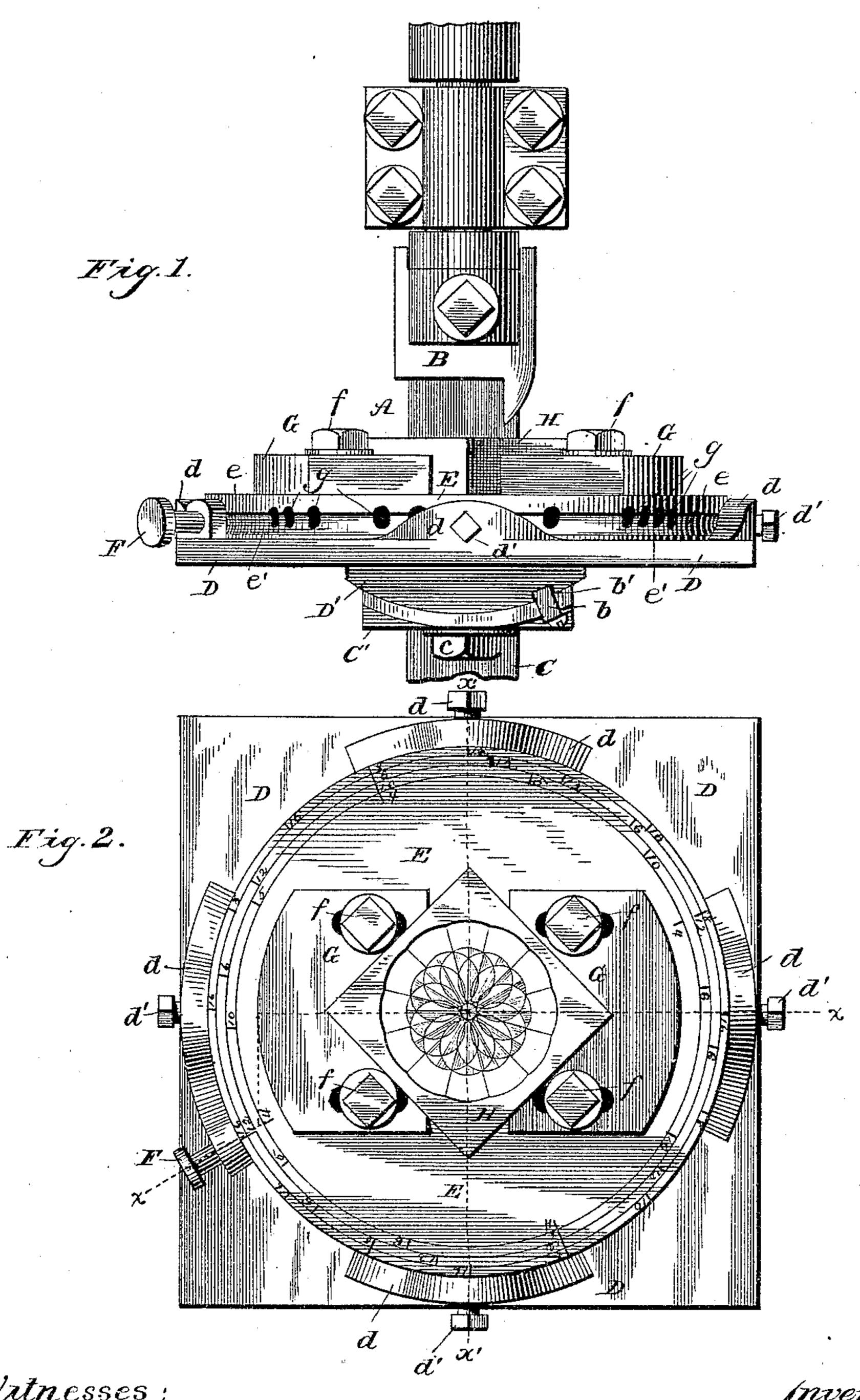
## S. Y. KITTLE.

ADJUSTABLE TABLE FOR CARVING MACHINES.

No. 436,712.

Patented Sept. 16, 1890.



Witnesses; F. C. Gibson

Cal Danis

Inventor;

By Malexander

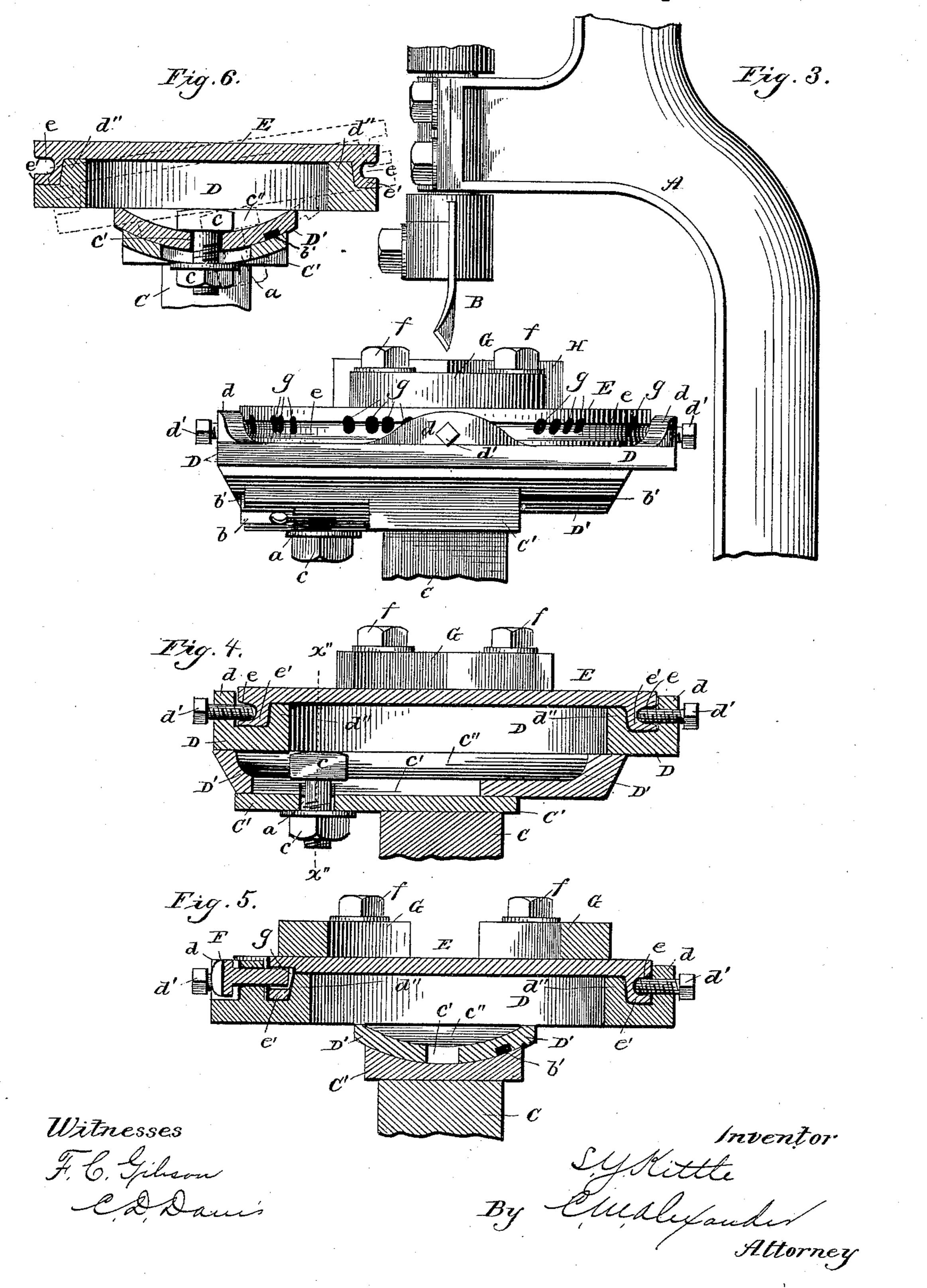
Attorney

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## United States Patent Office.

STEPHEN Y. KITTLE, OF WILKES-BARRÉ, PENNSYLVANIA.

## ADJUSTABLE TABLE FOR CARVING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 436,712, dated September 16, 1890.

Application filed May 20, 1890. Serial No. 352,536. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN Y. KITTLE, a citizen of the United States, residing at Wilkes-Barré, in the State of Pennsylvania, 5 have invented certain new and useful Improvements in Adjustable Tables for Carving-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled ro in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 represents a front elevation of a portion of a carving-machine, showing my improvements; Fig. 2, a plan view of the table having clamped thereto by a pair of holdingblocks a finished rosette; Fig. 3, a side eleva-20 tion of the parts shown in Fig. 1; Fig. 4, a transverse sectional view taken on the line x' x' of Fig. 2; Fig. 5, a similar view on the line x x of same figure; Fig. 6, a similar view on the line  $x'' \dot{x}''$  of Fig. 4, the parts being 25 reduced.

The invention relates more particularly to that class of carving-machines covered by my former patent, 386,710, of July 24, 1888; and it has for its object to provide an im-30 proved table for holding the work while being operated upon, which may be readily tilted and held in an inclined position and adjusted back and forth upon its support and which may be readily adjusted rotatively, 35 whereby a great variety of designs may be carved without changing the angle of the tool, as will be more fully hereinafter set forth.

In the drawings, A designates a portion of the frame of the machine which supports the 40 tool B and its shaft and pulley, as usual. C designates a portion of the standard for supporting the table and which is adapted to be moved vertically by any suitable mechanismsuch, for instance, as that shown in my former 45 patent. This movable standard has formed on or secured to its upper end a horizontal plate C', which is concave on its upper surface and which is provided near its forward end with a transverse slot a.

Fitting snugly within the upper concave |

spondingly-convexed side of the part D', secured to or formed integral with the tableplate D. The table is clamped to the plate C' by a short vertical bolt c, which passes down 55 through a longitudinal slot c' in the part D and through the transverse slot a in the plate C', and has tapped on its lower end a clamping-nut c, the head of this bolt resting in a concavity c'', formed in the upper side of the 60 part D', as shown most clearly in Figs. 4 and 6.

As will be obvious, the transverse slot a in the plate C' enables the table to be tilted or inclined either to the right or the left, ac- 65 cording to the character of work being performed, and the intersecting longitudinal slot c' enables the table to be readily adjusted back and forth, the bolt c serving to hold the parts in their adjusted positions.

To hold the table in a perfectly horizontal position, a small angle-iron b is adjustably bolted to the forward end of the plate C', the upturned end of this iron entering a longitudinal groove b', formed in the bottom of the 75 part D'. With this angle-iron in place the table may be moved back and forth; but in order to permit the table to be tilted it must either beslid forward out of engagement with the slot or removed.

The table D has a large central circular opening formed in it, and rising from the edge of this opening is a circular flange d''.

Resting on the table is a rotative circular plate E, provided with a downwardly-turned 85 flange e', which embraces the flange d'' on the table, and is thereby guided and centered in its rotary movements. To retain this rotary adjustable plate on the table, and at the same time leave it free to be rotated, bolts d' are 90. adjustably tapped in ears d, formed on the upper side of the table near its edge, the inner ends of these bolts extending into an annular groove in the edge of the circular plate.

Notched blocks G G are adjustably clamped 95 upon the circular plate by means of bolts f, for the purpose of holding the work H while being operated upon by the revolving tool.

The circular plate may be adjusted rotatively by any suitable means; but I prefer that 100 shown—namely, a removable pin F, inserted surface of the plate C' is the lower corre-lin an ear or lug on the table and adapted to

engage holes g, formed in the adjacent edge of the circular plate. In adjusting the plate the pin is removed with one hand, while the operator with his other hand rotates the plate 5 to the desired point, when the pin is inserted again. Indicating-marks are placed upon the plate E near its edge to indicate the positions of the pin-holes g, and also to show the operator into how many parts the circular plate to is divided, and thereby guide him in making the various designs. In practice I prefer to divide the circle into fourths, fifths, sixths, eighths, tenths, twelfths, and sixteenths, as I find an infinite variety of ornamental designs 15 may be made with these divisions; but it is evident that other divisions may be made if found desirable.

Having described my invention, what I claim is—

20 1. The combination of a support, a table mounted thereon, means for tilting and longitudinally adjusting this table, a circular workholding plate mounted on this table, this plate being rotatively adjustable, and means for holding this plate in its adjustable positon, substantially as described.

2. The combination of a support, a table-plate thereon, a rotatively adjustable circular plate thereon provided with holes in its edge, and a pin carried by the table-plate and adapted to enter the holes in the edge of the circular plate, as and for the purpose described.

3. The combination of a support, a table thereon, a circular plate mounted rotatively upon the table and provided with a groove

in its edge, and set-screws d', tapped in ears in the table and adapted to enter the groove in the edge of the plate, substantially as described.

4. A table provided with a central circular flange d'' and radial pin or set-screw d' upon its upper side, in combination with a circular work-carrying plate provided with a downwardly-turned flange adapted to embrace the 45 aforesaid flange, and an annular groove in in its edges for the reception of the said pins or set-screws, substantially as described.

5. The combination of a standard carrying a concave plate at its upper end, a table provided with a corresponding convex portion on its under side, these convex and concave parts being provided with intersecting slots, a movable bolt passing through these slots at the point of intersection, whereby the table 55 may be tilted and longitudinally adjusted, and a rotatively adjustable work-carrying plate carried by the said table, substantially as and for the purpose described.

6. The combination of a concave-plate C', a 60 convex plate clamped thereto and adjustable thereon and provided with a longitudinal groove b', and an adjustable and removable angle-iron carried by the plate C' and projecting into the groove b', as and for the pur- 65 posses described

poses described.

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

STEPHEN Y. KITTLE.

Witnesses:

C. D. Davis,

C. M. ALEXANDER.