No. 691,836. Patented Jan. 28, 1902.

G. W. BEGOLE.

CHECKREIN HOOK.

(Application filed Jan. 31, 1901.)

(No Model.)

Fig. 1.

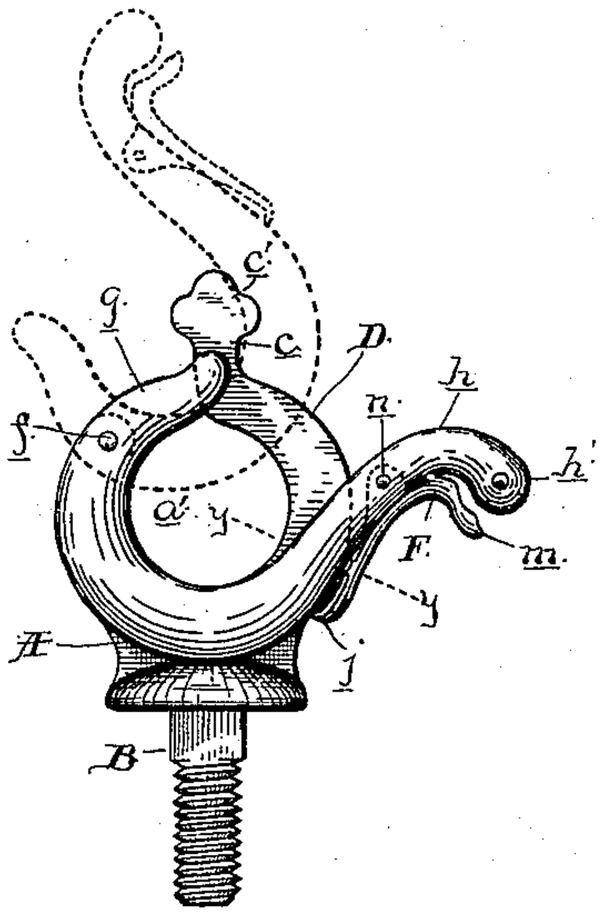


Fig. 2.

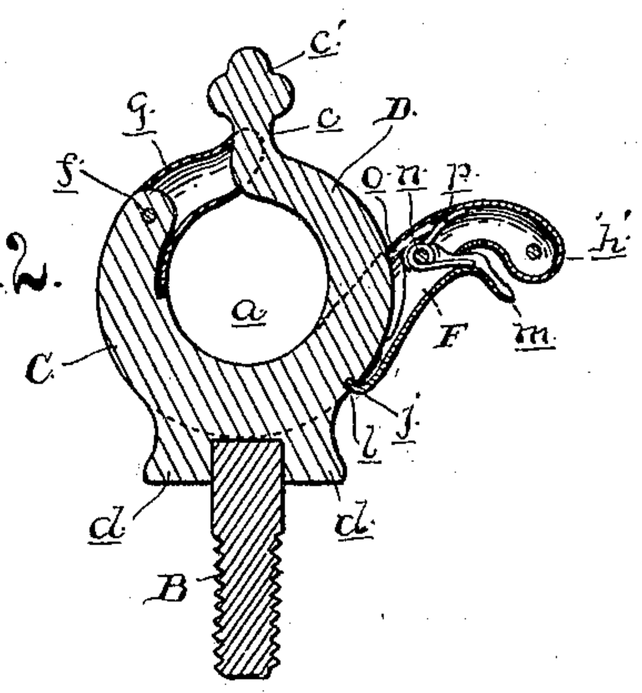


Fig. 3.

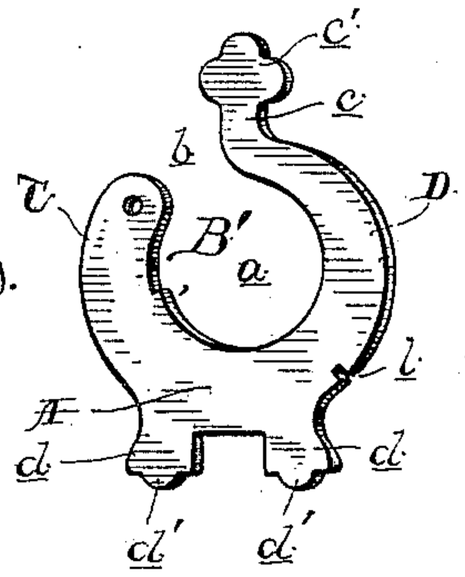


Fig. 4.

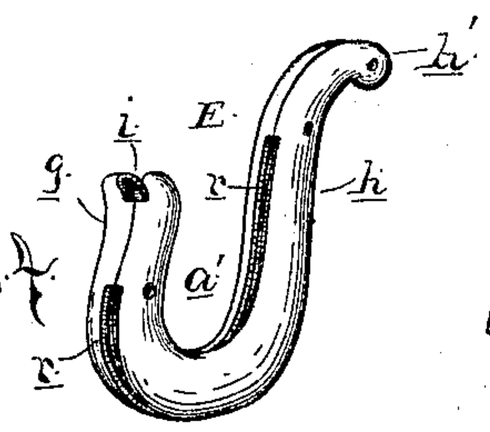


Fig. 5.

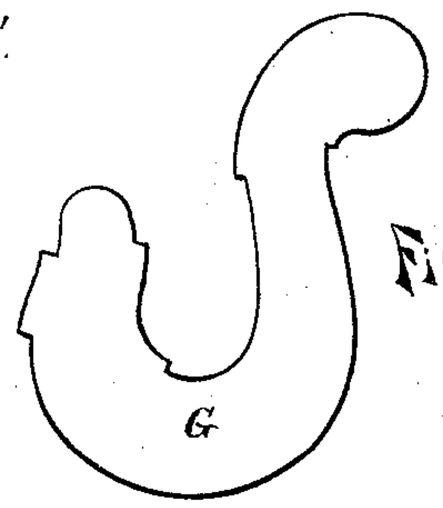


Fig. 8.

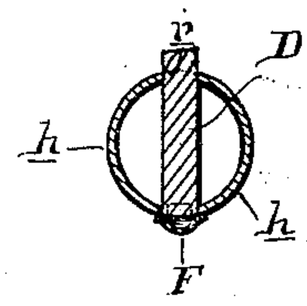


Fig. 7.

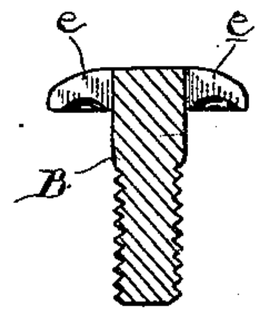
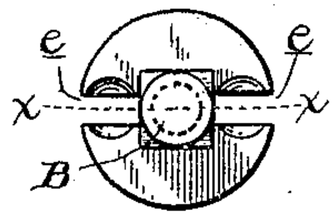


Fig. 6.



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UNITED STATES PATENT OFFICE.

GORDON W. BEGOLE, OF YPSILANTI, MICHIGAN.

CHECKREIN-HOOK.

SPECIFICATION forming part of Letters Patent No. 691,836, dated January 28, 1902.

Application filed January 31, 1901. Serial No. 45,405. (No model.)

To all whom it may concern:

Be it known that I, GORDON W. BEGOLE, a citizen of the United States of America, residing at Ypsilanti, in the county of Washtenaw and State of Michigan, have invented certain new and useful Improvements in Checkrein-Hooks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention refers to a device for holding the checkrein of a harness and prevent it from being accidentally disengaged; and the invention consists in the novel construction and arrangement of parts, all as more fully hereinafter described, and shown in the accompanying drawings, in which—

Figure 1 is an elevation of my improved checkrein-hook with the retaining-lever shown in its open and closed positions. Fig. 2 is a vertical central section thereof. Fig. 3 is a detached elevation of the hook-post. Fig. 4 is a detached perspective of the retaining-lever. Fig. 5 represents the form of blank from which the halves of the retaining-lever are formed. Fig. 6 is a detached bottom plan of the base-plate. Fig. 7 is a central vertical section of the base-plate on line $x\ x$, Fig. 6. Fig. 8 is a cross-section on the line $y\ y$, Fig. 1.

A is the hook-post, provided with a base portion B, by means of which the device is attached to the harness-saddle in the usual manner. This base is formed of a common screw-bolt having a suitably large head and a screw-threaded shank. The hook-post B′ is flat and substantially ring-shaped and forms a circular eye a, with an opening b leading into the upper front portion of the eye and dividing the post into a front standard C and a rear standard D. The latter is formed with an upper extension c above the front standard and terminating in an enlarged head c', preferably of ornamental outline.

This check-hook is stamped, in the form shown in Fig. 3, from sheet metal, and the manner of securing it to the base is by forming it integrally at its base with two lugs $d\ d$, having protuberances d', and correspondingly therewith the head of the screw-bolt is formed with two slots e, diametrically opposite each other and of a size to receive these lugs. The slots e are countersunk upon their under side, so that by rivet-heading the lugs d in said countersunk slots the protuberances d' will fill out the countersinks, and thereby unite the parts more firmly together.

E is a hook-shaped retaining-lever formed with an eye a', corresponding to the eye a of the check-hook post, but with the opening leading into it somewhat larger. This retaining-lever is pivotally secured upon the check-hook post by means of a rivet f passing through the top of the front standard C and by means of a central longitudinal slot r in the retaining-lever formed intermediate between its ends and adapted to embrace the hook and permit the retaining-lever to be opened and closed, as more fully hereinafter described. The retaining-lever being thus pivoted forms a short arm g and a long arm h, the latter extending rearwardly beyond the check-hook post and terminating in a rounded-off and slightly downwardly bent finger-piece h'. The front end or short arm of the retaining-lever is adapted to close the eye a of the check-hook post and has a slot i formed in its free end, by means of which it engages the extension c of the standard D when the retaining-lever is closed.

F is a spring-actuated latch pivotally secured to the rear end of the arm h of the retaining-lever at the under side thereof. This latch is formed at its free end with a hook j, adapted to engage into a notch l on the standard D, and has a finger-piece m, extending directly beneath the finger-piece h' of the retaining-lever. The latch is secured by means of a rivet n passing through ears o, formed on the latch, and projecting into a slot in the retaining-lever, a wire spring p being loosely coiled upon the rivet and bearing with its free ends against the lever and latch, respectively, to cause it to automatically engage the latch with the notch l.

The retaining-lever is made of two like halves, each formed of a sheet-metal blank G, (shown in Fig. 5,) by forming the same between dies, the blank being cut away at proper intervals along its outer edges, so that the parts when formed and united together by the rivets will solidly contact with each other along the projecting edges, while the cut-away portions form the required slots in the lever.

The parts being constructed as shown and described, the operation of the device is intended to be as follows: When the retaining-lever is in the position shown in Figs. 1 and 2, it is firmly locked in position by the latch engaging into the notch *l*, and a checkrein engaged into the eye formed by the post and lever together is securely held in position, and all strain is taken up by the hook or standard C. By pressing against the under side of the finger-piece *h'* the latch will be unlocked and the retaining-lever can be raised up, as shown in dotted lines in Fig. 1. In this position the arm *g* projects forwardly and upwardly, and if in this position a checkrein is engaged with it and the lever then pressed down and locked it will draw the checkrein right into the eye of the post. Likewise at the reverse movement the lever itself carries the checkrein out of the eye of the post. In closing the retaining-lever the hook *j* of the latch rides upon the rear face of the standard and is thus automatically engaged into the notch *l*. As the slot *i* in the retaining-lever embraces the top of the standard D, the parts mutually support and strengthen each other and form a complete eye in the post.

To prevent any injury to the retaining-lever or latch by using too much force in opening or closing, the ends of the slot in the lever are made to act as stops to limit its movement.

In my construction of checkrein-hook the eye in the post cannot be opened by any strain short of breaking the device, as the retaining-lever is positively locked by the latch. At the same time it requires less force to open and close the lever than where friction is relied on to lock the parts together. Moreover, friction-locks soon become inoperative by the constant wearing of the parts. Further, my experience has taught me that checkrein-hooks are often subjected to very considerable strain—as, for instance, in the case of a horse stumbling or with horses having a very hard mouth or certain vicious habits—and therefore strength is a requisite factor in the construction of these devices. Now in the prior state of the art I have never found a checkrein-hook of the locking type of mine that could be economically constructed any other way than by casting the principal parts, at least the post, and for this reason the requisite strength could not be obtained in any other way than by a much larger and heavier construction, which makes them much less desirable than mine, in which not a particle of cast material is employed.

What I claim as my invention is—

1. In a checkrein-hook of the character described, the combination of the headed screw-bolt B, having the slots *e* formed in its head, and the part A formed with front and rear standards C D, and with lugs *d* adapted to engage the slots *e* of the bolt, the two parts being united by upsetting the lugs *d* after they have passed through the slots *e* as specified.

2. In a checkrein-hook of the character described, the combination of the headed screw-bolt B, having slots *e* formed in opposite sides of its head, which slots are countersunk upon their under side, and the part A formed with a front standard C and a rear standard D, said part being stamped out of sheet metal with lugs *d* having protuberances *d'* for uniting the parts together to form the hook-post, substantially as described.

3. In a checkrein-hook of the character described, a hook-post composed of the part A forming the hook-post proper, and a base formed of a common large-headed screw-bolt B, said bolt formed with slots *e* in its head, and the part A with the projecting lugs *d* engaging into said slots, the two parts being united by upsetting the lugs *d* after they have passed through the slots *e* as specified.

4. In a checkrein-hook, the combination of a ring-shaped hook-post A, having front and rear standards C D, forming between them the eye *a*, and the opening *b* leading into it, a hook-shaped retaining-lever E pivotally secured upon the front standard, and having a slot to receive the hook-post, and move thereon to open and close the eye in said hook-post, said retaining-lever being of tubular cross-section, constructed in halves secured together and having marginal portions of each half cut away to form the slot in the retaining-lever.

5. In a checkrein-hook, the combination of a ring-shaped post A, having front and rear standards C, D, forming between them the eye *a* and the opening *b* leading into the top of the eye, a hook-shaped retaining-lever E pivotally secured upon the front standard and slotted intermediate between its ends, to receive the hook-post and move thereon, one end of said slot acting as a stop to limit the movement of the lever, said lever forming a short arm adapted to close the eye of the hook-post, and a long arm adapted to fold upon the hook-post and projecting rearwardly beyond the same, and a locking-latch carried by the rear end of said arm and adapted to engage in a notch on the rear side of the hook-post to lock the retaining-lever in its closed position.

6. In a checkrein-hook, the combination of a ring-shaped hook-post A, having an opening *b* in the front, near the top leading into the eye of the hook-post, and separating the same into a front standard C and a rear standard D, the latter provided with an upward extension or tongue *c*, a hook-shaped retaining-lever pivotally secured upon the top of the front standard, and vertically slotted to receive the hook-post, and move thereon to open and close the eye of the hook-post, said lever having a short arm *g* slotted at its free end and adapted in the closed position of the lever to close the eye of the hook-post and embrace the tongue *c*, of the rear standard and a long arm adapted in the closed position of the lever to fold upon the front standard

and lower portion of the hook-post, and project with its free end rearwardly beyond the same, and a locking-latch F pivotally secured to said free end on the under side thereof, said locking-latch having a finger-piece at its outer end and extending beneath the rear end of the retaining-lever and a hook *j* at its inner end adapted to ride upon the rear face of the hook-post, said rear face having a notch *l* for said hook to engage into to lock the retaining-lever in its closed position.

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

GORDON W. BEGOLE.

Witnesses:
OTTO F. BARTHEL,
JOSEPH A. NOELKE.