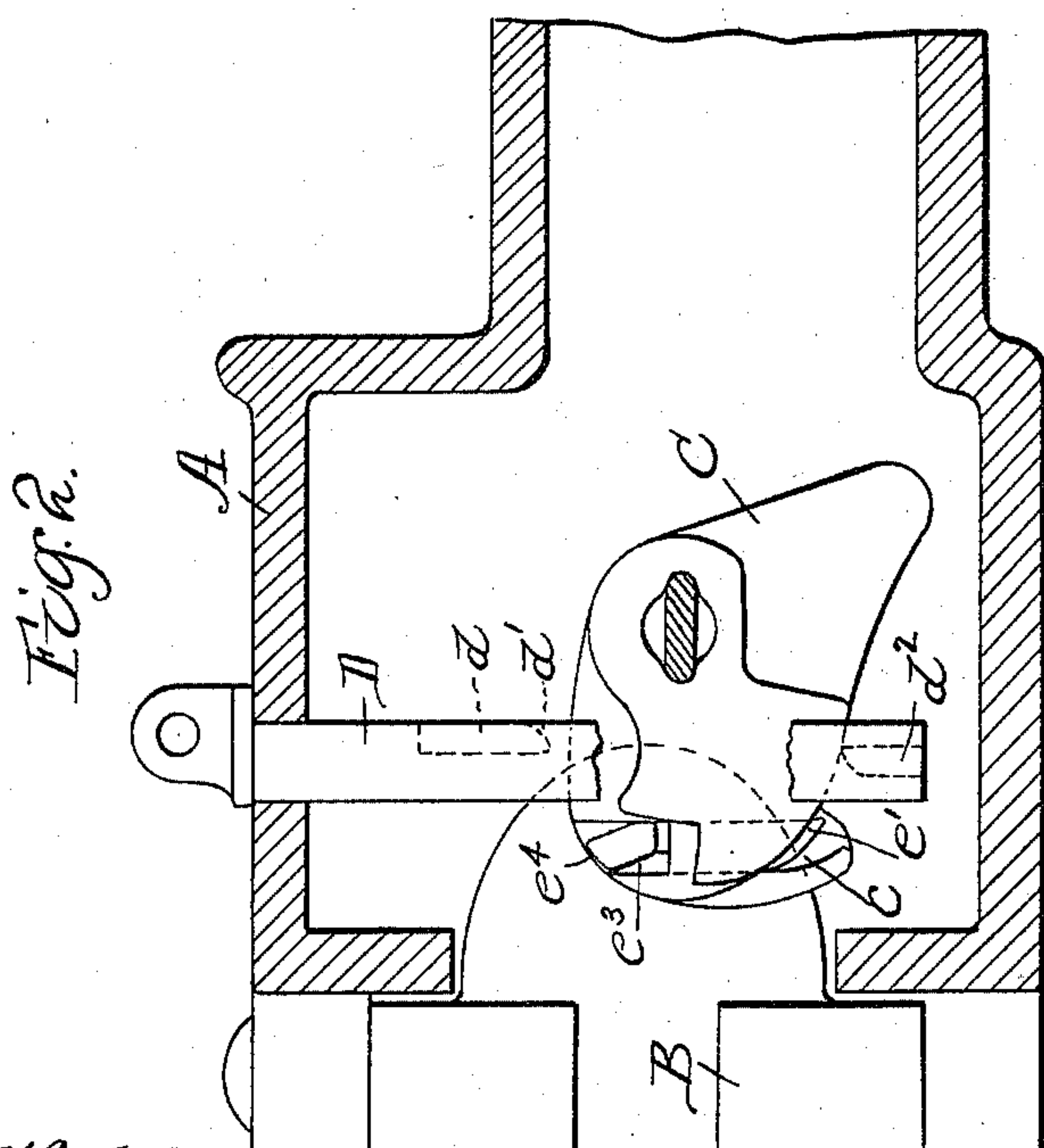
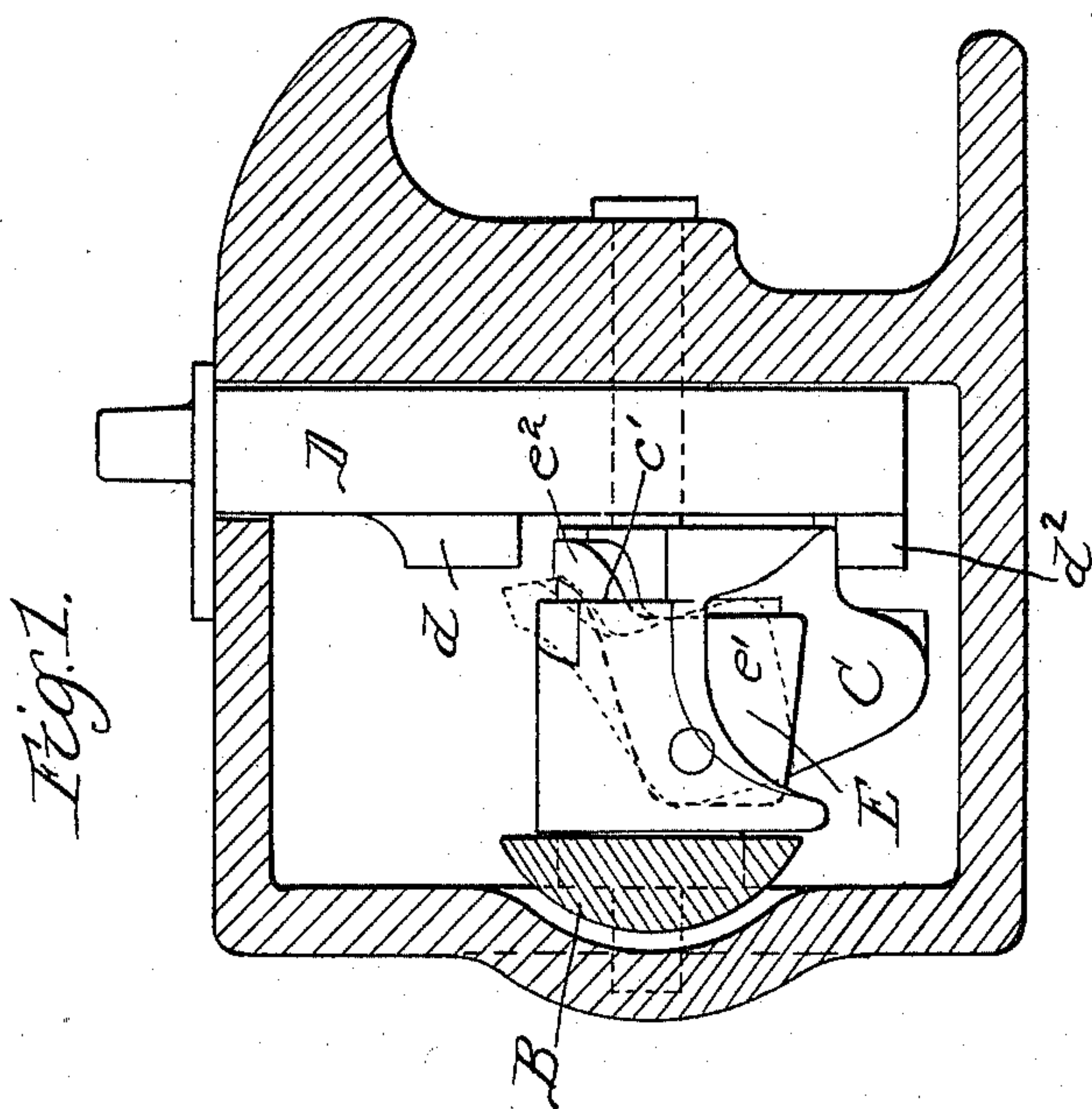


(No Model.)

P. HIEN.
CAR COUPLING.

No. 584,589.

Patented June 15, 1897.



Witnesses.
 S^{rs} M. Rheem.
 A. M. Chamberlain

Fig. 4.

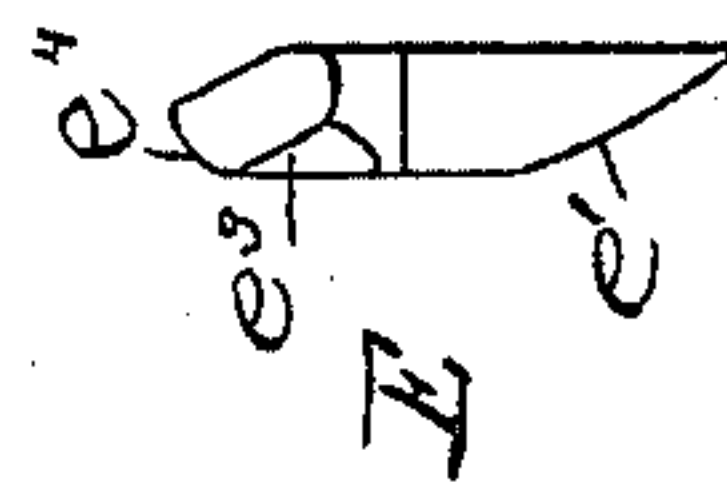
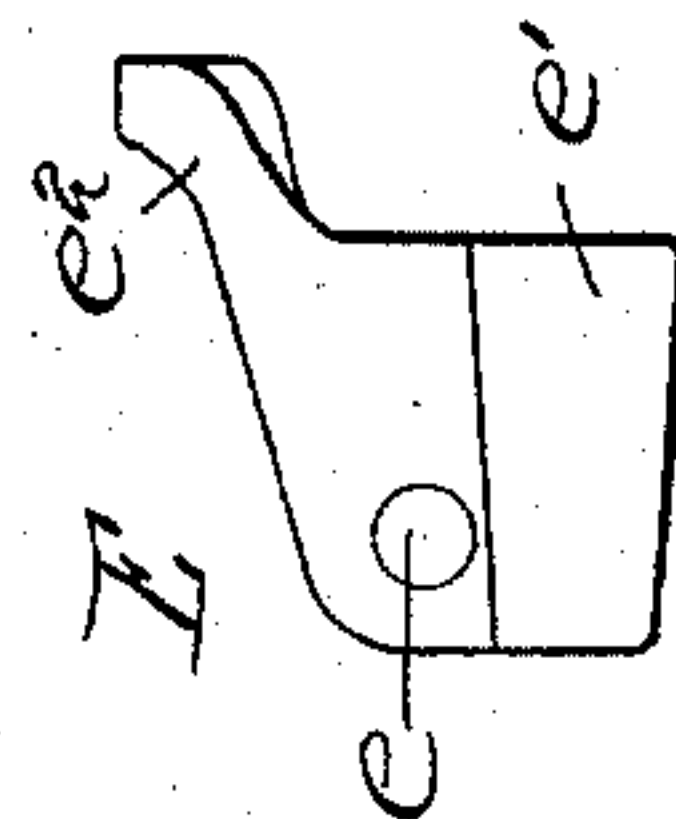


Fig. 3.



Inventor.

by Phillip Kien
Attor. H. Chamberlin
Att'y.

UNITED STATES PATENT OFFICE.

PHILLIP HIEN, OF CHICAGO, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 584,589, dated June 15, 1897.

Application filed July 17, 1896. Serial No. 599,464. (No model.)

To all whom it may concern:

Be it known that I, PHILLIP HIEN, a citizen of the United States, residing at Chicago, county of Cook, State of Illinois, have invented a certain new and useful Improvement in Car-Couplers; and I 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object the production of mechanism for use in connection with the ordinary Master Car-Builders' coupler, whereby the dogging device will be locked or dogged in its dogging position until intentionally moved from that position. That is to say, in the use of couplers as now constructed it frequently happens that the jarring or jolting of the car acts to move the dogging device from its dogging or locking position (its position for holding the knuckle against rotation) and allows the knuckle to rotate and thus uncouple the coupler from the adjacent coupling-head; and my device is in the nature of a supplemental lock to keep the dogging device in its locking position until the dogging device is intentionally moved to its unlocking position by the operator.

In the drawings, Figure 1 is a cross-section of a coupling-head with parts in elevation. Fig. 2 is a longitudinal section of the same with parts in elevation. Fig. 3 is a side elevation of the supplemental dog or lock, and Fig. 4 is an edge elevation of the same.

In carrying out the invention, A represents the usual coupler-head, and B the knuckle.

C is the dogging-block, of a more or less similar shape to that shown in the patent issued to me December 13, 1892, No. 487,926, and D the pin for moving the dogging-block from its locked to its unlocked position, said pin being also of substantially the same shape as that shown in my above-mentioned patent.

Pivoted in a recess in the end of the dogging-block is what I will term a "supplemental" latch E, the pivot extending through the dog and through the orifice *e* in the supplemental latch. This latch is peculiar in shape, as shown in Fig. 3, with a beveled edge or face *e'* and an upwardly and outwardly ex-

tending arm *e*², having a beveled face *e*³ and another beveled face *e*⁴. On the pin D is a projection *d*, having a beveled face *d'*, as shown in Fig. 2.

I will now explain the operation of the device. When the dogging-block C is thrown to its dogging or locking position, as shown in Fig. 2, the beveled face *e'* of the supplemental latch is normally below the surface *c* of the dogging-block C, while the arm *e*² projects beyond the face *c'* of the block, as shown in full lines, Fig. 1. When the parts are in this position, any jolting or jarring of the block C which would tend to rotate the block C on its axle and thus throw it up out of its locking position is prevented, because as soon as it was thrown up to any extent the arm *e*² would come to a bearing against the projection *d* on the pin D; but supposing the operator desires to throw the block to its unlocking position he lifts the pin D, the projection *d*² on the pin acting to tilt the block up, and by the time the projection *e*² has reached the vertical plane of the projection *d* the latter has been raised high enough to clear the projection *e*² and allow the block to be tilted to its unlocked position, and when the pin is again dropped it falls in front of the projection *e*². Should the locking-block not be thrown far enough back, so that the supplemental latch would not clear the pin as it descended and allow the pin to drop in front of it, the pin is prevented from resting on the supplemental latch by the bevel *e*⁴, since when the pin strikes the bevel it will tilt the latch, and consequently the block, out of the way.

Suppose now it is desired to lock the knuckle by throwing down the block C. The beveled face *e*³ on the supplemental lock will come into contact with the beveled face *d'* on the pin and the supplemental latch will be tilted up into the block until the projection *e*² has passed the pin, when it will fall out again and the block C will pass to its locking position. Supposing now that the block is down in its locking position, but the knuckle is unlocked, and it is desired to throw the knuckle to its locked position, when the tail of the knuckle is revolved against the face *c* of the block to tilt the block upward it first comes in contact with the beveled face *e'* of the supplemental latch and throws this latch up-

ward, as indicated by dotted lines, Fig. 1, until the projection e^2 clears the projection d on the pin, when the block C can be tilted up sufficiently to allow the tail of the knuckle to pass behind it, when it will again drop to its locking position. It will thus be seen that the object of my invention is attained by the above mechanism—viz., the dogging-block C is held in its locking position by means of the supplemental latch against any accidental jarring or jolting out of that position because of the supplemental latch coming into contact with the pin, but that at all times when it is the intention to have the dogging-block rotated to lock or unlock the knuckle that object can be accomplished without interference on the part of the supplemental latch.

What I claim is—

- 20 1. In a car-coupler the combination with the knuckle its dogging device and the mechanism for moving the dogging device, of a supplemental lock for holding the dogging device against accidental displacement, said supplemental lock adapted to be shifted by the knuckle when moving to its locked position but remaining unmoved when the dogging device is moved to its unlocking position, substantially as described.
- 30 2. In a car-coupler the combination with the knuckle, the dogging device and the mechanism for moving the dogging device, of a supplemental lock for holding the dogging device against accidental displacement, said supplemental lock adapted when the dogging device is being moved to its unlocking position to remain undisturbed but adapted to be moved by the knuckle when the latter is

moving to its locked position and by the mechanism for moving the dogging device 40 when the dogging device is moved to its locking position, substantially as described.

3. In a car-coupler the combination with the knuckle, the dogging device and a pin for moving the latter, of a supplemental lock 45 pivoted in the dogging device and projecting beyond the face thereof to engage the pin, said knuckle adapted to move the supplemental lock to its unlocking position, substantially as described. 50

4. In a car-coupler the combination with the knuckle, the dogging device and the pin for moving the latter, of a supplemental lock pivoted in the dogging device and projecting 55 beyond the face thereof to engage the pin, said knuckle adapted to move the supplemental lock to its unlocking position, said block-moving pin being independent of the supplemental lock whereby when the block is moved by the pin, the supplemental lock is 60 undisturbed substantially as described.

5. In a car-coupler the combination with the knuckle, the dogging-block and the pin for moving the latter of a supplemental lock 65 pivoted in the block and having two projecting faces beyond the face of the block, one whereby it may be tilted by the knuckle and one whereby it may be tilted by the pin, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses. 70

PHILLIP HIEN.

Witnesses:

DE WITT W. CHAMBERLIN,
W. H. CHAMBERLIN.