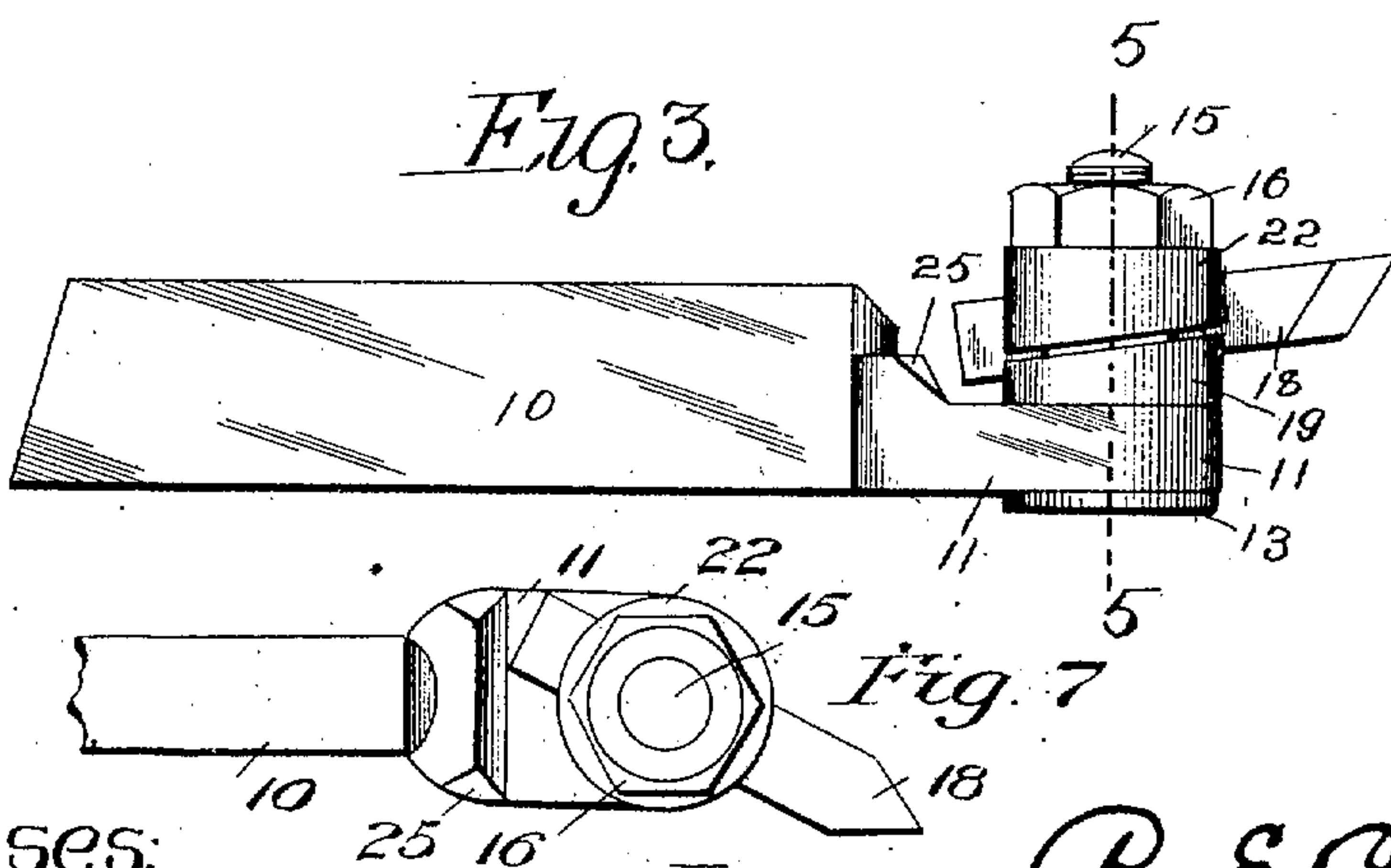
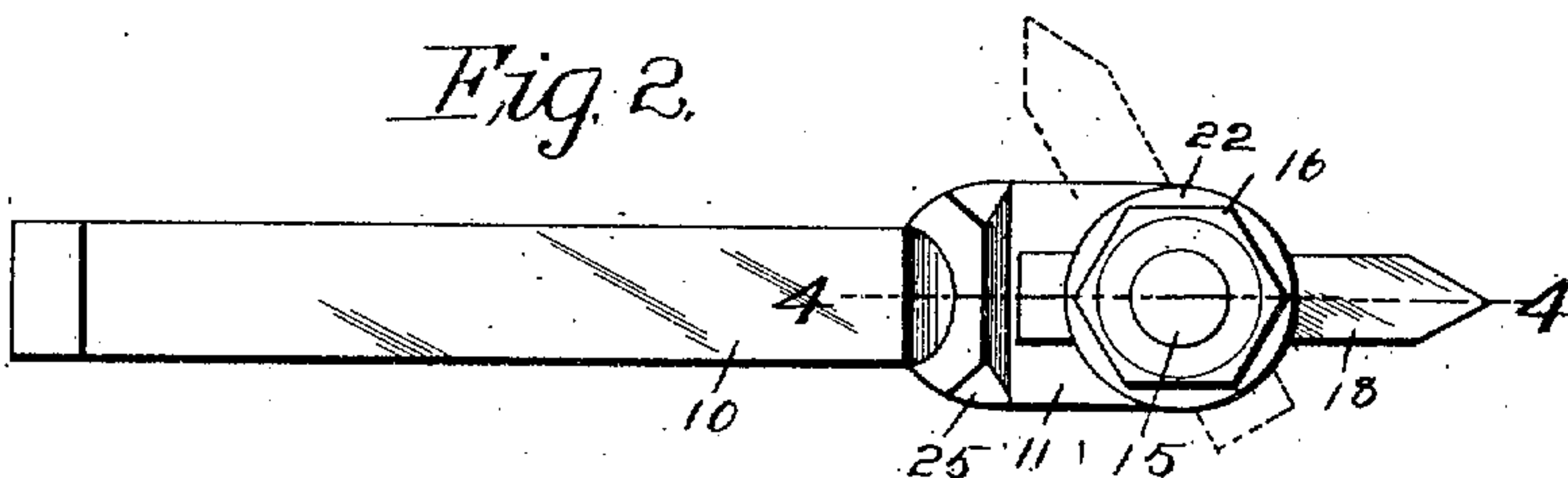
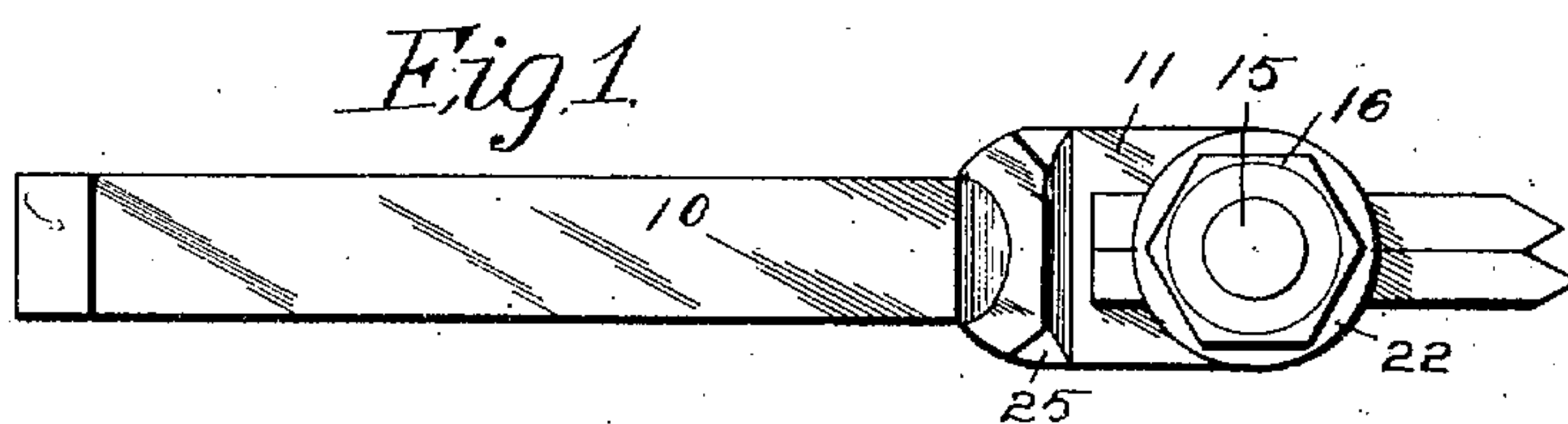
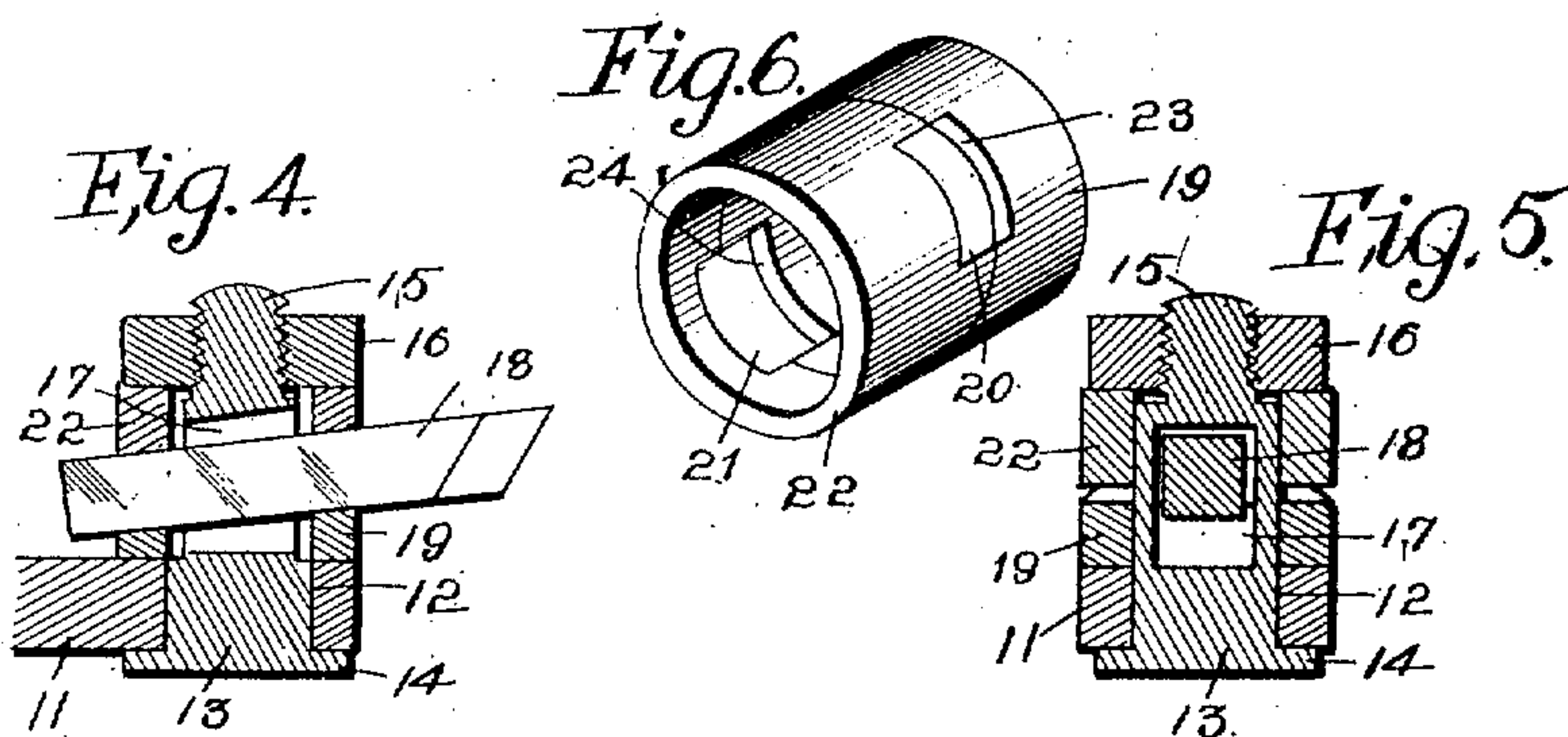


No. 848,010.

PATENTED MAR. 26, 1907

R. E. COLTON.  
LATHE TOOL HOLDER.  
APPLICATION FILED JULY 31, 1905.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

ROSTO E. COLTON, OF EASTHAMPTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO JOHN L. LYMAN, OF EASTHAMPTON, MASSACHUSETTS.

## LATHE TOOL-HOLDER.

No. 848,010.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed July 31, 1905. Serial No. 271,963.

*To all whom it may concern:*

Be it known that I, ROSTO E. COLTON, a citizen of the United States, residing at Easthampton, in the county of Hampshire and State of Massachusetts, have invented a certain new and useful Lathe Tool-Holder, of which the following is a specification.

The objects of my invention are to provide a holder for lathes, planers, chucks, shapers, and the like, of simple, durable, and inexpensive construction, in which one or more tools may be adjusted to various angles relative to the shank of the holder, so as to provide for a wide range of operation upon the articles on which work is being done with the tool.

A further object is to provide a tool-holder which supports the tool not only by the bolt or post through which it passes, but also by clamping members provided with transverse grooves in their adjacent faces and thus provide for a more rigid holding of the tool by the holder.

My invention consists in certain details in the construction, arrangement, and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claim, and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the complete holder with two tools held by it. Fig. 2 is a plan view of the holder with a single tool held by it and showing in dotted lines the range of movement of the tool in the holder. Fig. 3 is a side elevation of the tool with a single tool therein. Fig. 4 is a longitudinal sectional view of the end of the holder in which the tool is inserted, cut on the line 4 4 of Fig. 2. Fig. 5 is a vertical sectional view of the tool-holder head, cut on the line 5 5 of Fig. 3. Fig. 6 is a detail perspective view of the clamping members which assist in maintaining the tool in position at the end of the holder. Fig. 7 is a detail plan view illustrating a tool resting at an angle to the longitudinal median line of the holder and bearing at its rear end against the shoulder 25.

Referring to the accompanying drawings, I have used the reference-numeral 10 to indicate the shank of my tool-holder, the outer end 11 of which is broadened and is of less thickness than the body portion of the shank. In this outer end and extending from the lower to the upper portion of it is an

opening 12, which is designed to receive a post 13, which has the head 14 at its lower end and which is designed to normally engage the lower portion of the outer end 11 of the shank 10. There is a screw-threaded portion 15 at the upper end of the post 13, upon which the nut 16 is screwed for purposes hereinafter made clear.

Extending through the central portion of the post 13 is a squared opening 17, designed to admit the tool or tools 18 to be held by the holder. Encircling the post 13 and immediately above the outer end 11 of the shank 10 is a lower clamping member 19, which is circular in shape and has the slots 20 and 21 in its periphery in line with each other and on diametrically opposite sides of it. One side of the clamping member 19 is slightly higher than the opposite side of it, so as to provide for the inclination of the tool or tools 18 from the front to the rear of this tool, as shown clearly in Fig. 4 of the drawings.

Mounted on the post 13 and immediately above the lower clamping member 19 is the upper clamping member 22, which has the two slots 23 and 24 in its outer periphery at diametrically opposite sides of it. These slots 23 and 24 are designed to be immediately above the slots 20 and 21, respectively, to form an opening, and these slots are designed to be in line with the slot 17 through the post 13, so as to provide an opening in which the tool or tools 18 is to be inserted. When these tools have been inserted in the opening thus formed, the nut 16 is screwed upon the screw-threaded member 15 and the head 14 of the post 13 is drawn rigidly against the lower portion of the outer end 11 of the shank 10, and the upper clamping member 23 is forced toward the lower clamping member 19, so that these clamping members will rigidly engage the tool or tools between them and prevent any lateral movement of the tool or tools when they are thus rigidly maintained in position by the parts above described.

When it is desired to swing the tools from right to left or from left to right, the nut 16 is unscrewed slightly and the entire post swung in the opening 12 until the desired position of the tool has been obtained. It will be observed that this result is easily accomplished on account of the arrangement of parts. If two or three tools are necessary



to be used, a single tool is easily removed by unscrewing the nut 16 and withdrawing the single tool from between the clamping members 19 and 22 and another set of tools put in its place.

25 is a transverse shoulder which extends throughout the width of the broad and thin outer end 11 of the shank 10. In virtue of this shoulder 25 extending throughout the width of the said broad end 11 it will be seen that the rear ends of tools may be arranged to bear against the shoulder when a great amount of lateral strain is to be placed on the forward portions of the tools, and this when the tools are positioned in alinement with the longitudinal median line of the shank 10 and also when they are arranged at various angles to said median line. The placing of the rear ends of the tools against the shoulder 25, as stated, prevents casual movement of the tools when they are subjected to great lateral pressure.

In practical use the ease with which these results are attained and the firmness with which the tools are maintained in position

are very advantageous and desirable, and the results obtained over that of the ordinary tool-holders are desirable.

I claim---

In a tool-holder, the combination of a shank having a comparatively broad and thin outer end in which is a circular opening, and also having a shoulder 25 extending throughout the width of said broad and thin outer end at the inner end thereof and adapted for the engagement of the rear ends of tools placed at various angles of inclination to the longitudinal median line of the shank, a post, of circular form in cross-section, arranged and adapted to be turned in the circular opening in the broad and thin end of the shank and having a diametrical opening arranged above the same, and means on the post for holding a tool resting in the diametrical opening of the post.

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Witnesses:

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