

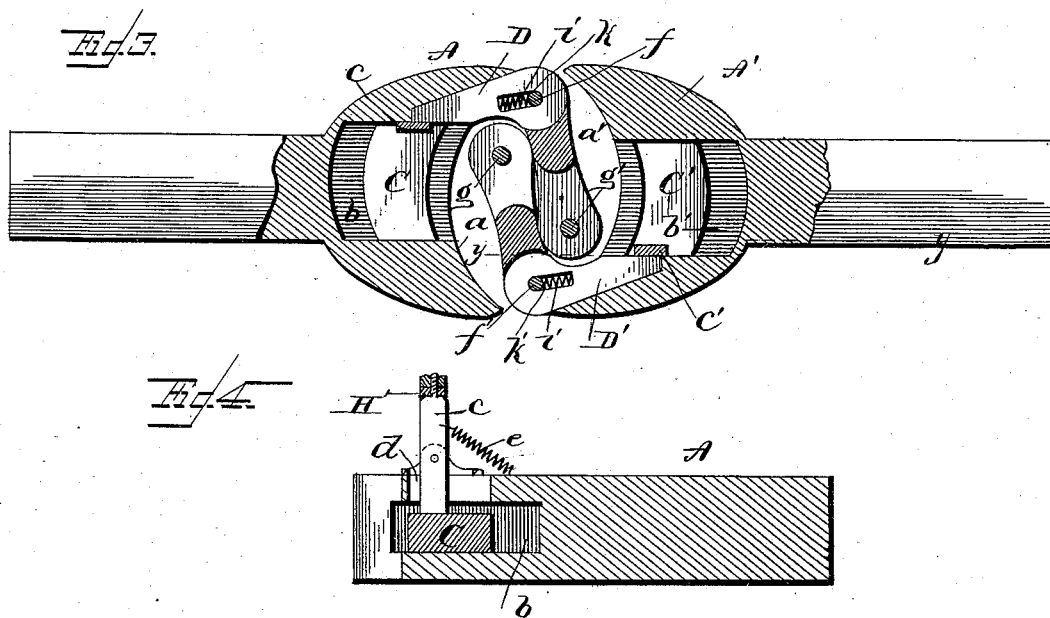
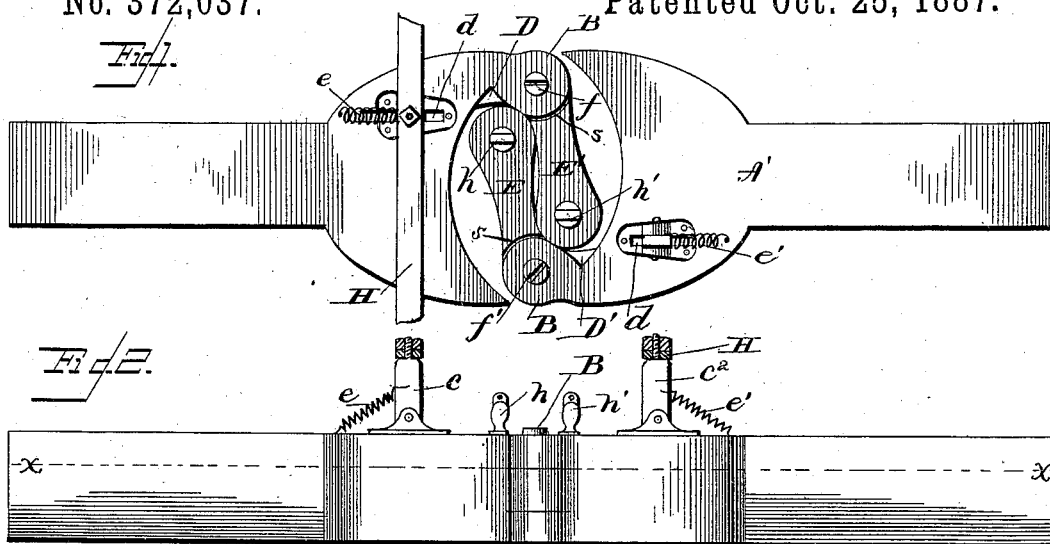
(No Model.)

J. N. MARTIN & W. H. HARRIS.

CAR COUPLING.

No. 372,037.

Patented Oct. 25, 1887.



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# UNITED STATES PATENT OFFICE.

JAMES N. MARTIN AND W. HAML. HARRIS, OF NEWBERRY, SOUTH CAROLINA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 372,037, dated October 25, 1887.

Application filed August 23, 1887. Serial No. 247,664. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES N. MARTIN and W. HAMILTON HARRIS, citizens of the United States, residing at Newberry, in the county of Newberry and State of South Carolina, have 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 appertains to make and use the same.

Our invention has relation to improvements in automatic car-couplings; and it consists in the novel construction and arrangement of parts, as will be hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of our improved coupling. Fig. 2 is a side view thereof. Fig. 3 is a horizontal section on the line *x x*, Fig. 2. Fig. 4 is a longitudinal section on the line *y y*, Fig. 3.

Referring to the drawings, the letters A A' represent the draw-heads of our improved automatic coupling, the front portions of which are made in semicircular or concave form, as shown at *a a'*, which terminate at each one of their ends in rounded bearings B B'. Each of these draw-heads is provided on its inner surface with recesses *b b'*, having communication with openings or slots *d d'*, which extend through the upper surfaces of said draw-heads. Located in the recesses *b b'* are latches C C', which are composed of blocks, made of any suitable material, provided with arms *c c'*, which pass through the slots or openings *d d'* and are pivoted to suitable bearings secured to the upper portions of the draw-heads. The arms *c c'* of the latches C C' have connected to them one end of springs *e e'*, the opposite end of these springs being secured to the draw-heads.

We wish it to be understood that we may locate the springs *e e'* to operate the latches in any other convenient place in connection with the draw-heads.

The letters D D' represent dogs which are pivoted or hinged in the bearings B B' of the draw-heads by means of pins or screws *f f'*. These dogs are provided with jaws E E', having on their outer ends bearings *g g'*, which are provided with coupling-pins *h h'*, whereby

the coupling can be attached to an opposite car having a coupling-link. The inner ends of the jaws are made semicircular in form, as shown at *s s*, Fig. 1, which abut against the rounded surface of the bearings B B', and are adapted to ride thereon, when in operation, for opening or closing said jaws. The dogs are each provided with grooves *i i'*, in which are seated coiled springs *k k'*, having openings at one of their ends; through which the screws *f f'* pass, by means of which the jaws E E' of the dogs have a yielding or back-and-forth motion when said jaws are locked one within the other. The springs *k k'* can be tightened up or loosened, when occasion requires it, by means of said screws. To the upper portions of the arms *c c'* of the latches are secured levers H, by means of which the cars can be uncoupled without going between the same.

The operation of our invention is simple, and is as follows: To couple the cars together the jaws are set so that when the cars come together the outer ends of the jaws strike the dogs, which forces them against the latches, by means of which said latches are forced backward by their spring-arms in the recesses of the draw-heads, and the dogs are secured and loosely held at one side of said latches, so that the said jaws may have a slight yielding movement in the recesses by means of the springs of the dogs when the cars are in motion.

Having now described our invention and the operation thereof, what we claim is—

1. In a car-coupling, the draw-head having a recess and slot provided with a spring-latch, a bearing having a pivoted dog provided with a jaw, said dog also having a spring, and a pin or screw for connecting the bearing, jaw, and spring together, as shown and described.

2. In a car-coupling, the draw-head having a recess and slot in its body portion communicating with each other, a latch consisting of a block having an arm engaging the recess and slot, the dog pivoted to a bearing of the draw-head having a spring, said dog also provided with a pivoted jaw, said latch also provided with a spring, and said dog adapted to engage the latch automatically and held thereto in the recess, substantially as shown and described.

3. In a car-coupling consisting of the draw-

head having a recess and slot communicating  
with each other, a latch consisting of a block  
seated in said recess, said block provided with  
a spring-arm engaging the slot, a spring-jaw  
5 having a dog for engaging the latch and re-  
cess, said dog pivoted to a bearing of the draw-  
head, said jaw also provided with a coupling-  
pin on its outer end, and the arm of the latch  
provided with a lever, the whole combined to  
10 operate substantially as shown and described.

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

J. N. MARTIN.

W. HAML. HARRIS.

Witnesses:

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