

Oct. 4, 1932.

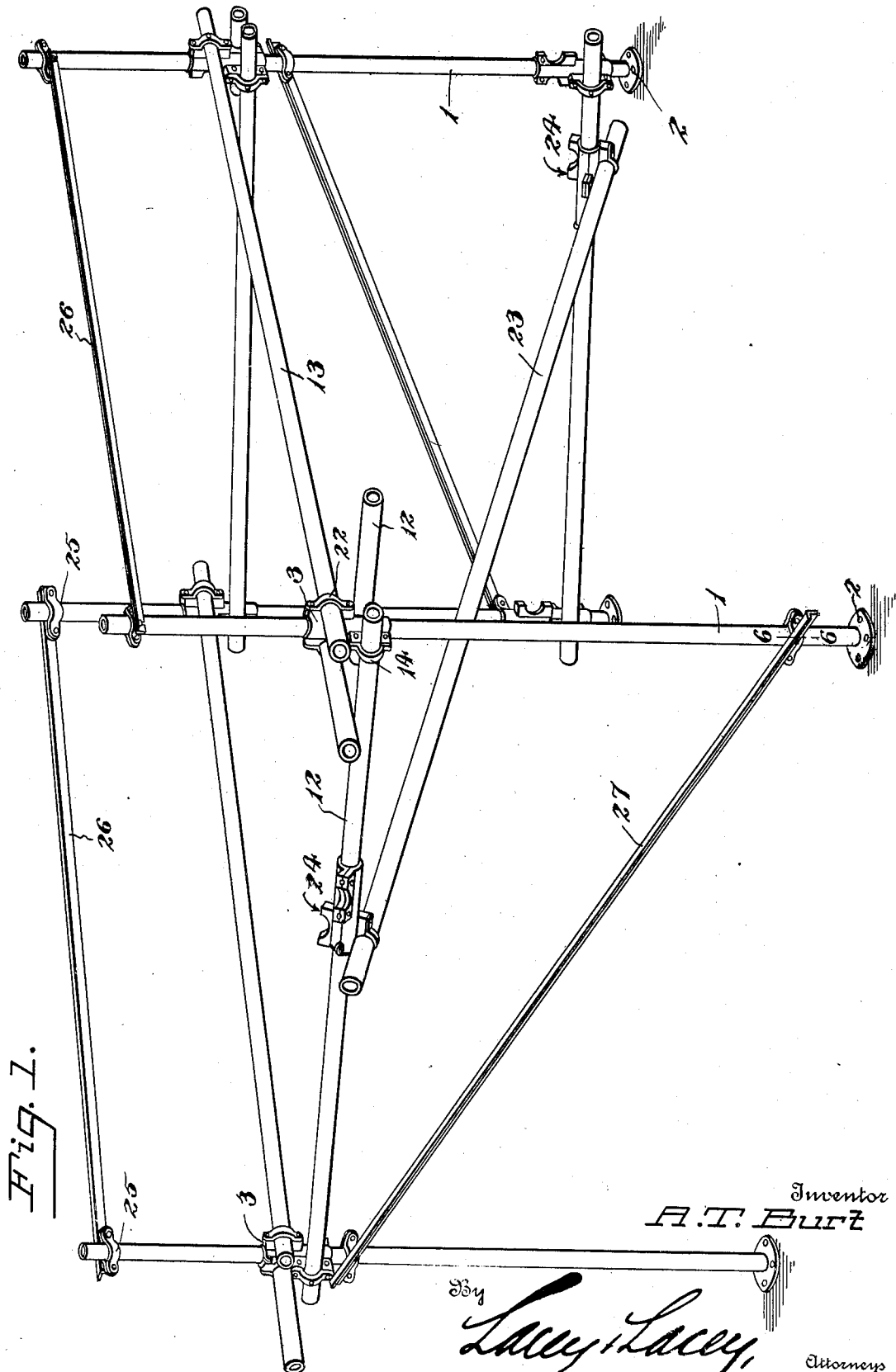
A. T. BURT

1,880,767

SCAFFOLD

Filed Oct. 9, 1930

2 Sheets-Sheet 1



Oct. 4, 1932.

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2 Sheets-Sheet 2

Fig. 2.

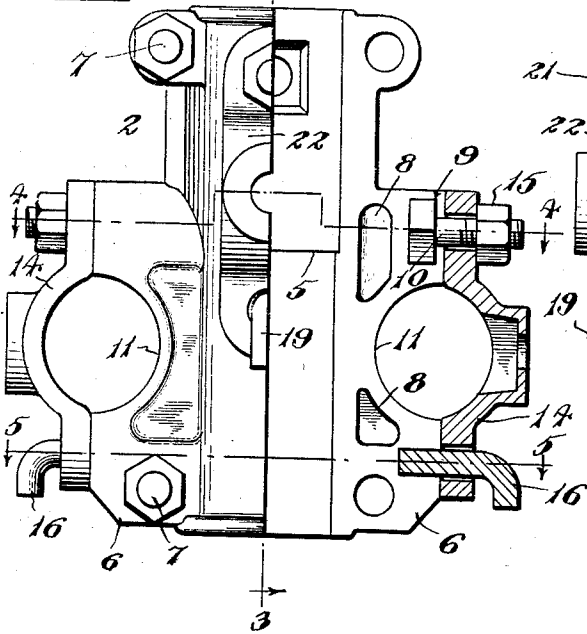


Fig. 3.

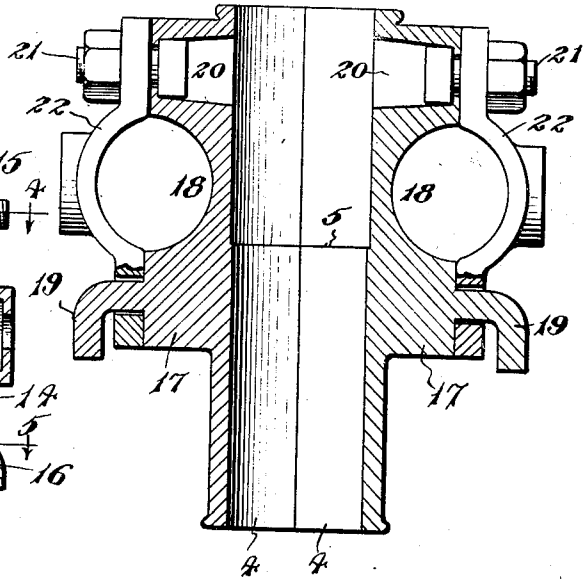


Fig. 4.

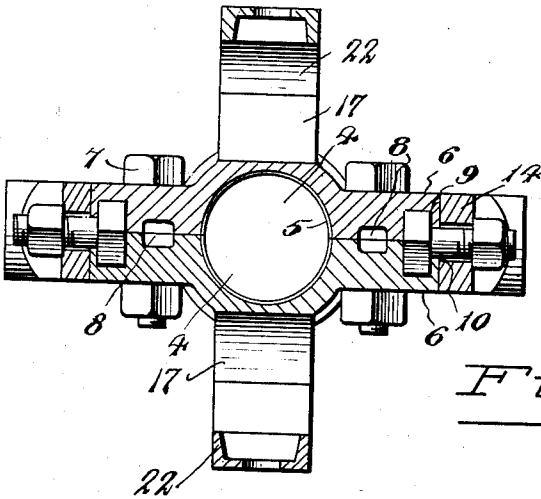


Fig. 5.

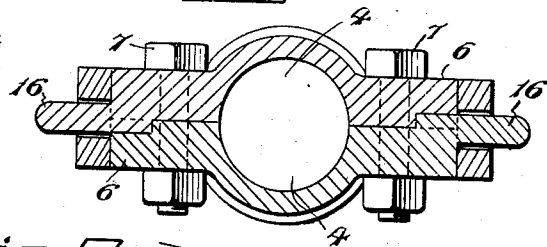


Fig. 7.

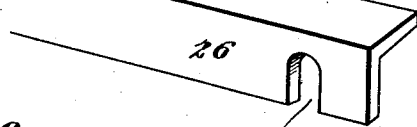
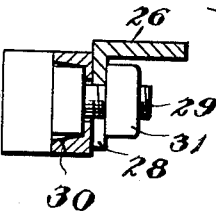


Fig. 6.



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UNITED STATES PATENT OFFICE

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SCAFFOLD

Application filed October 9, 1930. Serial No. 487,577.

This invention has for its object the provision of a scaffold which may be extended to any desired height and may be erected for either inside or outside work and which will attain a maximum margin of safety with minimum cost. The invention is illustrated in the accompanying drawings and will be hereinafter first fully described and then more particularly defined in the appended claims.

In the accompanying drawings:

Figure 1 is a perspective view of a scaffold embodying the invention.

Fig. 2 is a view of one of the couplings partly in side elevation and partly in vertical section,

Fig. 3 is a section on the line 3—3 of Fig. 2,

Fig. 4 is a section on the line 4—4 of Fig. 2,

Fig. 5 is a section on the line 5—5 of Fig. 2,

Fig. 6 is a detail section on the line 6—6 of Fig. 1, and

Fig. 7 is a detail of one end of a guard rail.

In erecting a scaffold in accordance with the present invention, there are employed columns or standards 1 which are of tubular formation and are adapted to fit over and be supported by floor plates 2 of well known form. The columns will be provided in standard lengths and will be arranged in superimposed axial relation in as many sections as may be needed for a scaffold of any stated height. To connect the sections of the columns, I provide couplings shown as an entirety at 3 and adapted to connect the sections of the columns and also firmly support the braces and platform supporting elements. These couplings consist of counterpart or mating members, as shown most clearly in Figs. 4 and 5, each having a central semi-cylindrical portion 4 which portions are brought together so as to form a housing which encircles the standards whereby to secure them in the proper relation. Upon referring to Figs. 2, 3 and 4 particularly, it will be noted that the diameter of the bore of the coupling is wider at its upper end than at its lower end whereby a slight annular shoulder 5 is formed. This formation facilitates the assembly of the column inasmuch as a lower section of a column may be clamped in place and an upper section then have its

lower end inserted in the upper end of the coupling without disturbing the clamping bolts. Each member of the coupling is formed with a rib or a flange 6 on opposite sides which are arranged in mating relation, as indicated in Figs. 4 and 5, the opposed faces of these ribs or flanges being disposed on diameters of the bores of the coupling whereby they may fit closely together. Clamping bolts 7 are inserted through these flanges whereby the members of the coupling may be firmly secured together about the columns to attain a rigid structure. The inner faces of the flanges may be formed with recesses 8 at convenient points whereby excessive weight will be avoided without any loss of strength. Each rib or flange is provided in its inner face adjacent its upper end with a recess, indicated at 9, and the recesses in the meeting flanges will, of course, register whereby a securing bolt 10 may be fitted in place and held by and between the opposed faces of the flanges, as will be understood upon reference to Fig. 4. The ribs or flanges are further provided between their upper and lower ends with recesses or seats 11 adapted to receive braces 12 or tubular members 13 upon which platforms may rest, it being particularly noted at this point that the columns will be disposed in preferably rectangular relation so that rails, such as 13, may be supported at the inner and outer sides of the scaffold in the same horizontal plane to support a platform upon which workmen may stand. The rails or braces 13 are held in the recesses or seats 11 by clamping plates 14 given an arcuate formation between their ends whereby they will complete the socket partly formed by the respective seats 11, and at their ends the clamping plates are provided with openings through which securing bolts 10 may project, nuts 15 being mounted on the outer ends of the bolts and turned home against the clamping plates, as will be understood. The openings at the lower ends of the clamping plates are engaged over hooks 16 each of which is formed integral with one member of the coupling and seats in a corresponding recess formed in the other member of the coupling, as clearly shown in Fig. 5. After the

rail or brace has been fitted to the seat 11, the clamping plate is engaged at its lower end with the respective hook 16 and then swung upwardly against the rail and over the same to bear at its upper end against the coupling
 5 above the seat 11 and fit over the bolt 10. The nut 15 is then turned home and the rail or brace will be secured in position.

The mating members of the coupling are
 10 also provided at their upper ends on their opposite sides with ribs or flanges 17 which are disposed at right angles to the ribs or flanges 6 and are similar thereto, having semi-circular seats 18 in their outer sides
 15 between their ends and being provided at their lower ends with integral downturned hooks 19, as shown. At their upper ends the ribs or flanges 17 are provided on their inner sides with countersunk openings 20 receiving the heads of bolts 21 which project
 20 outwardly from the flanges and are adapted to be engaged by the upper ends of clamping plates 22, corresponding in all respects to the clamping plates 14, and provided at their
 25 lower ends with openings to engage over the hooks 19, as shown. These clamping plates 22 are adapted to secure in place rails or braces according to the particular arrangement in a given case.

30 Inasmuch as the couplings are of approximately cylindrical formation and the rails and braces of the scaffold are tubular or circular in cross section, the couplings may be disposed at various angles and thereby arranged to accommodate diagonally disposed
 35 braces, such as 23, which extend between upper and lower cross braces. The couplings, indicated at 24, which connect these diagonally disposed braces to the cross braces may be
 40 so disposed that the ribs and flanges and the coacting clamping plates will be set at the proper angle to hold the braces in the desired relation.

I also provide clamping plates, indicated
 45 at 25, which have semi-cylindrical portions adapted to fit around a column and have their ends provided with openings to receive securing bolts whereby guard rails 26 or angle
 50 bar braces 27 may be secured in place. These bars or rails are each provided adjacent their ends in their vertically disposed webs with open-ended slots or notches 28 adapted to fit
 over the bolts 29 which have their heads set in counter-sunk recesses 30 formed in the
 55 clamping plates and are equipped with nuts 31 turned home against the said webs or flanges whereby to secure the rails in place.

From the foregoing description, taken in connection with the accompanying drawings,
 60 it will be seen that I have provided an exceedingly simple structure whereby a scaffold of any desired size may be quickly and easily erected at a low cost. The scaffold may be thoroughly braced in any direction so that
 65 it will firmly support workmen and tools or

material for work. The couplings will be firmly held to the scaffold and will firmly secure and hold the parts thereof in position.

Having thus described the invention, I claim:

70 1. A scaffold comprising vertically alined column sections, tubular couplings consisting of mating members to fit around meeting ends of alined column sections and forming cylindrical bores of greater diameter at their upper
 75 ends than at their lower ends, and fastening means securing the mating elements of the coupling together about the column sections.

2. A scaffold comprising columns consisting of vertically alined sections, sectional
 80 couplings, means for securing the sections of the couplings together about the sections of the column, each member of the coupling being provided on its outer sides with vertically
 85 extending ribs having rail-receiving seats therein, clamping plates adapted to fit against said ribs and around a rail seated therein, and means for securing the clamps to the ribs.

3. A scaffold comprising columns consisting of vertically alined sections, couplings
 90 connecting the meeting ends of the sections and provided on their outer sides with vertically extending ribs having rail-receiving seats therein, hooks fixed to the lower ends of
 95 said ribs, fastening bolts seated in the inner sides of the ribs at the upper ends thereof, and clamping plates engaged at their lower ends with the hooks and held at their upper
 100 ends by said bolts.

4. A scaffold comprising columns and
 105 braces arranged in intersecting planes, couplings consisting of mating members secured around a column, each member being provided on its outer side with a seat receiving a brace, a clamping plate extending over
 110 the brace and interlockingly engaged with the coupling member at one side of the seat, and a detachable fastening securing the opposite end of the clamping plate to the coupling member at the opposite side of the seat.

In testimony whereof I affix my signature.
 ALEXANDER T. BURT. [L. s.]

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