(No Model.)

W. OSTENDORFF.

HORSE DETACHER AND WAGON BRAKE.

No. 589,612. Patented Sept. 7, 1897.

Fig. 1.

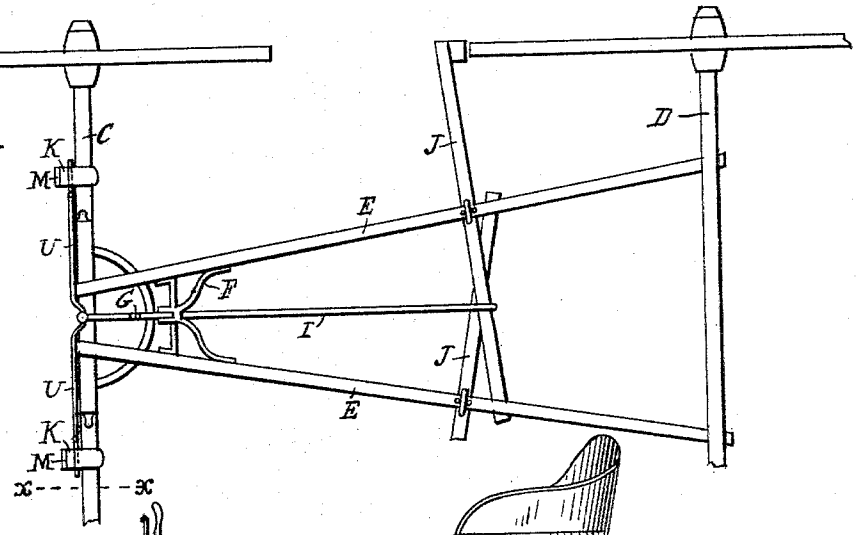


Fig. 2.

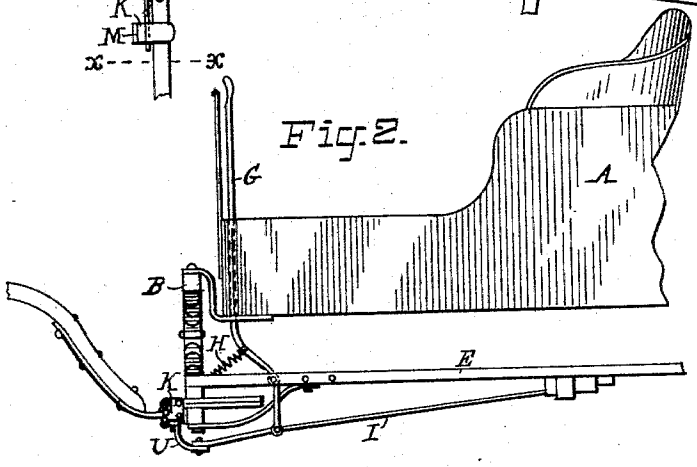


Fig. 3.

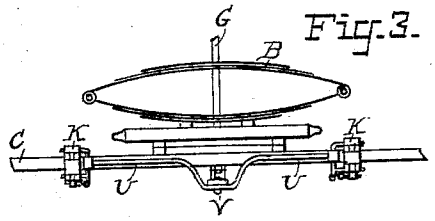
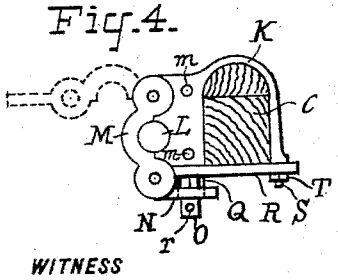


Fig. 4.



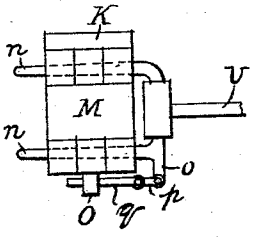
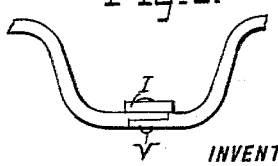


Fig. 5.



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HORSE-DETACHER AND WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 589,612, dated September 7, 1897.

Application filed May 28, 1897. Serial No. 638,489. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM OSTENDORFF, a citizen of the United States, residing at Union Hill, New Jersey, have invented certain new and useful Improvements in a Combined Horse-Detacher and Wagon-Brake, of which the following is a specification.

My invention relates to that class of horse-detachers and wagon-brakes which operate by freeing the thills from the axle-clips and at the same time setting the brakes against the wheels to bring the vehicle to a standstill, and my improvements are directed particularly to certain novel means for securing these results, as is hereinafter more fully set forth.

In the drawings, Figure 1 is a plan view of the running-gear of a buggy, showing my improved detacher and brake. Fig. 2 is a side elevation of the same, showing also the spring and part of the body of the buggy, the rear wheel and axle shown in Fig. 1 being broken off. Fig. 3 is a front elevation of the front axle, showing the thill-detaching mechanism. Fig. 4 is a cross-sectional view of the axle, taken on the lines x x of Fig. 1; and Fig. 5 is an enlarged view of the thill-clip and attachments and the unlocking-levers, the levers being shortened by breaking away a portion.

Similar letters of reference designate similar parts in all the figures.

A is the body of the buggy, which is mounted upon springs B of any usual form.

C is the front axle, and D the rear axle, of the vehicle.

E E are the reaches, between which is mounted a bracket F, which supports the operating-lever G. This lever G projects up through the bottom of the vehicle-body, so that it may be readily grasped by the driver or other occupant of the vehicle, and is kept normally in the position shown in Fig. 1 by means of a coiled spring H, connected with the forward part of the running-gear.

I is the rod, connected with the lower end of the lever G, by which it is supported, and connected rearwardly with the brake-bars J J, which are supported by the reaches E E. One end of each brake-bar passes under the reach farthest from its point of contact with the wheel and is pivotally connected with the opposite reach, so that when the rod I is thrown forward the brakes will be set against the wheels and when the motion is reversed the brakes will be unset.

The thill-clips K K are made in a novel form, being provided with sockets L and pivoted front portions M M. From the bottom of the hinged portion M depends a link N, which is provided with a slot to allow it to pass over the end of a pin O, which depends from the lower side of the clip and is threaded at its base to receive the nut Q to hold the strap R in place for securing the clip to the axle in connection with the rear bolt S and a nut T.

m m are holes in the body of the clip K, in which slide fingers n n, bearing the depending arm o, to which is connected, by a link p, a lock-pin q, adapted to fit in a hole r in the pin O, so as to prevent the dropping down of the link N. This construction is the same for each clip.

The shank of the fingers n n passes loosely through a hole in the end of a lever U, which can swing on the shank as a pivot, which is pivotally connected at V with the end of a corresponding lever from the other side of the axle by a bolt or pin which secures both levers to the end of the rod I. The inner ends of the levers U U are bent rearward, so as to be beneath the axle, as shown, so that the pivotal point is directly in line with the longitudinal axis of the king-bolt. This permits the front axle to swing upon the king-bolt without throwing the thill-detaching mechanism out of its normal position.

It will be understood that the ends of the levers U might be thrown above instead of below the axle C, in which case the end of the rod I would have to be raised also.

The operation of my device is as follows: When it is desired, because of a runaway or for other reasons, to detach the thills from their clips, the hand-lever G is drawn back against the action of the spring H, which movement throws forward the rod I and presses outward the inner ends of the levers U U. This movement draws in the outward ends of the levers U U, causing the fingers n n to slide in their guideways m m and through the link p to draw out the pin q from its socket r in the pin O. This leaves the link N unsupported, so that it will fall of its own

weight, when the drag of the thills will cause the hinged portions M to fly forward and upward, as shown by the dotted lines in Fig. 4. The hole in the end of the thill-irons is made sufficiently large to allow this hinged portion to pass easily through it, so that the thills will readily clear the clips. The brakes are so adjusted that they are not set against the wheels until the rod I has moved far enough forward to disconnect the thills, so that the horse is detached before the brakes are applied.

By means of my improved construction I secure a horse-detacher and brake which are simply and easily operated by one continuous direct movement of a lever. All the parts are so arranged as not to be unduly conspicuous.

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

1. The combination, in a thill-detaching device, of the axle of a vehicle, a pair of thills, provided with cross-bolts in the ends thereof, a pair of clips each consisting of an anteriorly-socketed body portion, provided with a depending, perforated pin, and a detachable, posteriorly-socketed portion, hinged at the upper end to said body portion, and having an eyeleted link hinged to the lower end and adapted to engage with said depending pin, and a locking-pin seated in the perforation in said depending pin, substantially as described.

2. The combination, in a thill-detaching device, of the axle of a vehicle, a pair of thills, provided with cross-bolts in the ends thereof, a pair of clips each consisting of an anteriorly-socketed body portion provided with transverse guideways, and a depending, perforated pin, and a detachable, posteriorly-socketed portion, hinged at the upper end to said body portion, and having an eyeleted link hinged to the lower end and adapted to engage with said depending pin, guides sliding in said guideways, and a locking-pin linked to said guides and seated in the perforation in said depending pin, substantially as described.

3. The combination, in a thill-detaching device, of the axle of a vehicle, a pair of thills provided with cross-bolts in the ends thereof, a pair of clips each consisting of an anteriorly-socketed body portion provided with transverse guideways and a depending, perforated pin, and a detachable, posteriorly-socketed portion, hinged at the upper end to said body portion, and having an eyeleted link hinged to the lower end and adapted to engage with said depending pin, guides sliding in said guideways and connected by a vertical shank, a locking-pin linked to the lower end of said shank, and seated in said perforation in said depending pin, a pair of levers each swinging at its outer end upon one of said guide-shanks, and pivoted at its inner end to the other lever, and means for throwing forward the central joint of said levers to withdraw said guides and locking-pins, substantially as described.

4. The combination, in a thill-detaching device, of the axle of a vehicle, a pair of thills provided with cross-bolts in the ends thereof, a pair of clips each consisting of an anteriorly-socketed body portion provided with transverse guideways and a depending perforated pin, and a detachable, posteriorly-socketed portion, hinged at the upper end to said body portion, and having an eyeleted link hinged to the lower end and adapted to engage with said depending pin, guides sliding in said guideways and connected by a vertical shank, a locking-pin linked to the lower end of said shank and seated in said perforation in said depending pin, a pair of levers each swinging at its outer end upon one of said guide-shanks, and pivoted at its inner end to the other lever, at a point in line with the vertical axis of the king-bolt, a connecting-rod, and a hand-lever to actuate said rod and throw forward the central joint of said levers to withdraw said guides and locking-pins, substantially as described.

5. The combination, in a thill-detaching device, of the axle of a vehicle, a pair of thills provided with cross-bolts in the ends thereof, a pair of clips each consisting of an anteriorly-socketed body portion provided with transverse guideways and a depending perforated pin, and a detachable, posteriorly-socketed portion, hinged at the upper end to said body portion, and having an eyeleted link hinged to the lower end and adapted to engage with said depending pin, guides sliding in said guideways and connected by a vertical shank, a locking-pin linked to the lower end of said shank and seated in said perforation in said depending pin, a pair of levers each swinging at its outer end upon one of said guide-shanks, and pivoted at its inner end to the other lever at a point in line with the vertical axis of the king-bolt, a connecting-rod, connected at its forward end to said pivoted levers, and at its rear end with brakes adapted to engage with the rear wheels of the vehicle, and a hand-lever to actuate said connecting-rod and throw forward the central joint of said levers to withdraw said guides and locking-pins, and, by a continuation of the same movement, to set the brakes, substantially as described.

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Witnesses:
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WM. D. NEILLEY.