No. 884,249. PATENTED APR. 7, 1908.

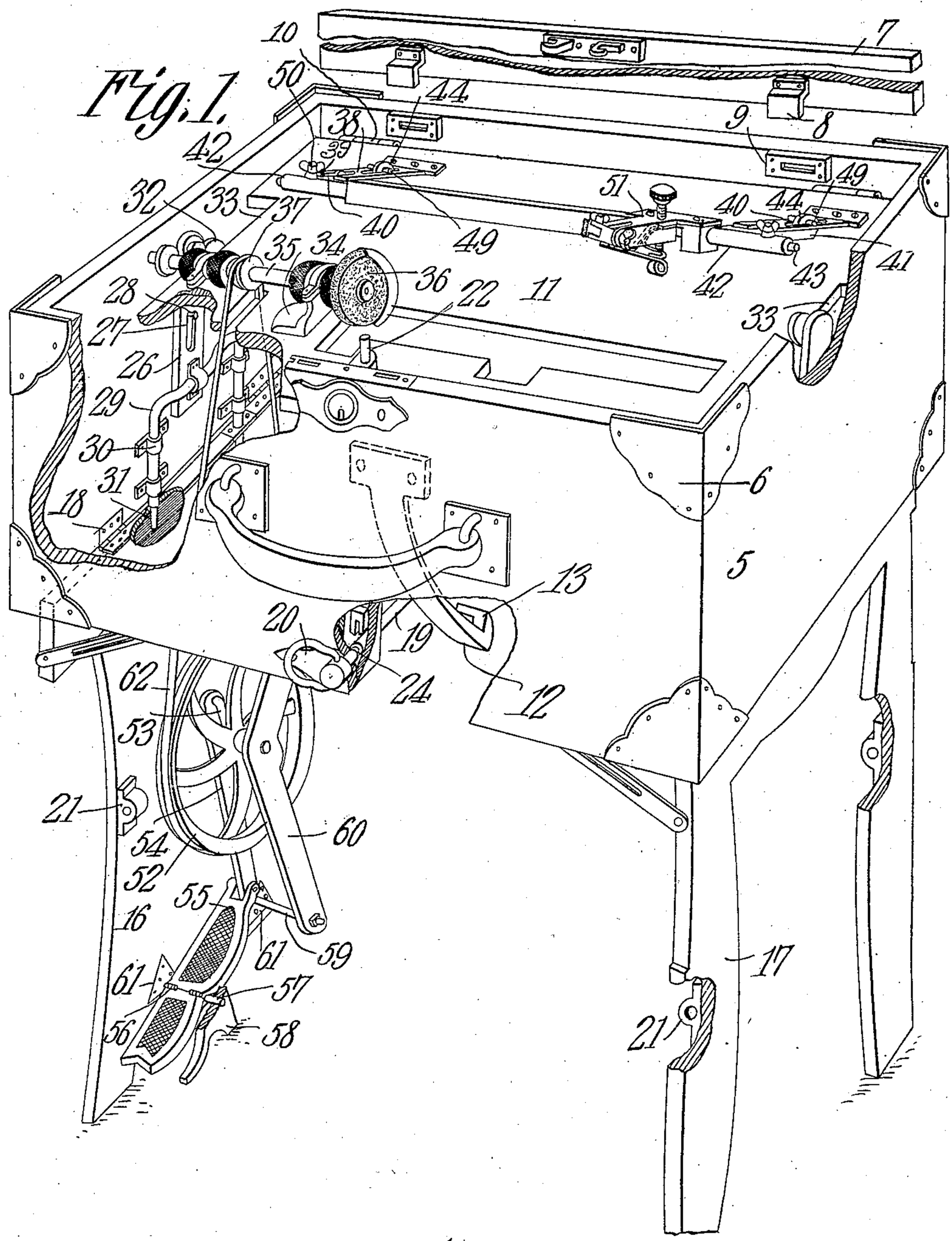
G. WIEBER.

PORTABLE GRINDING MACHINE CASE.

APPLICATION FILED JULY 24, 1907.

2 SHEETS—SHEET 1.

Fig. 1.



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2 SHEETS—SHEET 2.

Fig. 2.

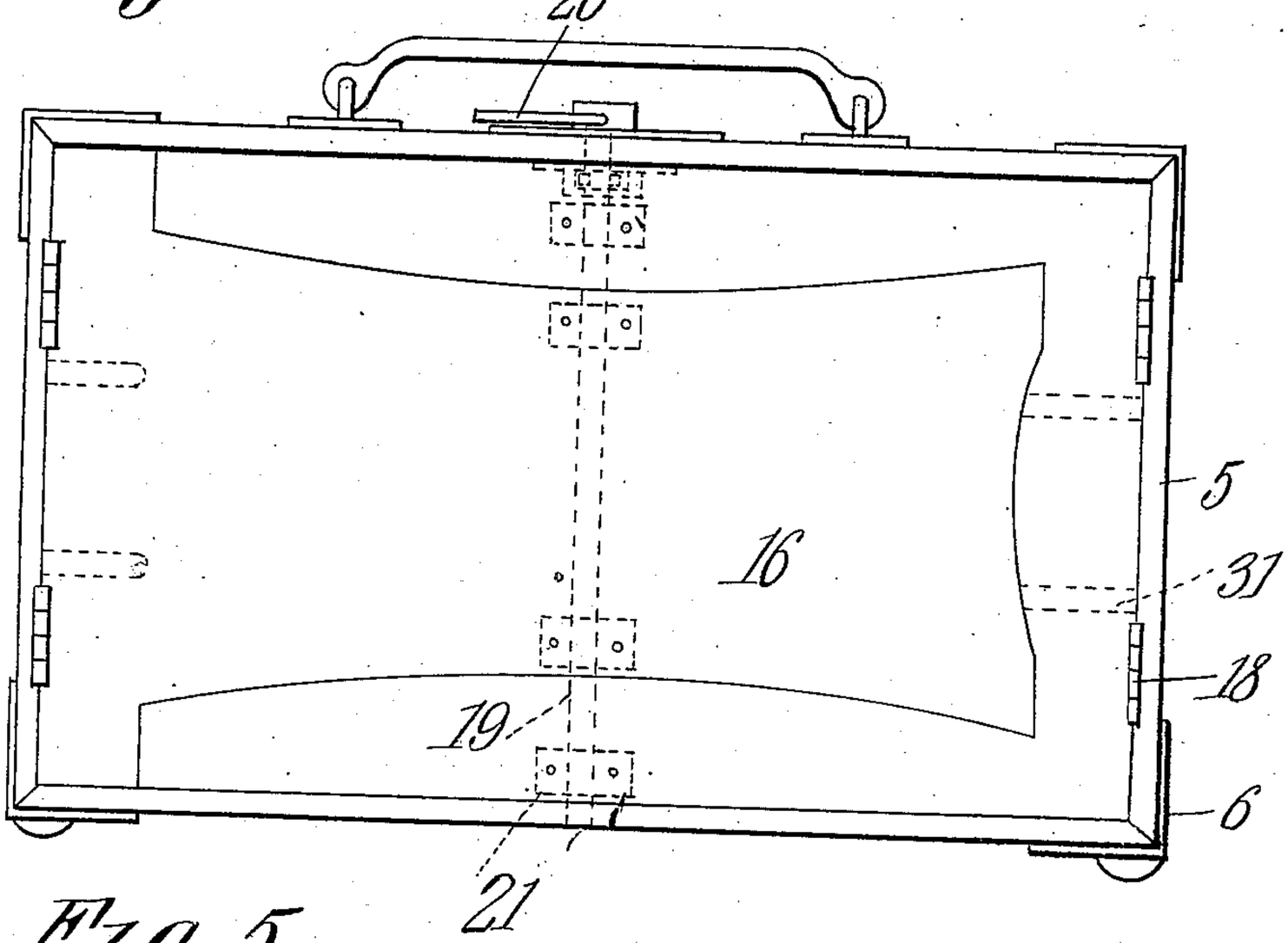
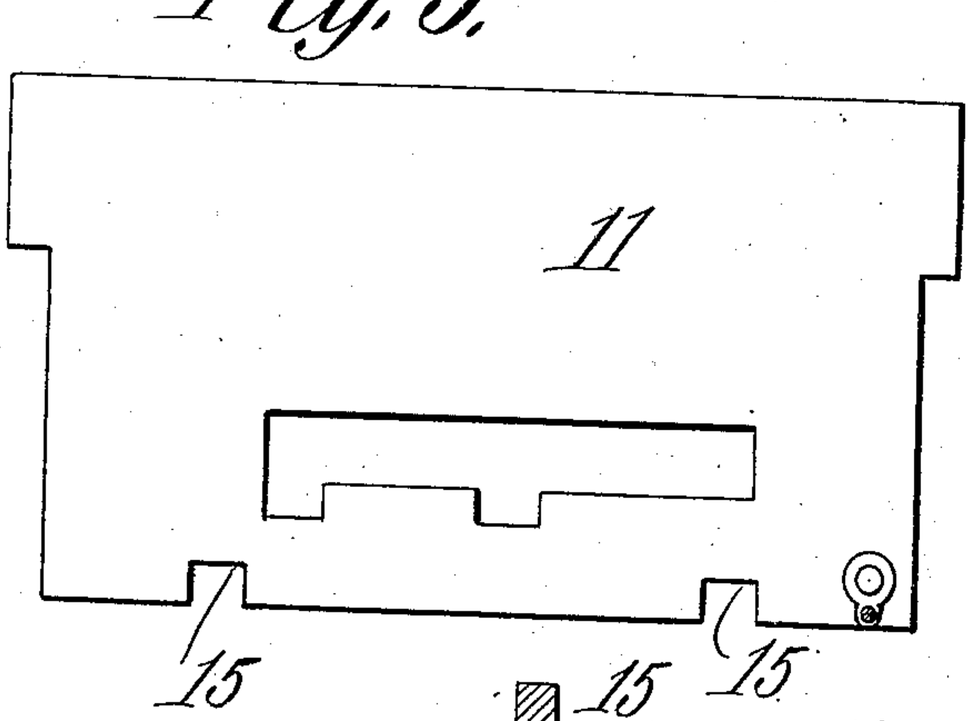


Fig. 5.



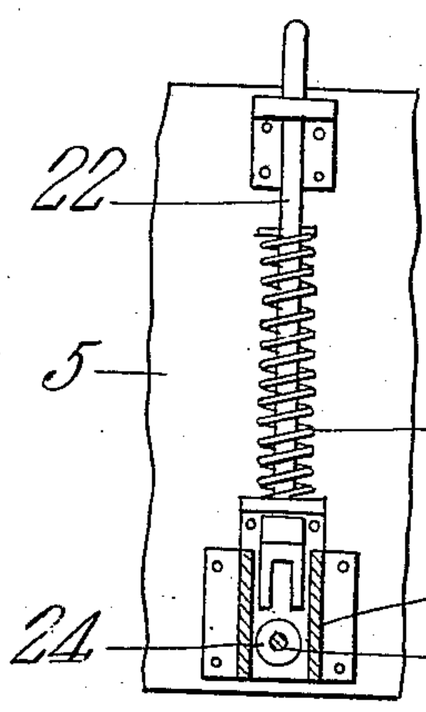


Fig. 3.

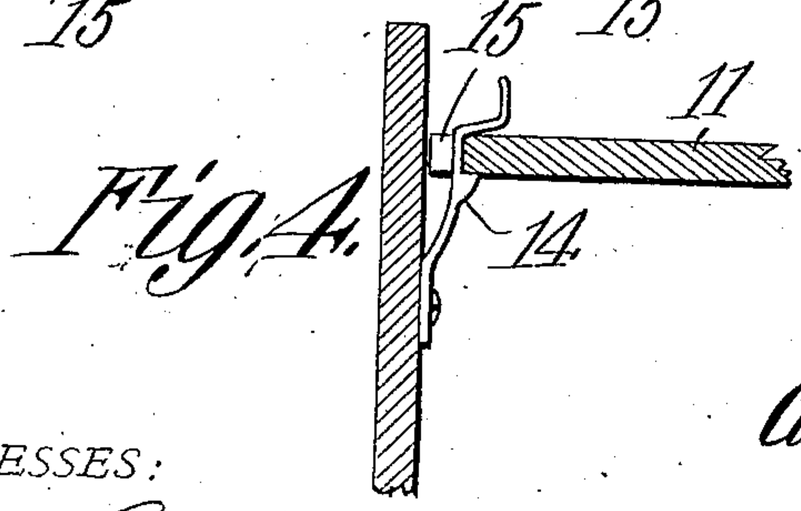


Fig. 4.

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GEORGE WIEBER, OF PITTSFIELD, MASSACHUSETTS,

PORTABLE-GRINDING-MACHINE CASE.

No. 884,249. Specification of Letters Patent. Patented April 7, 1908.

Application filed July 24, 1907. Serial No. 385,383.

To all whom it may concern:

Be it known that I, GEORGE WIEBER, a citizen of the United States, residing at Pittsfield, in the county of Berkshire and State of Massachusetts, have invented a new and useful Portable-Grinding-Machine Case, of which the following is a specification.

This invention has relation to cases for portable machines for grinding and sharpening shears, scissors, knives and other edged tools and it consists in the novel construction and arrangement of its parts as hereinafter shown and described.

The object of the invention is to provide a case or receptacle having a platform or table pivotally mounted for tilting movement within the same and upon which is mounted the grinding mechanism, said case being provided with a sectional wall capable of being swung laterally to opened position thereby to form a means for supporting the body of the case in elevated position during the grinding operation.

A further object is to provide a means for locking the wall sections or supporting legs in closed positions and means for automatically releasing the locking means when the cover of the case is opened.

A further object is to provide means for locking the legs in open position and means carried by one of said legs and operatively connecting with the grinding and sharpening mechanism for actuating the latter.

In the accompanying drawing:—Figure 1 is a perspective view of the case in set up position with parts broken away. Fig. 2 is a bottom view of the case collapsed. Fig. 3 is an elevation of a rod securing bolt used upon the case. Fig. 4 is a side elevation of a spring for holding the work-supporting table in an elevated position. Fig. 5 is a plan view of the work-supporting table.

The case 5 is preferably rectangular in shape, as shown and having its walls reinforced and strengthened by corner brackets or braces 6 the free edges of which extend above the adjacent edges of the walls to form a seat for the reception of the cover 7, the latter being provided with inwardly extending ears or lugs 8 which engage corresponding sockets 9 formed in the adjacent wall of the case or receptacle, as shown. Pivotally connected with one wall of the case or receptacle 5 as by hinges 10 is a tilting platform or table 11 on which is mounted the grinding and sharpening mechanism hereinafter referred to, said platform being normally supported in lowered position by a spring hook 12 secured to the adjacent walls of the receptacle and its free end extended laterally in the path of movement of said platform and provided with a terminal notch or recess 13 adapted to receive the adjacent longitudinal edge of the platform when the latter is swung downwardly in inoperative position.

The platform 11 is locked in horizontal or operative position by means of a spring catch 14 mounted on the front wall of the receptacle and having one end thereof inclined or beveled for engagement with a notch 15 in the front edge of the platform 11. One wall of the receptacle is formed of a plurality of nesting sections 16 and 17 each pivotally connected with an adjacent wall of the receptacle as by hinges 18 and adapted to be swung laterally to open or closed position, said sections when in closed position forming one wall of the case or receptacle and when in open position constituting depending legs for supporting the body of the receptacle in elevated position. The lower sections, or legs 16 and 17 are locked in closed position by means of a transverse rod 19 one end of which is provided with a terminal finger piece 20 while its opposite end extends through suitable eyes or loops 21 secured to the interior walls of the leg sections 16 and 17.

Slidably mounted for vertical movement on the front wall of the receptacle is a spring pressed pin 22 having its lower end bifurcated and slidably mounted between suitable guides 23 for engagement with the cut away portion 24 of the locking rod 19 there being a coiled spring 25 operatively connected with the pin 22 for normally holding the bifurcated end of the pin out of engagement with the recessed portion of the locking rod. The free end of the pin 22 normally projects above the upper edge of the front wall of the receptacle and in the path of movement of the cover or lid 7 so that when the cover is moved to closed position, the latter will engage and depress the pin 22 against the action of the coiled spring 25 and force the bifurcated end of the pin in engagement with the rod 19 thus preventing the longitudinal movement of the locking rod 19 and securely holding the wall sections or legs 16 and 17 in closed position.

It will thus be seen that as soon as the cover 7 is released or moved to open position the tension of the spring 25 will move the locking pin 22 to elevated position so as to

permit the locking rod 19 to be withdrawn and the legs 16 and 17 swung downwardly to the position shown in Fig. 1 of the drawings. As a means for locking the legs or wall sections 16 and 17 in vertical or operative position there are provided suitable plates 26 each having an elongated slot 27 formed therein for the reception of a guide pin 28 carried by the adjacent wall of the case or receptacle.

Secured to the lower end of the plates 26 are transverse bars 29 having their opposite ends bent at right angles and slidably mounted in loops or keepers 30 for engagement with correspondingly shaped sockets or recesses 31 formed in the hinged ends of the legs 16 and 17, said plates being provided with terminal finger pieces 32 by means of which the plates may be raised and lowered so as to move the locking bolts to operative and inoperative position. The opposite transverse edges of the table or platform 11 are preferably cut away, as indicated at 33 so as to permit the table to be raised or lowered without interfering with the adjustment of the plates 26. The brackets 34 are secured to the upper surface of the table and a shaft 35 is journaled for rotation therein. The said shaft is provided with a grinding member 36 and a belt pulley 37. The shear holder or supporting device consists of spaced supporting brackets 38 each having one end thereof rigidly secured to the pivoted end of the platform 11 and its opposite end bifurcated as at 39 there being elongated slots 40 formed in the inclined bracket for the purpose hereinafter referred to. Secured to the brackets 38 are elongated plates 41 having their free ends provided with tubular members 42 which constitute bearings for a longitudinally disposed shaft 43. The intermediate portion of the shaft 43 being rectangular or non-circular as shown. The plates 41 are provided with laterally extending ears 44 which extend through the slots 40 and are detachably secured thereto by means of a locking pin 49, there being screws or similar fastening devices 50 secured to the plates 41 and projecting through the slots 39 to assist in retaining the plates and bracket in assembled position. A tool holder 51 is slidably mounted upon the non-circular portion of the shaft 43.

As a means for operating the grinding member there is provided a master wheel 52 secured to and mounted for rotation with the crank shaft 53, the latter being provided with a pitman 54 which is pivotally connected to one end of a treadle 55. The said treadle is preferably formed in two sections pivotally united as indicated at 56 so that said sections may be folded one upon the other when it is desired to assemble the several parts of the machine within the case. The treadle 55 is pivotally mounted for tilting movement on a rod or pin 57 extending laterally from the leg 16 and to one end of which is secured a supporting block 58 which rests on the ground and is preferably disposed in alinement with the adjacent end of the leg 16.

Extending laterally from the inner face of the leg 16 is a pin 59 to which is detachably secured one end of a brace 60, the opposite end of which is secured to the leg 16 above the wheel 52. The pins 57 and 59 are threaded in suitable plates or sockets 61 secured to the inner face of the leg 16 so that said pin may be readily removed when it is desired to detach and repair the treadle, drive wheel and its associated parts. The belt or flexible member 62 passes around the master wheel 52 and the pulley 37 located upon the shaft.

In operation the object to be ground is secured in the tool holder 51 and is moved toward the grinding element which is rotated through the instrumentality of the treadle and interposed elements above described. In order to fold the device for transportation or shipment the plates 41 are detached from the brackets 38 by removing the pins 50 and the shaft 43 carrying the tool holder placed in position on top of the platform 11 after which the catch 14 is released and the table or platform swung downwardly to inoperative position in engagement with the spring 12. The locking bolts 29 are then moved to released position by exerting an upward pull on the finger pieces 32 and the legs 16 and 17 swung upwardly to closed position and locked in said position by means of the locking rod 19 in the manner before described. After the parts have been thus assembled in the case or receptacle the cover 7 is placed in position with the lugs 8 engaging the sockets and with the free edge of the cover bearing against the adjacent end of the pin 22 which forces said pin downwardly and cause the bifurcated end of the pin to engage the rod 19 and prevent accidental withdrawal of the same. When the parts are thus assembled the entire machine will be inclosed in the case or receptacle 5 so that the same may be conveniently transported from place to place, one wall of a receptacle being provided with a handle 63 by means of which the said case may be carried.

Having described my invention what I claim as new and desire to secure by Letters-Patent is:—

1. A grinding machine including a case having one wall thereof formed with nested sections movable laterally to open position and constituting supporting legs, a platform disposed within the case, a grinding element mounted for rotation on the platform, means carried by one of the supporting legs for rotating the grinding element, bolts slidably mounted on one wall of the case and engaging sockets in the supporting legs for locking

the latter in extended position, a longitudinally movable rod operatively connected with the legs for locking the latter in closed position, and means for locking the platform in raised and lowered position.

2. A grinding machine including a case having pivoted sections movable laterally to open position and constituting supporting legs, a platform disposed within the case and forming a support for the grinding mechanism, means for locking the legs in closed position, a cover, and auxiliary locking means coacting with the leg locking means and movable into engagement therewith when the cover is closed.

3. A grinding machine including a case having one wall thereof formed with nesting sections movable laterally to open position and constituting supporting legs, a platform disposed within the case and forming a support for the grinding mechanism, means for locking the legs in extended position, a rod for locking the legs in closed position, means carried by the case and adapted to engage the rod for locking the latter against longitudinal movement, and a cover associated with the case for moving the rod locking means to operative position.

4. A grinding machine including a case having nested sections movable laterally to open position, means disposed within the case and forming a support for the grinding mechanism, loops secured to the legs, a rod carried by the case and adapted to engage the loop for locking the legs in closed position, and bolts slidably mounted on the case and adapted to engage sockets in the legs for locking said legs in extended position.

5. A grinding machine including a case having one wall thereof formed of nested sections movable laterally to open position and constituting supporting legs, means for locking the legs in extended position, a rod for locking the legs in closed position, a spring catch adapted to engage the rod for limiting the longitudinal movement of the latter, a cover adapted to engage the catch for moving the latter to operative position in engagement with the rod, said catch being movable automatically to released position when the cover is opened.

6. A grinding machine including a case having one wall thereof formed of nested sections movable laterally to open position and constituting supporting legs, a platform mounted for tilting movement within the case, grinding mechanism secured to the platform, means for locking the legs in extended position, loops carried by the legs, a rod extending transversely of the case and adapted to engage the loops for locking the legs in closed position, a spring catch adapted to engage and lock the rod against longitudinal movement, and a cover movable into engagement with the spring catch for locking the latter in engagement with the rod.

7. A grinding machine including a case having one wall thereof formed in sections movable laterally to open position and constituting supporting legs, a platform mounted for tilting movement within the case, bolts slidably mounted on the opposite walls of the case and adapted to engage sockets in the supporting legs for locking the latter in extended position, said legs being provided with alined loops, a rod adapted to engage said loops for locking the legs in closed position, a spring pressed pin having one end thereof bifurcated and adapted to engage the rod for locking the latter against longitudinal movement and having its upper end extended beyond the adjacent edge of the case, and a cover connected with the case and adapted to engage the free end of the pin for moving the latter to operative position.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

GEORGE WIEBER.

Witnesses:

JAMES FALLON,

GEORGIE M. WIEBER.