

May 10, 1938.

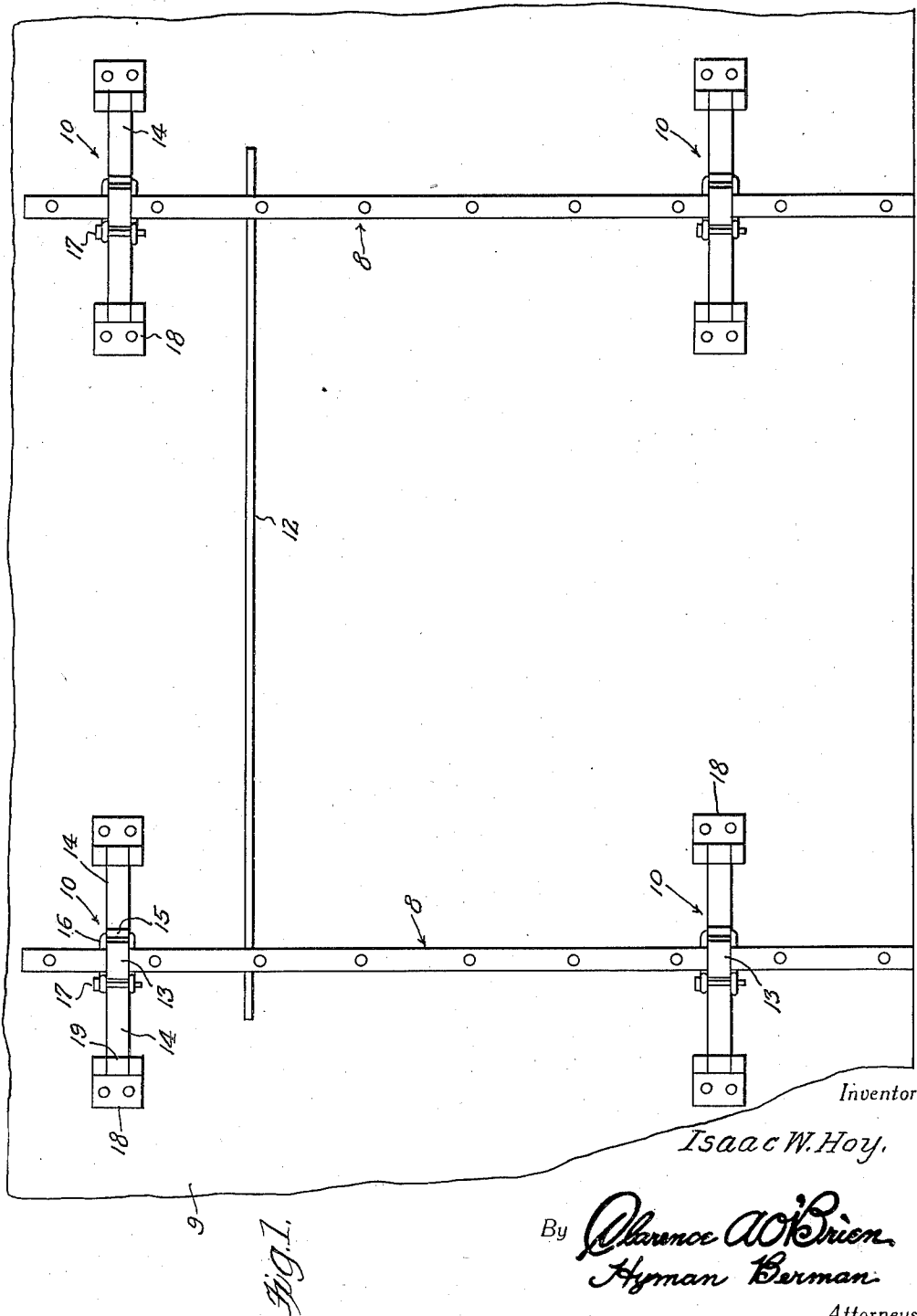
I. W. HOY

2,116,831

STAGING BRACKET

Filed Sept. 3, 1937

3 Sheets-Sheet 1



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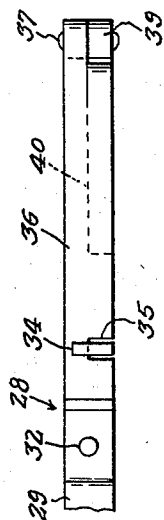
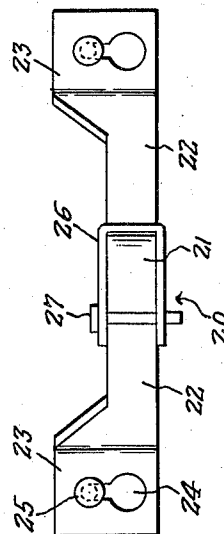
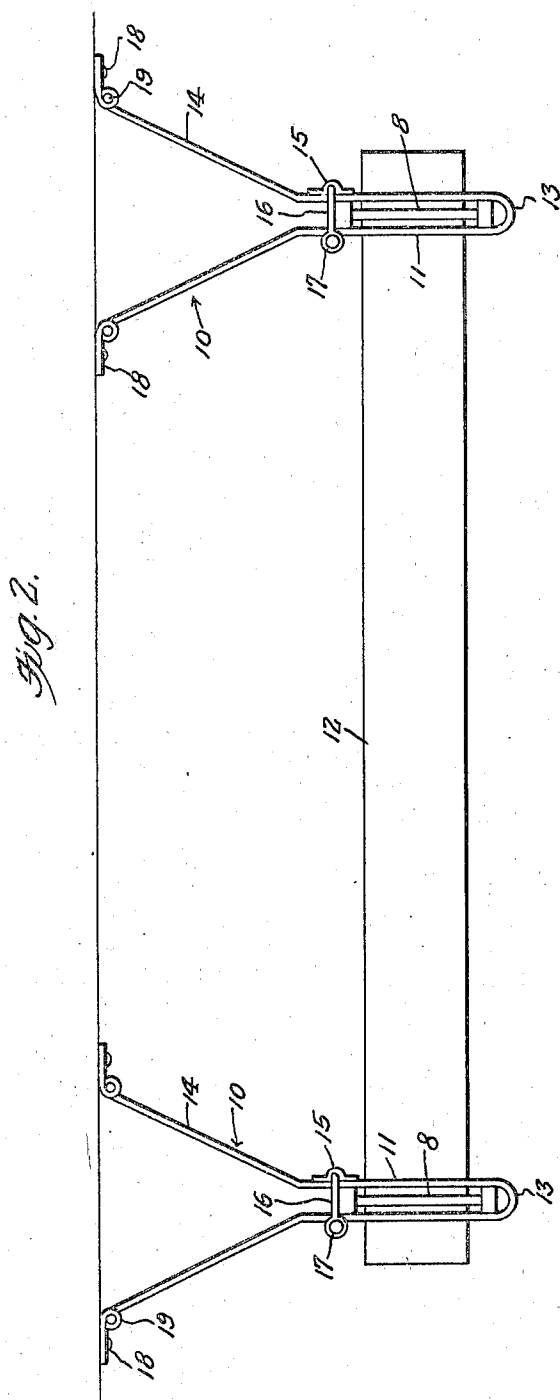
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3 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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STAGING BRACKET

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Application September 3, 1937, Serial No. 162,365

8 Claims. (Cl. 304—39)

The present invention relates to improved brackets or fixtures such as are referred to in the trade as staging brackets, the same being adapted for use in maintaining ladders in perpendicular positions for the construction of temporary scaffolding usable by painters, carpenters, plasterers and the like.

Although the invention is exemplified through the illustration of a complete set-up scaffold, it will be observed, as implied in the preceding statement, that the novelty is directed to the particular construction arrangement and mounting of the brackets employed to maintain the ladders in rigid perpendicular position.

15 Stated in generic terms, the novelty is predicated upon a metal bracket somewhat in the nature of a yoke, the same being characterized by diverging attaching arms and an associated portion constructed to embrace the ladder to securely hold it in a reliable supporting position, quick accessible means being associated with the last-named portion to facilitate assembling the ladder in the associated brackets.

25 As indicated in the preceding paragraph, the invention is carried into force and effect through the instrumentality of companion selectively usable brackets according to the type of work to be performed, and while the brackets have common characteristics, certain of them are provided with appreciably different features such as render them especially appropriate for the particular job in hand.

Other features and advantages will become more readily apparent from the following description and drawings.

35 In the accompanying drawings, wherein like numerals are employed to designate corresponding elements throughout the views:

40 Figure 1 is an elevational view of the complete staging or scaffolding in readiness for use illustrating a group of four ladder-holding brackets constructed in accordance with the principles of the present invention.

45 Figure 2 is a top plan view of the assemblage seen in Figure 1.

Figure 3 is an end elevation, that is, a view observing Figure 1 in a direction from left to right.

50 Figure 4 is a top plan view of a modified type or form of bracket usable under predetermined circumstances.

Figure 5 is a top plan view of a slightly different style of bracket construction.

55 Figure 6 is a fragmentary side view of the ladder retention means incorporated in the bracket

seen in Figure 4, the view looking at Figure 4 in a direction from left to right.

Figure 7 is an enlarged detail view of the bracket illustrated in Figure 5 observing it from its front or outer end, showing how it is detachably mounted on the wall or other structure.

By way of introduction to the detailed description, and by reference to Figure 5 in comparison with Figures 1 to 3, it will be observed that the bracket seen in Figure 5 possesses the same fundamental characteristics as those shown as the main bracket in Figures 1 to 3. It is simply a smaller bracket so as to position the ladders 8 closer to the wall or other support 9, such as is required for plastering. There are also common characteristics in the modification seen in Figure 4, so, for sake of convenience, each species or variety of bracket will be separately described, thus avoiding possible confusion.

Reference is made, in view of the foregoing, to the bracket shown in Figures 1 to 3. Here the bracket is denoted by the numeral 10. It is of general Y-shaped form and may be unitarily identified as a yoke. It includes a U-shaped portion 11 to embrace the ladder so as to hold the ladder securely to maintain the plank 12 securely in place. This U-shaped part completely embraces the ladder with one rail located in the right portion 13 and the other rail disposed adjacent the point of divergence of the attaching arms 14. At the point under observation is a bracket 15 on the main bracket serving as a pivotal mounting for the U-shaped latch or clevis 16. The ends of the arms of the clevis project beyond the adjacent portion of the U-shaped member 11 and are formed with eyes to accommodate a linch pin 17. The numerals 18 designate anchoring cleats or plates screwed or otherwise fastened to the foundation or support, and the outer ends of the diverging arms are hingedly connected thereto as at the points 19.

The short-type bracket illustrated in Figure 5 and shown to further advantage in Figure 7 is differentiated by the numeral 20. As before indicated, this is employed where it is desired to position the ladders close to the wall. Like the bracket already described, this one includes a U-shaped portion 21 to embrace the ladder 8 and diverging arms 22 for attachment purposes. In this instance the arms terminate in laterally bent ears or lugs 23 which are in turn provided with keyhole slots 24 to be detachably hung over the headed fasteners such as nails 25. Here the clevis 26, instead of being pivoted, is detachable and slidable, and its arms straddle the arms of

the U-shaped part 21 to carry the retention or linch pin 27.

Coming now to the remaining form of the invention seen in Figure 4, here the bracket is differentiated by the numeral 28. Again, in this arrangement, we have diverging attaching arms 29 hingedly connected as at 30 to anchoring cleats or plates 31, suitably fastened to the wall. The converging ends of the arms 29 are here riveted together as at 32 with one end formed with what may be called a short extension of general L-shaped form as at 33, and this terminates in a lateral hook or detent 34, designed to accommodate a keeper notch 35 (see Figure 6) in the free end portion of the latch member 36. The latch member is hingedly connected as at 37 to the outer end of a suitably shaped and lengthened extension 38 forming a part of one of the arms 29. The part 38 coacting with the latch 36 forms a loop similar to the U-shaped members 11 and 21 already described. It will be observed that the hinged end of the latch is bifurcated and one furcation is bent to form a hinge knuckle as at 39, while the other furcation forms a closing tongue 40 (see Figure 4). Assuming that the latch is open, by placing the ladder in such a position as to bring it in pressure contact against the finger 40, it will be observed that this finger will serve to automatically swing the latch to closed position for engagement purposes. Thus, the finger 40 is in effect an automatic closing element for the latch which is ladder operated.

Making reference again in generic terms to the several embodiments of the invention thus described, it will be seen that each bracket includes a structure which may be said to be of general Y-shaped form. The fork or diverging arms serve in each instance for attachment purposes. The stem portion is of looped form including the latch or clevis so that it completely embraces the ladder. These factors are mentioned to provide the desired foundation for the generic claims hereinafter presented. To certain brackets (Figures 1, 2, 3, 5, and 7), the ladders are placed in perpendicular or erect position first with the clevises open and then the brackets are slipped or saddled over the ladders, after which the brackets are secured to the wall. In the arrangement seen in Figure 4, it is possible to fasten the bracket on the wall first with the latch open and to simply press the ladder against the latch to swing the latch closed to securely maintain the ladder in place.

It is thought that the description taken in connection with the drawings will enable a clear understanding of the invention to be had. Therefore, a more lengthy description is thought unnecessary.

While the preferred embodiment of the invention has been shown and described, it is to be understood that minor changes coming within the field of invention claimed may be resorted to if desired.

I claim:

1. A ladder retaining bracket comprising a one-piece yoke including a U-shaped portion to embrace the ladder and diverging attachment arms, laterally directed means at the outer ends of said arms for convenient fastening to a relatively rigid support, a U-shaped clevis mounted on said U-shaped portion, the arm portions of said clevis being provided with a removable linch pin to maintain the clevis closed.
2. A bracket of the class described comprising a U-shaped member to embrace the ladder and a pair of diverging arms, the free ends of said arms being bent laterally to contact a building wall and having keyhole-shaped slots formed therein, and a U-shaped clevis slidably mounted on said U-shaped member and including a retaining pin.
3. In a bracket of the class described, a pair of diverging attaching arms secured rigidly together at their converging ends, and means located beyond the converging ends to embrace a ladder, said means including a pivoted latch.
4. In a bracket of the class described, a pair of diverging attaching arms secured rigidly together at their converging ends, means located beyond the converging ends to embrace a ladder, said means including a latch, said latch being provided with a closing finger actuated by pressure thereagainst of the ladder.
5. A bracket of the class described comprising attaching arms and a member to receive and embrace a complementary ladder, said member being shaped for snug reception of the ladder and including a pivoted latch and a detent hook for coaction with the latch.
6. A bracket of the class described comprising attaching arms and a member to receive and embrace a complementary ladder, said member being shaped for snug reception of the ladder and including a pivoted latch and a detent hook for coaction with the latch, and said latch being provided with a remote controlled ladder actuated rigid finger adjacent its pivoted end in the manner and for the purposes described.
7. A bracket of the class described including a V-shaped portion, the free ends of the arms thereof being provided with laterally disposed outstanding attaching and anchoring means, and ladder embracing means disposed outwardly beyond the converging ends and including readily releasable retaining means.
8. A bracket of the class described comprising a U-shaped member adapted to embrace a ladder and a pair of outwardly diverging attaching arms, the free ends of said arms being provided with outstanding attaching members adapted to be anchored on a building wall, and a U-shaped clevis, the bight portion of said clevis being hingedly attached to the U-shaped member at a point adjacent to said diverging arms, the arm portions of said clevis bridging the parallel members of said U-shaped member and being provided with a retaining pin.

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