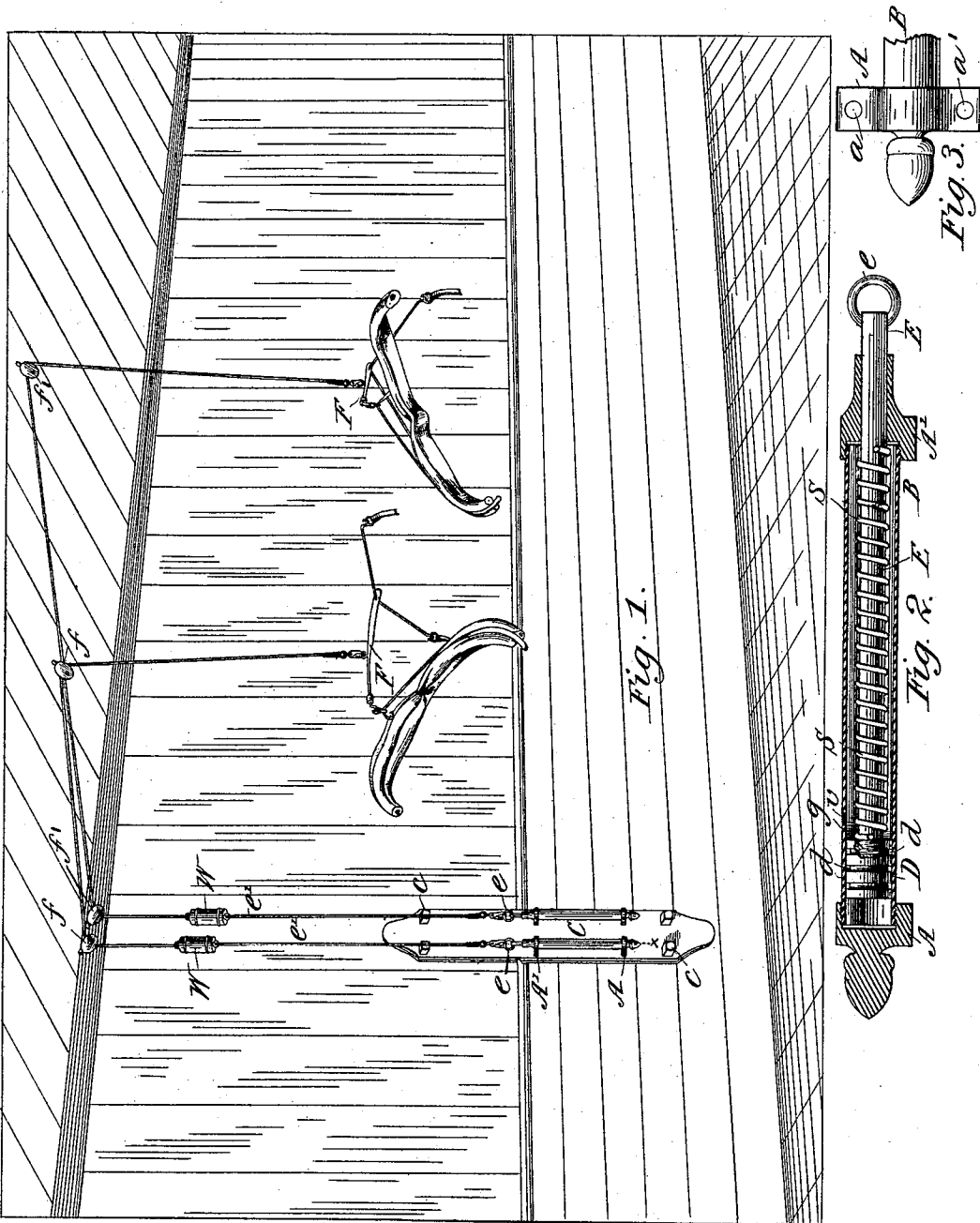


(No Model.)

J. E. RICKER.
HARNESS SUPPORT.

No. 326,330.

Patented Sept. 15, 1885.



Witnesses:
John L. Conroy

John F. C. Printz

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UNITED STATES PATENT OFFICE.

JOHN E. RICKER, OF BOSTON, MASSACHUSETTS.

HARNESS-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 326,330, dated September 15, 1885.

Application filed June 8, 1885. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. RICKER, of Boston, (Cambridge,) county of Middlesex, State of Massachusetts, have invented an Improvement in Harness-Supports, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention is designed particularly for use in fire-engine stations, where it is necessary to have the harness suspended so that it may be readily placed upon the horse, when required, without necessitating any undue delay or loss of time.

Prior to my invention it has been customary to suspend the harness from a supporting bar or hanger connected with a rope extended over pulleys secured to the ceiling, the rope being provided at its other end with a weight sufficient to keep the harness-supporting bar in position slightly above a horse's back, and when the collar was clasped on the horse and it and the harness thus removed from the bar or hanger, the said weight was immediately dropped to the floor, causing considerable jar and wear. To overcome this objectionable jar is one of the chief objects of my invention.

My invention consists, essentially, of a cylinder (having attached head-pieces or ears, and) having a piston and a piston-rod surrounded by a spiral spring, one end of which bears against the piston and the other end against the upper head of the cylinder, combined with a harness-suspending bar or hanger and a rope and weight thereon to counterbalance the weight of the suspending-rod, the compressed spring counterbalancing the weight of the harness and the weight lifting the suspending-rod when the harness is removed.

Figure 1 represents in perspective part of a room, showing my improved apparatus in position with the ropes connected thereto and to the weights and harness-suspending bars, which are shown as holding only the hames and collars. Fig. 2 is a vertical section of my apparatus, taken in the line *x*, Fig. 1; and Fig. 3 is a detail view of one of the head-pieces or ears connected with the hollow cylinder, part of which cylinder is also shown.

The cylinder is composed of a tube, B, secured at its ends to two head-pieces or ears,

A and A', provided with holes *a a'*, to receive screws or bolts which fasten the same either to the wall or to a suitable board, C, which in turn is secured to the wall by bolts *c*, or in any other desired or convenient manner.

The piston D on the piston-rod E is provided with annular grooves *d*, which, when the piston is worked, retain enough air to form a packing for the requirements of my invention. One end of the piston-rod E is screwed into the piston D at *g*, and the other end projects outward beyond the upper head-piece, A', where it is provided with a ring, *e*, to which the rope *e'* is hooked in any desired or approved manner.

The cylinder B has a hole or vent, *v*, for the entrance of air when the piston is drawn upward to compress the spring S.

The ropes *e'*, which are connected to the piston-rod, pass over pulleys *f f'*, placed in desired positions upon the wall and ceiling, and have their ends connected or hooked to the harness-suspending bars F.

Each rope *e'* is provided with a weight, W, sufficiently heavy to a little more than counterbalance the weight of the suspending-bar F, so that the weight, when the harness is removed, will lift the suspending-bar F sufficiently to be above the engine to allow the latter to pass under the suspending-bar. The piston-rod is surrounded by a spiral spring, S, which, when extended normally, as in Figs. 1 and 2, supports the suspending-bar and harness thereon in a yielding manner, so that the latter, when grasped by the fireman and pulled down to clasp the collar and harness, yields, the piston-rod at such time being drawn out and compressing the spring; but as soon as the harness is tripped from the suspending-bar the spring assumes its normal position, ending in starting quickly the upward movement of the suspending-bar, the piston, however, not striking a blow in the cylinder because of the air tripped therein below the head of the piston.

I claim—

1. The herein-described harness-supporting apparatus, composed, essentially, of a piston, piston-rod, and spring thereon, and the cylinder within which the piston-rod works, in combination with a rope and pulleys to sup-

port it, the end of the rope farthest from the cylinder serving to suspend the harness, substantially as described.

2. The hollow cylinder B, head-pieces or
5 supports A A', piston D, piston-rod E and
spring S, the rope e' , weight W, and pulleys
f, combined with the harness-supporting
bar, substantially as and for the purposes set
forth.

In testimony whereof I have signed my name to
to this specification in the presence of two sub-
scribing witnesses.

JOHN E. RICKER.

Witnesses:

GEO. W. GREGORY,
W. H. SIGSTON.