

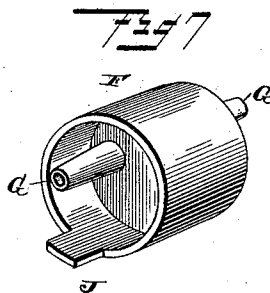
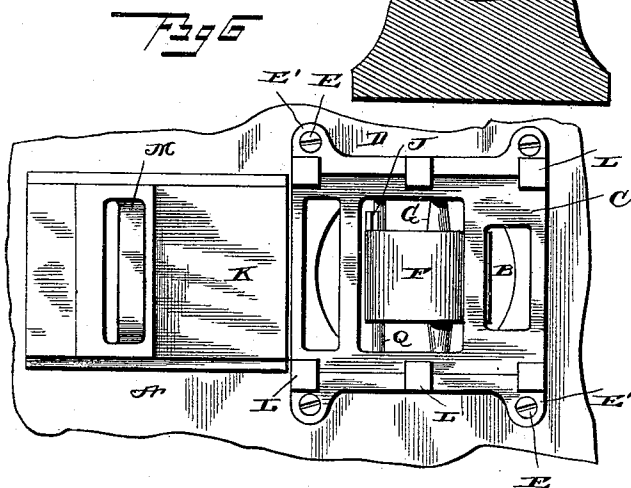
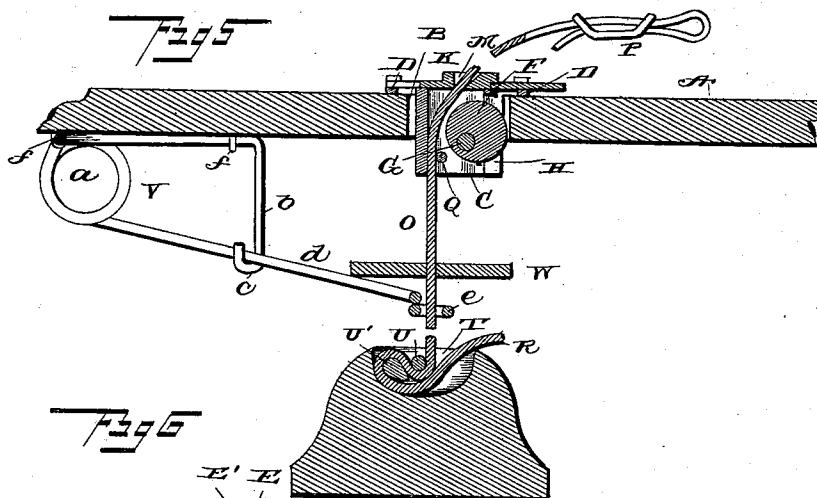
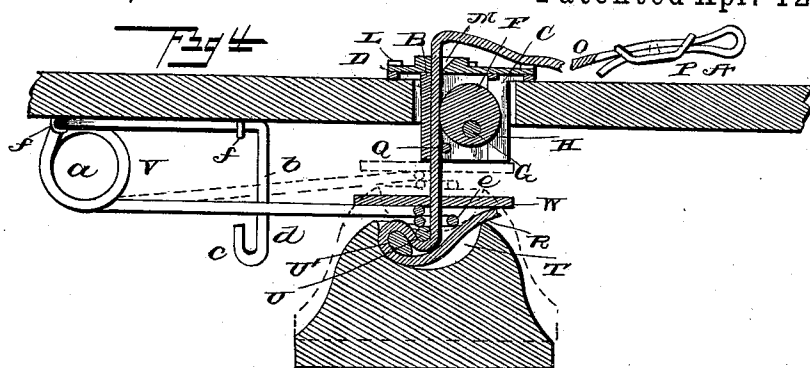
(No Model.)

2 Sheets—Sheet 2.

J. E. PARKISON.
HITCHING DEVICE.

No. 472,934.

Patented Apr. 12, 1892.



Witnesses

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Alfred T. Sage.

Inventor

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UNITED STATES PATENT OFFICE.

JOHN ELMER PARKISON, OF DENVER, ASSIGNOR OF TWO-THIRDS TO WILL S. PARKISON, OF GLENWOOD SPRINGS, AND SILAS BERTENSHAW, OF DENVER, COLORADO.

HITCHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 472,934, dated April 12, 1892.

Application filed July 13, 1891. Serial No. 399,372. (No model.)

To all whom it may concern:

Be it known that I, JOHN ELMER PARKISON, a citizen of the United States, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Hitching Devices; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to a device for hitching horses wherein the necessity of carrying the hitching-weight inside the vehicle-body and of lifting it therefrom when the horse is to be hitched is avoided and wherein the horse may be hitched before the driver leaves the vehicle and unhitched after the driver enters the vehicle, the whole being effected by simple means in an easy and expeditious manner.

The invention consists in the construction and also the combination of parts hereinafter particularly described, and then specifically defined by the claims, reference being had to the accompanying drawings, forming a part hereof.

Figure 1 is a side view of a portion of a vehicle, showing a hitching device suspended therefrom in front of the forward axle. Fig. 2 is a similar view showing the hitching device suspended back of the forward axle. Fig. 3 is a bottom plan, on an enlarged scale compared with Figs. 1 and 2, of part of a vehicle-bottom, showing the locking device therein and illustrating the spring-cushion. Fig. 4 is a vertical section with parts in full and in dotted lines, showing the arrangement of the several operative parts of the hitching device when the weight is suspended. Fig. 5 is a similar view showing the position of the parts when the weight is lowered for hitching the horse. Fig. 6 is a plan view showing the sliding plate moved back from over the opening containing the eccentric casing. Fig. 7 is a perspective of the locking-eccentric detached from the other parts.

In the drawings the letter A designates a portion of the vehicle having a hole or opening B formed in the bottom thereof at the forward portion of the vehicle immediately in front of the seat, as illustrated in Fig. 2, or in the front extension or foot-rest, as illustrated in Fig. 1, if it be used on a heavy express-wagon, and designed to receive a portion of the hitching device. This portion of the hitching device may consist of a boxing or casing C, having at its upper edge a flange D, adapted to rest upon the bottom of the vehicle around the opening formed therein, so that the boxing or casing may thus be suspended from the bottom and be held securely in place by suitable means—for instance, by bolts or screws E passed through the flange or ears E' and into the bottom of the vehicle.

Within the boxing or casing C there is pivoted or journaled a wedge F, in this instance being in the form of an eccentric, the axle or journal G of which has its bearings in the side of the boxing or casing C. This wedge or eccentric is so mounted that when turned in one direction the irregular face thereof will come sufficiently close to one side of the boxing or casing as to bind between its face and said side a strap that may be passed between the two, so as to hold the strap firmly and tightly in place, and thereby suspend a weight that may be attached to said strap. The wedge or eccentric is preferably weighted or has its parts so proportioned—for instance, as illustrated in the drawings—that when it is moved far enough in the other direction to release the strap its weight will carry it beyond its center, so that it may drop farther away from the binding side of the box, thereby leaving the strap free to be moved up or down without liability of being caught or bound by the wedge or eccentric. I prefer to form the boxing or casing C with a recess H in one side thereof to receive the irregular face of the eccentric when moved from its binding position. When so constructed, the inside walls I of the boxing or casing next to said recess constitute shoulders, against which ears or lugs J, which may be formed on the eccentric, will strike when the eccentric is thrown back in said recess, and the eccentric will thus be prevented from fall-

ing too far back and will be held in the best position for quick and ready action when necessary.

I provide the top of the boxing or casing with a slide-plate K, which will work in suitable guides or ways—for instance, in guides L—formed in the top of the boxing or casing, which lies inside the vehicle-body. It is formed with a slot M for the passage of the strap to which the weight will be attached. It serves as a cover to the opening B and prevents the loss of small articles through said opening and at the same time prevents any obstruction coming in contact with the eccentric from above. It also serves as a guide to the strap to which the weight is attached, so as to prevent it from lying against the periphery of the eccentric when it is not desired to have contact, and it keeps the strap straight and always in position. As the strap which suspends the weight is moved either forward or backward by the hand the slide-plate is moved with it, at all times keeping the opening B covered and acting as a guide to the strap.

The strap which carries the hitching-weight N is designated by the letter O, and it passes up through the boxing or casing C and then through the slot in the slide K, and it is provided (unless fastened to the seat or other portion of the vehicle) at its upper end with some suitable device—for instance, with a ring or buckle P—that will prevent it from slipping downward all the way through the slide. For the purpose of guiding the strap from the under side through the boxing or casing I provide a rod Q, passed through the casing preferably at its lower end and adjacent to the side of the boxing, against which the eccentric will bind or clamp the strap, leaving enough space for the passage of the strap. This rod prevents the strap from lapping around the cam or eccentric and will guide the strap in its movement and serve as a scraper to remove adhering mud from the strap.

A hitching-strap (designated by the letter R) will extend from the bridle-bit back to the weight N and be connected therewith in any suitable manner, preferably by binding it to the end of strap O, although it may be a continuation of said strap.

In order to hold up and guide the hitching-strap O, I secure a ring or loop S to the thill or pole of the vehicle and pass the strap through it, the strap being entirely free to slide in it.

The preferred manner of attaching the weight N to the strap O is to form a recess T in the top of the weight and to extend across said recess a cross-pin U. The strap O is then looped under said cross-pin, as shown, and a block U', preferably wedge-shaped, inserted in the loop of the strap, so as to prevent the strap being pulled back again from under the cross-pin.

The heft of the weight suspended by the strap causes the strap to be clamped between

the block and the cross-pin, so that the two are held securely together. This construction admits also of the weight being adjusted on the strap by simply loosening the wedge-block and then slipping the strap and then tightening the strap, as before. It also permits the weight to be drawn up closer to the casing containing the eccentric than could be done if the fastening device was above the top face of the weight instead of below it.

I prefer to use a spring or elastic cushion between the weight and the bottom of the vehicle or the eccentric-casing, so that when the weight is suspended the spring will exert a pressure thereon, thereby tending to steady the same and hold the same against lateral movement. For that purpose I have for purposes of illustration shown one form of spring which I find very efficient for the purpose. This spring V, as illustrated, is made of stiff wire and bent into coils at *a* to give it greater resiliency and has its two ends *b* carried downward and formed into hooks *c*, in which will lie the arms *d*, said arms at a point under the casing being formed into an eye or loop *e* for the passage of the strap O. This spring is secured to the bottom of the vehicle by staples *f* or otherwise. When the weight N is lifted in the operation of suspending it, the spring is struck by it and pressed up to the position indicated by the dotted lines in Fig. 4 of the drawings, and when the weight falls back slightly (say about one inch in actual practice) the spring and weight assume the position shown in full lines in Fig. 4, in which position the spring exerts an elastic pressure on the weight and serves to hold the same against lateral movement, although such movement would be very slight if the spring were not used, as there would be only about one inch of the strap between the lower edge of the eccentric-casing and the top of the weight. The spring therefore is not a necessity, although when used it has the advantage stated. I do not restrict myself to the particular form of spring illustrated. When the weight is upon the ground and the horses hitched, the spring has the position indicated in Fig. 5 of the drawings.

I usually prefer to use a leather washer W between the weight and eccentric-casing, as illustrated, so as to prevent battering of the edge of the casing by the weight being drawn up hard and suddenly against it. This washer is slipped over the strap O and slides thereon; but its employment is not essential to the device.

In operation when it is desired to suspend the weight beneath the vehicle and thereby unhitch the horse the occupant of the vehicle pulls up the strap until the weight is lifted to the height at which it is to be suspended, when the strap is pushed forward by hand in the direction of the front of the vehicle, so that it will be carried over and in contact with the periphery of the eccentric. Then if the strap is allowed to slack the weight will draw

it slightly downward, and, being in contact with the eccentric, it will turn the eccentric so as to cause its irregular or elongated diameter or face to press the strap against the wall of the casing or boxing and clamp it thereagainst, as illustrated in Fig. 4. The weight pulling down on the strap holds the eccentric in the binding position in which it has been moved, and the heavier or harder the weight pulls on the eccentric through the strap the tighter the strap will be clamped against the boxing or casing, and thus the weight will be suspended beneath the vehicle. The movement of the strap to bring the eccentric into its binding position is very little, so that practically the weight is suspended at the point at which it is raised previous to the clamping of the strap. When it is desired to drop the weight for the purpose of hitching the horse, it is necessary only to pull vertically upward on the strap, which movement turns the eccentric away from the binding side of the boxing or casing, and thus releases the strap, so that it is free to be carried downward by the weight as it is allowed to fall to the ground. The eccentric being heavier on its elongated diameter, as hereinbefore described, a very slight movement of the eccentric is necessary to bring it into the position where its weighted or heavier side will pull it over and away from the strap, so that the strap in being drawn down by the hitching-weight will exert no influence upon the eccentric, it being held away from the eccentric by the guide-rod Q. As soon as the weight rests upon the ground it instantly hitches the horse, as the hitching-strap is already attached to it and the other end to the bridle-bit, as previously mentioned. In unhitching, the strap is pulled upward to lift the weight and is pushed across the upper face of the eccentric by the forward movement of the hand that is raising the strap, so that as soon as the slack is made in the strap the eccentric will by frictional contact of the strap therewith be drawn back into its binding position, as before described, and the weight suspended from the bottom of the vehicle.

It will be observed from the foregoing description that the eccentric is brought into its locking position and also into its unlocking position by simple manipulation of the hitching-weight strap alone, it being only necessary when the horse is to be hitched to lift up the strap sufficiently to release the eccentric and then to let the weight drop, while to unhitch the horse it is only necessary to pull up the strap until the weight is lifted the desired height and then press slightly forward and then allow a little slack in the strap, when the strap will pull on the eccentric by reason of the weight below and automatically carry it into its locking position.

No arms or levers are necessary to effect the operation of the eccentric, it being automatic in the manner described. The slide illustrated and described is desirable as a mat-

ter of convenience for the purposes before mentioned of keeping the strap away from contact with the eccentric when the weight is to be dropped; but its use is not absolutely essential to the operation of the invention, although it greatly facilitates its operation.

I have described with particularity the details of construction and arrangement of several parts; but I do not mean to restrict myself thereto, as it is obvious that changes may be made therein without departing from the spirit of the invention.

Having described my invention and set forth its merits, what I claim is—

1. In a hitching device, the combination, with the boxing or casing, of the eccentric mounted on said casing or boxing, the hitching-weight strap passed through said boxing or casing between one side thereof and said eccentric, and the slide-plate having said strap passed through the same, substantially as and for the purposes set forth.

2. In a hitching device, the combination, with the boxing or casing and the eccentric mounted thereon, of the hitching-weight strap passing through said boxing or casing between one side thereof and said eccentric, and the guide-rod for holding said strap away from the lower surface of said eccentric, substantially as and for the purpose set forth.

3. In a hitching device, the combination, with the boxing or casing and the weighted hitching-strap passing through the boxing, of the weighted eccentric constructed substantially as described, with the heft of the eccentric above its axis and mounted in said boxing, substantially as shown, whereby it may be thrown to one side or the other of a line running vertically through its axis and moved in either direction solely by the strap engaging the same with frictional contact, substantially as described.

4. In a hitching device, the combination, with a hitching-weight strap and a bearing for the same to be clamped against, of an eccentric for clamping the strap against said bearing, said eccentric adapted to be moved into a locking or unlocking position by frictional contact of the hitching-weight strap therewith and when not clamping the hitching-weight strap to lie out of action at a point back of a vertical line drawn through the axis of the eccentric, a stop on said eccentric, and a shoulder for said stop to strike against to limit the movement of the eccentric beyond said vertical line in its unlocking position, substantially as and for the purposes set forth.

5. In a hitching device, the combination, with the boxing or casing having the recess in one side thereof, of an eccentric mounted in said boxing or casing and adapted in one position to have a portion thereof to fit in said recess and provided with a stop extending from its end to bear against the casing to one side of said recess, and a hitching-weight strap passed between said eccentric and one side of the boxing or casing and held in place by said

eccentric clamping it against said side, substantially as and for the purposes set forth.

6. In a hitching device, the combination, with the hitching-weight and its suspending-
5 strap, of means for suspending said weight under the vehicle-body and an elastic cushion interposed between the bottom of the vehicle and the weight and exerting a pressure on

said weight to steady the same, substantially as and for the purposes set forth. 10

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

JOHN ELMER PARKISON.

Witnesses:

SILAS BERTENSHAW,
S. W. SPRAGUE.