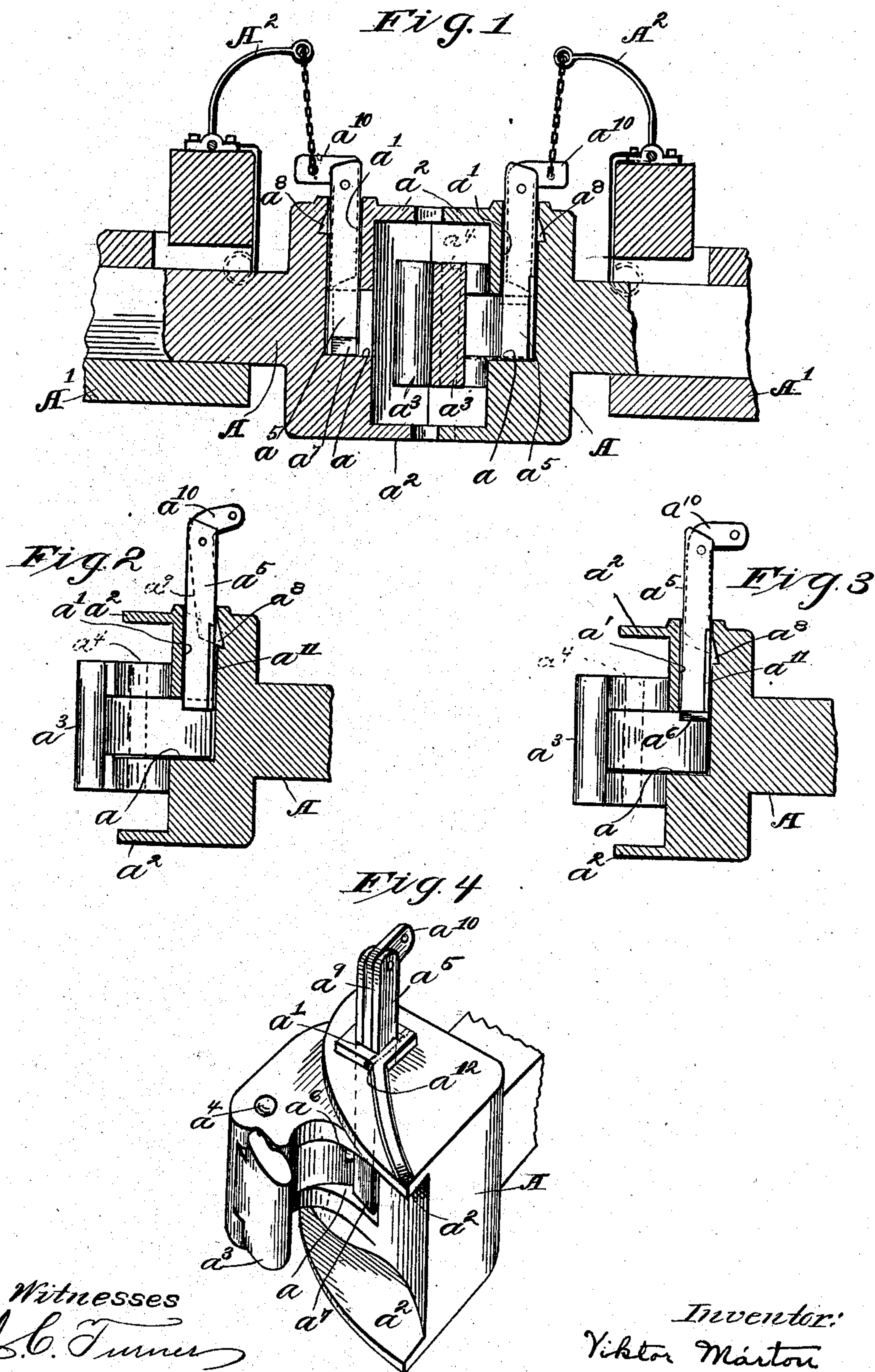


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AUTOMATIC CAR COUPLING.  
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899,604.

Patented Sept. 29, 1908.



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# UNITED STATES PATENT OFFICE.

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## AUTOMATIC CAR-COUPLING.

No. 899,604.

Specification of Letters Patent.

Patented Sept. 29, 1908.

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*To all whom it may concern:*

Be it known that I, VIKTOR MÁRTON, a subject of the King of Hungary, resident of Cleveland, county of Cuyahoga, and State of Ohio, have invented a new and useful Improvement in Automatic Car-Couplers, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

This invention relates to car coupling mechanism of the Janney type, and has among its objects the provision of a coupler of such type wherein the locking pin, upon being secured in inoperative position in order to permit the uncoupling of cars, is rendered potentially operative by the separation of the cars, so that when the latter are again brought together the coupler will be locked without further attention or operation.

Other objects are the provision of improved means for retaining the locking pin against complete removal from the draw-head, and of means for preventing undue vertical reciprocation of the draw-heads, such as would be apt to permit the disengagement of the knuckles.

To the accomplishment of the above and related objects, said invention, then, consists of the means hereinafter fully described and particularly pointed out in the claims.

The annexed drawing and the following description set forth in detail certain mechanism embodying the invention, such disclosed means constituting, however, but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawing: Figure 1 is a central vertical longitudinal section taken through two interengaging couplers wherein are embodied my several improvements; Figs. 2 and 3 are similar sectional views of one such coupler, respectively illustrating the parts in different operative positions; and Fig. 4 is a perspective view of one such coupler.

Neglecting as immaterial any details of the mounting  $A'$  of the draw-head  $A$  and directing attention to the latter alone, such draw-head will be seen to be of the usual form obtaining in the general class of couplers in hand, being formed with a transverse opening  $a$ , wherein a knuckle  $a^3$  held by a pin  $a^4$ , and with a vertical aperture  $a'$  intersecting

such opening, wherein is reciprocable a pin  $a^5$  adapted to lock said knuckle in its inner closed position. The rear end of knuckle  $a^3$  is provided on its upper face with a cam surface  $a^6$  inclining in the direction shown in Fig. 3, and the lower end  $a^7$  of the pin is beveled so as to present a complementary incline, Fig. 4, to such cam surface when properly positioned with reference thereto. The locking pin is adapted to be held to thus present its lower end to the incline on the rear end of the knuckle by means of a latch  $a^9$  provided with a rearwardly extending arm  $a^{10}$ , the lower end of such arm being adapted to engage with a recess  $a^8$  in the aperture  $a'$  wherein the pin is mounted. Movement of the pin beyond the point where the latch thus engages with the recess in the aperture will obviously be effective to dislodge the latch and force the latter again into alignment with the pin, in which position the pin is free to drop to the bottom of the aperture and lock the knuckle. Additional movement requisite to thus render the latch inoperative to retain the pin in its raised position, is had by engagement of the rear end of the knuckle with the lower end of the pin, upon the outward movement of the knuckle incidentally to the separation of the draw-heads.

The operating mechanism  $A^2$  for raising the latch, which may be of any desired construction, (that shown serving purely by way of illustration), is connected with the rearwardly projecting arm  $a^{10}$  of the latch so that when the locking pin is raised the latch will be at the same time swung into position to engage the recess  $a^8$  in the aperture  $a'$  as will be obvious.

To prevent complete withdrawal of the pin it is provided with a lateral offset or flange  $a^{11}$  that is engaged by a pin  $a^{12}$  intersecting the side of the aperture when such locking pin is raised to a corresponding height. In order to prevent undue vertical movement or play of one draw-head relative to the other, each head is formed with plates  $a^2$  on its top and bottom extending forwardly therefrom to one side of the knuckle  $a^3$ . Such plates are thus adapted to inclose the knuckle of the opposite draw-head above and below, whereby the object stated is accomplished.

The operation of my improved coupler should be fairly obvious from the description of its construction just given. Assuming, however, that with the parts in the position



indicated in Fig. 1, it is desired to separate the two draw-heads A, or rather the cars that bear the same, mechanism A<sup>2</sup> is operated to raise the locking pin of one coupler into the position shown in Fig. 2. The knuckle of such coupler is accordingly left free to be drawn outwardly upon either car being pulled away from the other, and such movement of the knuckle, as has been explained, by raising the pin releases the latch and leaves the pin again free to drop to the bottom of the aperture and lock the knuckle as soon as the latter is forced back of its normal position. This of course occurs when the coupler of another car is brought against the first coupler. It will accordingly be evident that my coupler can be placed in condition to permit the withdrawal of the juxtaposed coupler whether it is desired to immediately separate the cars or to push for some distance the one to be ultimately separated. Immediately, however, upon reversal of the movement of the car connected with the engine, the coupling will separate, and, without further attention, the coupler of the car disengaged is left in condition to be again picked up when it is desired to couple another car

thereto. The advantages resulting from this mode of operation should be at once obvious.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the mechanism herein disclosed, provided the means stated by the following claim or the equivalent of such stated means be employed.

I therefore particularly point out and distinctly claim as my invention:—

In a car-coupler, the combination of a draw-head, a knuckle pivotally mounted therein, the rear end of said knuckle being formed with an incline, a pin adapted to engage such rear end of said knuckle to lock the latter against movement, and a latch carried by said pin and adapted to retain the same in position to be engaged by such incline, further movement of said pin, upon such engagement, being adapted to release said latch.

Signed by me this 25th day of January, 1908.

VIKTOR MÁRTON.

Attested by—

MARY ISRAEL,  
JNO. F. OBERLIN.