J. NIELSEN.

WORK TABLE FOR GRINDING MACHINES.

APPLICATION FILED JUNE 23, 1920.

1,365,536. **Patented Jan. 11, 1921.**

2 SHEETS—SHEET 1.

Fig. 1

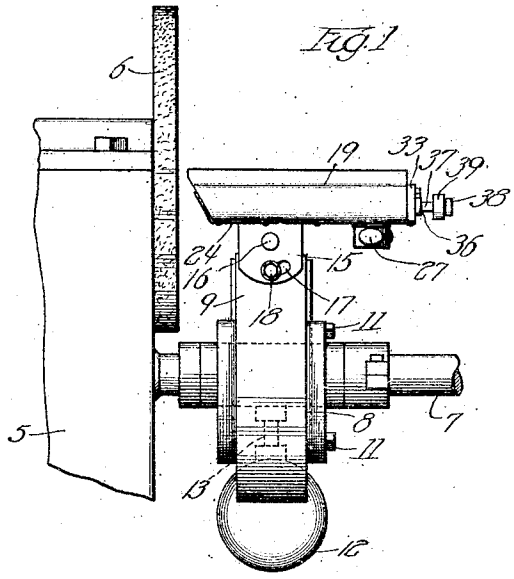
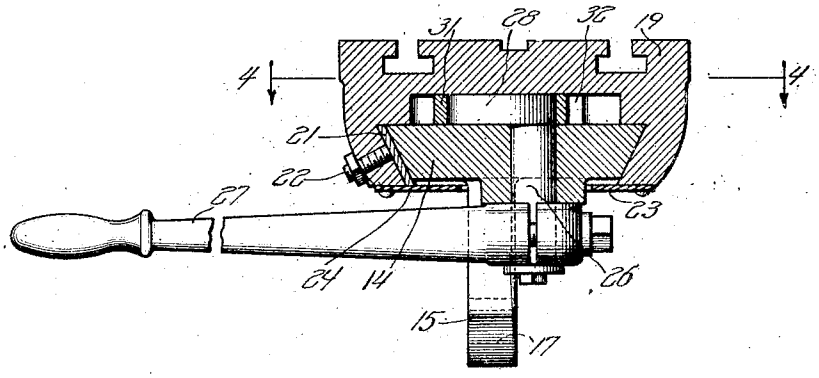


Fig. 2



Inventor

By John Nielsen

Dondelwilson Attys

J. NIELSEN.

WORK TABLE FOR GRINDING MACHINES.

APPLICATION FILED JUNE 23, 1920.

1,365,536. Patented Jan. 11, 1921.

2 SHEETS—SHEET 2.

Fig. 3

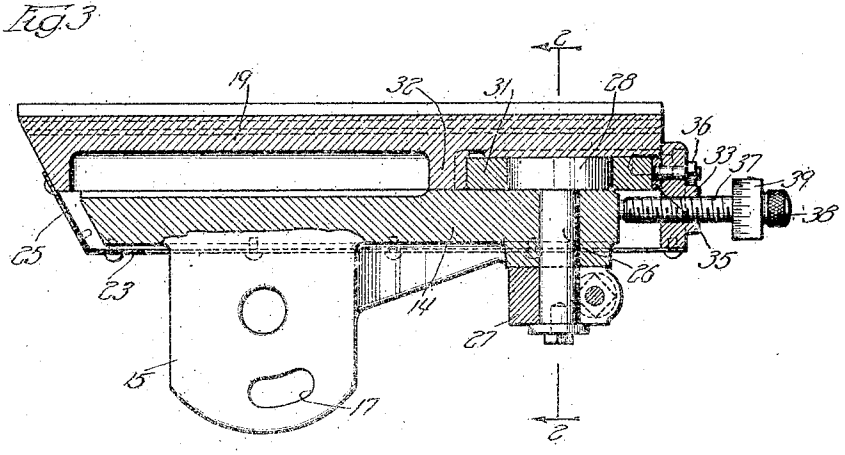
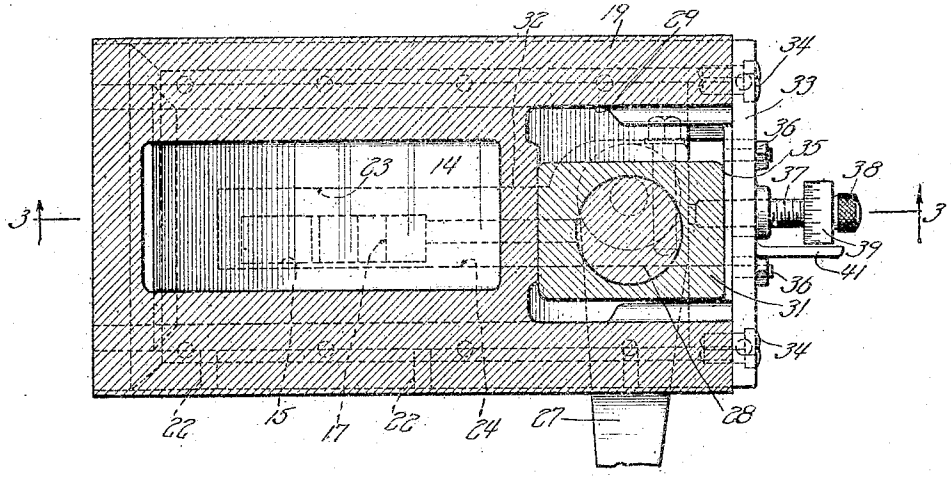


Fig. 4



Inventor
John Nielsen
By Poole & Wilson Attys.

UNITED STATES PATENT OFFICE.

JOHN NIELSEN, OF BELOIT, WISCONSIN.

WORK-TABLE FOR GRINDING-MACHINES.

1,365,536. Specification of Letters Patent. Patented Jan. 11, 1921.

Application filed June 23, 1920. Serial No. 391,030.

To all whom it may concern:

Be it known that I, JOHN NIELSEN, a citizen of the United States, residing at Beloit, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Work-Tables for Grinding-Machines, of which the following is a specification.

This invention relates in general to grinding machines, and has more particular reference to a work table for such machines, and especially the mechanism whereby said table is moved to carry the work toward and from the grinding wheel.

One of the primary objects of my present invention is to provide a work table of the character indicated, which will be strong and durable in construction, cheap to manufacture and easy to assemble, and one in which the moving force by which the table top is moved upon its support, is exerted along a medial line of the table so that there is produced no tendency of the top to twist or bind in its movements.

For the purpose of facilitating an understanding of my invention, I have illustrated on the accompanying drawings one preferred embodiment thereof, from an inspection of which, when considered in connection with the following description, my invention and many of its attendant advantages should be readily understood.

Referring to the drawings:

Figure 1 is a side elevational view of so much of a grinding machine as is necessary to the understanding of my invention;

Fig. 2 is a vertical sectional view on the line 2—2 of Fig. 3;

Fig. 3 is a transverse sectional view on the line 3—3 of Fig. 4; and

Fig. 4 is a horizontal sectional view on the line 4—4 of Fig. 2.

By reference to the drawings, it will be observed that reference character 5 (Fig. 1) indicates generally the frame of a disk grinder of any well known or preferred construction, upon which the grinding wheel 6 is mounted in the usual manner. Substantially beneath the grinding wheel, the frame is provided with a laterally projecting bar 7 which constitutes the supporting means upon which the work support, as a whole, is mounted.

A rocker box 8 is rotatably mounted on the bar 7, and has on its front face an undercut slot or groove in which an upright bar 9 is slidably mounted, the bar being held in different positions of vertical adjustment by means of set screws 11. A counterweight 12 is fixed to the lower end of a rod 13, which in turn is attached to and depends from the sleeve portion of the rocker box 14. The counterweight thus serves to hold bar 9 in upright position.

The work table comprises a base or support 14, having a downwardly extending lug 15 overlapping a portion of the upper end of the bar 9 and pivoted at 16 to said bar, the lug being also provided with an arcuate slot 17 adapted to receive a screw bolt 18 by which the table supported on the pivot 16 is clamped in adjusted position.

It will be observed from Fig. 2 that the table comprises in addition to the support 14, a table top 19 slidably mounted upon the support 14 so as to be movable longitudinally thereof, the downwardly projecting sides of the top being undercut to accommodate the tapered form of the support. In order to take up for wear, a gib 21 is interposed between one side of the top and the support, and the top is equipped with a plurality of adjusting screws 22 by which the gib may be tightened to insure a snug, slidable fit. For the purpose of precluding the entrance of dust into the slideway, the top is preferably provided at its under side with a pair of plates 23 and 24 respectively, which provide a bottom for the table, these plates being extended upwardly at the forward end of the table, as indicated at 25; preferably, these plates are made in one piece and slotted to accommodate the lug 15 and other downwardly projecting elements.

Near the rear end of the support 14, there is journaled a vertically disposed shaft 26 provided at its lower end with a handle lever 27 extending laterally into a position convenient to the operator, and at its upper end this shaft is equipped with an eccentric 28. The lower face of the top is provided at its rear end with a recess 29 adapted to accommodate a block 31 provided with an opening to receive the eccentric 28 and adapted to abut at its forward end against a rib 32 depending from the body of the top. The block is confined in this recess by a plate or bar 33 extending across the open front end of the recess and secured to the top by bolts 34, and the inner face of this bar is preferably equipped with a wear plate 35 held in position by bolts 36, this plate be-

ing of such thickness that the block 31 is slidably confined in the recess between the plate 35 and the rib 32.

It will be evident that upon swinging movement of the handle to the left, viewing Fig. 4, the block 31 will be moved by the eccentric to the left, or in other words, longitudinally of the support, and also will be moved transversely of the support and of the table top. This movement of the block effects a relative movement between the table top and its support by moving the top longitudinally of the support to the left, or in other words, toward the grinding wheel, to carry the work positioned upon the top into operative relation with the wheel. The moving force is thereby applied through the block along a median line of the top so that it is moved without cramping or binding, as would be the case if the force were applied at one side or at one corner. Upon reverse movement of the handle, the table is retracted from the grinding wheel to withdraw the work therefrom.

For the purpose of limiting the approach of the top toward the grinding wheel, the bar 33 is threaded to accommodate an abutment screw 37, which is threaded therethrough so that its inner end abuts against the outer face of the support 14 when the table is in its innermost position, as shown in Fig. 3. This abutment screw is preferably provided at its outer end with a knurled knob 38 and a circumferential scale 39 arranged in juxtaposition to a pointer 41 so that a fine degree of adjustment may be secured.

It will be manifest from the foregoing that I have provided a table top which is simple in construction, cheap to manufacture, and easy to assemble, one in which a considerable degree of force may be exerted upon the table to force the work against the grinding wheel without undue exertion upon the part of the operator who manipulates the handle 27, and that the operative parts are all inclosed between the top and the support, where they are protected against dust and grit, thus promoting longevity of the machine.

While I have shown and described a preferred embodiment of my invention, it should be apparent that the structural details are capable of wide modification and variation, without departing from the spirit of the invention as defined in the following claims.

I claim:

1. A work table, comprising in combination a support, a table top mounted thereon, a block interposed between said top and support and movable relatively to each, and means including an eccentric for moving said block longitudinally of the support and transversely of the top to effect a relative longitudinal movement between said top and support.

2. A work table, comprising in combination a support, a table top mounted thereon, a block movably interposed between said support and top, an eccentric engaged with said block, and means for moving said eccentric to impart through said block, movement to said top longitudinally of said support.

3. A work table, comprising in combination a support, a table top mounted thereon, an eccentric pivoted on said support, a handle connected with said eccentric, and a block surrounding said eccentric and interposed between said support and top, said block being adapted upon movement of said handle to effect a relative movement between said support and said top.

4. A work table, comprising in combination a support, a table top slidably mounted thereon, a rotatable eccentric disposed between said top and said support, a block embracing said eccentric and adapted to slide transversely of the top and longitudinally of said support, and means beneath said support for operating said eccentric.

5. A work table, comprising in combination a support, a table top slidably mounted thereon, a recess formed between said top and said support, a rotatable eccentric disposed in said recess, a block embracing said eccentric and also disposed in said recess, said block being adapted to move in said recess transversely of the top and longitudinally of the support, said block being held against rotative movement, and means beneath said support for operating said eccentric.

JOHN NIELSEN.