

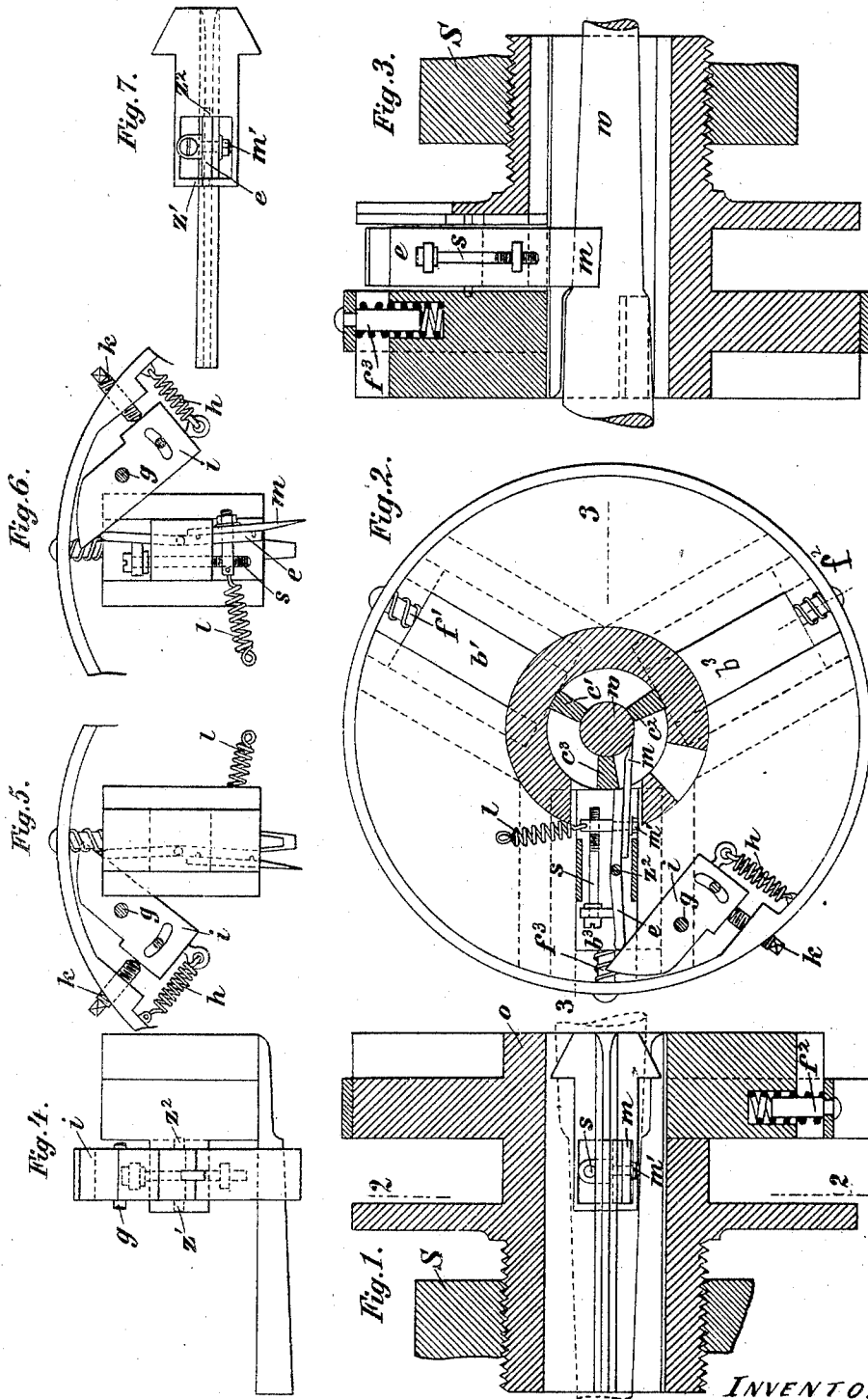
(No Model.)

J. HAINDL.

REVOLVING KNIFE BLOCK FOR SHAPING CONES.

No. 503,317.

Patented Aug. 15, 1893.



WITNESSES:
Charles Schroeder
Marion Hall

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UNITED STATES PATENT OFFICE.

JOSEPH HAINDL, OF RIESA, GERMANY.

REVOLVING KNIFE-BLOCK FOR SHAPING CONES.

SPECIFICATION forming part of Letters Patent No. 503,317, dated August 15, 1893.

Application filed April 25, 1893. Serial No. 471,756. (No model.) Patented in Germany May 12, 1892, No. 66,480.

To all whom it may concern:

Be it known that I, JOSEPH HAINDL, a subject of the King of Bavaria, residing at Riesa, in the Kingdom of Saxony, in the German Empire, have invented certain new and useful Improvements in Revolving Knife-Blocks for Shaping Cones, (for which I have obtained Letters Patent in Germany, No. 66,480, on the 12th day of May, 1892,) of which the following is a specification.

In turning or planing conical rods by means of rotating knives, it is essential that the knives be gradually moved from the longitudinal central axis of the rod and also that the inclination of the knife shall at all times be the same to the circumference of the piece being turned or finished.

The object of my invention is to provide a new and improved turning head that fulfills the above demands.

In the accompanying drawings, Figure 1 is a vertical longitudinal sectional view of my improved turning head. Fig. 2 is a vertical transverse sectional view of the same, on the line 2 2, of Fig. 1. Fig. 3 is a horizontal sectional view on the line 3 3, of Fig. 2, and Figs. 4, 5, 6 and 7 are detail views.

Similar letters of reference indicate corresponding parts.

On the front disk *o* of the turning head three slides *b' b² b³* are mounted to move radially in dove-tail grooves, and to the inner ends of said slides the jaws *c' c² c³* respectively are fastened the free ends of which are coned according to the taper of the rod to be acted upon. In one of said slides a plate *e* is mounted to turn on the pivots *z' z²* and said plate carries a knife *m*, which is held on the said plate *e* by the screw *m'*, which screw *m'* with the knife can be shifted by means of the screw *s* mounted to turn in a lug of the plate *e* and having its screw-threaded end passed through an aperture of the screw *m'*. A helical spring *l* has one end fastened to the upper end of the screw *m'* and the other to part of the front disk of the head and presses the rear end of the plate *e* against the inclined surface of a block *i*. The slides *b' b² b³* are

pressed radially inward by the springs *f' f² f³* interposed between the outer ends of the slides and the rim of the disk, and said springs thus serve to press the jaws *c' c² c³* firmly against the piece *w* to be acted upon. As the piece *w* is pressed into the turning head it gradually forces the slides *b' b² b³* outward radially, whereby the knife *m* supported by the slide *b³* is also moved correspondingly from the longitudinal central axis of the piece *w*, and at the same time the block *i* acting on the inner end of the knife holding plate *e* brings the knife into such a position as to be at the most advantageous angle for making a clean cut. The block *i*, which can rotate on the pivot *g*, is acted upon by a spring *h*, which presses it against the adjusting screw *k*, by means of which screw *h* the block *i* can be adjusted according to the inclination of the conical piece to be acted upon by the head.

S is the rotary holder into which the head is screwed.

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

1. In a cutter-head for turning conical bodies, the combination, with radial slides, of a pivoted plate on one of the slides, a knife held on said plate, a spring acting on the knife-holding plate and a block in the head, against which block the outer end of the knife-holding plate rests, substantially as set forth.

2. In a cutter-head for turning conical bodies, the combination, with radial slides, of a pivoted plate on one of the slides, a knife held on said plate, a spring acting on the knife-holding plate, a block in the head against which the outer end of the knife-holding plate rests and means for adjusting said block according to the taper of the piece to be acted on, substantially as set forth.

In witness whereof I have hereunto set my hand in presence of two witnesses.

JOSEPH HAINDL.

Witnesses:

HERNANDO DE SOTO,
PAUL ARRAS.