

(No Model.)

H. U. SEAMAN.
ENGRAVER'S BLOCK.

No. 420,969.

Patented Feb. 11, 1890.

FIG. 1.

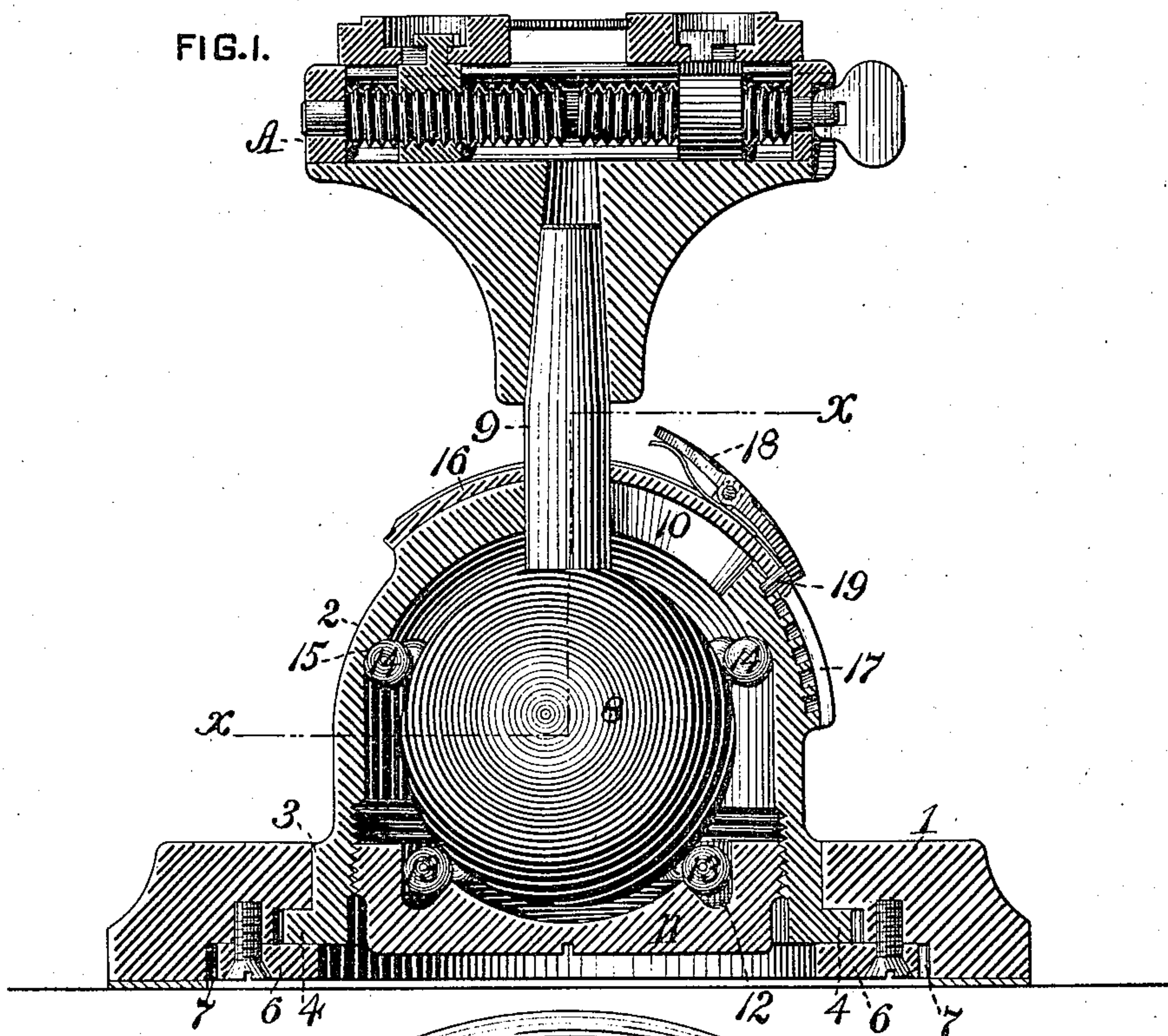
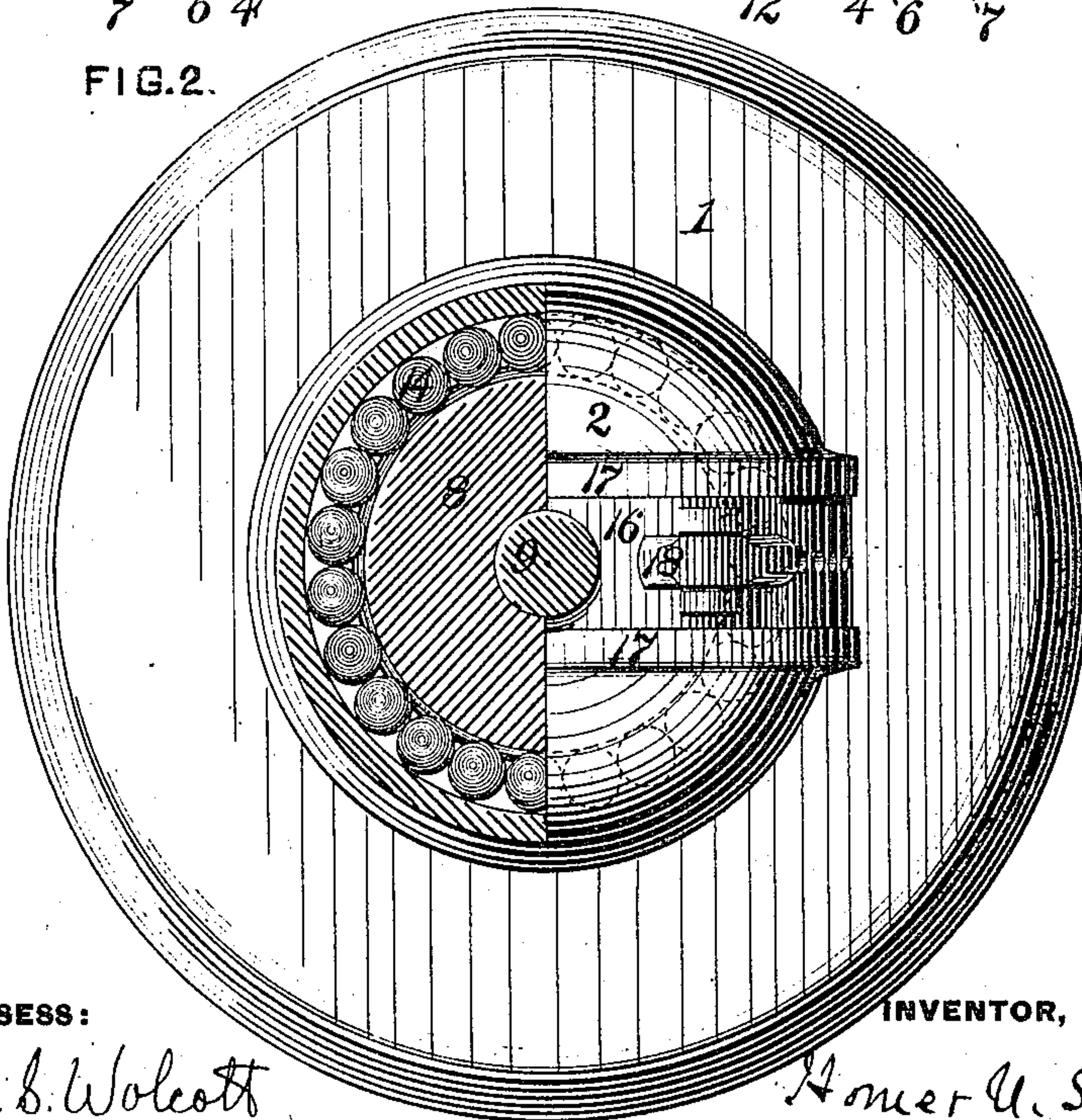


FIG. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HOMER U. SEAMAN, OF WASHINGTON, PENNSYLVANIA.

ENGRAVER'S BLOCK.

SPECIFICATION forming part of Letters Patent No. 420,969, dated February 11, 1890.

Application filed October 14, 1889. Serial No. 326,952. (No model.)

To all whom it may concern:

Be it known that I, HOMER U. SEAMAN, a citizen of the United States, residing at Washington, in the county of Washington and State of Pennsylvania, have invented or discovered a certain new and useful Improvement in Engravers' Blocks, of which improvement the following is a specification.

In an application, No. 305,880, filed April 3, 1889, I have described and claimed an engraver's block constructed with reference to the easy and quick adjustment of the work-holder to different positions, as required.

The invention described herein relates to certain improvements in the construction shown and described in the application above referred to.

In the accompanying drawings, forming a part of this specification, Figure 1 is a sectional elevation of my improved block having a work-holder, also in section, attached thereto; and Fig. 2 is a view partly in section and partly in plan, the plane of section being indicated by the line *xx*, Fig. 1.

The socket 2, whose upper portion is globular, is made with a straight portion 3 at its lower end, fitting within an opening in the base 1, and is also provided with an outwardly-projecting flange 4, adapted to fit within a circular recess in the base. The socket is held in position in the base by a ring 6, engaging the flange 4 and secured within a recess 7 by screws, as shown. This construction, while holding the socket securely in place, permits of the rotation thereof independent of the base. Within the socket is placed a ball 8, provided with a stem 9, projecting through a vertical slot 10, extending downwardly from the apex of the socket. The ball is held in position vertically by a block 11, screwing into the lower end of the socket. The block is recessed for the reception of the lower portion of the ball, and is also grooved, as at 12, around the outer edge of the recess for the reception of a series of anti-friction balls 13, which support the ball 8 and permit of the free and easy rotation of the same either horizontally or vertically. The upper portion of the ball 8 is held away from contact with the wall of the socket by a series of friction-balls 14, arranged in a groove 15, formed in the wall of the socket.

From the foregoing it will be readily understood that, through the rotation of the ball horizontally and vertically and also the horizontal rotation of the socket, the work-holder A, mounted, as shown, upon the stem 9, may be adjusted into any desired position, either horizontally or vertically, the stem 9 during the latter adjustment moving along the slot 10. In order to prevent filings or other foreign matter from entering the socket, as might occur in the construction shown and described in the application hereinbefore referred to, a slide 16, provided with an opening for the passage of the stem 9, is placed over the slot 10, said slide being supported at its edges by guideways 17, arranged parallel with the slot. The slide is made of such a length with reference to the length of the slot 10 and of the movement of the stem therealong as to fully cover the slot at all times, and the opening in the slide is made of such a size that the stem will fit snugly therein, but without binding. In order to hold the stem 9 in a vertical position, and also at any desired inclination, a spring-actuated lever 18 is pivoted on the slide 16, and to one end of the lever is secured a pin 19, passing through the slide and adapted to engage a series of holes formed in the outer wall of the socket, as shown in Fig. 1.

As the work-holder or vise A forms the subject-matter of an application filed of even date herewith, a description of its construction and operation is not deemed necessary herein.

In the application hereinbefore referred to the socket is provided with an outwardly-inclined wall at its lower end, upon which a clamping-ring having a similarly-inclined wall bears with a greater or less degree of friction. In such a construction the clamping-ring is liable to be turned by the socket, thereby clamping the socket either too loosely or too tightly in the base. In the construction described herein such accidental shifting of the clamping or retaining ring is avoided.

I claim herein as my invention—

1. In an engraver's block, the combination of a base having an opening therethrough, a socket fitting through said opening and provided with a flange at its lower end engaging

the base adjacent to the opening, a retaining-ring secured to the base and supporting the socket in position, a ball adjustably mounted in the socket, and a work-holder carried by
5 the ball, substantially as set forth.

2. In an engraver's block, the combination of a vertically-slotted socket, a ball mounted in the socket and having a stem projecting through the slot, a work-holder mounted on

the stem, a slide having an opening for the stem and fitting over the slot, and a spring-actuated catch, substantially as set forth.

In testimony whereof I have hereunto set my hand.

HOMER U. SEAMAN.

Witnesses:

DARWIN S. WOLCOTT,
R. H. WHITTLESEY.