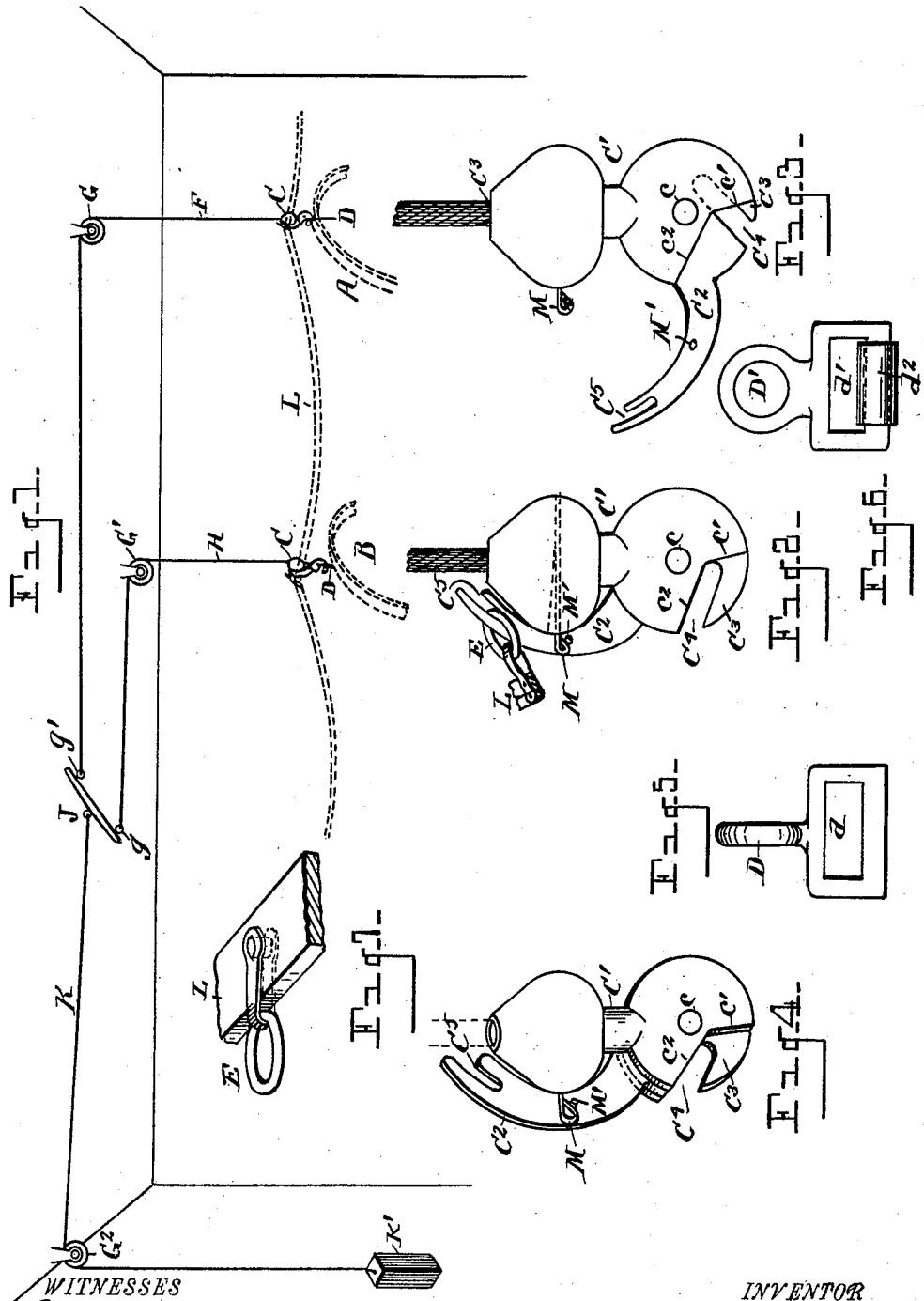
(No Model.)

M. HARCOURT.

HANGER FOR FIRE HARNESS.

No. 602,322. Patented Apr. 12, 1898.



WITNESSES

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MATTHEW HARCOURT, OF DETROIT, MICHIGAN.

HANGER FOR FIRE-HARNESS.

SPECIFICATION forming part of Letters Patent No. 602,322, dated April 12, 1898.

Application filed August 7, 1897. Serial No. 647,479. (No model.)

To all whom it may concern:

Be it known that I, MATTHEW HARCOURT, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Hangers for Fire-Harness; and I 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, which form a part of this specification.

My invention has for its object an improved hanger for fire-harness or, in other words, for harness used in fire departments; and it consists of the construction, combination, and arrangement of devices hereinafter specified and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective illustrating features of my invention. Fig. 2 is a separate view of the supporting device, the parts being in position to support the harness. Fig. 3 is a view of the same, but showing the parts in position occupied when the harness is released. Fig. 4 is a view in perspective. Fig. 5 is a detail view of the ring D engaged with the collar. Fig. 6 is a detail view of the ring D′ engaged with the breeching. Fig. 7 is a detail view showing a ring E engaged with the rein.

It is well understood that it is necessary to support the harness in fire departments in such a manner that it can be instantly dropped upon a horse and entirely freed from everything else, so that the horses can instantly start as soon as the driver can mount to his seat. It is the object of my invention to provide a hanger for this purpose.

I carry out my invention as follows:

A represents the collar of a harness, and B the breeching. The harness itself forms no part of my invention; but the collar is customarily constructed so that it may clasp under the horse's neck.

C represents my improved support, the same being constructed with a body C′, in which is fulcrumed a lever C^2, as shown at *c*, the body being preferably bifurcated to receive the lower end of said lever. The lever is constructed with a hook C^3, which may readily be made simply by forming the lever with a recess C^4. The bifurcated parts of the body are cut away below the fulcrum, preferably so as to form vertical shoulders *c′* and shoulders c^3, extending laterally from the shoulders *c′*, as shown in the drawings. The lever c^2 is formed with an arm projecting upwardly when the device is in position to support the harness, and at its end opposite the hook C^3 is formed with a recess C^5 to engage a harness-ring. The support C is suspended, as by a cord engaged with the body C^7, in any suitable manner. Two of the supports C will be employed to support a harness, one engaged with the collar and the other with the breeching, as indicated in Fig. 1, each support being suspended by a cord. The collar may be provided with a supporting-ring engaged therewith in any suitable manner, said ring being engaged upon the hook C^3 when the harness is in suspended position. One of the reins of the harness is also provided with a ring E, engaged at the opposite end of the lever in the recess C^5. The support engaged with the collar is attached to a cord F, running over a pulley G upon the ceiling. The body C′ may be provided with any suitable orifice, as at c^3, to engage the corresponding cord therewith, although the cord may be engaged with the support C in any suitable manner. The support C engaged with the breeching depends from a cord H, extending over a pulley G′ upon the ceiling. The cords F and H are preferably connected with the opposite ends of an evener J, as at *g* and *g′*. With said evener and intermediate its ends is engaged an additional cord K, extended over a pulley G^2, the opposite end of the cord K being connected with a counterbalance or weight K′. In this manner the weight counterbalances both the collar and the breeching supported upon the two cords F and H. Two guiding-pulleys G G′ and two supporting-cords F and H, one of which is longer than the other, are used for the purpose of supporting the collar in advance of the breeching and to make the two supports comparatively independent of each other. If either portion of the harness is removed from its hook, the other portion is merely raised upward by the counterweight without being further displaced. Thus either part may be removed from its hook without displacing the other. The evener extends in

a transverse position to the longitudinal direction of the harness, so that when either portion of the harness is detached from its hook the evener assumes a position substantially in a straight line with the cord K, and if the counterweight K′ is not heavy enough to raise the other portion of the harness it remains pretty much in the same position. If the counterweight is sufficiently heavy, it will raise that portion of the harness which remains upon its hook a greater or less distance, but in no case higher than the pulley G or G′. The rein L is also engaged in the recess C^5 of the supports C, connected both with the collar and with the breeching, so that when the driver gathers up the reins he will exert a tension upon the upper end of the lever C^2 to throw it over and downward, thereby releasing the rings D in both the collar and breeching simultaneously from the corresponding hooks C^3. It will be obvious, especially by an examination of Fig. 3, that when the lever C^2 is thrown downward the hook C^3 is retracted or drawn back into the chamber between the bifurcated portions of the body C′. As the hook C^3 is forced therewithin the ring D, if it does not readily drop off from the hook C^4 by gravity, will be forced off by contact with the edge c' as the hook is withdrawn into said chamber.

To give sufficient firmness to the lever C^2 in its upright or supporting position, the body C′ is provided with a spring-arm M, preferably passed through a corresponding socket (indicated in dotted lines) in the body C′, the lever C^2 being provided with a pin M′ to engage the spring. The spring M will have sufficient tension upon the pin M′ to hold the lever C^2 in upright position and support the weight of the rein L, the tension of the spring, however, readily allowing the lever C^2 to be thrown down when the rein is gathered up by the driver. The spring may be constructed in any suitable manner. As shown, it is formed with a wedge-faced eye at its upper end to engage the pin.

The bifurcated portion of the body is shown at its lower end, while the upper end is made rounding and tapering toward the top, the upper end of the lever C^2 being shaped to fit the upper portion of the body. The weight of the harness will evidently be supported near the center of gravity upon the support C.

The collar of the harness is provided with any suitable ring to engage the hook C^3, as the ring D, (shown in detail in Fig. 5,) said ring preferably having a rigid engagement with the collar, as by means of a fixed loop d. The breeching-straps are also provided with any suitable ring to engage the hook C^3 of the corresponding portion C, as the ring D′. (Shown in detail in Fig. 6.) The ring is preferably provided with a loop d', provided with a rotatable sleeve d^2.

The levers C^2, as indicated in the drawings, are arranged to trip backward upon pulling up the rein by the driver. The support connected with the collar obviously requires a longer cord connecting with the evener than the support engaged with the breeching, and the cord supporting the weight may have any suitable engagement with the evener to properly support the two parts of the harness.

The object of the evener, with its connections, is to equalize the strain upon the two supporting devices and to prevent either the breeching or collar, respectively, from becoming unhooked from the corresponding support when the other support is free from the corresponding portion of the harness. If one of the cords F or H unhooked and there was no equalizer and counterbalance connected therewith, the other cord would be slackened, whereby it would be liable to become unhooked from the corresponding portion of the harness; but by means of the evener and its connections an equalizer is provided whereby any slack of either of the cords is prevented and a suitable strain is continuously exerted to prevent the corresponding cord from being unhooked from the adjacent portion of the harness.

What I claim as my invention is—

1. A harness-hanger consisting of a supporting-body having a portion of its lower end cut away upon the under rear side, and a lever pivoted in said body and provided with an arm projecting upward on the rear side of the body when in supporting position, and provided with a hook for the engagement of driving-reins with the upper end thereof, the lower end of the lever being provided with a hook to support a portion of the harness, and which hook opens rearwardly, whereby when a pull is exerted upon the driving-reins, the lever will be caused to turn downward at its upper end, and the hook portion will be turned so as to discharge the harness therefrom, substantially as shown.

2. In a harness-hanger, a bifurcated body having a portion cut away upon its lower rear side so as to form the shoulders c', c^2, combined with a lever fulcrumed within the body and provided with an arm projecting upward on the rear side of the upper end of the lever, and with a hook upon its lower end, and which hook opens rearwardly when in a supporting position, the hook being adapted to support a portion of the harness, while the arm at the upper end of the lever supports the rein, and which lever when turned upon its fulcrum by a pull upon the rein, releases both the rein and the harness, substantially as described.

3. In a harness-hanger, the combination of a supporting-body, a lever having a fulcrumed engagement therewith, and constructed to engage a portion of the harness at its lower end and to permit a rein of the harness to have a removable engagement therein, said body provided with a spring, and said lever with a pin to engage the spring, for the purpose described.

4. In a harness-hanger, the combination of

forward and rear supports for the harness, a cord engaged with each of said supports to support the same, an evener to which said cords are connected toward its opposite ends, a counterweight, a cord connecting the evener intermediate its ends with the counterweight, pulleys between the evener and said supports, respectively, over which the corresponding cords are passed, and a pulley between the evener and the counterweight over which the corresponding cord is passed, whereby either of the cords connecting the evener with said supports will be held taut, should the other of said cords be unhooked, substantially as described.

5. In a harness-hanger, two supports having a portion of their lower ends cut away upon their rear edges, provided with two levers, one for each support, and each lever having a slot or recess in each of its ends, combined with suitable supporting cords, chains, or wires, an evener, and a counterweight; the upper ends of the levers being adapted to receive rings connected with the driving-reins and the lower ends to receive the hooks upon the harness to thereby support said harness, whereby when a pull is exerted upon the driving-reins, the levers are caused to turn downward at their upper ends, and the slotted portions of their lower ends are turned so as to discharge the hooks of the harness therefrom, substantially as shown.

In testimony whereof I sign this specification in the presence of two witnesses.

MATTHEW HARCOURT.

Witnesses:
N. S. WRIGHT,
MARY HICKEY.