(No Model.)

S. P. HEATH.

CAR COUPLING.

No. 472,350. Patented Apr. 5, 1892.

Fig. 1.

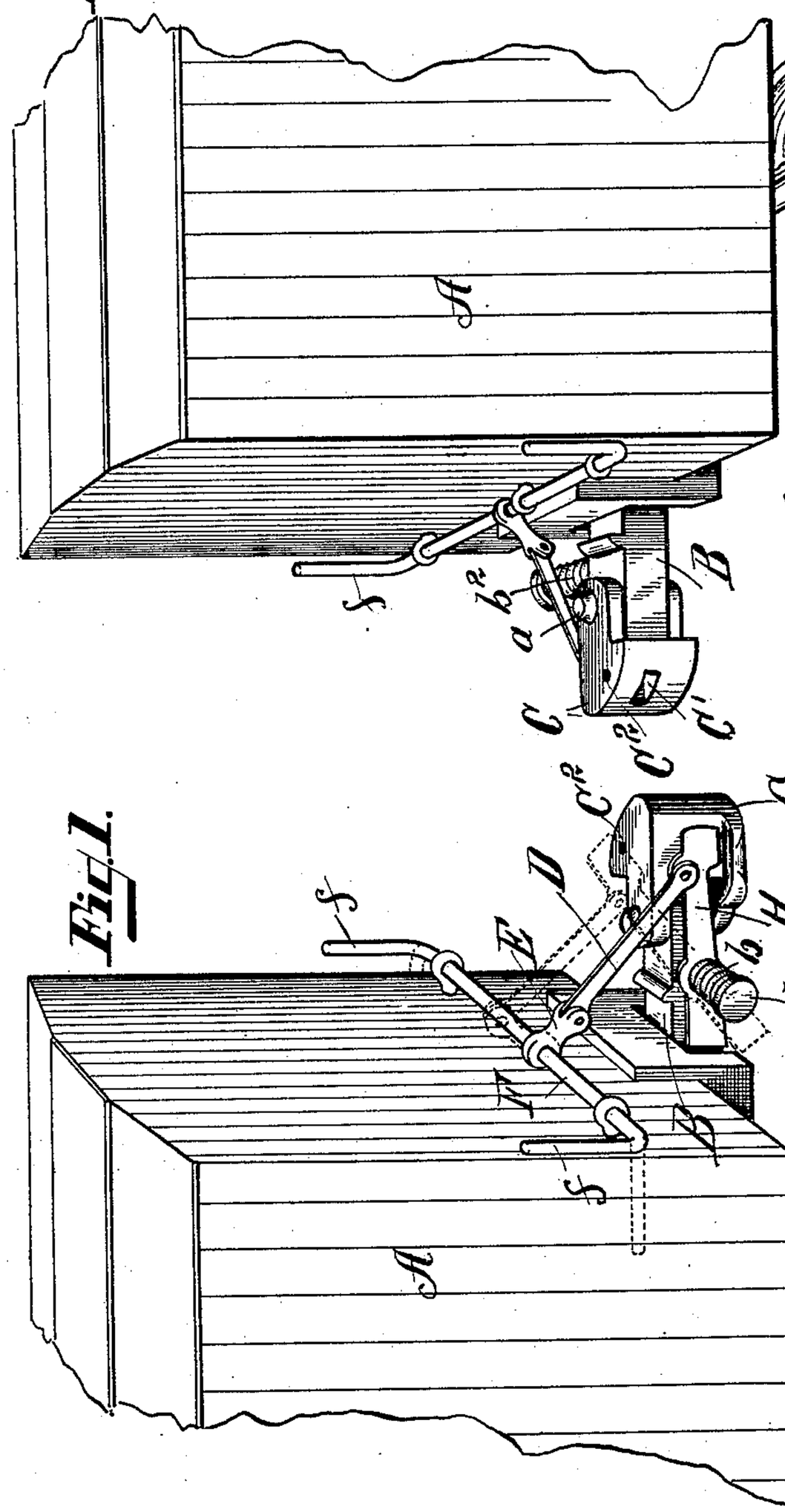

Fig. 2.

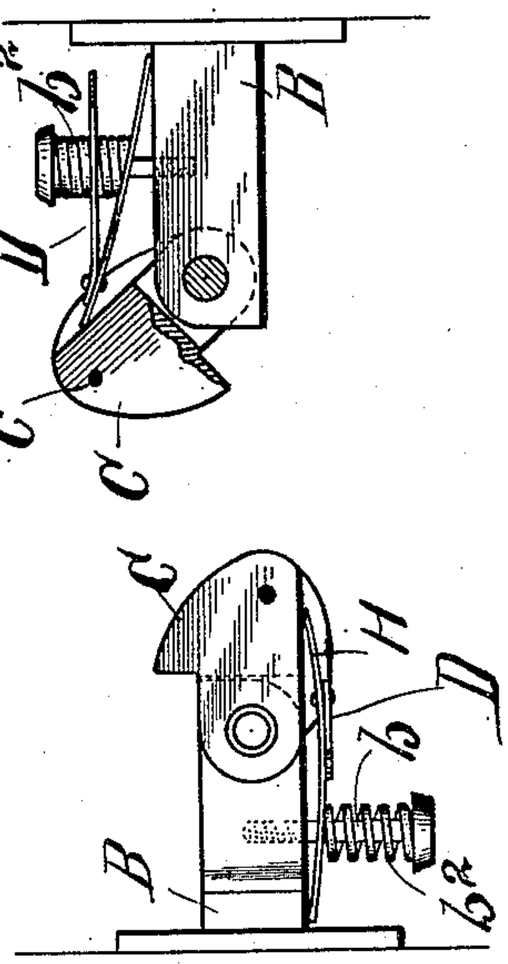

Fig. 4.

WITNESSES
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SAMUEL P. HEATH, OF SAGINAW, MICHIGAN.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 472,350, dated April 5, 1892.

Application filed July 20, 1891. Serial No. 400,060. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL P. HEATH, a citizen of the United States, residing at Saginaw, in the county of Saginaw and State of Michigan, have invented a new and useful Improvement in Car-Couplers, of which the following is a specification.

My invention relates to car-couplers, and has for its object the production of a device in the nature of an improvement over what is known as the "Miller coupler;" and it consists in pivoting the point-headed hook to the draw-bar instead of making it integral with it, and in providing means for operating the pivoted hook, whereby it is permitted to lock and unlock, as well as to hold firmly in position when locked, and to sustain the load.

In the drawings, Figures 1 and 2 are views of two cars provided with my coupler approaching each other preparatory to coupling, the views taken together showing perspective of the coupler from both sides. Fig. 3 is a plan of the coupler. Fig. 4 is a plan with a part of this head broken away, showing the manner in which the head sets back against the draw-bar.

In the drawings, A A represent the bodies of adjacent cars. B is the draw-bar and is attached to the car in the usual way. C is a point-headed hook pivoted to the draw-bar and preferably having a bearing above and below the bar. One corner of the bar is rounded to permit the head or hook to swing to one side, while the other corner and the hook are so formed as to prevent its swing in the opposite direction. The spring-plate H is pivoted to the side of the draw-bar on the pin *b* and extends back of its pivot for a rear support, as shown. Mounted on the pin *b* is the spring b^2. The plate H extends outward alongside the hook nearly to the forward end, so that when it is down in position parallel with the draw-bar it holds the hook in position for locking. When the bar H is raised, as shown in dotted lines in Fig. 1, the hook is free to swing. The hook I form so as to make as much of a central draft as possible on it to relieve from side strain and still leave sufficient side strain to cause it to swing and unlock when the plate or bar H is raised.

To provide for raising the plate H and unlocking the coupler from the side of the car, I use the rock-shaft F, mounted on the end of the car and having the ends *f f* turned at right angles to form levers on either side of the car. To the rock-shaft F is attached the arm E, which is connected with the outer end of the plate H by the link D, and the construction is such that by operating the rock-shaft by means of the levers on the side of the car the plate H may be raised and lowered at will without entering between the cars. In the hook I provide the slot C′ and hole C^2 to accommodate the ordinary link and pin, to allow a car fitted with my coupler to be coupled with one fitted with the link and pin.

It is manifest that while the spring-plate H and spring b^2 will hold the hooks of adjacent cars locked two cars coming together will throw the hooks back far enough to permit them to pass one another and lock, and to unlock the coupler all that is necessary is to raise the plate H by means of the lever outside the car. A spring-plate H may be used alone without the spring b^2, if desired; but I prefer the use of the spring, as shown.

Having thus described my invention, what I claim is—

1. In a car-coupler, the combination of a draw-bar, a draw-head pivoted to the end of said draw-bar and adapted to swing out of engagement with a corresponding head on the opposite car, and a lever pivoted at its central portion to the side of said draw-bar and adapted to swing alongside of the same and against the back of said draw-head, substantially as and for the purposes described.

2. In a car-coupler, the combination of a draw-bar, a draw-head pivoted to the end of said draw-bar and adapted to swing out of engagement with a corresponding head on the opposite car, and a spring-lever pivoted at its central portion to the side of said draw-bar and adapted to swing alongside of the same and against the back of said draw-head, substantially as described.

3. In a car-coupler, the combination of a draw-bar, a draw-head pivoted to the end of said draw-bar and adapted to swing out of engagement with the corresponding head on the opposite car, a lever pivoted at its central portion to the side of said draw-bar and adapted to swing alongside the same and against the back of said draw-head, and a

spring on the pivoted bolt of said draw-bar, substantially as and for the purposes described.

4. In a car-coupler, the combination of a draw-bar, a draw-head pivoted to the end of said draw-bar and adapted to swing out of engagement with a corresponding head on the opposite car, a lever pivoted at its central portion to the side of said draw-bar and adapted to swing alongside of the same and against the back of said draw-head, and means for swinging said lever from the side of the car, substantially as described.

5. In a car-coupler, the combination of a draw-bar, a draw-head pivoted to the end of said draw-bar and adapted to swing out of engagement with a corresponding head on the opposite car, a lever pivoted at its central portion to the side of said draw-bar and adapted to swing alongside of the same and against the back of said draw-head, a rock-shaft on the end of the car provided with an arm, and a connecting-rod between the said arm and the lever, substantially as and for the purposes described.

In testimony whereof I sign this specification in the presence of two witnesses.

SAMUEL P. HEATH.

Witnesses:
CHARLES H. FISK,
EFFIE I. CROFT.