

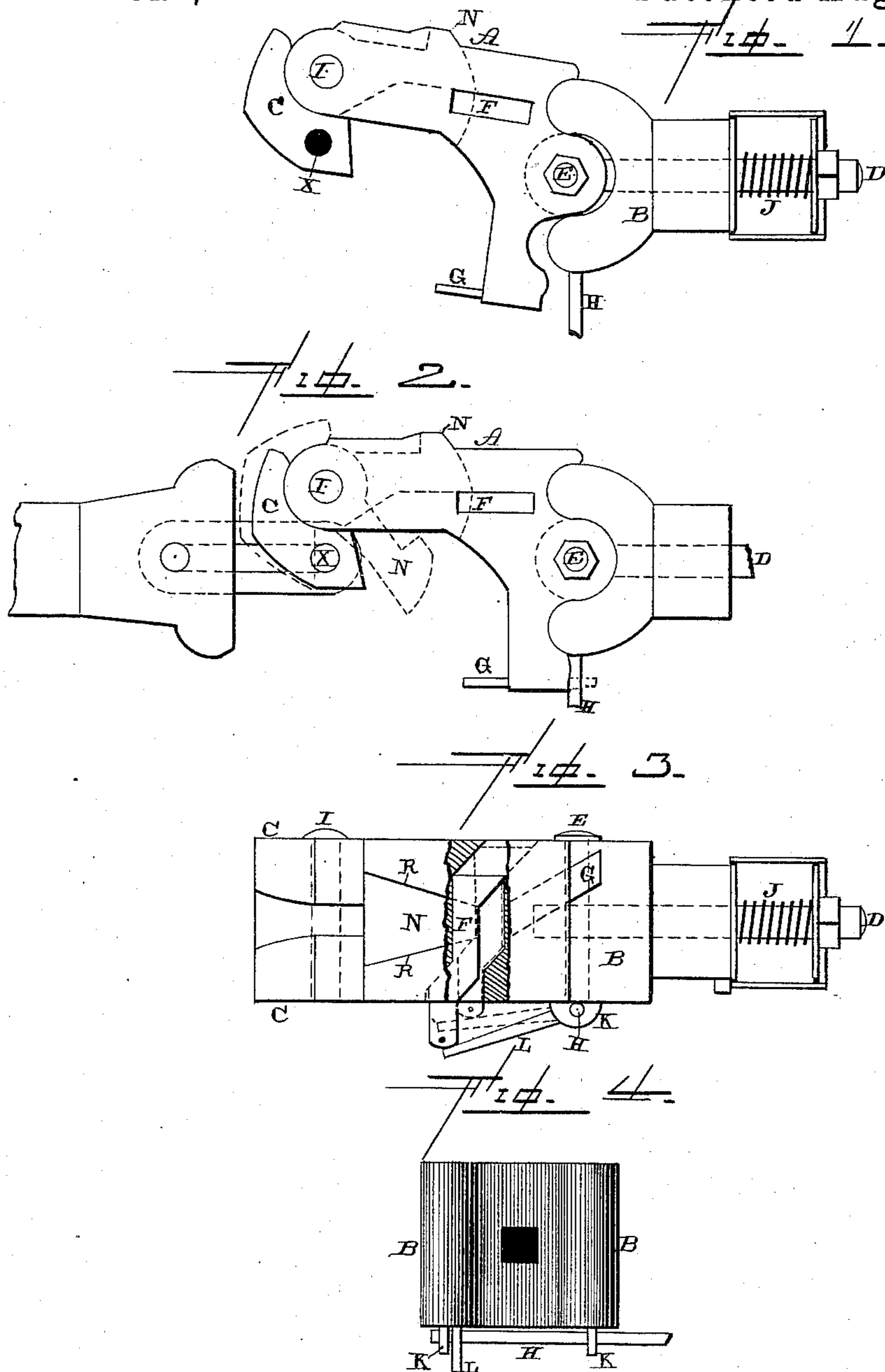
(No Model.)

F. A. WESTBROOK & W. S. COOK.

CAR COUPLING.

No. 324,740.

Patented Aug. 18, 1885.



-Witnesses.-

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UNITED STATES PATENT OFFICE.

FRANK A. WESTBROOK AND WINFIELD S. COOK, OF PORT JERVIS, N. Y.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 324,740, dated August 18, 1885.

Application filed June 23, 1885. (No model.)

To all whom it may concern:

Be it known that we, FRANK A. WESTBROOK and WINFIELD S. COOK, of Port Jervis, in the county of Orange and State of New York, have
5 invented certain new and useful Improvements in Car-Couplings; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains
10 to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to an improvement in car-couplings; and it consists in, first, the
15 combination of the coupling-head with the turning head C, which is pivoted in the front end of the draw-head, the vertically-moving pin, and an operating-lever for moving the pin; second, the combination of the draw-head, the
20 pivoted head, which turns in the front end of the draw-head and has a hook formed on its rear end, a bent pin, an operating-lever, and the locking-slide; third, in the arrangement and combination of parts, which will be more
25 fully described hereinafter.

The object of our invention is to provide a car-coupling which will automatically couple when the cars run together, which can be readily uncoupled without the necessity of the
30 brakeman going between the cars, and which is always safe and reliable in operation.

Figure 1 is a plan view of a car-coupling embodying our invention, showing the head partially forced backward. Fig. 2 is a similar
35 view of the same, showing the manner of connecting with the ordinary pin-and-link coupling. Fig. 3 is a side elevation of our coupling. Fig. 4 is an end view of the casing B, showing the operating-lever.

40 A represents the coupling-head, which is preferably made of the shape here shown, and which is connected at its rear end to the bolt D by means of the pin E. The bolt D passes through the casing B and the spring J in the
45 usual manner. The front corners of the casing B are made rounding, as shown, for the purpose of fitting in corresponding recesses made in the rear end of the coupling-head A; and its center is recessed for the purpose of receiving the
50 corresponding projection which is formed on the rear end of the coupling-head. By means of these recesses and projections a perfect

knuckle-joint action between the parts A and B is produced. The front end of the draw-head A is recessed, so as to receive the turning head C, which is pivoted upon the pivotal bolt I, 55 which passes vertically through the front end of the head A. Formed with this turning head C, which is made of the same width or thickness as the head A, is a suitable hook or catch, N, which projects backward and catches in the recess R, which is made in the inner side of the head A to receive it. The turning head C is also recessed upon its inner side, so as to receive the end of a coupling-link, as shown in Fig. 2. 65 This head and link are connected together by means of an ordinary coupling-pin, which is passed down through the opening X in the head C. The hook N is not as wide as the head C, and when the head C is coupled with the corresponding head upon another coupler the hook and head C are in the position shown in Fig. 1; but when the head C is forced backward, as shown in dotted lines in Fig. 2, the hook N projects beyond the inner side of the head A, being forced back out of the recess or slot in which it catches. 75

Made vertically through each head A is an opening of the shape shown in Fig. 3, and in this opening is placed a vertically-moving locking-pin, F. This pin has its head formed upon one side, and is bent or crooked below its center, for the purpose of causing the pin to drop from its own weight in the recess or opening in which it is placed. When the turning head C is closed, as shown in Fig. 1, the pin F catches behind the hook N and locks it rigidly in place. When the operating-lever H, which is pivoted in suitable ears, K, on the under side of the casing B, has its arm L 90 strike against the under side of the pin F, it forces it upward, as shown in Fig. 3, until the hook N is released. As soon as the lever H is released its arm L and pin F cause it to turn partially around in its bearings, and then the pin F drops in its recess as low as it can. 95 When the turning head C is returned to position, the beveled portion of the hook N strikes against the pin and raises it upward until the hook is passed, and then the pin drops back in position and again locks the hook in place. 100

Through the rear end of the head A are formed inclined slots, in which the locking-slides G are placed. These slides, when left

free to move from their own gravity, slide down the slots in which they are placed until their ends project, as shown in Figs. 1 and 2. When the heads run together, their outer ends strike the slides G and force them up the inclined grooves in which they are placed until the heads are hooked, when they slide back and lock the heads. The object of the lock is to prevent the uncoupling from undue side motion, and to prevent the draft-springs from becoming broken. When the heads are locked together, they do not bind against each other in such a manner as to cause wear and friction.

When the pivoted head C is struck by an opposing draw-head of any kind, it closes and locks automatically. It is always ready for the ordinary link and pin without any manipulation, and thus avoids the necessity of a man having to go unnecessarily between the cars.

We do not limit ourselves to the precise form in the construction of parts here shown, for this may be varied without departing from the spirit of our invention.

Having thus described our invention, we claim—

1. The combination, with the draw-head A, bolt D, pin E, and casing B, of the pivoted

head C, which is pivoted upon the draw-head, and which has an opening through it for connection with the ordinary coupling link, substantially as shown.

2. The combination of the draw-head A, bolt D, pin E, and casing B with the pivoted head C, which has the hook N formed upon its inner end, with a locking-pin and operating-lever, substantially as described.

3. The combination of the head A, provided with an opening through it, with a pivoted head, C, having the hook formed upon its inner end, the pin F, which is shaped as shown, and the operating-lever, substantially as set forth.

4. The combination of the draw-head A with the slides G, which are placed in the inclined grooves, and which operate to lock the heads together, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

FRANK A. WESTBROOK.
WINFIELD S. COOK.

Witnesses:

W. E. McCORMICK,
EDGAR WHITNER.