(No Model.)

W. F. SHOUP & H. P. VOGAN.

CAR COUPLING.

No. 560,437. Patented May 19, 1896.

Fig. 1.

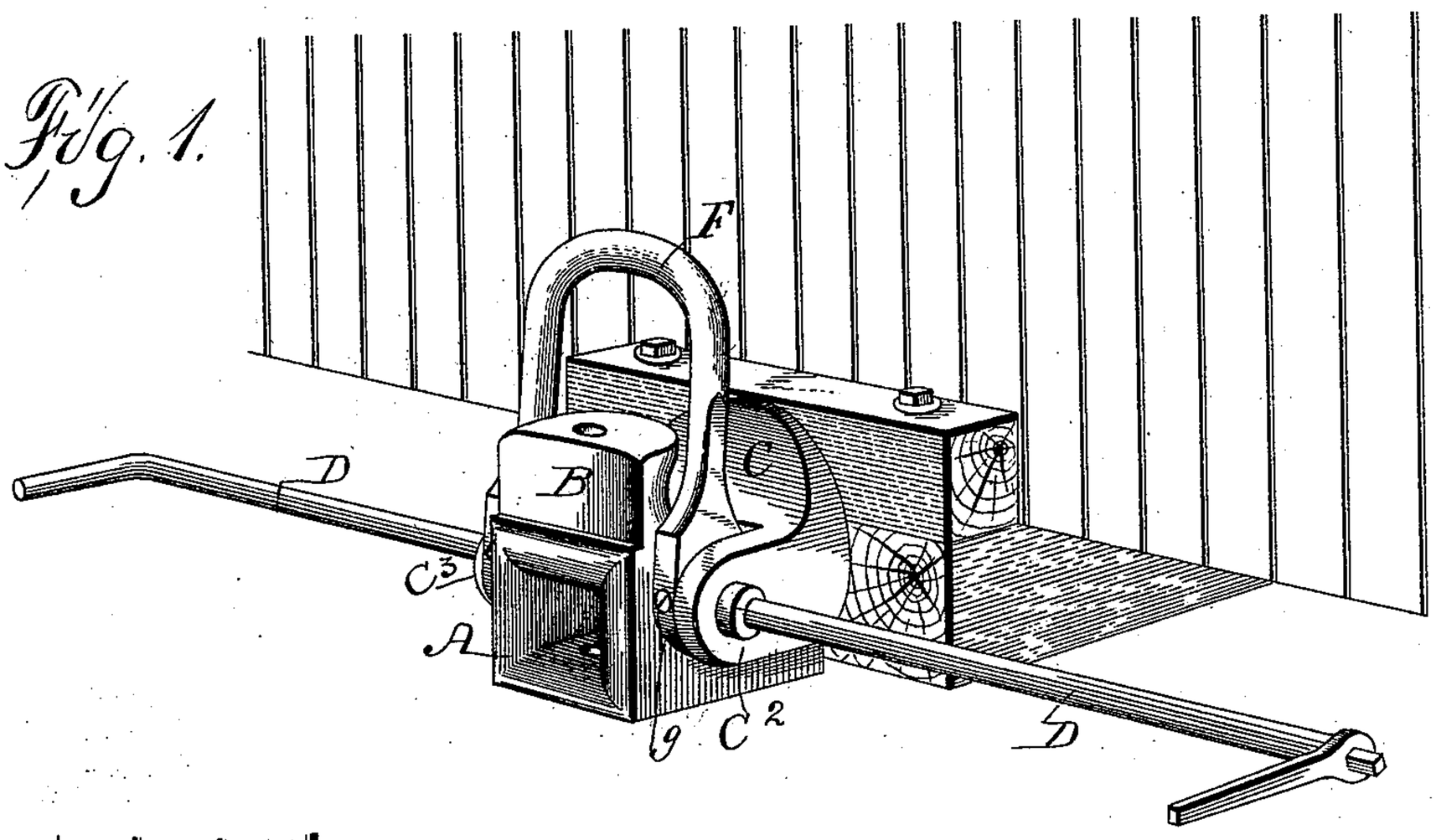
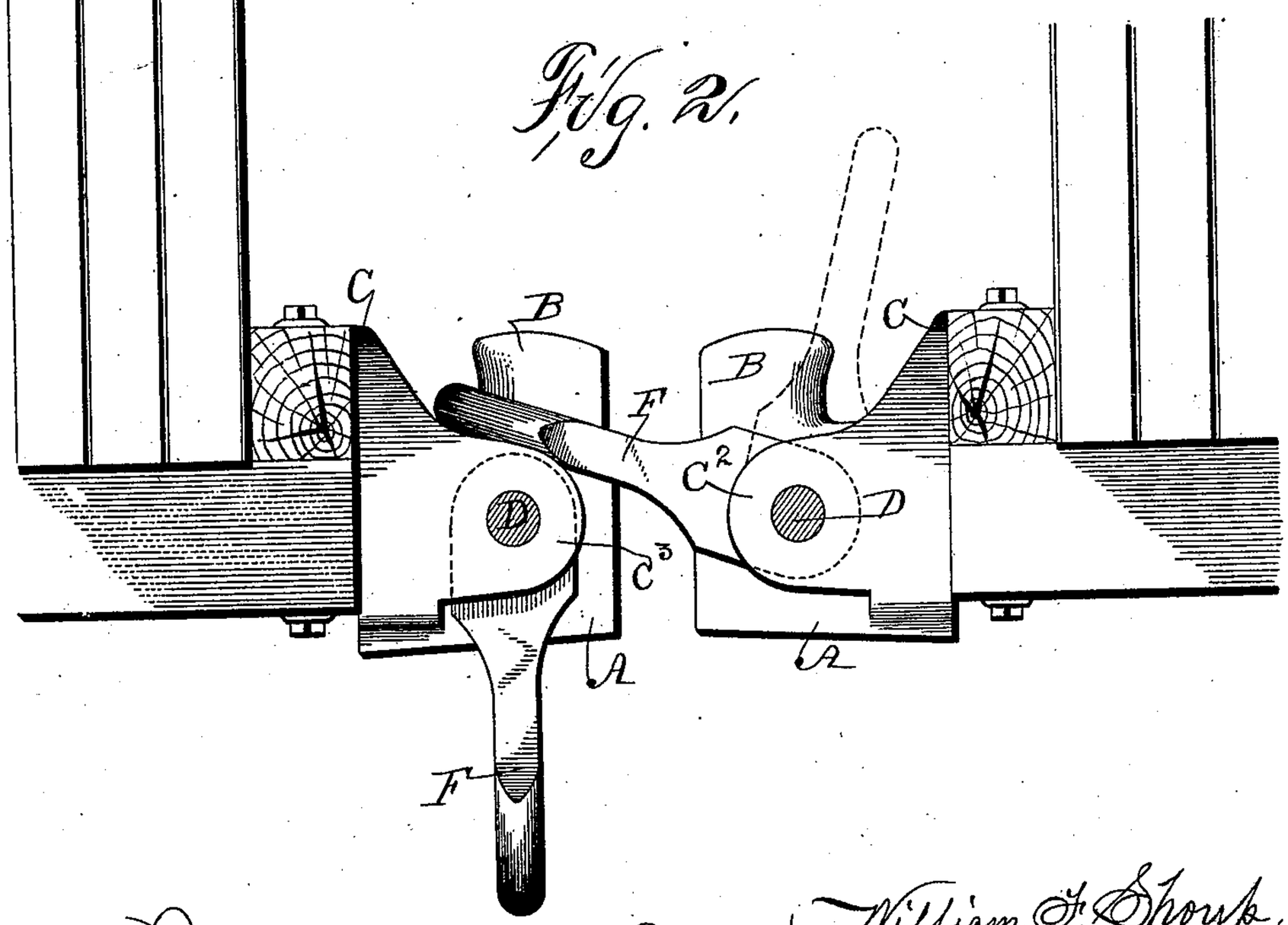


Fig. 2.



Witnesses:
W. J. Sankey,
R. G. Orwig.

Inventors:
William F. Shoup,
and Hamilton P. Vogan,
By Thomas G. and J. Ralph Orwig,
Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM F. SHOUP AND HAMILTON P. VOGAN, OF DERRICK CITY, PENNSYLVANIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 560,437, dated May 19, 1896.

Application filed February 4, 1896. Serial No. 578,065. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM F. SHOUP and HAMILTON P. VOGAN, citizens of the United States of America, residing at Derrick City, in the county of McKean and State of Pennsylvania, have invented a new and useful Automatic Car-Coupling, of which the following is a specification.

Our object is to provide a simple, strong, and durable car-coupler in which a link can be readily placed and retained in an upright position by a person at either side of a car in such a manner that when the draw-heads of two cars come together the jar will cause the link to fall over the head of the mating draw-head to automatically couple the cars in such a way that they can be readily uncoupled by a person at either side of the car by readjusting the link.

Our invention consists in the draw-head and link and means for operating the link, constructed, arranged, and combined as hereinafter set forth, pointed out in our claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view showing our invention applied to the end of a box-car as required for practical use and the link in an elevated position and ready to drop forward over the top of a mating draw-head. Fig. 2 is a side view showing two mating couplers connected by means of a link carried by one of them and as required to couple two cars together at the will of the operator when they meet on a track.

The letter A designates the lower and main portion of the draw-head, and B the integral top portion that is adapted in form to serve as a hook to engage an open link carried on a mating draw-head.

C is an integral upward projection at the rear end of the main portion A, adapted to engage the supports fixed to the car, as shown, and C^2 and C^3 are forward extensions from the upward projection C, adapted to serve as bearings for a rock-shaft, and also adapted to aid in retaining an adjustable link in different positions.

D is a rock-shaft extended horizontally through a bore in the draw-head A and coinciding holes in the forward extensions C^2 and C^3 and provided with crank-handles at its ends, adapting it to be operated by a person at either side of a car.

F is a link in the form of a clevis. It has holes in its mating ends through which the rock-shaft D is passed and then fastened thereto by means of a set-screw *g* or in any suitable way, so that the link can be readily raised by means of the rock-shaft into a vertical position, as shown in Fig. 1, preparatory to coupling two cars together, as shown in Fig. 2, and also as required to lift the link from the head B of a mating draw-head, as required, to uncouple two cars when connected, as shown in Fig. 2.

The front face of the head B is in a plane in rear of the front face of the main portion A, so that when two draw-heads come together the top portions B will not engage each other, and are consequently not subject to any impact force or strain. The main portion A is provided with an open-mouthed link-cavity adapted to receive an open link, (such as are used and known as "link-and-pin" couplings,) and a pin-hole extends down through the top B and the main portion to receive a pin, as required, to secure a link in the link-cavity whenever desired.

In the practical use of our invention the links F will hang down in their normal positions, as one of them is shown in Fig. 2, so that they will not interfere with the use of movable links and pins when it is desired or becomes necessary in coupling two cars in which only one of them is equipped with our coupling and the other with a removable link and pin.

To couple two cars when both are provided with our coupling, one of the links is turned up into a vertical position, so as to incline rearward a little and to remain stationary until the two mating draw-heads come into contact and by their impact jar the link so it will fall forward over the top B of the mating draw-head and into position, as shown in Fig. 2.

To uncouple, it is obvious a person at either side of the track and cars can readily, by means of the rock-shaft D, lift the link from the top B and disconnect the two mating draw-heads, and then throw the link down into its pendent normal position, as required,

to prevent coupling when contiguous cars are to remain disconnected and to be moved separately.

Having thus described our invention and its practical operation, what we claim, and desire to secure by Letters Patent, is—

1. An automatic car-coupling comprising a draw-head having a link-cavity, a vertical projection at its top and front end adapted to engage a link carried on a mating draw-head, an upward projection at its rear end, forward projections at its sides adapted to serve as bearings for a rock-shaft, a rock-shaft extended through said bearings and a coinciding bore in the draw-head and a link fixed to said rock-shaft, to operate in the manner set forth for the purposes stated.

2. An automatic car-coupling consisting of a draw-head A having a vertical projection B at its top and front end, a vertical projection C at its rear end, horizontal forward projections C^2 and C^3 at its sides, a rock-shaft D, and a link F, arranged and combined substantially as shown and described to operate in the manner set forth.

WILLIAM F. SHOUP.
HAMILTON P. VOGAN.

Witnesses:
F. F. PERRINGER,
E. SCOFIELD.