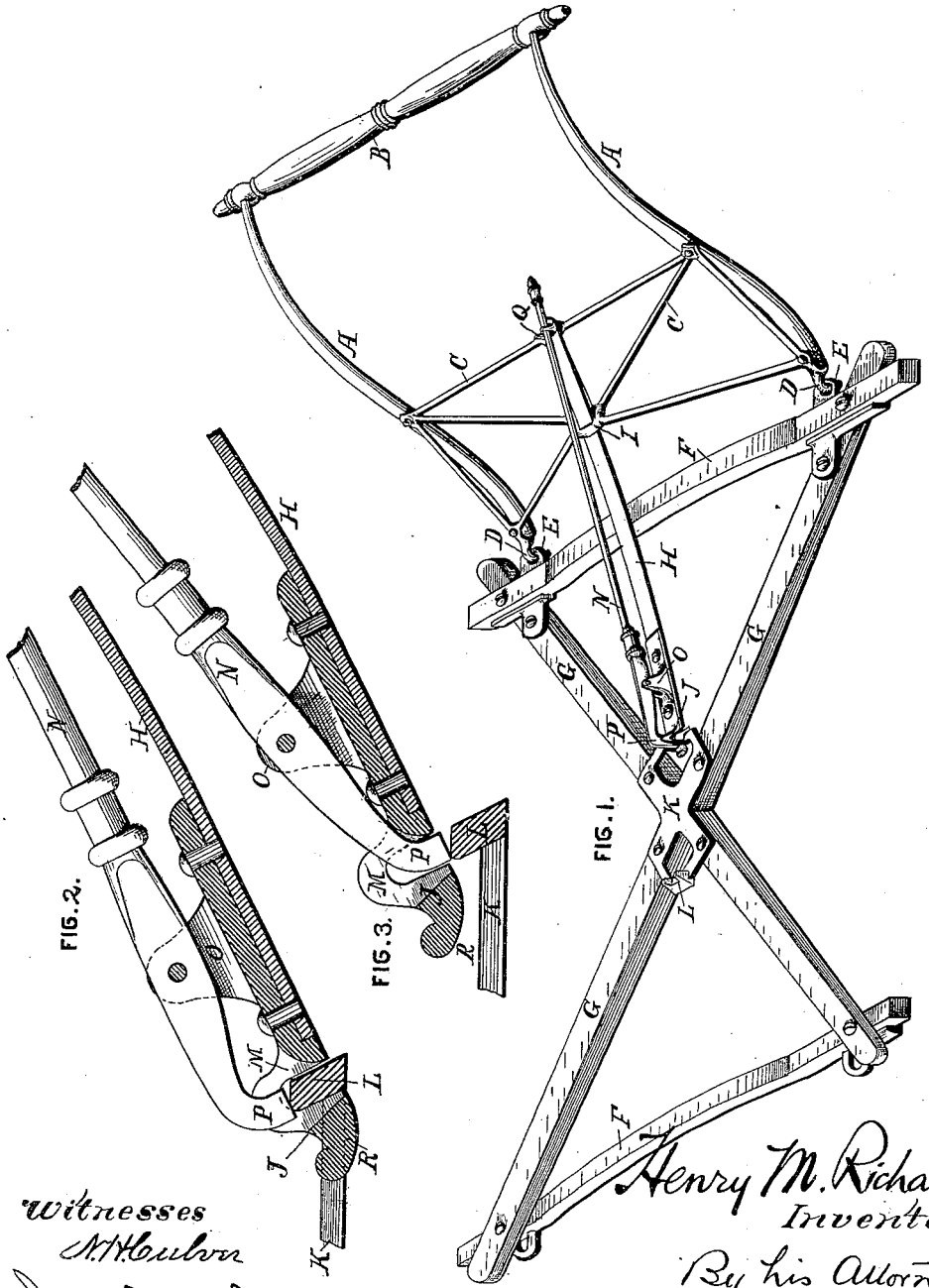
(No Model.) 2 Sheets—Sheet 1.

H. M. RICHARDSON.

REVERSIBLE HANDLE FOR CHILDREN'S CARRIAGES.

No. 265,438. Patented Oct. 3, 1882.



Witnesses
M. M. Coulson
John Dolley

Henry M. Richardson
Inventor
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(No Model.) 2 Sheets—Sheet 2.

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FIG. 4.

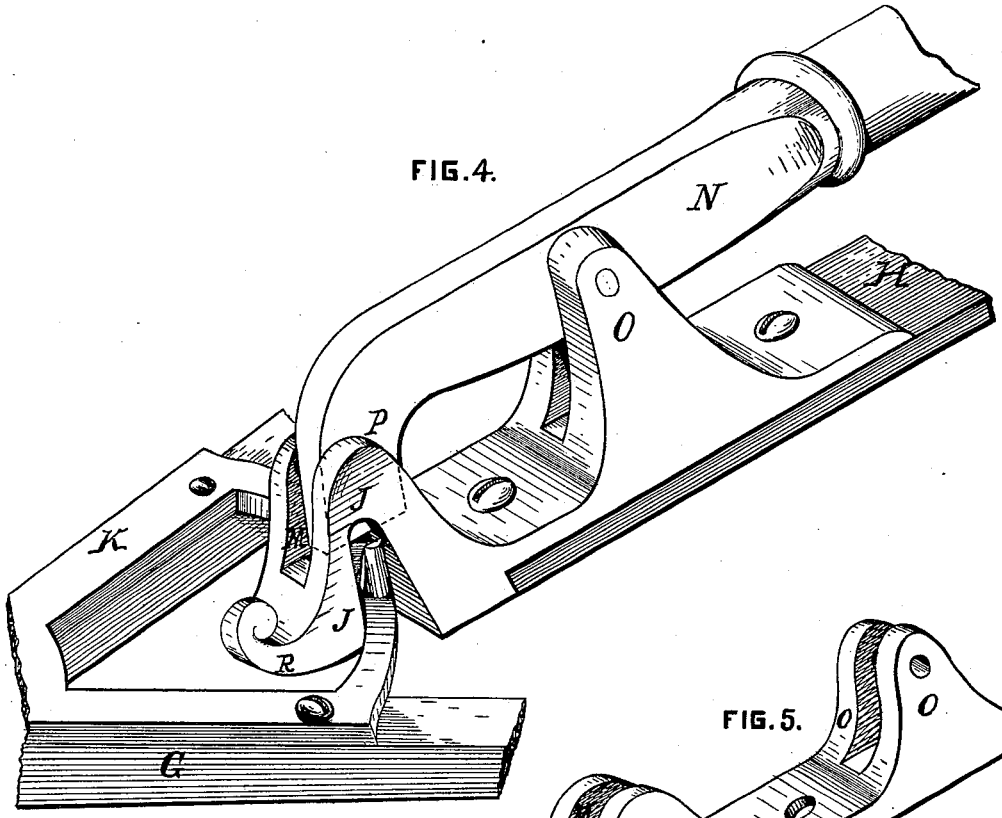


FIG. 5.

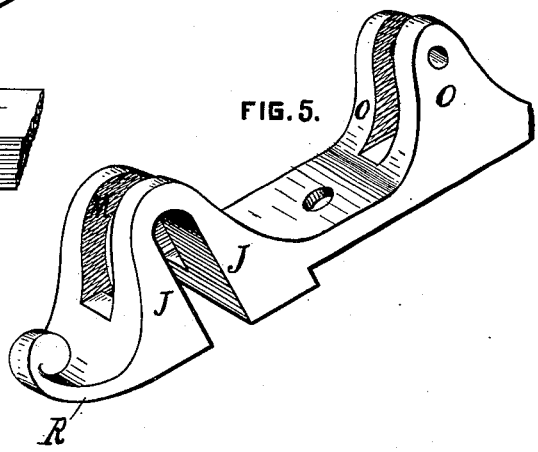
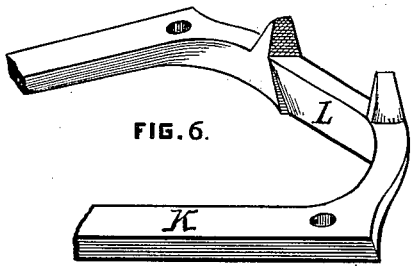


FIG. 6.



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UNITED STATES PATENT OFFICE.

HENRY M. RICHARDSON, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE HALF TO GEORGE McKEE, OF SAME PLACE.

REVERSIBLE HANDLE FOR CHILDREN'S CARRIAGES.

SPECIFICATION forming part of Letters Patent No. 265,438, dated October 3, 1882.

Application filed May 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, HENRY M. RICHARDSON, of Boston, in the Commonwealth of Massachusetts, have invented an Improvement in Reversible Handles for Children's Carriages, of which the following is a specification.

My invention relates in general to that class of devices by which the handles ordinarily applied for the pushing of children's carriages can be unfastened from their normal position at the rear of the coach and reversed or applied to the front thereof, with a view to enabling the pulling of the coach, as opposed to the pushing of it; and it relates specifically to that subdivision of the above class in which detachable connectionship is effected by means of hooks applied to the handles and adapted to be engaged with eyes or kindred retaining devices applied to the axles or perches, in combination with locking devices, also secured to the handles or to the bracket-braces connected therewith, and adapted to be engaged with fixed retaining or engaging contrivances located on the perches.

My invention aims to improve upon the handle invented by Francis W. Whitney, of Leominster, Massachusetts, and patented to the F. A. Whitney Carriage Company in and by Letters Patent No. 176,155, dated April 18, 1876, and also upon that invented by Ferdinand Meinecke, of Milwaukee, Wisconsin, and patented to him in and by Letters Patent No. 220,721, dated October 27, 1879.

The object of my invention is the provision of improved means for locking or engaging the detachable handles to the perch and axle frame-work, and for unlocking or disengaging the same and enabling the reversal thereof.

A preferred construction of a convenient embodiment of my invention is hereinafter described and claimed.

In the accompanying drawings, Figure 1 represents in perspective a reversible handle and perch and axle frame-work embodying my improvements. Figs. 2 and 3 are detailed views, partially in side and partially in sectional elevation of the spring locking-bar and the unlocking-lever, showing also a portion of the locking-plate, which is secured to the perch. In Fig. 2 the parts are represented in the position which they occupy when the handle is locked in place, and in Fig. 3 in the position which they occupy at the moment when the unlocking-lever has been operated to cause the unsetting or unlocking of the spring locking-bar. Fig. 4 is a detailed perspective view of the same parts locked in position; Fig. 5, a similar view of the hook-shaped latch into which the forward extremity of the spring locking-bar is formed, showing also the pivot-keepers of the unlocking-lever; and Fig. 6, a similar view of a part of the locking-plate and of one of the latch-seats.

Similar letters of reference indicate corresponding parts.

In the accompanying drawings, A are the handles, connected together by the usual round or cross-head, B, and by a bracket-brace, C, which may be of the form represented in the drawings, the front extremities of the side bars of which are formed into the usual hooks, D, which are adapted to engage with eyes E, secured to the sides of the front and rear axles, F, or, if desired, to the perches G, all in the usual manner.

H is a spring locking-bar, connected in a rigid manner with the bracket-braces by being passed through a retaining-seat, I, formed in them, and by being riveted or otherwise fixedly attached. This spring locking-bar is best made as a flat steel spring, the front extremity of which is formed into or provided with a hook-shaped latch, J, a preferred form of which is illustrated in the drawings.

K is a double-ended locking-plate, secured centrally between the axles conveniently at the intersection of the perches. It is provided with two latch-seats, L, which are oppositely inclined inwardly and upwardly, as represented. The hook-shaped latch is adapted to hook over or engage with these latch-seats. The front extremity of the latch is formed with an inclined front face, R, adapted to slide over the latch-seat before the latch engages therewith. The hook-shaped latch is centrally slotted at M in the direction of its length.

N is the unlocking-lever, which is fulcrumed or pivoted to the locking-bar, preferably by means of keepers O, formed upon or connected with the locking-bar near its forward extremity. The unlocking-lever, at its outer or front extremity, is turned abruptly downward and formed into a toe, P, which, in the set of the lever with respect to the locking-bar, registers

in line with the hook-shaped latch, and is adapted in the movement of the lever about its fulcrum to pass into the slot through the hook-shaped latch. The rearwardly-extending arm of the unlocking device is parallel with the locking-bar, and extends to the rear of the bracket-braces, being conveniently rested between two lugs or ears, Q, formed thereon.

Such being a construction of a preferred form of my invention, the attachment of the handle is effected by first engaging its hooks within the eyes on the axles, and by then raising up on the handle until the inclined front face, R, of the hook-shaped latch has been pressed or forced over that latch-seat of the locking-plate which is nearest to the axle, with which the handle is then connected, and until the hook-shaped latch has sprung over and engaged with said latch-seat. This operation is due partially to the upward and forward lift of the handle, as described, and partially to the tension exerted upon the spring locking-bar, which bar counteracts or resists the lift of the handle until such moment as the front face of the hook-shaped latch has passed over the latch-seat, at which time the tension heretofore exerted by the resistance of said front face and the set of the spring is overcome, and the spring locking-bar springs down, so as to engage its latch with the seat. During this operation of engagement the unlocking-lever plays no part. When, however, it is desired to disengage the handle for the purpose of reversing it, the rearwardly-extending extremity of the unlocking-lever is grasped by the hand and lifted upward, with the result that, inasmuch as the toe of the lever, which in the locked position of parts rests upon the seat, cannot displace itself from the seat, the spring locking-lever is lifted by its pivot by and together with the unlocking-lever, and its hook-shaped latch lifted or disengaged from the seat, whereupon the handle is unlocked, and can be removed.

The operation of application or removal of the handle is the same as to either end of the carriage, inasmuch as the latch-seat, as explained, is double.

Such being a description of the operation of my device, it will be readily understood that when the handle is applied the tendency of the spring locking-lever, which in its locked position is slightly bent upward at its outer end, will be to hold down upon the latch-seat—an action with which the inclined construction of said latch-seat and the correspondingly-inclined shape of the latch co-operate. The connection is strong and secure, and disengagement cannot be effected without the unlocking-lever unless considerable force be applied to the hook-shaped latch itself to spring it forcibly upward and from off its seat. In the locked position the handle of the unlocking-lever is of course held down upon the bracket-brace between the lugs Q.

While I have recited and represented in the drawings certain definite constructions of parts—as, for instance, the attachment of the hook-shaped latch as a separate member to the front extremity of the spring locking-bar and the attachment of latch-seats of a specific form to the perches at their intersection—it is yet obvious that the form of the locking-plate which supports the latch-seats, or of the seats themselves, may be modified without departing from the essential principles of their construction in which their value resides.

It is also obvious that the spring locking-bar may itself be forged into a suitably-shaped latch or hook for engagement with the seat; that while the unlocking-lever is provided with a downwardly-turned toe, yet by an extension of the slot upwardly through the lower extremity of the spring locking-bar the lever can be made operative without being formed into a toe; that the lever may be so applied to the spring locking-bar as to operate to the side thereof, thus dispensing with the slot, or may be bifurcated to embrace the latch and operate to the sides of the latch.

Having thus described my invention, I claim—

1. In combination with a detachable handle provided with suitable means to secure it removably to the axle and perch frame-work of a carriage, a spring locking-bar provided with a hook or latch at its outer extremity, and with an unlocking-lever pivoted thereto, and a latch seat or catch for the hook or latch affixed to said axle and perch frame-work.

2. In combination, a hook-shaped latch slotted in the direction of its length and affixed to or formed upon the forward extremity of a spring locking-bar, which bar is connected with a detachable handle, and an unlocking-lever pivoted to said spring locking-bar, and provided with a toe adapted to register in line with and, upon the vibration of the lever about its pivot, enter the slot in the locking-bar.

3. In combination with a detachable handle adapted to be hooked or otherwise secured to either end of an axle and perch frame-work, a spring locking-bar provided with a hook-shaped latch at its outer end and with a lever pivoted to said locking-bar.

4. In combination, a detachable handle, a perch or axle frame-work provided with a latch seat or catch, a spring locking-bar attached to said handle and provided with a hook or latch at its outer extremity, and an unlocking-lever pivoted to said locking-bar, all so combined that power applied to one end of said unlocking-lever will cause the other end of said lever to strike against the perch or axle frame-work, or an attachment thereof, and thereby detach the hook or catch of the locking-bar from its seat on the frame-work.

In testimony whereof I have hereunto signed my name this 10th day of May, A. D. 1882.

H. M. RICHARDSON.

In presence of—
FREDERICK P. FISH,
ANNIE J. LOCKE.