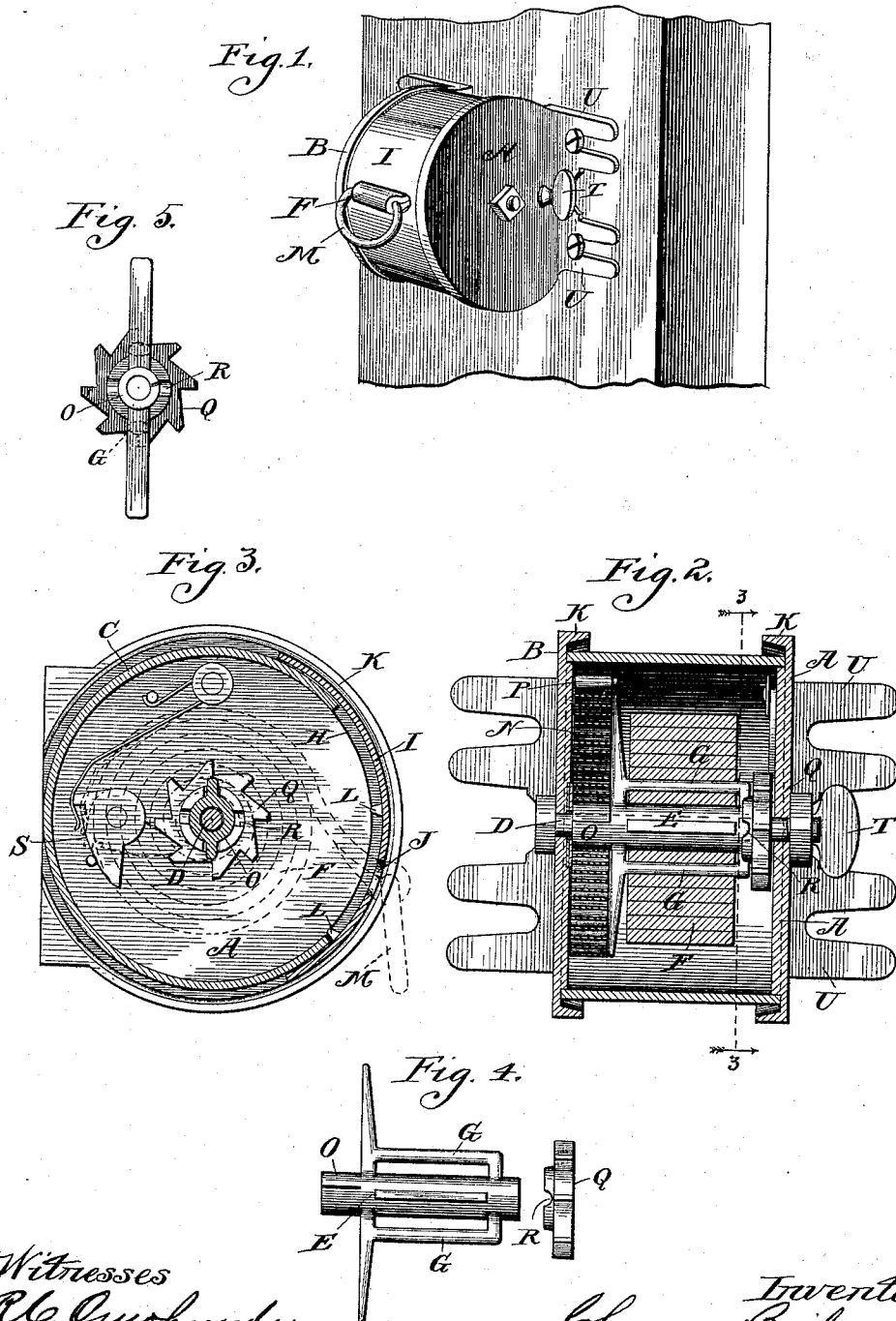


(No Model.)

C. BEILE.
HITCHING DEVICE.

No. 477,634.

Patented June 28, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES BEILE, OF CHICAGO, ILLINOIS.

HITCHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 477,634, dated June 28, 1892.

Application filed January 7, 1891. Serial No. 376,943. (No model.)

To all whom it may concern:

Be it known that I, CHARLES BEILE, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Hitching-Straps, of which the following is a specification.

This invention relates to improvements in hitching-straps more especially designed for use in stables for hitching horses in the stalls, and has for its prime object to have the strap stored in a spring-actuated roll in such manner that the strap may be drawn or pulled out or extended, but when released will be immediately drawn or again rolled by the action of the spring.

Another object is to have the strap-roll so supported in a casing that the roll may be rigidly locked against unwinding whenever desired, whereby a "short hitch" for the horse may be secured without necessity for tying the halter strap or chain.

A further object is to have the spring-actuated strap-roll secured in a casing of such character that the tension of the spring may be increased or diminished through the manipulation of the casing without the necessity for separating the same, and finally to provide certain novel details in the carrying out of my invention, all as illustrated in the accompanying drawings, in which—

Figure 1 represents a perspective view of a hitching-strap embodying my invention; Fig. 2, a central vertical section thereof; Fig. 3, a transverse vertical section on the line 3 3 of Fig. 2, looking in the direction indicated by the arrows; Fig. 4, a detail side elevation of the winding-spool, and Fig. 5 an end view of the same.

Similar letters of reference indicate the same parts in the several figures of the drawings.

Referring by letter to the accompanying drawings, A B indicate the circular ends, and C the body or shell, of a cylindrical casing, which members are bound together by a screw-bolt D, passing through the casing and provided with a head on one end and a nut on the other for binding the parts together against accidental movement relative to each other, but at the same time affording a ready means

for separating the parts of the casing when desired. This screw-bolt constitutes a shaft, upon which is loosely mounted a spool E, on which is wound the strap F, one end of which is secured to the spool in any convenient manner, such as by passing through loops or bails G upon the spool, while the opposite end thereof passes out through an opening H in one side of the shell, which is covered by a sliding cap I, having a small opening J therein of substantially the same dimensions as the strap and through which the strap works when being wound and unwound. This cap works under and is confined in place by inwardly-extending annular flanges K upon the ends of the case, but is perfectly free to move in a circular path, being limited, however, in such movement by stops L upon the inner surface thereof striking against the edges of the opening in the shell. This arrangement permits considerable freedom of movement for the end of the strap without unnecessary friction upon the sides of the opening through which the strap works, and which would tend to wear the same, and at the same time the large opening in the casing is always covered and the parts within the same are obscured from view, are protected against the lodgment therein of dirt and dust, and are always rendered safe from tampering therewith. The outer free end of the strap which projects through an opening in the cap I is provided with a ring M, which subserves the double purpose of preventing the withdrawal of the end of the strap into the case and of a ready means for attaching the halter strap or chain to the hitching-strap. Within the casing is also located a coil-spring N at one side thereof, the inner end of which is secured to the end O of the spool, while the outer end is secured at P to one of the heads of the casing—say the head B—as illustrated, the tension of this spring operating to rotate the spool and wind the strap thereon in the form of a roll, but permits the drawing out or extension of the strap when the end thereof, projecting through the casing, is pulled on with sufficient force to overcome the tension of the spring, which latter, however, operates to immediately withdraw the strap within the casing whenever the end thereof is released

or the pulling force lessened sufficiently to permit such action. Upon the opposite end of the spool is rigidly secured a ratchet-wheel Q, either by notches R in a lateral flange thereon embracing the ends of the bails G or in any other suitable or convenient manner, and in the head A, adjacent to this ratchet-wheel, is pivotally secured a spring-actuated dog S, the pivot of which is provided with an external thumb-piece T, so that the dog may be thrown into engagement with the ratchet-wheel, as illustrated by dotted lines in Fig. 3, and thus effectually lock the spool against rotation in one direction, so as to prevent the drawing out or extension of the hitching-strap when desired. By slight and obvious changes in the formation of this ratchet or otherwise toothed wheel and the locking or engaging dog the strap may be locked with any desired degree of extension and left projecting through the casing any suitable distance without the capability of further extension or withdrawal; but with the arrangement shown in the drawings the strap cannot be locked in any extended position other than with the end just projecting through the opening in the movable cap, for if locked while extended it is free to be wound up by the spring as soon as the pulling force is removed. This locking of the extensible strap is of considerable importance, because a short hitch may be obtained at any time by simply turning the thumb-piece without the necessity for tying up or otherwise shortening the halter strap or chain, and at the same time whenever it is desirable to give the horse more freedom of movement by turning this thumb-piece in the opposite direction he can move to the full limit of the strap and will still at all times have a perfectly taut hitching-strap, which avoids all possibility of the horse getting his foot over the strap and being "cast," which frequently happens where a long hitch with the consequent slack is used with the ordinary hitching-straps.

Should the tension of the spring require changing, either to be increased or decreased, by manipulating the thumb-piece so that the dog will engage the ratchet-wheel and lock the spool against rotation under the influence of the spring and then loosening the nut on the end of the pivoting-bolt D one of the end pieces may be easily revolved in either direction, and thus effect the desired end, for it

will be understood that one end of the actuating-spring of the strap being secured to the spool, which is in turn now movable with one of the heads and the other end of the spring being secured to the other head, obviously any movement or rotation of these heads relative to each other will produce a corresponding effect upon the spring.

A hitching-strap made in accordance with my invention embodies many advantages over the ordinary hitching-strap in that a "long hitch" may be secured without any slack in the strap at any time or a short hitch may be secured without tying up the halter strap or chain by simply locking the strap against extension. The end of the strap may have considerable play or be unwound when extending in different tangential lines from the roll without undue friction between the strap and case, tending to wear the former, and the tension of the spring actuating the strap-roll may be altered at will without the necessity for disconnecting the casing or directly manipulating the spring.

For convenience in attaching the casing to the walls of or a post in the stall the ends A B of the casing are provided with laterally-extending ears U, either perforated or slotted for reception of screws, although any other means for securing the case in position may be employed without departing from the spirit of my invention.

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

The combination, with a cylindrical casing having movable heads and a bolt passing axially therethrough and binding the members of said casing together, of a spool loosely journaled upon said bolt, a strap wound upon said spool, having one end secured thereto and the other end working through an opening in the casing, a spring secured at its ends, respectively, to one end of said spool and the casing, a ratchet-wheel secured to the other end of said spool, and a dog pivoted in the casing and provided with an external thumb-piece for causing the engagement of the dog with the ratchet-wheel, substantially as described.

CHARLES BEILE.

Witnesses:

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