

Oct. 20, 1931.

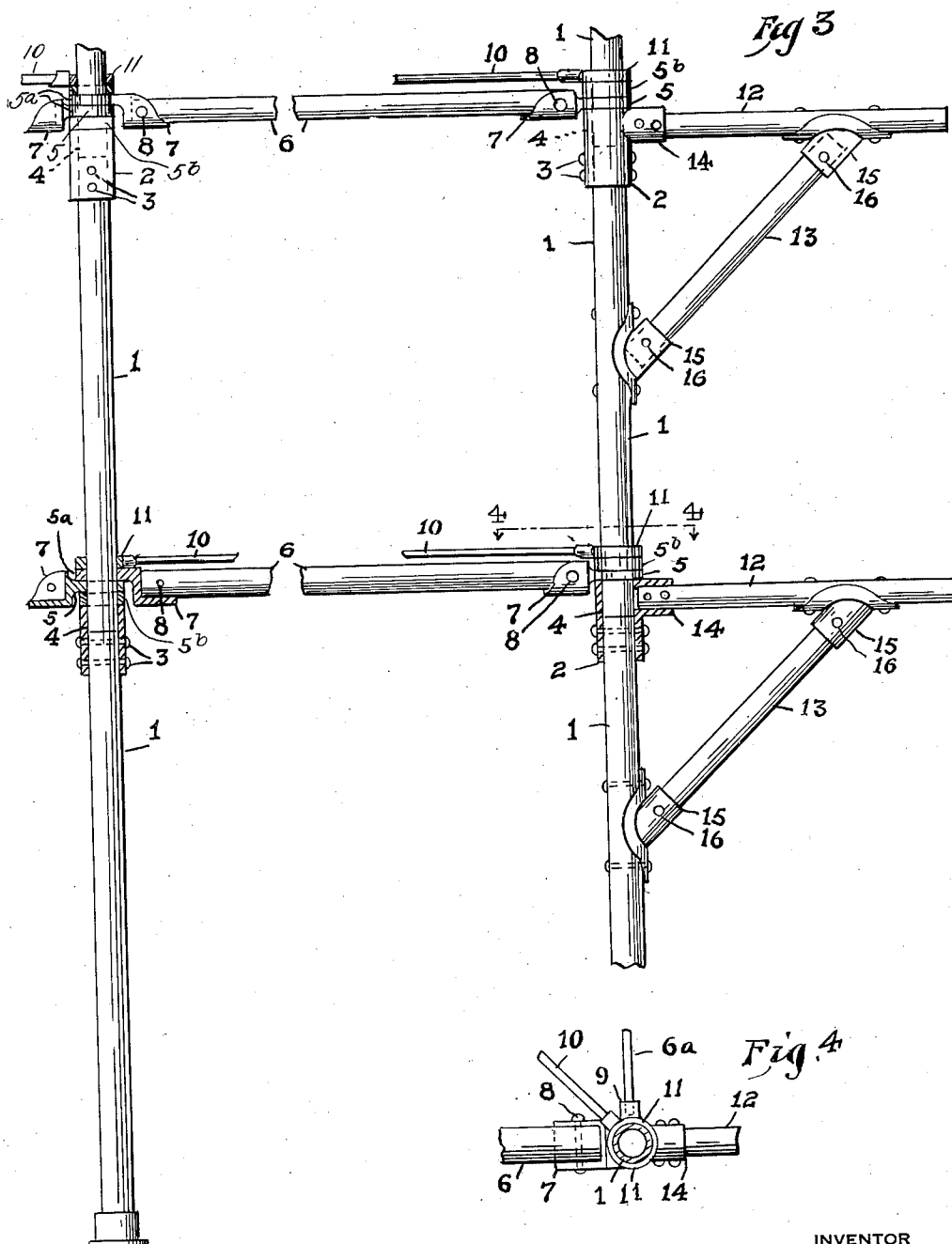
E. F. BOOSER

1,828,487

SCAFFOLD

Filed May 2, 1929

2 Sheets-Sheet 2



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2 Sheets-Sheet 1

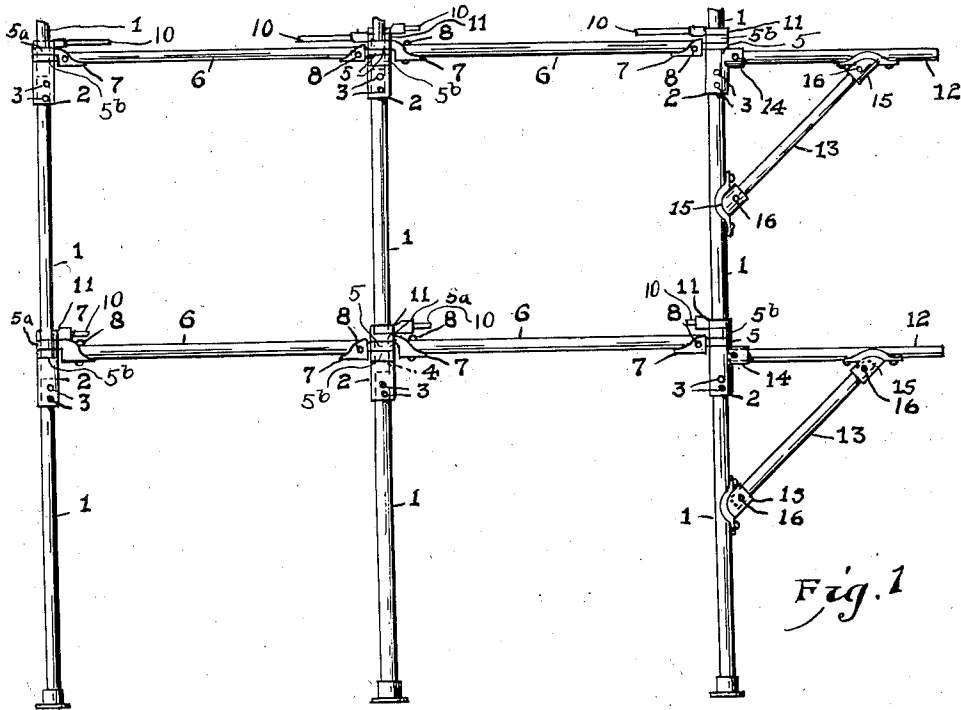


Fig. 1

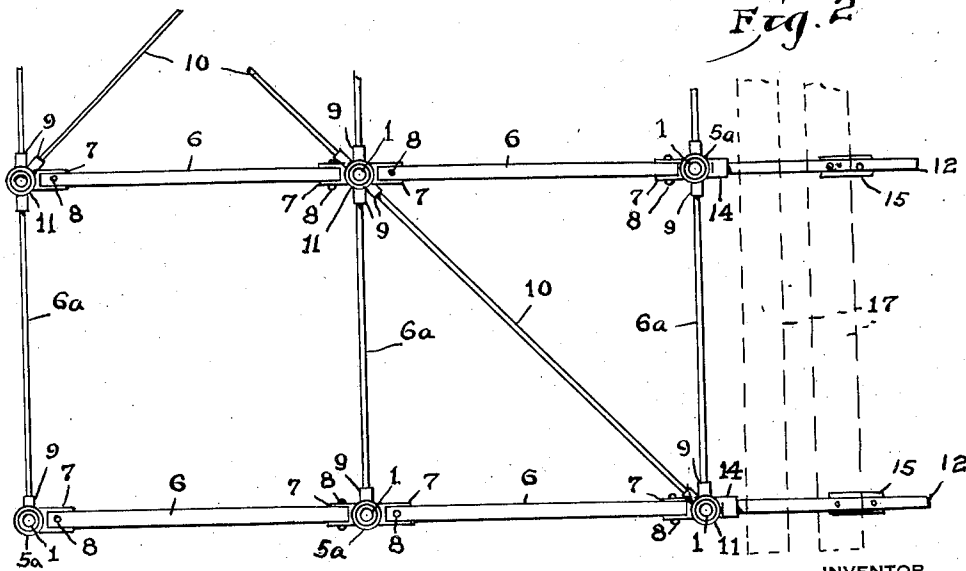


Fig. 2

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UNITED STATES PATENT OFFICE

EDWARD F. BOOSER, OF HOMESTEAD, PENNSYLVANIA, ASSIGNOR OF FORTY PER CENT
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SCAFFOLD

Application filed May 2, 1929. Serial No. 359,754.

My invention relates to scaffolds or towers of the knock-down type. While the invention has been designed primarily as a scaffold for indoor work, it may be applied in the construction of skeleton towers for various uses.

One object of this invention is to produce a scaffold or tower whose posts are composed of short lengths or units removably connected end to end, the posts being connected together by suitable girders and braces to form a rigid structure. Another object is to provide some or all of the exterior post sections with brackets upon which boards may be laid to form platforms or balconies for workmen. Another object is to provide a novel means of connecting the girders and braces to the post sections. Other objects appear hereinafter.

Referring to the accompanying drawings, Fig. 1 is a side elevation of the lower portion of a scaffold embodying my invention; Fig. 2, a plan view of Fig. 1; Fig. 3, an enlarged side elevation of the right hand portion of Fig. 1 with parts in section; and Fig. 4, a section on the line 4-4 on Fig. 3.

My scaffold comprises numerous posts or columns arranged in rows, some extending in parallel lines in one direction and others extending in parallel lines at right angles to the first lines, so that the posts form the corners of rectangular figures. The posts are each composed of tubular units arranged end to end, each unit comprising the tubular member 1 and the collar or sleeve 2 surrounding one end of the member 1 and secured thereto by the rivets 3. The collar for each unit extends out beyond the enclosed end of the member 1 so as to form a socket 4 adapted to receive and fit the normal or uncollared end of another unit. In practice I make the members 1 six feet long and I superimpose as many units in assembling each post as will make the scaffold have the desired height.

At the top of each tier of units there are a number of horizontal members connecting adjacent posts in spaced mutual relations. I prefer that the members which form horizontal rows extending in one direction be composed of tubular girders 6 of relatively

large cross-sections, and that the members which form horizontal rows extending at right angles to the girders 6 be composed of relatively small tubular girders 6a, but all the girders may be of the same size. The larger girders 6 are more suitable for supporting floors.

The girders have at their ends circular eyes 5 and 5a through which the lower ends of the members 1 pass when entering the sockets 4. Preferably the eyes are made of metal castings riveted or otherwise suitably secured to the girders. Preferably the castings 7 have their sockets open upwardly so that the girders 6 therein which are secured thereto by rivets 8 may be flush with the tops of the castings. This provides straight or even supports for floors. The castings for the girders 6a may have mere sockets 9 into which the ends of the girders 6a extend and to which they are riveted. The latter castings have eyes 5b like the castings on the girders 6, these eyes being in registry with the eyes 5 and 5a. The eyes at the opposite ends of the girders 6 are offset from each other by the thickness of an eye so that the girders 6 may be kept level, the lower eyes 5 resting on the tops of the collars 2 while the upper eyes 5a rest on the eyes 5.

In order to stiffen the scaffold I provide diagonal braces or tie-rods 10 having eyes 11 at their ends lying on the eyes 5a. The braces 10 extend from selected units 1 diagonally to another unit 1 as shown in Fig. 2.

Some or all of the exterior units 1 may be provided with brackets, each comprising an outwardly extending horizontal member 12 and a diagonal brace member 13. The inner end of each member 12 is riveted in a socket 14 carried by the adjacent collar 2. The ends of each brace member are secured in the socket members 15 by rivets 16 to the members 1 and 12 respectively. The brackets are supplied with boards 17 at such levels as they may be required to form platforms.

A floor may be placed on the girders 6 of the top tier of units so that workmen can clean and repair ceilings and electrical fixtures thereon. The platforms provide supports for workmen when repairing and clean-

ing side walls and electric fixtures thereon. In case any of the brackets are not required, members without brackets may take their places or the members 1 with the brackets thereon may be swung inwardly so as to lie parallel with the girders 6a.

When a floor is to be laid on the girders on the top of the scaffold, the brace members 10 will not be used as they would prevent the laying of a smooth floor. If needed, the brace members could be placed beneath the floor with their eyes 9 beneath the eyes 5.

I claim:

1. In a knock-down scaffold or tower, posts each comprising superimposed pipes of uniform diameter arranged end to end and short lengths of pipe fastened to one end of each pipe and forming sockets which contain the unsleeved ends of other pipes, in combination with horizontal girders having terminal eyes superimposed on the tops of the short lengths of pipes and surrounding the lower ends of the pipes which are in the sockets.

2. In a knock-down scaffold or tower, posts each comprising superimposed pipes of uniform diameter arranged end to end and short lengths of pipe fastened to one end of each pipe and forming sockets which contain the unsleeved ends of other pipes, in combination with horizontal girders having terminal eyes superimposed on the tops of the short lengths of pipes and surrounding the lower ends of the pipes which are in the sockets, the eyes at the opposite ends of the girders being offset at different distances from their upper surfaces so that the eyes having differing offsets may be superimposed to form floor supports in a horizontal plane.

3. In a knock-down scaffold or tower, posts each comprising superimposed pipes of uniform diameter arranged end to end and short lengths of pipe fastened to one end of each pipe and forming sockets which contain the unsleeved ends of other pipes, in combination with horizontal girders having terminal eyes superimposed on the tops of the short lengths of pipes and surrounding the lower ends of the pipes which are in the sockets, some of the short lengths having horizontal sockets for the reception of the horizontal arms of brackets.

In testimony whereof, I hereunto affix my signature.

E. F. BOOSER.

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