March 17, 1936.

G. W. FROST

2,034,338

SCAFFOLDING

Filed Nov. 27, 1935

Fig. 1.

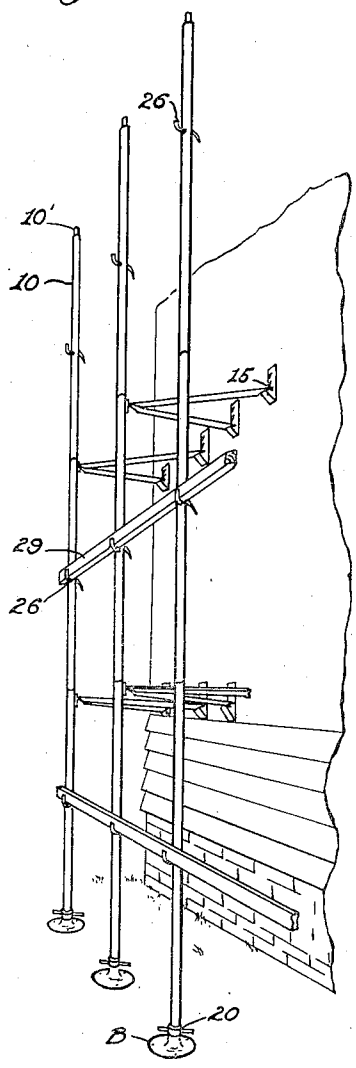


Fig. 6.

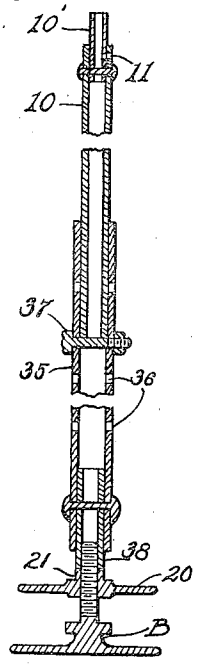


Fig. 2.

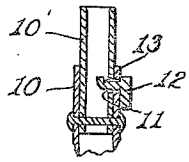


Fig. 3.

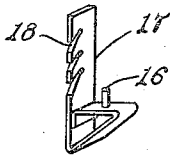


Fig. 4.

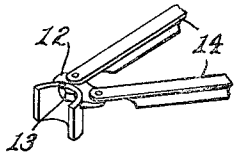


Fig. 5.

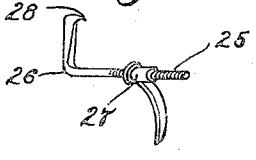
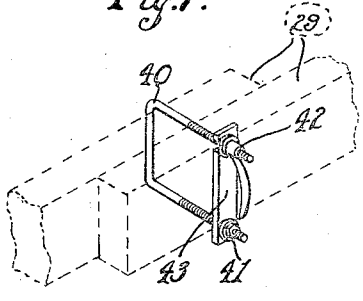


Fig. 7.



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SCAFFOLDING

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Application November 27, 1935, Serial No. 51,762

2 Claims. (Cl. 304—10)

The object of my invention is to produce a low-cost but highly efficient and easily handled scaffolding unit which, by ready combination may be progressively combined, adjacent a building as the building progresses.

The accompanying drawing illustrates my invention.

Fig. 1 is a perspective of an assembly of various elements of my structure;

Fig. 2 a fragmentary vertical section of my improved running-board supporting-bracket and adjacent standard;

Fig. 3 a perspective of my improved wall bracket for the support of the inner ends of the running-board arms;

Fig. 4 a perspective of my improved running-board arm bracket;

Fig. 5 a perspective of the clamping L for securing guard rails to the standards;

Fig. 6 a vertical section of the adjustable footing for the standards, associated with a convenient extension element for the standards to be used when vertical adjustments exceeding the range of the footing element, are desirable; and

Fig. 7 a perspective of a clamp for firmly connecting overlapping ends of guard rails.

My improved unit comprises a rigid standard 10 of convenient length having a radial perforation 11 near its upper end and additional perforations at convenient intervals if desired; a bracket 12 having a finger 13 insertable in the perforation 11 and a pair of radiating arms 14, 14 pivoted individually upon bracket 12 and swingable in a common horizontal plane.

Standard 10 is formed at its opposite ends for series association with similar standards and, therefore, is most conveniently made of metal pipe having secured in one end a short section of smaller pipe 10' over which the open end of a similar standard may be sleeved and held rigidly laterally. The bracket 12 comprises a saddle-like main body formed so as to partially embrace the standard 10 in position to firmly hold the arms 15, 15 in a horizontal plane against applied downward loads.

The outer free ends of arms 14, 14 are designed to be supported by any suitable means applied to a side wall of the building and for this purpose, I find it convenient to provide each arm near its free end with a psrforation 15 adapted to receive an upwardly projecting pin 16 carried by a bracket 17 upon which the free end of the arm may rest. Bracket 17 is provided with a series of diagonal notches 18 by which the bracket may be vertically adjustably hung upon one or more nails driven into the studs or side of the building with which my scaffolding is to be associated. By this construction the bracket may be readily removed without pulling the nails although downward loads on the bracket tend to crowd it to a more secure anchorage.

By spreading the two arms more or less, the distance of the standard from the building may be adjusted.

In order that horizontal series of arms 14 of different vertical series of standards 10 may be approximately aligned for the reception of running boards (not shown), I provide a multiplicity of base elements B of well known form, each comprising an upstanding threaded pin upon which is threaded a collar 20 upon which the lowermost standard 10 of a vertical series may rest, said collar conveniently being provided with a hub 21 adapted to rotatively fit within the lower open end of standard 10.

Standards 10 are conveniently pierced diametrically at intermediate points in their length to receive the threaded arms 25 of L-shaped guard-rail holders 26 held in place by the nut 27. The toe 28 of holder 26 is conveniently inturned as a sharpened tip 28 so that the guard rails 29 of varying vertical dimensions may be readily firmly mounted in place, as indicated in the drawing. Entry of toe 28 into the guard rails prevents slippage of said rails, both vertically and horizontally, and consequently the guard rails may be clamped firmly against standards and laterally brace them.

It will be noted that bracket 12, with its attached arms 14, 14 may be readily attached to and as readily detached from standard 10 even though several of such standards be associated in vertical series. This arrangement is quite desirable as it permits removal of any one of the arm pairs to free adjacent portions of the building to access without disturbing the scaffolding considered as a whole.

This saddle-like main body of bracket 12 partially embraces the standard so that rocking about an axis radial to the standard is prevented and the hook 13 retains the bracket against vertical movement, yet the bracket is readily detachable from and attachable to the standard without tool manipulation. This construction contributes materially to speed the erection and dismemberment, as well as to access to adjacent portions of the building.

There are situations where the range of adjustment of bases B is not sufficient and therefore I provide tubular extension elements 35

having a bore sufficient to receive the standard elements **10** and provided with a series of diametrical perforations **36** to receive a cross pin **37** upon which the telescope section **10** will rest. In order that element **35** may be readily associated with base B or with any one of elements **10**, I secure within one end a section of smaller pipe **38** which may sleeve over any one of pipes **10'** or over the threaded pin of base B.

In order that comparatively short lengths of guard rails may be used without seriously detracting from rigidity of the assembled scaffold, I provide the U-shaped clamps **40**, shown in Fig. 7, capable of embracing overlapping ends of guard-rail sections. The arms of the U are threaded to receive nuts **41** and **42** and a spanner **43**, the arrangement being such that the overlapping ends of the guard rail sections may be firmly clamped together.

I claim as my invention:

1. A scaffolding unit comprising a standard formed at its opposite ends for series association with similar standards, a saddle-like bracket only partially embracing said standard and associable therewith to resist downward displacement but readily laterally separable therefrom without tool manipulation, said bracket being provided with a pair of horizontally extending arms each pivotally attached to said bracket on an axis substantially parallel with the saddle axis.

2. A scaffolding unit comprising a standard formed at its opposite ends for series association with similar standards and having a radial perforation, and a saddle-like bracket only partially embracing said standard and provided with a finger projectable into said perforation to hold the bracket against downward and direct lateral displacement from the standard, said bracket being provided with a pair of horizontally extending arms each pivotally attached to said bracket on an axis substantially parallel with the saddle axis.

GEORGE W. FROST.