No. 818,260.

PATENTED APR. 17, 1906.

C. C. KING.

HARNESS.

APPLICATION FILED JUNE 17, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

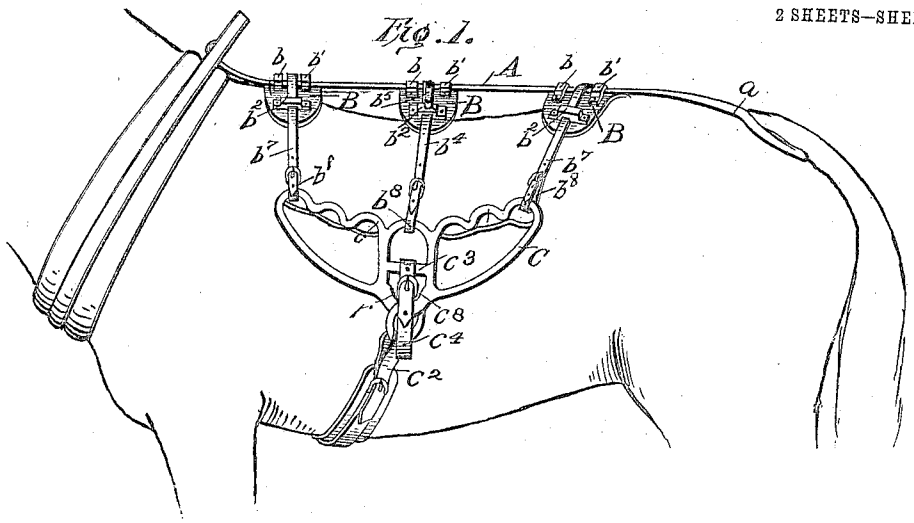


Fig. 2.

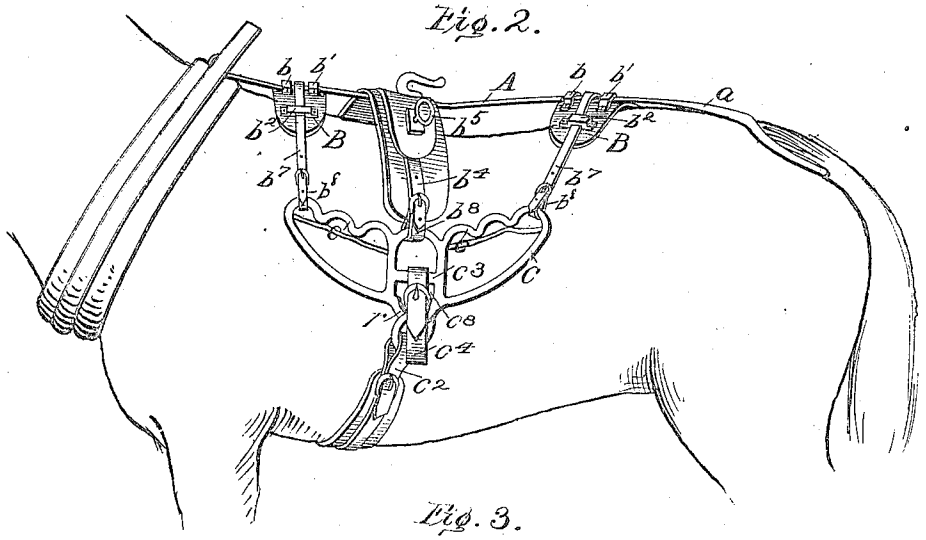
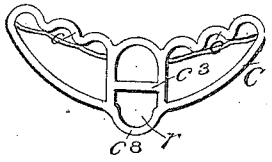


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4.

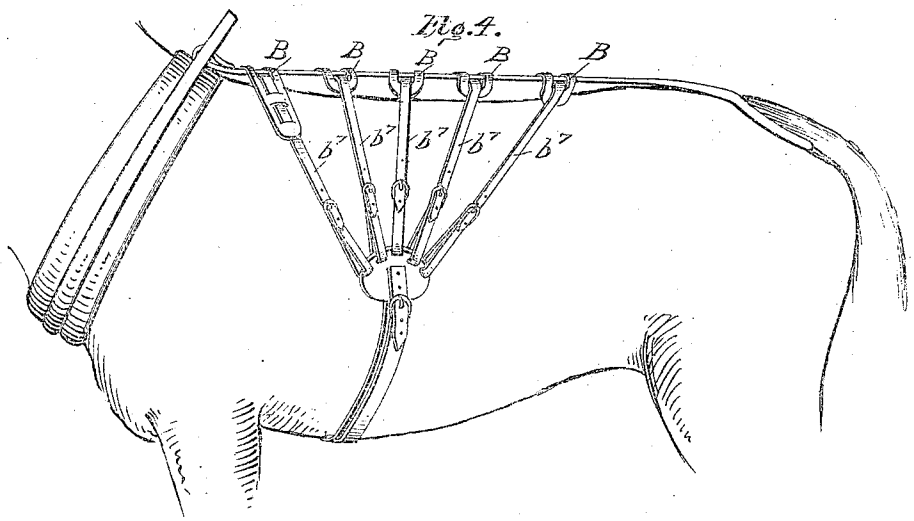


Fig. 5.

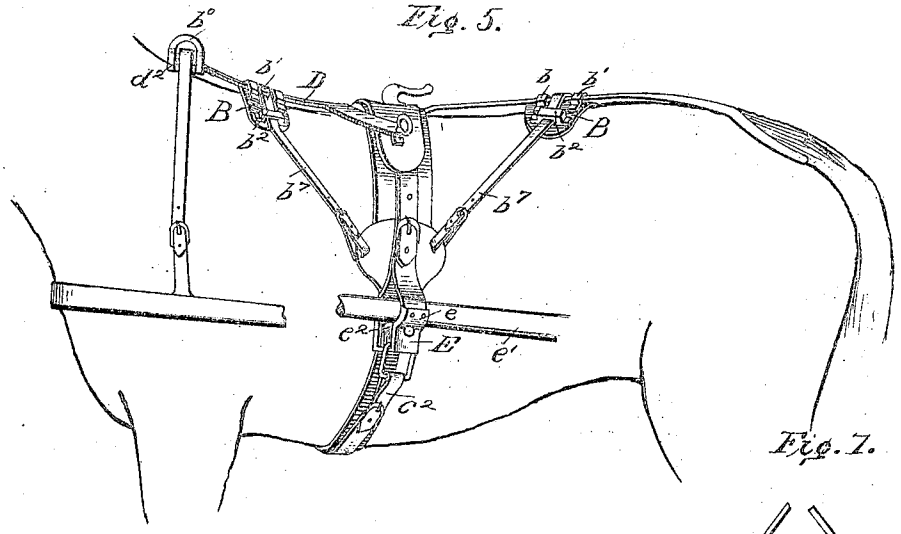


Fig. 7.

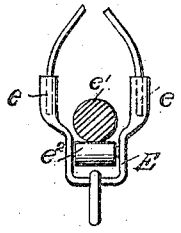
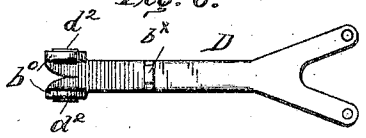


Fig. 6.



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No. 818,260. Specification of Letters Patent. Patented April 17, 1906.

Application filed June 17, 1905. Serial No. 265,714.

To all whom it may concern:

Be it known that I, CHARLES COOPER KING, a citizen of the United States, and a resident of Little Rock, in the county of Pulaski and State of Arkansas, have made certain new and useful Improvements in Harness, of which the following is a specification.

My invention is an improvement in harness; and it consists in certain novel constructions and combinations of parts hereinafter described and claimed.

Referring to the drawings forming a part hereof, Figure 1 is a side elevation of my invention. Fig. 2 is a view of the same applied to an existing set of harness: Fig. 3 is a plan view of the frame. Fig. 4 is a view similar to Fig. 1 of a modified form. Fig. 5 is a view of the same applied to an existing set of harness and used with breast-harness. Fig. 6 is a plan view of the plate used with breast-harness, and Fig. 7 is an end view of the shaft-stirrup.

In the practical application of my invention I provide a back-strap A, having connected with one end thereof a crupper *a* and connected at the other end with a collar or a breast-strap, as may be desired.

A plurality of pads B, of leather, felt, or other suitable material, are connected with the back-strap by means of the keepers b b', centrally arranged at either side of the pad and through which the back-strap is passed. One of the pads, preferably the central one, is provided with keepers b^2, through which passes the back-band b^4, and upon the keepers are secured the terrets b^5. Keepers b^2 are arranged upon the ends of the remaining pads, and through the keepers are passed a plurality of straps b^7, the ends b^8 of which depend on either side from the pads.

A crescent-shaped frame C, having the form shown in Fig. 3, is provided with a plurality of eyes *c*, in the central one of which is buckled the end of the back-band, the ends b^8 of the straps b^7 being buckled in the remaining eyes. It will be understood that a frame is provided on each side of the harness, the frames on the two sides being similar in all respects. The central eye c^8 of the frame is extended downwardly in oval shape, forming a loop *r*, receiving the end of the belly-band c^2, and to a cross-bar c^3 in the loop is buckled a shaft-tug c^4.

A stirrup E, comprising a yoke *e*, having journaled transversely therein a roller e^2, is secured to the free end of the shaft-tug for supporting the shaft e'.

In using my improved harness with a breast-strap I provide the plate D, having diverging branches at either end and provided with a mortise $b^\times$ for the reception of the back-strap. The rear diverging branches are secured to the terrets, and in the forward branches are journaled rollers d^2 to receive the neck-straps of the breast-strap, a retaining-loop b^0 being provided to retain the strap upon the rollers.

In the drawings I have shown the pads provided with keepers to retain the straps in place; but it is evident that the said straps may be passed through slits in the pads, as shown in Figs. 4 and 5, to retain them in place.

In the ordinary form of harness the harness-saddle is placed on the tenderest part of the horse's back, and the unequal motion of the vehicle causes a continuous rubbing thereof, due to the fact that the shafts do not slide freely through the stirrup. By providing the friction-rollers in the stirrups the shaft is permitted to move freely thereover, thus reducing to a minimum the rubbing due to this cause, and by providing a plurality of supports for the stirrup at different points on the back a firmer support for the stirrup is provided, decreasing to a considerable extent the movement thereof and also equalizing and distributing the weight of the shaft.

This improvement may be applied to existing harness, as shown in Figs. 2 and 5, and should a chafe appear under one of the pads the strap connecting such pad with the frame may be loosened, thus releasing the pressure on that part.

In Figs. 4 and 5 are shown a form of pad provided with slits instead of keepers for the reception of the straps and a plate having openings to receive the straps instead of the frame provided with eyes.

In the form of harness shown in Figs. 4 and 5 it would be necessary to secure the pads D or the straps b^7 to the back-strap to prevent the pads from slipping along the said strap; but in the form shown in Figs. 1 and 2 the plate C will keep the pads separated.

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

1. In harness, the combination of a back-strap, a plurality of pads connected with the

back-strap, a back-band connected with the central pad, a plate connected with one of the pads and the back-strap, and provided with diverging branches at its free end, rollers journaled longitudinally of the branches, straps connected with the remaining pads and depending from either end thereof, crescent-shaped frames provided with eyes to receive the depending straps and the back-band, shaft-tugs depending from the frames, stirrups connected to the shaft-tugs, and shaft-supporting rollers journaled transversely of the stirrups.

2. In harness, the combination of a back-strap, a plurality of pads connected with the back-strap, a back-band connected to one of the pads, straps connected with the remaining pads and depending from either end thereof, crescent-shaped frames provided with eyes to receive the depending straps and the back-band, shaft-tugs depending from the frames stirrups connected to the shaft-tugs and shaft-supporting rollers journaled transversely of the stirrups.

3. In harness, the combination of a back-strap, a plurality of pads connected with the back-strap, one of said pads being provided with terrets, straps connected with the pads and depending from either end thereof, frames provided with eyes to receive the depending straps, shaft-tugs connected with the frames, and stirrups provided with shaft-supporting rollers connected with the shaft-tugs.

4. In harness, the combination of a back-strap, a plurality of pads movably connected to the back-strap, terrets on one of the pads, straps connected with the pads and depending from the ends thereof, frames connected to the free ends of the depending straps, shaft-supporting stirrups and means for securing the stirrups to the frames.

5. In harness, the combination of a back-strap, a plurality of pads connected with the back-strap, shaft-supporting stirrups, rollers journaled transversely of the stirrups and a plurality of straps connecting the pads and the stirrups.

6. In harness, the combination of a back-strap, a plurality of pads connected with the back-strap, means for receiving and supporting a shaft, and means connecting said supporting means with the individual pads.

7. In harness, the combination of a back-strap, a plurality of pads connected with the back-strap, shaft-supporting means, means connecting the individual pads with the shaft-supporting means, a breast-strap provided with a neck-strap and means connected with one of the pads for receiving and supporting the neck-strap of the breast-strap.

8. In harness, the combination of a back-strap, a plurality of pads connected to the back-strap, a breast-strap, and means connected with one of the pads for receiving and supporting the breast-strap.

9. In harness the combination of a back-strap, shaft-supporting means, a plurality of means connecting the shaft-supporting means with the back-strap whereby the weight of the shafts is distributed on different parts of the back-strap.

10. In harness, the combination of a back-strap, shaft-supporting means, means connecting the shaft-supporting means with a plurality of points on the back-strap, and means whereby the pull of the shaft-supporting means may be shifted to different parts of the back-strap.

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Witnesses:
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J. SAMUELS.