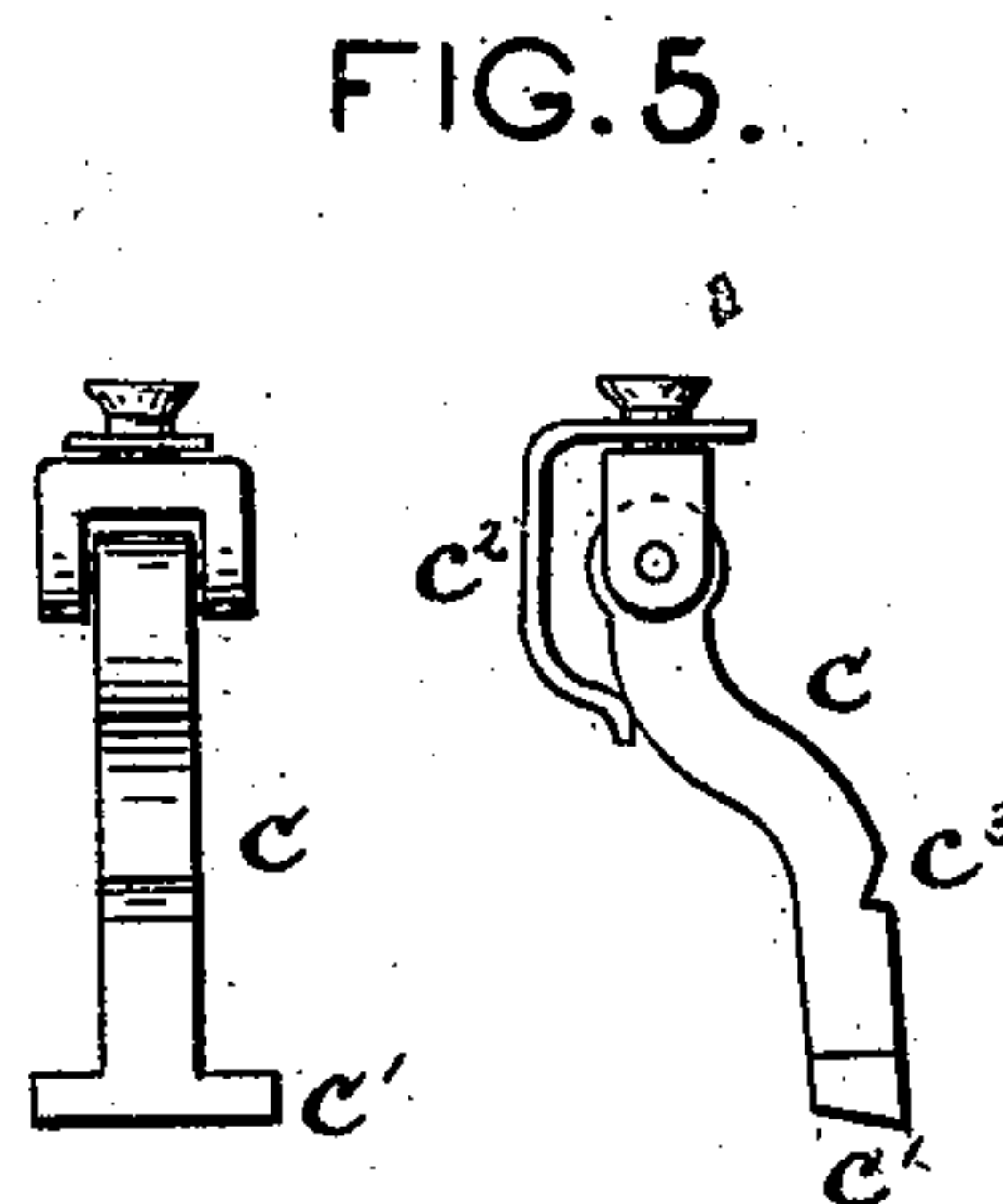
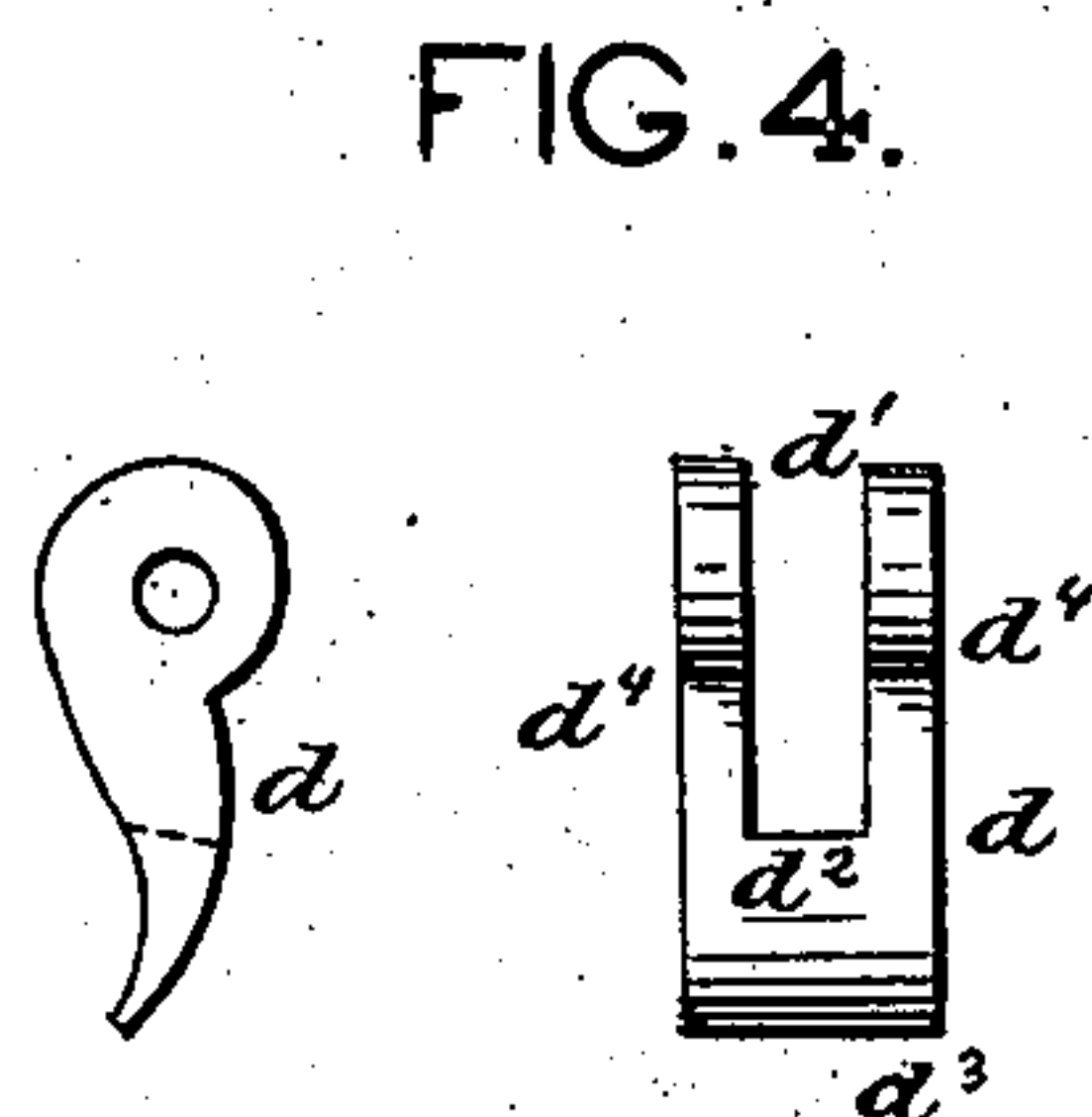
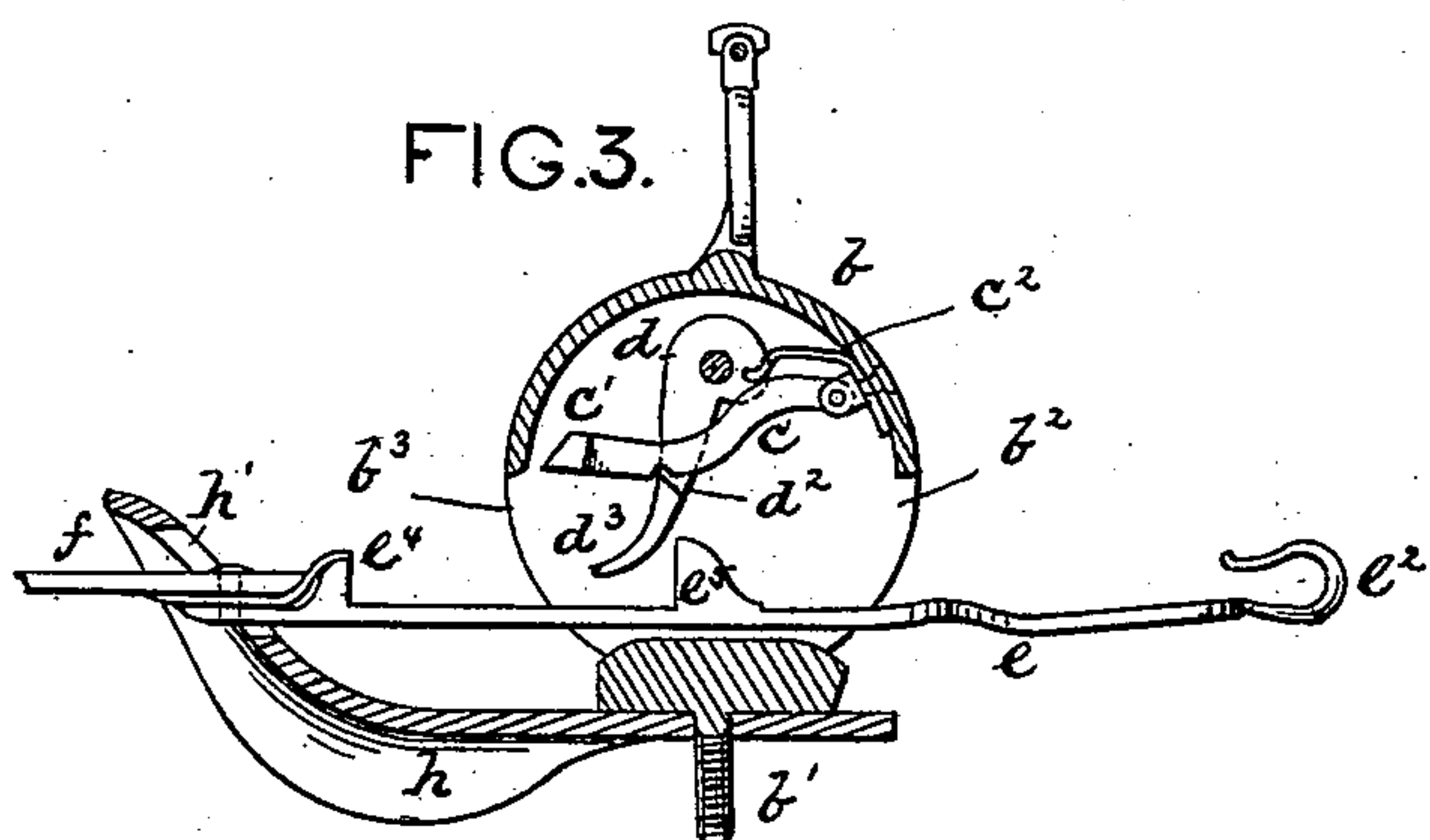
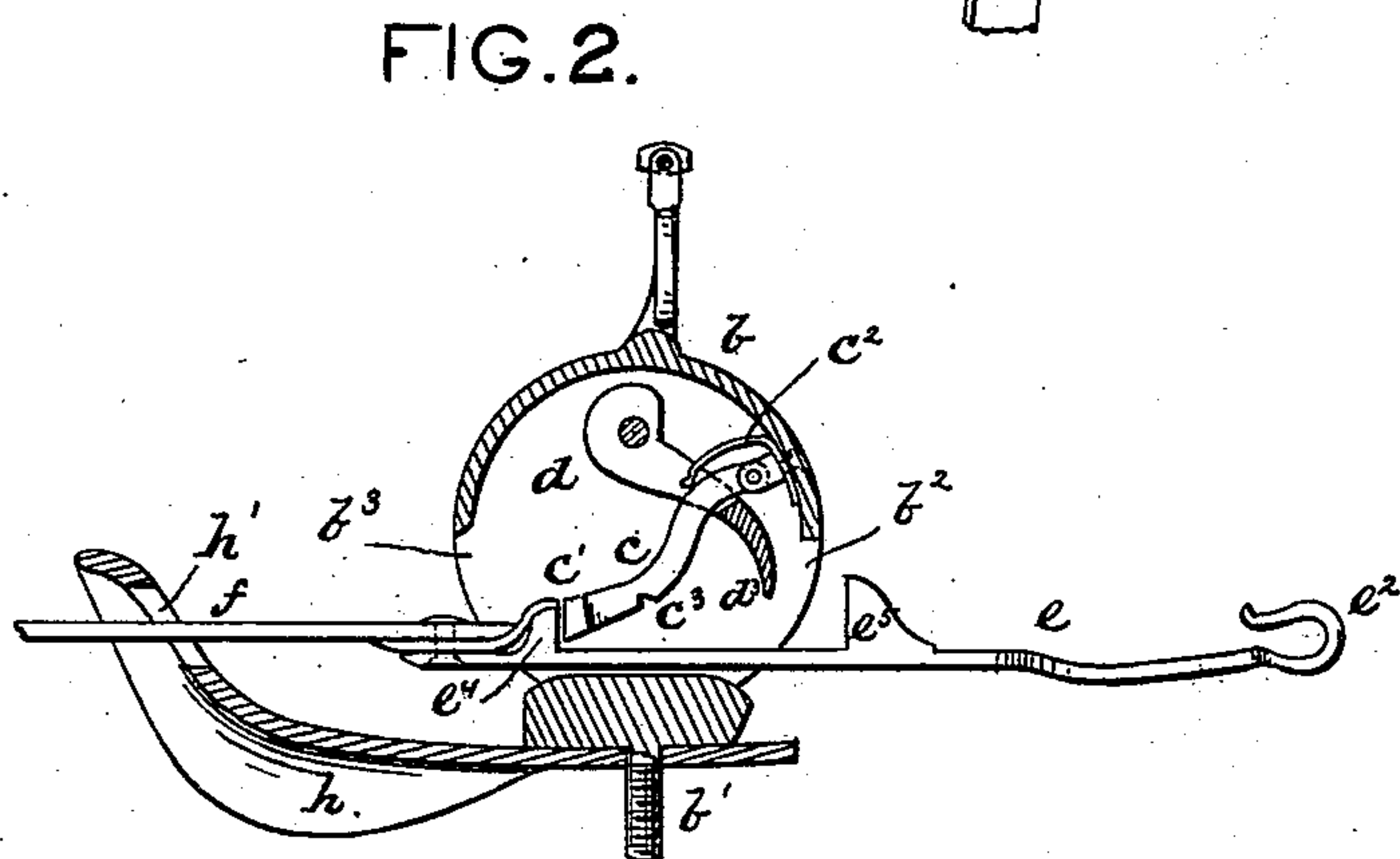
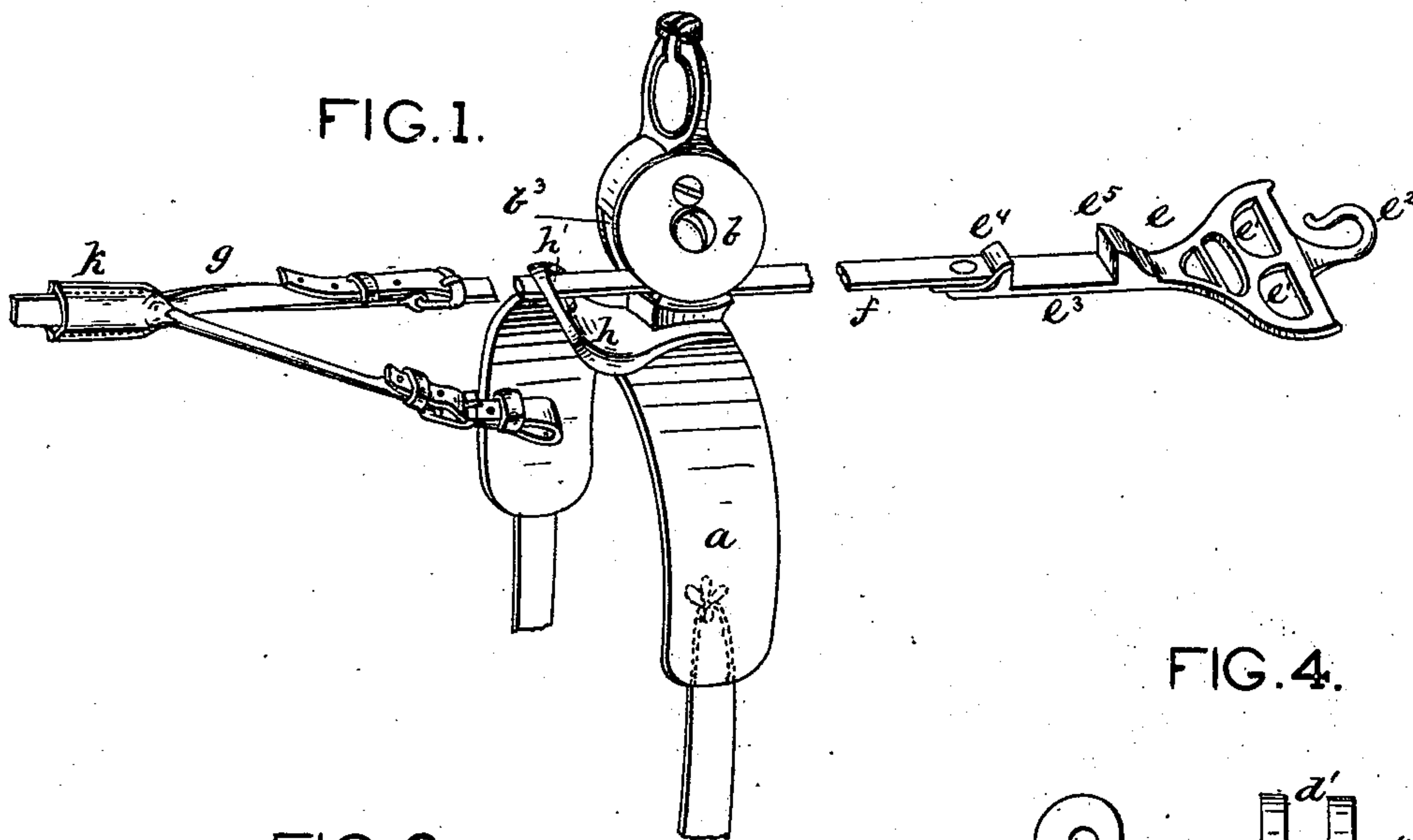


J. W. COOPER.  
Check-Rein Holder for Harness.

No. 226,979.

Patented April 27, 1880.



Witnesses:

Samuel R. Turner  
R. B. Turpin

Inventor  
John W. Cooper  
By R. B. & A. L. Lacey Attys:

# UNITED STATES PATENT OFFICE.

JOHN W. COOPER, OF NEW CASTLE, PENNSYLVANIA.

## CHECK-REIN HOLDER FOR HARNESS.

SPECIFICATION forming part of Letters Patent No. 226,979, dated April 27, 1880.

Application filed February 19, 1880.

*To all whom it may concern:*

Be it known that I, JOHN W. COOPER, a citizen of the United States, residing at New Castle, in the county of Lawrence and State of Pennsylvania, have invented certain new and useful Improvements in Check-Rein Holders for Harness; 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; reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention has for its object to furnish a device by which a horse may be reined up or unreined by the driver without his getting out of the vehicle.

It consists in two interlocking pawls or levers placed in the dome on the saddle or back-strap of the harness; and in a sliding plate or ratchet-bar of peculiar form, to which the check-rein and draw-strap are attached, and which is provided with shoulders which lock or unlock the device, as will hereinafter be more fully explained and pointed out in the claims.

In the drawings, Figure 1 is a side elevation of a harness-saddle having my device applied thereto. Fig. 2 is a sectional view of the dome, showing the device locked, as when the horse is reined up. Fig. 3 is the same with the check-rein released, and Figs. 4 and 5 are detail views.

$a$  is the harness-saddle, on which is placed the cylindrical dome or hollow casing  $b$ . The dome  $b$  is provided with a suitable screw-shank,  $b'$ , by which it may be readily attached to any ordinary harness-saddle, and it is provided with front and rear openings,  $b^2$   $b^3$ , arranged opposite each other, and at its under or lower side, as shown.

Within the casing  $b$ , I place a pawl,  $c$ , which is hinged to the inner periphery thereof and over the front opening,  $b^2$ , as shown in Figs. 2 and 3. It is made long enough to reach nearly to the rear opening,  $b^3$ , and so that its end  $c'$  will engage and hold the sliding ratchet-bar, hereinafter described, or will turn up inside of the casing, as shown in Fig. 3.

To make the bar drop more readily when

released, as hereinafter described, I arrange a spring,  $c^2$ , which bears on its upper side and forces it downward. The pawl  $c$  is slightly curved downward from its hinged end, so that it can be more readily lifted by the lever  $d$ .

The lever  $d$  is formed with a central slot,  $d'$ , through which the pawl  $c$  passes. It is pivoted within the casing or dome  $b$  above and in rear of the pivoted end of the pawl. It has a swinging motion to and fro on its pivot, and it is so arranged that when turned to the rear it lifts and retains the pawl in the elevated position shown in Fig. 3, and when turned forward it permits the pawl to drop down, as shown in Fig. 2.

The pawl has a small notch,  $c^3$ , which engages on a lip or edge,  $d^2$ , on the lever  $d$  at the lower end of the slot  $d'$ . This notch is employed to give greater security, though ordinarily the friction between the lever  $d$  and pawl  $c$  is sufficient to hold the latter up, as described.

$e$  is the sliding ratchet-plate and rein-holder. It is provided with suitable means, as the loops  $e'$   $e'$  or hook  $e^2$ , on its forward end for holding the check-rein, and on its rear end or shank  $e^3$  it is provided with a strap,  $f$ .

On the upper side of the shank  $e^3$  there are formed the shoulders  $e^4$   $e^5$ . The shoulder  $e^4$  is formed so that it will pass into opening  $b^2$ , and entirely through the dome below, and clear of the point of the lever  $d$ , and under the end of the pawl  $c$ . The shoulder  $e^5$  enters the opening  $b^2$ , engages the end  $d^3$  of the lever  $d$ , which prevents it from going entirely through the casing and out at the opening  $b^3$ .

The operation of the device is as follows: The check-rein is fastened to the hook  $e^2$  or in the loops  $e'$   $e'$ . The strap  $f$  is then put through the dome, as shown in Fig. 1, and is buckled to another strap,  $g$ , which extends to the driver in the buggy. By drawing on the straps  $g$   $f$  the end of the plate  $e$  is drawn into the casing, and the shoulder  $e^4$  passes under and past the end of the pawl, which drops automatically behind the said shoulder, as shown in Fig. 2, and locks the plate in the dome, and thus reins up the horse.

To unrein the horse the plate  $e$  is drawn by the draw-strap until the shoulder  $e^5$  enters the dome, engages the end  $d^3$  of the lever  $d$  and



pushes it back till it lifts the pawl into the position shown in Fig. 3. The pawl is locked in this position by the lever *d*.

By releasing the draw-strap the sliding plate *e* will be drawn forward by the horse, the shoulder *e*<sup>4</sup> clears the end of the pawl *c* and strikes the end *d*<sup>3</sup> of the lever *d*, and throws the latter into the position shown in Fig. 2. The end *e*<sup>1</sup> of the pawl drops to the rear of the shoulder *e*<sup>4</sup>.

In order to limit the extent to which the plate *e* can be drawn to the rear and prevent too great strain being made upon the lower end of the lever *d* by the shoulder *e*<sup>5</sup>, I provide a small curved stop-plate, *h*, which has its forward end secured to the harness-saddle by the stem or pin *b*<sup>1</sup> of the dome *b*.

The rear end of the plate *h* is curved upward, and is provided with a small slot, *h*<sup>1</sup>, through which the strap *f* is put, and which is arranged in line with the openings *b*<sup>2</sup> *b*<sup>3</sup>, and at such a distance from the dome that when the shoulder *e*<sup>5</sup> has lifted and caused the lever *d* and pawl *c* to lock, as hereinbefore described, the rear end of the plate *h* will prevent the further rear movement of the said plate *e*.

The strap *g*, for convenience, is inserted in the rim *k*, which is formed to receive it, as shown. It is thus held and preserved, and may be buckled onto the strap *f* when the horse is hitched to the vehicle, and when the animal is unhitched it is folded, tied up, and remains with the reins. The end of the strap *g* next the vehicle passes out of the rim *k*, so that it can be readily taken hold of by the driver and drawn, for the purposes hereinbefore explained.

Instead of having the shoulders *e*<sup>4</sup> *e*<sup>5</sup> formed on a stiff shank, as described, they may be

formed separately, and so that they can be fixed on the strap *f*. The end of the strap in this construction could be provided with a snap-hook or other suitable device for holding the check-rein. I prefer to form the shoulders on the stiff bar *e*<sup>3</sup>, as described, as thereby more exact results are secured.

The swinging lever *d* could be made without a slot, *d*<sup>1</sup>, by having the lip or port *d*<sup>2</sup> to project laterally from one of the arms *d*<sup>4</sup>. The side lip, *d*<sup>2</sup>, would extend under the pawl *c*, and would lift the latter just the same as where the said lever is formed with both arms *d*<sup>4</sup> *d*<sup>4</sup>. I prefer to have the lever made with both arms forming the slot *d*<sup>1</sup>, as hereinbefore described.

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

1. In a check-rein holder, the plate *e*, provided with loops *e*<sup>1</sup> *e*<sup>1</sup> and shoulders *e*<sup>4</sup> *e*<sup>5</sup>, substantially as and for the purposes set forth.

2. The combination, with the pawl *c*, pivoted in the dome *b* and arranged to hold the strap *f*, as described, of the lever *d*, having the lip or shoulder *d*<sup>2</sup> projecting under the pawl *c*, and the strap *f*, provided with means for holding the check-rein, and having the shoulders *e*<sup>5</sup> *e*<sup>4</sup>, substantially as and for the purposes set forth.

3. In a check-rein holder, the combination, with pawl *c*, of the automatic tripping-lever *d*, arranged to operate substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 3d day of February, 1880.

JOHN W. COOPER.

Witnesses:

C. L. EVANS,

GEO. W. MILLER.