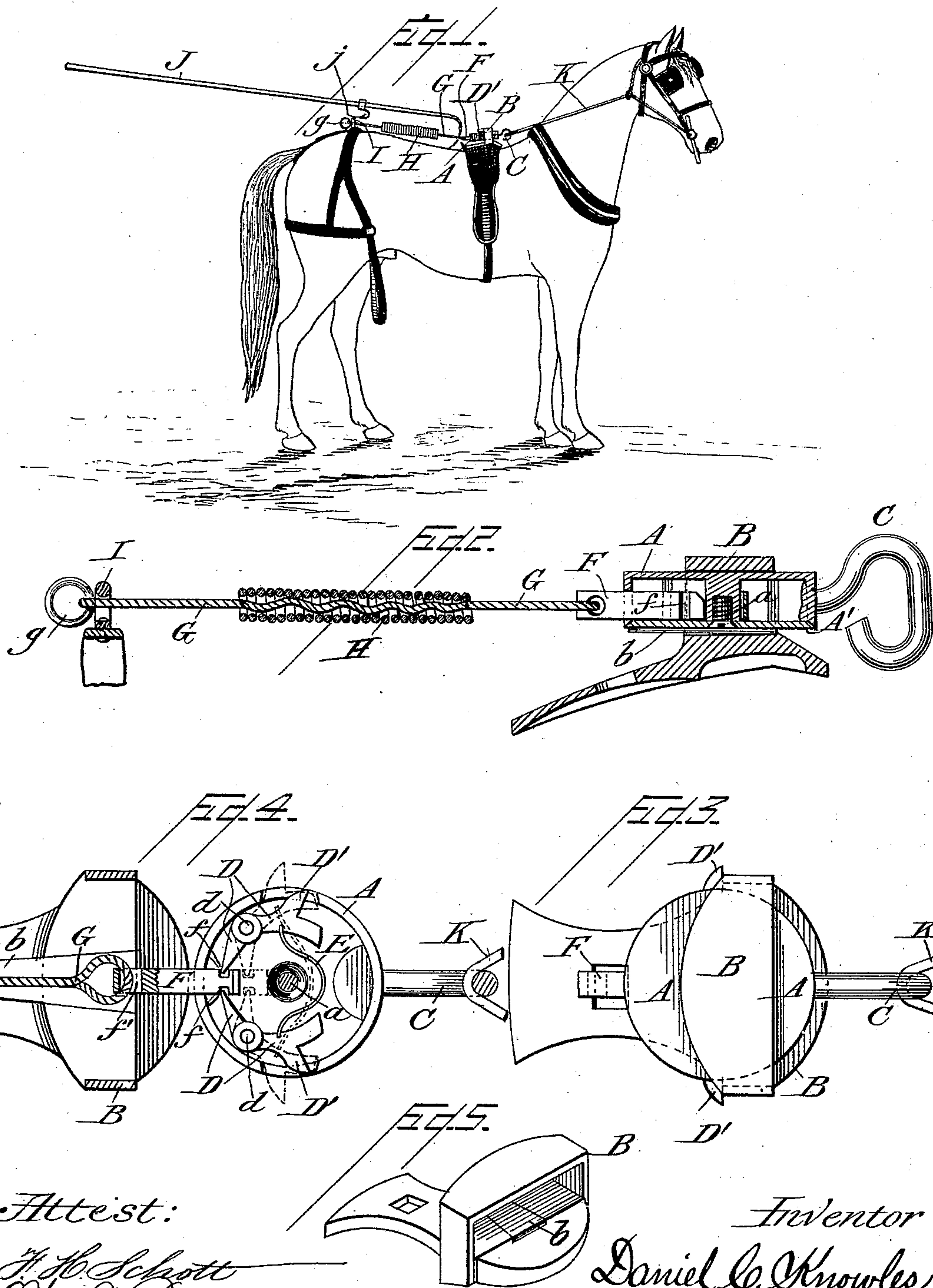


(No Model.)

D. C. KNOWLES.
HORSE CHECKING DEVICE.

No. 459,293.

Patented Sept. 8, 1891.



Attest:

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UNITED STATES PATENT OFFICE.

DANIEL C. KNOWLES, OF TILTON, NEW HAMPSHIRE.

HORSE-CHECKING DEVICE.

SPECIFICATION forming part of Letters Patent No. 459,293, dated September 8, 1891.

Application filed November 20, 1890. Serial No. 372,063. (No model.)

To all whom it may concern:

Be it known that I, DANIEL C. KNOWLES, a citizen of the United States, residing at Tilton, in the county of Belknap and State of New Hampshire, have invented certain new and useful Improvements in Devices for Checking and Unchecking Horses; 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 a device for checking and unchecking horses, the object thereof being to furnish an efficient and useful contrivance whereby horses or other animals may be easily checked or unchecked without trouble or danger, and especially to improve upon the construction presented in my former Letters Patent upon a similar device, dated October 4, 1890, No. 438,550; and the invention therefore consists in the construction, arrangement, and combination of parts, substantially as will be hereinafter described and claimed.

In the accompanying drawings, illustrating my invention, Figure 1 is an elevational view showing my improved device for checking and unchecking horses applied in operative position in connection with the other parts of the harness. Fig. 2 is a longitudinal section of my improved device. Fig. 3 is a plan view of a portion of the same. Fig. 4 is a horizontal sectional view of a part of the device. Fig. 5 is a perspective view of the stationary loop or frame which receives the casing.

Like letters of reference designate corresponding parts throughout the different figures of the drawings.

A denotes a casing of suitable size and shape. In that example of the invention illustrated in the drawings said casing comprises a circular box having a suitable diameter and thickness and provided with a removable cover A', which is connected thereto by means of a screw *a*. Obviously this box or casing may vary greatly in size, form, and structure without departing from the invention. It is provided with a loop, hook, or other projection C, to which the check rein or strap K is fastened. Obviously the checkrein may be

connected to the casing in any desired manner.

The casing A has its side wall provided with a pair of oppositely-located slots, through which play catches or dogs, and also with another slot, through which a draw-bar slides. Within the interior of the casing are two angular or bell-crank levers D D, which are formed with projections D', which serve as the dogs or catches of the device, and are arranged to operate through the aforesaid slots. (See Fig. 4.) The angular levers D D are pivoted at *d d*. They turn upon their pivots, so as to shift from the position shown in full lines to the position shown in dotted lines, and vice versa, as in Fig. 4, so that the dogs D' are at times retracted in the casing A and at other times are projected therefrom. E denotes a flat spring, having its ends bearing against the said levers D D, the function of said spring being evidently to force the catches D' outward. If therefore the levers D D should be shifted on their pivots so as to bring the dogs within the casing, it is obvious that the spring E will be more or less compressed, and that when the agency tending to retract the dogs is removed the tension of the compressed spring will readily cause the dogs to obtrude their ends from the casing-slots and the spring will hold them normally in this position, except when they may be temporarily contracted for the purpose of disengaging them from the frame or loop within which the casing A slides back and forth in the performance of the functions of the device. The inner ends of the levers D D enter slots or notches *f f*, formed near one end of the draw bar or rod F, which is designed to have an endwise movement at certain times, it playing through a suitable slot or opening in the wall of the casing. The other end of the draw-bar F is provided with a perforation *f'*, to permit the connection therewith of the cord or other connection G.

In Fig. 4 the extent of movement of the draw-bar inwardly is shown in dotted lines.

On the saddle or some other suitable part of the harness is fixed a stationary loop, strap, or slot of any suitable and proper size and form of construction, as B. This is preferably an oblong or rectangular loop, and it is stationary, so that the casing or box A may

slide freely through it, as shown in Figs. 2 and 3. The construction of this stationary loop B may obviously vary within very wide limits. It is preferably provided with a flat horizontal spring *b*, seated or affixed within the bottom of the loop, so that when the casing A rests within the loop and upon the spring the latter may have a tendency to better hold the casing within the slot and make its movement therein more even and regular by exerting a certain amount of pressure upon the casing.

The foregoing relates in a great measure to the description of a construction similar to what is found in my former patent, hereinabove alluded to, with certain modifications and additions, and I will now proceed to describe those parts of the invention wherein my present improvements specifically consist.

The harness, in addition to being provided with a stationary loop or slot which is preferably fixed upon the saddle, is also provided with another stationary slot, loop, or ring fixed thereon at the rear portion of the harness, and preferably at the point where the back-band divides to form the crupper near the tail of the horse. This stationary ring is shown at I in Figs. 1 and 2.

G designates a cord passing from the draw-bar F, to which we have already seen it connected, and running through the ring I, said cord or connection G being at this latter point provided with a ring *g*. It is desirable to have a yielding connection between the draw-bar and the ring *g*. In other words, this connection should at times be yielding and at other times stiff and taut. Therefore I preferably surround the cord or connection G for a portion of its length with a coiled spring H, the cord lying quite loose within the spring and being firmly connected thereto at each end of the spring, so that when the cord is drawn taut the spring will be extended, and when the spring resumes its normal condition the result will be to cause the cord to again lie loosely inside of the spring. By means of this spring I obtain the necessary slack, so that the horse can be unchecked. Obviously I can arrange this spring and cord in a very different manner from what is shown in the drawings, if I prefer. I conceive that I have the liberty of constructing the connection between the draw-bar and the ring *g* in any desirable manner, and also that I can impart thereto a flexible and yielding character by employing such construction as may best effect this, either by using a coil which surrounds the cord, a coil inserted into the cord or a coil dispensing with the cord, or such other yielding connection as may be thought best.

J denotes a rod, pole, or other elongated device with which the driver or rider can reach from his position to the rear of the horse, where the stationary ring and the contiguous movable ring are located. This reach

or rod J will be probably in most cases, and is preferably, the whip which the driver ordinarily uses. Said whip, if the whip be preferred for this purpose, is provided with a hook *j*, connected thereto in any suitable manner and at any convenient distance from the snapper end. This hook *j* is designed and adapted to engage the ring *g*. Therefore the driver, when he so desires, can reach with his whip out over the horse and cause the hook *j* to engage the ring *g*, and then by pulling upon his whip the result will be to slide the casing A within its stationary loop.

Such being the construction of the several parts of my improved device for checking and unchecking horses, I will now proceed to describe the operation of the same. Suppose it is desired to uncheck the horse and that the device is in the position shown in Fig. 3, where the dogs D' project into engagement with the frame B, and the horse is therefore at this time presumed to be checked. The driver will reach forth his whip, engage the ring *g*, and then pull upon the same until all the slack in the connection with the draw-bar is taken up and a fair pull can be had upon the device sufficiently to enable the draw-bar, which is engaged with the two angular levers D D, to shift those levers sufficiently to retract the dogs within the interior of the casing, so that the movements of the horse's head (it being now presumed that he is moving his head forward for the purpose of getting it nearer to the watering-trough or for some other purpose) will be sufficient to slide the casing forwardly through the slot B. Thus the horse will be unchecked and permitted to move his head at pleasure. When unchecked, the coil H or the yielding portion of the connection between the ring *g* and the draw-bar will permit the horse to lower his head forward or about until the slack is taken up, and thus the coil will not be strained and will wear a long time. When it is desired to recheck the horse, the driver can reach forth his whip and engage the ring *g*, and by pulling thereon cause the casing A to slide back through the slot until the spring-dogs engage the slots in the proper manner to hold the horse in check.

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

1. In combination with a stationary loop or slot, a check-strap, a casing connected thereto, spring-actuated dogs within the casing and a draw-bar connected to said dogs at the rear of the loop, and a yielding connection between the bar and a ring connected to another part of the harness.

2. The combination, with a stationary loop or slot through which a casing connected to the check-strap is adapted to slide and to carry spring-actuated dogs for engaging said loop, and a draw-bar connected to the said dogs, of a spring in the said stationary loop

or slot adapted to press upon the casing, substantially as described.

3. The combination, with a loop on the saddle, a casing connected to the checkrein, 5 spring-actuated dogs in the casing, and a draw connected to the said dogs, of a second loop located at the rear of the harness, a ring adjoining said loop, a connection between said ring and the draw, and a reach for the driver,

provided with a hook adapted to engage said ring.

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

DANIEL C. KNOWLES.

Witnesses:

MARY M. BARROWS,
WM. F. GIBSON.