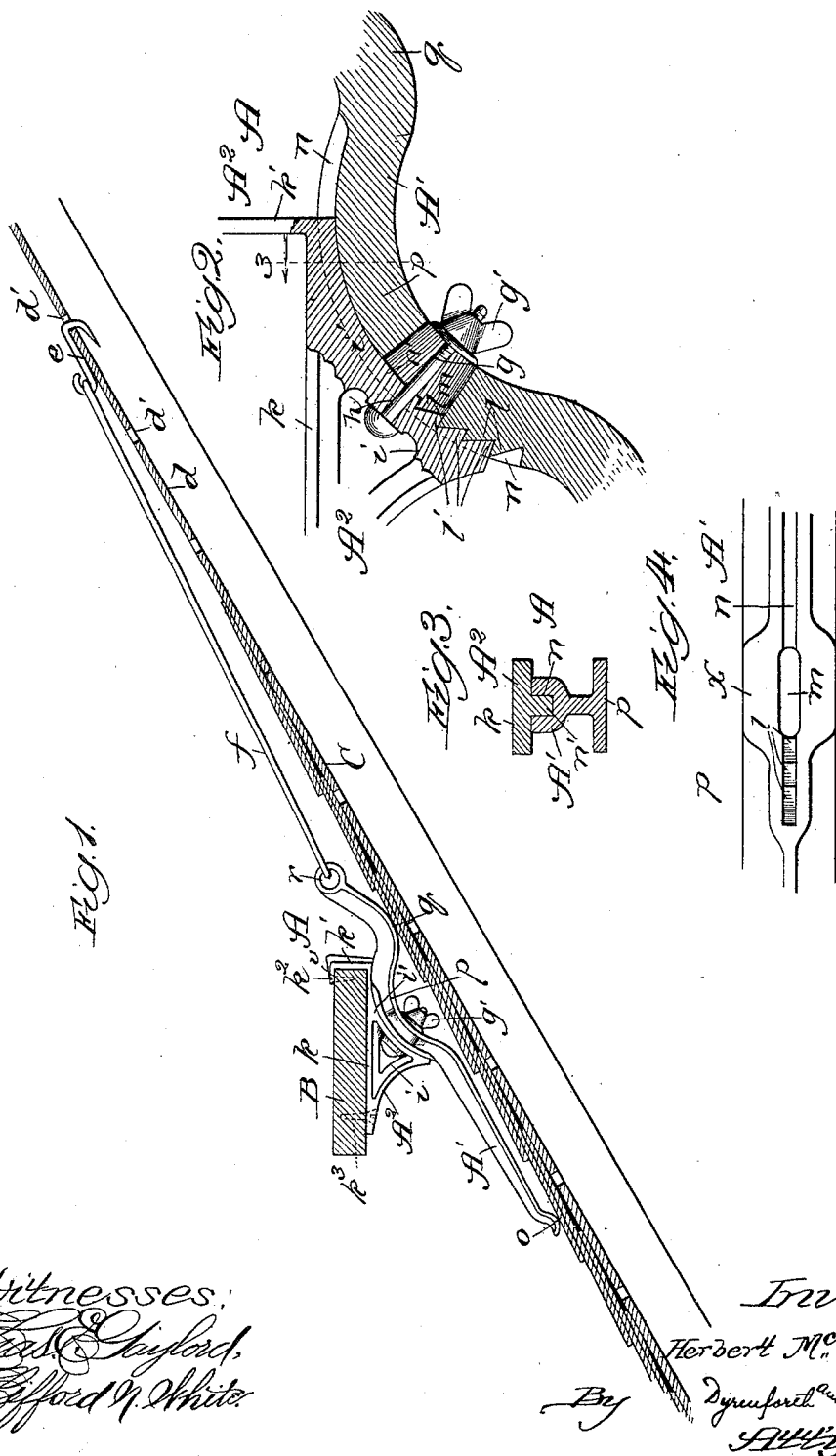


(No Model.)

H. McCORNACK.
ROOF SCAFFOLD.

No. 462,849.

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Witnesses:
Carl Clifford,
Efford N. White.

Inventor:
Herbert M. Cornack,
By *Dymond & Dymond*
Attorneys

UNITED STATES PATENT OFFICE.

HERBERT MCCORNACK, OF McQUEEN, ILLINOIS.

ROOF-SCAFFOLD.

SPECIFICATION forming part of Letters Patent No. 462,849, dated November 10, 1891.

Application filed December 9, 1890. Serial No. 374,088. (No model.)

To all whom it may concern:

Be it known that I, HERBERT MCCORNACK, a citizen of the United States, residing at McQueen, in the county of Kane and State of Illinois, have invented a new and useful Improvement in Roof-Scaffolds, of which the following is a specification.

My invention relates to an improvement in the species of scaffold used for the support of workmen on the roofs of buildings for painting, shingling, and the like.

My improvement is suitable for all the purposes for which roof-scaffolds are employed, though the description hereinafter contained relates more particularly to its use in connection with the operation of shingling a roof, principally for the sake of convenience and brevity, and for the reason that that is the use to which such scaffolds are most frequently put, and also because I have designed it for especial use in performing the shingle-nailing operation with my nailing implement, for which Letters Patent of the United States No. 392,963 were granted me on the 13th day of November, 1888, and with that forming the subject of my application for Letters Patent, Serial No. 374,087, filed concurrently herewith on the 9th day of December, 1890.

The objects of my improvement are to provide a roof-scaffold which may be readily and conveniently shifted by the user from one position on the roof to another as the work proceeds, thereby to avoid the necessity of providing more than one of the scaffolds for either side of the roof during the progress of the work on that side, while it has been common hitherto to place a new scaffold and leave that previously placed when the work exceeds the reach of the workman from the latter, and to provide a construction of the scaffold which shall render it readily and conveniently adjustable to set the platform portion to cause it to extend at a desired angle with relation to any angle or "pitch" of the roof, the use of my aforesaid nailing implement requiring that the scaffold-platform occupy a horizontal or substantially horizontal position.

To these ends my invention consists in the general construction of my improvement, and it also consists in details of construction and combinations of parts of the roof-scaffold.

In the accompanying drawings, Figure 1 is a sectional view, diagrammatic in its nature, of my improved scaffold suspended on a roof undergoing shingling. Fig. 2 is an enlarged broken view, in sectional side elevation, of a bracket formed in relatively adjustable parts, and of which I employ two or more for supporting the platform of my improved scaffold. Fig. 3 is a section taken on the line 3 of Fig. 2 and viewed in the direction of the arrow. Fig. 4 is a broken top plan view of the runner feature of my improved adjustable bracket.

A is a bracket, which I form in at least two relatively adjustable parts A' and A^2 . By reason of one of the functions of the part A' —namely, by its resting directly on the roof and supporting through the medium of the "seat" portion A^2 the platform B—of adapting the scaffold structure to be raised and lowered on the roof by sliding or "running" it thereon upon the parts A' of all the supporting-brackets A used in a scaffold structure, and for want of a better name for that part I term it a "runner."

The preferred form of the runner A' is that illustrated and comprising a bar of T metal, (though other material may be used,) curved from one end, which is provided with an eye r to form the convex bearing g , and curved thence in the opposite direction to form the support p in the arc of a circle for the adjustable seat portion A^2 , from which support p the bar is straight nearly to the extremity, where it terminates in a convex bearing o .

The support portion p is provided longitudinally of the runner A' with a recess n , and is expanded laterally, as shown at x , where it is provided with an elongated bolt-hole m . At the end of the bolt-hole m nearest the end of the runner provided with the bearing o the recess n is provided with teeth l , the number of which should correspond with the number of degrees of pitch to which it is desired to have the seat portion A^2 adjustable, as hereinafter described. Three teeth l are shown, adapting the adjustment to be effected to roofs of, respectively, a two-thirds, a half, and a quarter pitch.

The adjustable seat A^2 for the platform B comprises the flat portion k , having an extension k' , projecting at a right angle from

one of its ends and terminating in a lip k^2 , through which to insert a holder—such as a set-screw v —against the platform B, and a brace i , somewhat resembling a triangle, one side i' of which is concave along its face to correspond with the curve of the convex support p on the runner, and is provided with a bolt-hole h , a tongue n' at one side of the said bolt-hole to enter the runner-recess n , and teeth l' , projecting at the opposite side of the bolt-hole to engage the teeth l on the runner. Near the outer end of the seat A^2 the part k should be provided with a hole to admit a holder—such as the set-screw k^3 —to engage the platform B near its outer edge.

The platform B is ordinarily a plank resting near its opposite ends on the parts k of the seat portions A^2 of two brackets A (any desired number of the brackets being used intermediately according to the length of the plank) and secured by suitable holders, as the set-screws k^2 and k^3 . The seat portion A^2 fits at its part i' the convex seat p of the runner A' , and is secured thereon by a bolt g , passing through the opening h for it in the part i' and through the elongated opening m beneath, to which it is secured by a clamp-nut g' , and the teeth l and l' further serve to brace the seat portion A^2 on the runner A' . The desired position of the platform B on the roof is horizontal, as illustrated.

To adapt the same bracket to be applied to roofs of different pitch and still have the platform horizontal necessitates relative adjustability of the parts of the bracket. Accordingly, the seat portion A^2 is turned on the support p of the runner portion A' on properly loosening the bolt g toward or away from the bearing end q of the runner, depending on the pitch of the roof with reference to which the adjustment is to be had. As constructed, when the extension k' at the inner end of the seat portion A^2 coincides with that portion of the runner between its eye r and bearing q , the platform will be horizontal on a roof of a "two-thirds pitch." As is well known, the designation of the pitch of a roof is expressed in the art as the height in a vertical direction to the apex from the plane of the lower edges stated as a fractional part of the width of the building. Thus a roof having a two-thirds pitch signifies a height of the apex above the plane of the junction of the roof with the sides of the building one-third less than the width of the building. A half and a quarter pitch signify, respectively, the height of a roof equal to one-half and one-quarter the width of the building.

The relative positions illustrated in Fig. 1 of the two parts of the bracket A, wherein the platform B is supported in horizontal position, are those for a "quarter-pitch" roof C. To produce the desired horizontality of the platform B on a "half-pitch" roof, the adjustment of the seat portion A^2 would be between the extreme adjustments described. Of course, if desired, the degrees of adjust-

ment may be made greater or less than stated without departing from the spirit of my invention.

The bearing o at the rear end of the runner A' is sufficiently deep to avoid contact of the intermediate part between it and the bearing q with the surface of the roof, and prevents rocking of the scaffold by affording solid bearing therefor.

To the eye r of each of the two end brackets A of a scaffold I fasten a rope f or the like, which need not be more than about four feet in length, and to the free end of the rope I fasten means—such as the hook e —to engage the roof-boards d at the cracks d' between them. This affords convenient means for raising and lowering the scaffold and suspending it on the roof in any position to which it is moved. Thus after distributing the shingles from bunches near the apex the scaffold may be readily lowered to another plane on the roof by loosening the hooks, allowing the scaffold to slide down the desired distance on its runners A' and again engaging the hooks in suitably-located cracks d' , and to raise the scaffold after the workman has nailed all the laid shingles within reach from it he may climb farther up, loosen the hooks, and draw the scaffold after him, fastening it to suspend it at the desired elevation.

What I claim as new, and desire to secure by Letters Patent, is—

1. A roof-scaffold having its platform-seat imposed bodily on a support forming an arc of a circle curved in the direction transversely of the base of the platform and adjustable thereon according to the pitch of the roof, substantially as described.

2. In a roof-scaffold, the combination of runners having seats for the platform-supports formed as arcs of circles curved lengthwise of the runners, and platform-supports on said seats and adjustable thereon according to the pitch of the roof, substantially as described.

3. In a bracket A for a roof-scaffold, the combination of a runner A' , having a platform-seat support p , in the form of an arc of a circle curved lengthwise of the runner, and a seat A^2 for the scaffold-platform resting on the said curved support and adjustable thereon according to the pitch of the roof, substantially as described.

4. In a bracket A for a roof-scaffold, the combination of a runner A' , having a convex bearing q near one end, a convex bearing o near its opposite end, and an intermediate support p , formed in the arc of a circle curved lengthwise of the runner, and a seat A^2 for the scaffold-platform B, secured to the support p on the runner, and adjustable thereon according to the pitch of the roof, substantially as described.

5. In a bracket A for a roof-scaffold, the combination of a runner A' , adapted at one end to have its suspending medium attached,

and provided near that end with a bearing *q* and near its opposite end with a bearing *o*, an outwardly-curved support *p* between the said bearings, and a seat *A*² for the scaffold-
 5 platform B, fitting and secured to the support *p* and adjustable thereon according to the pitch of the roof, substantially as described.

6. In a bracket A for a roof-scaffold, the combination of a runner A', having bearings
 10 *q* and *o* near its opposite end, and an intermediate convex support *p*, recessed longitudinally and provided with an elongated opening *m*, a seat A², having the rest *k* for the
 15 scaffold-platform, provided with a brace conforming to the support *p*, and with a tongue *n*', and a bolt *g*, passing from the seat through the opening *m* in the runner and secured, substantially as and for the purpose set forth.

7. A bracket A for a roof-scaffold, compris-

ing, in combination, a runner A', having an
 20 eye *r* at one end, and provided near that end with a convex bearing *q*, and terminating at its opposite end in a convex bearing *o*, an outwardly-curved longitudinally-recessed support
 25 *p* on the runner, having an elongated opening *m*, and teeth *l*, a seat A² for the scaffold-platform B, having the rest *k*, provided with an extension *k*', and a brace *i*, concaved on one side to fit the seat *p*, and provided with a
 30 tongue *n*' and with teeth *l*', and a bolt *g*, passing from the seat through the opening *m* in the runner and secured, substantially as and for the purpose set forth.

HERBERT MCCORNACK.

In presence of—

J. W. DYRENFORTH,

M. J. FROST.