

(No Model.)

T. H. & E. V. SNYDER.  
CAR COUPLING.

No. 347,208.

Patented Aug. 10, 1886.

Fig. 1.

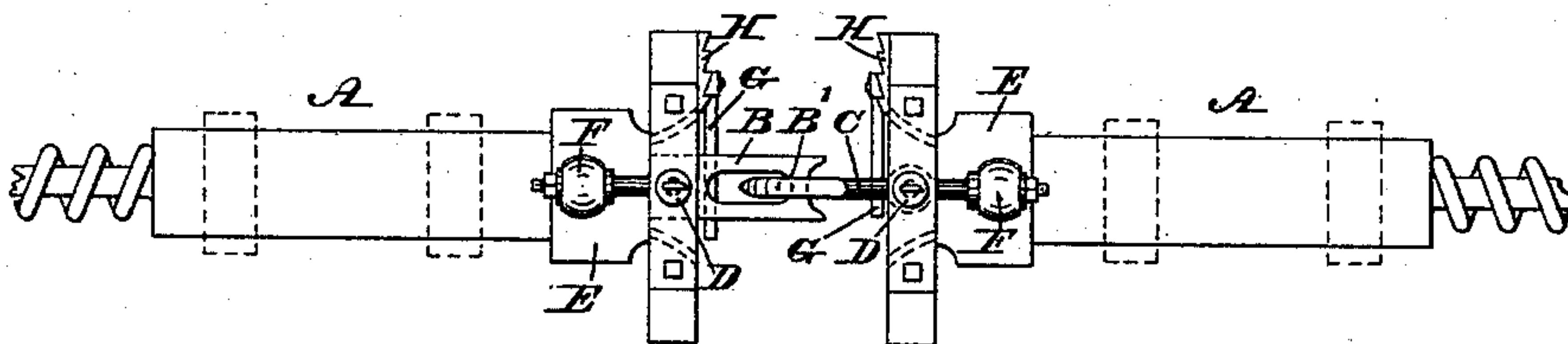


Fig. 2.

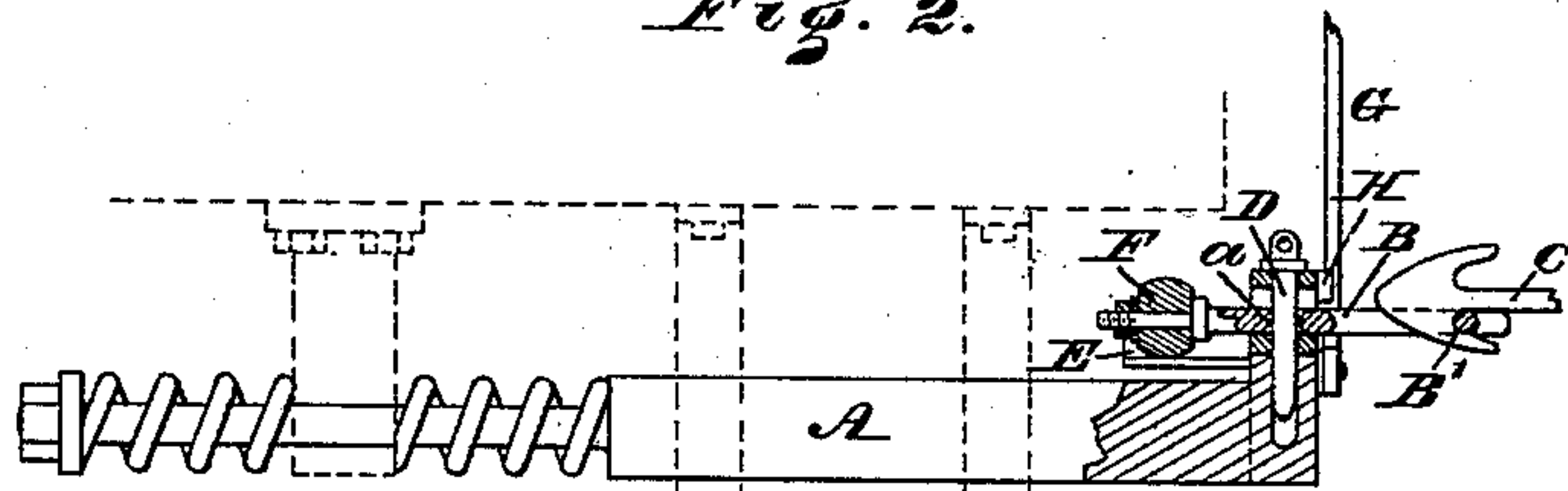


Fig. 3.

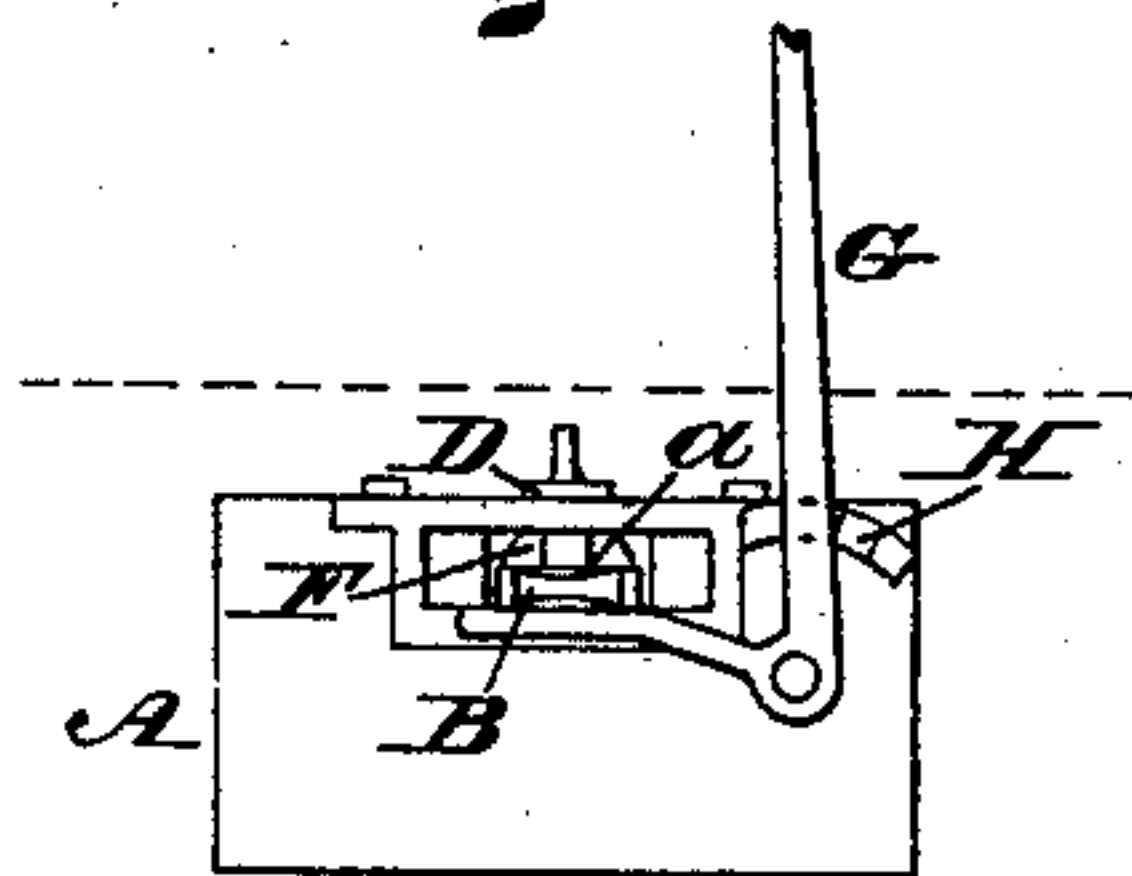
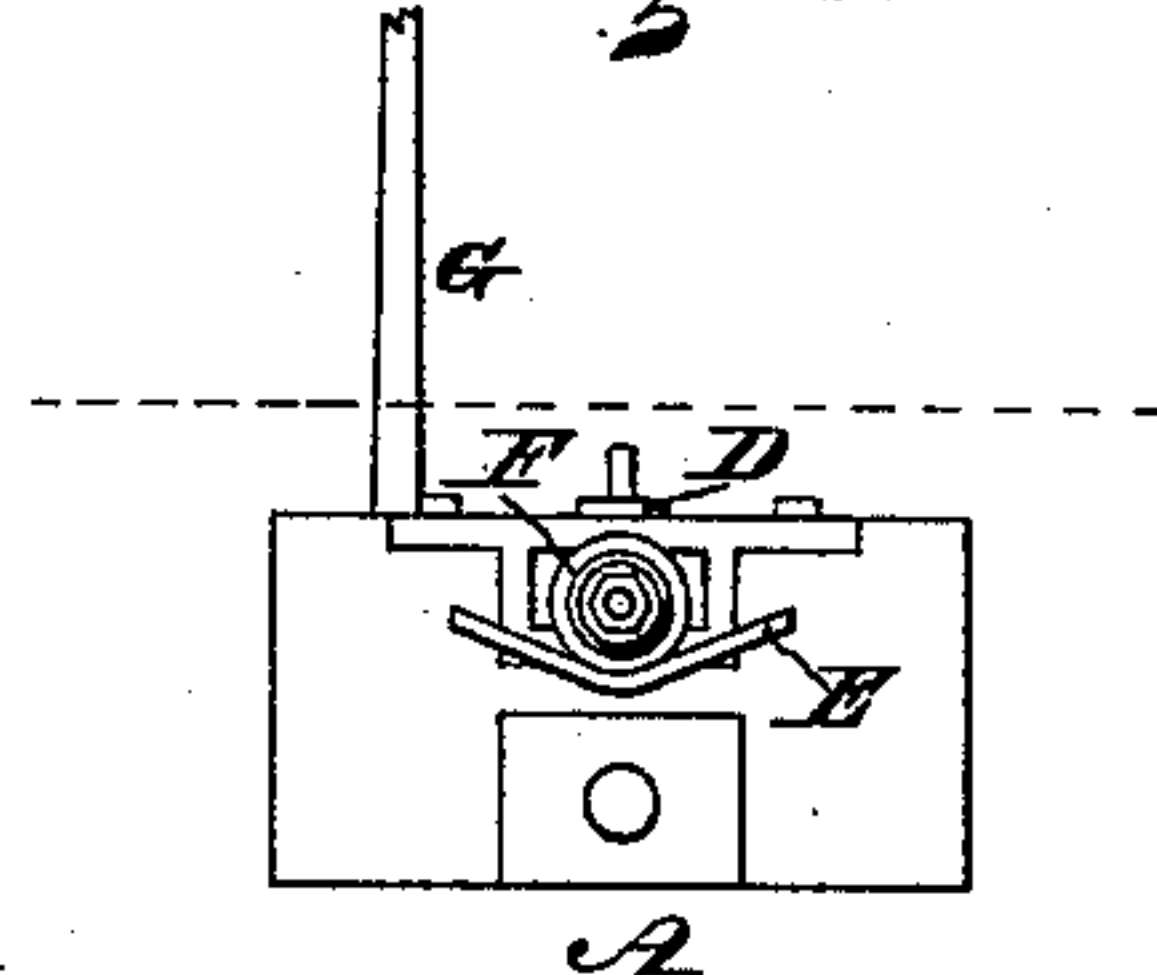


Fig. 4.



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# UNITED STATES PATENT OFFICE.

THEODORE H. SNYDER AND EDWIN V. SNYDER, OF PHILADELPHIA, PA.,  
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## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 347,208, dated August 10, 1886.

Application filed June 17, 1886. Serial No. 205,452. (No model.)

*To all whom it may concern:*

Be it known that we, THEODORE H. SNYDER and EDWIN V. SNYDER, both citizens of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, 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 1 represents a top or plan view of a car-coupling embodying our invention. Fig. 2 represents a partial side elevation and partial vertical section of a portion thereof. Fig. 3 represents a front view thereof. Fig. 4 represents a rear view thereof.

Similar letters of reference indicate corresponding parts in the several figures.

Our invention consists of a car-coupling which operates automatically, is sustained in proper position for coupling and prevented from uncoupling, and may be uncoupled when desired, as will be hereinafter fully set forth.

Referring to the drawings, A represents draw-heads, which in general respects are of usual form. B represents a coupling-link, and C represents a coupling-bar, each of which has an opening, *a*, for the passage of the coupling-pin D, whereby the link and bar are connected with the respective draw-head. On the inner end or rear of each draw-head is a bed or ledge, E, which is V-shaped, concave, or other depressed shape, so that the center thereof is the lowest point, and on the same bears a roller, F, with which the link B and bar C are each provided at their inner ends, it being noticed that the rollers are weighted, so that when they are in their normal position they occupy the centers of the ledges E, and thus keep the coupling link and bar, respectively, in horizontal or approximately horizontal positions, and permit the same to rise and fall and move laterally when so required, it being noticed that the front end of the bar C has the shape of a hook or spear-head, and is adapted to engage with the link.

In order to raise the link and bar for uncoupling or other purposes requiring the same, there are pivoted to the draw-heads the elbow-levers G, which have one of the limbs under the link and the other limb conveniently located so as to be operated. Ratchets H are connected

with the draw-heads, and form means for holding and locking said levers G, which, as will be seen, engage with the teeth of said ratchets. When the cars approach, the head of the bar C rides on the front end of the link B, and then drops into the opening thereof, taking hold of the wall B' of said end of the link, whereby the cars are coupled, the weight of the rollers keeping the hook of the head of the bar in engagement with the wall B', whereby the cars remain reliably coupled, the link and bar vibrating with the motions of the cars, so that strain on the link and bar is prevented. When the cars are at rest and it is desired to uncouple the cars, the latter being more closely together than when they are in motion, the lever G of the bar C is operated so as to raise said bar, whereby its head clears the wall B' of the link B, and thus the bar and link are disconnected, the cars being accordingly uncoupled. When the cars are to be coupled, should either the link or bar require elevation, in order to cause the head of the latter to engage with the former, this is readily accomplished by operating the proper lever, G, the coupling-pin permitting the ascent of the link or bar without necessarily removing said pin. The removal of the link and bar from the draw-head is permitted by raising the coupling-pins clear of said parts.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A car-coupling consisting of a hook-shaped bar and a link, which are connected with the draw-heads by coupling-pins, substantially as and for the purpose set forth.

2. A car-coupling consisting of a bar and link, both having weighted ends supported on beds, substantially as described.

3. A coupling having its inner end weighted and riding on a bed or ledge connected with the draw-head, substantially as and for the purpose set forth.

4. A coupling bar or link connected with the draw-head by a coupling-pin, and having its inner end provided with a roller which rides on a depressed bed or ledge attached to the draw-head, substantially as and for the purpose set forth.

5. A car-coupling consisting of a hooked bar



and a link, which are connected with the draw-heads by coupling-pins, weighted rollers on the inner ends of the bar and link, and depressed ledges attached to the draw-bars and  
5 having the rollers ride thereon, substantially as described.

6. In a car-coupling, a hooked bar and a link connected with the draw-heads by coupling-

pins, in combination with elbow-levers for raising said link and bar without removal of the coupling-pins, substantially as described.

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Witnesses:

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