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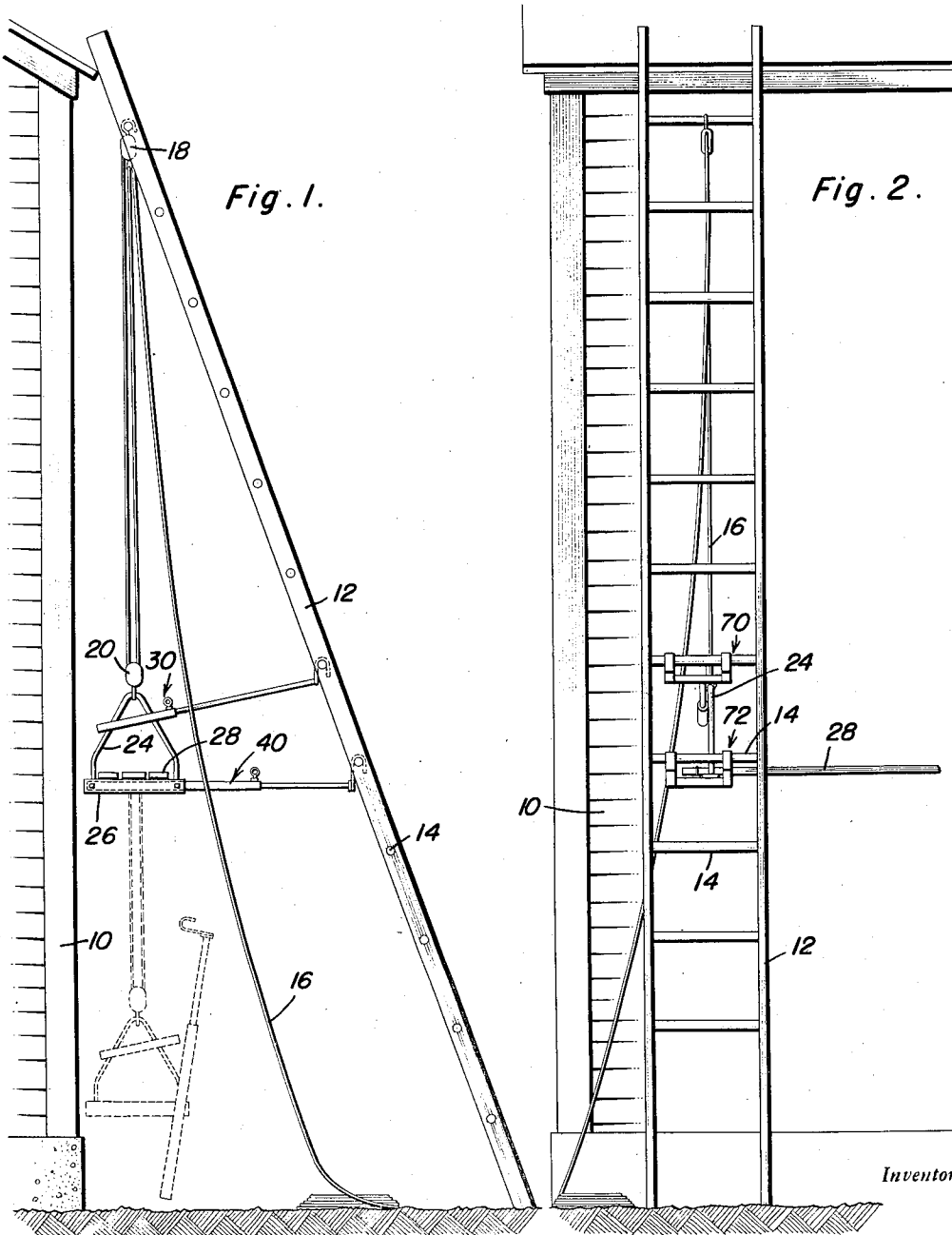
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2,577,286

ADJUSTABLE LADDER JACK AND SCAFFOLD

Filed April 1, 1949

2 SHEETS—SHEET 1



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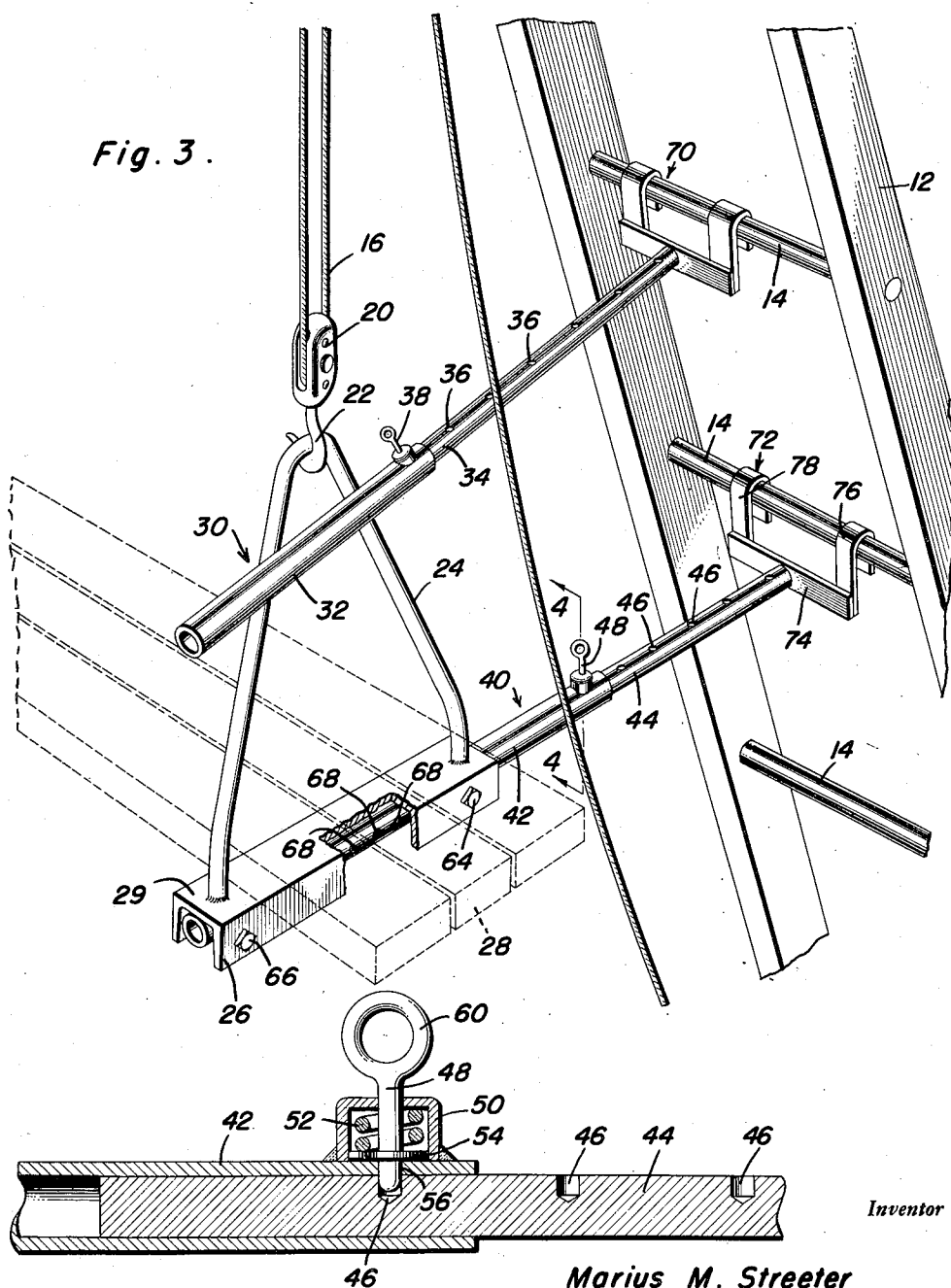


Fig. 4.

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ADJUSTABLE LADDER JACK AND SCAFFOLD

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1 Claim. (Cl. 304—31)

1

This invention relates to novel and useful improvements in scaffolds.

An object of this invention is to prevent the platform or base of the scaffold from swinging laterally in the endwise position and in the lateral position when the platform is supported by means of ropes, cables or the like from the top of a pair of spaced ladders, the ladders usually being inclined with respect to the vertical.

A feature of the invention is the use of extensible holders carried by the attachment, one of which is pivoted to a part of the attachment while the other is fixed to another part of the attachment, both of the holders being divergent so that they may be removably fixed to spaced rungs of the ladders.

Another object of this invention is to increase the safety and the utility of the type of scaffold utilizing a pair of spaced inclined ladders and a number of ropes to hold a scaffold base so that it may be progressively raised or lowered, the usual operation being from the top of the building which is to be worked on. Hence, the usual operation is to lower the scaffold platform in stages.

Ancillary objects and features of novelty will become apparent to those skilled in the art, in following the description of the preferred form of the invention, illustrated in the accompanying drawings, wherein:

Figure 1 is an elevational side view of the preferred form of the invention showing the same in use and showing schematically a second position of the apparatus;

Figure 2 is a front view of the assembly shown in Figure 1;

Figure 3 is a fragmentary perspective view of one attachment, parts being broken away to illustrate detail of construction; and

Figure 4 is a sectional view illustrating a detail of construction and taken on the line 4—4 of Figure 3 and in the direction of the arrows.

The illustrated type of scaffold in general is used commonly. There are certain disadvantages in the utility of this type of scaffold, however, which I have overcome. The first is the side sway or endwise movement of the scaffold which is necessarily attendant to the support or supporting of a scaffold platform in the illustrated manner. The second is the spacing of the scaffold platform from the building wall while raising and lowering the device to various elevational positions.

The conventional illustrations include a building 10 and one of a pair of spaced inclined lad-

2

ders 12 having rungs 14 therein. A rope or cable 16 is illustrated, being passed over a conventional pulley structure 18 which is fixed to one rung of the ladder 12 and also being passed through another conventional pulley structure 20 having a hook 22 extending therefrom.

In order that a device of this nature be commercially feasible and practical, not only must it serve its intended purpose effectively, but it must also be uncomplicated and simple in structure. Viewing Figure 3, it is seen that there are only a few elements making up the present preferred form of the apparatus. A yoke 24 is fixedly connected with a channel 26 which forms a base member for the platform 28 of the scaffold. There are two attachments provided in connection with a scaffold, one being provided at each end of the platform 28. The said platform 28 is adapted to seat on the base 26, and more specifically on the web 29 of the said channel 26. The yoke 28 having its two legs fixed rigidly with the web 29 of the channel 26 is disposed on each side of the platform 28. The top part of the yoke serves as a recipient for the hook 22 which is removably disposed thereunder.

A first or upper holder, generally indicated at 30, is fixed rigid with the yoke 24. This holder consists of a tube 32 which is welded or otherwise rigidly secured to the yoke 24 and an extensible rod 34 disposed in the bore thereof. This extensible rod has a number of apertures 36 therein to accommodate the pin 38.

The lower holder, generally indicated at 40, is also extensible in nature and includes a tube or other suitable equivalent 42 having a rod 44 extensibly disposed therein. This rod also has a number of apertures 46 therein (Figure 4) whereby the pin 48 is removably disposed in one of them.

The pins 38 and 48, respectively, are identical in character and in structure and serve identical functions. For illustrative purposes, the detail view in Figure 4 brings out the particular structure. A cage or housing 50 is welded or otherwise rigidly secured to the exterior surface of the tube 42 and has a spring 52 disposed therein. This spring reacts on the top of the housing 50 and on a collar 54 which is fixed to the pin 48 for movement therewith. The lower end of the pin passes through an opening 56 provided in the tube beneath the housing 50 and is removably disposed in one of the number of apertures 46. An eye 60 is formed at the outside end of the pin 48 whereby a string, rope or the like

may be provided therein for operation thereof as found desirable.

The lower extensible holder 40 is pivoted within the channel 26 by means of a pivot pin 64 which may be in the form of a bolt. By having the tube 42 pivoted within the channel member, the tendency for side movement is inhibited.

Means for retaining the holder 40 in a predetermined pivoted position is provided. Many means may be used in this connection. However, it is desirable to use an extremely inexpensive construction. Accordingly, I have passed a bolt 66 through suitable openings in the legs of the channel 26 and through a suitable opening in the tube 42. It has been found to be equally as convenient to pass the bolt 66 below the tube rather than through the same and the function is accomplished equally as well as when the openings 68 are used.

A special means is provided at the outer ends of the rods 44 and 34, respectively, for clampingly engaging the rungs 14 of the ladder 12. This means consists of brackets 70 and 72, respectively. Each bracket is identical. A flat metallic piece 74 is fixed to the end of the rod under consideration and substantially U-shaped hooks 76 and 78, respectively, are attached at the ends of the said piece 74. These hooks are removably disposed over the top part of the selected ladder rungs 14.

In operation, it is first assumed that the platform 28 is at the highest practical and useful position. Then, in order to lower the platform, it is unnecessary to do anything other than remove the rod 34 from engagement with the high ladder rung and pivot the lower holder about the pivot pin 64. The rope 16 is then manipulated to lower the platform 28 and the rods 34 and 44, respectively, are extended with respect to the tubes 32 and 42. The rung-engaging means is then placed on another pair of rungs and the device is again in place for further operation on the side of the building.

By the above structure, since there is spaced

engagement with different ladder rungs at one time, the tendency for side sway and endwise sway is reduced to a minimum and is, in actual practice, obviated. A sturdier construction results, particularly when in actual use.

Having described the invention, what is claimed as new is:

For use with a scaffold which includes a scaffold platform and a pair of inclined ladders, an attachment for each end of the platform and each ladder, each attachment comprising a base and a rigid yoke fixed rigidly to said base, extensible holders spaced from each other and attached to said yoke and said base respectively, means disposed at the ends of said holders for attachment with rungs of the ladder, one of said holders being fixed to said yoke and the other of said holders being pivoted to said base whereby said base and yoke may be freed from the ladder by swinging the pivoted holder from the ladder rungs and removal of the other holder from the ladder rungs, said base being channel-shape in cross-section and having a part of said pivoted holder nested therein, and means secured to said base and engaging said pivoted holder for releasably locking said pivoted holder within said base.

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