Dec. 16, 1930. W. G. VENARD 1,785,399

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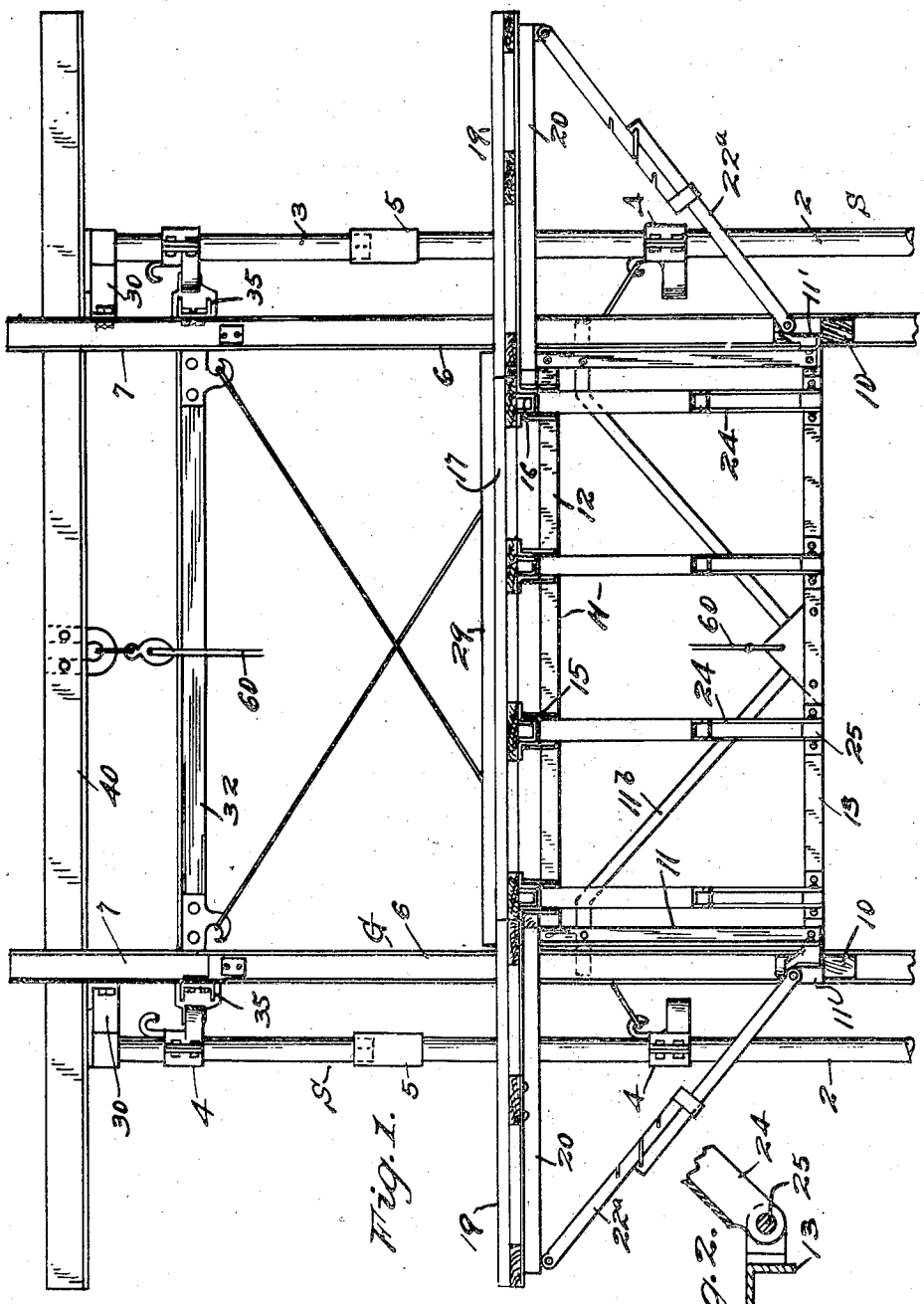


Fig. 1.

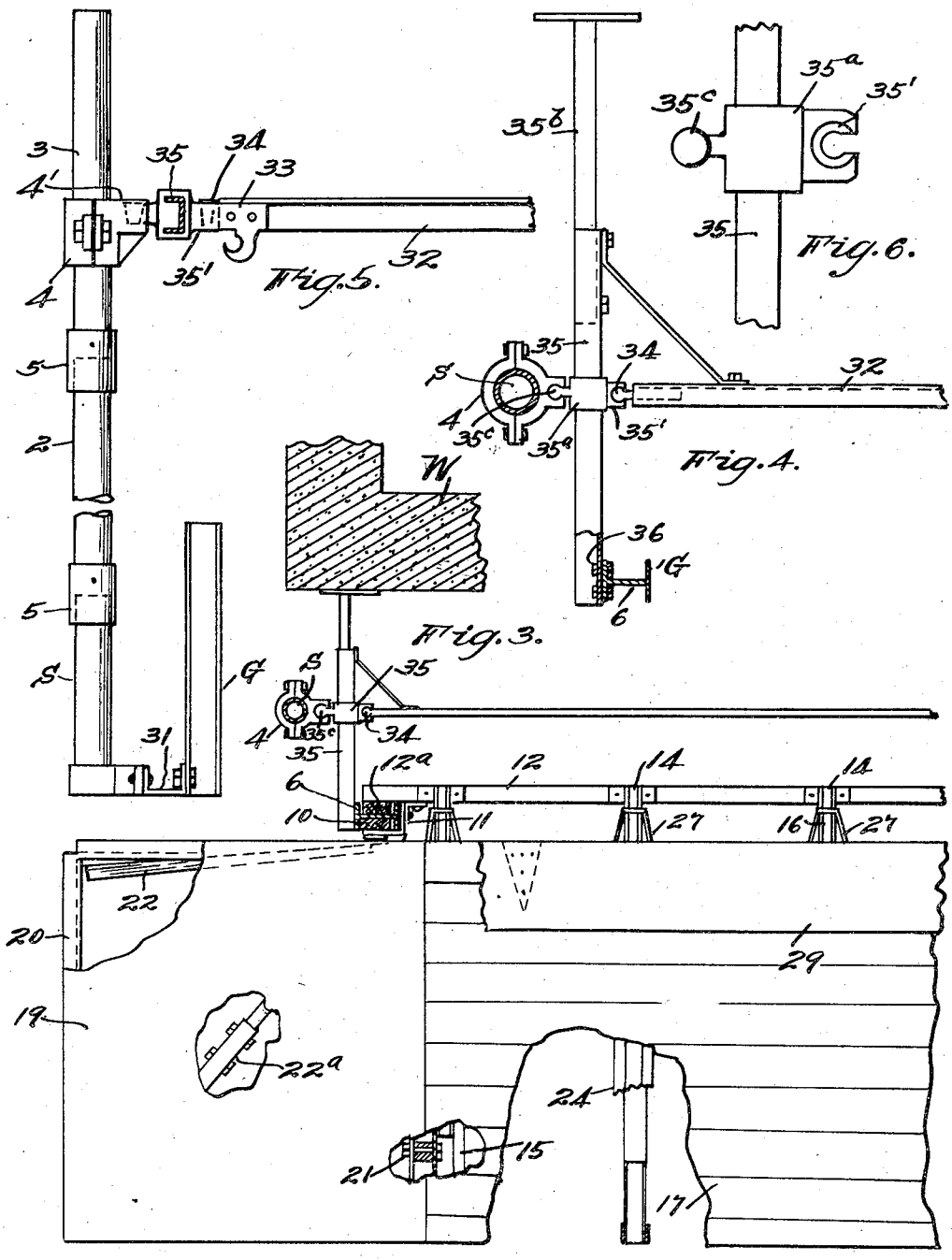
Fig. 2.

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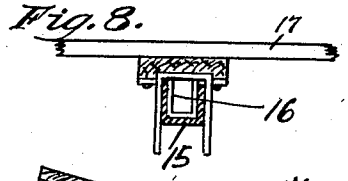
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Filed Nov. 4, 1929 3 Sheets-Sheet 3

Fig. 8.



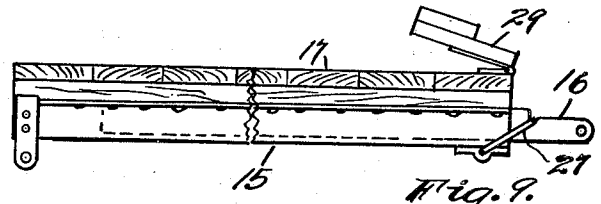
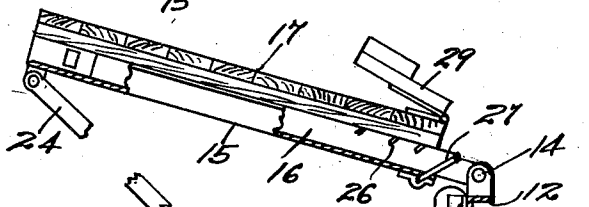


Fig. 9.



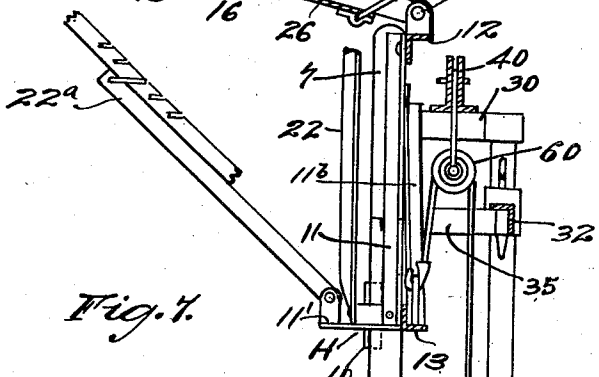


Fig. 7.

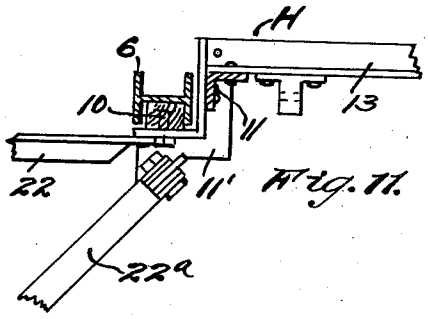


Fig. 11.

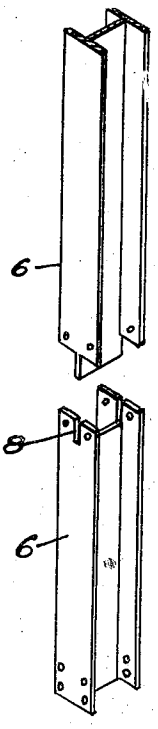


Fig. 10.

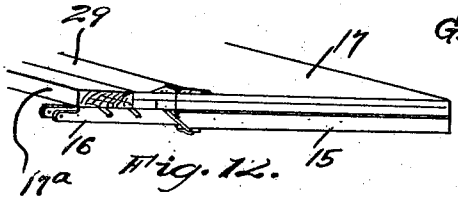
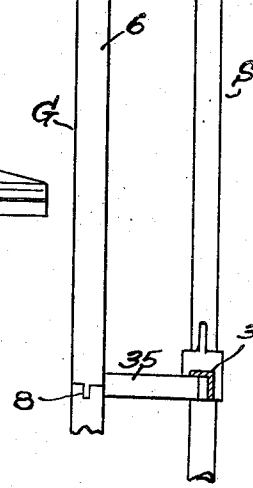


Fig. 12.



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Patented Dec. 16, 1930 1,785,399

UNITED STATES PATENT OFFICE

WILLIAM G. VENARD, OF LOS ANGELES, CALIFORNIA

SCAFFOLD

Application filed November 4, 1929. Serial No. 404,620.

This invention relates to contractors' equipment and more especially to hoist skips and their scaffolds.

An object of this invention is to provide a scaffold of sectional form whose parts may be readily set up and later dismantled for repeated re-use, and to provide a scaffold apparatus having adjustable features.

A further object is to provide a skip scaffold and a skip operative therein and of adjustable form so as to vary capacity and be adaptable as a platform for carrying loads of construction material and for arrangement horizontally as an elevator for wheeled vehicles.

Numerous additional objects, advantages and features of construction and arrangement, and details of means will be made manifest in the ensuing description of the herewith illustrative embodiment; it being understood that modifications, variations and adaptations may be resorted to within the spirit, scope and principle of the invention as it is hereinafter more directly claimed.

Figure 1 is a front elevation of the upper portion of the scaffold and the skip.

Figure 2 is a detail of a skip rail and one of its platform bracket joints.

Figure 3 is a top plan of the skip and scaffold parts; partly in section.

Figure 4 is a plan of a cross-tie and a crow's nest rest therefor on a standard.

Figure 5 is an elevation of one of the scaffold standards, broken away.

Figure 6 is a plan of a pin-and-socket block on a reach-arm of the scaffold.

Figure 7 is an elevational section of the scaffold and its skip, at top position.

Figure 8 is a detail of a skip joist and applied floor parts.

Figure 9 is an end view of the skip platform.

Figure 10 is a perspective of matching splice ends of a scaffold skip rail.

Figure 11 is a horizontal section of a skip rail or guide and shows in plan skip parts.

Figure 12 shows the skip extended.

The invention includes a scaffold structure comprising a rear pair of spaced and connected poles or standards S and a pair of spaced guides G; the latter being spaced less than and in advance of the former, Fig. 7, and forming runways for a vertically movable skip or hoist H.

In Fig. 5 the standard is shown as including a number of tubular sections 2, and, if needed, subsections 3, all having rigid bracket or crow's-nests 4, at suitable pitch, and also having, on their lower ends, fixed sockets 5 to receive abutted sections of the standard as erected.

The vertical guides G each include a series of superimposed, H-iron sections 6 and subsections 7, the former having joint slots 8 in their upper ends for added sections 6 which have their flanges cut back to leave the web as a tenons for the slot 8.

The erected guide parts form smooth front and rear runways for front shoes 10 attached to skip frame lugs 11 which are secured to a bottom cross-bar 13 of the frame which includes a top cross-bar 12. The cross-bars are connected by stiles 11 to form a rigid frame which is braced by diagonals 11^b.

The ends of the top bars 12 have rear shoes 12^a which run in the back channels of the vertical guides 6—6.

On the top bar 12 is pivoted at 14 a set of channel joists 15 on which is laid a floor 17 constituting the bed or platform of the skip.

For the purpose of increasing the floor area of the skip end, floors 19 on bed frames 20 are bolted at 21 against the end joists 15 and are braced by braces 22—22^a whose lower ends are stepped on flanges 11′ of the lugs 11 of the skip frame. The platform is adapted to be set at various angles to the guides 6—6 and this is provided by adjustable braces 24 whose lower ends have pivots 25 on the bottom bar 13; the braces 22^a also being extensible.

The joists 15 are of telescopic, sectional form including nested, channel-iron pieces 16 having their top edges notched at 26 to receive stirrup loops 27 attached to the outer joist parts 15, Fig. 9.

The skip floor 17 is provided with an apron 29 hinged to be thrown over the top of its guides G when the hoist is used for elevating

bulk material, as lumber, lath and other structural parts.

The front guides G and the rear standards are connected by foot-irons 31, Fig. 5, and also by transverse tie-bars 32 which have pin brackets 33 with plugs or pins 34 to set in pin sockets 35′ in adjacent connector blocks 35ª which are rigidly secured on reach-arms 35 and whose outer ends are secured by bolts 36 to and flat against the respective end-butted sections 6—6 of the guides G.

The arms 35 have thrust bars 35ᵇ adjustable to abutt the near wall W in relation to which the scaffold is set up and vertically heightened section by section as the wall is laid.

Crown-iron 30 on the top units of the standards S connect to topper units 7 of the guides G and carry a fixed header structure 40, and any appropriate hoisting rig and tackle 60 may be attached to it to run the skip.

Preferably the brackets 4 are formed of sections adapted to be bolted together about the standard unit.

When the platform 17 is extended by shifting the joists 15 outward or the inner section 16 to increase the area of the floor the extension flooring 17ª is added to the hinged parts 16.

The arm block 35ª has a coupling pin 35ᵉ which sets in its respective crow's-nest socket 4′ to join up the parts.

This is a continuation in part of my application No. 268,729 filed April 9, 1928.

What is claimed is:

1. A skip hoist and scaffold apparatus, including a pair of sectional standards and a pair of channel guides, spaced forwardly thereof, foot-irons and crown-irons connecting the respective parts of the standards and guides and transverse braces connecting the standards and having forwardly reaching arms to gage the guides.

2. In a skip scaffold, a pair of connected standards each consisting of a series of alining units having respective telescopic portions forming joints, and a pair of channel guides each consisting of channel units having telescopic joints; said joints being off-set as to the joints of the standards, and brace ties connecting the standards and the guides.

3. In a skip hoist, a vertical guide comprising H-iron sections one of which has its web at one end cut back and its adjacent flanges slotted in the plane of the web, and the adjacent end of the next section having its flanges cut back to form a tenon for the slotted flanges.

4. In a skip hoist, a skip structure including upper and lower cross-bars which are connected by upright stiles forming a rigid frame; the upper bar having at its ends back shoes to run in guides, and lugs attached to the ends of the lower bar and having front shoes to run in said guides.

5. In a hoist vertical guides consisting of H-section irons, and a skip which includes a frame running between the guides, shoes fixed to the upper corners of the frame to run in back channels of the guides, and shoes fixed to the lower corners of the frame to run in the front channels of the guides.

6. In a skip hoist, a skip structure including upper and lower cross bars which are connected by upright stiles forming a rigid frame having back shoes on its upper bar to run in guides and having front shoes on its lower bar to run in guides and a loading platform which is hinged to the upper bar and has adjustable braces supported on the lower bar, and demountable end extension floors secured to the ends of the platform, and having braces connected to the lower bar.

W. G. VENARD.