Jan. 27, 1925.

1,524,614

F. E. CARDULLO

PLANER

Filed May 23, 1924

2 Sheets-Sheet 1

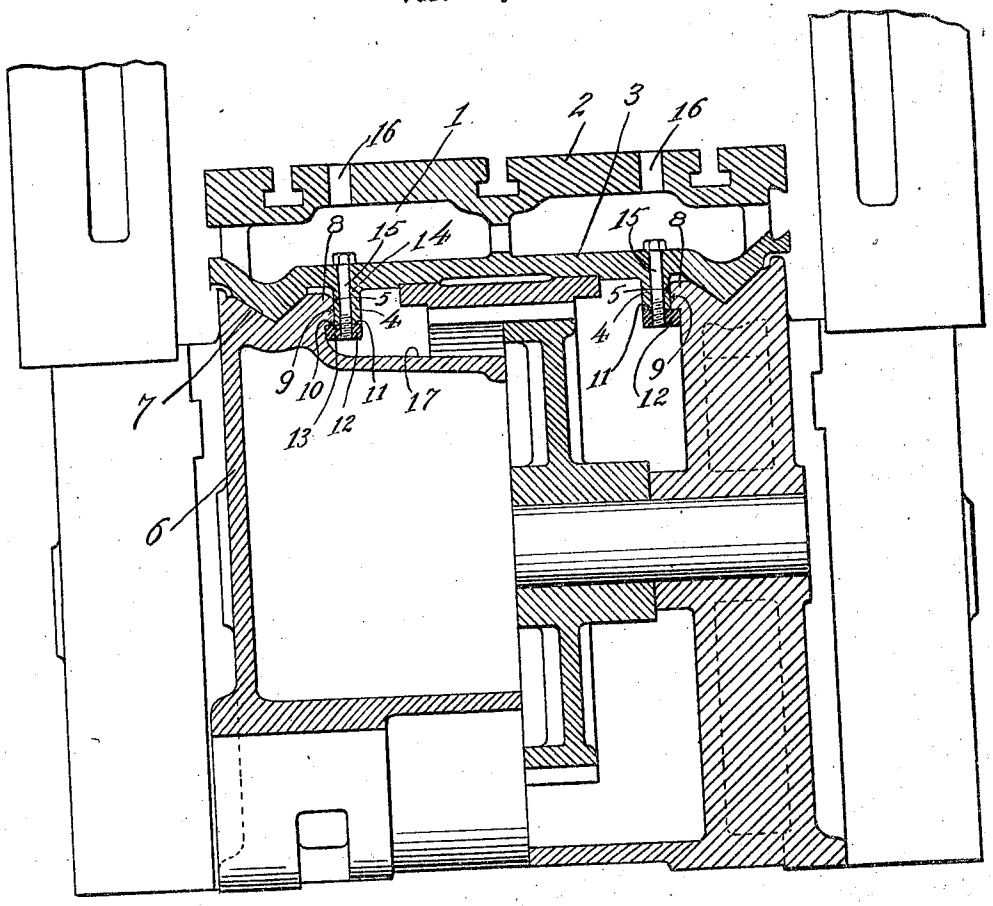


Fig. 1.

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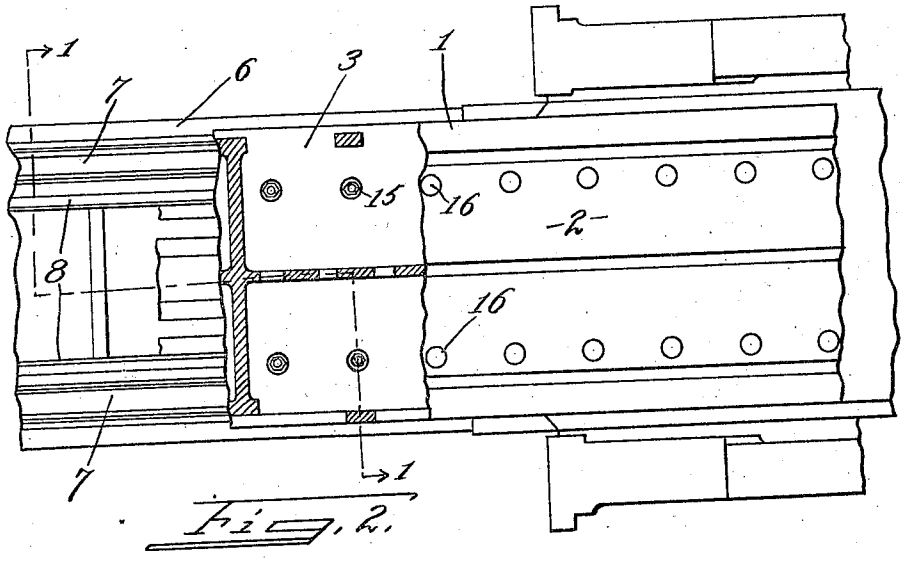


Fig. 2.

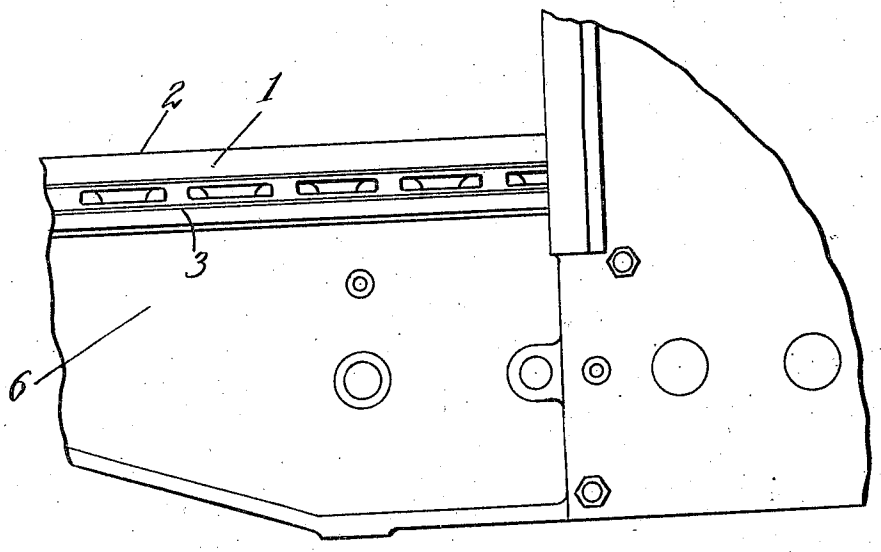


Fig. 3.

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UNITED STATES PATENT OFFICE.

FORREST E. CARDULLO, OF CINCINNATI, OHIO, ASSIGNOR TO THE G. A. GRAY COMPANY, OF CINCINNATI, OHIO, A CORPORATION OF OHIO.

PLANER.

Application filed May 23, 1924. Serial No. 715,489.

To all whom it may concern:

Be it known that I, FORREST E. CARDULLO, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Planers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to an improved means for gibbing the planer table to the planer bed, in order to prevent the sidewise movement of the table or the lifting of the table under certain conditions and strain of cutting.

The purpose of my invention is to provide a certain improvement in the construction of the table which will allow the gibs to be readily detachable, so that the table may be lifted off the bed in case of accident to the gearing or moving mechanism contained in the planer bed. Furthermore, my invention provides better means for lubrication of the gibs and contacting parts, and more space for the gearing and a wider distance between the V-shaped tracks or ways which guide the table.

In planer tables of the box type now in use, top and bottom plates are united by webs to form a stiff box-like structure. A ledge is formed near the outer edge on each side and integral with the bottom plate of the table, the bottom and inner surfaces of which ledge are machined.

To these ledges gibs are attached by means of screws passing upward through holes drilled in the gibs and threaded into the table.

The table slides in V-shaped runways on the top of the bed. Projecting outward from each side of the bed along the outer edges of the ways, are ledges, the bottom and outer surfaces of which are machined, and which are engaged by the gibs aforementioned, so that the table cannot be lifted out of the ways, the vertical surfaces preventing the table from sidewise movement.

The bed upon which the table slides is provided with certain necessary extensions which come directly under the gibs and obstruct access to some part of the gibs at all times during the operation of the table, thereby also obstructing access to the screw heads which happen to be directly over these extensions.

The disadvantage accruing from this is that whenever an accident to the gearing within the bed prevents the table from moving along the ways, the screws positioned directly above the extensions on the planer bed cannot be withdrawn without a great deal of trouble. When this occurs, the table cannot be lifted from the planer bed, and in consequence the interior mechanism of the bed becomes inaccessible until means are found to move the table along the ways sufficiently to bring the obstructed gib screws into accessible positions.

Furthermore, the gibs being on the outside of the bed, oil must be supplied sparingly or it will drip down along the side of the bed and gather on the floor. This not only wastes oil, but is unsightly and causes the floor to become slippery and dangerous. Also the outside of the bed cannot be made flush with the outer edge of the table, but must be brought in toward the center an amount equal to the width of the gib, and the distance between the ways and the space available for gearing within the bed is accordingly limited.

It is my aim to remedy all these disadvantages by means of the improvements embodied in my invention, and which are hereinafter more fully specified and claimed.

In the drawings:

Figure 1 is a cross section of this planer on the line 1—1 of Figure 2.

Figure 2 is a plan view of the planer with the table partly broken away to show the top and bottom plates of the table, the rack and planer bed.

Figure 3 is a partial side elevation of a planer embodying my invention.

Referring now to the drawings in detail, 1 is a planer table such as I use in my invention. The table illustrated is of the box type, having a top plate 2, and a bottom plate 3, united by suitable webs to form a rigid box-like structure. Formed integral with the bottom plate are two ledges 4, one on each side of the table and having their outer surfaces 5 machined. The planer bed 6 is provided with two V-shaped ways 7 which serve to support the table and guide it as it moves back and forth.

At the inner side of each of the ways a

ledge 8 is formed which is machined on its inner vertical surface 9 to contact the outer vertical surface 5 on the ledge 4 on the table. The under surfaces 10 and 11 on these ledges are also machined so as to be in horizontal alignment with each other when the table rests in the runways.

The gibs 12 are two in number and are constructed of bars of steel, rectangular in section, and are provided with a suitable number of threaded holes 13 which correspond in size and distance to holes 14, drilled in the ledges 4 on the table, the gibs being secured to the table by means of screws 15 passing through these holes.

Work is affixed to the table by means of pins inserted into stop holes 16 in the top plate of the table. I place certain of these holes over the gib screws 15 so that by means of a socket wrench one may reach down through these holes to fasten or remove the gib screws. This permits the gibs to be detached from the table no matter what the position of the table may be upon the planer bed.

It may be noted that the gib screws instead of passing through the gib and being threaded into the cast iron table, pass through the table and are threaded into the steel gib, which is preferable in that steel takes a better and more durable thread than cast iron.

Since the gibs lie between the ways instead of outside of the ways, an abundance of oil may be supplied to them from the lubrication system of the ways, the excess oil being drained back into the trough shaped depression 17 which forms the top of the bed, and thence back into the oiling system of the planer.

It will also be seen that my invention enables me to space the supporting ways further apart by a distance equal to the sum of the widths of the ledges 4, 4, which is an advantage in that it gives a broader support for the table and greater space for the gearing and interior mechanism of the table, thus permitting the use of more powerful gearing.

While I prefer the use of stop pin holes for access to the gib screws, it may be noted that if the size, number, or location of the holes necessary to give access to the gib screws is not suitable to permit their use as stop pin holes, separate holes may be provided for gib screws and stop pins.

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

1. In a planer, a bed having guiding ways formed thereon, a table adapted to slide in the said ways, a machined ledge formed along the inner edge of each of the said ways, a gib for each of the said ledges, and screws passing through holes in the table and threaded into the said gibs, for attaching them to said table.

2. In a planer, a bed having guiding ways formed thereon, a table adapted to slide in the said ways, machined ledges, one along the inner edge of each of the said ways, machined ledges formed on the bottom of the said table and adapted to bear against the ledges formed along the inner edges of the ways, gibs adapted to be attached to the ledges on the table and to engage the ledges on the bed, and screws passing through the ledges on the table and threaded into the gibs.

3. In a planer, a bed having guiding ways formed thereon, a table adapted to slide in the said ways, and having stop pin holes formed in the top thereof, machined ledges, one formed along the inner edge of each of the said ways, gibs adapted to engage the said ledges, and screws adapted to attach the gibs to the table, so positioned as to permit access for tightening and loosening through the stop pin holes.

FORREST E. CARDULLO.