No. 705,540. Patented July 22, 1902.

G. S. MYRICK.

ADJUSTABLE PLANER BED.

(Application filed Jan. 15, 1902.)

(No Model.)

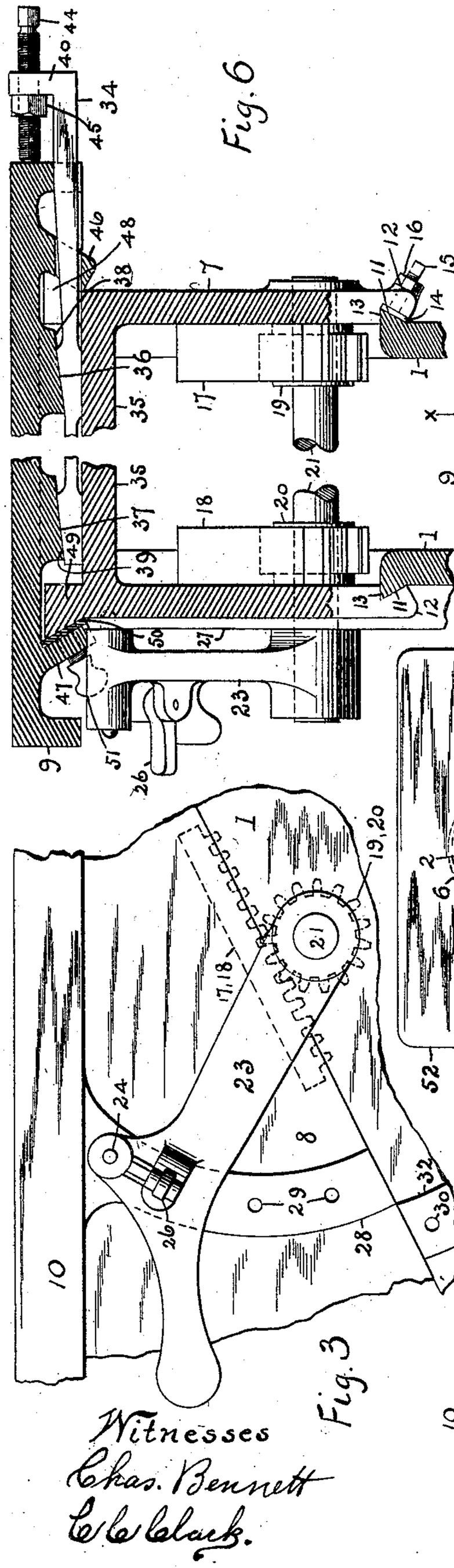

Fig. 6

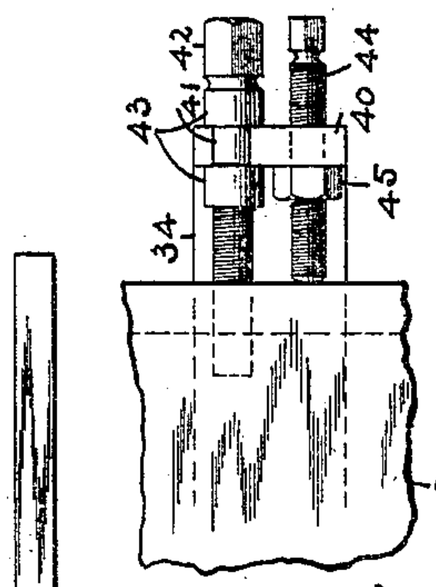

Fig. 7

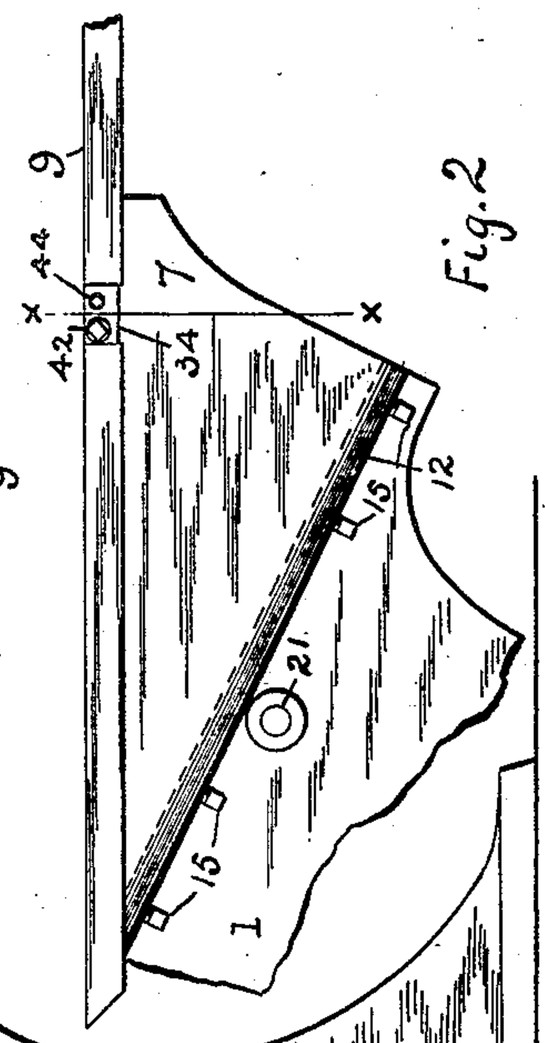

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Witnesses
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UNITED STATES PATENT OFFICE.

GILBERT S. MYRICK, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO CRESWELL & WATERS CO., A CORPORATION OF PENNSYLVANIA.

ADJUSTABLE PLANER-BED.

SPECIFICATION forming part of Letters Patent No. 705,540, dated July 22, 1902.

Application filed January 15, 1902. Serial No. 89,830. (No model.)

To all whom it may concern:

Be it known that I, GILBERT S. MYRICK, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Lever-Adjusting Jointers, of which the following is a specification.

My invention relates to woodworking machinery, and has for its object the construction of a machine for jointing the edges of boards or other similar articles when being made true and straight for the purpose of forming close contact with other similar pieces, the pieces being glued or otherwise secured to each other. The stock to be operated upon is hand-fed to the cutter-head, and the machine is provided with graduating means to govern the exact amount of cut desired, the means being handy to the operator. I also provide means to depress the outer end of the infeeding-table for the purpose of jointing the stock concave. When joints are made, there is a liability of the ends of the joints opening, owing to their greater exposure to air-drying at the ends than at the center, and to overcome this tendency the concave or hollow jointing is done to enable a sprung joint to be made, which effectually prevents the opening of the ends of the joint as the stock becomes more thoroughly seasoned. The concave, while usually only necessary to be slight, can be made any desirable amount, as necessary by the seasoned condition of the stock, and readily adjustable means are provided to regulate the amount of concavity.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of the operative side of the machine. Fig. 2 is a partial elevation of the opposite side of the machine. Fig. 3 is an enlarged view of one of the table elevating and depressing levers, with its rack and pinion shown in dotted lines. Fig. 4 is a top or edge view of the handle end of the levers. Fig. 5 is a section of the levers, showing the pin and latching means. Fig. 6 is a cross-section on lines *x x*, Figs. 1 and 2, showing the means for adjusting the outer end of the infeeding-table for concave jointing. Fig. 7 is a plan of the adjusting means exterior to the table.

Similar figures of reference indicate similar parts throughout the views.

The machine has a pedestal 1, carrying a cutter-head 2, with cutters or knives 3, the head being rotatably mounted in adjustable bearings 4, carried by adjusting-screws 5 and placed at the top of the pedestal at its center. A pulley 6 is provided for the cutter-head and whereon runs a driving-belt. Each end of the pedestal 1 at its top inclines downwardly from near the center, the inclines being oppositely disposed, and on each incline is a wedge-support, 7 being at the infeeding end and 8 at the delivery end. Above the wedge-supports are secured the infeeding-table 9 and the delivery-table 10. The lower edges of each wedge-support are formed to rest upon their respective inclines at the same angle, while their tops are level, so that as the supports are moved up or down the incline their tops are always level. At the lower edges of the supports they are secured as best seen in Figs. 2, 6, where pedestal 1 has outwardly-beveled lips 11, over which lock lugs 12 of the supports, and where seats 13 rest on the inclines. At the back of each support a gib 14 is inserted, and screws 15, with locknuts 16, adjust the gib to position, this not being a new construction. The wedge-supports must be moved vertically to regulate the desired amount of cut to be taken from the stock jointed by the machine, and to accomplish the desired results they must move up or down the inclines of the pedestal. I have provided the following means for the purposes stated: The supports 7 8 have gear-racks 17 18, parallel with the inclines, and the lower edges of the supports either integrally formed on the supports or attached thereto. Engaging the racks are pinions 19 20 on a shaft 21, which is journaled in the pedestal sides. Upon the shafts at the operative side of the machine are levers 22 23, (see Figs. 1, 3,) shown in the position they occupy when the wedge-supports 7 8 and their tables 9 10 are at their highest elevation. The levers are provided with stop-pins 24, op-

erated by springs 25, thumb-latches 26, which engage pins 24 to overcome springs 25, and the latches are fulcrumed to the levers, as seen in Fig. 5. Eccentrically-curved seats 27 28 are formed on supports 7 8, and therein are holes 29 for pins 24 to enter, the holes being more closely spaced in seat 27 than in seat 28, the graduations being made to suit the work the machine is designed to do. The eccentricity of seats 27 28 is for the purpose of enabling pins 24 to reach the holes 29 as the supports pass upon the inclines when the levers 22 23 are operated, each hole being the same radial distance from the center of shafts 21 when engaged by a pin 24. When pins 24 pass the lowest holes 29 in seats 27 28, they then engage holes 30, formed in concentric seats 31 32 on pedestal 1. Delivery-table 10 is secured to its wedge-support 8 in manner to always move in level paralleled distances. Infeeding-table 9 is likewise secured to its support when straight jointing is to be done; but for the purpose of concave jointing the two tables must not be level. Therefore I have provided means to put table 9 out of level with table 10. Infeeding-table 9 is supported near its inner end on cross-tie 33 of support 7 and toward its outer end on bar 34, resting on cross-tie 35 of the support, the bar being provided on its upper side with tapering or wedge-shaped inclines 36 37, on which rest corresponding tapering seats 38 39, formed on the under side of table 9, as seen in Fig. 6. The outer end of bar 34 extends beyond the inner edge of table 9 and has an upturned projection 40, slotted at 41 to receive an adjusting-screw 42, passing through slot 41, tapped into table 9 and having collars 43 at each side of projection 40, so that as screw 42 is turned in or out bar 34 must move in the same direction and lower or raise the outer end of table 9. A screw 44 is tapped through projection 40, abuts table 9, has a lock-nut 45 inside of projection 40, and is the means to secure bar 34 from movement when properly adjusted.

To secure tables 9 10 to their supports 7 8 for lengthwise adjustment and from lifting, the usual method is used by forming angular strips 46 47 on the tables, which lock onto outwardly-angled projections 48 49 on supports 7 8, as seen in Fig. 6, where a gib 50, with set-screws 51, is introduced between strip 47 and projection 49. The fitting just described is not so close as to prevent the necessary vertical movement of the table end for concave jointing.

A fence 52, of any suitable construction, is secured to the tables to guide the stock when being jointed.

I claim—

1. In a jointer, a pedestal having oppositely-tending inclines at its top, a cutter-head and cutters, a pulley upon the cutter-head, wedge-supports upon the inclines, level tables upon the supports, shafts, pinions and racks for moving the wedge-supports upon the inclines, levers upon the shafts, eccentrically-curved seats upon the wedge-supports, and means upon the levers whereby the eccentrically-curved seats are engaged by said means to secure the wedge-supports in different positions upon the inclines.

2. In a jointer, a pedestal, a cutter-head adjustably secured thereto, and means for its rotation, oppositely-tending downward inclines upon the pedestal-top, supports upon the inclines, tables upon the supports, racks upon the supports, shafts journaled upon the pedestal and having gears thereon which engage the racks aforesaid, adjusting-levers upon the shafts, eccentrically-curved seats upon the supports, concentrically-curved seats upon the pedestal, holes in the seats, spring-actuated pins in the adjusting-levers and adapted to enter the holes, and means also upon the levers whereby the pins are disengaged from the holes aforesaid.

3. In a jointer, a pedestal having a reversely-inclined top, wedge-supports upon the inclines and having their tops level, a table upon each support, transversely-operating means for one of the tables whereby its outer end may be adjusted so that the table-top will be at an angle to the other table-top, and means to secure the adjustment, exterior to the table-top, for the purpose and in the manner substantially as set forth.

4. In a jointer, a pedestal having reverse inclines at its top, a wedge-support upon each incline, a table upon each wedge-support, one of the tables being provided upon its under side with transversely-inclined seats, a bar inserted between the table and its support and having inclined seats adapted to engage the inclined seats of the support, and when moved thereon place the table out of parallel alinement with the other table, means to adjust the bar for the purpose described, and means to lock the bar when adjusted.

In testimony whereof I affix my signature in presence of two witnesses.

GILBERT S. MYRICK.

Witnesses:

R. C. WRIGHT,

WILLIAM C. STOEVER.