Oct. 17, 1961 G. GERBRANDT 3,004,571

ROTATABLE TOOL SUPPORTING TABLE

Filed July 22, 1959

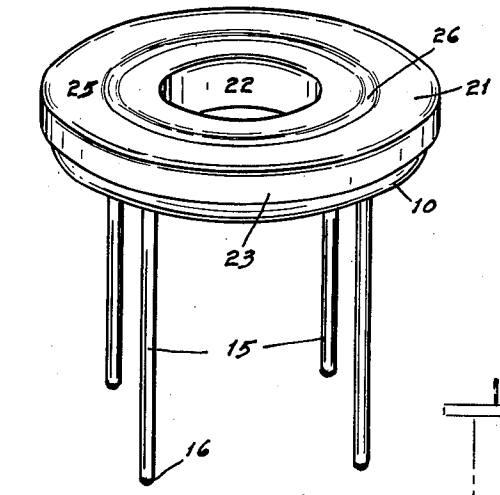


Fig 1

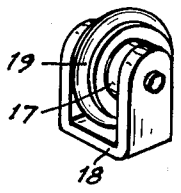


Fig 4

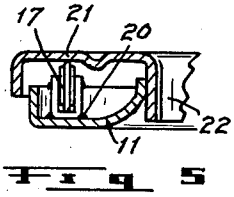


Fig 5

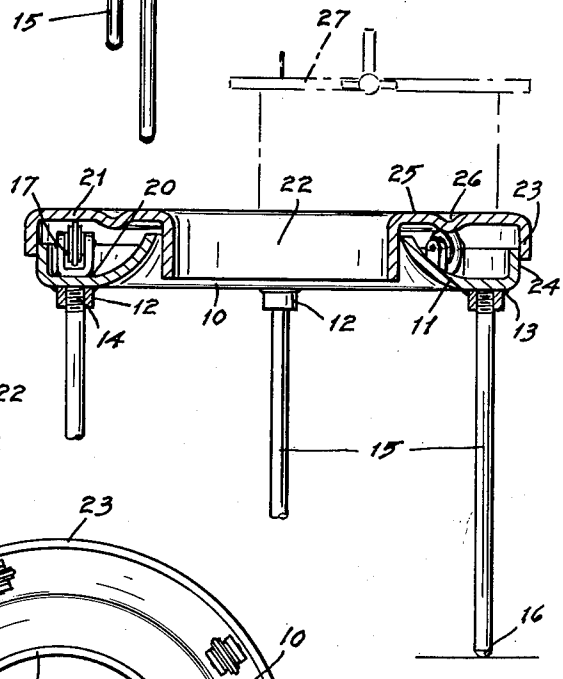


Fig 2

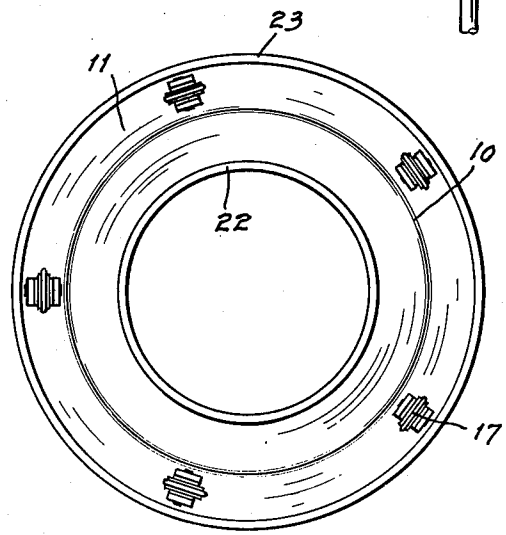


Fig 3

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ROTATABLE TOOL SUPPORTING TABLE

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The invention relates to a novel portable work table for the reception of power tools thereon, and the principal object thereof is to provide a rotatable cover for the table so a power tool can be turned thereon as desired to properly execute operations on the material being worked by said power tool.

A further object of the invention is to construct the rotary parts of said table such that sufficient friction will always be present therebetween to prevent free rotation of the cover when the power machine is operating, while a slight manual pressure will cause it to turn as desired.

A further object of the invention is to provide a central chute through the table for free passage of cuttings theredown to maintain the power machine, the table cover, and the floor, relatively clean.

A further object of the invention is to provide a work table wherein the power tool will be maintained thereon by its own weight so that it can be quickly lifted therefrom for the substitution of other power tools.

A further object of the invention is to design the table construction such that the cover can be quickly removed for mechanical repairs, cleaning, oiling, or inspection of the working parts.

A further object of the invention is to construct the device with easily removable legs for compact transport or storage.

Still further objects of the invention are: to construct the table very simply, with few mechanical parts and accordingly low cost of manufacture; easily operated and maintained; designed for quick assembly or dismantling; reasonably light for ease of transportation; and strong and sturdy for satisfactory use over a long period of time.

With the above important and other minor objects in view, which will become more apparent as the description proceeds, the invention consists essentially in the design, construction and arrangement of the various parts hereinafter more particularly described, reference being had to the accompanying drawings in which:

FIGURE 1 is a perspective view of the assembled table.

FIGURE 2 is an enlarged vertical section across the table, and with a pair of the legs broken away.

FIGURE 3 is a plan view of the table with the cover thereof removed.

FIGURE 4 is a perspective view of one of the roller units.

FIGURE 5 is a partial vertical section, similar to the left side of FIGURE 2, and showing a slight modification of construction.

In the drawings like characters of reference indicate corresponding parts in the several figures.

A ring-shaped frame **10**, preferably of sheet metal, is designed in a channel-shaped cross section, as shown in FIGURE 2. Four sockets **12** are welded, as at **13**, to the frame **10**, and in equi-spaced relation therearound thereunder. The sockets are hollow and interiorly tapped to receive threadedly, as at **14**, the upper threaded ends of tubular or rod legs **15** for ground support of said ring-shaped frame. Accordingly, the legs can be easily removed from the frame for compact storage or shipment. The bottoms of these legs could be rubber tipped, as indicated at **16**, for better frictional ground contact.

The upper part of the ring-shaped frame **10** is provided with a series of rolled units **17**, each unit consisting of a U-shaped strap **18** having a rubber-tired wheel **19** rotatably mounted thereon with its axis thereacross. The

U-shaped straps are welded, as at **20**, to the bottom of the channel **11** in equi-spaced relation therearound, and so that the wheels project slightly thereabove and their axes are radial to the centre of the frame.

An annular-shaped table cover **21** is mounted over the ring-shaped frame **10** and quietly rides on the projecting rubber-tired wheels **19**. This cover has both its inner and outer edges turned down in circular flanges **22** and **23** respectively. The inner flange **22** projects freely through the centre of the ring-shaped frame **10** as a chute while the outer flange **23** telescopes slightly over the periphery **24** of the frame, with just enough clearance for turning and yet with sufficient frictional contact therewith to hold the cover against free movement. The upper flat surface **25** of the cover can be reinforced with annular pressed grooves, such as that shown at **26**.

From the above construction it will be seen that individual power operated tools can be lifted onto the flat surface **25** of the table cover, such as the power saw indicated at **27** in FIGURE 2. Note the cutting tool thereof is nicely positioned approximately central of the downwardly projecting chute **22**. These tools could be secured to the table cover but it has been found that they will work very satisfactory without being fastened, being maintained in position by their own weight. This is highly advantageous as one power machine after another can be quickly placed on and removed from the table cover so that a great number of cutting operations can be executed on work in a minimum of time. In operation, the work is pressed against the tool, and as this tool is centred, the cover is balanced and will not turn. This stationary effect is further enhanced by the friction existing between the periphery **24** of the ring-shaped frame and the outer flange **23** of the cover. This friction also permits the operator to move the material a certain amount while being cut, without the cover moving, and so cut the material on a slight curve. If a sharper curve of cut is desired, the operator can hold the material being worked with one hand and rotate the cover with the other hand, and so guide the cutting operation over the work as and where required. This tool turning can be used very nicely with many different power tools to execute tricky operations on the work, particularly with small band saws, fret saws and dado machines. As the cutting tools are always positioned over the central chute of the table, the cuttings will naturally pass theredown, and any that may stay on the power tool or cover can be easily wiped down the chute, a suitable container (not shown) being positioned therebelow to receive them. As the cover and legs are easily removed from the ring-shaped frame, the table can be compactly transported from place to place for use directly on the job, and so forms a valuable addition to accessories required by builders, particularly carpenters. It will soon pay for itself in the variety of work accomplished, particularly on jobs where special tools, or skills, are normally required.

While I have mentioned that free turning of the cover is prevented by friction between the ring-shaped frame and the outside flange **23**, it is obvious that such friction could be developed between the frame and the inner flange just as well, see FIGURE 5, where the inner side of the frame channel slidably receives the inner flange **22** while the outer flange has clearance therefrom.

What I claim as my invention is:

1. A work table and support for tools, comprising: an upstanding frame having a central opening vertically therethrough; an annular table cover overlying said frame for support of said tools; the central opening of said cover being aligned with said frame opening for drop passage of tool cuttings therethrough; a plurality of rollers mounted between said frame and said cover for rotatable support of the latter on said frame; and fric-

tional retarding means for guiding the rotation of said cover.

2. A knock-down work table and support for power tools, comprising: a horizontal ring-shaped frame; a plurality of rollers mounted on said frame with their axes in equi-distant radial relation to the centre thereof; an annular table cover overlying said frame, for support of said tools and for tool cuttings to pass centrally therethrough; said cover being carried by said rollers; telescoping flange means on said cover and extending into said frame for alignment of the central openings of the cover with that of the frame and for frictionally retarded guiding rotation of said cover on said rollers; and removable legs secured to and supporting said ring-shaped frame.

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