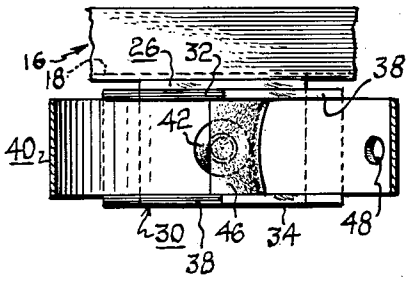
March 24, 1964 A. M. CHRISTENSEN 3,126,100

UTILITY TRAY

Filed Sept. 20, 1962

Fig. 9



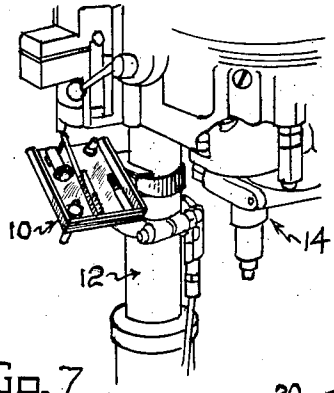


Fig. 1

Fig. 2

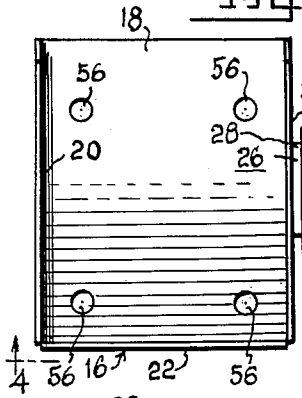


Fig. 7

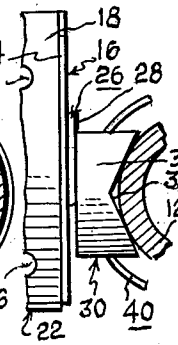


Fig. 5

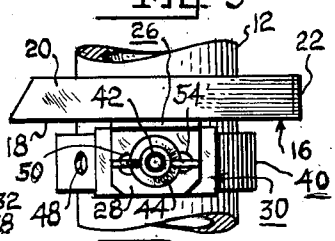


Fig. 6

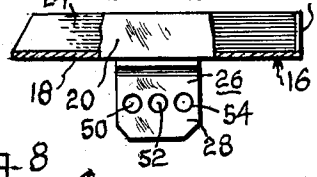


Fig. 3

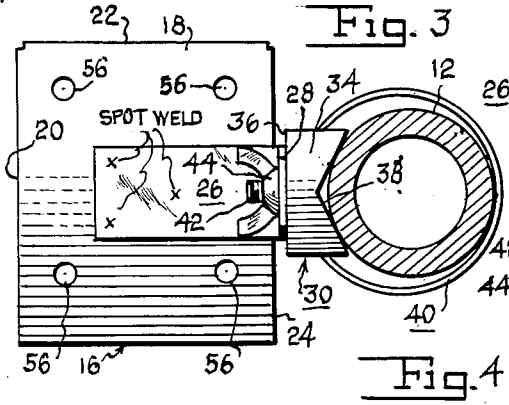


Fig. 8

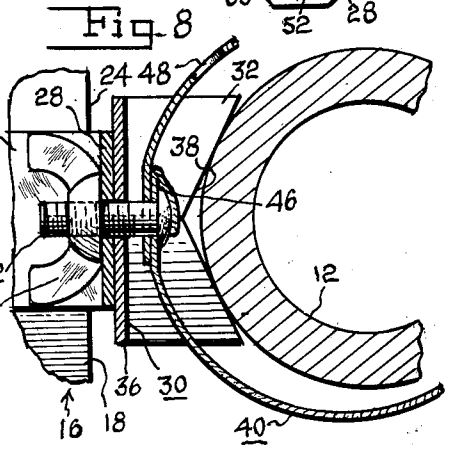
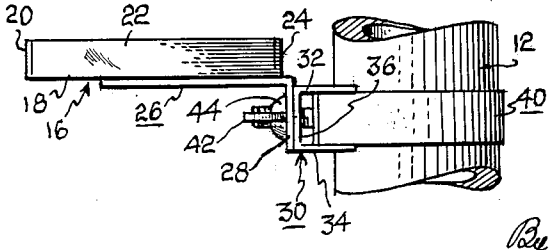


Fig. 4



Inventor:
Antone M. Christensen

By.

Attorneys:

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UTILITY TRAY

Antone M. Christensen, 7033 Earl NW., Seattle 7, Wash.

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6 Claims. (Cl. 211—126)

This invention relates to a device for supporting accessories within easy reach of the operator of a machine tool and relates more particularly to a utility tray adjustably supportable on a machine tool column near the operator.

Every machine tool such as a drill press has numerous accessories for use with the machine or for assisting in the care and maintenance thereof. In most workshops and machine shops such items are maintained on a nearby table or in a tool box or the like. If the accessories are kept in the open such as on a work bench they are often subject to being damaged from other tools nearby or to being covered by sawdust or wood or metal chips or shavings. In this manner they can be easily misplaced. Moreover, the convenience with which the operator may choose the particular item he desires is obviously dependent on the distance of the table from the tool or the accessibility of a particular item within a tool box. Inconvenience to the operator may cause a safety hazard by requiring him to concentrate on something other than the work with which he is engaged.

It is therefore a particular object of this invention to provide a device which will hold accessories for a machine tool within easy reach of the operator.

A further object of the instant invention is the provision of such a device wherein the accessories are maintained separate from other tools thereby protecting the same from damage.

Another object of this invention is to provide a device of this character which is easily adjustable for use with a variety of machine tools and which may be moved vertically up and down, horizontally back and forth and tilted as desired by the operator.

A still further object of this invention is the provision of a device of the character described which is inexpensive to manufacture and sturdy and dependable in use.

Other and further objects of the invention reside in the combination of elements, arrangement of parts, and features of construction.

Still other objects will in part be obvious and in part be pointed out as the description of the invention proceeds and as shown in the accompanying drawing wherein there is disclosed preferred embodiments of the inventive concepts.

In the drawing:

FIGURE 1 shows the utility tray of the instant invention in perspective as it would be attached to a column on a machine tool.

FIGURE 2 is a plan view, partly in section, of the device of the instant invention.

FIGURE 3 is a bottom view of the same device.

FIGURE 4 is an end view of the device taken on line 4—4 of FIGURE 2.

FIGURE 5 is a side view of the device taken from the left of FIGURE 2.

FIGURE 6 is a side view, partly in section, of a portion of the device of the instant invention showing one of the means for making the same adjustable.

FIGURE 7 is a fragmentary top view of the device of FIGURE 6 in assembled relationship but with the tray in offset relationship.

FIGURE 8 is a transverse sectional view to an enlarged scale of the connecting means of the device of the instant invention.

FIGURE 9 is a longitudinal sectional view taken on line 9—9 of FIGURE 2.

Similar reference characters refer to similar parts throughout the several views of the drawing.

Referring now to the drawing in detail and particularly to FIGURE 1, reference numeral **10** generally indicates the utility tray of the instant invention. The device will be slidingly supported on a column **12** forming part of a machine tool generally indicated by **14**. The tray portion is vertically adjustable on the column **12**, horizontally adjustable on its bracket and tiltable about its connecting means as will be explained more fully hereinafter.

As shown in FIGURES 2 to 4, 8 and 9, the device of the instant invention is comprised of a tray **16** having a generally rectangular bottom **18** and upstanding side flanges **20**, **22** and **24** preferably on three edges only of the bottom **18**. A member **26** having a downwardly extending flange **28** is fixed to the bottom of the tray **16** by any conventional means such as spot welding. A U-shaped bracket **30** is provided having two leg portions **32** and **34** and a flat vertical connecting portion **36**. Each of the leg portions **32** and **34** have a V-shaped notch **38** remote from the end attached to the connecting portion **36** adapted to engage the column **12**. An elongated band **40** is formed into a circle with its end in overlapping relationship. Holes are defined adjacent each end of the elongated band **40** and similar holes are defined through the connecting portion **36** of the bracket **30** and the depending flange **28** of the member **26**. A bolt **42** is insertable through all of the holes as shown most clearly in FIGURE 8. A wing nut **44** or the like is fastenable on the bolt **42** in the conventional manner.

One end **46** of the elongated band **40** may be folded back over the head of the bolt **42** thereby retaining the bolt against rotation with its threaded portion extending through the hole defined in that end of the elongated band. A plurality of holes may be defined in the other end of the elongated band **40** in order to render adjustable the diameter of the circle formed by the elongated band when its ends are in overlapping relationship. One such additional hole is shown at **48** in FIGURES 8 and 9. The device may be given additional adjustability by providing a plurality of holes such as shown at **50**, **52** and **54** in the depending flange **28** of the member **26**. Note particularly FIGURES 5 to 7. In this manner the bolt **42** may be selectively inserted through one of the holes **50**, **52**, **54** to move the tray portion **16** with respect to the bracket **30** and thus with respect to the column **12**. FIGURE 7 shows the tray in offset relationship.

A plurality of holes **56** may also be defined in the bottom **18** of the tray **16** as shown in FIGURES 2 and 3 for support of various items as will be explained hereinafter.

The manner of operation of the utility tray of this invention will now be described in detail. The ends of the elongated band **40** are separated to wrap the same around column **12**. The bolt **42** is then inserted through the holes defined adjacent each end of the elongated band, the particular holes chosen depending on the diameter of the column **12**. The bracket **30** is then placed over the elongated band **40** with its leg portions **32**, **34** encompassing the same. The hole defined in the connecting portion **36** of the bracket **30** is placed over the bolt **42**. The bolt **42** is then inserted through one of the holes **50**, **52**, **54** in the depending flange **28** of the member **26** and the wing nut **44** is tightened on the end of the bolt **42** until the V-shaped notches **38** in the leg portion **32**, **34** of the bracket **30** engage the column **12**. Thus, the tray **16** is held away from the column **12** in a position convenient for the operator. The entire device **10** may be slid up and down on the post **12** by loosening the wing nut **44**. The tray **16** may be tilted to any desired degree as shown in

FIGURE 1 and drill bits or the like may be placed on the bottom **18** in contact with the upstanding flange **22**. The top of the tray is left open so that accessories longer than the tray itself may be supported thereon. Such items as the chuck key for a drill press or a deburring tool or the like may be accommodated in the utility tray of the instant invention by inserting a portion thereof through the holes **56** as shown in FIGURE 1.

The device of the instant invention may be made from any common material such as sheet metal, aluminum, plastic, etc., but it is preferable that the tray portion **16** be formed of a ferrous material so that magnetic oil cans, drill caddies, and other such items will be held in movable relationship thereto in whatever position the operator desires.

From the foregoing it will now be seen that there is herein provided an improved utility tray which is easily placed within reach of the operator and which is instantly adjustable in every direction to suit the whims of the operator.

It will also be seen that there is herein provided a device which accomplishes all the objects of the instant invention and others including many advantages of great practical use and commercial importance.

As many embodiments may be made of this inventive concept, and as many modifications may be made in the embodiment hereinbefore shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative, and not in a limiting sense.

I claim:

1. A device for supporting accessories within easy reach of a machine tool, said machine tool having a column thereon, said device comprising a rectangular bottom tray having a front edge, a rear edge and two side edges, an elongated band having two ends in overlapping relationship forming a circle adapted to circumscribe said column, means connecting said tray to said elongated band including a member integral with the underside of the bottom and possessing a downwardly directed flange positioned below the side edge of the tray nearer the band, said member extending from one side edge more than half way to the other side edge, said downwardly directed flange being flat and vertical, a U-shaped bracket having a horizontal upper leg and a horizontal lower leg, and a flat and vertical connecting portion therebetween, the overlapping ends of said elongated band fitting vertically between said legs and in juxtaposition to said connecting portion, means defining an aperture adjacent one end of said band, means defining a plurality of apertures each at a different distance from the other end of the band means defining a horizontal row of apertures in said vertical depending flange and means defining an aperture in said vertical connecting portion of said bracket, non-rotatable headed bolt means inserted through two overlapping band apertures, through said bracket aperture and through a selected one of the flange apertures, the threaded portion of the bolt being adjacent the depending flange and the head of the bolt being adjacent the overlapping apertured ends of the band, and nut means fastened on the exposed threaded end of said bolt means, and in use contacting a side face of said flat and vertical flange.

2. The structure of claim 1 wherein each horizontal leg of said bracket is provided with an identical V-shaped notch at the end remote from said connecting portion to thus accommodate various diameter columns.

3. The structure of claim 1 wherein said bolt is fixed against rotation with respect to said band by a folded back band end which conforms to the shape of the bolt head.

4. The structure of claim 1 wherein said tray includes perpendicularly upstanding flanges on the upper side only of said bottom and at the front and two side edges only.

5. The structure of claim 1 wherein said tray bottom is planar, and has means defining a plurality of spaced apertures extending with constant diameters from one planar face to the other planar face, and said tray includes upstanding flanges on the upper side only of said bottom, and at the front and two side edges only.

6. A column supportable device for holding articles within easy reach of an operator, said device comprising a tray having front and rear edges and two side edges, a band having its ends in overlapping relationship and formed between its ends so as to contact and circumscribe part of the perimeter of the column, means connecting said tray to said band including a member possessing a horizontal portion attached to said tray and a vertical flat downwardly directed flange vertically adjacent a side edge, a bracket having horizontal upper and lower legs and a vertical flat connecting portion therebetween, the ends of said band fitting snugly between said legs and in proximity to said connecting portion, means defining an aperture adjacent one end of said band, means defining a plurality of horizontally aligned apertures adjacent the other end of said band, means defining a horizontal row of apertures in said vertical flange, and means defining an aperture in said connecting portion of said bracket, headed-bolt meas inserted threaded end foremost successively through two band apertures, the bracket aperture and a selected one of the flange apertures, the head of the bolt being positioned contiguous to the band, and nut means threaded on the bolt and in use drawn up tightly to the side of said flange.

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