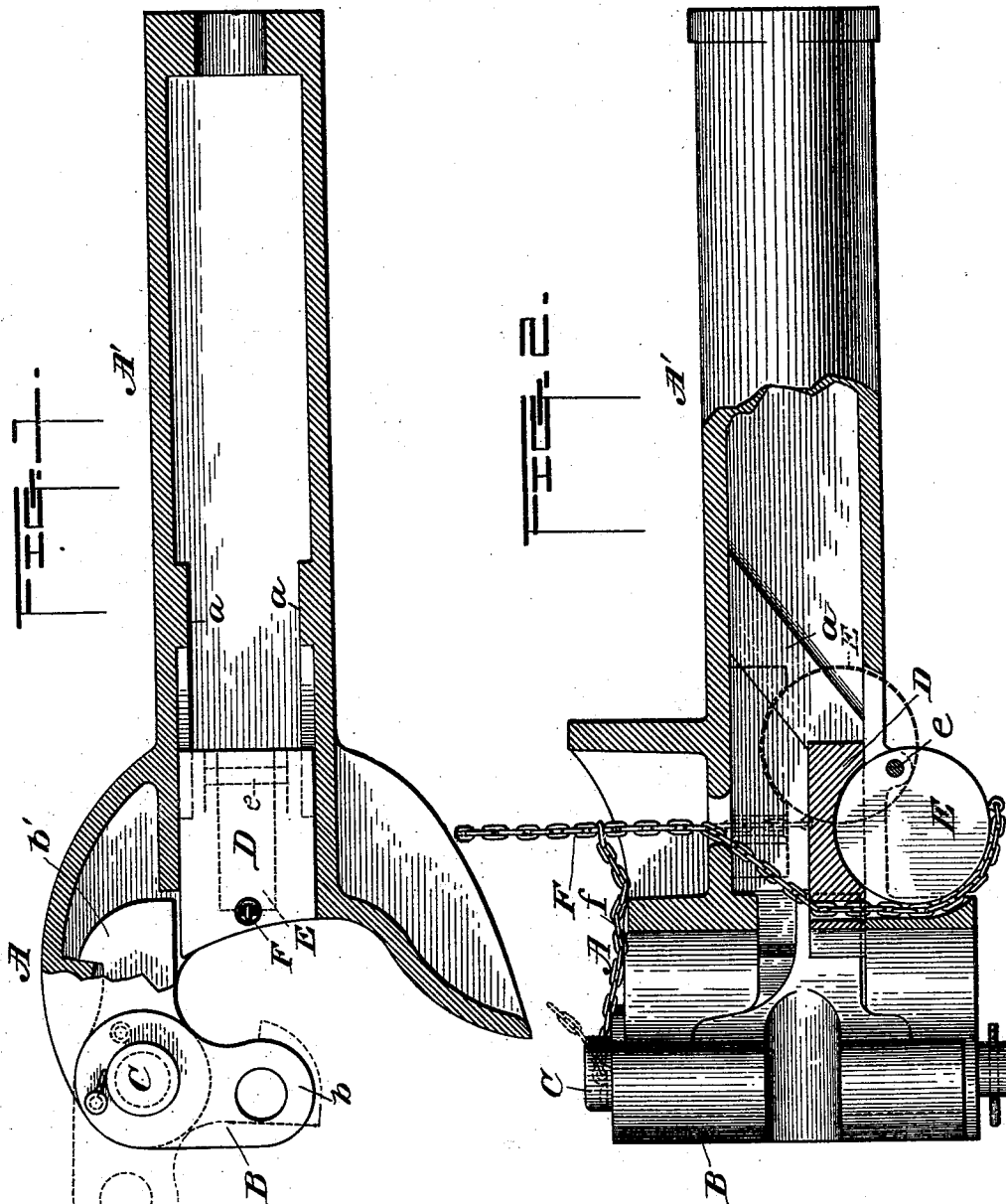


(No Model.)

B. M. WHITLOCK.
CAR COUPLING.

No. 517,506.

Patented Apr. 3, 1894.



Witnesses:

L. A. Comer,
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Inventor.

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UNITED STATES PATENT OFFICE.

BENJAMIN MORRIS WHITLOCK, OF NEW YORK, N. Y., ASSIGNOR TO THE
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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 517,506, dated April 3, 1894.

Application filed January 19, 1894. Serial No. 497,389. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN MORRIS WHITLOCK, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Car-Couplings; 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.

This invention relates to improvements in car couplings, but more particularly to couplings of the Janney type.

The primary object of the invention is to provide improved means for securing the tail-piece or inner arm of the knuckle in the recessed coupler head when the cars are coupled together.

The invention will first be described with reference to the accompanying drawings, which form a part of this specification, and then pointed in the claims at the end of the description.

In the drawings, Figure 1 represents a horizontal section of the coupler head, with the lock and knuckle in plan view; and Fig. 2 is a vertical sectional side elevation of the same.

Similar letters of reference denote similar parts.

A, denotes the coupler head having the usual shank A', and B, the knuckle which latter may be of the form shown or any preferred construction. As shown it consists of an angular or elbow-shaped piece or casting having an outer portion or arm *b*, and an inner portion *b'*, extending at an angle to each other, and pivoted at the angle to one side of the coupler head by means of a suitable pivot pin C. The outer portion *b*, of the knuckle may be bifurcated and perforated, as shown, to adapt the coupling to be used in coupling cars by means of an ordinary link and pin. The inner portion or tail-piece *b'*, is adapted to occupy a recess in the coupler head when in its normal position with the cars coupled together, and to be locked in such position by means of the locking device D, so as to control the position of the main or outer portion *b*, of the knuckle.

The lock D, preferably consists of a block

of metal occupying a recess in the coupler head or shank extending rearwardly of the knuckle and its rear end may rest upon inclines *a, a*, if desired, at either side of the recess in which the block moves, but such inclines may be omitted. The function of these inclines is to guide the rear end or heel of the block and prevent the latter from tipping instead of moving backward and upward when the block is lifted to release the knuckle. The front end of the block D, may be beveled or inclined, as shown, for engagement by the curved or beveled portion *b'*, of the knuckle, so that when the latter is turned from the position shown in dotted lines in Fig. 1, toward the position shown in full lines the tail-piece will engage the block and move the same rearward and upward until the tail-piece has passed the block, whereupon the latter will move by gravity and lock the knuckle in the desired position.

For the purpose of unlocking the knuckle when it is desired to uncouple the cars, I provide an eccentric disk or cam E, over and upon which the block rests; the disk being pivoted at one side of its center to suitable ears or lugs depending from the under side of the coupler head or shank, and working in a slot which extends longitudinally of the coupler head. The block is preferably recessed on its under side to fit over the periphery of the disk, as shown, and it normally rests upon the bottom of the recess in the coupler head with the major portion of the disk below the bottom of the coupler head or shank, so that when the disk is turned upon its eccentric pivot *e*, it will cause the block to move upward and backward into the recess of the shank, to the position shown in dotted lines in Fig. 2, so as to disengage the knuckle. This elevation of the disk and block may be accomplished by means of a chain F, passing through the block or a groove therein at its front end, and connected to the disk some distance below the block and the pivot of the disk; the opposite end of the chain or other flexible connection extending up through an opening in the top of the draw-head in convenient position to be reached when it is desired to unlock the coupling. The chain F, or a branch *f*, thereof, may con-

nect with an arm of the knuckle projecting from the pivot C, opposite the portion *b*, as shown, or with a lever or plate pivoted to the coupler head and engaging said knuckle, as shown in the patent to J. S. Scott, No. 511,279, dated December 19, 1893, in order that when the chain F is pulled the lock-block will first be lifted so as to free the knuckle and afterward the knuckle itself will be turned upon its pivot and thrown open.

It will be seen that by the described construction I produce a very simple, efficient, durable and inexpensive lock, whereby the knuckle is effectively secured in the desired position and may readily be unlocked when it is desired to uncouple the cars.

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

1. The combination with a coupler-head provided with a recess and a knuckle pivotally connected thereto, of a locking device comprising an eccentrically pivoted oscillating disk or cam, a lock-block working in a recess over the disk, and means for actuating the disk so as to impart an upward and backward movement to the block, substantially as described.

2. The combination with the recessed coupler-head provided with a pivoted angular knuckle having a portion capable of swinging into and out of said recess, of a lock-block and an eccentric or cam underneath said block, and means for oscillating the eccentric so as to impart a rearward and upward movement to the block and thereby disengage the knuckle, substantially as described.

3. The combination with a recessed coupler-head provided with a pivoted angular knuckle having a portion capable of swinging into and out of said recess, of a lock-block recessed on its under side, an eccentrically pivoted disk underneath said block and engaging the recess therein, a flexible device or chain extending from the disk past said block and out through an opening in the top of the draw-head, and inclines for guiding the rear end or heel of the block so as to maintain the same in a substantially horizontal position, substantially as described.

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

BENJAMIN MORRIS WHITLOCK.

Witnesses:

N. B. THURSTON,
F. A. RAMSAY.