A. P. DIXSON.

SCAFFOLD.

APPLICATION FILED JUNE 4, 1920.

1,376,924.

Patented May 3, 1921.

3 SHEETS—SHEET 1.

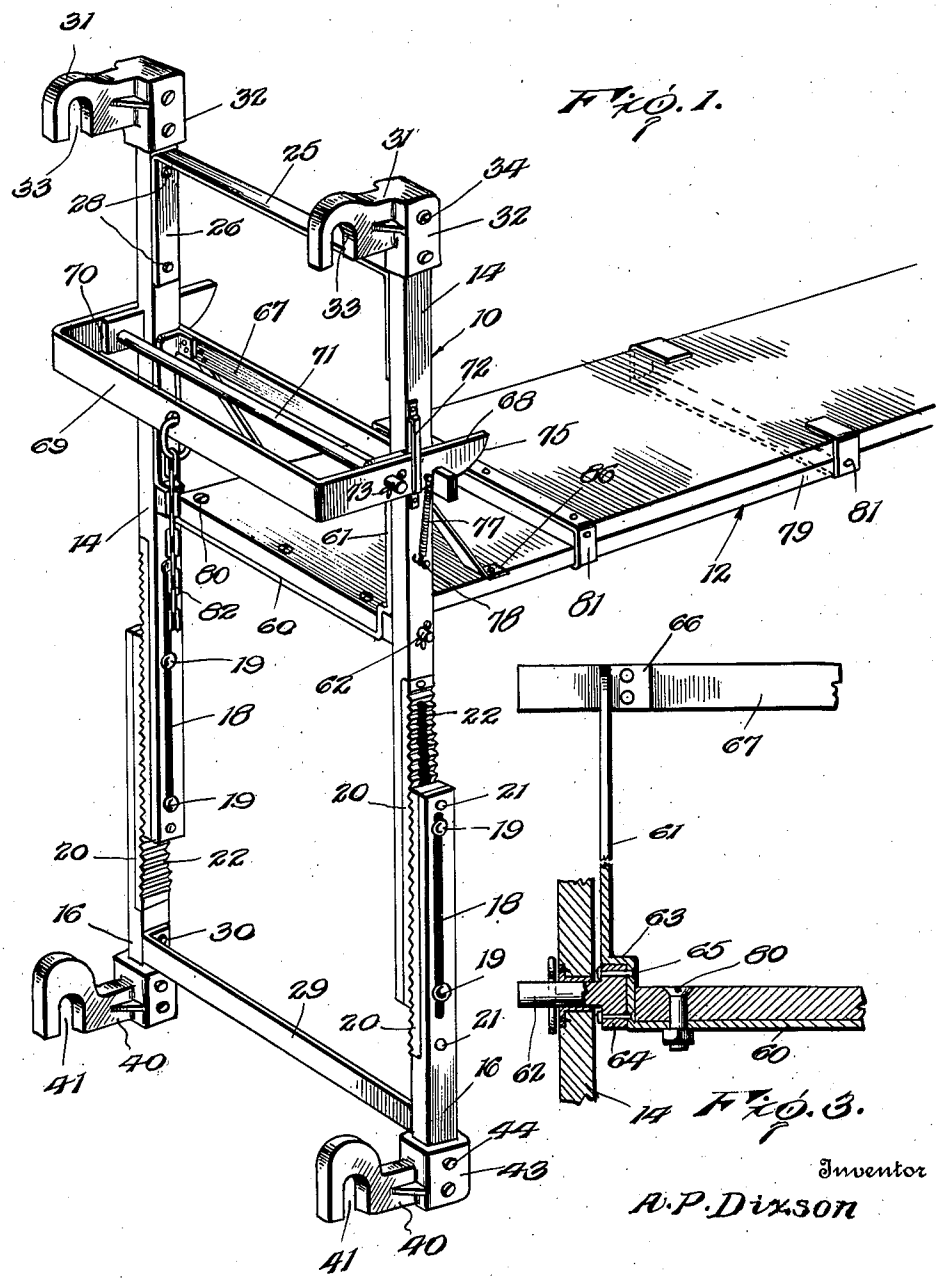


FIG. 1.

FIG. 3.

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3 SHEETS—SHEET 2.

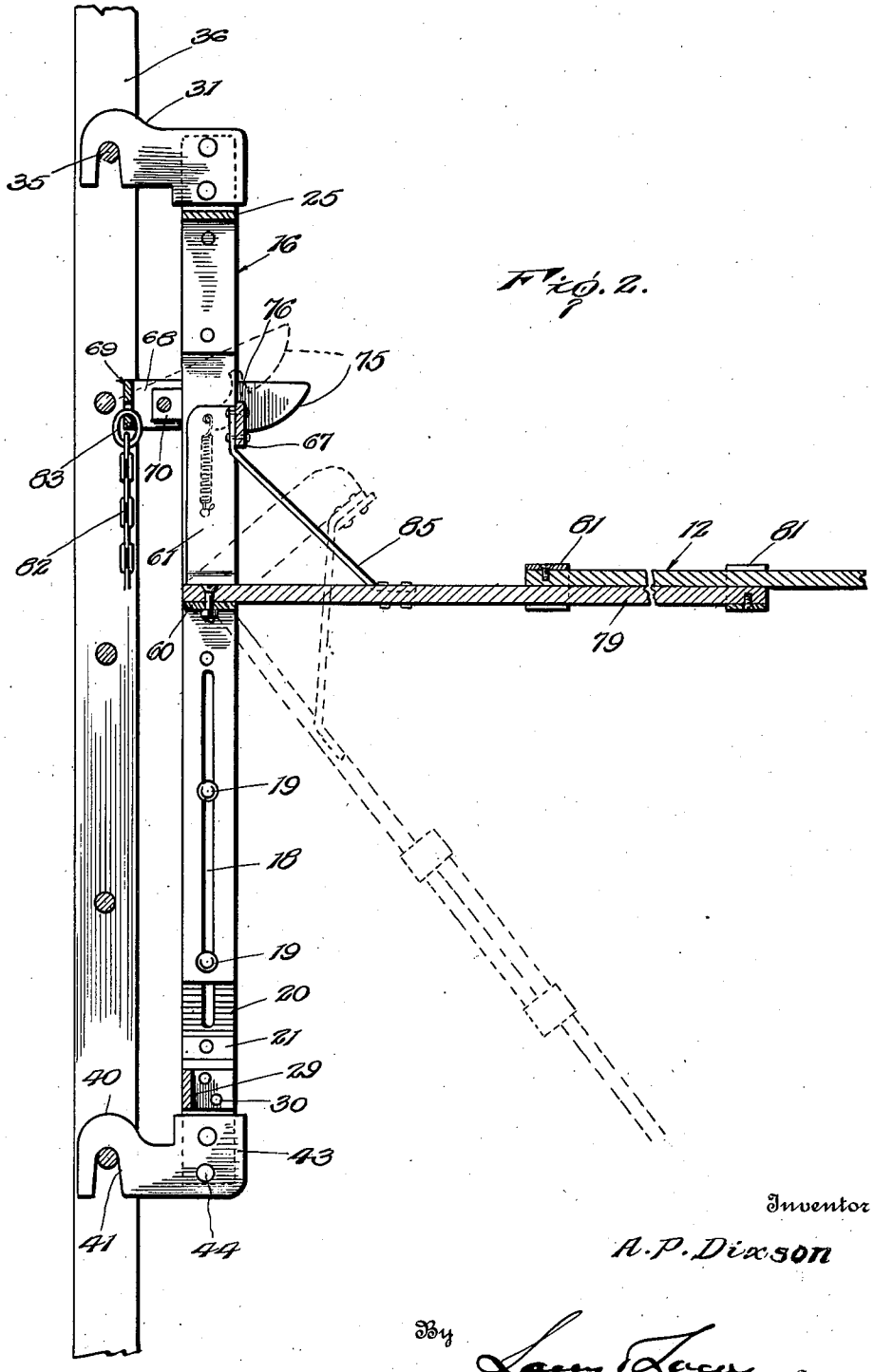


Fig. 2.

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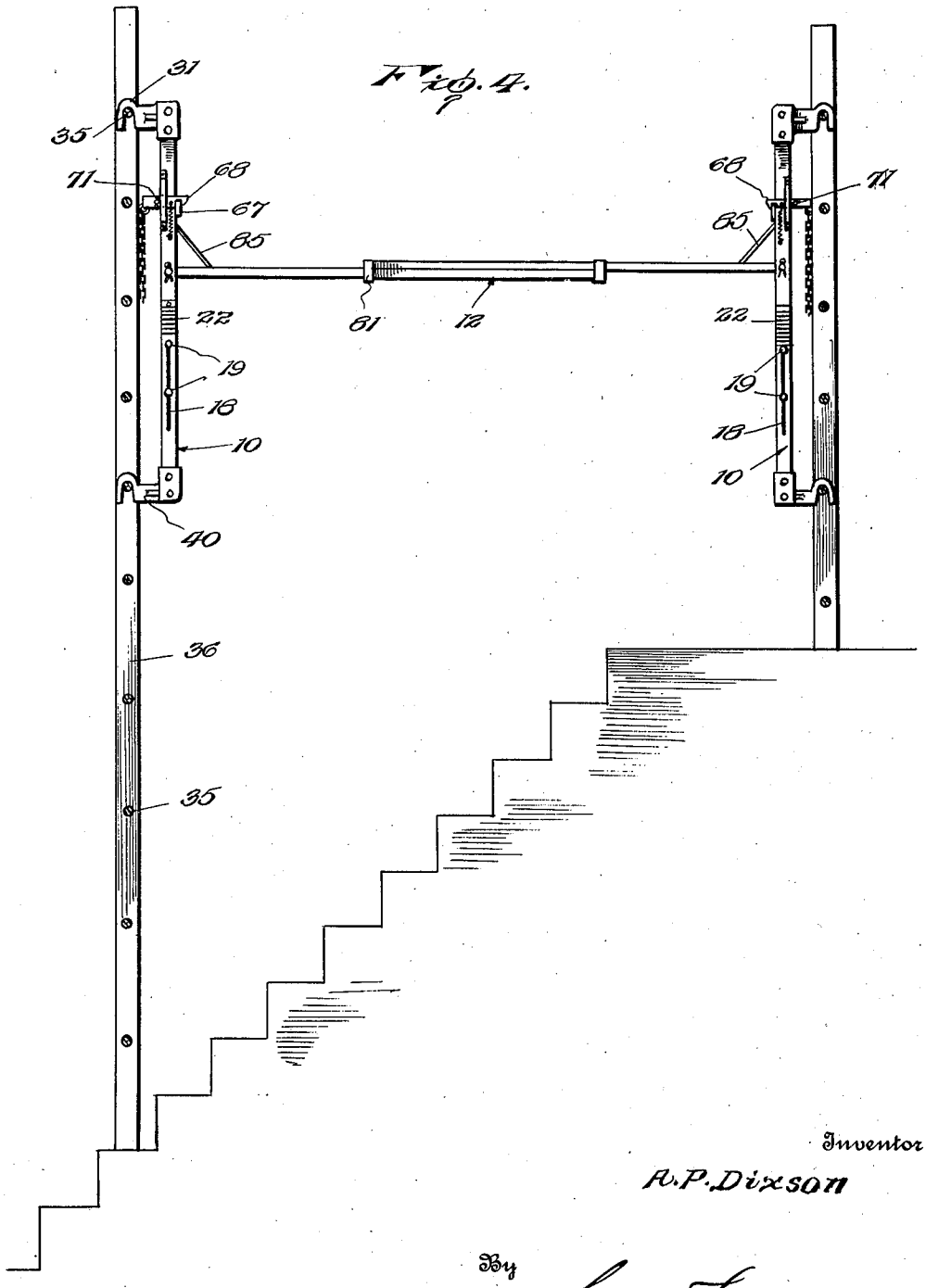
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3 SHEETS—SHEET 3.

Fig. 4.



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UNITED STATES PATENT OFFICE.

ALBERT P. DIXSON, OF BRONSON, KANSAS.

SCAFFOLD.

1,376,924. Specification of Letters Patent. Patented May 3, 1921.

Application filed June 4, 1920. Serial No. 386,528.

To all whom it may concern:

Be it known that I, ALBERT P. DIXSON, a citizen of the United States, residing at Bronson, in the county of Jackson and State of Kansas, have invented certain new and useful Improvements in Scaffolds, of which the following is a specification.

This invention relates to improvements in scaffolds and is more particularly directed to the attaching means therefor.

An important object of this invention is to provide a scaffold having novel means whereby the same may be conveniently and readily attached to a ladder without the necessity of in any way altering the construction of the ladder.

A further object of this invention is to provide a scaffold of the class described which may be readily adjusted so that the same may be attached to ladders of various sizes.

A further object of the invention is to provide a scaffold of the class described which is of highly simplified construction, and efficient and safe to use.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this application and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a perspective of the improved scaffold,

Fig. 2 is a central vertical transverse section through the same applied, the operative or extended position of the platform being shown in full lines and the folded or partially folded position of the platform being shown in dotted lines,

Fig. 3 is a detail section through the scaffold,

Fig. 4 is a side elevation of the improved scaffold in use.

In the drawings wherein for the purpose of illustration is shown a preferred embodiment of the invention the numeral 10 generally designates the frame of the scaffold which is adapted to be detachably connected to the rungs of a ladder or other support.

In carrying out the invention the frame 10 coöperates with a similar frame or other supporting device in detachably securing the platform 12 along one side of a wall in order that mechanics may reach elevated points in a building structure without difficulty. The frame of the improved scaffold is adjustable and comprises pairs of upper and lower arms 14 and 16 respectively. With particular reference to Fig. 1, it will be noted that the inner portions of the upper and lower arms 14 and 16 respectively are overlapped and are provided with elongated longitudinally extending slots 18 through which pairs of bolts 19 are extended for adjustably connecting the upper and lower sections. Lengths of metal 20 may be secured to the inner portions of the upper and lower sections 14 and 16 on their opposed sides by fastening devices 21 and are provided with transversely extending interfitting teeth or notches 22 which coöperate with the pairs of bolts 19 in securing the arms 14 and 16 in an adjusted position. The pair of upper arms 14 are joined by a transversely extending connecting strap 25 having its end portions 26 secured flatly in engagement with the inner sides of the arms 14 by connecting devices 28. By this construction the arms 14 are greatly strengthened and are enabled to be adjusted simultaneously. The connection between the upper arms 14 forms an upper section which is adjustable with relation to the lower section formed by joining the lower arms 16 through the medium of a connecting rod or strap 29. The connecting strap 29 which is preferably of iron has its end portions secured flatly in contact with the inner sides of the arms 16 by suitable fastening devices 30 which may be in the form of rivets or the like.

The upper section of the frame 10 is formed with attaching hooks 31 having sockets 33 formed in their lower sides to receive one of the rungs 35 of a ladder 36. The hooks 31 are formed with attaching sockets 32 which are adapted to receive the upper end portions of the arms 14 and are securely connected to the arms by suitable fastening devices 34. The hooks 31 may, if desired, be formed with suitable reinforcing ribs as illustrated.

The lower portions of the lower arms 16 are provided with hooks 40 having notches 41 adapted for receiving one of the rungs of a ladder in coöperation with the hooks 31. The hooks 40 are, like the hooks 31, provided with attaching sockets 43 which receive the end portions of the lower arms 16

and are secured to the same by fastening devices 44. The hooks 40 may also be provided with reinforcing ribs if desired.

The upper section pivotally supports a U-shaped stirrup 60 having upstanding side arms 61 pivotally connected to the arms 14 by pivot bolts 62. As illustrated in Fig. 3, the arms 61 of the stirrup 60 are provided with offset portions 63 seated upon the enlarged heads 64 of the pivot bolts. The enlarged heads 64 of the pivot bolts 62 are rigidly secured to the lower portions of the arms 61 of the stirrup by means of countersunk rivets 65. The upper portions of the arms 61 of the stirrup are provided with inwardly extending attaching portions 66 having connection with a cross head 67. The end portions of the cross head 67 are extended beyond the outer sides of the arms 14 and are engaged by the sides 68 of a U-shaped locking device 69.

As illustrated in Fig. 1, the sides 68 of the U-shaped locking device 69 are pivotally connected to a pair of apertured ears 70 through the medium of a transversely extending pivot bolt or rod 71. It will be noted that the sides 68 of the locking device 69 are extended through guides 72 secured to the arms 14 by suitable fastening devices. The end portions of the pivot pin 71 are provided with transversely extending openings through which are extended locking keys 73 or other suitable fastening means for securing the pin in position. The free end portions of the sides 68 of the locking device 69 have their lower edges curved, as indicated at 75, so that as the cross head is moved to an elevated position the sides 75 will be moved on the pivot 71 preparatory to the entrance of the end portions of the cross head into notches 76 formed in the sides 68. As illustrated in Fig. 1, the U-shaped locking device 69 has its sides 68 pressed downwardly into engagement with the cross head 67 by contractile coil springs 77 anchored, as indicated at 78, to the arms 14 of the frame.

The U-shaped stirrup is connected with one of the sections 79 of the platform by means of countersunk screw bolts 80 or other suitable means and with reference to Fig. 3 it will be noted that the side edges of the section 79 are prevented from lateral movement through contact with the upstanding arms 61 of the stirrup. The sections of the platform may be adjusted with relation to each other by means of strips 81 which have connection with each of the sections of the platform.

When it is desired to position the platform as illustrated in dotted lines in Fig. 2, the locking device 69 may be moved on the pivot 71 for removing the sides 68 from engagement with the cross head 67. A flexible element 82, preferably in the form of a chain, is secured to the intermediate portion of the locking device 69 by means of a loop 83 and, when a downward pull is exerted on the flexible element 82, the locking device is of course removed from engagement with the cross head 67. Suitable bracing straps 85 extended from the cross head 67 are connected, as indicated at 86, to one of the sections of the platform so as to strengthen the connection between the platform and the stirrup.

In applying the improved scaffold, the upper and lower sections of the frame 10 are adjusted so that the hooks 31 and 40 of the same may be connected to the rungs of a ladder without the possibility of slipping or dislocation. That is to say, the hooks 31 and 40 are spaced the same distance as are the rungs of the ladder with which it is desired to connect the hooks. By this means the frame of the scaffold may be readily and conveniently adjusted to various size ladders without in any way altering the construction of the ladder.

With reference to the foregoing description taken in connection with the accompanying drawings, it will be noted that a scaffold constructed in accordance with this invention may be readily positioned a convenient distance from the wall of a structure so that mechanics may work on the wall or building without the possibility of the scaffold collapsing or becoming dislocated. When it is desired to fold the scaffold, it is merely necessary to exert a downward pull on the flexible element 82 so that the frame may be positioned along the side or bottom of the platform.

As illustrated in Fig. 4 the improved scaffold may be attached to ladders mounted on stairways and when so arranged extends horizontally so that the mechanics may work on the ladder without inconvenience.

It is to understood that the form of the invention herewith shown and described is to be taken as a preferred embodiment of the same and that such minor changes in construction and arrangement of parts may be made as will remain within the spirit of the invention and the scope of what is claimed.

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

1. A scaffold comprising a frame having means for engaging a support, a stirrup pivotally carried by the frame, and a platform carried by said stirrup.

2. A scaffold comprising a frame having means whereby the same may be connected to a support, a stirrup pivotally connected to said frame, means for locking the stirrup in position, and a platform connected to said stirrup.

3. A scaffold comprising a frame having

attaching means, a U-shaped stirrup having arms pivotally connected to the frame, means whereby said stirrup may be locked in position, and a platform connected to said U-shaped stirrup.

4. A scaffold comprising a frame having attaching means, a U-shaped stirrup having side arms pivotally connected to said frame, a cross head connected to the arms of said U-shaped stirrup, a locking device detachably engaging said cross head for securing the stirrup in position, and a platform supported by said stirrup.

5. A scaffold comprising a frame having attaching means, a stirrup pivotally carried by said frame, a U-shaped locking member pivotally carried by said frame, a cross head carried by said stirrup and detachably engaged by said locking member, and a platform carried by said stirrup, said locking member being provided with means whereby the same may be removed from engagement with said cross head.

6. A scaffold comprising a frame having means for engaging a support, a stirrup pivotally carried by the frame, a U-shaped locking member having arms engaged with said stirrup for securing the latter in a set position, and operating means for said U-shaped locking member.

7. A scaffold comprising a frame inclusive of a pair of sections adjustable with relation to each other and having their end portions provided with hooks having sockets adapted to receive the rungs of a ladder, a stirrup pivotally carried by said frame, a locking device adapted for securing said stirrup in position, and a platform supported by said stirrup.

8. A scaffold comprising a frame inclusive of a pair of sections having their adjacent end portions overlapped and provided with slots, fastening devices extending through said slots for adjustably connecting said sections, the outer end portions of said sections being provided with attaching means, a stirrup carried by one of said sections, and a platform carried by said stirrup.

9. A scafforld comprising a frame having spaced parallel sides provided with attaching means, a U-shaped stirrup arranged between the sides of said frame and having arms provided with offset portions adjacent their inner ends, pivot bolts extending through the sides of said frame and engaged with the offset portions of said arms, and a locking device having connection with the arms of said stirrup for securing the stirrup in position.

10. A scaffold comprising a frame having means for engaging the rungs of a ladder, a stirrup arranged within said frame and pivotally connected to the same, a cross head carried by said stirrup and extending beyond the sides of the frame, a U-shaped locking device pivoted to said frame and having side arms provided with sockets adapted to receive the end portions of said cross head, a platform secured to said stirrup, and bracing devices connected to said cross head and said platform.

In testimony whereof I affix my signature.

ALBERT P. DIXSON. [L. S.]