No. 815,892. PATENTED MAR. 20, 1906.

T. ACKLEY.

ENGRAVER'S TOOL.

APPLICATION FILED APR. 26, 1905

Fig. 1.

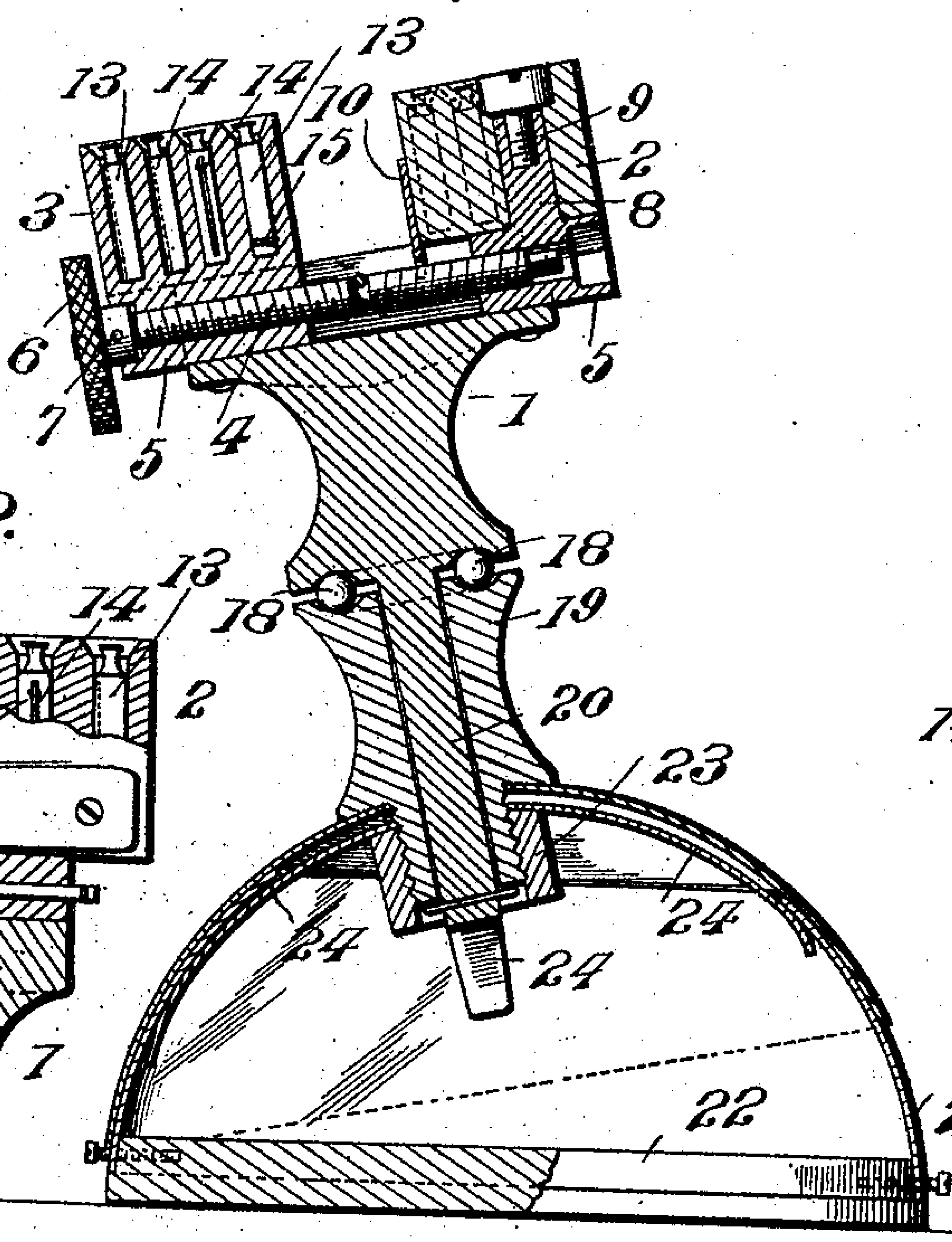


Fig. 2.

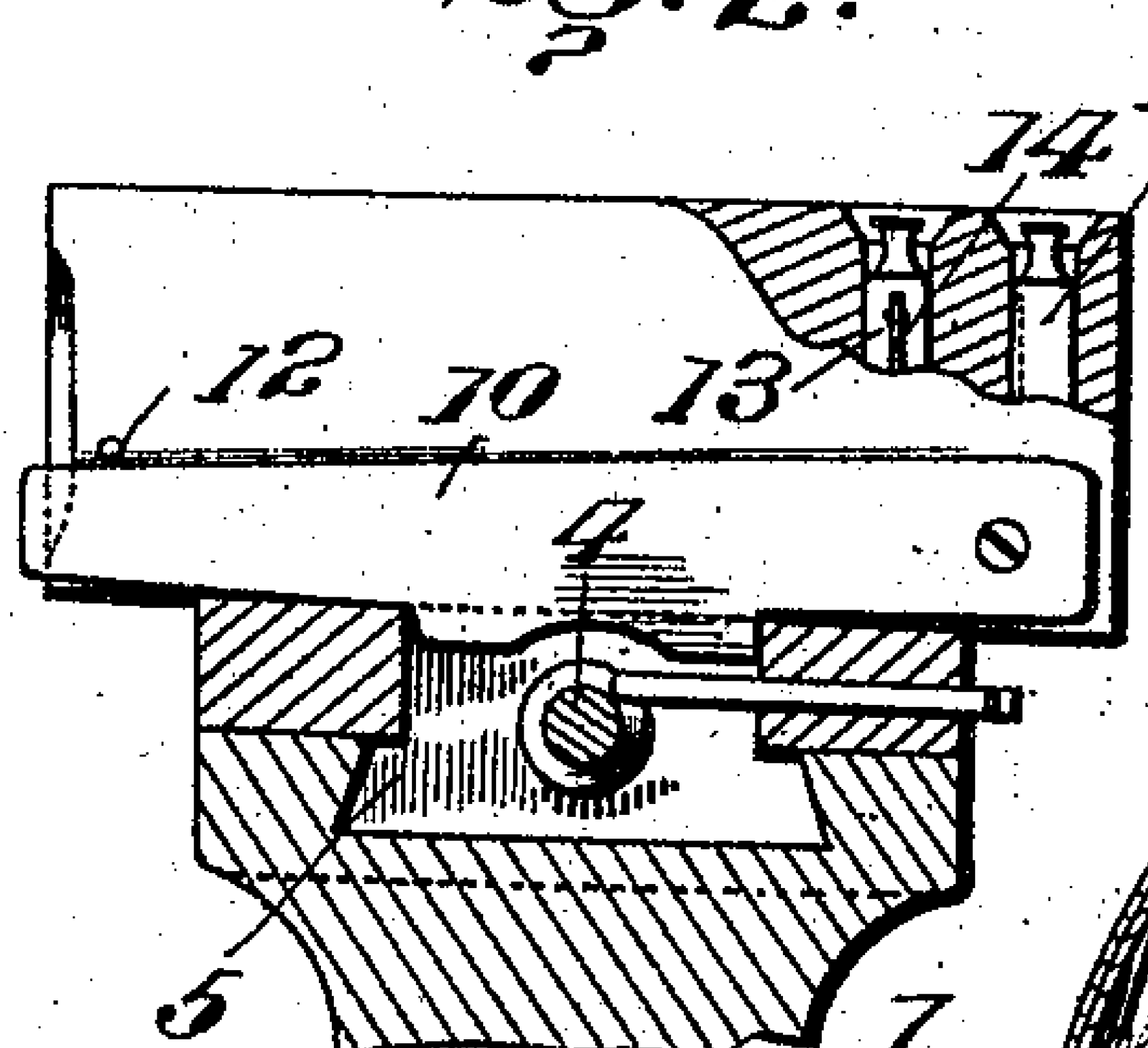


Fig. 3.

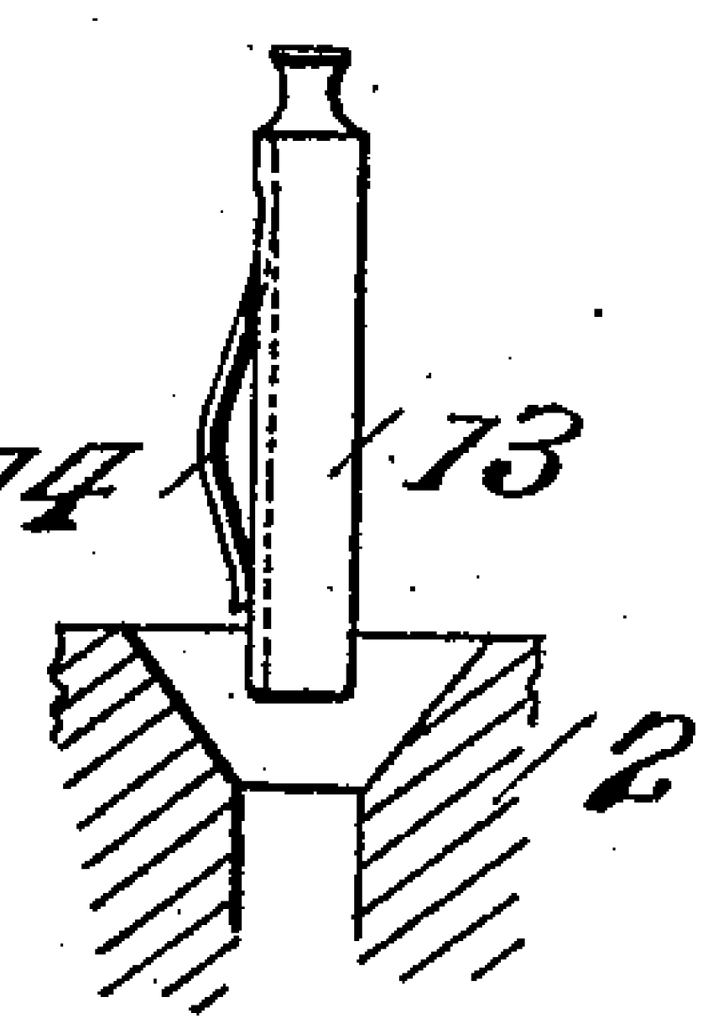


Fig. 6.

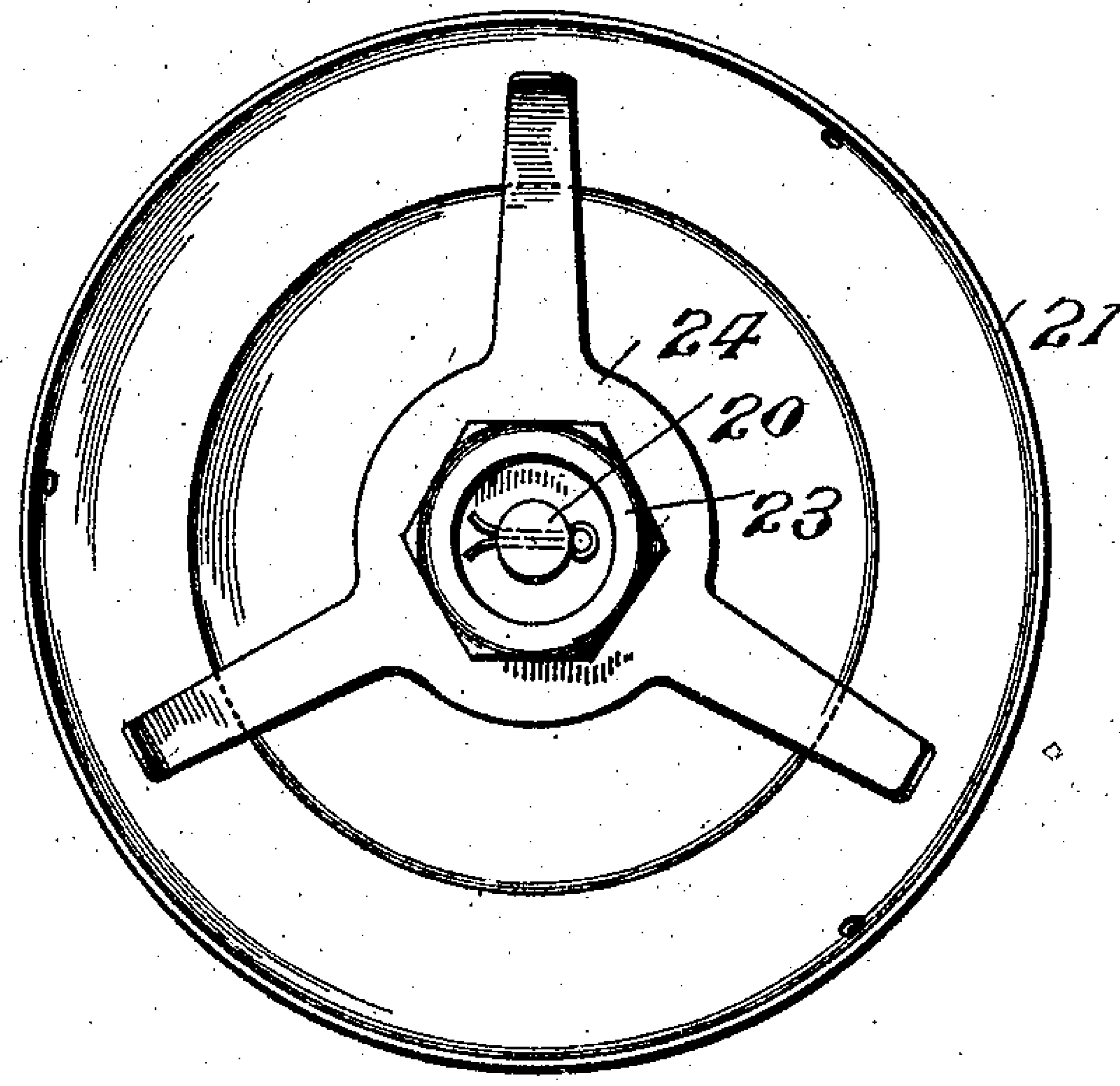


Fig. 4.

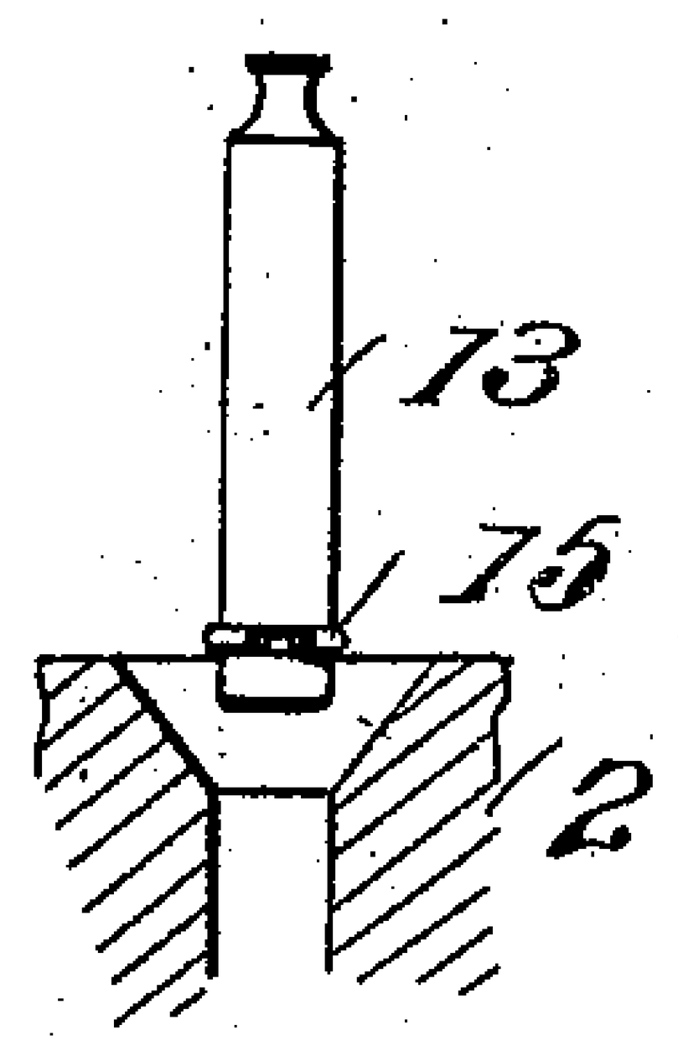
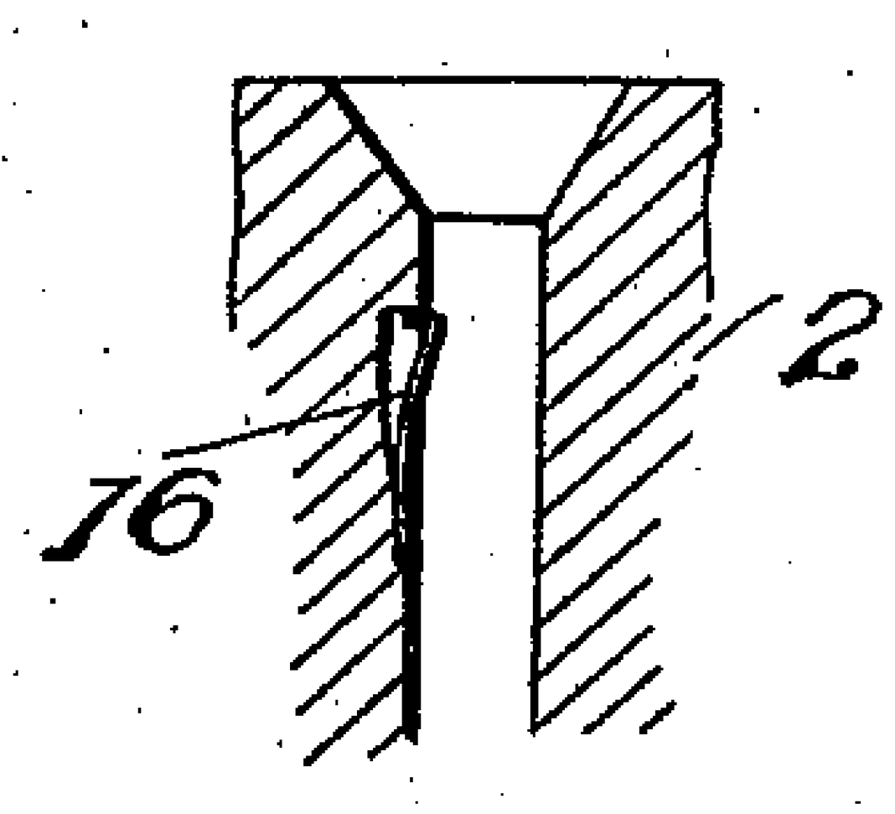


Fig. 5.



Witnesses

Jno Imirie.

Francis S. Maguire

Inventor

Thaddeus Ackley.

By [illegible]

Attorney

UNITED STATES PATENT OFFICE.

THADDEUS ACKLEY, OF WARREN, OHIO, ASSIGNOR OF ONE-HALF TO WILLIAM DOUGLAS ACKLEY, OF WARREN, OHIO.

ENGRAVER'S TOOL.

No. 815,892. Specification of Letters Patent. Patented March 20, 1906.

Application filed April 26, 1905. Serial No. 257,520.

To all whom it may concern:

Be it known that I, THADDEUS ACKLEY, of Warren, in the county of Trumbull and State of Ohio, have invented certain new and useful Improvements in Engravers' Tools; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The objects of this invention are, first, to enable pins of uniform length to be employed in an engraver's tool for holding articles of various sizes; secondly, to prevent the pivoted block or slide from accidentally turning on its bearing, and, finally, to provide improved means for holding the device as a whole in various positions.

The invention will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical sectional view. Fig. 2 is an edge view of one of the slides with parts broken away. Figs. 3 and 4 are views of the holding-pins. Fig. 5 shows a slight modification. Fig. 6 is a bottom plan view with the base-plate removed.

Referring to the drawings, 1 designates the head or table, upon which are mounted two slides or blocks 2 and 3, capable of being moved toward and away from each other by a right and left hand screw rod 4, working in lugs 5, depending from the under sides of the blocks, said lugs fitting in a guideway in the top of the table. This screw-rod is held at its center and at one end is engaged by the shank of a milled disk 6, which shank is held to the screw-rod by a cross-pin 7. In this way the means for turning the screw-rod is always present and in position. The block 2 is pivotally mounted on its lug by means of a boss 8, fitting in an opening in such block, a retaining-screw 9 holding the parts together. This permits the block 2 to be turned on its bearing; but in order to prevent it from so turning accidentally the right-lined face of this block carries a pivoted plate 10, of very thin material, said plate having a depending portion which fits in the guideway, being held in its lowered position by a small lug 12. When it is desired to turn the block 2 on its pivot, this plate is moved upwardly, so as to withdraw its depending portion from the guideway. In the top of each of the blocks are numerous irregularly-arranged holes to receive holding-pins 13, the upper ends of said holes being countersunk. Heretofore it has been customary to employ pins of different lengths to accommodate articles of various sizes. According to my invention this is unnecessary, since all of the pins may be of a uniform length, friction means being employed to insure each pin remaining in whatever position it may be caused to occupy. This frictional means may consist of a fine spring-wire 14, secured at one end in a groove running longitudinally of the pin, its other end being free, (see Fig. 3,) or, as shown in Fig. 4, the frictional means may consist of a wire ring 15, encircling a pin at the lower end thereof. Then again a spring, as 16, may be located in each of the holes instead of on the pins, so as to afford sufficient friction to retain the pins in whatever position they may be caused to occupy. (See Fig. 5.) In lieu of springs felt, leather, or other retarding material may be employed.

The head 1 is rotatable on roller-bearings 18 at the top of a post 19, and from said head depends a rod 20. The base consists of two telescopic hemispheroidal members, the inner or lower member 21 being fastened to a flat plate 22, while the upper outer member is secured to post 19 by a nut 23. The top of the member 21 is cut off. The nut 23 also retains a spider-like plate 24, of spring metal, the arms of such plate engaging the inner surface of the inner lower member of the base. In this way the two members are held under sufficient frictional contact to allow the upper outer member to which the post is secured to be turned into any desired position.

The advantages of my improvement are apparent. It will be seen that by the frictional means each of the holding-pins may be retained at any desired point, and in consequence I am enabled to obtain by one set of pins of uniform length all the advantages heretofore arising from the use of pins of varying lengths. It will also be seen that although one of the blocks may be readily turned to occupy different positions relatively to the other block, yet the accidental displacement thereof is prevented by the plate 10, fitting in the guideway. Further-

more, I have provided extremely simple and inexpensive means for permitting the device as a whole to be turned into different positions.

I claim as my invention—

1. An engraver's tool comprising a table having a guideway in its top, blocks having lugs fitting in said guideway, one block being pivotally mounted on its lug, a screw-rod engaging both lugs, and means carried by said pivotally-mounted block and normally held in said guideway for preventing said block from turning accidentally.

2. An engraver's tool comprising a table having a guideway in its top, blocks having lugs fitted in said guideway, one block being pivotally mounted on its lug, a screw-rod engaging both lugs, and a flat plate pivotally secured to the right face of said pivot-block having a central portion depending into said guideway.

3. An engraver's tool formed with a plurality of openings in its top, a plurality of pins designed to be accommodated by said openings, a spring mechanism for securing said pins in said openings by frictional engagement, whereby pins of uniform length may be adjusted to project to relatively different extents from said top, for the purpose set forth.

4. In an engraver's tool, the combination with the head having a depending rod, and a post through which said rod is passed and on which said head is mounted, bearings being provided between said head and post, of a base comprising two hemispheroidal members, one forming a socket and the other convex for accommodation by said socket, a nut on said post for securing the latter to said socket, such convex member being open at its top, and a spring-plate movable with said post and socket and having frictional engagement with the inner face of said convex member.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

THADDEUS ACKLEY.

Witnesses:

HERMAN A. GEUSS,

W. E. GEUSS.