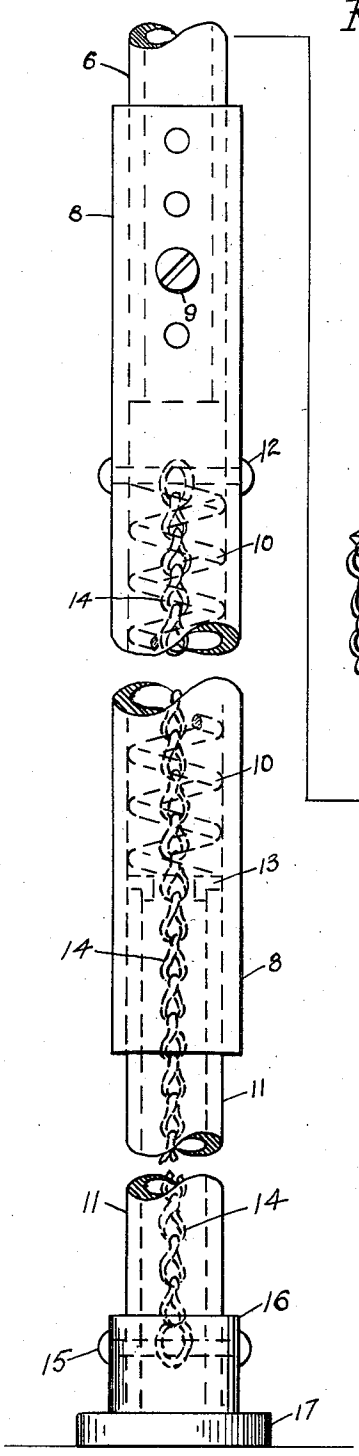
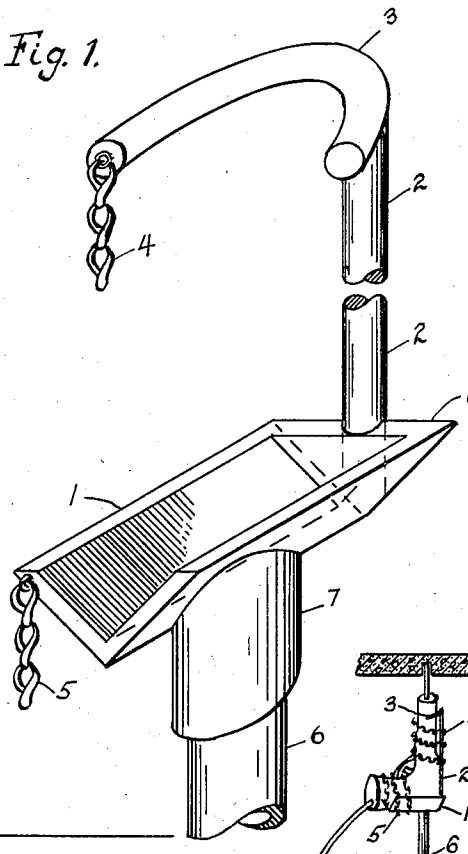
June 9, 1959 S. R. MORRELL 2,889,723

EXTENSIBLE POWER TOOL SUPPORT

Filed June 15, 1956

Fig. 1.





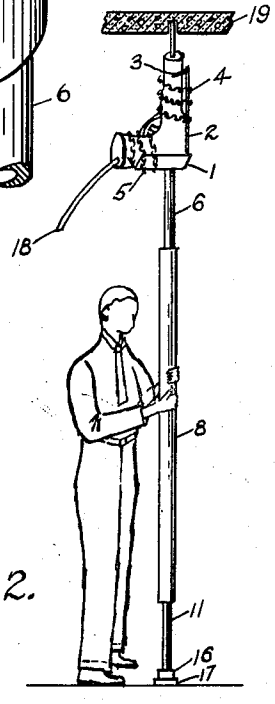


Fig. 2.

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EXTENSIBLE POWER TOOL SUPPORT

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6 Claims. (Cl. 77—7)

This invention relates to a support for overhead power tools such as electric drills and has as an object to provide an improved stand or support especially intended for holding an electric drill in an operative position where working in an overhead location.

A further object of this invention is to provide a means for supporting an electric drill when it is in operation on any overhead structure, such as against a ceiling, or roof, or bottom of boat under construction in a dry dock.

Electric drills, even in small sizes, are usually of considerable weight, in the neighborhood of 25 pounds or more. It is physically impossible for an operator to hold an electric drill in his hands, and raise it over his head, and operate the drill efficiently for any considerable period of time. Applicant has therefore constructed a mechanical supporting device for drills to be operated in overhead operation at heights in the neighborhood of 7 feet or more; sometimes as high as 30 feet. This invention is a most convenient device; it can be operated efficiently for any considerable period of time and a great deal of work can be accomplished in a relatively short period of time.

This device is an improvement over others employed for similar work. Experience with a working model of this invention indicates that it is far less cumbersome than where a fairly heavy iron table supporting a tool holder must be pushed and pulled around the floor, which is tiresome and has caused complaint.

The various features of novelty whereby my invention is characterized will hereinafter be pointed out with particularity in the claims; but for a full understanding of my invention and its objects reference may be had to the following detailed description taken in connection with the accompanying drawing, wherein:

Figure 1 is an upright view of the device in enlarged scale with the upper tool rest shown in perspective at the side as indicated. Figure 2 is an elevational view showing a workman using my device in the act of drilling a hole in the reinforced concrete ceiling. Like numerals indicate the same elements in both views.

In Figure 1 an electric drill is shown supported by means of a trough-shaped tool rest 1 having an upwardly extending brace 2 with a bifurcated arm 3. Said tool is firmly held in a desired upright position by chains, a chain 4 is shown in place about the vertical portion of the tool and a chain 5 is shown in place about the handle or horizontal portion of the tool. The entire tool holder is supported by a tube 6 welded to a depending collar portion 7 forming an integral part of the tool rest 1. The tube 6 telescopes into an outer tube 8 and is adjustably fastened at any desired location by means of a bolt 9. Said outer tube 8 telescopes over a tube 11 located below the same. A coil spring 10 is assembled within the tube 8 and is arranged between a bolt 12 transversely arranged in said tube 8 and a collar, or spring seat 13, assembled upon the upper end of tube 11. The outer tube 8 is resiliently supported upon the lower tube 11 by said spring 10 and is secured to said tube 11 by means of a chain 14, the ends of the chain are secured to said bolt 12 in tube 8 and to a bolt 15 transversely assembled in the foot portion 16 of base member 17 secured to the lower end

of said tube 11; said chain 14 passing vertically through the center of said spring 10. Said base member 17 is designed to rest upon the floor, or ground, and form a suitable support for said tube 11 and associated parts assembled therewith.

Shown by Figure 2 the workman grasps the outer tube 8 and holds the tool above in position in order to drill a hole through the reinforced concrete ceiling 19. The air hose of the pneumatic drill is shown at 18. In operation the workman places the foot 16 into position and presses down on the outer tube 8 to compress the spring within. The tool drill is placed on the mark to be drilled and the outer tube 8 is released thus putting pressure on the drill point against the ceiling.

While the chain 14 connects the outer tube 8 at bolt 12 to the lower tube 11 at bolt 15, the spirit of my invention can not be retained by dispensing with chain 14.

While I have described and illustrated my invention in detail, I do not desire to be limited to the exact structural details, but intend to cover all arrangements which come within the definitions of my invention constituting the appended claims.

I claim:

1. An electric drill tool support comprising, a base, a hollow post secured in and extending upwardly from said base, a bolt extending horizontally through said base and the lower end of said hollow post, a tubular extension member, the lower end of said extension member slidably disposed over the supper end of said hollow post and extending upwardly therefrom, a bolt extending horizontally through said extension member intermediate its ends, a collar mounted upon the upper end of said hollow post, a coil spring assembled within said tubular extension member and interposed between said collar and said bolt in said extension member and adapted to be compressed between said bolt in said extension member and said collar when said extension member is pressed downwardly over said hollow post, a chain interposed between and secured to the bolt in said extension member and the bolt in said base; the upper end of said tubular extension member being provided with a plurality of holes adapted to be engaged by a bolt, a trough-shaped, tool rest having a vertical tube secured to the bottom thereof, said tube provided with a plurality of holes adapted to be engaged by a bolt, said tube adjustably assembled within the upper end portion of said tubular extension member and adapted to be located therein whereby a bolt may be inserted through a hole therein and a sole in said tubular extension to secure said tube and said extension together, and arm means secured to said tool support and extending thereabove, said arm means having flexible means attached thereto to secure a tool drill in said tool rest and with its tool point extending vertically thereabove.

2. An electric drill tool support comprising, a base, a hollow post secured in and extending upwardly from said base, a bolt extending horizontally through said base, a tubular extension member, the lower end of said extension member slidably disposed over the upper end of said hollow post and extending upwardly therefrom, a bolt extending horizontally through said extension member intermediate its ends, a spring seat mounted upon the upper end of said hollow post, a coil spring assembled within said tubular extension member and interposed between said spring seat and said bolt in said extension member and adapted to be compressed between said bolt in said extension member and said spring seat when said extension member is pressed downwardly over said hollow post, a chain interposed between and secured

to the bolt in said extension member and the bolt in said base, the upper end of said tubular extension member being provided with a hole adapted to be engaged by a bolt, a tool rest having a vertical tube secured to the bottom thereof, said tube provided with a hole adapted to be engaged by a bolt, said tube adjustably assembled within the upper end portion of said tubular extension member and adapted to be located therein whereby a bolt may be inserted through a hole therein and a hole in said tubular extension to secure said tube and said extension together, and arm means secured to said tool support and extending thereabove, said arm means having means attached thereto to secure a tool drill in said tool rest and with its tool point extending vertically thereabove.

3. An electric drill tool support comprising, a base, a hollow post secured in and extending upwardly from said base, a bolt extending horizontally through the lower end of said hollow post, a tubular extension member, the lower end of said extension member slidably disposed over the upper end of said hollow post and extending upwardly therefrom, a bolt extending horizontally through said extension member intermediate its ends, a spring seat mounted upon the upper end of said hollow post, a coil spring assembled within said tubular extension member and interposed between said spring seat and said bolt in said extension member and adapted to be compressed between said bolt in said extension member and said spring seat when said extension member is pressed downwardly over said hollow post, a chain interposed between and secured to the bolt in said extension member and the bolt in said hollow post, the upper end of said tubular extension member being provided with a hole adapted to be engaged by a metal rod, a tool rest having a vertical tube secured to the bottom thereof, said tube provided with a hole adapted to be engaged by a bolt, said tube adjustably assembled within the upper end portion of said tubular extension member and adapted to be located therein whereby a metal rod may be inserted through a hole therein and a hole in said tubular extension to secure said tube and said extension together, and arm means secured to said tool rest and extending thereabove, said arm means having means attached thereto to secure a tool drill in said tool rest and with its tool point extending vertically thereabove.

4. An electric drill tool support comprising, a base, a hollow post secured in and extending upwardly from said base, a bolt extending horizontally through the lower end of said hollow post, a tubular extension member, the lower end of said extension member slidably disposed over the upper end of said hollow post and extending upwardly therefrom, a bolt extending horizontally through said extension member intermediate its ends, a coil spring assembled within said tubular extension member and interposed between the upper end of said hollow post and said bolt in said extension member and adapted to be compressed between said metal member in said extension member and the upper end of said hollow post when said extension member is pressed downwardly over said hollow post, a chain assembled between and secured to the bolt in said extension member and the bolt in said hollow post, the upper end of said tubular extension member being provided with a plurality of holes adapted to be engaged by a bolt, a drill tool rest having a vertical supporting means secured to the bottom thereof, said supporting means provided with a plurality of holes adapted to be engaged by a metal member, said supporting means adjustably assembled within the upper end portion of said tubular extension member and adapted to be located therein whereby a bolt may be inserted through a hole therein and a hole in said tubular extension to secure said supporting means and said extension together, and arm means secured to said tool rest and extending thereabove, said arm means having flexible means attached thereto to secure a tool drill in said tool rest and with its tool point extending vertically thereabove.

5. An electric drill tool support comprising, a base, a hollow post secured in and extending upwardly from said base, a bolt extending horizontally through said base and the lower end of said hollow post, a tubular extension member, the lower end of said extension member slidably disposed over the upper end of said hollow post and extending upwardly therefrom, a bolt extending horizontally through said extension member intermediate its ends, a collar mounted upon the upper end of said hollow post, a coil spring assembled within said tubular extension member and interposed between said collar and said bolt in said extension member and adapted to be compressed between said bolt in said extension member and said collar when said extension member is pressed downwardly over said hollow post, a flexible chain assembled between and secured to the bolt in said extension member and the bolt in said base and adapted to retain the said extension member and said hollow post in telescopic relation, the upper end of said tubular extension member being provided with a hole adapted to be engaged by a bolt, a tool rest having a vertical supporting means secured to the bottom thereof, said supporting means provided with a hole adapted to be engaged by a bolt, said supporting means assembled within the upper end portion of said tubular extension member and adapted to be located therein whereby a bolt may be inserted through a hole therein and a hole in said tubular extension to secure said supporting means and said extension together, and a bifurcated arm means secured to said tool rest and extending thereabove, said arm having flexible means attached thereto to secure a tool drill in said tool rest and with its tool point extending vertically thereabove.

6. A drill, support comprising, a base, a hollow post secured in and extending upwardly from said base, a bolt extending horizontally through said base and the lower end of said hollow post, a tubular extension member, the lower end of said extension member slidably disposed over the upper end of said hollow post and extending upwardly therefrom, a bolt extending horizontally through said extension member intermediate its ends, a collar mounted upon the upper end of said hollow post, a coil spring assembled within said tubular extension member and interposed between said collar and said bolt in said extension member and adapted to be compressed between said bolt in said extension member and said collar when said extension member is pressed downwardly over said hollow post, a chain interposed between the bolt in said extension member and the bolt in said base and extending through said coil spring, the upper end of said tubular extension member being provided with a plurality of holes adapted to be engaged by a bolt, a tool rest having a vertical tube secured to the bottom thereof, said tube provided with a plurality of holes adapted to be engaged by a bolt, said tube adjustably assembled within the upper end portion of said tubular extension member and adapted to be located therein whereby a bolt may be inserted through a hole therein and a hole in said tubular extension to secure said tube and said extension together, and a bifurcated arm means secured to said tool rest and extending thereabove, said arm means having means attached thereto to secure a tool drill, in said tool rest and with its tool point extending vertically thereabove.

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