Feb. 3, 1959 G. R. CROSBY 2,872,251

SCAFFOLD END FRAME AND ADAPTER

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Fig. 1

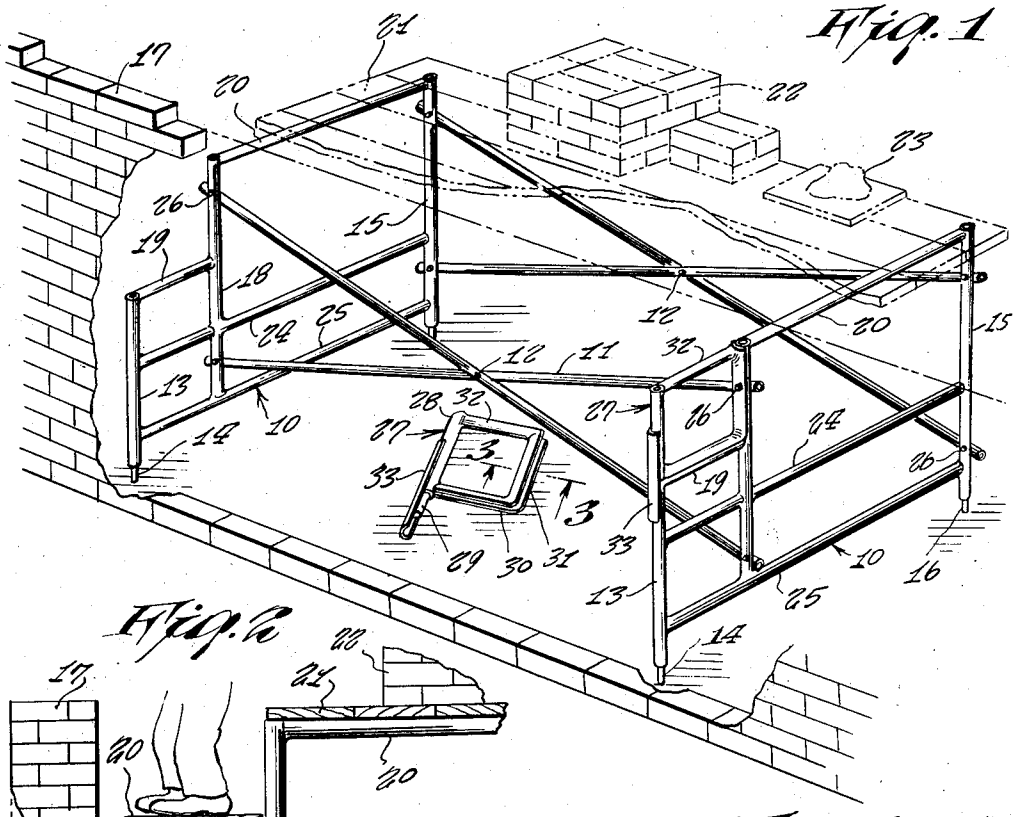


Fig. 2

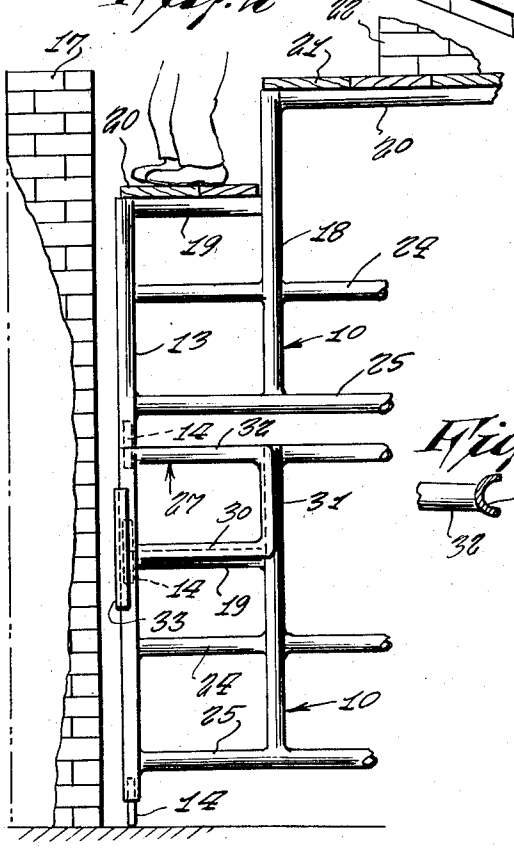
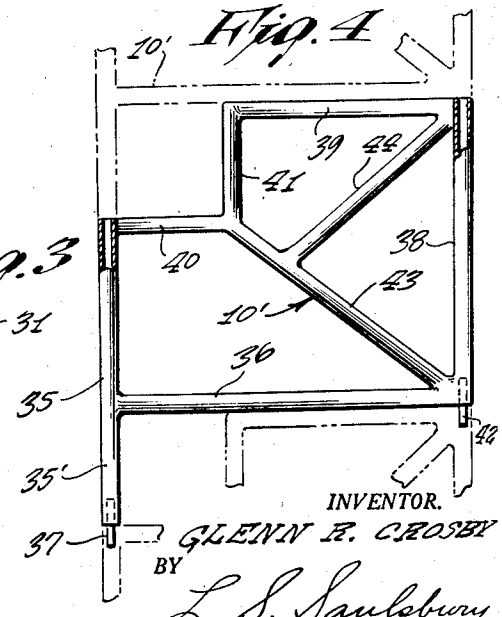


Fig. 3

Fig. 4



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SCAFFOLD END FRAME AND ADAPTER

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2 Claims. (Cl. 304—2)

The present invention relates to scaffolds and more particularly to scaffolds provided with an extension bracket which is adaptable to cooperate with a base scaffold section to provide access to elevated work areas.

An object of the present invention is to provide a sectionalized building scaffold mountable in sections or tiers one above the other and provided with a bracket portion which may be elevated in selected increments vertically to higher working areas.

Another object of this invention is to provide a scaffold suitable for vertical mounting in sections one above the other, each scaffold section being provided with intermediate platforms.

Still another object of this invention is to provide an adapter bracket section suitable for locking engagement with a base scaffold section to elevate a worker to a higher working level.

A further object of the invention is to provide a combination of a multiple-level scaffold in which suitable bracket platform may be interlocked with a base scaffold section so that a worker may be elevated to a higher desired working elevation without leaving the scaffold to erect the conventional loose supporting plank structure.

Additional objects of this invention are to provide a light, sturdy locking scaffold device which has an intermediate working level platform convertible to a higher level platform by insertion of a suitable adapter bracket in the intermediate working level to elevate the workman, to insure greater safety at elevated positions, to afford greater accessibility to working materials, and to reduce lost motion in transferring working materials to the working platform.

Other objects and a better understanding of the invention may be had by reference to the following detailed description taken in connection with the accompanying drawings, in which:

Figure 1 is a perspective view of the assembled scaffold aligned with the brick wall being constructed with portion thereof broken away and with some of the planks removed;

Fig. 2 is a fragmentary and elevational view of two sections, one assembled upon the other, and lying beside the wall being constructed;

Fig. 3 is a transverse sectional view taken on line 3—3 of Fig. 1 and through the vertical edge of the adapter;

Fig. 4 is a vertical side elevational view of a modified form of the invention.

Referring now particularly to Figs. 1, 2 and 3, **10** represents an end frame section of the split-level type, which are connected together by crossed brace rods **11** joined to one another intermediate their lengths by a bolt **12**. The end frame section has a forward upright pipe **13** with a bottom dowel **14** therein and a rear upright pipe **15** with a bottom dowel **16** therein. The upper ends of the pipes **13** and **15** are open to receive the dowels of a superimposed section which is added as the wall, as indicated at **17**, is brought to the higher elevations. The front pipe **13** is shorter than the rear pipe **15** and its upper end is

joined to an intermediate vertical pipe **18** by a short transverse pipe **19** adapted to receive planks **20** to support the workmen at a low level. The upper ends of the vertical pipes **18** and **15** are joined by a horizontal pipe **20'** for supporting planks **21** at a higher level and on which bricks **22** and mortar **23** are supported for use by the workmen at an easily accessible elevation where the workmen will have these materials ready at hand. Each end section is further braced by parallel horizontal pipes **24** and **25** vertically spaced from one another and secured, as by welding, to and extended between vertical pipes **13**, **18** and **15**. All of the pipes are preferably joined to one another by welding to provide a rigid, durable and strong end section.

The cross braces **11** are joined to the vertical pipes **15** and **18** by bolts **26** to provide a complete scaffold unit. A similar assembly can be made and superimposed upon the one unit.

When it is desired to elevate the planks **20**, as when the wall has been advanced to a higher level, an adapter **27** is secured to the short pipe **13** and over the horizontal plank support member **19**, on each of the sections. This adapter **27** has a vertical pipe **28** with a dowel pin **29** in its lower end adapted to fit into the upper end of the short pipe **13**. In order to give adequate support of the adapter **27** when so mounted, a half-sleeve structure **30** is made with a horizontal portion adapted to lie over the horizontal pipe **19**, and a vertical portion **31** adapted to lie against the vertical member **18**. A horizontal member, or pipe, **32** connects the upper end of the short pipe **28** with the upper end of the vertical half-sleeve portion **31**. All of these members are welded into a rigid construction. To further provide adequate support, a half-sleeve **33** is welded to the outer face of the short vertical pipe **28** and extends downwardly parallel to the pin **29** to engage with the forward face of the upper end of the short pipe **13**, in a manner as shown in Fig. 1. This provides adequate support for the adapter upon the section so that the horizontal pipe **32** of the adapter will provide an extension for the horizontal pipe **20'** of the end section so that planks **20** and **21** can extend throughout the full width of the unit and will allow the workmen to work on the wall at the higher elevations.

In order to further hold the adapter **27** in place upon the end section, the bolt **26** connecting the brace **11** to the intermediate vertical pipe **18** can be extended through the vertical half-sleeve portion **31**, in the manner shown in Fig. 1 at the righthand end thereof.

When the wall has been built up from the upper level platform formed of the planks **20** and **21** where it is not convenient for the workman to work upon the wall, another unit is disposed thereupon in the manner as shown in Fig. 2, and the workmen again operate from the lower level platform of that unit. The adapters **27** are allowed to remain on the first unit, and the dowel **14** of the upper unit will enter the upper end of the short pipe **28** of the adapter, as clearly shown in Fig. 2.

In Fig. 4, there is shown a modified form of the end frame section to be used to build up a scaffold structure on the base unit, shown in Fig. 1. With such modified form only one set of adapters would be needed for any number of assembled scaffold units. With this form of the invention, a front pipe **35** is designed to extend to a greater distance below the horizontal pipe **36** in order to take up the distance of the adapter, upon the adapter being removed from the lower section. This extension is indicated at **35'** and it has a dowel **37** adapted to engage with the upper end of the front pipe **35** when one unit is assembled upon the other unit.

A rear pipe **38** is connected to the rear end of the horizontal member **36** and to an upper horizontal member **39**,

A short horizontal pipe 40 is joined to the upper end of the pipe 35 and to the inner end thereof there is secured a short vertical pipe 41 that is joined to the forward end of the upper horizontal pipe 39. Space is provided between the pipes 40 and 41 for receiving the adapter 27 which will be united upon the end frame section in the same manner as above described, but this adapter will be removed prior to placing another unit of the scaffold assembly thereabove, as illustrated with dot and dash lines.

The rear pipe 38 has a dowel pin 42 adapted to be joined with the rear pipe of a lower unit. The lower unit, which engages with the ground, would take the form of the end section 10 above described, or would be made especially without the extension 35'.

The bracing of the members of the end frame section that may be designated as 10' is effected by an inclined pipe 43 that extends between the lower end of the vertical member 38 and the joined ends of the short pipes 40 and 41. A further inclined brace pipe 44 extends in an opposite direction from a point intermediate the length of the brace pipe 43 and the upper end of the rear pipe 38. All pipes are united by welding to provide a rigid, durable and welded construction. These end frames 10 will be used in the same manner with the brace rods 11 and with the adapter 27.

It will now be apparent that any intermediate level may be employed as well as the units or sections made of different heights and size depending upon the nature of the work to be performed with these scaffold assemblies. It will also be apparent that the units can be disassembled and easily stored or placed upon a truck and transported. It will be seen that upon completion of work to the highest level from one unit, another unit can be added and the workmen can work from a split level until they have need to be further elevated. The scaffold units can be added one at a time and used first at the split or lower level and then at the higher level with the use of the adapter.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

What is claimed is:

1. A split level scaffold having horizontal platforms at vertically spaced levels comprising an end section including a pair of spaced legs, a pin extending outwardly from one end of each of said end legs for engagement with an opening in the opposite end of a leg of a similar end section, a plurality of spaced lateral members for connecting the legs of said end sections and a plurality of cross brace members adapted to maintain said end sections in spaced relation, and an adapter including a leg adapted to extend from said third spaced leg of said end section to the upper platform level.

2. A split level scaffold having horizontal platforms at vertically spaced levels and a unit adapted to be superimposed on said base unit as defined in claim 1 wherein a lateral member is provided connecting the tops of said platform legs, a lateral member connecting a lower platform leg with the bottom an outer upper platform leg, a lateral member connecting the top of said lower platform leg with the bottom of said second upper platform leg, a first inclined member connecting the bottom of the second upper platform leg with the bottom of the first upper platform leg and a second inclined member connecting the top of said first upper platform leg with said first inclined member.

References Cited in the file of this patent

UNITED STATES PATENTS

D. 122,611	Uecker et al.	Sept. 17, 1940
D. 128,057	Roney et al.	July 1, 1941
D. 142,496	Reiner	Oct. 2, 1945
2,295,311	Uecker et al.	Sept. 8, 1942
2,316,560	Causey	Apr. 13, 1943
2,383,449	Clark	Aug. 28, 1945
2,433,216	Harwell	Dec. 23, 1947
2,462,429	Sachs	Feb. 22, 1949
2,468,186	Du Perret	Apr. 26, 1949
2,481,885	Simpson	Sept. 13, 1949
2,561,938	Meng et al.	July 24, 1951
2,575,461	North	Nov. 20, 1951
2,631,900	Simpson	Mar. 17, 1953