(No Model.)

J. B. FROST.

REIN BUTTON.

No. 442,176. Patented Dec. 9, 1890.

Fig. 1.

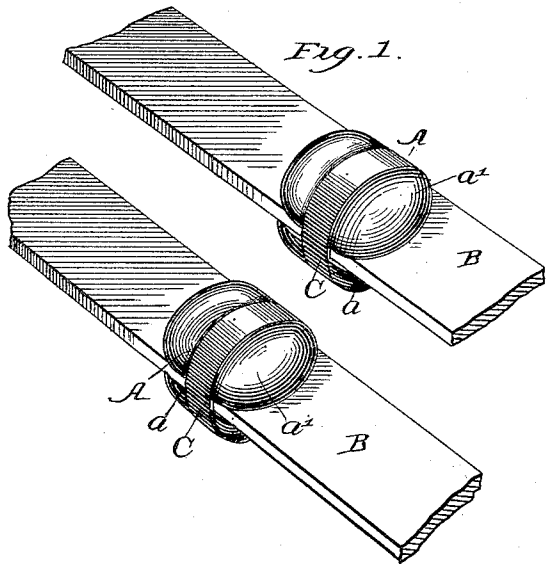


Fig. 2.

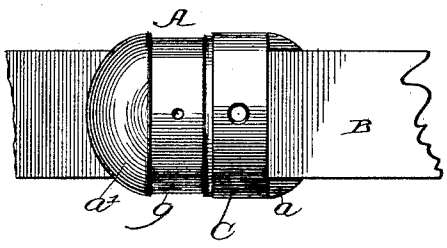


Fig. 3.

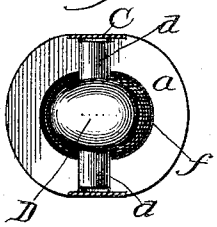


Fig. 4.

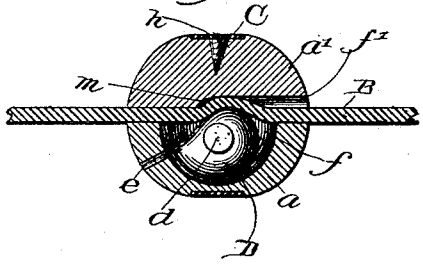
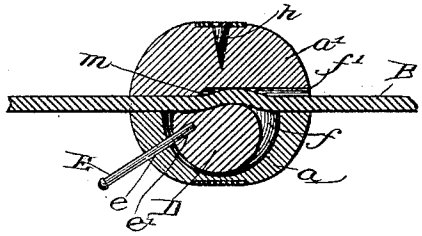


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN B. FROST, OF NAPERVILLE, ILLINOIS.

REIN-BUTTON.

SPECIFICATION forming part of Letters Patent No. 442,176, dated December 9, 1890.

Application filed August 26, 1890. Serial No. 363,151. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. FROST, residing at Naperville, in the county of Du Page and State of Illinois, and a citizen of the United States, have invented certain new and useful Improvements in Rein-Buttons, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view showing a pair of buttons on a pair of reins ready for use. Fig. 2 is a top or plan view, the upper section of the button being partially inserted, showing the method of attaching the button to a rein. Fig. 3 is a top view of the lower section of the button. Fig. 4 is a longitudinal section of the button with the cam in elevation, showing the locking position; and Fig. 5 is a longitudinal section of the button, showing the manner of locking the cam in an inoperative position.

My invention relates to rein-buttons adapted to be attached to driving-reins for the purpose of enabling the driver to secure a firm hold upon the rein.

The object of my invention is to provide a rein-button which, when attached to the rein, will be free to move only in a direction opposite to the pull of the driver, and which will not injure the rein.

A further object is to provide a rein-button which may be readily attached to the rein at the point desired. I accomplish these objects as illustrated in the drawings and as hereinafter specified. That which I claim as new will be set forth in the claims.

In the drawings, A represents the shell of a rein-button adapted to be attached to a rein B. The shell consists of two hemispherical or semi-cylindrical sections *a a'*, firmly bound together by a metallic band or ring C, which is of such size that it will admit of the passage of a rein between the two sections *a a'* of the shell. The band C may be screwed or otherwise secured to one or both of the sections, if desired.

The section *a* is hollowed out or provided with a recess *f* in its inner surface to receive a cam D, supported on trunnions *d d*, as shown in Fig. 3, and is adapted to revolve by frictional contact with the rein when the rein is pulled forward or the button is pushed backward. The trunnions *d d* are supported in grooves formed in the sides of the section *a* at such a height that the top of the trunnions will not extend above the inner surface of the section *a*.

Extending through the wall of the section *a* is a hole *e*, which is adapted to receive a pin E. In the cam D, and adapted to register with the hole *e* in the section *a* when the cam is in an inoperative position, is another hole *e'*, similar to the hole *e*. The upper portion of the cam D extends slightly above the upper surface of the section *a*, as shown in Figs. 4 and 5.

The upper section *a'* of the shell is slightly grooved or hollowed out on its inner surface for a little less than the width of the rein B, forming a shoulder *m*, which groove *f'* extends lengthwise of the shell from the central part of the section *a'* to its edge, as shown in Figs. 4 and 5. The section *a'* is provided on its outer surface with a depression or groove *g*, which is adapted to receive the band or ring C and lock the sections firmly together against the rein when the button is attached to the rein. The wall of the depression or groove *g* in the forward side is slightly higher than the wall on the rear side of the depression or groove.

When it is desired to attach the button to a rein, the section *a'* of the shell is removed from the band C. The band C, in connection with the lower section *a*, is then passed over the end of the rein and moved along to about the point desired, the bearing-surface of the cam D being arranged to engage with the rein when the button is pulled from the horse. Owing to the absence of the upper section, buckles or other obstructions are easily passed. The upper section *a'* is then inserted, as shown at Fig. 2, and pressed into the position shown at Fig. 1, the band C fitting into the groove *g*, where it is securely locked in place by the elasticity of the rein and the pull of the driver. If desired, the band C may be further secured to one of the sections by means of a screw *h* or in any other suitable manner. When the button is on the rein, the rein bears against the upper portion of the cam D, and the pull of the driver upon the button causes the cam to partially revolve, its bearing-surface engaging the rein and

firmly holding it against the shoulder *m* on the inner surface of the upper section *a'* of the shell A. If desired, the button may be moved toward the horse by simply pushing it in that direction, as, owing to the form of the cam D, as clearly shown in Figs. 4 and 5, it will not clamp the rein when moved in that direction. If it is desired to move the button away from the horse, the pin E is inserted through the hole *e* into the corresponding hole *e'* in the cam D, which locks the cam in the position shown at Fig. 5 and prevents its bearing-surface from coming in contact with and clutching the rein.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of a shell composed of separable sections and having an opening for the passage of a rein, and a band encircling said sections, with a rotatable cam inclosed by said shell and adapted to clutch the rein, substantially as specified.

2. In a rein-button, the combination of a band C, with a lower section *a*, cam D supported in said lower section, and upper section *a'*, having a groove *g*, adapted to receive the band C, substantially as and for the purpose specified.

3. In a rein-button, the combination of a band C and shell A, having a hole *e*, with a cam D supported in the shell, and a hole *e'*, adapted to receive a pin E, substantially as and for the purpose specified.

4. The combination, with the shell A, consisting of separable sections *a a'*, groove *g*, hole *e*, and band C, of a cam D supported in one of said sections and adapted to clutch a rein against the other section, and a hole *e'* in said cam adapted to receive a pin E, substantially as and for the purpose specified.

5. In a rein-button, the combination, with a shell composed of separable sections, a band encircling said sections, a groove *f'*, and a shoulder *m* in one of said sections, of a rotatable cam supported in the opposite section and adapted to press a rein against said shoulder, substantially as and for the purpose specified.

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