(No Model.) 2 Sheets—Sheet 1.

F. A. R. VON BERNEWITZ.

CAR COUPLING.

No. 258,168. Patented May 16, 1882.

Fig: 1.

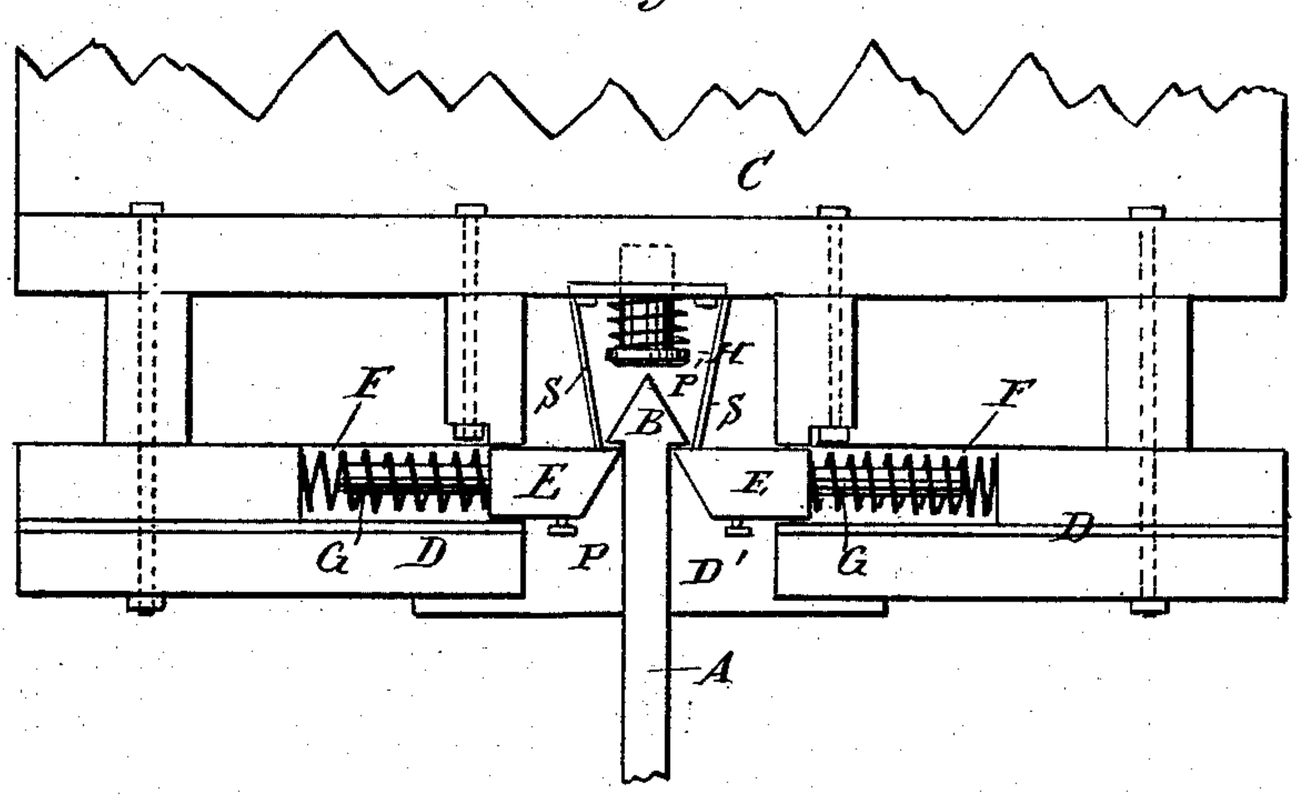

Fig: 2.

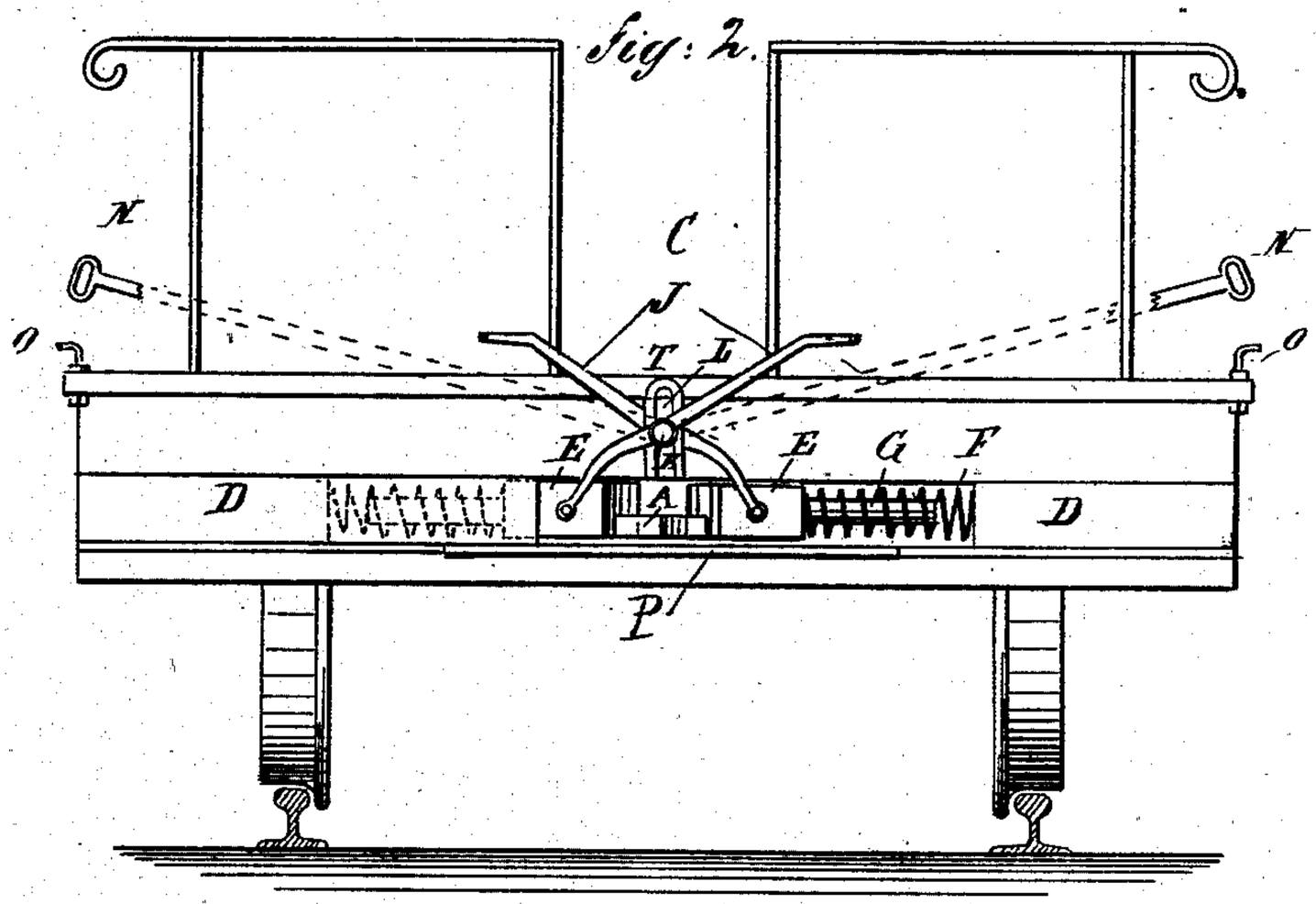

Fig: 3

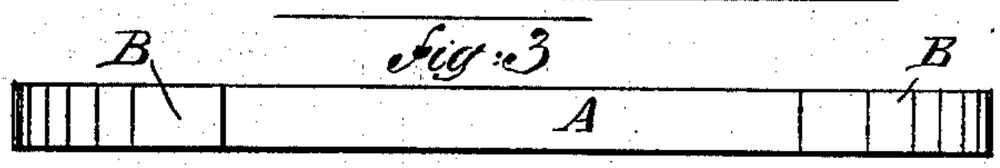

Fig: 4.

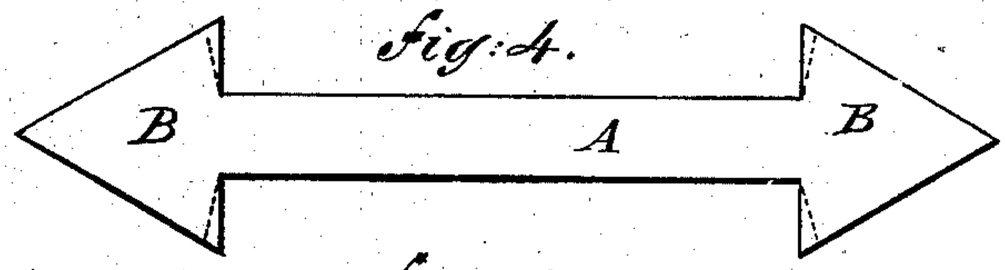

Fig: 5.

WITNESSES:

Chas. Nida.

C. Sedgwick

INVENTOR:

F. A. R. Von Bernewitz

BY Munn & Co.

ATTORNEYS.

(No Model.) 2 Sheets—Sheet 2.

F. A. R. VON BERNEWITZ.

CAR COUPLING.

No. 258,168. Patented May 16, 1882.

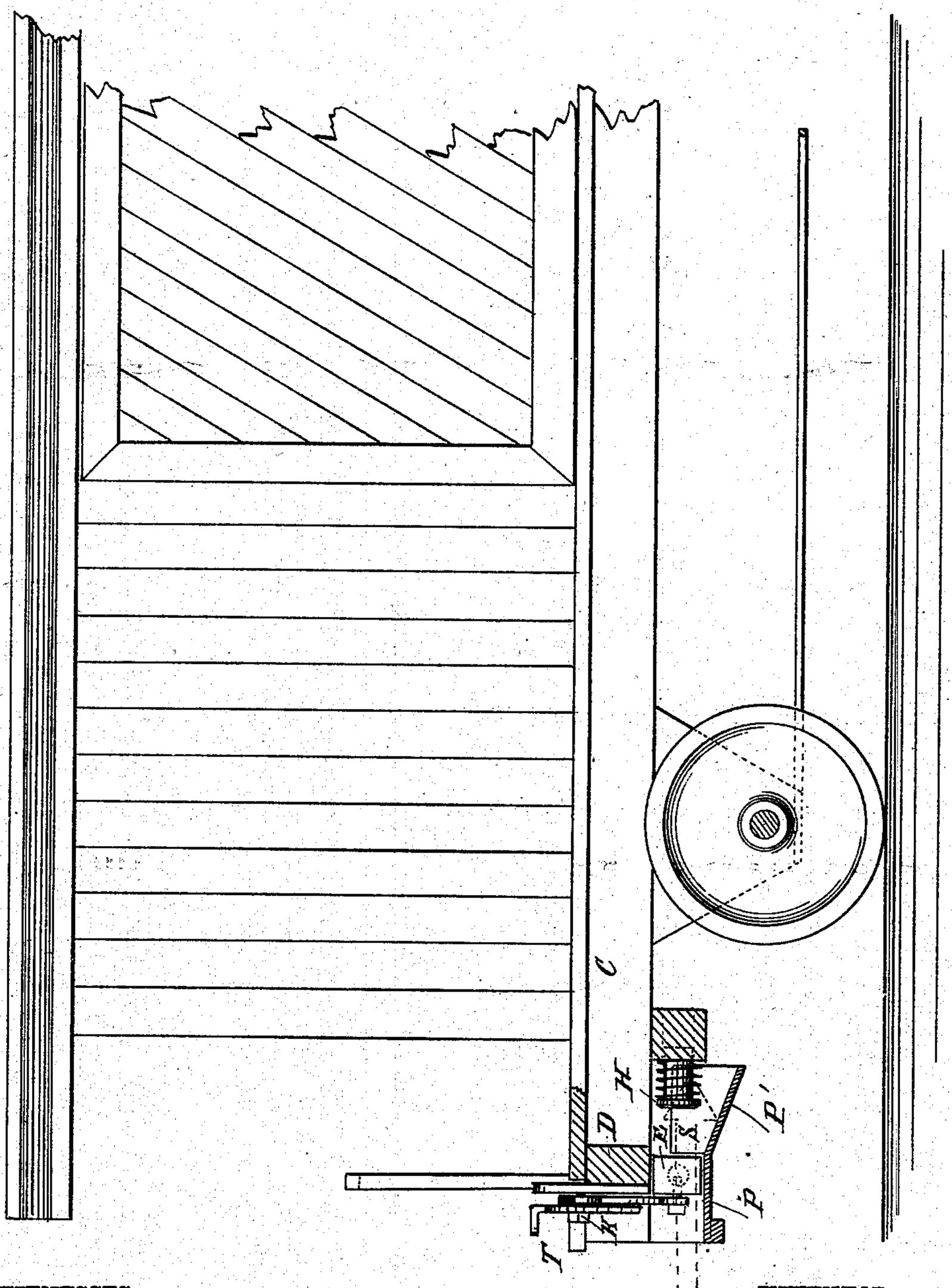

Fig. 6.

WITNESSES:

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UNITED STATES PATENT OFFICE.

FREDERIC A. R. VON BERNEWITZ, OF SEDAMSVILLE, OHIO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 258,168, dated May 16, 1882.

Application filed March 2, 1882. (No model.)

To all whom it may concern:

Be it known that I, F. A. RICHARD VON BERNEWITZ, of Sedamsville, in the county of Hamilton and State of Ohio, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

The invention consists in a novel construction and arrangement of parts, as hereinafter described, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the end of a car provided with my improved coupling. Fig. 2 is an end elevation of the same. Fig. 3 is a longitudinal side elevation of the coupling-bar. Fig. 4 is a plan view of the same. Fig. 5 is a cross-sectional elevation of the same. Fig. 6 is a longitudinal elevation of part of a car provided with my improved coupling, a part being shown in section.

The coupling-bar A, to be used with my improved car-coupling, is provided at each end with a triangular head, B, the bases of the triangles being made integral with or attached to the ends of the bar A. Preferably the base of each triangle is curved or beveled slightly, as indicated by dotted lines in Fig. 4. To hold the ends of the coupling-bar A, the car C is provided at the end with a frame, D, provided with a central recess or opening, D′, in which frame D two blocks, E E, are held, and are adapted to slide longitudinally in the same—that is, at right angles to the length of the car—which blocks are pressed toward each other by spiral springs F, surrounding the rods or stems G, projecting from the outer ends of these blocks. The inner or adjoining ends of the blocks E are beveled toward each other in the direction from the end of the car toward the middle of the same—that is to say, the adjoining ends of the blocks E are beveled in such a manner that the beveled sides of a head, B, of the bar A will fit against the beveled ends of these blocks. The middle of the end of the car-floor is provided with a spring-buffer, H, opposite the meeting ends of the blocks E. A lever, J, is attached to each block E, and these levers are crossed and pivoted to each other by a pintle, K, passing through a vertical slot, L, in a standard, T, on the frame D. These levers may be short and provided with foot-rests for operating them, or these levers may extend to the sides of the car, and in that case must be provided at the end with handles, N. If the long levers J, provided with handles N, are used, swiveled hooks O must be provided at the ends of the car-platform for the purpose of locking these levers in position when lowered—that is, when the blocks E E are separated. The coupling-bar A rests on a plate, P, at the bottom of the frame D, when the coupling-bar is held by the blocks E E. The rear part, P′, of this plate P is widened, inclined downward, and is provided with vertical flanges S.

The operation is as follows: If the levers J are unlocked, the springs F press the ends of the blocks E toward or against each other. If the head B of a coupling-bar, A, is pressed into the recess formed by the bevels of the ends of the blocks E, these blocks will be pressed from each other, and the head B will pass in between them. When the base of the head B has passed the inner edges or surfaces of the blocks E the springs F will move the blocks E toward each other, and the base of the head B will catch on or rest against the inner surfaces of the blocks E and will be held firmly in place. The buffer H counterbalances the shock given to the car by the coupling-bar A after the same has passed through between the blocks E. If the cars are to be uncoupled, the blocks E are separated either from the platform by depressing the levers J or from the sides of the car by pulling down the levers J, having the handles or equivalents N, at the ends. The cars can thus be coupled or uncoupled very rapidly and easily without requiring the operators to pass in between the cars and endanger their lives. The bases of the triangular heads B are preferably rounded, as shown, to permit a movement of the coupling-bar while turning curves and to lessen the rigidity in sidewise swaying. The upper and lower surfaces of the heads B of the coupling-bar A are rounded or beveled transversely, as shown in Fig. 5, to permit the coupling-bar to disengage itself automatically from between

the blocks E in case the cars are capsized. This feature is of great importance, as often entire trains of cars are capsized, one car capsizing the other on account of the rigid coupling, which cannot be detached in time. The rear inclined part, P′, of the plate P prevents the head B of the coupling-bar from catching on corners, and the flanges S hold the head B between them and prevent it from catching on the edges of the part P.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a car, of the coupling-bar A, provided with triangular heads B, the sliding spring-blocks E, the plate P, and the extension P′ of the same, provided with vertical flanges S, substantially as herein shown and described, and for the purpose set forth.

2. The combination, with a car, of coupling-bar A, provided with triangular heads B, the sliding beveled spring-blocks E, the levers J, pivoted to the blocks E, the pintle K, for pivoting the two levers to each other, and the slotted standard T, through which the pintle K passes, substantially as herein shown and described, and for the purpose set forth.

3. The combination, with a car, of the coupling-bar A, provided with triangular heads B, the sliding beveled spring-blocks E, the pivoted levers J, pivoted to these blocks and provided at the ends with handles N, and the hooks O on the car, substantially as herein shown and described, and for the purpose set forth.

4. The combination, with a car, of the coupling-bar A, provided with triangular heads B, the beveled spring-blocks E, sliding in a frame, D, at the end of the car, and the buffer H on the end of the car, substantially as herein shown and described, and for the purpose set forth.

5. A coupling-bar made, substantially as herein shown and described, with the upper and lower surfaces of the heads rounded or beveled for the purpose of facilitating automatic disengagement of the cars in case one of the cars is capsized, as set forth.

E. A. RICHARD VON BERNEWITZ.

Witnesses:
HAYS H. HAMILTON,
W. H. PORTER.