

(No Model.)

C. H. SMITH.
CAR COUPLING.

No. 579,020.

Patented Mar. 16, 1897.

Fig. 1.

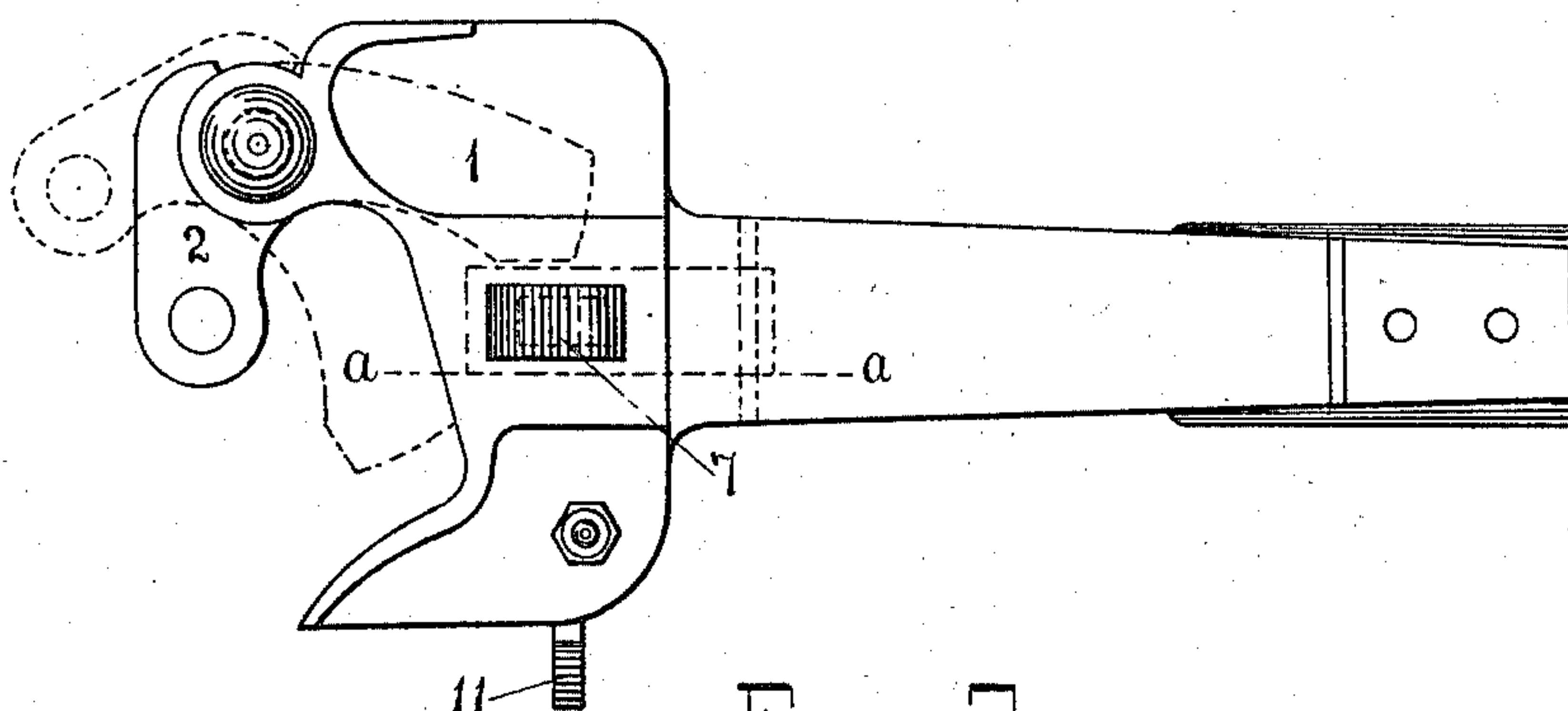


Fig. 2.

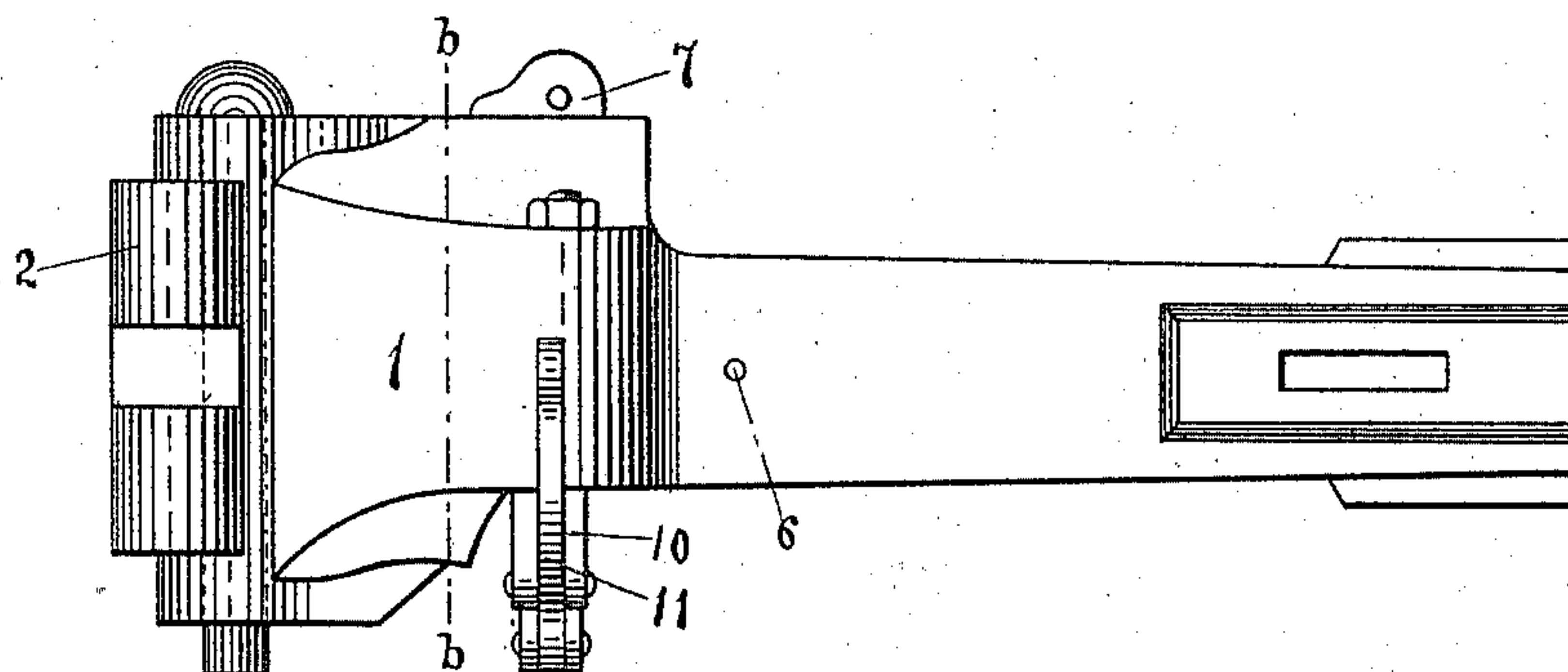


Fig. 3.

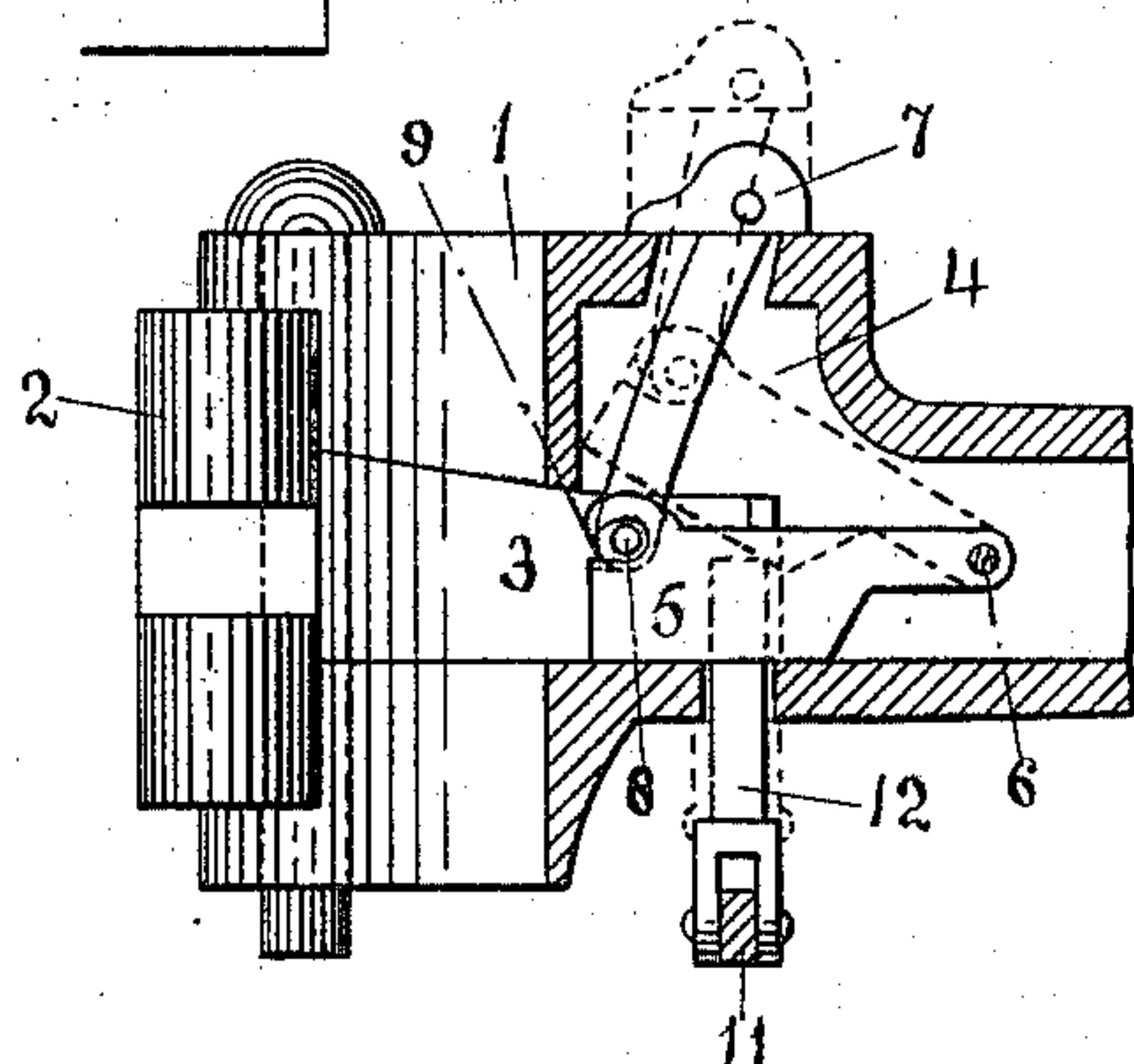
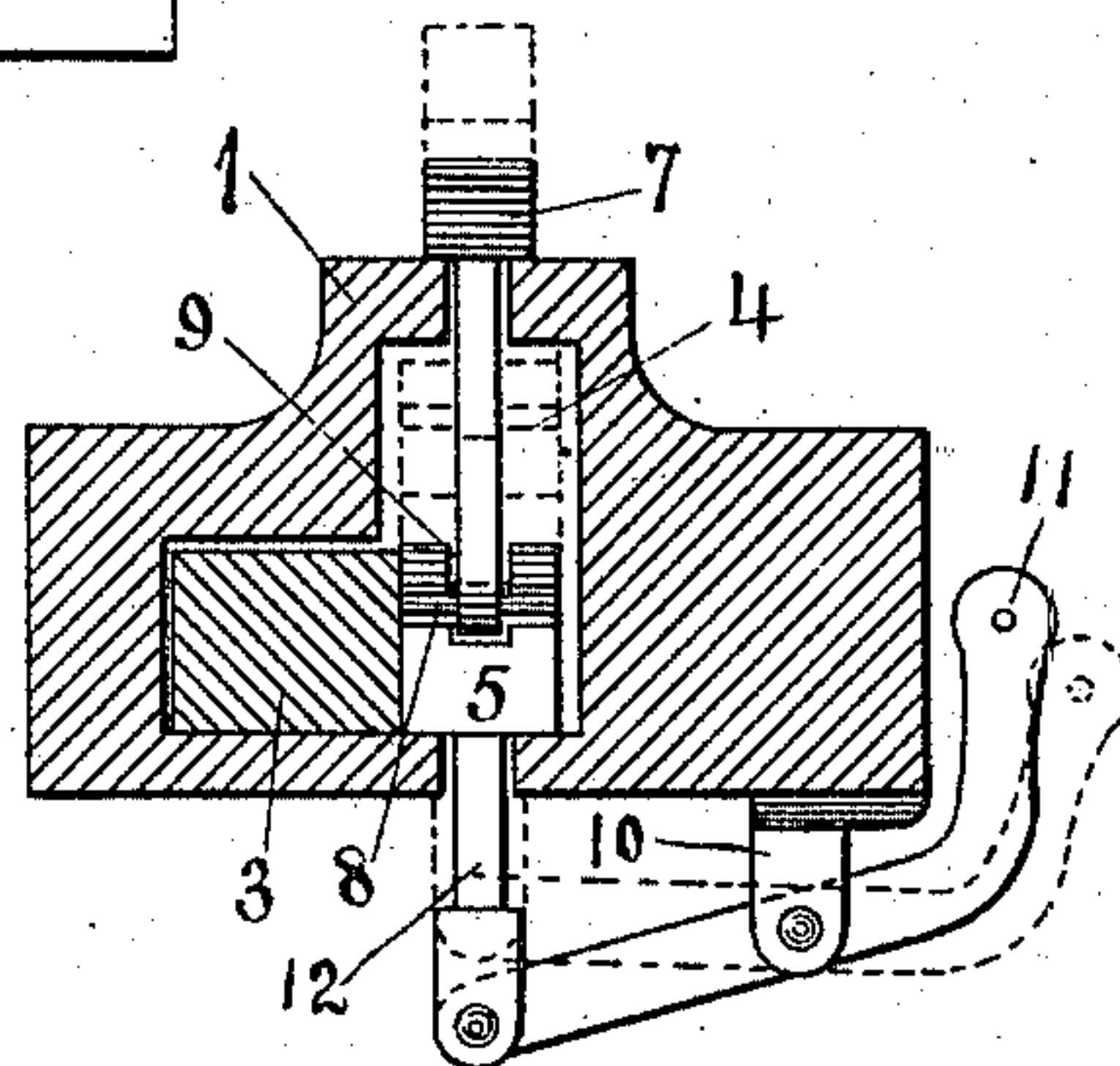


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 579,020, dated March 16, 1897.

Application filed October 12, 1896. Serial No. 608,555. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HENRY SMITH, a citizen of the United States, residing at Birmingham, in the county of Jefferson and State of Alabama, have invented certain new and useful Improvements in Car-Couplers; and I 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.

My invention relates to improvements in that class of car-couplers in which vertical jaws engage to form the coupling; and the objects of my improvement are, first, to provide a vertical-jaw car-coupler with novel and useful improvements in the method of releasing the jaw to adapt it for use on freight or passenger cars, as desired; second, to provide a pivotally-connected tail-block in a vertical-jaw coupler which is adapted for lifting from the top or with a side lever, as desired; third, to provide a car-coupler of the vertical-jaw type having a vertical lift to the tail-block for freight-car use and a lever lift on the side for passenger-car service. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a top view of my improved coupler. Fig. 2 is a vertical side view of the same. Fig. 3 is a detail vertical sectional view of the coupler-head on the line *a a*, showing a side view of the tail-block and lifters. Fig. 4 is a detail cross-sectional view of the same on the line *b b*, showing a front view of the tail-block and lifters.

Similar numerals refer to similar parts throughout the several views.

The draw-head 1 comprises an enlarged forward portion or head, as is usual on this class of couplers, and a rectangular elongated body adapted for securing to the car in the usual manner. The front part of the head is provided with the usual pivotally-connected vertical swinging jaw 2. The jaw is provided with a tail 3. When the jaw is closed, the tail extends backward in a recess formed in the head to receive the same.

There is a recess 4 formed in the back part of coupler-head. The recess extends upward to the outer wall, and also extends backward through the body in the usual manner. The tail-block 5 is made of any suitable material

formed, as shown, a sufficient amount of freedom being left on the sides to allow it to readily operate in the recess. The tail-block is pivotally connected to the body of the draw-head by a suitable pin or journal 6, the journal extending through the walls and secured therein. When the tail-block rests on the bottom of the recess, it locks the tail of the jaw in the position of closed. If the front end of the tail-block is raised, it releases the tail and allows the jaw to open, as shown in dotted lines, Fig. 1.

The tail-block lifter 7 is formed, as shown, having a body adapted to enter an aperture formed in the upper wall of the recess 4. The lower end of the body is provided with a pin 8, secured therein. The pin extends at right angles on both sides of the body. The cross-pin is adapted to enter a recessed groove 9, formed in the front end of the tail-block 5, the groove being slightly curved to form a hooked lip to engage the lifting-pin. The lifter is provided with a head, as shown, the head being adapted to attach a chain or any desired lifting device thereto.

There is a lever stand or bearing 10 attached on the under side of the coupler-head, the bearing being secured thereto in any desired manner. A lever 11 is journaled in the bearing. The upper end of the lever extends vertically on the side of the coupler-head. The lower end of the lever extends transversely on the under side of the same. The inner lower end of the lever is provided with a lifter 12, comprising a bifurcated head pivotally connected to the end of the lever, the head having a rectangular elongated body. The body extends vertically through an aperture to the recess formed in the coupler-head. The upper end of the lifter is in contact with the underside of the tail-block 5. The lever 11, if operated as shown by dotted lines in Fig. 4, lifts the tail-block and allows the jaw to swing open. The head of the lever can be connected by the usual means to the car-platform lever. (Not shown in the drawings.)

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

In a car-coupling, the draw-head, the pivoted jaw, provided with a tailpiece, and the tail-block pivoted at its rear end in the draw-

head, combined with the tail-block lifter 7
loosely attached to the front end of the draw-
head and by means of which the tail-block
can be raised; the bearings 10 on the bottom
5 of the draw-head, the bent lever 11 pivoted
in the bearings, and the lifter 12 pivoted to
the lever, and bearing at its upper end against
the bottom of the tail-block; the tail-block
being provided with a recessed groove, and

the tail-lifter with a cross-pin which catches in
the groove, substantially as shown.

In testimony whereof I affix my signature
in presence of two witnesses.

CHARLES HENRY SMITH.

Witnesses:

W. FRANK KING,
JNO. H. HINE.