(No Model.)

D. C. KNOWLES.

DEVICE FOR CHECKING AND UNCHECKING HORSES.

No. 438,550. Patented Oct. 14, 1890.

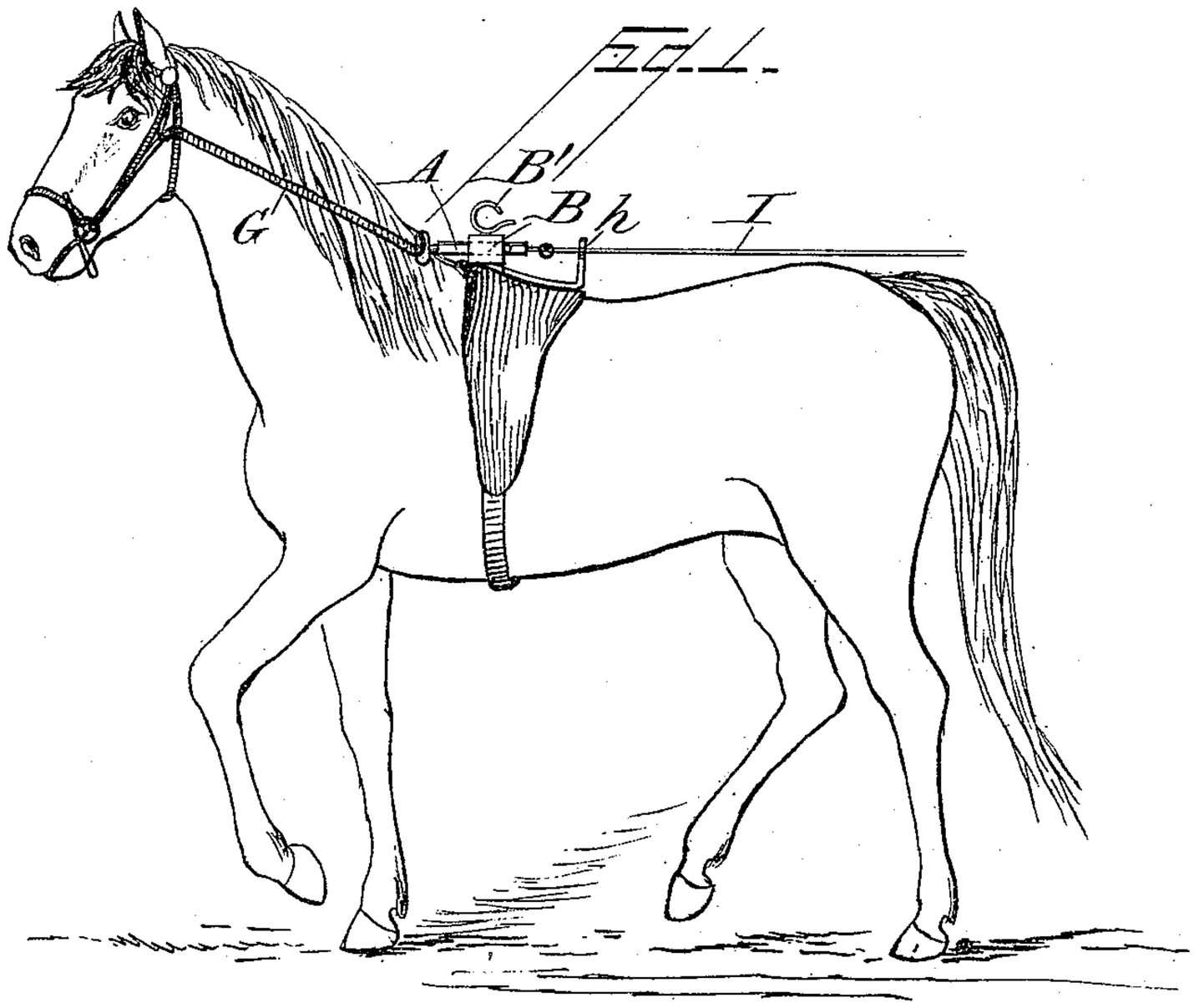


FIG. 2.

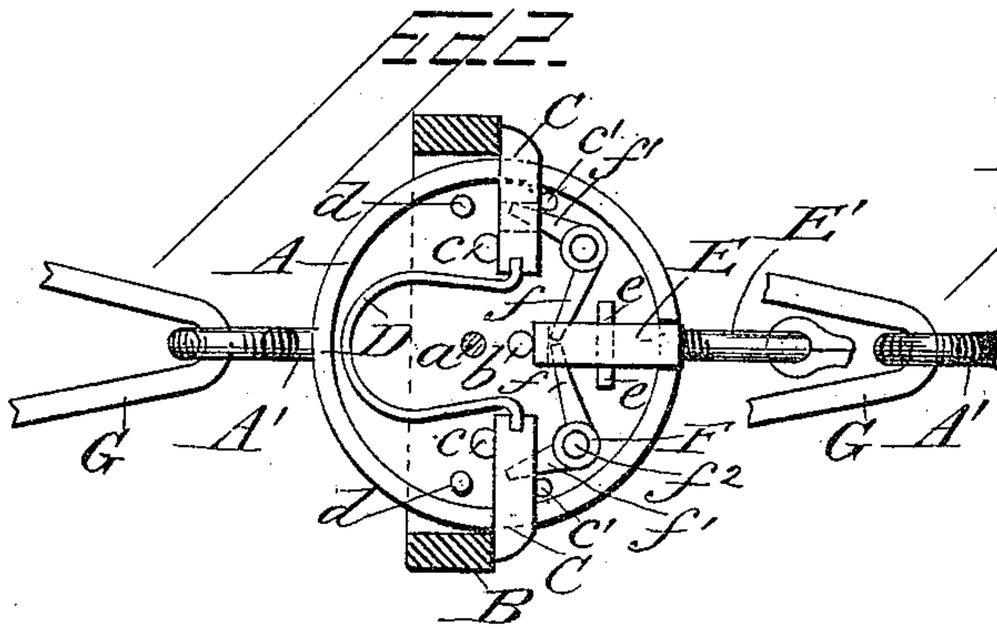


FIG. 3.

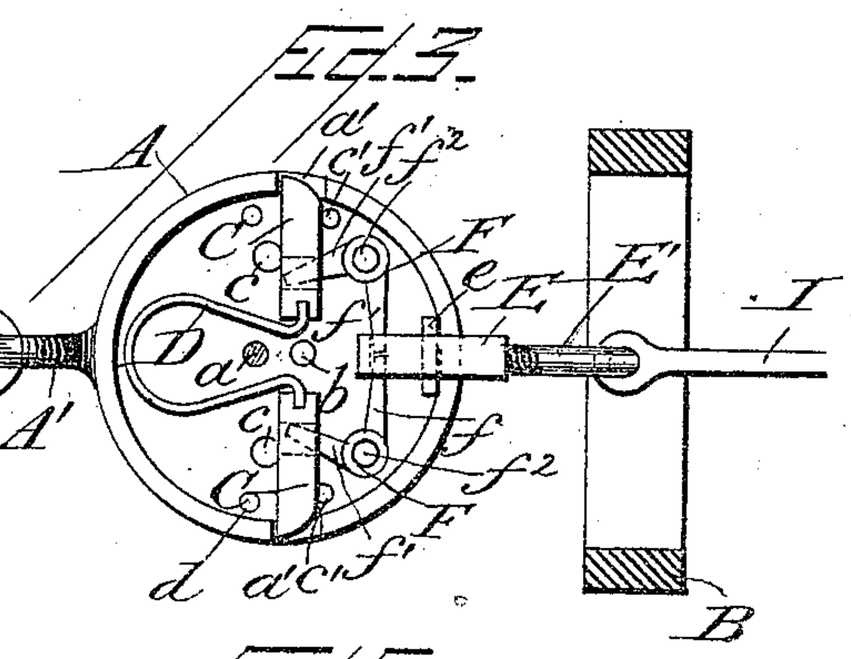


FIG. 4.

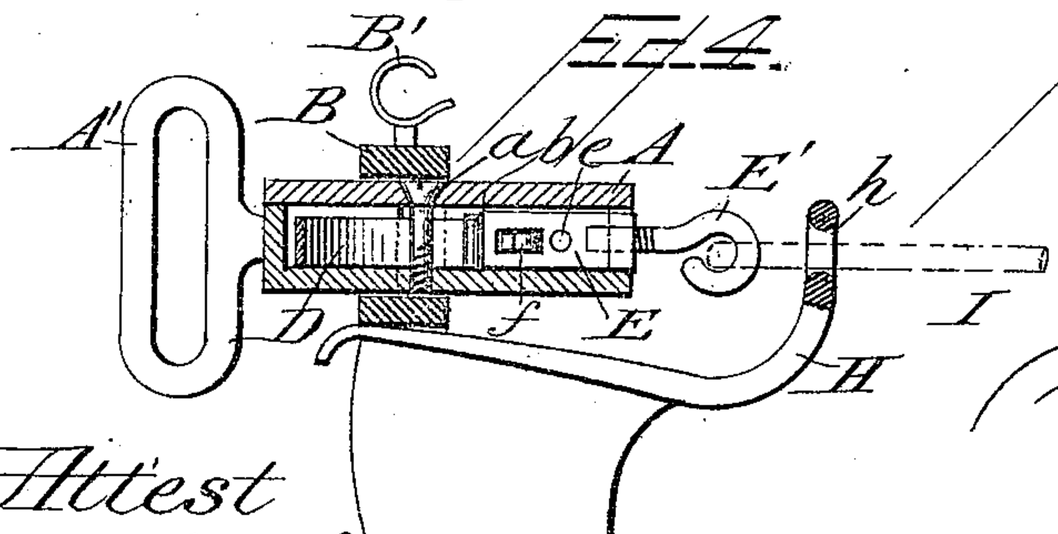
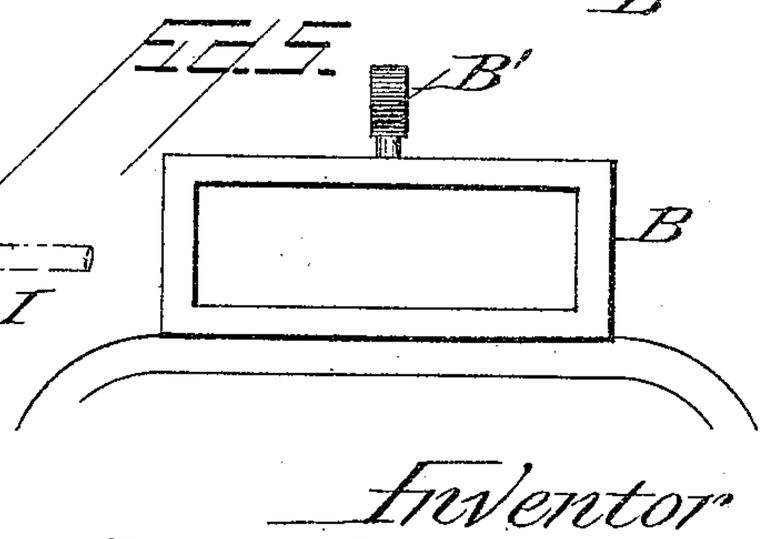


FIG. 5.



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UNITED STATES PATENT OFFICE.

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DEVICE FOR CHECKING AND UNCHECKING HORSES.

SPECIFICATION forming part of Letters Patent No. 438,550, dated October 14, 1890.

Application filed January 13, 1890. Serial No. 336,721. (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 an improvement in devices for checking and unchecking horses, the object of the invention being to provide a simple, cheap, and efficient contrivance or attachment to a harness whereby the horse may be checked and unchecked easily and freely at the pleasure of the carriage occupant without the necessity of alighting or exposing himself to the trouble and danger incident to the manipulation of the bridle when it becomes necessary at various times to check or uncheck the animal's head, this operation of checking and unchecking being accomplished in my improved mechanical contrivance by simply pulling a cord; and the invention consists, essentially, 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 a 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 plan view of the device, the cover of the casing being removed to expose the interior mechanism to view, said device being shown in the position that it occupies when the horse is checked up and when consequently the device is in engagement with the saddle. Fig. 3 is a similar view to Fig. 2, the cover in this instance being also removed to expose the inner parts, the device being now shown in the position that it occupies when the horse is unchecked and when the device has been slid out of the saddle and become disengaged therefrom. Fig. 4 is a cross-sectional view of the device. Fig. 5 is a detail view showing the frame or loop on the harness-saddle which receives the device.

Similar letters of reference denote corresponding parts throughout all the different figures of the drawings.

In carrying my invention into practical operation, I first provide a casing of suitable size and shape. In the example of the invention depicted in the drawings said casing consists of a circular box having a suitable diameter and thickness. A denotes this box. It is provided with a removable cover which is connected thereto by means of a screw *a*, arranged to pass through an aperture in the said cover, and also a screw-threaded hole in the bottom of the box, said box or casing being also provided with interior pins *d d* that pass through orifices in the cover and thus hold the same in place and keep it from slipping after being fixed in position. This box or casing A may vary greatly in size and form without departing from the principles of the invention, as its design is merely to afford a casing of suitable character and form to permit the proper and convenient disposal therein of the several mechanical devices which constitute the operative mechanism of my improved checking and unchecking contrivance. This box or casing A is provided with oppositely-located slots *a' a'* in the side wall thereof. Located within these slots and playing freely through them, so as at times to be retracted within the case and at other times projected therefrom, are two horizontal dogs or catches C C, consisting of short strips of metal having their outer ends preferably curved or beveled, as shown. Within the casing A are fixed pins *c c* and *c' c'*, located on each side of the said catches C C, so as to provide grooves or guideways therefor and cause them to move on proper lines.

D indicates a flat spring, which is curved within the casing and between the said catches or dogs in such a manner as to have its ends applied to and bearing upon the inner opposing ends of said dogs C C, the spring D thus serving to force the dogs outward. If said dogs be moved inward, it is evident that the spring will be compressed, and that when the agency tending to press the dogs inward is removed the tension of the compressed spring will readily throw the dogs outward again.

E denotes a draw-bar arranged at right angles to the dogs C C and located within and playing freely through another slot or opening in the side wall of the box A. The inner limit of movement of this bar is determined by a pin *b* fixed within the casing. The outer limit is determined by a transverse pin *e*, carried by the draw-bar E, and having projecting ends which strike against the wall of the casing when the draw-bar has been pulled outward as far as it is designed to permit it to pass. On each side of the said draw-bar, and between it and each of the dogs or catches C C, is pivoted a lever F. These levers F F are preferably in the shape of bell-cranks, although they may have any form which permits them to have a couple of legs at an angle to each other, the pivotal point of the levers being at the junction of these legs. Each angular lever F has a leg *f*, the end of which enters a slot in the draw-bar E, and also it has a leg *f'*, the end of which enters a slot in the adjacent dog C.

f^2 denotes the pivot fixed in the casing on which the angular lever F turns.

In Fig. 2 we see the position of the parts when the dogs C C are projected from the wall of the casing, while in Fig. 3 we observe the position of the parts when the dogs are retracted within the casing. By pulling upon the draw-bar E when it is in the position shown in Fig. 2, and causing it to occupy the position indicated in Fig. 3, it will be evident that the two angular levers will be turned upon their pivots, and that this will cause the legs *f' f'* of said levers to act upon the dogs to force the latter inward, thus compressing the spring D. When the agency which reciprocates the draw-bar and pulls it outward looses its hold thereupon, the spring D will operate to thrust the dogs once more out of the casing. The said box or casing A is arranged to slide to a certain extent upon the saddle or in connection with some adjacent part of the harness. This box is provided with a loop A' in any desired manner, to which the checkrein or strap is connected. Obviously this checkrein may be connected to the casing in any desired manner.

On the saddle is fixed an oblong or rectangular metallic loop or strap B, of the proper size to permit the box A to slide freely through it, as indicated in Fig. 2. Upon this metallic loop or slot, which forms a part of the saddle, is the hook B', to which the checkrein may be connected when desired, thus permitting the harness to be used in the ordinary fashion.

The draw-bar E is provided with an eye, projection, or screw E', having an eye, to which is fixed a rope or cord I, which lies along the horse and is attached to the dasher or other suitable part of the carriage. This cord is connected to the screw E' by any suitable union, so that it may be easily disconnected during the operation of unharnessing, said cord being permitted to remain with the carriage when the latter is not in use. This cord preferably runs through an eye or aperture *h*, formed in the rear part H of the saddle.

The operation of my improved device for checking and unchecking horses will be evident from the foregoing description of the construction of the several parts of the same. Suppose the device to be in the position indicated in Fig. 3, where it lies at a point between the horse's head and the saddle. If, now, we desire to check the horse, all that is necessary is to pull upon the cord I, which will cause the device to pass through the slot B, at the same time retracting the dogs. As soon as the device has been pulled through the casing, the hold upon the cord I may be relaxed and the dogs C C permitted to spring out and resume their normal projected positions. They will lie against the side of the part B and thus keep the device engaged therewith, so that the horse will now have his head checked up, and it will be seen that he is firmly and properly checked. Suppose, now, we desire to uncheck the horse, all that is necessary is to pull again upon the cord I, causing the dogs to be once more drawn into the casing. The casing will now be free to move through the part B, and the movement of the head of the horse will be sufficient to draw it through the same, so that it will be once more on the side between the saddle and the horse's head, and the horse in consequence will be unchecked. Thus by simply pulling upon the cord the horse may be checked, and likewise by simply pulling upon the cord the horse may be unchecked easily, readily, and freely, by a simple movement on the part of the occupant of the carriage without putting him to any trouble or inconvenience.

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

1. The combination of the stationary loop or slot, the check-strap, a casing connected to the check-strap, spring-actuated dogs carried by said casing, the draw-bar, levers connecting said bar with the dogs, and a cord connected to the draw-bar.

2. The combination of the saddle having a loop, the casing affixed to the check-strap, the spring-actuated dogs within said casing adapted to emerge through openings in the side thereof, the draw-bar, the angular levers connecting said bar with each of the dogs, and the cord fastened to the draw-bar and running to the carriage.

3. The combination of the saddle having a loop or slot, the check-strap, the casing connected to it having openings in the sides thereof, the reciprocating dogs adapted to emerge through said openings, the spring bearing against the inner ends of said dogs, the draw-bar playing through an opening in said slot, the pivoted angular levers connected to the draw-bar and likewise to the dogs, and the operating-cord fastened to the draw-bar.

4. The combination, with the stationary loop or slot, of the check-strap, a casing connected to the check-strap, spring-actuated dogs carried by the casing, the draw-bar having a connection with the dogs, and the cord connected to the draw-bar and running to the carriage, substantially as described.

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

DANIEL C. KNOWLES.

Witnesses:
M. E. BARROWS,
F. L. KNOWLES.