W. D. CHESTNUT.

Car Coupling.

No. 3,445. Patented Feb. 20, 1844.

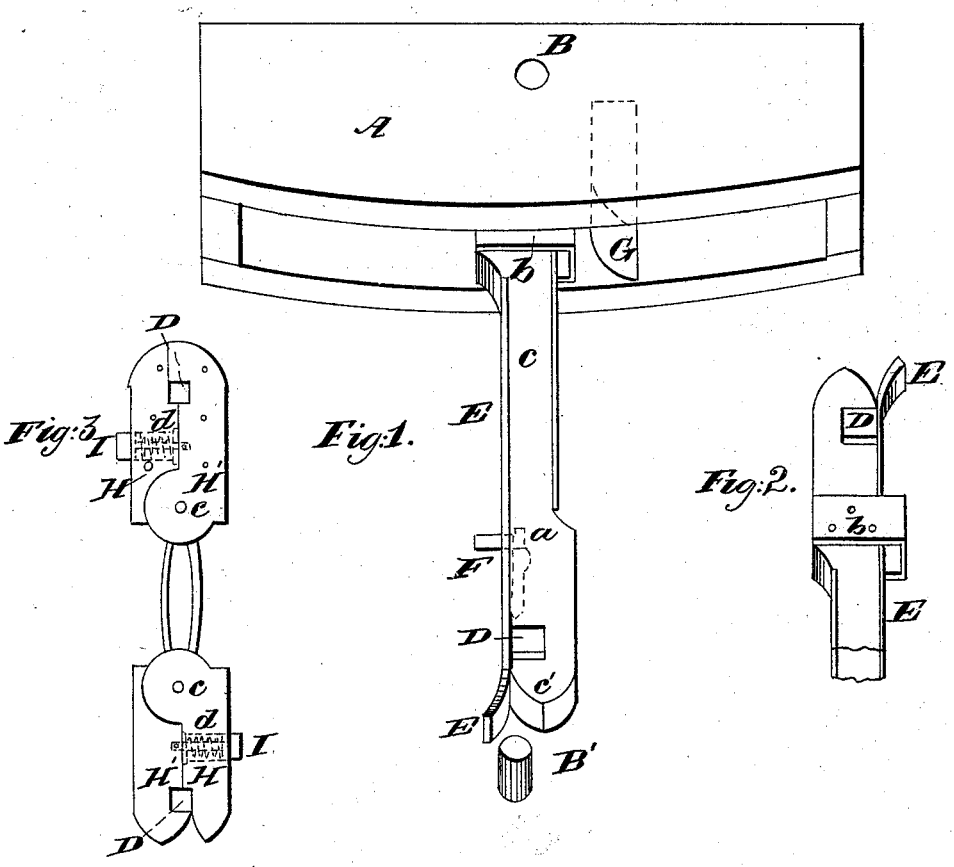

Fig: 3. Fig: 1. Fig: 2.

UNITED STATES PATENT OFFICE.

WM. D. CHESNUT, OF WILMINGTON, DELAWARE.

COUPLING-BAR FOR RAILROAD CARS, LOCOMOTIVES, &c.

Specification of Letters Patent No. 3,445, dated February 20, 1844.

To all whom it may concern:

Be it known that I, WILLIAM D. CHESNUT, of Wilmington, in the county of Newcastle and State of Delaware, have invented a new and Improved Manner of Constructing Coupling-Bars for the Coupling Together of Engines, Tenders, and Cars on Railroads; and I do hereby declare that the following is a full and exact description thereof.

My coupling-bar has a jaw at each end, which is kept closed by a spring, so as to embrace the coupling bolt, and said jaws are so arranged as that they may play freely to the distance required by the curvature of the road, but that they shall open and free the coupling bar from the bolt, should one of the connected vehicles run off the track, or be, from any cause, made to deviate to a greater distance from a right line than is due to the curvature of the road; whenever such deviation takes place, a pin, or some analogous device is brought up against a check piece under the platform of the car, or, where a platform is not used, by a check piece otherwise situated near the coupling bolt, and the jaws being thereby opened, the coupling bar will be liberated.

In the accompanying drawing, A, Figure 1, may represent the platform of a car, B, a coupling bolt, and C, a coupling bar held by said bolt, which passes through a hole similar to that seen at D, at the end C′, of the bar, the two ends being similarly constructed. E, E, is a spring which bears against the side of the bar C, and constitutes one side of the hole D. The coupling bar and spring are to be, in general, so formed that by forcing the end of it against a coupling bolt, the coupling will be effected; as will be seen by supposing B′, to be such a bolt. F, is a pin which is intended to liberate the coupling, by causing the jaws to open. In this figure, the pin F, is shown as having its inner end bearing against a lever *a*, shown in dotted lines; and if pressure be made upon this pin, the spring E, will be forced open by said lever. G, is a check piece affixed under the platform at such distance from the pin F, as to prevent their coming into contact under the usual lateral motion of the bar C; but should a greater deviation take place, the pin F, will then be brought into contact with the check piece, the spring E, will be forced back, and the coupling bar will escape from the bolt. Fig. 2, represents a clip of metal, *b*, made fast to the bar C, and embracing the spring E, which piece *b*, performs the same office with the pin F.

In Fig. 3, I have shown a bar differing, somewhat, in form from the foregoing, but the same in operation with that represented in Fig. 1. H, H′, are two jaws, connected by joint pins at *c*; I, is a pin which passes through the jaw H, and has its inner end attached to the jaw H′; a spiral spring *d*, surrounds the pin I, bears against its head, and against the inner side of the jaw H, and forces the two together; but when the head of the pin I, bears against the check piece G, the jaws will be opened.

I have thus shown different ways in which the apparatus may be formed, so as to cause the jaws to open by the pressure of the coupling bar against the check piece; and these forms may be otherwise varied without changing the principle of action. I do not intend, therefore, to limit myself in this particular by the foregoing description, but merely to afford exemplification of different modes of constructing the same thing.

Having thus described the nature of my invention, and explained the manner in which the same operates, what I claim therein as new, and desire to secure by Letters Patent, is—

The so arranging of the bar C, the spring E, the pin F, and the check piece G, as that the jaw shall be opened when one of the cars deviates from the track; the respective parts being connected with each other, and operating substantially in the manner herein set forth.

WM. D. CHESNUT.

Witnesses:
THOS. F. JONES,
EDWIN L. BRUNDAGE.