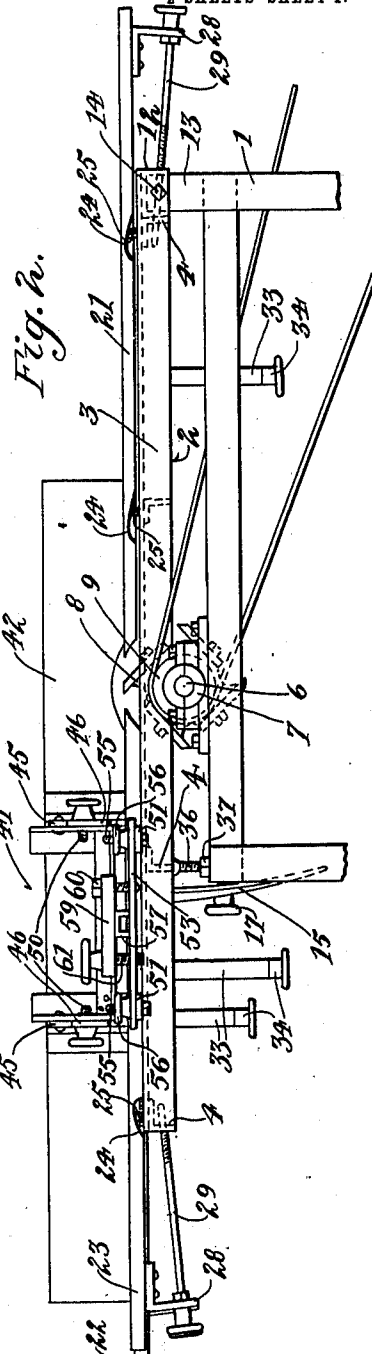
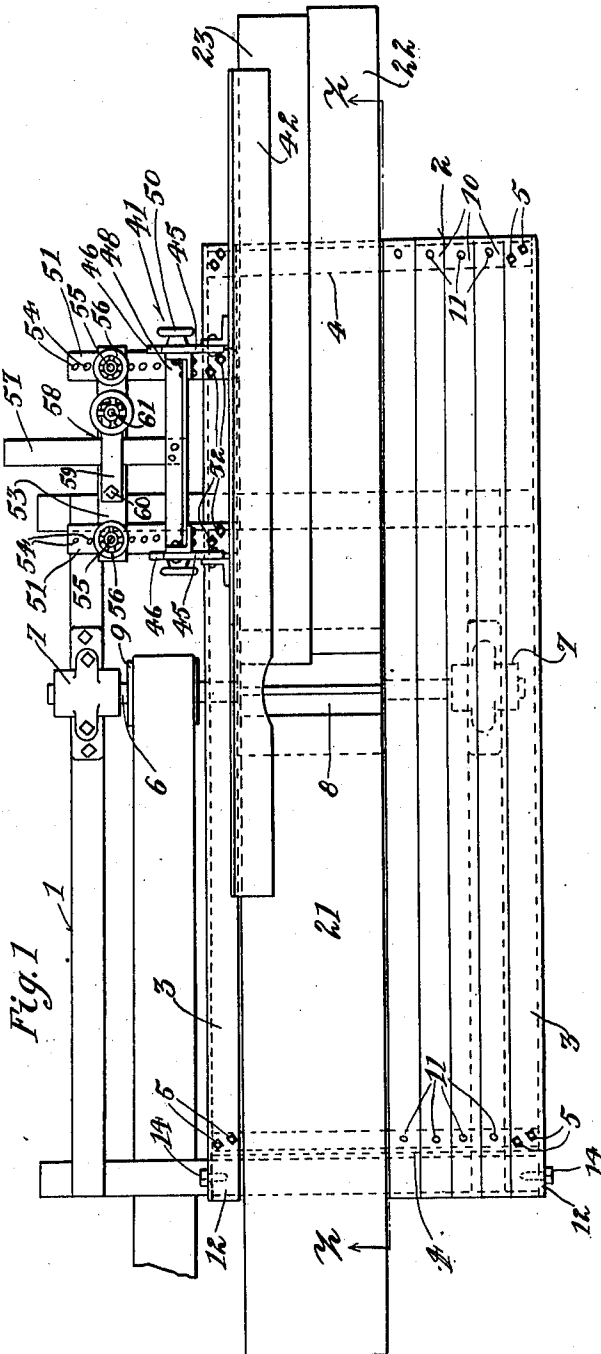


L. F. PARKS.
WOODWORKING MACHINERY.
APPLICATION FILED AUG. 5, 1910.

989,283.

Patented Apr. 11, 1911.

2 SHEETS—SHEET 1.



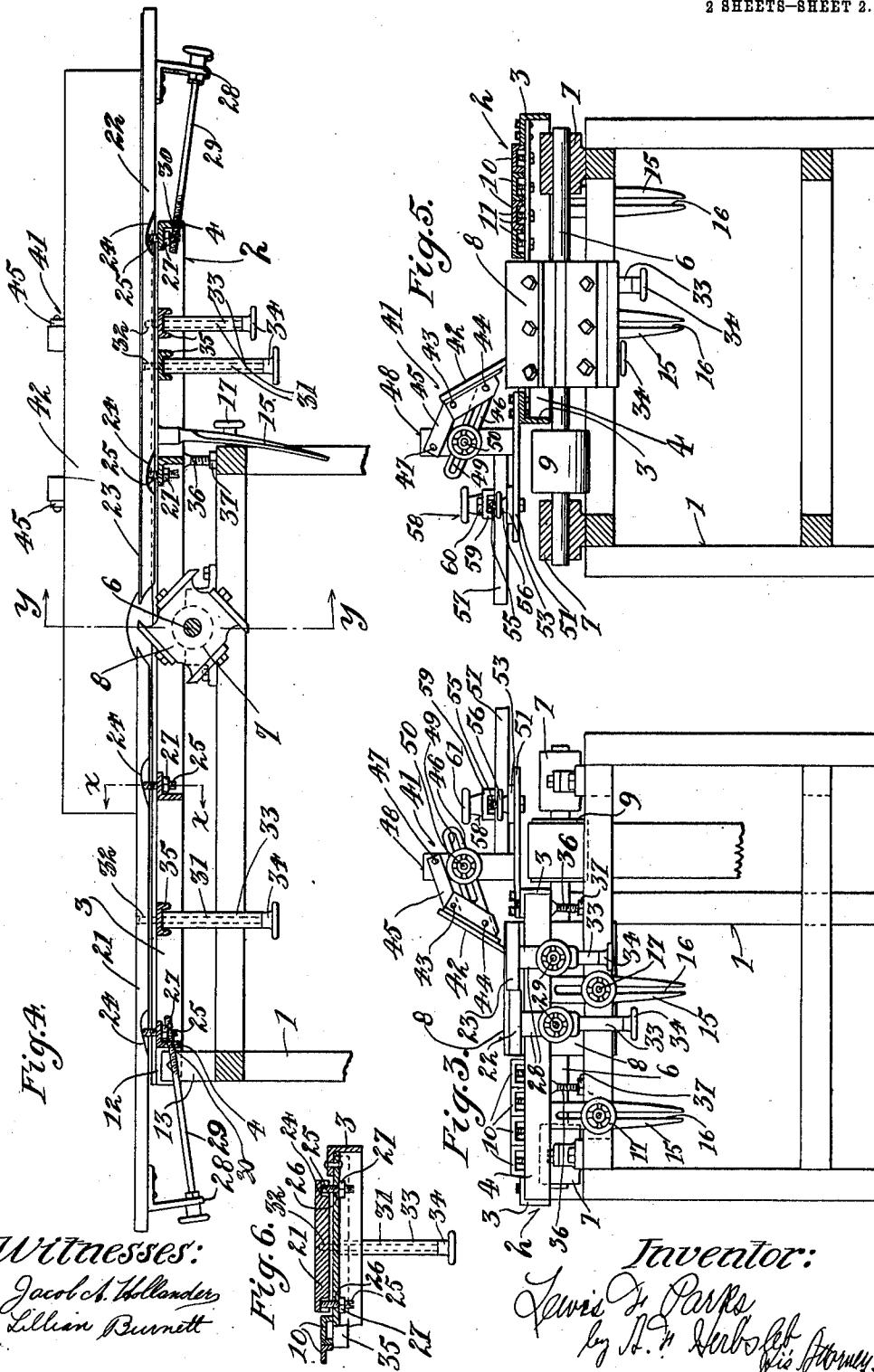
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Lillian Burnett

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

LEWIS F. PARKS, OF CINCINNATI, OHIO.

WOODWORKING MACHINERY.

989,283.

Specification of Letters Patent.

Patented Apr. 11, 1911.

Original application filed January 22, 1910, Serial No. 539,586. Divided and this application filed August 5, 1910. Serial No. 575,740.

To all whom it may concern:

Be it known that I, LEWIS F. PARKS, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Woodworking Machinery, (Case A,) of which the following is a specification.

My invention relates to that class of wood-working machinery employing a rotary cutter-head having a table at the front and a table at the rear of said rotary cutter-head and so arranged that stock is adapted to pass over the first of said tables to the cutter-head and in passing the cutter-head to be cut thereby, and particularly to so-called hand planers, in which the stock is passed over the tables and cutter-head by hand.

It is the object of my invention to provide novel means for adjusting and securing the tables; to provide a plurality of tables in front of the rotary cutter-head and to provide means for adjusting said front tables to relative elevations so that different elevations may be provided for said respective front tables, and to provide a table to rear of said cutter-head which is common to said plurality of front tables irrespective of the relative elevations of the latter; and further, to provide a tilting gage common to all of said tables; and the invention will be further readily understood from the following description and claims, and from the drawings, in which latter:

Figure 1 is a plan view of my improved device. Fig. 2 is a side elevation of the same, partly broken away. Fig. 3 is a front view of my improved device showing the front tables at different elevations. Fig. 4 is a vertical section of the same on the line $z-z$ of Fig. 1. Fig. 5 is a cross-section of the same on the line $y-y$ of Fig. 4; and, Fig. 6 is a detail in vertical section taken on the line $x-x$ of Fig. 4.

The present application is a division of my application for patent on combination wood-working machines, filed January 22, 1910, Serial No. 539,586, to which reference is hereby made.

1 represents the main frame of the machine which may be of suitable construction.

2 is a main table, the framework of which is shown constructed of angle-irons and as comprising side angle-irons 3 connected by

longitudinal angle-irons 4 secured thereto by bolts 5.

6 is a mandrel journaled in bearings 7 on the main frame and has a cutter-head 8 secured thereto. A pulley 9 or other suitable driving device is secured to said mandrel, the pulley being arranged to be driven from a counter-shaft suitably disposed, as to the rear of the main frame.

The main table further comprises inverted channel-irons 10 which extend at right angles to the mandrel and are secured to the longitudinal angle-irons 4 of the framework of the table by bolts 11. The side angle-irons of the table preferably extend rearwardly beyond the rear longitudinal angle-iron and form rear extensions 12 which are pivoted to upwardly extending portions 13 of the main frame as on pins 14. The main table is provided at its forward end with depending bars 15 having slots 16 through which clamp-bolts 17 are received into the main frame, by means of which the main table is clamped in adjusted positions at various elevations. An adjustable table-plate 21 is located at the rear of the cutter-head, constituting a rear table for the machine, and a plurality of table-plates 22 23 are located side by side at the front of said cutter-head and rear table, constituting a plurality of front tables to which said rear table is common. Said front table-plates selectively or collectively act in conjunction with said rear table-plate. Means are provided for selectively adjusting said plurality of front table-plates to elevations with relation to each other and with relation to said cutter-head and common rear table-plate. By this means a roughing and a finishing cut may be taken off the stock without intermediate adjustment of tables, or greater depth of cut may be obtained at one side of the stock which is for instance of irregular shape in cross-section, and other operations performed without readjustment of parts.

For adjusting the table-plates, as shown, I provide inclined guides 24 formed within the bodies of said table-plates by undercutting, forming a cheap construction. The inclined guides or faces are arranged to rest on set-screws 25 adjustable in apertures in the horizontal angles or wings of the longitudinal angle-irons of the framework of the table, clamp-nuts 27 holding the set-

screws in adjusted positions. Each of the table-plates has a depending lug 28 in which a hand-screw 29 is journaled against end-wise movement, said hand-screws being adjusted in threaded apertures 30 in the vertical wings of the front and rear longitudinal angle-irons of the framework of the main table. The set-screws 25 adjust the table-plates to the desired level and elevation and the hand-screws 29 adjust the same to elevation and toward and from the cutter-head. The construction provides means whereby the table-plates may be selectively placed at relatively desired elevations and also selectively adjusted toward and from the vertical plane in which the longitudinal axis of the cutter-head is located for selectively adjusting the distances of the respective tables with relation to each other and to said cutter-head, the tables being so located that the rear table is arranged to receive the cut face of the stock from either or both of the plurality of front tables, irrespective of their selective elevations, and providing means by which a roughing cut and a finishing cut may be imparted by one handling of the stock. Thus the table 22 may be set with its upper surface below the level of the upper surface of the table 23, the upper surfaces of both these front tables being set below the level of the upper surface of the rear table 21. A roughing cut may be taken off stock by first passing it over the lower front table, the cutter-head and rear table, and the same piece of stock may then immediately be passed over the higher front table, the cutter-head and rear table for imparting the finishing cut to it. Or stock may be thicker at one edge than at the other and it be desired to reduce the same to even thickness, which can be done by properly adjusting the relative elevations of the front tables. Other operations can also be performed by my improved device.

Each of the table-plates is clamped in adjusted positions by a clamp-screw 31 received in a threaded aperture 32 in the table-plate and surrounded by a tube 33 having end abutment against a hand-wheel 34 of the clamp-screw and a cross-bar 35 received shiftably against the lower faces of one of the side angle-irons and of the inverted channel-irons of the main table. The construction stated also permits said rear table-plate 21 and said front table-plates 22 23, which latter are located side by side, to be adjusted to coincident level with or to elevations with relation to the upper surface of the inverted channel-irons 10 for forming a rigid upper stock-supporting surface and forming a combined table, which may be combinedly adjusted to elevation with relation to the cutter-head by being adjusted upon its pivots 14 and clamped in adjusted position by the clamp-bolts 17.

For limiting the downward movement of the main table, set-screws 36 are threaded into the main frame and held in place by jam-nuts 37, the lower end of one of the vertical wings of one of the forward longitudinal angle-irons of the framework of the main table being arranged to rest upon the set-screws when the table is in normal or level position. This construction further permits the front end of the main table to be brought to an elevation lower than the rear end of the main table if it is desired to give the table-plates a collective rearwardly elevating incline.

41 is a side-gage against which the stock passing over the tables may be guided, and I have shown this side-gage as comprising means whereby the guiding face thereof may be selectively placed in vertical position or at an angle to the vertical. Thus the side-gage comprises a gage-plate 42 on which the guiding face for the stock is located. The gage-plate is articulated at 43 and 44 to links 45 and 46 respectively. The link 45 is pivoted at 47 to a slide 48 and the link 46 is adjustable with relation to said slide by having a slot 49 through which a clamp-screw 50 passes into threaded connection with the slide. There is one of these pairs of links 45 46 and clamp-screws 50 at each end of the slide. By these means angular adjustment is given to the gage-plate. Lateral adjustment may also be imparted to the side-gage. Thus 51 are brackets secured to the horizontal wing of the right-side angle-iron of the framework of the main table by bolts 52 and are located at the side of the front table-plates, the gage-plate 42 extending rearwardly above the front and rear table-plates and the cutter-head.

53 is a supporting plate adjustable laterally on the brackets by providing the brackets with a series of apertures 54, bolts 55 being received through said apertures 54 and apertures in said supporting plate, hand-nuts 56 received over said bolts clamping the supporting plate in adjusted positions on the brackets. The slide 48 is provided with a laterally extending bar 57 adjustably secured in a clamp 58.

The clamp 58 comprises an upper clamp-piece 59 loosely spaced from the lower plate by a bolt 60 at one side of the bar 57, there being a clamp-screw 61 which passes through the said clamp-piece at the other side of the bar 57 and is threaded into the lower plate for clamping the bar between the lower plate and upper clamp-piece. By this means, the bar may be adjusted lengthwise in the clamp for adjusting the side-gage laterally, and the clamp may be adjusted laterally on the brackets for increasing the range of adjustment of the side-gage, and the gage-plate be adjusted to positions above any of the tables.

Having thus fully described my invention, 130

what I claim as new and desire to secure by Letters Patent is:

1. In a wood-working machine, the combination of a main frame, a mandrel journaled therein, a cutter-head secured to said mandrel, a table on said main frame, the framework of said table consisting of angle-irons secured together, table-plates respectively at the front and rear of said cutter-head, set-screws for said table-plates having threaded connection with one of the wings of said angle-irons of said table, said table-plates being provided with inclined faces between the planes of their top and bottom faces, said inclined faces having support on said set-screws, and means for adjusting said respective table-plates toward and from said cutter-head for causing said inclined faces to move crosswise of the longitudinal axes of said set-screws for adjusting said table-plates to elevation, substantially as described.

2. In a wood-working machine, the combination of a main frame, a mandrel journaled therein, a cutter-head secured to said mandrel, a table pivoted at its rear to said main frame, the framework of said table consisting of angle-irons secured together, table-plates respectively at the front and rear of said cutter-head, set screws for said table-plates having threaded connection with one of the wings of said angle-irons of said table, said table-plates being provided with inclined faces between the planes of their top and bottom faces, said inclined faces having support on said set-screws, means for adjusting said respective table-plates toward and from said cutter-head, and means at the front of said table for adjusting the same to elevation, substantially as described.

3. In a wood-working machine, the combination of a main frame, a mandrel journaled therein, a cutter-head secured to said mandrel, a table on said main frame, the framework of said table consisting of angle-irons secured together, table-plates respectively at the front and rear of said cutter-head, set-screws for said table-plates having threaded connection with one of the wings of said angle-irons of said table, said table-plates being provided with inclined faces between the planes of their top and bottom faces, said inclined faces having support on said set-screws, means for adjusting said respective table-plates toward and from said cutter-head, and clamp-screws acting between said table and table-plates for selectively clamping said table-plates to said table, substantially as described.

4. In a wood-working machine, the combination of a main frame, a mandrel journaled therein, a cutter-head secured to said mandrel, a table-frame on said main frame, table-plates respectively at the front and rear of said cutter-head, set-screws for said table-plates having threaded connection with

said table-frame, said table-plates being provided with inclined faces between the planes of their top and bottom faces, said inclined faces resting on said set-screws, and means for adjusting said table-plates toward and from said cutter-head, substantially as described.

5. In a wood-working machine, the combination of a main frame, a mandrel journaled therein, a cutter-head secured to said mandrel, a table-frame comprising side angle-irons and longitudinal angle-irons connected with said side angle-irons, said longitudinal angle-irons comprising horizontal wings, said table-frame pivoted at its rear to said main frame, table-plates respectively at the front and rear of said cutter-head, set-screws for said table-plates having threaded connection with said horizontal wings of said angle-irons, said table-plates being provided with inclined faces between the planes of their top and bottom faces, said inclined faces resting on said set-screws, adjusting rods between said table-plates and main frame for adjusting said table-plates toward and from said cutter-head, and thereby raising and lowering said table-plates on said set-screws, and means at the front of said table for adjusting the same to elevation, and constructed and arranged substantially as described.

6. In a wood-working machine, the combination of a cutter-head, a rear hand-planer table at the rear of said cutter-head, a plurality of front hand-planer tables side by side in front of said cutter-head and rear table, and means for adjusting the relative elevations between said plurality of front hand-planer tables with relation to said cutter-head and rear hand-planer table, substantially as described.

7. In a wood-working machine, the combination of a cutter-head, a rear hand-planer table at the rear of said cutter-head, a plurality of front hand-planer tables side by side in front of said cutter-head and rear hand-planer table, and means for adjusting the relative heights between said front hand-planer tables for adjusting a portion of said front hand-planer tables to one height and another portion of said front hand-planer tables to another height with relation to said cutter-head and rear hand-planer table, said rear hand-planer table being common to said plurality of front hand-planer tables, substantially as described.

8. In a wood-working machine, the combination of a cutter-head, a rear table at the rear of said cutter-head, a plurality of front tables side by side in front of said cutter-head and rear table, means for selectively adjusting said front tables to height for providing relatively different elevations therefor with relation to said cutter-head and rear table, said rear table being common

to said plurality of front tables, substantially as described.

9. In a wood-working machine, the combination of a main frame, a cutter-head journaled therein, a table-frame adjustable to elevation on said main frame, a table-plate having inclined faces cut into the body thereof between the top and bottom faces of said table-plate, set-screws in said table-frame for said inclined faces for adjusting said table-plate to elevation, and an adjusting screw between said table-frame and table-plate for adjusting said table-plate endwise on said set-screws, substantially as described.

10. In a wood-working machine, the combination of a main frame, a hand-planer cutter-head journaled therein, a table-frame adjustable to elevation on said main frame, a hand-planer table-plate having inclined faces cut into the body thereof between the top and bottom faces of said table-plate, set-screws in said table-frame for said inclined faces for adjusting the respective corners of said table-plate to elevation, and an adjusting screw between said table-frame and table-plate for adjusting said table-plate endwise on said adjusting screws, substantially as described.

11. In a wood-working machine, the combination of a main frame, a hand-planer cutter-head journaled therein, a table-frame adjustable to elevation on said main frame, a hand-planer table-plate having inclined faces cut into the body thereof between the top and bottom faces of said table-plate, set-screws in said table-frame for said inclined faces for adjusting the respective corners of said table-plate to elevation, an adjusting screw between said table-frame and table-plate for adjusting said table-plate endwise on said set-screws, a cross-bar shiftable with relation to said table-frame, a clamp screw having threaded engagement with said table-plate, a hand-wheel thereon, and a distancing tube between said hand-wheel and cross-bar, substantially as described.

12. In a wood-working machine, the combination of a main frame, a mandrel journaled therein, a table on said main frame, the framework of said table consisting of angle-irons secured together, a table-plate having inclined faces cut into the body thereof between the top and bottom faces of said table-plate, set-screws for said inclined faces for adjusting said table-plate to elevation, said set-screws having threaded connection with one of the wings of said angle-irons of said table, brackets secured to said angle-irons, a plate adjustable on said brackets toward and from said angle-irons, a side-gage comprising a gage-plate, means for adjusting said gage-plate to inclination, said side-gage comprising an arm, and

means for adjustably clamping said arm to said plate on said brackets, substantially as described.

13. In a wood-working machine, the combination of a main frame, a mandrel journaled therein, a table-frame on said main frame, a rear hand-planer table-plate to rear of said cutter-head, a plurality of hand-planer table-plates located side by side in front of said cutter-head and rear hand-planer table-plate, means for adjusting the relative elevations between said plurality of front hand-planer table-plates with relation to said cutter-head and rear hand-planer table-plate, a side-gage comprising a gage-plate, means for adjusting said gage-plate to inclination, and positioning means on said table-frame located at the side of said plurality of front hand-planer table-plates arranged for positioning said gage-plate above either of said front hand-planer table-plates under maintenance of inclination of said gage-plate, substantially as described.

14. In a wood-working machine, the combination of a main frame, a mandrel journaled therein, a cutter-head secured thereto, a table on said main frame, the framework of said table consisting of angle-irons secured together, table-plates respectively at the front and rear of said cutter-head, set-screws for said table-plates having threaded connection with one of the wings of said angle-irons of said table, said table-plates being provided with inclined faces between the planes of their top and bottom faces, said inclined faces having support on said set-screws, means for adjusting said respective table-plates toward and from said cutter-head on said adjusting screws, the framework of said table being provided with brackets located at the side of said front table-plate, a side-gage adjustable on said brackets laterally with relation to said table-plates, and means for adjusting the inclination of said gage-plate, substantially as described.

15. In a wood-working machine, the combination of a main frame, a mandrel journaled therein, a cutter-head secured to said mandrel, a table-frame comprising side angle-irons and longitudinal angle-irons connected with said side angle-irons, said angle-irons comprising horizontal wings, table-plates respectively at the front and rear of said cutter-head, set-screws for said table-plates having threaded connection with said horizontal wings of said longitudinal angle-irons, said table-plates being provided with inclined faces between the planes of their top and bottom faces, said inclined faces resting on said set-screws, means for adjusting said inclined faces of said table-plates across said set-screws, brackets secured to the horizontal wings of said side angle-irons, a side-gage comprising a gage-plate, means for adjusting said gage-plate to in-

clination, and means for adjusting said side-gage laterally on said brackets across the faces of said table-plates under maintenance of inclination of said gage-plate, substantially as described.

16. In a wood-working machine, the combination of a main frame, a mandrel journaled therein, a table on said main frame, the framework of said table consisting of angle-irons secured together, a table-plate having inclined faces cut into the body thereof between the planes of the top and bottom faces of said table-plate, set-screws for said inclined faces for adjusting said table-plate to elevation, said set-screws having threaded connection with one of the

wings of said angle-irons of said table, a bracket secured to said angle-iron framework of said table, a side-gage comprising a gage-plate, means for adjusting said gage-plate to inclination, said side-gage comprising an arm and means for adjustably clamping said arm to said bracket, substantially as described.

In testimony whereof, I have signed my name hereto in the presence of two subscribing witnesses.

LEWIS F. PARKS.

Witnesses:

LILLIAN BURNETT,
JACOB A. HOLLANDER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
