Feb. 1, 1955 J. GRZYBOWSKI 2,700,992

TILTABLE WORK-SUPPORTING TABLE FOR TOOL MACHINES

Filed Oct. 12, 1953

Fig. 1

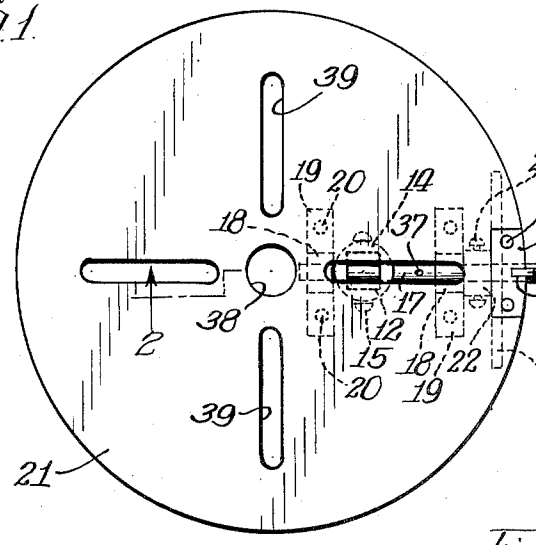



Fig. 4

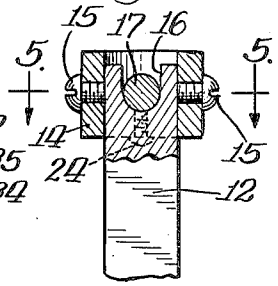



Fig. 2

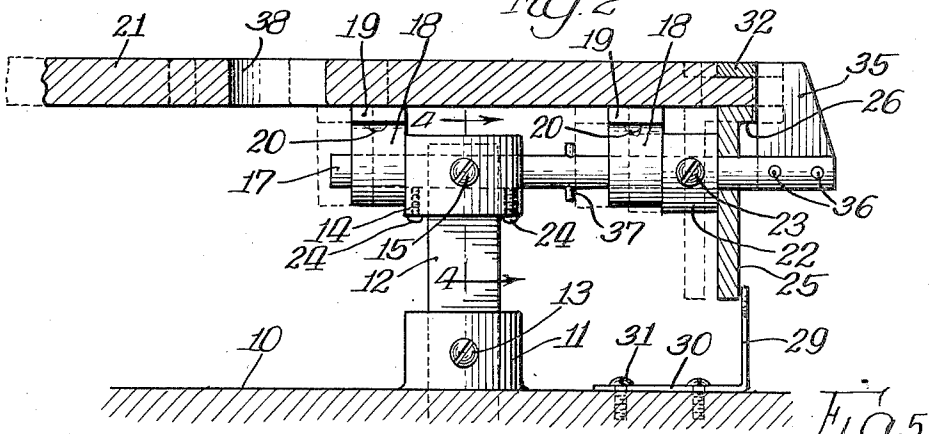



Fig. 5

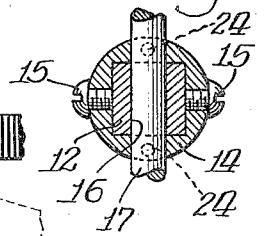
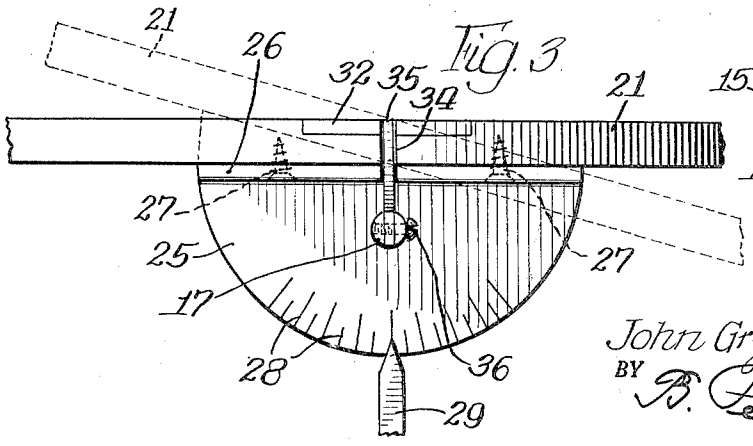



Fig. 3




INVENTOR.
John Grzybowski,
BY B. Pelechowicz
Atty.

United States Patent Office 2,700,992 Patented Feb. 1, 1955



2,700,992

# TILTABLE WORK-SUPPORTING TABLE FOR TOOL MACHINES

John Grzybowski, Chicago, Ill.

Application October 12, 1953, Serial No. 385,340

4 Claims. (Cl. 143—132)

The present invention relates to tiltable tables for supporting work in tool machines such as drill or band saw, for the purpose of making bores at an angle in the work when a drill is used or making bevel or miter surfaces when a band saw is employed. The general class of machines with which the present invention may be employed is represented by the disclosure in my Patent 2,604,127, granted July 22, 1952.

Another object of the present invention is the provision of means in a tiltable table of the character indicated for locking the table in any desired angular position.

A still further object of the present invention is the provision of means for indicating the degrees of angularity when the table has been tilted to one or the other lateral directions.

With the above general objects in view and others that will appear as the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawing and pointed out in the appended claims.

In the drawing forming a part of this application, and in which like designating characters refer to corresponding parts throughout the several views;

Fig. 1 is the plan view of the present table;

Fig. 2 is an enlarged cross sectional view through the table, taken on line 2—2 of Fig. 1, illustrating in elevation the supporting and tilting means for the table;

Fig. 3 is a fragmentary rim elevational view of the table, showing means for indicating the degrees of angularity when the table is tilted laterally in either direction;

Fig. 4 is a cross section, partly in elevation of the supporting means for the table, the view having been taken substantially on line 4—4 of Fig. 2; and

Fig. 5 is a cross sectional view on line 5—5 of Fig. 4.

Referring in detail to the present drawing there is shown therein base 10 upon which the table and its appurtenances are supported. Integrally formed with and upwardly projecting from said base 10 is collar 11 provided with a square bore through which post 12 which is square on transverse cross-section is extended into said base 10 for upright shifting movement for raising or lowering the table assembly relative to said base 10. Screw 13 driven through said collar 11 engages said post 12 and maintains the same in its adjusted position. The square formation of post 13 and square bore in collar 11 prevent rotary shifting of post 12 and of the table assembly.

Positioned upon the upper end of said post 12 is collar 14 which is rigidly connected with post 12 by means of a pair of opposed screws 15.

The upper end of said post 12 is provided with recess 16 for seating therewithin horizontal shaft 17. Said shaft 17 is extended through said collar 14.

On loosening screws 15 collar 14 with shaft 17 may be disengaged from post 12 and the table assembly removed therefrom.

The invention further includes a pair of bearings 18, within which shaft 17 is supported, said bearings being adapted for shifting movement upon said shaft 17 in either direction. Said bearings 18 are provided with lateral wings 19 through which screws 20 are passed for affixing said bearings to the underface of table 21.

Integrally formed with the forward bearing 18 is sleeve 22 through which said shaft 17 passes. One or more screws 23 driven through said sleeve 22 is adapted to engage shaft 17 for the purpose of locking table 21 in its forwardly shifted, retracted or tilted positions.



It is noted that shaft 17 is made stationary with relation to collar 14 and post 12. Pins 24 driven through the lower end of collar 14 are made to rigidly engage said shaft 17 and firmly bind it to collar 14. Table 21 and bearings 18 are capable of longitudinal shifting movement upon shaft 17 as well as of angular shifting movement thereon when screw 23 is loosened.

Adjacent the rim said table 21 is provided with a downwardly depending semi-circular plate 25, at the upper end of which the same is provided with flange 26, through which a plurality of screws 27 are driven to engage table 21 for the purpose of maintaining plate 25 in a rigid relation with said table 21. Of course, said shaft 17 is passed through said plate 25, as is seen in Figs. 2 and 3.

A plurality of calibrations 28 made upon the forward face of said plate 25 along the rim thereof indicate the degrees of inclination of table 21 as said calibrations 28 come in alinement with pointer 29, which extends in an upright direction from plate 30. Said plate 30 is supported upon base 10 and affixed thereto by means of screws 31.

Dovetailed into table 21 above flange 26 and plate 25, and adjacent the upper face of said table 21 is strengthening plate 32, which is affixed to table 21 by means of screws 33.

Along their rims said flange 26, table 21 and plate 32 are provided with slot 34 for selectively receiving therewithin wing 35, which extends vertically in an upward direction from said shaft 17. Said shaft 17 is slotted for receiving the lower end of said wing 35. Rivets or screws 36 passing through shaft 17 and lower end of said wing 35 rigidly connect the latter with said shaft.

When table 21 remains in a horizontal position and is shifted upon shaft 17 toward said wing 35, the latter will enter slot 34. In this manner table 21 will become interlocked with said wing 35 and through it with shaft 17, so that said table 21 will be incapable of any angular shifting movement. When however table 21 is retracted from wing 35 the former will become disengaged from said wing 35, the retracted position of the table being indicated by dotted lines in Fig. 2. In the retracted position the forward bearing 18 will come in contact with stop pin 37, thereby limiting farther rearward shifting movement of table 21 and its appurtenances.

When in the retracted position table 21 may be angularly tilted upon shaft 17 to either side, as is indicated in dotted lines in Fig. 3.

When in its tilted position table 21 has been brought to a desired degree of inclination, screw 23 is then turned for causing the same to engage and bear against shaft 17 for locking table 21 in its inclined adjusted position to shaft 17. As was hereinabove mentioned calibrations 28 in conjunction with pointer 29 will indicate the degree of incline of table 21 from horizontal.

Centrally table 21 is provided with bore 38 and with a plurality of radial slots 39. Through said bore 38 a reciprocating saw may be passed, while through one of said slots 39 a sutiable support may be extended to bear against and press upon the work supported upon the table for advancing the work against the saw.

For all intents and purposes said sleeve 22 may be considered as a part of bearing 18 which carries it. If desired said sleeve may be eliminated and screw 23 may be passed through one or both bearings 18 for the purpose of engaging shaft 17 for locking table 21 in its adjusted tilted position when said shaft has been shifted away and disengaged from said wing 35.

While there is described herein preferred embodiments of the present invention, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the invention as claimed.

What I claim as new is:

1. A device of the class described comprising a vertical support, a horizontal shaft rigidly supported thereupon, a table disposed above said shaft, means for supporting said table upon and for tiltable movement about said shaft, said table being adapted for shifting move-

ment upon said shaft in a longitudinal direction with relation to said shaft, a wing projecting vertically from one end of said shaft, the rim of said table being provided with a recess for receiving therewithin said wing for interlocking said table in a rigid stationary relation with said shaft when said table is shifted in the direction of said wing, said table being capable of angular tilting movements to either side of said shaft when said table has been shifted in the direction away from said wing, and means for locking said table in the tilted position to said shaft.

2. A device of the class described comprising a vertical support, a horizontal shaft rigidly supported thereupon, a table disposed above said shaft, a bearing affixed to said table, said shaft being passed through said bearing, said bearing being adapted for shifting movement upon said shaft in a longitudinal direction therewith for shifting said table, a wing projecting vertically from one end of said shaft, the rim of said table being provided with a recess for receiving therewithin said wing for interlocking said table in a rigid stationary relation with said shaft when said bearing and said table have been shifted towards said wing, when in an interlocked relation with said wing said table being adapted to remain in a horizontal plane, said table being capable of angular tilting movements to either side of said shaft when said bearing and said table have been shifted in the direction away from said wing for disengaging said table from its interlocked relation with said wing, and means carried by said bearing for locking said table in its tilted position to said shaft.

3. A device of the class described comprising a vertical support, a horizontal shaft rigidly supported thereupon, a table disposed above said shaft, means for supporting said table upon and for tiltable movement about said shaft, said table being adapted for shifting movement upon said shaft in a longitudinal direction with relation to said shaft, a wing projecting vertically from one end of said shaft, the rim of said table being provided with a recess for receiving therewithin said wing for interlocking said table in a rigid stationary relation with



said shaft when said table is shifted in the direction of said wing, when in an interlocked position with said wing said table being upon a horizontal plane, said table being capable of angular tilting movements to either side of said shaft when said table has been shifted in the direction away from said wing, means for indicating the degrees of inclination of said table from horizontal when said table has been shifted to its tilted position, and means for locking said table in its tilted position to said shaft.

4. A device of the class described comprising a vertical support, a horizontal shaft rigidly supported thereupon, a table disposed above said shaft, means for supporting said table upon and for tiltable movement about said shaft, said table being adapted for shifting movement upon said shaft in a longitudinal direction with relation to said shaft, a wing projecting vertically from one end of said shaft, the rim of said table being provided with a recess for receiving therewithin said wing for interlocking said table in a rigid stationary relation with said shaft when said table is shifted in the direction of said wing, when in an interlocked position with said wing said table being upon a horizontal plane, said table being capable of angular tilting movements to either side of said shaft when said table has been shifted in the direction away from said wing, an arcuate plate depending from said table, calibrations upon the arcuate edge of said plate, a pointer rigidly supported under said table adjacent said calibrations for indicating the degrees of inclinations from horizontal when said table has been tilted, and means for locking said table in its tilted position to said shaft.

**References Cited in the file of this patent**

UNITED STATES PATENTS

| | | |
|---|---|---|
| D. 162,279 | Andresen et al. | Mar. 6, 1951 |
| 541,349 | Gardner | June 18, 1895 |
| 1,230,275 | Carlson | June 18, 1917 |
| 1,833,355 | Dahms | Nov. 24, 1931 |
| 2,604,127 | Grzybowski | July 22, 1952 |