Oct. 29, 1929. H. COPLAN 1,733,333

SCAFFOLD

Filed Dec. 13, 1927

Fig. 1

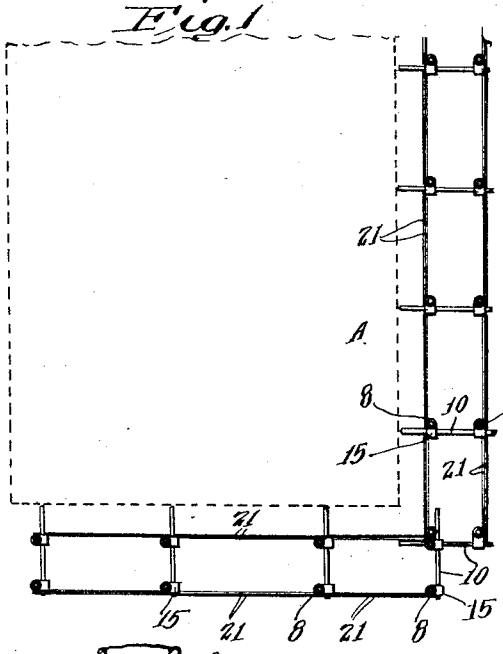


Fig. 2

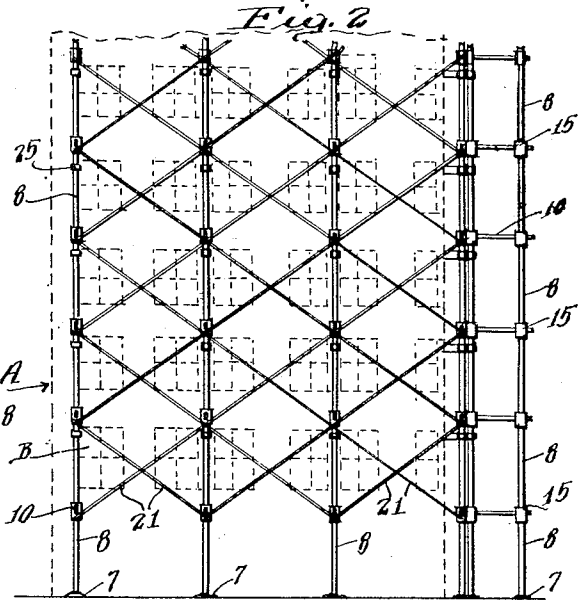


Fig. 3

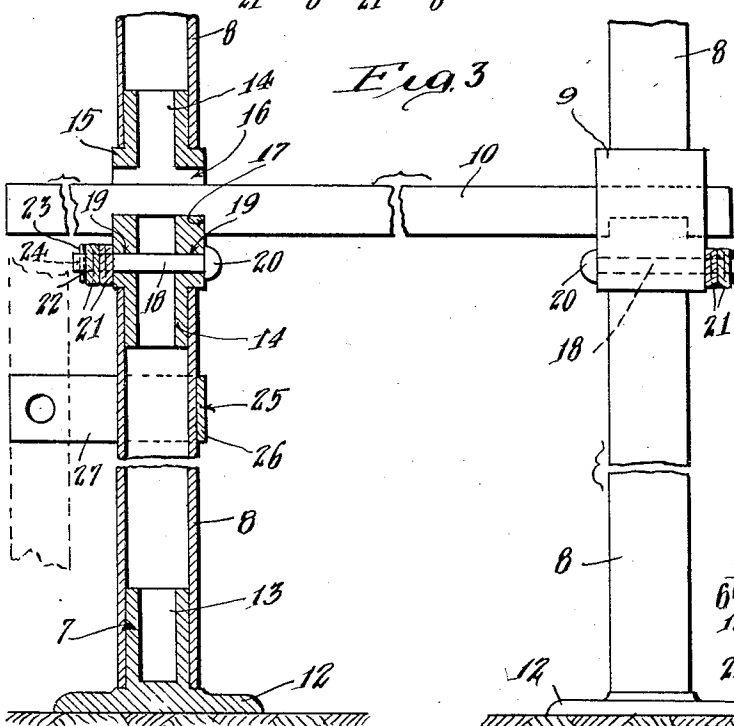


Fig. 6

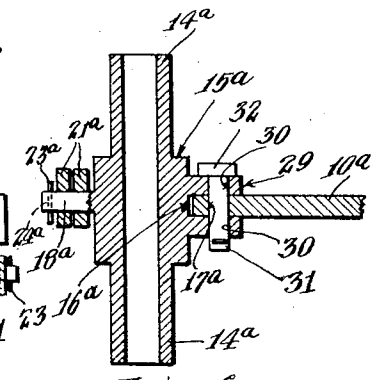


Fig. 5

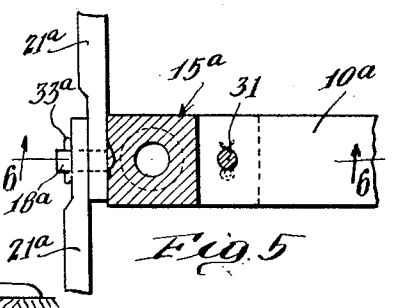
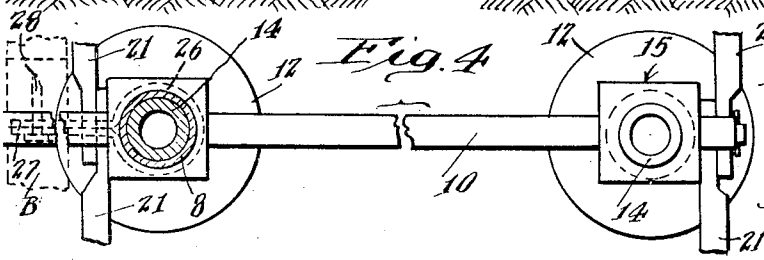


Fig. 4



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UNITED STATES PATENT OFFICE

HARRY COPLAN, OF LOS ANGELES, CALIFORNIA

SCAFFOLD

Application filed December 13, 1927. Serial No. 239,626.

This invention relates to scaffolds, a structure employed around and inside of buildings for supporting workmen and structural or other materials, so as to facilitate the workmen perforimng various operations at different levels.

One of the objects of this invention is insurance of safety to those using the scaffold.

Another object is simplicity, and the ease with which the scaffold may be erected and taken down.

Other objects and advantages will appear in the subjoined detailed description.

The accompanying drawings illustrate the invention:

Figure 1 is a plan view of a scaffold constructed in accordance with the provisions of this invention, a building structure, adjacent to which the scaffold is positioned, being indicated in broken lines.

Figure 2 is a front elevation of Figure 1.

Figure 3 is an enlarged fragmental view of the scaffold, partly in section.

Figure 4 is a plan view of Figure 3.

Figure 5 is a plan view, partly in section, of a modified joint construction.

Figure 6 is an elevation, partly in section, on the line indicated by 6—6, Figure 5.

First, referring to Figures 1 to 4 inclusive of the drawings, the scaffold comprises any desired number of base members 7, standards 8, joint members or couplings 9, and cross members 10.

Each base 7 comprises a horizontally extending flange 12 adapted to rest on the earth or other supporting surface, and each base also comprises an upwardly projecting stud 13 which, if desired, for the sake of lightness may be tubular, as shown. The end portions, at least, of the standards 8 are tubular and, in this instance, the standards for their entire length are tubular. The inside diameter of the lower end of each standard 8 is slightly greater than the outside diameter of the stud 13 so as to telescope upon said stud.

Each of the joint members 9, in this instance, is hollow, for the sake of lightness, and comprises end studs 14 projecting vertically from an intermediate body 15. The inside diameter of the standards 8 is slightly greater than the outside diameter of the studs 14 so as to telescope upon said studs. Each body 15 is provided with a horizontally extending slot 16 to receive one end of one of the cross members 10. The cross members 10 are each provided with a gain 17 near each end so that when said cross members are entered endwise into the slots 16 the gains may be caused to register with the bottom walls of the slots and the cross members then dropped to cause said bottom walls to be received in the slots. This prevents endwise shifting of the cross members 10 when in place.

The scaffold, above described, is built up by placing the required number of bases 7 in two or more rows on the earth or other supporting surface, telescoping upon each of them one of the standards 8 so as to provide a tier of standards, inserting one of the joint members 9 in the upper end of each of the standards 8 that have been erected so as to provide a tier of such joint members, and connecting each of the cross members 10 to a pair of adjacent joint members 9 one of which is in one row and the other in another row so that each cross member 10 extends at approximately a right angle to the surface of the structure A that is to be built or worked upon. Then other standards 8 will be telescoped upon the joint members 9 to form a second tier of standards and within these last mentioned standards still other joint members will be telescoped to form a second tier of joint members. The joint members and standards will thus be assembled to form alternate tiers of standard and joint members to build up the scaffold to the height desired. As soon as the joint members are in place the cross members 10 will be connected therewith. The floor members, not shown, are placed upon the cross members 10 in a manner well understood in this art for supporting the workmen and materials.

It may be required by law, in some instances, or it may be otherwise desirable to brace the scaffold longitudinally and, accordingly, the coupling bodies 15 may be provided with horizontally projecting studs 18, said

studs being positioned, in this instance, below the associated slots 16. The studs 18, in this instance, are in the form of pins or bolts which are inserted in holes 19 extending horizontally in the bodies 15 beneath the slots 16. The bolts project from the bodies 15 and each is provided with a head 20 which holds the bolt against endwise movement in one direction. Brace members 21 are provided near their ends with holes 22 so as to engage over the studs 18. Each brace member 21 connects adjacent diagonally opposite studs 18 longitudinally of the scaffold, as clearly shown in Figure 2. The brace members 21 are prevented from sliding off of the studs 18 by cotter pins 23, or their equivalents, inserted through vertical holes 24 in the studs 18. The system of brace members 21 may be used for the outer side only of the scaffold and the inner side of the scaffold may, if desired, be anchored to the structure, along side of which the scaffold is placed. This is done by providing fastening members 25, each of which forms a loop 26 around one of the standards 8. Each fastening member 25 also comprises a pair of legs 27 projecting from the loop 26. The member 25 is applied to the standard by bending it around the same and the legs 27 are then secured to one of the window frames B, or other suitable member, of the structure A. In this instance, the legs 27 are secured in place by nails 28.

A modification of the joint members is illustrated in Figures 5 and 6 and the elements that correspond in function with those above described are indicated by the same reference character with the addition of the letter "a." In this instance, the slot 16 is omitted and the body 15^a is provided with a fork 29 and the opposite members of said fork are provided with vertically alined holes 30 to receive a pin or bolt 31. The pin 31 may have a head 32 to prevent it dropping out of the holes 30. When this form of joint member is employed, the associated cross member 10^a is provided near each end with a hole 17^a so that, when the cross member is inserted in the slot 16^a of the fork 29, the pin 31 can be inserted through the holes 30, 17^a so as to secure the cross member to the joint member.

I claim:

A scaffold comprising standards, joint members mounted on the standards and provided with horizontally extending slots, and cross members engaging in the slots and provided with gains to receive the bottom walls of the slots.

Signed at Los Angeles, California, this 2nd day of December, 1927.

HARRY COPLAN.