

(No Model.)

C. H. TAYLOR.
CAR COUPLING.

No. 561,835.

Patented June 9, 1896.

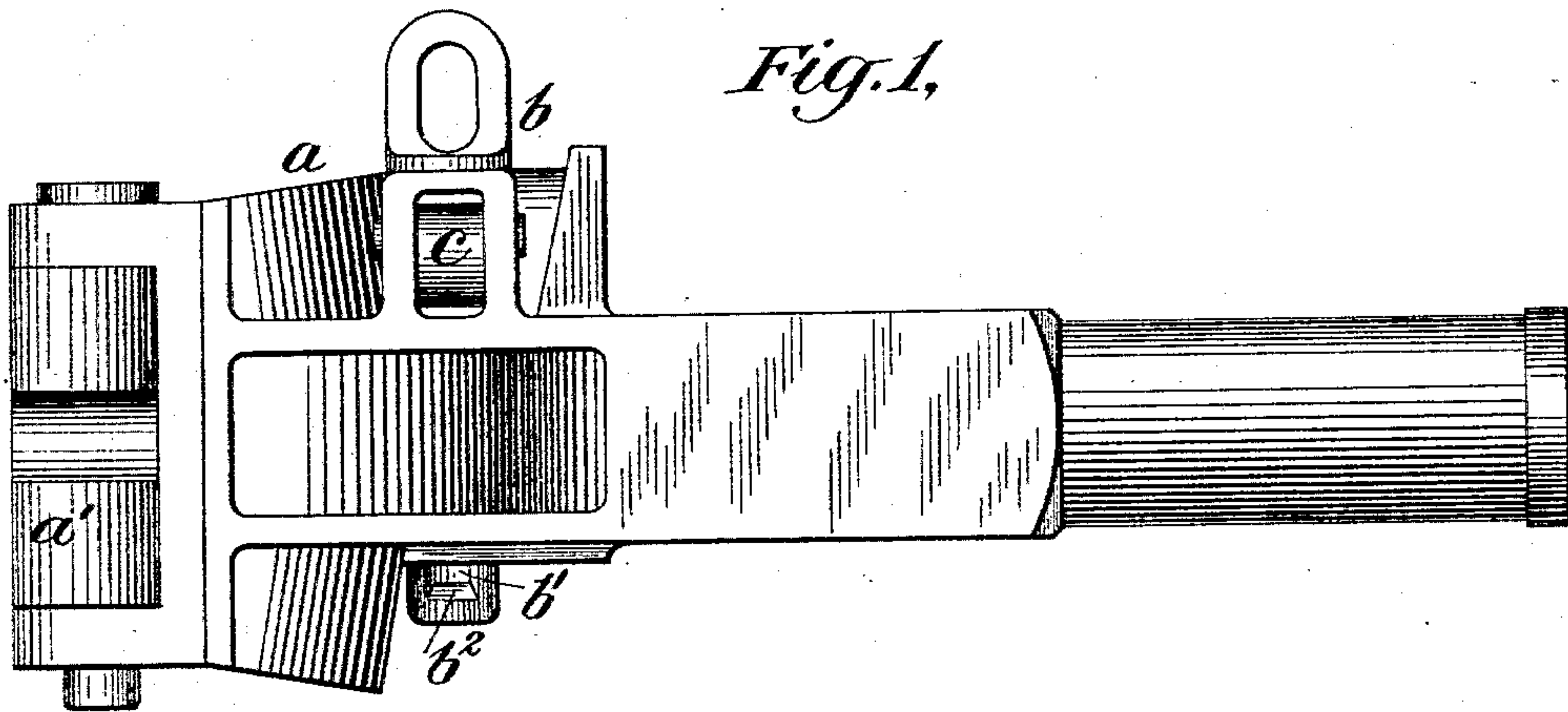
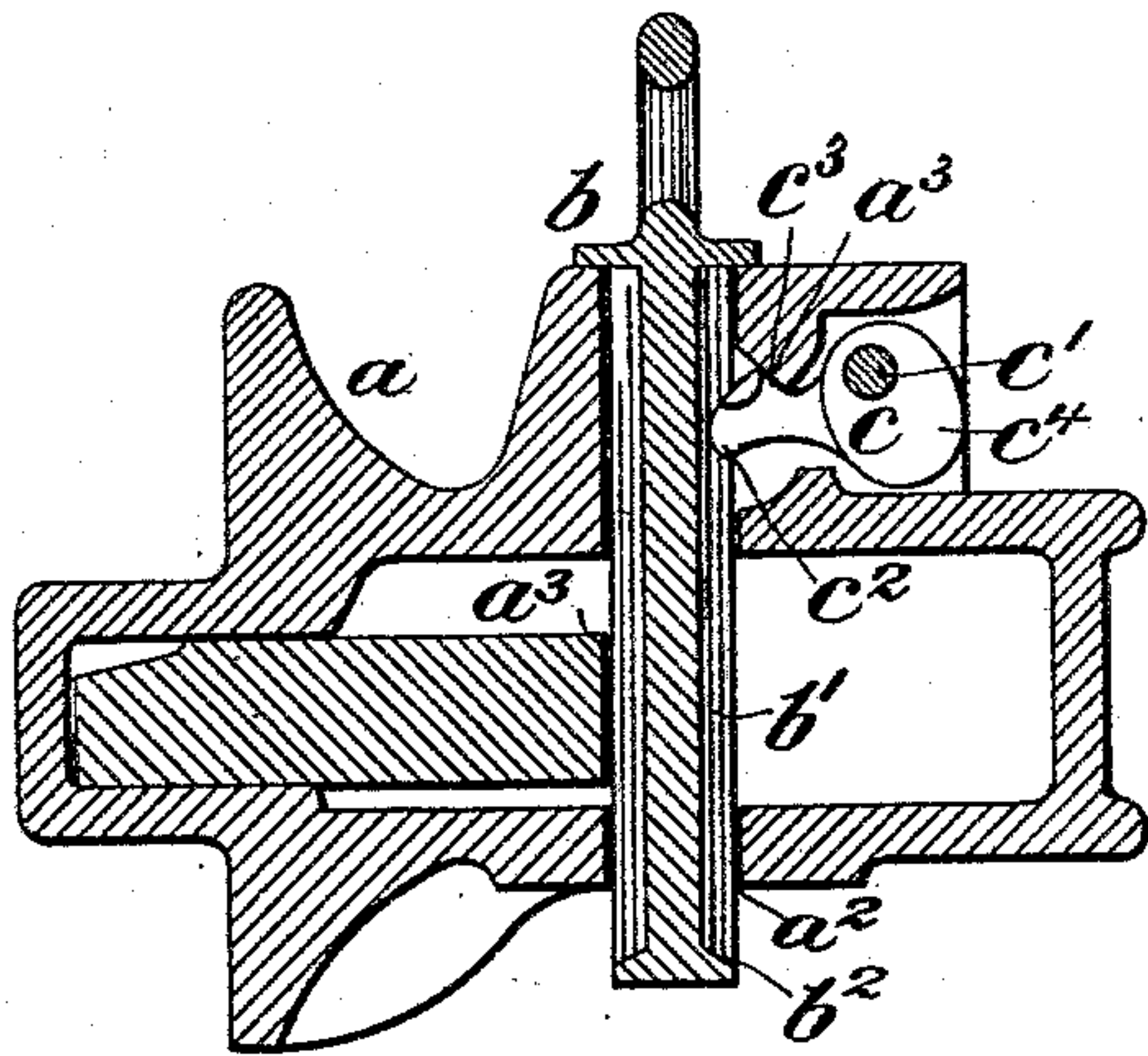


Fig. 2,



Witnesses:

W. H. Hayworth
A. L. Hayes.

Inventor:

Chas. H. Taylor
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UNITED STATES PATENT OFFICE.

CHARLES H. TAYLOR, OF SOUTH ORANGE, NEW JERSEY.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 561,835, dated June 9, 1896.

Application filed April 27, 1895. Serial No. 547,303. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. TAYLOR, a citizen of the United States, and a resident of South Orange, Essex county, and State of New Jersey, have invented new and useful Improvements in Car-Couplers, of which the following description, taken in connection with the drawings herewith accompanying, is a specification.

My invention relates particularly to that class of car-couplers employing a vertically-operating pin or bolt as the means for locking the coupling hook or knuckle in a closed position, and has for its object to provide a cheap and simple device or means for limiting the upward movement of the said locking-pin when being raised to release the coupling-hook, to prevent its being withdrawn from the opening in the draw-head in which it operates. This object I secure by means of the construction and arrangement of parts hereinafter set forth in detail, and pointed out in the claims.

Referring to the drawings, Figure 1 represents a side view of a coupler embodying my invention, and Fig. 2 a vertical section through the draw-head at a line through the locking-pin.

To explain in detail, a represents the draw-head of the coupler, a' the pivoted horizontally-moving coupling hook or knuckle, and b the vertically-operating locking-pin, which is supported within an opening a^2 in the draw-head and adapted to engage with the inner arm a^3 of the coupling-hook to lock the latter in a closed position in a manner well understood by those skilled in the art.

In the present instance, and according to my invention, I have provided the pin b with a longitudinal groove b' in its side, which terminates at a point above the lower end of the same, whereby a wall or projection b^2 is formed, with which latter a pawl c is adapted to engage, as will be described. The said pawl c is pivotally supported at c' in a suitable opening in the draw-head, with one end c^2 projecting in a normal position into the pin-opening a^2 in the draw-head and within the groove b' in the locking-pin, as clearly shown in Fig. 2. When the end of the pawl is in such normal position, it is adapted to engage with the wall or projection

b^2 on the locking-pin, when the latter is raised to release the coupling-hook, and prevent its being pulled or withdrawn from its opening in the draw-head.

The upper edge or surface of the pawl c at a point between its pin-engaging end c^2 and its pivot-support is provided with a part thereof extending at an angle to the line of draft of the locking-pin when engaging therewith, forming a bearing-surface c^3 , which latter is held against a corresponding surface a^3 in the draw-head and is adapted to engage and have its bearing thereon when the locking-pin is drawn against the end of the pawl, in such manner that the strain upon the pivot-pin or support will be relieved, as will be readily understood.

The pawl is movably held in its normal operative position for limiting the movement of the pin as described, in the present instance shown, by reason of its rear end c^4 being weighted or made heavier than its opposite pin-engaging end. It is obvious, however, that a spring or other equivalent means might be employed in lieu of the weight as described and accomplish the same result. In order to remove the pin from its position in the draw-head, it is necessary to move the end c^2 of the pawl away from the path of the projection b^2 on the locking-pin, which is accomplished by raising the rear end c^4 of the pawl and thereby throwing the opposite end into its recess in the draw-head and outside of the pin-opening a^2 . When the end of the pawl is thus located, it will be obvious that the pin may be readily removed without obstruction.

Having thus set forth my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination in a car-coupler, with the coupling device, and a vertically-moving locking pin or bolt provided with a projection thereon, of a pawl pivotally supported in the draw-head of the coupler, with one end movably held in a normal stationary position in the path of said projection on the locking-pin to engage therewith and prevent the upward withdrawal of the pin from the draw-head, and means for movably holding the pawl in such normal stationary position, whereby it may be moved from the path of

said pin and the projection thereon, substantially as described and for the purpose set forth.

2. The combination in a car-coupler, with
5 the coupling device, of a vertically-moving
locking-pin provided with a longitudinal
groove therein terminating at a projection
near the lower end of the pin, a pawl sup-
ported in the draw-head with one end mov-
10 ably held in a normal stationary position ex-
tending into said groove in the locking-pin,
and means for holding the pawl in such po-
sition, substantially as described and for the
purpose set forth.

15 3. The combination in a car-coupler, with

the coupling-hook, and a vertically-moving
locking-pin provided with a projection there-
on, of a pawl pivotally supported in the
draw-head with one end movably held in a
normal position to engage with the projection 20
on the locking-pin, and provided on its up-
per side with an angular bearing-surface ar-
ranged to engage with a like surface with
which the draw-head is provided, substan-
tially as described and for the purpose set 25
forth.

CHAS. H. TAYLOR.

Witnesses:

CHAS. F. DANE,

A. L. HAYES.