A. M. BEAN.

HARNESS HANGER.

APPLICATION FILED NOV. 8, 1916.

1,242,125. Patented Oct. 9, 1917.

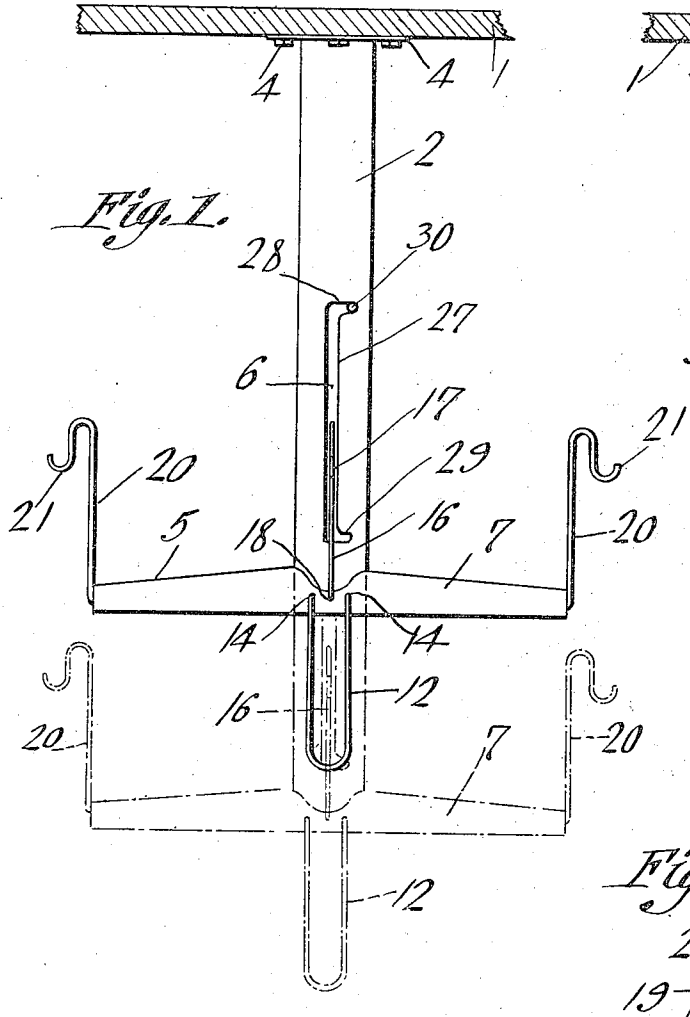

Fig. 1.

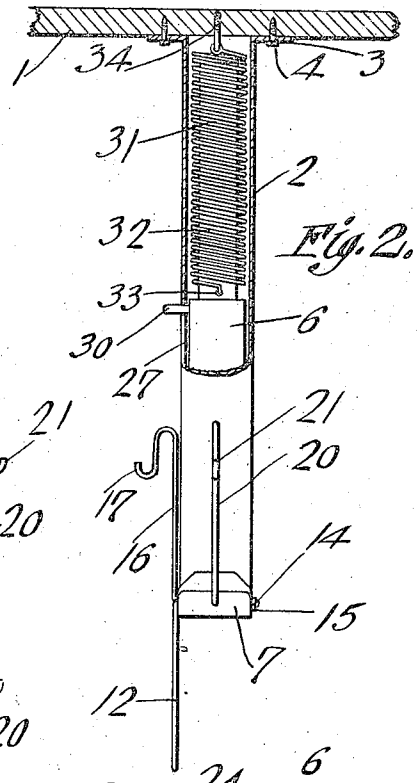

Fig. 2.

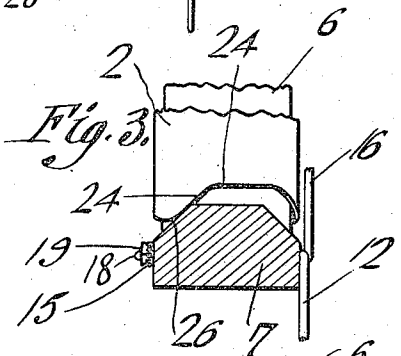

Fig. 3.

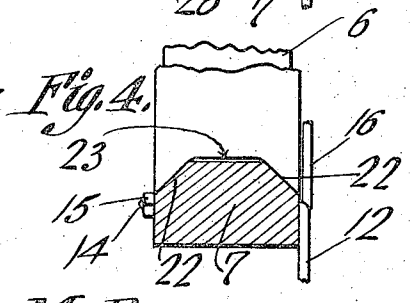

Fig. 4.

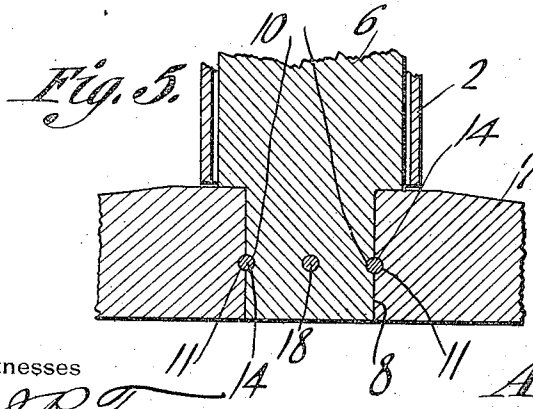

Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

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HARNESS-HANGER.

1,242,125. Specification of Letters Patent. Patented Oct. 9, 1917.

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To all whom it may concern:

Be it known that I, ALBERT M. BEAN, a citizen of the United States, residing at Colville, in the county of Stevens and State of Washington, have invented a new and useful Harness-Hanger, of which the following is a specification.

The device forming the subect matter of this application is adapted to be employed for suspending a harness above a horse, the construction being such that a vertically movable rack may be pulled downwardly, and locked in a depressed position, so that the harness may be removed readily from the rack, and be placed on the horse or other draft animal.

The invention aims to improve the construction of the rack, and to provide novel means whereby the rack is manipulated and maintained in adusted positions.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the present invention appertains.

With the above and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings:—

Figure 1 shows in side elevation, a harness hanger embodying the present invention;

Fig. 2 is an elevation wherein the device is viewed at right angles to the showing of Fig. 1, parts appearing in section;

Fig. 3 is a fragmental side elevation showing one side of the guide tube and attendant parts, the head portion of the rack being in section;

Fig. 4 is a view similar to Fig. 3 but showing the opposite side of the guide tube from that disclosed in Fig. 3; and

Fig. 5 is a fragmental longitudinal section showing the joint between the parts of the rack.

In the accompanying drawing, the numeral 1 indicates an overhead support which may be a part of a barn or stall. The numeral 2 designates a vertical guide tube attached by means of a flange 3 and securing elements 4 to the support 1.

The invention comprises a harness holding rack denoted generally by the numeral 5. The rack 5 includes a stem 6 having a reduced neck 31, the stem being mounted to slide within the guide tube 2. The rack 5 includes a head 7 disposed transversely of the stem 6. In the head 7 a mortise 8 is formed. The stem 6 terminates at its lower end in a tenon 9 received in the mortise 8. In the sides of the tenon 9, seats 10 are formed, the same being disposed opposite to seats 11 formed in the head 7 along the side walls of the mortise 8. The numeral 12 denotes a depending loop-shaped handle having rectangularly disposed extensions 14. When the tenon 9 is disposed in the mortise 8, the extensions 14 are engaged in the seats 10 and 11, and constitute a means whereby the head 7 cannot be pulled off of the lower end of the stem. Nuts 15 may be threaded on the rear ends of the extensions 14, the nuts engaging the rear face of the head 7 of the rack 5. The numeral 16 denotes an upstanding rod provided with a hook 17 at its upper end. The lower end of the rod 17 is bent to form a rectangular arm 18. The arm 18 passes through the head 7 and through the tenon 9 and constitutes an additional means for holding the head 7 on the lower end of the stem 6. A nut 19 may be threaded onto the rear end of the arm 18, the nut coacting with the rear face of the head 7. Mounted in the ends of the head 7 are upstanding rods 20 provided with hooks 21.

The upper edges of the head 7 are beveled as shown at 22 in Fig. 4. At its lower end, and at one side, the guide 2 is notched as shown at 23 to coöperate with the beveled pinions 22. At its opposite side, the lower end of the guide tube 2 is notched as shown at 24 in Fig. 3. One edge 25 of this notch has functions which will be brought out hereinafter, and since one of the beveled faces of the head 7 coöperates with the edge 25, this face in Fig. 3 of the drawings has been designated, for the purpose of describing the operation of the structure, by the reference numeral 26.

The guide tube 2 has an upright bayonet slot 27 including an upper lateral extension 28 and a lower lateral extension 29. The stem 6 carries a pin or proection 30, adapted to traverse the bayonet slot 27 and its extensions 28 and 29. Surrounding the neck 31 of the stem 36 and located within the guide tube 2 is a retractile spring 32. The lower end of the spring 32 is secured as shown at

33 to the neck 31. The upper end of the spring 32 is attached to a screw eye 34 or like device located within the contour of the guide tube 2 but carried by the support 1. The stem proper 6 fits closely and slidably within the guide tube 2, and because the neck 31 is of less diameter than the body portion of the stem, there is room for the retractile spring 32 to operate, without unnecessary friction, between the neck 31 and the guide tube 2.

In practical operation, the hames of a harness, the head-stall or the like, may be mounted on one of the hooks 21. The belly band may be mounted on the hook 17, and the crupper or breeching may be mounted on the other hook 21.

When the operator desires to place the harness on a draft animal, the stem 6 is rotated by means of the head 7 until the pin 31 in the stem 6 moves out of the upper extension 28 of the bayonet slot 27. The rack comprising the stem 6 and the head 7 then may be pulled downwardly, the spring 32 being put under tension. A slight rotation of the stem 6 will lodge the pin 31 in the lower extension 29 of the bayonet slot, and thus the rack will be held in a depressed position. The harness may then be removed from the hooks 21 and 17, and may be placed on the draft animal.

By rotating the stem 6, the pin 31 may be detached from the lower extension 29 of the bayonet slot 27, whereupon the spring 32 will react, and pull the rack 5 up into the position of Fig. 1. As the rack 5 moves upwardly, the edge 25 of the tube 2 ultimately engages with the inclined face 26 of the head 7. This operation gives a slight twisting movement to the stem 6, and lodges the pin 31 in the upper extension 28 of the bayonet slot 27.

The construction of the device is such that, after the harness has been mounted in place on the hooks 17 and 21, the operator merely gives a slight rotation to the stem 6, by means of the head 7, whereupon the rack 5 will rise under the action of the spring 32, the harness being elevated into an out of the way position, and the pin 31 engaging in the lateral extension 28 of the bayonet slot 27, automatically, in the manner hereinbefore set forth. The rack 5 may be pulled downwardly by means of the handle 12.

Having thus described the invention, what is claimed is:—

1. A harness hanger including a guide tube; means for securing the upper end of the guide tube to an overhead support; a stem mounted to slide in the guide tube; spring means located in the guide tube and assembled with the stem for raising the stem; interengaging elements on the stem and on the guide tube coacting to hold the stem in a lowered position against the action of the spring means; a transverse head attached to the lower end of the stem and of a length to extend between the hames and the breeching of a harness; hangers carried by the ends of the head; and a hanger on the intermediate portion of the head, the last specified hanger constituting means for supporting the belly band of a harness.

2. In a harness hanger, a guide tube; means for securing the upper end of the guide tube to a support; a rack including a stem and a transverse head, the stem being mounted to reciprocate in the guide tube; a projection on the stem, the guide tube being provided with a bayonet slot having a lateral extension wherewith the projection coacts; spring means for raising the rack; and interengaging, mutually inclined parts on the guide tube and on the rack, coacting to give rotary movement to the stem, when the rack is elevated by the spring, and to cause the projection to engage with the extension of the bayonet slot.

3. A harness hanger including a guide tube provided with a bayonet slot; means for securing the upper end of the guide tube to an overhead support; a stem mounted to slide in the guide tube; spring means located within the guide tube and assembled with the stem for raising the stem; a projection on the stem and coacting with the bayonet slot; a transverse head attached to the lower end of the stem; hangers on the ends of the head; and a hanger on the intermediate portion of the head, in alinement with the guide tube.

4. A harness hanger including a guide; means for connecting the upper end of the guide with a support; a head having a mortise; a stem mounted to slide in the guide and including a tenon received in the mortise; article supporting means carried by the head; spring means for raising the stem in the guide; and a handle whereby the stem and the head may be pulled downwardly against the action of the spring means, the handle having an angular extension, and the head and the tenon being provided with coöperating seats in which the extension is received, whereby the extension will constitute a means for securing the head to the tenon.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ALBERT M. BEAN.

Witnesses:
JEAN MCCLOUD,
L. C. JESSEPH.