(No Model.)

J. CARMICHAEL.

SAFETY SCAFFOLD.

No. 401,410. Patented Apr. 16, 1889.

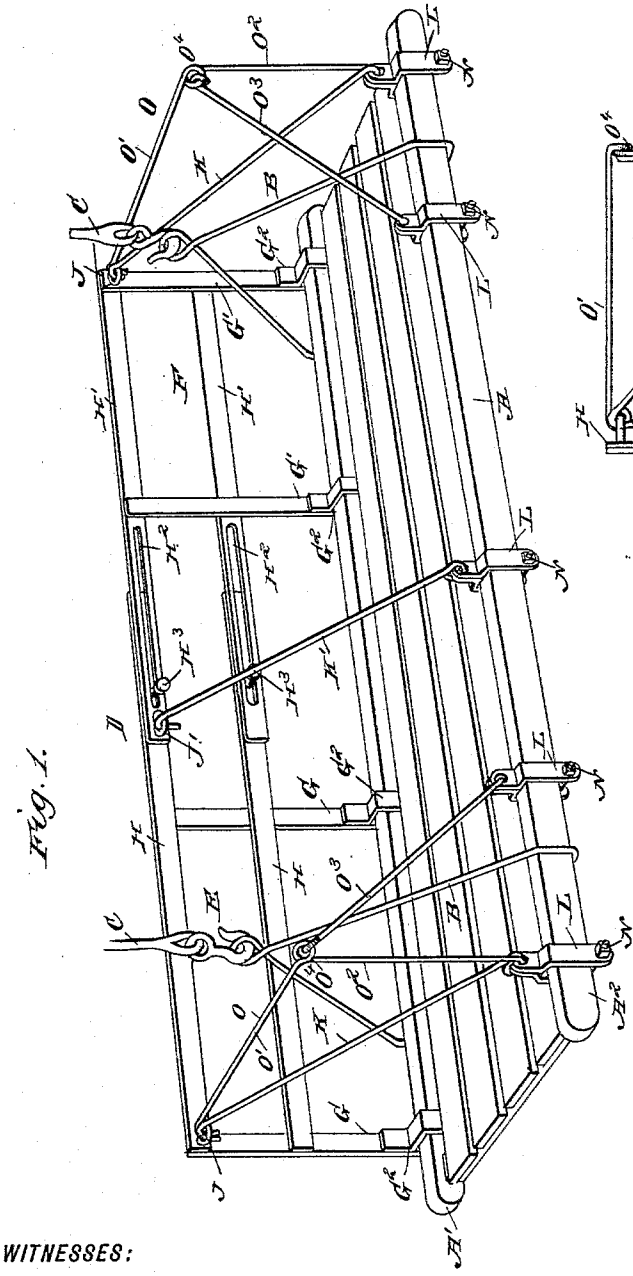


Fig. 1.

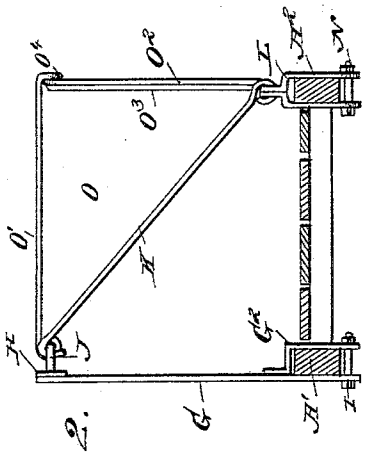


Fig. 2.

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JOHN CARMICHAEL, OF BROOKLYN, NEW YORK.

SAFETY-SCAFFOLD.

SPECIFICATION forming part of Letters Patent No. 401,410, dated April 16, 1889.

Application filed October 6, 1888. Serial No. 287,419. (No model.)

To all whom it may concern:

Be it known that I, JOHN CARMICHAEL, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Safety-Scaffold, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved scaffold specially adapted for safely supporting painters, masons, &c., while at work, and preventing accidents such as frequently occur when employing ordinary scaffolds.

The invention consists of an adjustable back railing and end railings, all adapted to be secured to the ordinary scaffold or detached from the scaffold and folded up when not in use.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a perspective view of the improvement, and Fig. 2 is a sectional end elevation of the same.

The improved safety-scaffold comprises the ordinary scaffold-ladder, A, supported in the usual manner by the hooks B, connected with ropes or chains C, suspended from the house-top. On the outer side of the scaffold-ladder A is held an adjustable back railing, D, made of the two parts E and F, comprising the vertical posts G and G′, respectively, on which are supported the longitudinally-extending rails H and H′, of which the rails H′ are provided near their inner ends with the slot H^2, through which passes a bolt, H^3, secured to the inner end of each rail H.

On the lower end of each post G or G′ is held a clamping-plate, G^2, extending over the top and inside of the outer beam, A′, of the scaffold-ladder A. The respective posts G and G′ extend on the outside of the side beam, A′, and the lower end of each post and its clamping-plate G^2 are secured to each other by a bolt, I, which serves to clamp the post firmly to the beam A′. When the operator loosens the nuts of the bolts I, the parts E and F can be moved toward each other, the slots H^2 and the bolts H^3 permitting such movement. The back railing, D, can thus be adjusted to any length of scaffold-ladder A, as the parts E and F lengthen or shorten the back railing, D, according to the length of the ladder A. When the posts G and G′ are in place on the beam A′, then the bolts I are screwed up, so as to clamp said posts to the beams, as before described.

At the outer ends of the upper rails, H and H′, are secured eyes J, extending inward, and into which hook the ends of braces K, each pivotally connected at its other end to a clamp, L, made in U shape and straddling the top and sides of the inner longitudinal beam, A^2, of the scaffold-ladder A. A bolt, N, connects the lower ends of the clamp L and serves to securely clamp said clamp L onto the beam A^2 at any desired place. At the inner end of the upper rail, H′, is secured an eye, J′, into which hooks a brace, K′, pivotally connected at its lower end to another clamp L, adapted to be clamped onto the beam A^2, near its middle. The bolt N of this clamp, when loosened, permits a sliding of the clamp on the beam A^2, so as to be placed in line with the eye J′, according to the position of the sliding parts E and F of the back railing, D.

At each end of the scaffold-ladder A is formed an end railing, O, consisting of a rod, O′, hooked at one end to the eye J and centrally bent to form an eye, O^4, and a downwardly-extending arm, O^2, pivoted in the outermost clamp L on the beam A^2. A brace, O^3, is pivotally connected at its upper end to the eye O^4, and is secured at its lower end to a clamp, L, held on the beam A^2 between the clamps of the braces K and K′.

When the back and end railings, D and O, are placed as shown in Fig. 1 and the scaffold-ladder A is suspended from the house in the usual manner, then the workmen standing on the ladder A are enabled to work without danger of falling off the ladder, as the back railing, D, and the end railings, O, form safeguards for the workmen.

When the operator desires, he can detach the back railing, D, and the end railings, O,

very quickly by removing the bolts I from the posts G and G′ and the bolts N from the various clamps L. The back railing, D, can then be lifted off of the longitudinal beam A′, and the end railings, O, and braces K and K′ can be folded against the back railing, D, so that the entire attachment to the scaffold-ladder takes up very little space.

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

1. In a safety-scaffold, the combination, with a scaffold-ladder, of a railing made in two parts adapted to slide over each other, and also to be clamped to one of the longitudinal beams of the scaffold-ladder, substantially as shown and described.

2. In a safety-scaffold, the combination, with a scaffold-ladder, of a railing made in two parts, each comprising vertical posts clamped to one of the longitudinal beams of the scaffold-ladder, and longitudinal rails secured on the said posts and mounted to slide over each other, being provided for this purpose with slots and bolts, substantially as shown and described.

3. In a safety-scaffold, the combination, with a scaffold-ladder, of a railing made in two parts adapted to slide over each other, and also adapted to be clamped to one of the longitudinal beams of the scaffold-ladder, and end railings connected with the ends of the said railing and clamped to the other longitudinal beam of the said scaffold-ladder, substantially as shown and described.

4. In a safety-scaffold, the combination, with a scaffold-ladder, of a railing made in two parts adapted to slide over each other, and also adapted to be clamped to one of the longitudinal beams of the scaffold-ladder, and braces connected with the said railing and clamped to the other longitudinal beam of the said scaffold-ladder, substantially as shown and described.

5. In a safety-scaffold, the combination, with a scaffold-ladder, of a railing made in two parts adapted to slide over each other, and also adapted to be clamped to one of the longitudinal beams of the scaffold-ladder, and braces connected with the said railing and clamped to the other longitudinal beam of the said scaffold-ladder, and end railings connected with the ends of the said railing and adapted to be clamped to the longitudinal beam of the said scaffold-ladder, substantially as shown and described.

6. In a safety-scaffold, the combination, with a scaffold-ladder, of a railing made in two parts adapted to slide over each other, and also adapted to be clamped to one of the longitudinal beams of the scaffold-ladder, braces connected with the said railing and clamped to the other longitudinal beam of the said scaffold-ladder, end railings connected with the ends of the said railing and adapted to be clamped to the longitudinal beam of the said scaffold-ladder, and braces connected with the said end railings and clamped to the other longitudinal beam of the said scaffold-ladder, substantially as shown and described.

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Witnesses:
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