

Fig. 7.—Carpenter's Bracket or Jack

(a) Wood brackets shall be anchored to the building structure by means of a bolt not less than $\frac{5}{8}$ -inch in diameter welded to a flat iron member, not less than 2 feet long, drilled, spiked and set in flush with the top surface of the horizontal member. The bolt shall be of sufficient length to extend well within the studs (when secured to a frame building) and provided with a washer and lever handle nut. A nominal 2x6-inch block shall be placed horizontally across the inside of 2 studs with the bolt passing through the block and the nut turned up tight.

(3) When constructed of steel, each member shall be of not less than $2 \times 2 \times \frac{3}{8}$ -inch angles or their equivalent. Steel brackets shall be anchored to the framework of the building by means of a bolt not less than $\frac{5}{8}$ -inch in diameter, welded or riveted to the top horizontal member of the bracket or the equivalent. The bolt shall be of suffi-

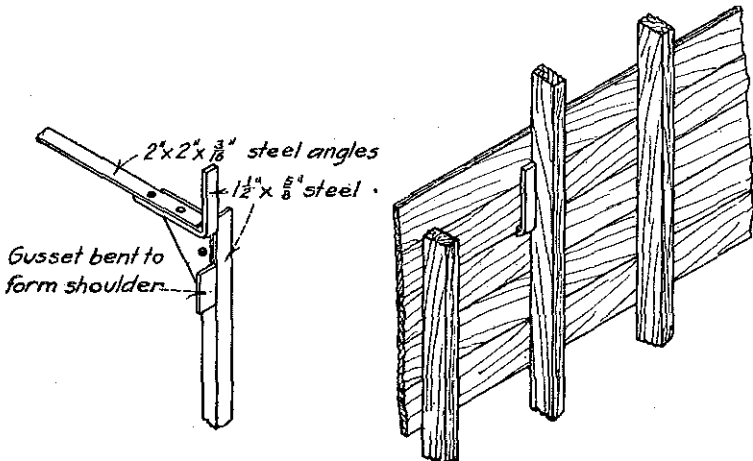


Fig. 8.—Hook Detail for Carpenter Scaffold Bracket

cient length to extend through the wall and shall be provided with a washer and lever handle nut anchored to the building framework as specified for wood brackets, except that steel brackets may be supported by the sheathing under the following conditions:

(a) A bracket hook of not less than $1\frac{1}{2}$ x $\frac{5}{8}$ -inch steel shall be designed to enter the sheathing at the lower edge of a board adjacent to a member of the framework and shall distribute the pull and pressure due to the bracket load over the full width of that board, and shall apply the weight of the bracket load to the board below the hook entrance opening. (See Fig. 8.)

(b) The nails which fasten the upper sheathing board to the framework shall be plainly visible at all times while the scaffold is in use.

(c) No joint in the sheathing boards that support a bracket scaffold shall be less than 2 feet from the bracket hook opening.

(4) Where the building walls are constructed with composition sheathing, nominal 2 x 6-inch blocks shall be nailed horizontally across the outside of 2 studs at the top and bottom of the bracket, to prevent the bracket from breaking through the sheathing.

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Ind 35.18 Suspended scaffolds, swinging scaffolds, swinging chair scaffolds and boatswain chairs. (1) All mechanism and parts of the suspension system of any suspended scaffold shall be of a type and design approved by the industrial commission.

Note. To secure such approval, plans and specifications for the complete suspension system, including details of operating mechanism, shall be submitted to the industrial commission.

(2) Suspended scaffolds shall be supported by steel wire rope suspended from overhead thrustouts or outriggers, consisting of steel I-beams or channels securely anchored to the framework of the building by U-bolts and anchor plates, tightened and made secure by washers and nuts. If channel irons are used, they shall be in pairs, placed parallel and fastened together by pipe separators and bolts, with the channel flanges turned out. All beams shall be set with their webs vertical and shall be equivalent in strength to 7 inch 15.3 pound I-beams and at least 15 feet long.

(3) Such beams resting on the structurally completed roof of a building may be held in place by weighting if the weighting is done on a stable platform resting on the beams, and the weighting force is equal to not less than 3 times the overturning force due to the maximum suspended load.

(4) Wire rope which conforms to the requirements of section Ind 35.32 shall be used to support all suspended scaffolds.

(5) Swinging scaffolds shall be supported in the manner required for suspended scaffolds, or may be supported by the completed wall of a structure by means of forged iron or steel hooks, or other equivalent devices, with bearing so arranged as to distribute the load at each anchorage uniformly along a horizontal section of the wall. The hooks shall be tied back to an anchorage on the building.

(6) The stirrups or hangers supporting each end of the platform shall be made of wrought iron having a cross sectional area equal to $\frac{3}{8}$ x $1\frac{1}{4}$ inch, or if round, not less than $\frac{3}{8}$ inch in diameter or of other material having the equivalent strength. The hangers shall be so designed as to support the guard rail, intermediate rail, and toe-