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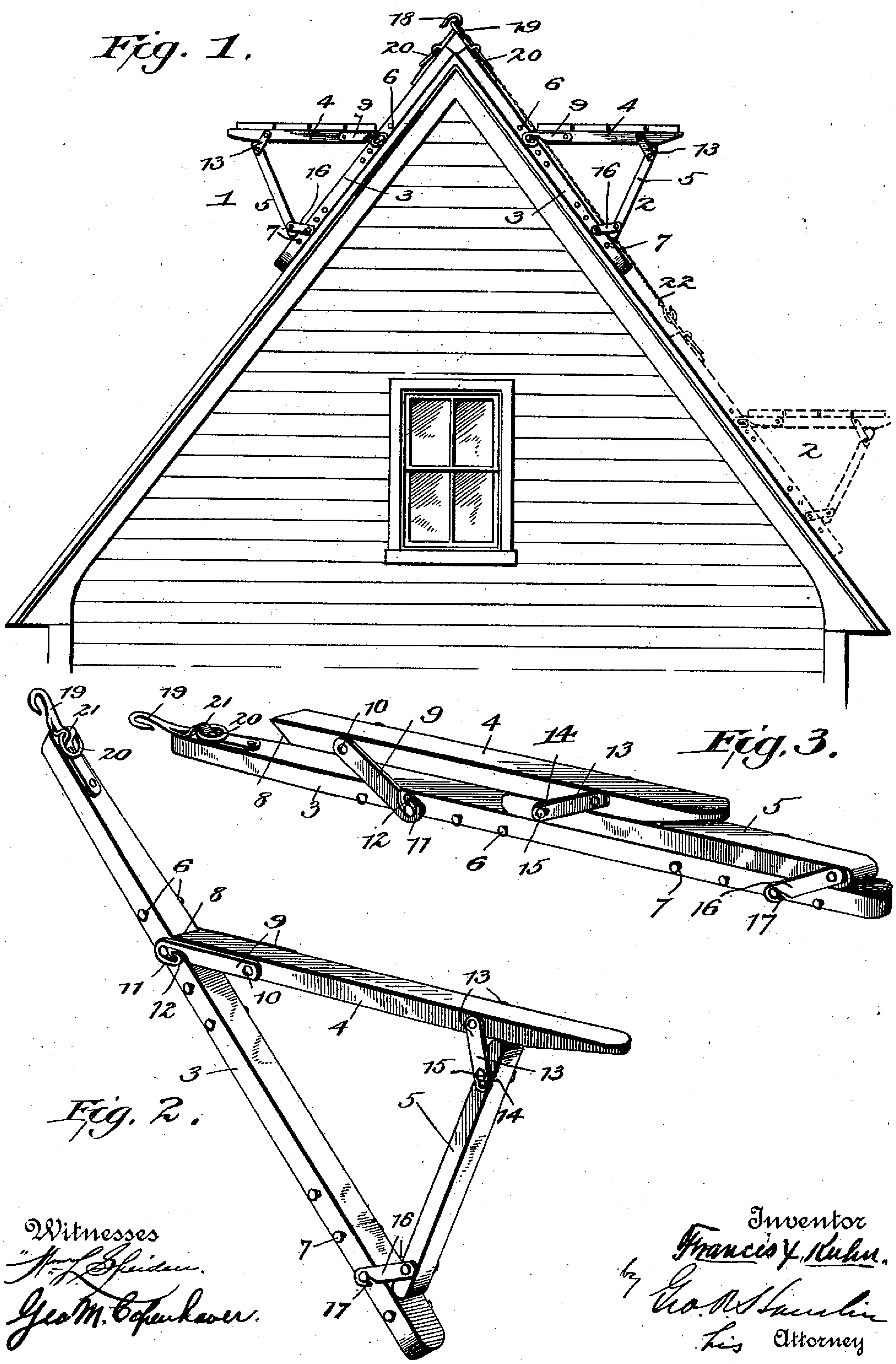
F. X. KUHN.

ROOFING SCAFFOLD.

(Application filed Nov. 9, 1900.)

(No Model.)



Witnesses

Inventor

Francis X. Kuhn.

by

his Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FRANCIS X. KUHN, OF HANOVER, PENNSYLVANIA.

ROOFING-SCAFFOLD.

SPECIFICATION forming part of Letters Patent No. 674,170, dated May 14, 1901.

Application filed November 9, 1900. Serial No. 35,898. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS X. KUHN, a citizen of the United States, residing at Hanover, county of York, and State of Pennsylvania, have invented certain new and useful Improvements in Roofing-Scaffolds, of which the following is a specification.

My invention relates to roofing-scaffolds.

One object of the present invention is the provision of an improved and novel scaffold which can be used on slate, shingle, or other roofs of any degree of inclination without the necessity of nailing to the roof and which will afford a perfectly safe structure for the use of workmen making repairs to chimneys or roofs.

A further object is the provision of a roofing-scaffold which can be readily adjusted to different heights on the roof and rendered adaptable to a roof of any degree of inclination with facility and ease.

A still further object is the provision of an improved roofing-scaffold which can be collapsed or folded into compact arrangement to facilitate its transportation from place to place.

Having the foregoing objects in view, the invention consists of a roofing-scaffold comprising certain improved features and novel combinations of parts more fully set forth hereinafter.

In the accompanying drawings, Figure 1 is an end elevation of a house on the roof of which are located my improved scaffolds, dotted lines illustrating the manner in which either one of the scaffolds can be lowered; Fig. 2, a perspective detail of one of the scaffolds or frames ready for use, and Fig. 3 a perspective detail of the same when folded or collapsed.

Referring now more particularly to Fig. 1, it will be seen that my improved scaffold contemplates the provision of separate scaffolds or frames 1 and 2 on opposite sides of the roof, which balance each other, and hence the necessity for nailing or fastening the scaffold to the roof is entirely obviated. Two of the frames are used on each side of the roof, spaced apart a suitable distance—in practice from four to six feet—and planks are laid on the frames. Each frame or scaffold comprises a long roof-beam 3, adapted to lie flat against the side of the roof, a horizontal rest or beam 4, and a brace 5. The roof-beam 3 is provided with sets or series of pegs or pins 6 on its opposite sides near one end and another set or series of pegs or pins 7, similarly placed, near its lower end of its opposite sides. The rest 4 has its end abutting on the roof-beam beveled at 8, so as to snugly abut said beam when it is in horizontal position.

On opposite sides of the rest-beam 4 are hook-plates 9, which are pivoted thereto at 10 and have their free ends formed into hooks 11, provided with the entrant end or extremity 12. These hooks are adapted to engage with the pins 6, and the entrant portions 12 prevent the accidental displacement of the hooks with the pins, such disengagement being only effected by manipulation by hand.

At the opposite sides of the outer ends of the rest-beams 4 are pivoted links 13, which have slots 14 at their other ends, and through these slots pass pins 15 on the brace 5. This construction gives a joint which will permit collapsing of the rest-beam on the brace-beam when it is desired to fold the frame or scaffold.

Pivoted to the lower end of the brace-beam 5 are hook-plates 16, having the hooks 17 on their free ends, which are adapted to engage with the pins 7 on opposite sides of the roof-beam 3.

The connection between the upper ends of the frames or scaffolds on opposite sides of the roof consists of hooks 18 and 19 on the upper ends of the respective roof-beams 3, said hooks extending beyond the ends of the beams and being adapted to engage each other, as shown in Fig. 1. To render the manipulation of the frames or scaffolds more easy, I provide rings 20, loosely seated under looped portions 21 of the hooks 18 and 19.

It is frequently desirable to lower one of the frames or scaffolds considerably below the position it assumes when the hooks 18 and 19 are directly connected together, as shown in Fig. 1, and when this is necessary a chain 22 is employed, which is hooked to the frame not to be lowered, while the frame to be lowered is let down as far as desired and then hooked to the chain. The frames or scaffolds will then balance each other as before. It is necessary to thus lower the frame or scaffold when it is desired to get down to the bottom of the roof. The use of the chain is illustrated in Fig. 1 in dotted lines.

To effect the adjustment of the rest-beam

4 and brace 5, so as to bring the rest-beam to the proper height for the workmen, it is only necessary to raise the outer end of the rest-beam 4, whereupon the brace 5 can be collapsed thereunder and the hook-plates engaged with pegs or pins of the series 6 or 7 to a higher or lower position, as found desirable. The adjustment can be effected by adjusting the upper hook-plates or the lower hook-plates, as desired, until the rest-beam 4 is brought to the proper height and maintained in a horizontal position when the brace 5 is in its proper position. After adjustment the beams 4 and 5 can be made to assume their proper positions by simply lowering the free end of the beam 4 and allowing the beam 5 to drop back to its bracing position. When it is desirable to collapse the scaffold or frame, the free end of the rest-beam 4 is raised and pushed down toward the roof-beam 3, whereupon the brace 5 will fold against the beam 3 and the beam 4 will fold on top of the said brace. This gives a compact knockdown arrangement which facilitates transportation of the frames.

I am aware that my invention is susceptible of many changes of construction, and doubtless many would suggest themselves to a skilled mechanic and yet not depart from the spirit of my invention. I do not therefore limit myself to the precise construction herein shown and described, but consider that I am entitled to all such changes as come within the spirit and scope of the invention.

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

1. A roofing-scaffold comprising self-contained and independent frames located on opposite sides of the roof, and hooks carried by said frames at their upper ends which are detachably interlocked together above the ridge of the roof, whereby each of said frames supports the other.

2. In a roofing-scaffold, the combination with independent self-contained frames adapted for location on opposite sides of the roof, of an adjustable connection detachably attaching said frames together over the ridge of the roof and by which either or both of said frames may be raised or lowered to an appreciable extent, on the side of the roof independently of the other frame.

3. A roofing-scaffold comprising independent and self-contained frames located on opposite sides of the roof, hooks on said frames, and a chain passed over the ridge of the roof and having its links connected with the said hooks, whereby the said frames mutually support each other and are rendered detachable for raising or lowering the length of the slats of the roof.

4. In a roofing-scaffold, a frame comprising a beam or member adapted to lie against the roof, a laterally-extending rest beam or member, a brace interposed between the roof member and the laterally-extending member, and loose or shifting pivotal connections between the brace and the laterally-extending member, the brace and the roof member, and the roof member and the laterally-extending member, said loose pivotal connections constituting foldable joints at their points of location, whereby the parts can be collapsed or folded without detachment from each other.

5. In a roofing-saffold, a frame comprising a member or beam adapted to lie against the roof, a laterally-extending member, links pivoted to said member and to the roof member, a brace, links pivotally connecting one end of the brace to the laterally-extending member, and links pivotally connecting the brace to the roof member.

6. In a roofing-scaffold, a frame comprising a beam or member adapted to lie against the roof, a laterally-extending rest beam or member, a loose shifting pivotal connection between the rest-beam and the roof-beam which is adapted for adjustment to different heights on the roof-beam, a brace pivoted to the laterally-extending member, and a loose shifting pivotal connection between the brace and the roof-beam which is adapted for adjustment to different heights on the roof-beam, said connections constituting foldable joints at their points of location, whereby the parts can be collapsed or folded without detachment from each other.

7. In a roofing-scaffold, a frame comprising a member adapted to lie against the roof, pins on said member, a laterally-extending member, hooks pivoted to the laterally-extending member and adapted to engage any of saids pins, a brace, links pivotally and adjustably connecting the brace with the laterally-extending member, a second set of pins on the roof member, and hooks on the brace which are adapted to engage any of the pins of the set last named.

8. In a roofing-scaffold, a frame comprising a member adapted to lie against the roof, a laterally-extending member having its end abutting on the roof member, rows of pins on opposite sides of the roof member, hooks pivoted to the laterally-extending member and having their hooked portions terminating in extremities which are entrant in the hook itself, said hooks being adapted for engagement with any of the pins, a brace interposed between the laterally-extending member and the roof member, links pivoted to the laterally-extending member and having a slot-and-pin connection with the brace, a second series of pins on opposite sides of the roof member, and hooks pivoted to the brace and adapted to engage any of the pins of the last-named set.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

FRANCIS X. KUHN.

Witnesses:
THOS. C. JOHNSON,
JULIUS W. FISCHER.