

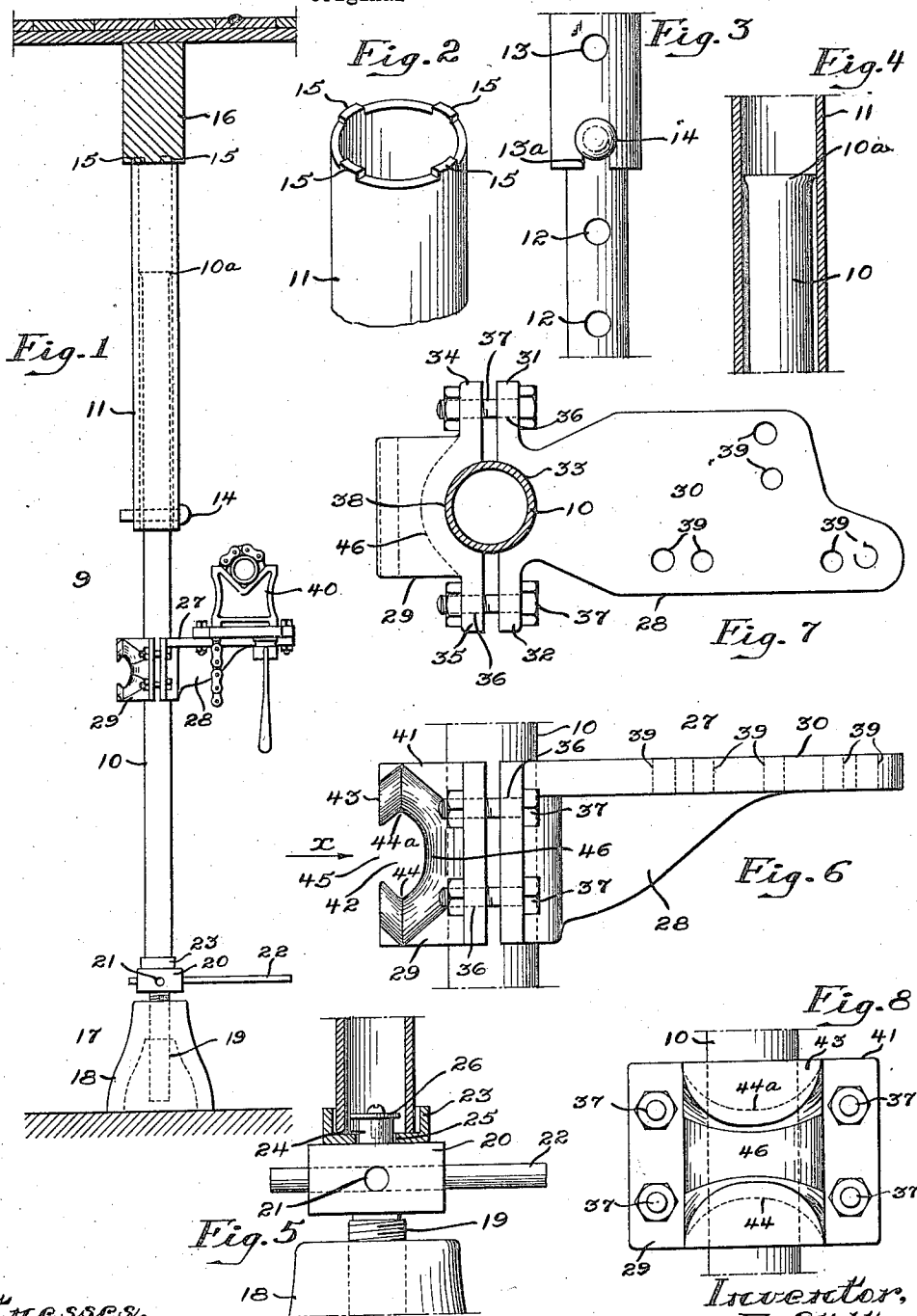
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A. F. STOLTZ

SUPPORTING STRUCTURE

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UNITED STATES PATENT OFFICE.

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SUPPORTING STRUCTURE.

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To all whom it may concern:

Be it known that I, ALOYSIUS F. STOLTZ, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Supporting Structures, of which the following is a specification.

One object of my invention is to provide an improved supporting structure which can be used for supporting a vice or other device and also for a support to facilitate the bending of pipes or rods.

Another object is to provide improved means which can be easily and quickly erected to form a support.

A further object is to so make my invention that it will be durable and of strong construction.

A still further object is to provide a structure which can be used conveniently.

These objects, and other advantageous ends which will be described hereinafter, I attain in the following manner, reference being had to the accompanying drawings in which—

Figure 1 is an elevational view illustrating a structure made in accordance with my invention,

Figures 2, 3, 4 and 5 are enlarged fragmentary views showing certain details of the construction illustrated in Figure 1,

Figure 6 is an elevational view illustrating my improved supporting bracket,

Figure 7 is a top plan view of Figure 6, and

Figure 8 is an end elevation looking in the direction of the arrow *x* in Figure 6.

Referring to the drawing, 9 represents a portable supporting stand which includes two tubular sections 10 and 11. These sections can be made of pipe; the section 10 being of smaller diameter than the section 11 so as to telescopically slide therein as shown in Figures 1, 3 and 4. The sections 10 and 11 have holes 12 and 13 therein to permit a pin or bolt 14 to be projected through said holes when they are in registry so as to prevent relative sliding movement between the sections. The section 11 at its lower end, as shown in Figure 3, has a notch 13^a in which the pin 14 can fit so that if desired to support the sections in an upright position, the notch 13^a can be used to prevent the section 11 from sliding downward

on the section 10 and to separate the sections it is merely necessary, when the structure is not in use, to lift the section 11 off the section 10; the pin 14 remaining in the section 10. The upper end of the section 11 has projections 15 spaced apart adapted to penetrate or pierce any overhead structure such for example as a floor joist 16. A jack 17 includes a base 18 having a screw threaded hole in which a jack screw 19 fits. This jack screw has an enlargement or head 20 provided with holes 21 in which a rod or lever 22 can be inserted as shown in Figure 1. A cup 23 is freely mounted on a stem 24 which projects upwardly from the enlargement 20; said stem passing through a hole 25 in the cup 23. A disk 26 is screwed on the top of the stem 24 as shown in Figure 5; said disk being of greater diameter than the hole 25 in the cup 23 so that the cup cannot be detached accidentally from the stem. The cup serves as a receptacle for the lower end of the tubular section 10. Thus it will be noted that by turning the jack screw through the medium of the lever 22, the section 10 can be raised and it, in turn, will raise the section 11 so as to cause the projections 15 to pierce or penetrate the overhead structure 16. Thus the standard will be clamped in an upright position.

The upper end of the tubular section 10 is preferably expanded or beaded, as shown at 10^a so as to closely fit within the tubular section 11; thus preventing the sections 10 and 11 from rattling when the stand 9 is erected.

My improved bracket 27 includes two sections 28 and 29 as clearly shown in Figures 6, 7 and 8. The section 28 has a plate or table portion 30 which has oppositely disposed flanges 31 and 32. This section also has a recess 33 between the flanges 32; said recess extending from the top to the bottom of the section and being arcuate in cross section. The section 29 has flanges 34 and 35 which are respectively opposed to the flanges 31 and 32; said flanges having registering bolt holes 36 through which bolts 37 can be projected. The section 29 has a recess 38 formed similarly to the recess 33 and being opposed thereto. Thus the bracket 27 can be secured to a supporting member such as the pipe or tube 10 and by tightening the bolts 37, the bracket will be rigidly held. The table portion 30 of the bracket section

28 has groups of holes 39 to permit a vise or other device to be secured thereon such for example as the device 40 as shown in Figure 1; said holes 39 serving to permit bolts to be inserted therethrough for the purpose of securing said device. The section 29 has a portion 41 which projects therefrom opposite the table 30 and said portion 41 has an undercut cavity 42 projecting inwardly from its outer face 43. This cavity has a lower grooved portion 44 which curves downwardly in opposite directions as clearly shown in Figure 8; there also being an upper grooved portion 44^a directly above the grooved portion 44 and said grooved portion 44^a curves upwardly in opposite directions as also clearly shown in Figure 8. These grooved portions 44 and 44^a extend from one side of the section 29 to the other and serve as advantageous means for effecting the bending of pipes or rods which are inserted into the cavity 42 through its mouth 45. The portion 46 of the inner surface of the cavity curves rearwardly in opposite directions as clearly shown in dotted lines in Figure 7. This surface 46 also serves as a bending anvil for rods or pipes which are inserted into the cavity so as to engage the surface 46 and by inward pressure of said pipes or rods they will be bent to conform to the curvature of the surface 46 to any degree desired.

While I have described my invention as taking a particular form, it will be understood that the various parts of my invention may be changed without departing from the spirit thereof, and hence I do not limit myself to the precise construction set forth, but consider that I am at liberty to make such changes and alterations as fairly come within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A supporting structure including members in telescopic slidable connection with each other, one of said members having piercing projections; means for adjustably securing said members together; and a jack including a cup in which the other of said

members freely fits and is free to rotate; substantially as described.

2. A supporting bracket including sections adjustably connected together whereby they can be secured to a supporting member, one of said sections having an undercut cavity and providing an entrance opening into said cavity, said cavity including a groove curved in the direction of its length; substantially as described.

3. A supporting bracket including sections adjustably connected together whereby they can be secured to a supporting member, one of said sections having an undercut cavity and providing an entrance opening into said cavity, the inner wall of said cavity opposite said entrance opening being curved in opposite directions toward the sides of said section; substantially as described.

4. A supporting structure including members in telescopic slidable connection with each other, one of said members having piercing projections; means for adjustably securing said members together; a jack including a base; a jack screw in said base, said jack screw having a stem; and a cup pivotally secured around said stem, the other of said members being adapted to seat in said cup; substantially as described.

5. A supporting structure including members in telescopic slidable connection with each other, one of said members having holes spaced apart within its length, the other of said members having a notch in its end for registry with the holes in the other member; a securing member adapted to be positioned in any one of said holes and to fit within said notch whereby said first members are locked against relative sliding movement; and means for moving said first members as a unit in the direction of their lengths; substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALOYSIUS F. STOLTZ.

Witnesses:

ELIZABETH GARBE,
CHAS. E. POTTS.