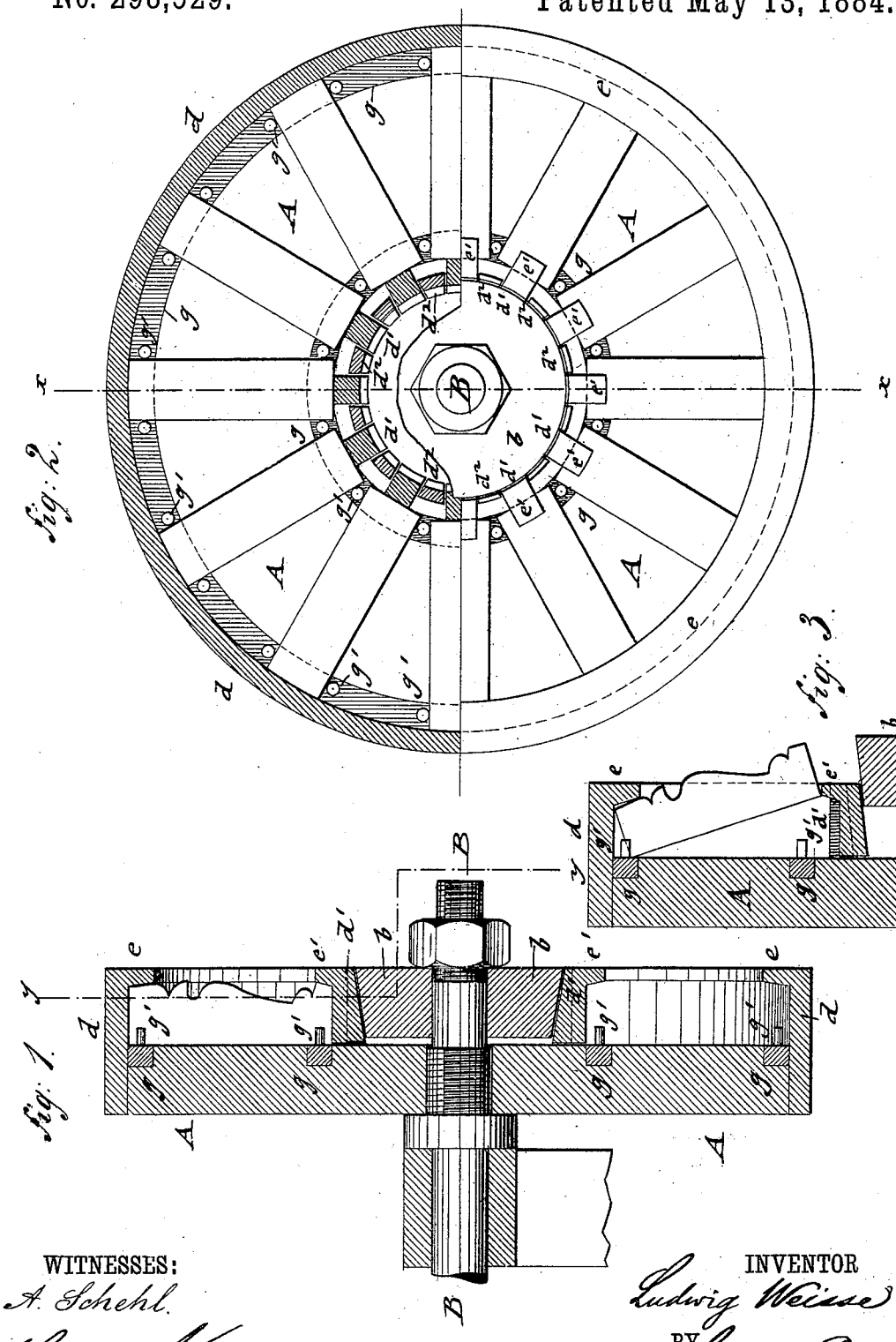
(No Model.)

L. WEISSE.

WOOD TURNING LATHE.

No. 298,529. Patented May 13, 1884.



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UNITED STATES PATENT OFFICE.

LUDWIG WEISSE, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO OSCAR HOLZER, OF SAME PLACE.

WOOD-TURNING LATHE.

SPECIFICATION forming part of Letters Patent No. 298,529, dated May 13, 1884.

Application filed February 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, LUDWIG WEISSE, of the city, county, and State of New York, have invented certain new and useful Improvements in Lathes for Turning Polygonal Bodies, of which the following is a specification.

This invention has reference to lathes for turning wooden strips or blanks into polygonal shapes for stair-railings, furniture, and other purposes; and the invention consists of a rotary disk having a fixed retaining-flange and radially-guided abutments, that are actuated by an adjustable cone supported on the horizontal shaft of the disk. The circumferential flange of the disk and the abutments have projections for retaining the wooden strips or blanks. The blanks are laterally supported between guide-pins of detachable rings that are placed in grooves of the supporting-disk.

In the accompanying drawings, Figure 1 represents a vertical transverse section on line *x x*, Fig. 2, of my improved lathe for turning polygonal bodies. Fig. 2 is an end elevation of the same, one half being in section on line *y y*, Fig. 1; and Fig. 3 is a vertical transverse section of the disk, showing a blank in the act of being inserted or removed.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents a disk of sufficient size, that is rigidly secured to the end of a horizontal shaft, B, which turns in suitable bearings of supporting-standards. The disk A is provided at its circumference with a forward-projecting flange, *d*, having an inwardly-projecting shoulder, *e*, which forms the support for the outer end of the blanks. The inner face of the shoulder *e* is slightly beveled. The inner ends of the blanks are supported on radially-adjustable abutments *d'*, which are provided with seats or projections *e'* having beveled inner faces. The abutments *d'* are guided between fixed radial cheeks d^2, of tapering shape, as shown in Fig. 2. The guide-cheeks d^2 are of less length than the abutments, and at such a distance from the inner ends of the blanks that when the abutments are moved away from the blanks a sufficient space is obtained below the blanks to permit their inner ends to be moved clear of the seats *e'*, as shown in dotted lines in Fig. 1. The bottoms of the sliding abutments *d'* are made of conically-tapering shape, and are acted upon by a cone, *b*, that is mounted on the forward end of the shaft B. The cone *b* is moved forward by a screw-nut, *f*, that screws up on the threaded outermost end of the shaft B. On unscrewing the nut *f* the cone *b* can be withdrawn, and thereby the abutments *d'* released from the blanks to such an extent that they may be removed from the disk, turned around their axis, and then replaced, so as to expose one of the next adjoining sides to the action of the cutter. The wooden blanks are firmly held in radial position on the disk by means of guide-pins *g'* of concentric rings *g*, which rings are secured into grooves of the disk A, one close to the circumferential flange *d*, the other near the abutments *d'*, as shown clearly in the drawings. The rings *g g* support the blanks against lateral motion, while the circumferential ring *d* and the abutments *d'* support the blanks in longitudinal direction. The rings *g g* can be interchanged whenever it is desired to turn off blanks of larger or smaller size, in which case the pins *g' g'* are at a greater or smaller distance from each other. The abutments *d'* are guided between fixed cheeks d^2 of the disk A, as shown clearly in Fig. 2, which cheeks are at some distance from the lower ends of the blanks, so as to facilitate their removal and insertion. If it be desired to reduce friction between the adjusting-cone *b* and the abutments *d'*, the latter may be provided at their inner sides with anti-friction rollers. By loosening the cone and moving it forward, the abutments *d'* can be drawn back between the cheeks d^2 to such an extent that all the blanks are released at the same time. The disk is slowly turned and one blank after the other taken out, turned on its axis, and then replaced. When all blanks are thus turned and reinserted they are locked again by the cone and abutments, after which the next side is turned off according to the required profile. The shoulder *e* of the exterior flange, *d*, is made somewhat longer than the seats *e'* of the abutments *d'*, so that the blanks are retained by said shoulder after they are loosened, and are

thereby prevented from dropping forward and out of the lathe. In this manner the position of the blanks can be quickly and conveniently changed, and thereby at their sides profiled with the cutter in the usual manner, according to the required design.

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

1. The combination, with a rotary main disk having a fixed circumferential flange, said flange having an inwardly-projecting shoulder, of inner radially-guided abutments having projecting seats, and means for locking the abutments to the blanks or releasing them therefrom, substantially as set forth.

2. The combination of a rotary supporting-disk, A, having a circumferential flange, *d*, with an inwardly-projecting shoulder, *e*, inner radially-sliding abutments, *d'*, having seats *e'*, fixed guide-cheeks d^2, and a horizontally-adjustable cone, *b*, substantially as described.

3. The combination of a rotary main disk having a circumferential flange, with an inwardly-projecting shoulder, radially-guided abutments having projecting seats, means for applying the abutments to the blanks, and means, substantially as described, for supporting the blanks against laterally-shifting motion, substantially as set forth.

4. The combination of a rotary main disk, A, having a circumferential flange, *d*, with an inwardly-projecting shoulder, *e*, radially-sliding abutments *e'*, having projecting seats *d'*, intermediate guide-cheeks, d^2, a horizontally-adjustable cone, *b*, and interchangeable rings *g*, screwed to the disk and provided with retaining-pins *g'*, substantially as specified.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

LUDWIG WEISSE.

Witnesses:
PAUL GOEPEL,
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