fastened to the slide E, may be formed integral therewith, and devices may be employed in connection with the slide, so that it may be manipulated from any suitable point on a car—such, for instance, as at the top of the box-car. The draw-heads are shown as having a rear abutment G, designed to serve as a stop for the backward movement of the slide, although it is obvious that such an abutment might be dispensed with without departing from the spirit of my invention, as the grooves in the side walls of the draw-head and the forward and rear ends of the slots therein will serve as sufficient stops for the backward and forward movement of the slide. If desirable in some cases, the lateral arms of the slide may be dispensed with and a groove or slot formed in the upper wall of the draw-head, and a button or slide-arm extending through the groove to connect with the slide, so that the latter may be moved back and forth from the top of the head.

In operation when it is desirable to couple cars the slide is moved forwardly so as to cover the pin-aperture and the pin placed in said aperture and upon the slide, as shown in Fig. 1 of the drawings. The abutting car, with its link entering the draw-head of the car to be coupled, strikes the depending branch of the slide, and moving it rearwardly will cause the pin to drop into the link and the lower pin-aperture of the draw-head, thereby effecting an automatic coupling, and by the employment of the abutments G it will be seen that with any great jar in the cars coming together the depending branch of the slide will be relieved from strain or breakage.

With a coupler of the construction illustrated the objectionable necessity of going between the cars is obviated. The parts are very durable and easy to operate, and the use of springs and like devices, which have been so often found objectionable, are dispensed

with, and while my improvements are more easy to apply to new draw-heads, yet the improvements may be placed upon draw-heads such as at present in use by a very slight alteration and at a very small expense. In a short coupling the lateral arms *h* may be secured to the forward end of the slide instead of at the rear end, as previously described.

Having described my invention, what I claim is—

1. A draw-head having its side walls slotted and grooved on their inner sides above the slots and also having the abutment therein, in combination with the slide having the lateral arms extending through the slots, the main body portion of the slide bearing in the grooves within the draw-head, and the forward end of the slide depending at right angles, substantially as and for the purpose specified.

2. A draw-head having its lateral walls slotted and the inner side of said walls grooved above the slots, in combination with a pin-supporting slide having a bearing in said grooves, and also having laterally-projecting arms, substantially as specified.

3. The pin-supporting slide E, having its forward end of less width than the main body portion and depending at right angles thereto, the manipulating-arms secured to the rear end of said slide, in combination with a draw-head adapted to receive the slide and having a pin-aperture to receive a coupling-pin, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN OVERTON COLLINS.

Witnesses:

THOS. L. MORTON,
JAMES VENABLE.