(No Model.)

C. E. MICHAUD.

CAR COUPLING.

No. 379,803. Patented Mar. 20, 1888.

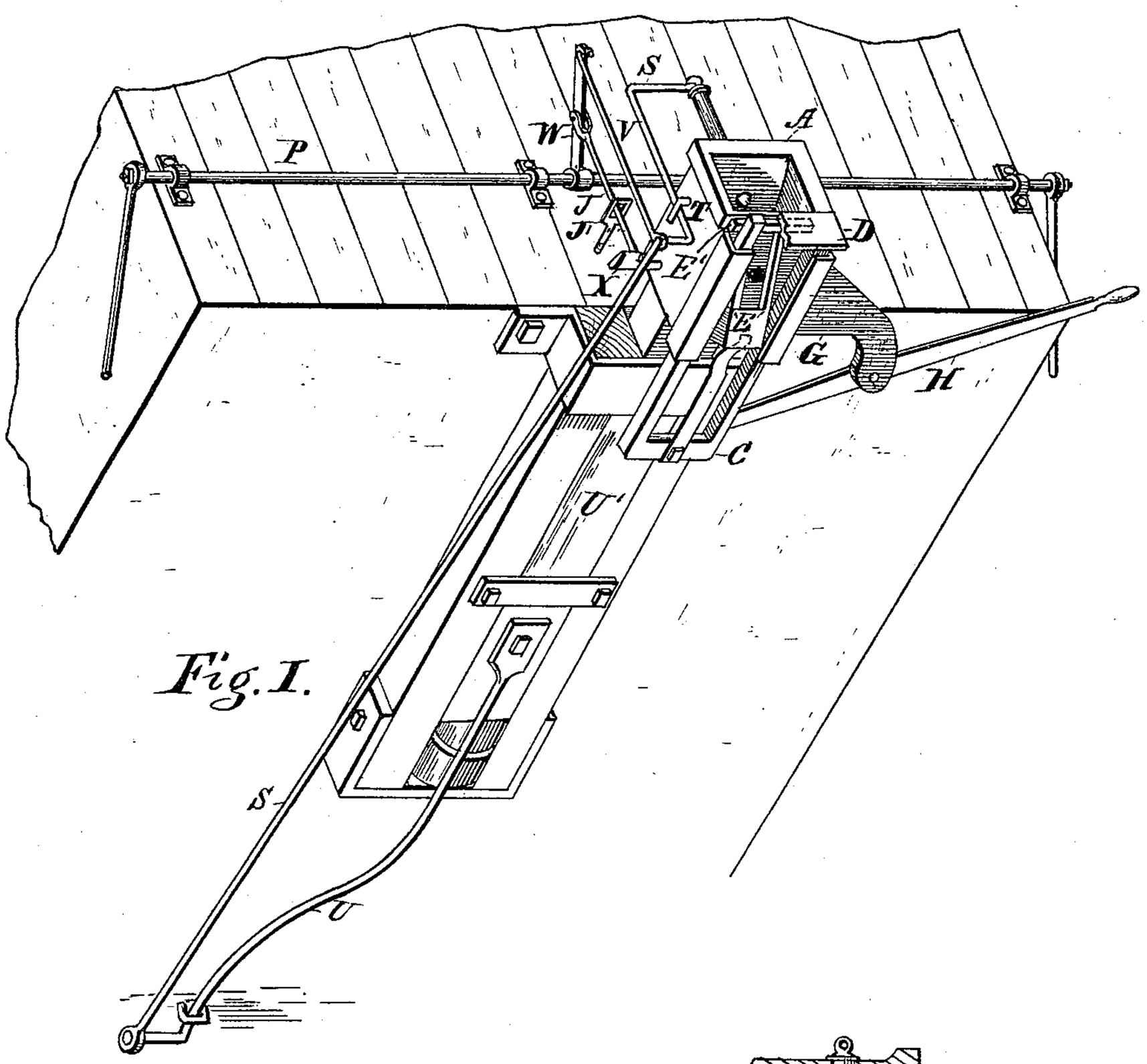

Fig. I.

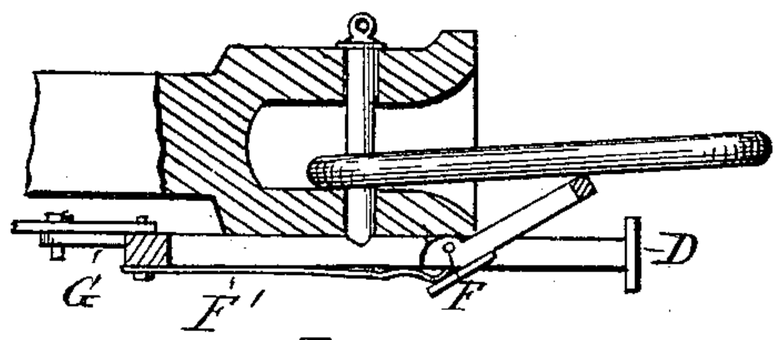

Fig. II.

WITNESSES:

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CHARLES EDOUARD MICHAUD, OF ST. MICHEL D'YAMASKA, QUEBEC, CANADA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 379,803, dated March 20, 1888.

Application filed July 25, 1887. Serial No. 245,290. (No model.) Patented in Canada May 14, 1886, No. 24,039, and October 25, 1886, No. 25,213.

To all whom it may concern:

Be it known that I, CHARLES EDOUARD MICHAUD, civil engineer, of St. Michel d'Yamaska, in the county of Yamaska, in the Province of Quebec, Dominion of Canada, have invented a new and useful Improvement in Car-Couplings, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure I is an under perspective view of my invention, and Fig. II is a longitudinal section of the forward portion.

The object of my invention is to provide a coupling which shall be automatic, and which shall also embody means for safely manipulating the coupling-link up or down when it enters an opposing draw-head of different elevation.

To carry my invention into effect, I attach beneath the draw-head A a pair of slideways or keepers, B, which have within them a longitudinal U-shaped sliding frame, C, which has at its forward or open end an enlarged head or plate, D. (Shown partly broken away in the drawings.) About midway within the frame C a pair of forwardly-projecting arms, E, are pivotally mounted at F to the limbs of the frame C. The forward ends of these arms are provided with a cross-bar, E′, that normally lies just at the rear of the head or plate D of the main frame C. A strong spring-bar, F′, attached to the rear of the frame C, projects forward and bears on the pivoted frame somewhat to the rear of the pivotal point. This spring forces the forward ends of the arms E upwardly when the sliding frame C is moved forwardly beyond the head of the draw-bar.

If desired, the arms E may be elevated by a weight instead of a spring.

A rigid arm, G, extends laterally from the slide of the draw-head, or integral from the guide B, and pivotally carries a lever, H, attached to the rear of the sliding frame C. It will be obvious that if this lever moves the slide-frame C forward the forward ends of the pivoted arms E, normally held down by the draw-head, will rise as they advance and raise the coupling-link which rests in the cross-bar E′ to any desired inclination.

The head of the coupling-pin has a rod, S, hinged thereto, which extends laterally a few inches, thence downward by the side of the draw-head, where it is held by a keeper, T. Thence it is bent outwardly and rearwardly, running alongside the draw-bar, past the rear end, where it connects with a rod or return-stem, U, the forward end of which is secured directly to the rear end of the draw-bar U′. At the lower forward angle of the rod S is a small connecting-rod, V, leading up to the end of the short arm W, extending from the transverse actuating-bar P. Midway on this short arm W is a downwardly-projecting stem, J, which passes through a keeper, J′, and when the pin is raised the lower end of this stem J rests upon a flattened stud, X, projecting from the side of the draw-head.

In the act of coupling, the draw-head carrying the link, as shown in Fig. 2, has the sliding frame C drawn forward the requisite distance to elevate the link. As the approaching draw-head moves forward and strikes the head D the frame C retreats and is forced home, thus permitting the two draw-heads to come together. The other draw-head, as shown in Fig. I, must at the same time be adjusted to receive the approaching link. This is done by turning the cranks or levers P′ on the transverse bars P so that the projecting arm W will be elevated, thus raising the pin in the position shown, when the lower end of the leg or stem J will rest on the spur X of the draw-head. When the draw-heads come in contact with each other, they retreat slightly or are forced inwardly, which removes the step X from the region of the leg J and permits the pin to fall and secure the link, which in the meantime has entered.

What I claim as new is—

1. In car-couplers, the draw-head having a step or shoulder, in combination with a link hinged or swinging on a supporting-rod, said rod having a stem or leg which rests on the step or lug of the draw-head, substantially as herein set forth.

2. In car-couplers, the combination of the draw-head having on the under side a sliding frame, the pivotal link-elevating arms within

said sliding frame, the spring for actuating said arms, and the manipulating-lever attached to the draw-head and sliding frame, substantially as herein set forth.

3. In car-couplers, the draw-head having a step or shoulder, in combination with a rod hinged to the head of the pin and to the rear end of the draw-bar, and with the cross operating-rod having an arm connecting with the pin-rod, and a leg which operates in contact with the step of the draw-head, substantially as herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand, this 25th day of April, 1887, in the presence of witnesses.

CHARLES EDOUARD MICHAUD.

Witnesses:
A. E. GLADU,
OVIDE LANDRY.