UNITED STATES PATENT OFFICE.

CHARLES J. CASTERA, JR., OF LOS ANGELES, CALIFORNIA, ASSIGNOR OF ONE-HALF TO CHARLES CASTERA, SR., OF LOS ANGELES, CALIFORNIA.

CHECKING OR UNCHECKING DEVICE.

No. 821,216.


Application filed August 12, 1904. Serial No. 230,494.

To all whom it may concern:

Be it known that I, CHARLES J. CASTERA, Jr., a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Checking or Unchecking Devices, of which the following is a specification.

The present invention relates to improvements on the checking and unchecking device disclosed in Patent No. 658,482, granted to me September 25, 1900, said device comprising a yielding overcheck-fastening which automatically separates or detaches when excessive strain is brought thereupon due to violent jerking of the horse's neck, as in stumbling.

The device may further comprise a resilient portion which allows a limited amount of yielding of the checkrein without detachment, to accommodate the movement of the horse's head.

The main object of the present invention is to simplify the construction of a device of this character and cheapen the cost of manufacture thereof.

The invention may be applied with or without an extensible portion to permit the attachment of resilient yielding means.

The accompanying drawings illustrate the invention.

Figure 1 is a side elevation of the device, partly in section. Fig. 2 is a longitudinal section thereof. Fig. 3 is a detail perspective of the detachable snap-fastener. Fig. 4 is a view similar to Fig. 1, showing the form of the invention without any extensible portion.

The device comprises a member 1, carrying the loop 2 to engage with the saddle-hook, a body member 3, connected to the member 1, either rigidly or resiliently, as hereinafter described, and a detachable snap or attaching member 4, removable engaging with the body member 3. The body member 3 is hollow and may be cylindrical in form, with one end flattened, as at 5, to form a slot or flat channel 6. The snap 4, which also constitutes a loop-holding device for engaging the loop at the end of the checkrein, is formed with a loop-engaging portion 7, with resilient arms or members 8 projecting therefrom and adapted to enter the channel 6 in the body 3, said arms or members 8 being provided with lugs or projections 9, which engage with internal catches formed by holes 10 in the sides of the flattened portion 5 of the body member 3 to hold the member 4 in connection with the member 3. The projections 9 are inclined on both their forward and rear faces, so as to enable the member 4 to be inserted and withdrawn from the member 3, the said faces engaging with the walls of the flattened portion 5 and bending the arms 8 of the member 4 together sufficiently to allow the member 4 to move in and out of the channel 6.

The inclination of the faces 11 of projections 9 which are toward the outer end of the member is more abrupt than that of the faces 12 toward the free end of the arms 8, so that the resistance offered to forcing the snap member into engagement with the body member 3 is less than the resistance offered to separation of the parts when once connected, and the attaching device can therefore be inserted more easily than it can be withdrawn.

In case the device is used with a resilient portion to enable a limited amount of yielding and automatic return the body member 3 is desirably formed as shown in Figs. 1 and 2, said body member consisting of a cylindrical barrel of thin malleable metal having an inturmed flange 13 at one end, with a central perforation 23. Members 1 and 3 are substantially in axial alignment, and bolt 14 for fastening the members 1 and 3 together is inserted through said perforation, a spring 15 being placed around said bolt and within the barrel 3 and engaging at one end with the head 19 of the bolt and at the other end with flange 13. The member 1 is similarly formed with an inturmed flange 16 normally adjacent flange 13 at its inner end and with a central perforation 17 to permit passage of the bolt aforesaid. Means is provided for retaining the end of the bolt within the cylindrical body 1. Said means may consist of a nut 18, screwed on the end of this bolt and pressing against the flange 16 to draw the members 1 and 3 toward one another until their flanged ends abut against each other, forming a broad bearing-surface.

When the flanges 13 and 16 have thus been brought into contact, the bolt 14 is adjusted so that spring 15 will be under compression sufficient for the operation of the device.

The parts having been so assembled, the
outer end 5 of the barrel 3 is flattened, so as to fit over the member 4 and over the head 19 of the bolt 14. The member 1 is also desirably cylindrical and formed of malleable metal thin enough to be compressed at its outer end on the leather loop 2 after the parts have been assembled as above described, a rivet 20 being then passed transversely through the member 1 and the loop 2 to hold the loop within said member. To prevent tearing of the leather loop, a metal plate 21 may be placed between the ends of the loop, the rivet 20 also passing through this plate. This construction forms a closure for the outer end of cylindrical member 1, thereby preventing nut 18 from unscrewing.

In case the resilient portion is dispensed with the device may be formed as shown in Fig. 4, the two members 1 and 3 being rigidly fastened together in any suitable manner, as by soldering them, the construction being otherwise the same as above explained.

It is to be understood that any suitable harness-engaging means may be substituted for the loops 2 and 4 without departing from the spirit of this invention.

It will be seen that the holes 10, which are provided by this invention for engaging resilient arms 8, form better catches than the internal projections provided in my former patent, because projections gradually wear away and may lose their retaining power on account of such wear, causing the surfaces engaged by the outer sides of the resilient limbs to become more widely spaced apart. The holes are more easily formed and when worn at the side still possess their retaining function.

What I claim is—

1. A detachable check device comprising a body provided at one end with a socket having holes through the sides thereof, and an attaching device provided with two resilient limbs, each limb having a projection adapted to engage said holes.

2. A detachable check device comprising a body provided at one end with a socket having holes through the sides thereof, and an attaching device provided with two resilient limbs, each limb having a projection adapted to engage a hole, the said projections having inclined faces which are more abrupt on the side away from the free ends of the limbs so that the projections insert into the 55 holes with greater ease than they withdraw.

3. An extensible check device comprising a cylindrical barrel, a cylindrical member, said member and barrel being both provided with inturned flanges and with central perforations, a bolt passing through said perforations and extending within the barrel, a spring surrounding said bolt within the barrel, a nut on the bolt within the cylindrical member, loop-attaching means connected to the barrel, and loop-attaching means connected to the cylindrical member in position to prevent said nut from unscrewing.

4. A detachable and extensible check device comprising a cylindrical barrel and a cylindrical member both provided with inturned flanges and central perforations at their inner ends, a bolt extending through said perforations and provided with a nut within the cylindrical member and with a head at its other end within the barrel, a spring surrounding said bolt within the barrel and engaging with said head and with the inturned flange of said barrel, loop-engaging means connected to said cylindrical member, and loop-engaging means detachably engaging in the outer end of the barrel, said outer end of the barrel being flattened to form a slot for reception of said loop-engaging means.

5. An extensible check device comprising a barrel having an inturned flange at one end, a hollow member substantially in axial alinement with said barrel and also having an inturned flange at one end, said flanged ends normally being adjacent to and abutting against each other, there being perforations through said flanges, a bolt passing through said perforations and extending within the barrel, a spring surrounding said bolt within the barrel, means for retaining the end of the bolt within the cylindrical member, and harness-engaging means connected to the barrel and hollow member.

In testimony whereof I have hereunto set my hand, at Los Angeles, California, this 4th day of August, 1904.

CHARLES J. CASTERA, JR.

In presence of—

FREDERICK B. LYON,
ARTHUR P. KNIGHT.