

Fig. 9.—Swinging Scaffold

board, as required by this code. A center support attached to the guard rail and toeboard shall be provided for all swinging scaffolds more than 12 feet in length.

(7) Where more than one swinging scaffold is used on any job, there shall be no connection between such scaffolds unless the individual scaffolds are so arranged that they cannot be moved while the connecting platforms are in place.

(8) A life line, with fixed end fastened independent of the scaffold and with free end extending to the ground, shall be provided for each workman on a swinging scaffold. Each workman on a swinging scaffold shall be secured with a life line, such as by passing the life line through a loop or ring in a safety belt worn by him. It is also recommended that life lines be provided in connection with suspended scaffolds wherever possible.

(9) Wire rope or Manila rope which conforms to the requirements of section Ind 35.32 shall be used to support all swinging scaffolds, swinging chair scaffolds and boatswain chairs.

(10) Swinging chair scaffolds shall have a rigid metal frame constructed of not less than $\frac{1}{2}$ " x $1\frac{1}{2}$ " bars extending around the under side of a nominal 2" x 10" plank seat. The frame shall be at least 42 inches in height and not less than 24 inches in width. The chair shall have a back support constructed of a $\frac{1}{2}$ " x $1\frac{1}{2}$ " bar or equal located at least 16 inches above the seat and having a brace extending from

the center point of the back support to the center of the frame below the seat. A metal eye or loop having a cross sectional area equal to that of the frame shall be provided at the top of the frame for fastening the rope or cable. The seat shall be bolted to the bottom of the frame and all metal connections shall be welded, bolted or riveted.

(11) Every workman using a swinging chair scaffold shall be provided with a safety belt secured to an independent life line.

(12) A boatswain chair shall have a seat not less than 2 feet long constructed of a nominal 2" x 12" plank and having the ends bound with a metal strap to prevent splitting. The chair shall be supported by means of a sling attached to all 4 corners of the seat. The sling ropes shall be fastened to a metal ring or loop not more than 2 feet above the seat and having a guard rope at back approximately 16 inches above the seat.

(13) Every workman using a boatswain chair shall be provided with a safety belt secured to an independent life line.

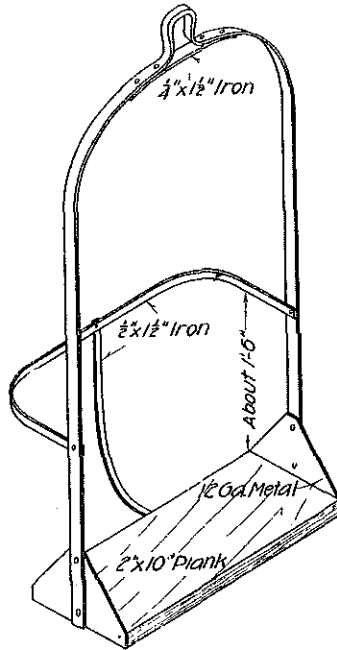


Fig. 10.—Swinging (Chair) Scaffold

Ind 35.19 Ladder jack scaffolds. (1) All ladder jacks shall be of a type approved by the industrial commission and shall be so designed that they will bear on the side rails when used on wood ladders and shall be clamped or otherwise securely fastened to the ladder. Ladder jacks not bearing on the side rails may be used on the rungs of metal ladders or on the rungs of wood ladders which are reinforced with a metal bar or rod extending through the side rails.

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(2) Ladder jack scaffolds shall not be used at a greater height than 35 feet above the ground or working level.

(3) The use of ladder jack scaffolds is restricted to painters and decorators and not more than 2 persons shall be permitted to work on the scaffold at any one time.

(4) All ladders used in conjunction with ladder jacks shall conform to the requirements set forth under paragraphs (1) to (4) inclusive, of section Ind 35.25.

Ind 35.20 Scaffold platforms. (1) Planks for scaffold platforms shall be not less than nominal 2" x 10". The span of scaffold planks shall not be greater than 8 feet between supports, except that for painting, decorating and paper hanging work the span of nominal 2" x 10" planks (or wider) may exceed 8 feet, but not more than 12 feet, if selected planks, which have been tested with a load at least 2 times as great as the greatest loads which the planks are to carry are used. Where tested planks are used, the top surface of the plank shall be marked and the plank shall be used with that side up.

(2) Where wheeling is to be done on scaffold platforms, the span of planks shall not exceed 6 feet for wheelbarrows and 5 feet for carts. Planks used in a scaffold platform shall be of uniform thickness.

(3) The safe load for planks under this order is indicated in the following table. The table applies to coast type Douglas fir, based on an allowable stress of 1200 pounds per square inch. The safe load for other grades and other woods is in direct proportion to the allowable stress. The safe load for planks of other widths is in direct proportion to the width.

**SAFE LOAD AT CENTER FOR DOUGLAS FIR PLANK
1 1/2 INCHES THICK (NOMINAL 2 INCH MATERIAL)**

| Span in Feet | WIDTH OF PLANK, IN INCHES | |
|--------------|---------------------------|-----------------|
| | 9 1/2 (2 x 10) | 11 1/2 (2 x 12) |
| 5 | 334 | 405 |
| 6 | 278 | 337 |
| 7 | 239 | 289 |
| 8 | 209 | 254 |
| 9 | 185 | 225 |
| 10 | 168 | 202 |
| 11 | 151 | 184 |
| 12 | 141 | 170 |

(a) Where the load is distributed over the length of the plank, the safe load in the above table may be doubled.

(4) Two successive lengths of planking shall not abut upon a single supporting putlog or bearer. If planks are laid to abut end to end, 2 parallel bearers or putlogs shall be provided not more than 8 inches apart, so that one putlog will support the end of one plank, and the other putlog the end of the other plank.

(5) Where platform planks overlap, a single bearer or putlog is sufficient, the ends of both the upper and lower planks overlapping the bearer or putlog by at least 6 inches.

(6) Platform planking shall project over the last bearer or putlog by at least 6 inches, but in no case more than 12 inches.

(7) The minimum width of flooring or platforms for scaffolds used for various purposes shall be as follows:

- | | |
|---|-----------|
| (a) For use by painters and decorators, inside or outside of buildings and structures | 9½ inches |
| (b) Where used for men and tools only, and where the platform is not more than 6 feet above the ground or floor, inside or outside of buildings or structures | 19 inches |
| (c) Where used for men and tools only, where the platform is more than 6 feet above the ground or floor, inside or outside of buildings or structures | 23 inches |
| (d) Where used for men, materials and tools only | 46 inches |
| (e) Where used for men, materials, tools and vehicles | 57 inches |

(8) The platforms of all scaffolds shall be solid except that the platform of scaffolds used by painters, decorators, lathers, or plasterers, or similar light work, not more than 12 feet above the floor may have the platform planks or boards spaced not more than 18 inches apart.

(9) Extension plank and toothpick or ladder type plank having the equivalent strength of a solid plank platform may be used by painters and decorators and for similar light work. Such plank shall not be less than 12 inches in width and not more than 25 feet in length. Toothpick or ladder type plank more than 16 feet in length shall have the side rails properly reinforced with steel angles or by a ⅝ inch steel cable running full length under the side rails, securely fastened at each end.

(10) Extension plank used by painters and decorators and for similar light work shall be made of select ladder stock and surfaced on all sides to insure free and easy operation. Sliding bars shall be riveted to a metal holding plate. The ends of the plank shall be rodded to prevent twisting and cracking. Extension plank shall not be more than 2 piece construction and shall be equipped with a locking or blocking device.

RECOMMENDED SPECIFICATIONS

| Width | Plank Closed | Plank Open | Stock |
|----------------|--------------|------------|-----------|
| 10 strips wide | 6 feet | 10'6" | 1½" x 2⅞" |
| " " " | 7 " | 12'6" | " " |
| " " " | 8 " | 14'6" | " " |
| " " " | 10 " | 17'6" | " " |

(11) Where scaffolds extend over moving machinery or other dangerous areas, the scaffold platform shall cover or be arranged to adequately guard such machinery or areas.

Ind 35.21 Guard railing and toeboards for scaffolds. (1) A guard railing, as defined in section Ind 35.03, shall be provided on all open sides of all swinging and suspended scaffolds, runways, ramps, rolling scaffolds, elevated platforms or any other elevation 10 feet or more above the ground or floor.

(2) Riveters' platforms, ladder jack and horse scaffolds and single plank painters' scaffolds only are excepted.