

No. 634,604.

Patented Oct. 10, 1899.

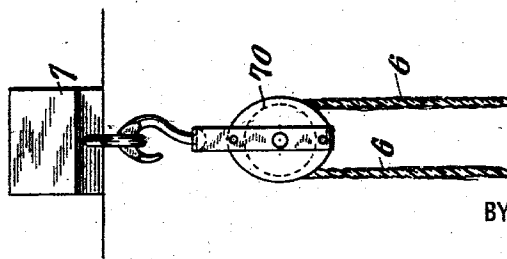
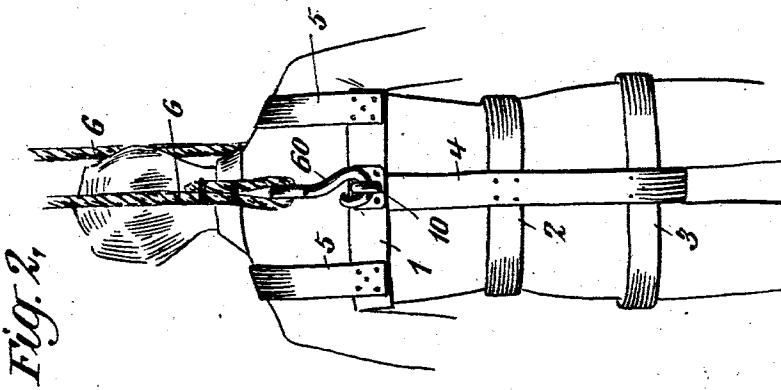
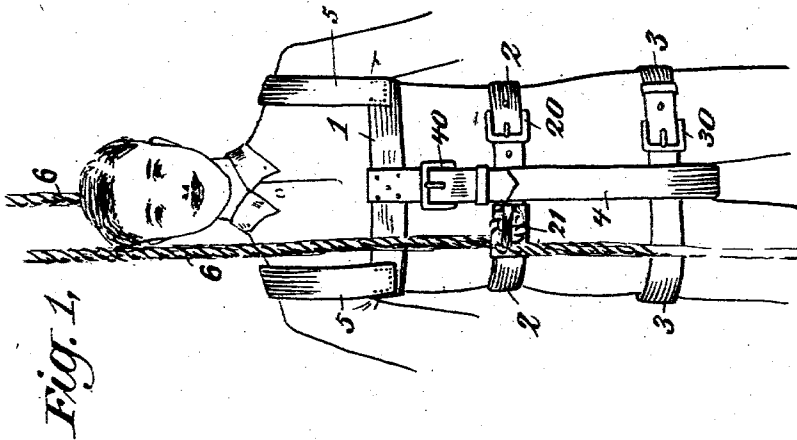
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APPARATUS FOR PROTECTING WORKMEN ON SCAFFOLDS.

(Application filed June 24, 1899.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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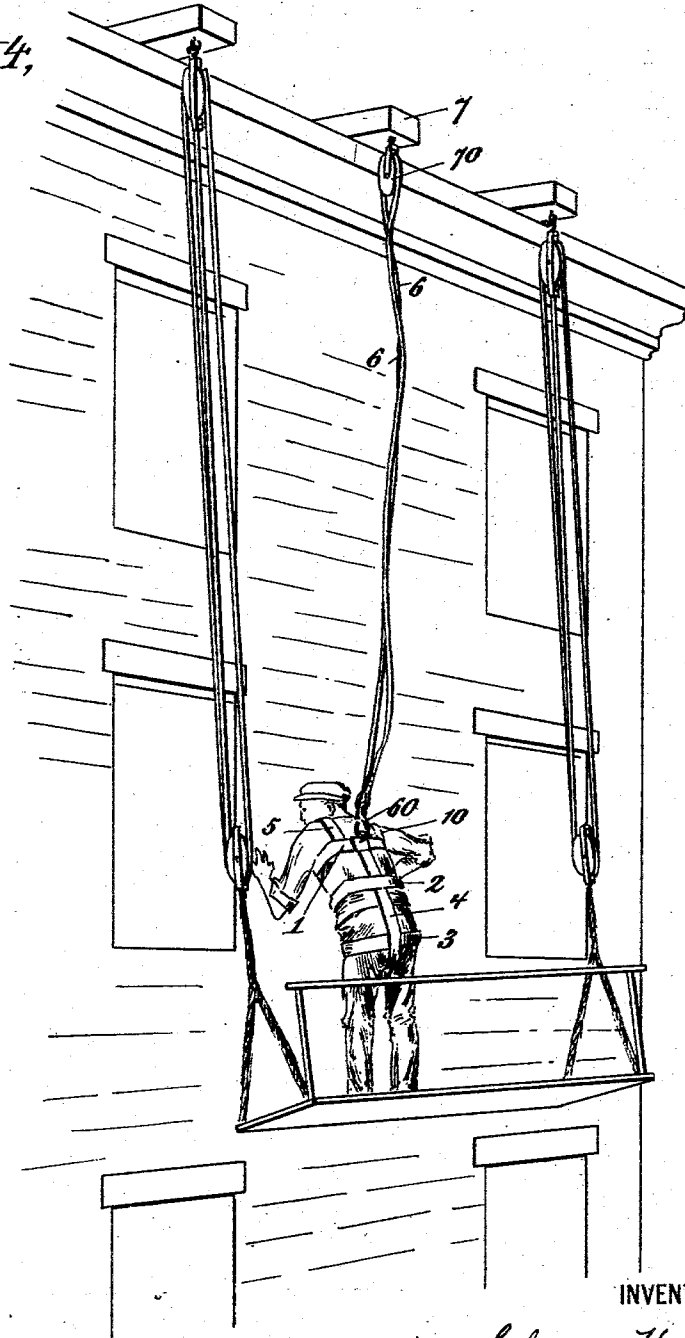
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(No Model.)

2 Sheets—Sheet 2.

*Fig. 4,*



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# UNITED STATES PATENT OFFICE.

CHARLES H. ASCHE, OF NEW YORK, N. Y.

## APPARATUS FOR PROTECTING WORKMEN ON SCAFFOLDS.

SPECIFICATION forming part of Letters Patent No. 634,604, dated October 10, 1899.

Application filed June 24, 1899. Serial No. 721,739. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. ASCHE, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings, in the State of New York, have invented a certain new and useful Improvement in Apparatus for the Protection of Workmen on Scaffolds, of which the following is a full, clear, and exact description, reference being made to the accompanying drawings, forming part of this specification.

This invention relates to apparatus comprising a harness to be worn by a workman on a scaffold and a rope which serves to connect the harness with a fixed support above the scaffold; and the invention consists of the combination, with a scaffold, of apparatus constructed and arranged as herein described and claimed.

On the accompanying sheets of drawings, Figure 1 is a front view of the harness as it appears on a workman and portions of the rope; Fig. 2, a rear view thereof; Fig. 3, a view of a support from which the rope hangs and with which the harness is connected by the rope, and Fig. 4 shows the arrangement of the apparatus in use with respect to the scaffold on which the workman stands.

Similar reference-numerals designate like parts in the different views.

This apparatus is intended to be used by painters especially who work on swinging scaffolds composed usually of ladders partly covered with boards and suspended from the roofs or windows of buildings by ropes and pulleys.

The object of the invention is to prevent the workmen from being injured or killed if a scaffold should fall, or if they should fall from a scaffold, and to effect this result by means which will not seriously interfere with the necessary movements of the men on the scaffold or with the free use of their hands and arms; but the invention would doubtless be serviceable also to workmen on scaffolds of other forms, as will appear from the following description of the construction, arrangement, and use of the apparatus.

The harness is composed of the belts 1, 2, and 3, the strap 4, and the shoulder-straps 5.

straps are attached at their ends, as shown. The strap 4 is composed of two parts which are secured together by a buckle 40, one part being attached to the front and the other to the back of the belt 1 midway between the shoulder-straps. The belts 2 and 3 are permanently fastened to the strap 4 at the back of the harness and are provided with buckles 20 and 30, and when the harness is worn these belts pass through loops on the inside of the strap 4 in front of the wearer's body and their ends are buckled together by the buckles 20 and 30, as appears by Fig. 1. The strap 4 is padded on the inside between the place where the belt 3 is permanently fastened to it and the loop through which that belt passes. On the back of the belt 1 at the place where the strap 4 is fastened to the belt is an eye 10. The rope 6 is provided at one end with a hook 60, which engages with the eye 10.

The support from which the rope hangs should be an object to which the scaffold is not connected or which would not be carried away by the scaffold if that should fall. A suitable support is a beam 7, projecting from a window or the roof of the building, with a pulley 70 depending from the beam. From this support the rope hangs as shown by Fig. 3, passing over the sheave of the pulley and thence downward, one part of the rope being that to which the hook 60 is attached and the other extending down to the belt 2, to which it is secured by a fastening 21 on the belt. This fastening slides on the belt and may be pushed around to the back of the workman after the rope is secured therein, so that while he is at work he may keep both parts of the rope behind him out of his way. The rope is to be so adjusted as to allow him to move about freely on the scaffold, and it may be properly and readily readjusted whenever the elevation of the scaffold is changed.

The harness is taken off by unbuckling the belts 2 and 3, pulling them out of the loops on the strap 4, unbuckling the strap 4, drawing the arms through the shoulder-straps, and either raising the belt 1 over the head or lowering it and passing the feet through it. In putting the harness on it is convenient to carry the belt 1 over the head rather than to draw it up from the feet.

If a workman using this apparatus falls or is thrown from the scaffold or if the scaffold falls or breaks, he is not apt to be injured, since the apparatus will prevent him from falling but a very short distance and will hold him suspended in a comfortable position until he can be rescued or can get back by his own effort to the scaffold or reach another place of safety. A secondary benefit derived from the use of this apparatus is that the workmen, as they are relieved from much of the care and trouble usually taken to prevent accidents, are likely to do more work in a certain time than they commonly do with these difficulties constantly hindering them.

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

The combination with a scaffold of: a harness that encircles the wearer and comprises means for preventing him from slipping out of the harness; a support above the scaffold; a rope hanging from the support and extending therefrom to the harness; and means for adjustably securing the rope to the harness at a point within reach of the wearer; the support being at a proper height to hold the man suspended a little below the level of the scaffold, and to render the slackness of the rope sufficient, when the man is on the scaffold, to allow him to move freely along the scaffold; substantially as described.

CHAS. H. ASCHE.

In presence of—

WM. POTTER, Jr.,

CHAS. M. BINKERHOFF.