

(No Model.)

2 Sheets—Sheet 1.

H. HEILAND.
SCAFFOLDING.

No. 469,567.

Patented Feb. 23, 1892.

Fig. I.

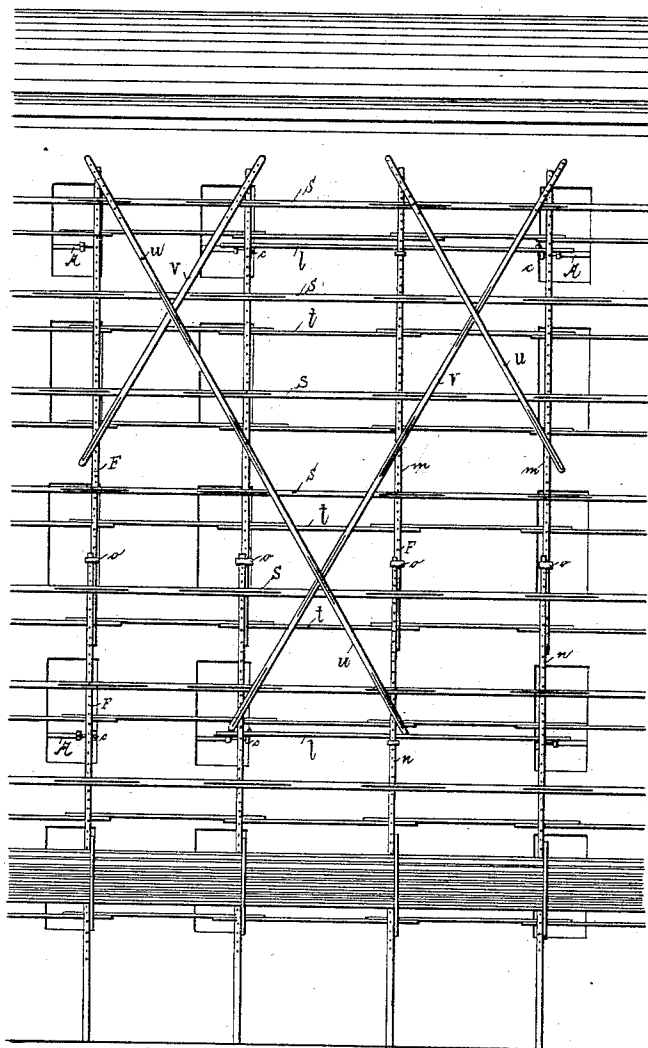
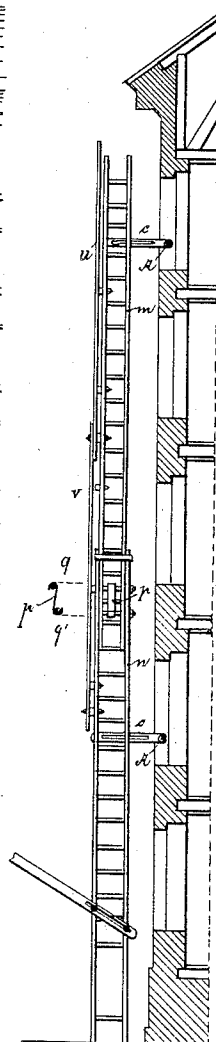


Fig. II.



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M. J. Donaldson
M. J. Donaldson

Inventor
Hermann Heiland
by *Wm. Spar*
Att'y.

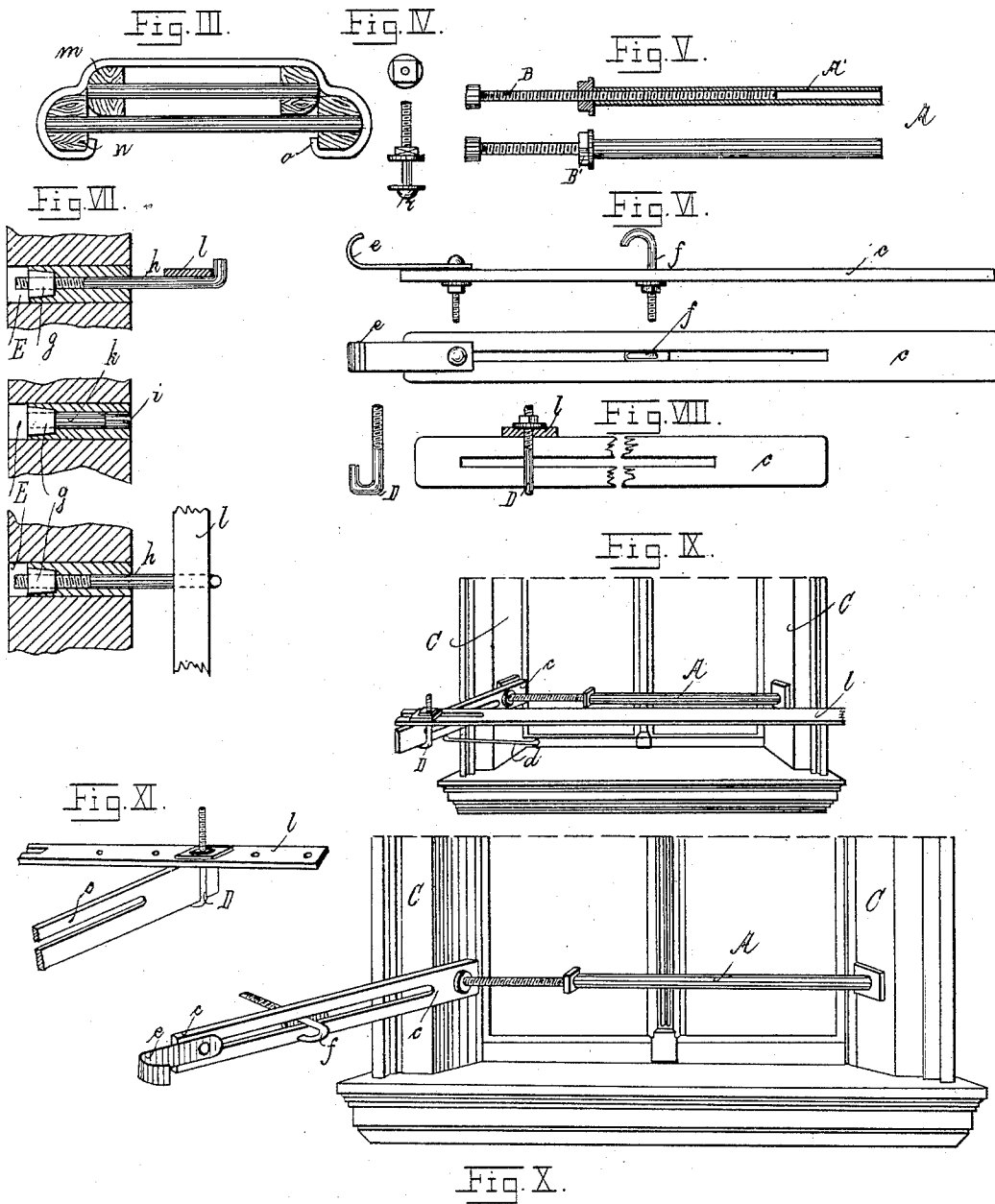
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2 Sheets—Sheet 2.

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No. 469,567.

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Attest
Mallen Macdonald
J. M. Macdonald

Inventor
Hermann Heiland
by W. M. Macdonald
Att'y.

UNITED STATES PATENT OFFICE.

HERMANN HEILAND, OF CHARLOTTENBURG, NEAR BERLIN, GERMANY.

SCAFFOLDING.

SPECIFICATION forming part of Letters Patent No. 469,567, dated February 23, 1892.

Application filed February 28, 1891. Serial No. 383,219. (No model.)

To all whom it may concern:

Be it known that I, HERMANN HEILAND, manufacturer, of Charlottenburg, near Berlin, in the Kingdom of Prussia and German Empire, have invented new and useful Improvements in Scaffolding, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has reference to means or apparatus for enabling scaffolding for plastering, painting, &c., houses and the like to be erected in a speedy, safe, and cheap manner without injury to the building to which it is applied.

The several parts of the scaffolding are constructed and arranged in such a manner that they are adapted for use with different buildings and can thus be united to form a whole without loss of time and money.

In the drawings, Figures 1 and 2 illustrate, respectively, in front elevation and in transverse section, scaffolding according to this invention. Figs. 3 to 11, inclusive, illustrate details.

The ladders, instead of being attached, as heretofore, to a number of balks or beams that project out through windows in the roof or through the roofing, or to hooks driven into the building, are according to this invention attached to one or more window-struts A, Figs. 5, 9, and 10. These struts A consist of a pipe A', within which can work a screw-bolt B, fitted with a nut B', by means of which the part of the bolt extending outside the pipe can be lengthened or shortened at will. By means of the strut A a slotted bar or piece c, Figs. 6 and 8 to 11, is pressed against the window-frame C and is held thereby in the position shown. In this position the bar or piece c can be supported by a bar d, Fig. 9. In the slot of the bar or piece c are arranged, so as to be capable of adjustment, two screws e f, Fig. 10, by which the ladders are held at the desired distance from a building in connection with which they are to be used. When the distance between the windows is greater than the desired distance between two ladders, a board l, Fig. 1, is laid flatwise from one window to the other upon the bars or pieces c, to which it is fixed by means of hook-shaped screw-bolts D'. The boards l are also each

supported at a point between two bars or pieces c by means of screw-bolts h, which are arranged as follows: At the places where the screw-bolts h are to be provided a hole E is made in the wall of the building, into which a cast-iron nut g can enter conveniently. Into this hole the nut is then placed with the bolt h screwed in it. The hole E is then filled with plaster-of-paris, and the screw-bolt is loosened to a slight extent in order that it may be capable of being taken out and put in again after the plaster-of-paris has solidified. This arrangement enables the screw-bolt h, which is formed with a considerable, length of thread, to be adjusted according to the distance of the ladder from the wall. When the scaffolding is removed, the passage k, which remains when the bolt h is taken out, is closed by a plug or stopper i. When as scaffolding is to be again set up, this plug or stopper is removed to allow of insertion of a bolt h.

The lengthening of each of the ladders is not effected, as heretofore, by means of ropes and supporting-plates nailed on, but by means of a ladder-section m, Fig. 3, which is inserted between the uprights or side rails of the lower supporting-ladder n, so that the strap o provided on the latter will embrace the uprights or side rails of the ladder m. The ladders m are also connected by a hook p, Fig. 2, which at one end is capable of rotation about a bolt q' of the ladder-section m, and at the other end embraces a bolt q of the ladder n. The bolts q q' are arranged in holes F, which are provided along the whole length of the uprights or side rails of the ladder between the rounds. The ladder m can by these means be supported at any desired height by the hook p. The holes F also serve for fixing cross-struts u v and breast-rails s to the uprights or side rails by means of screw-bolts r, Fig. 4, whereby the nailing heretofore usual is obviated. For this purpose, also, all the cross-struts and breast-rails are furnished with holes and slots, Fig. 1, to enable the ladders to be set up at any desired distance from one another without rendering necessary the boring of additional holes or other alterations when the general arrangement of the scaffolding is to be altered.

It will be understood that I do not limit myself to the precise construction and arrangement of the parts, as various changes may be made without departing from the spirit of
5 my invention.

What I claim, and desire to secure by Letters Patent of the United States, is—

In combination, the extensible rods, the bars held thereby and carrying clamps, ladders held by said clamps, a board or platform
10 resting upon the rounds of adjacent ladders,

and a supporting device for said platform intermediate of the ladders, consisting of the nut *g*, embedded in the wall of the building, and the screw-threaded rod *h*, engaging there- 15 with, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

HERMANN HEILAND.

Witnesses:

PAUL FISCHER.

WILHELM SCHWIETHAL.