

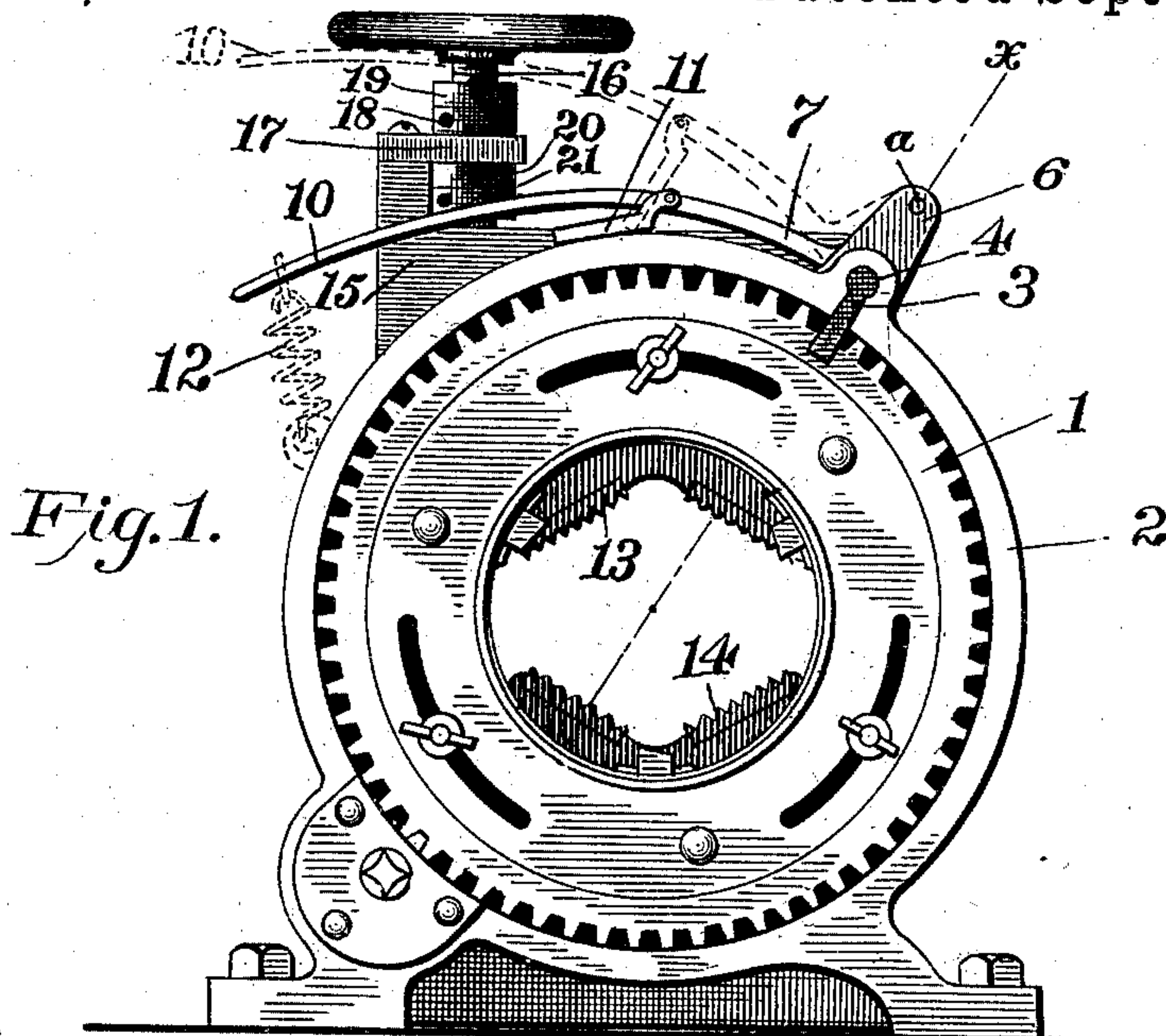
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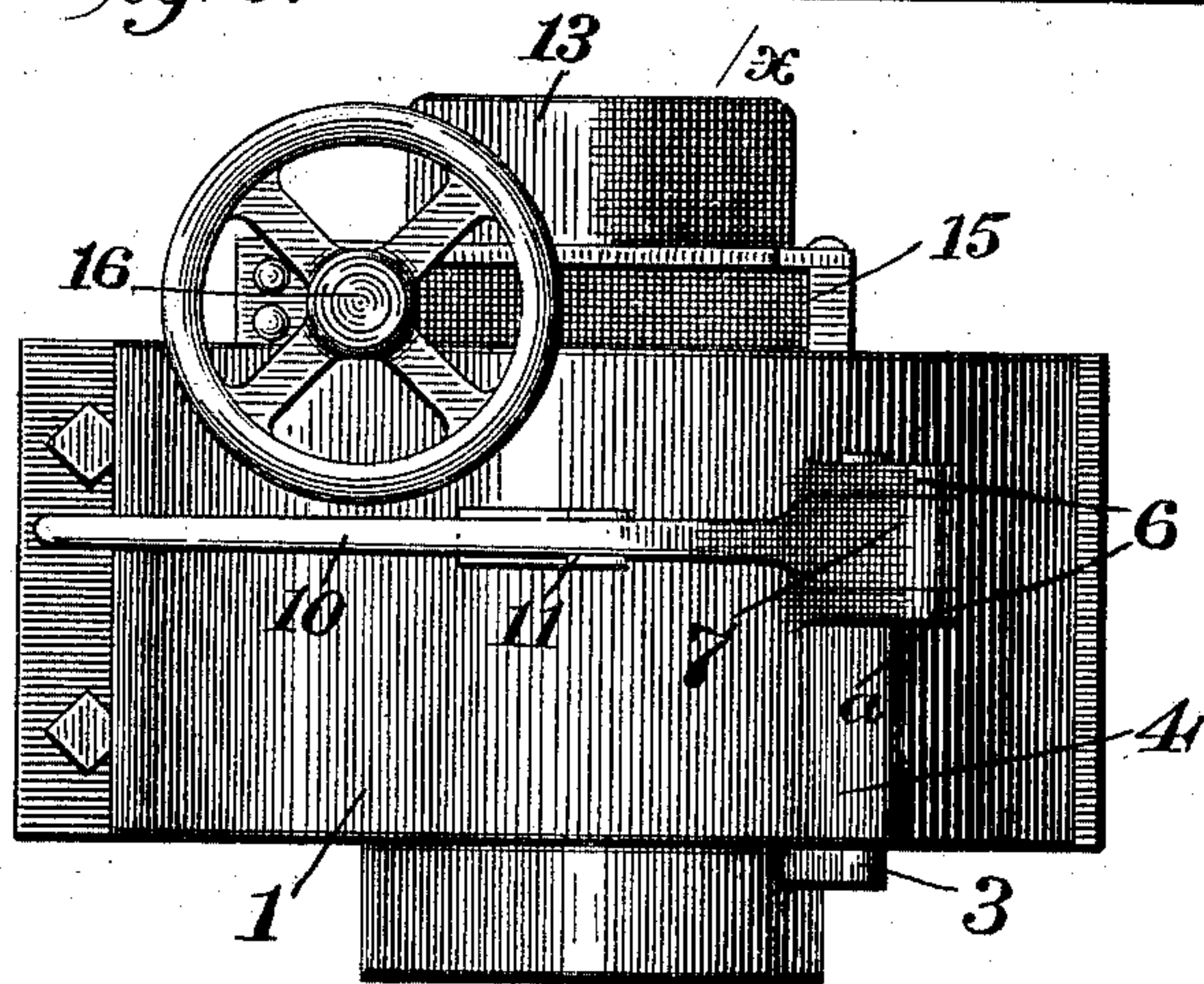
R. P. & L. B. CURTIS.  
PIPE THREADING MACHINE.

No. 505,593.

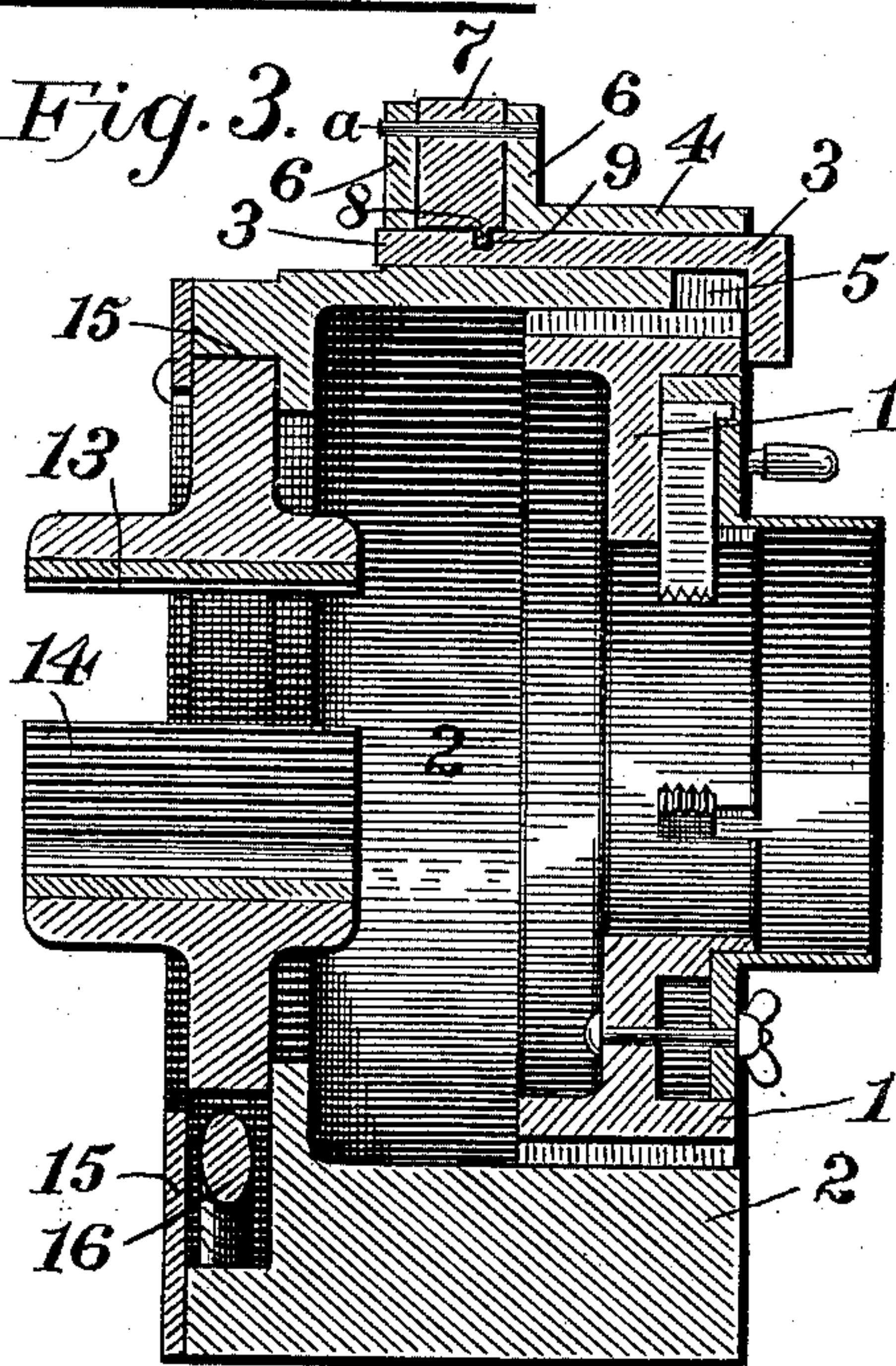
Patented Sept. 26, 1893.



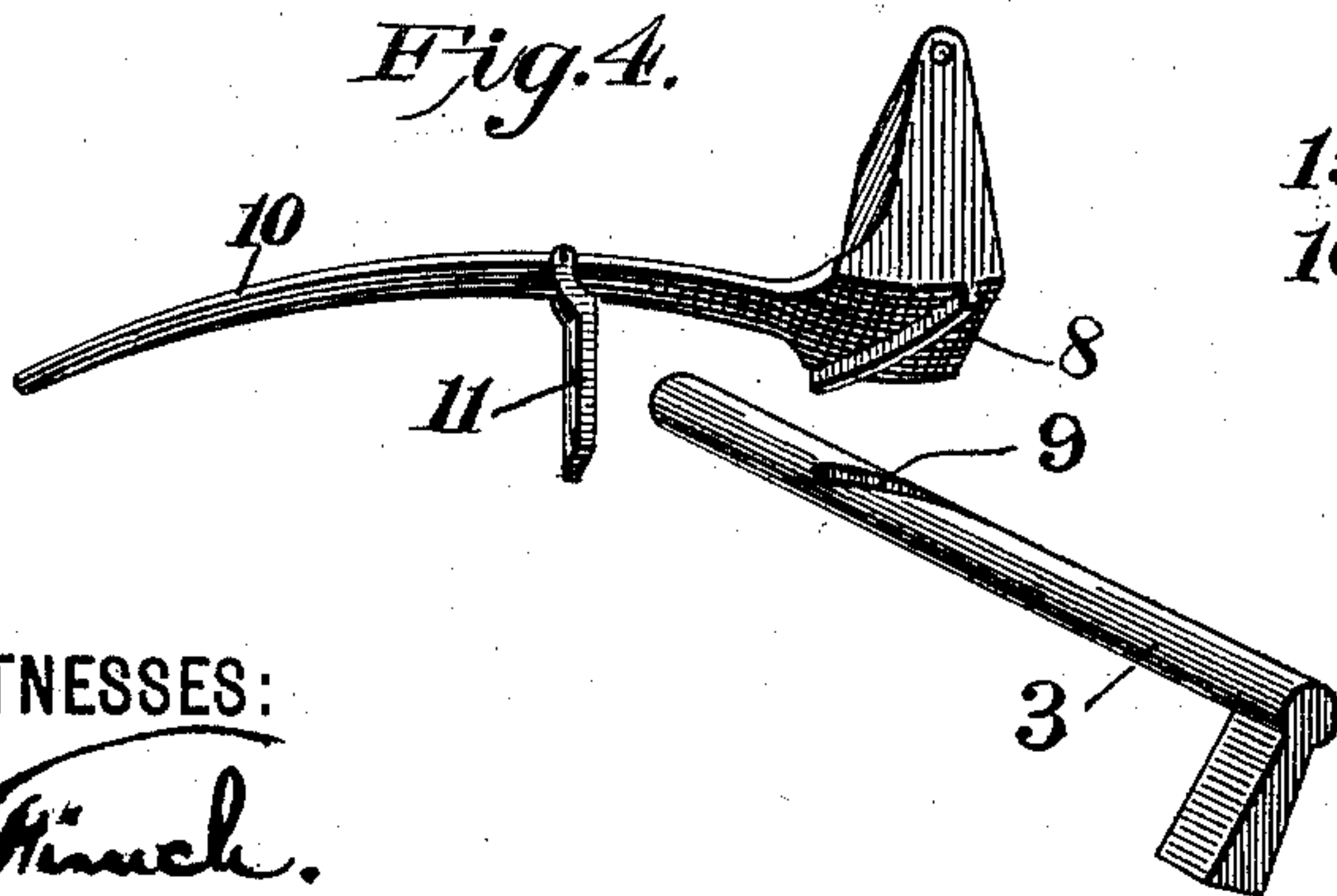
*Fig. 2.*



*Fig. 3. a*



*Fig. 4.*



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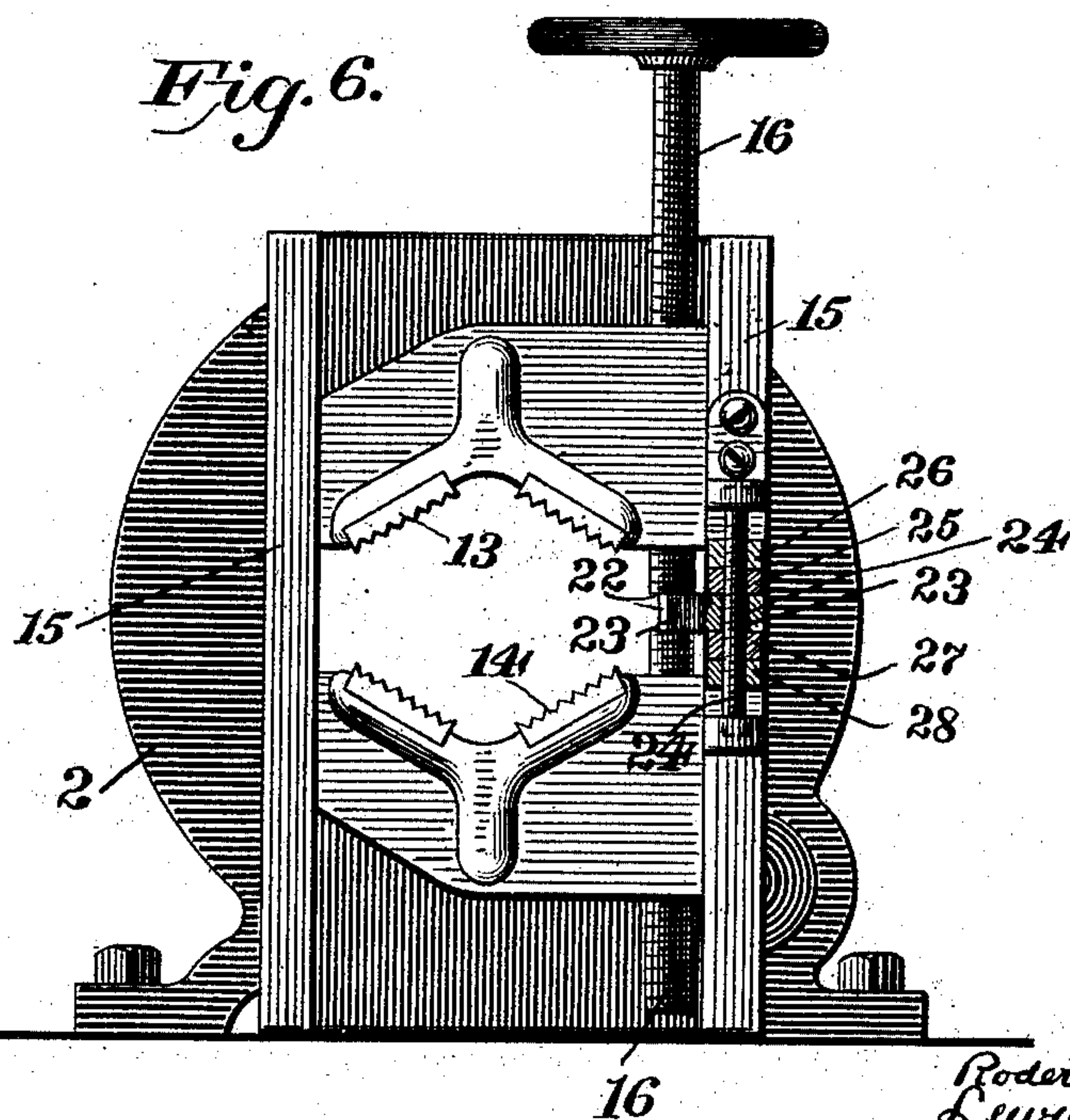
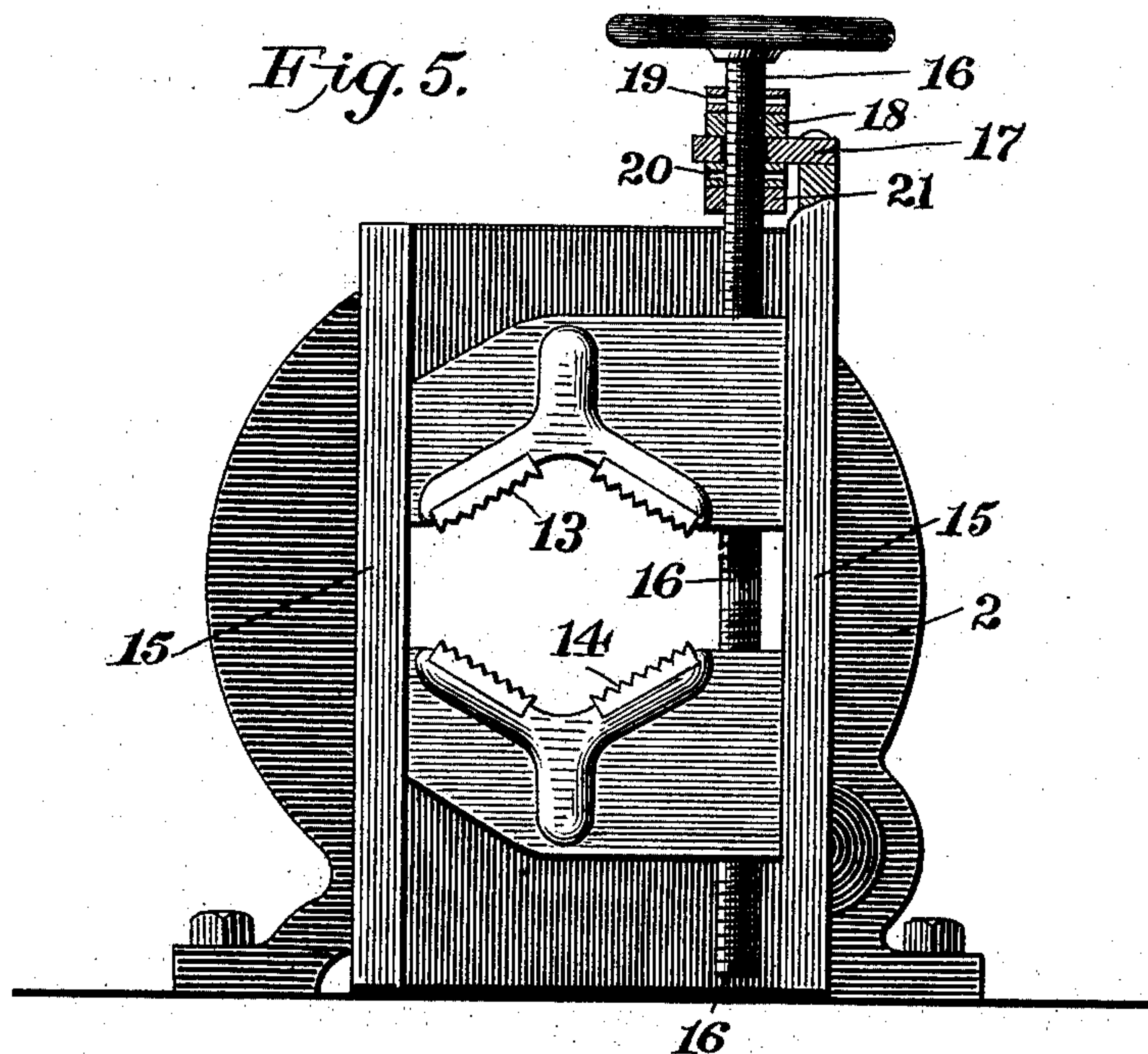
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WITNESSES:

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# UNITED STATES PATENT OFFICE.

RODERICK P. CURTIS AND LEWIS B. CURTIS, OF SOUTHPORT, CONNECTICUT.

## PIPE-THREADING MACHINE.

SPECIFICATION forming part of Letters Patent No. 505,593, dated September 26, 1893.

Application filed August 18, 1892. Serial No. 443,383. (No model.)

*To all whom it may concern:*

Be it known that we, RODERICK P. CURTIS and LEWIS B. CURTIS, citizens of the United States, residing at Southport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Pipe-Threading Machines; and we 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.

Our invention relates to certain new and useful improvements in pipe threading machines, but has particular reference to the devices for clamping the pipe and the instrumentalities for forcing the die-carrying ring inward toward the pipe to be threaded.

In Letters Patent No. 443,500, issued to us December 30, 1890, the means shown and described for forcing the ring inward has proved to be a great benefit to users of the machine, but the location and arrangement of the "dog D" do not render the device as ready of operation as could be wished for; in this respect the present invention aims to produce a construction and arrangement which may be operated with great facility. Also, in machines of this description, the screw which carries and operates the vise-jaws has heretofore been supported and held in position by a fixed toe which projects within an annular recess midway of the screw, but since the weight of the screw and jaws rests upon the upper surface of said toe, such surface becomes so worn by constant use of the machine that the jaws will meet in a horizontal plane lower than the axis of the die-carrying ring. This renders the vise useless, and in such instance it has become necessary to substitute a new toe and screw, for there is also an appreciable wear on the latter.

Our present invention contemplates a support (for the vise-jaws and screw) which may be adjusted to compensate for wear.

In the accompanying drawings,—Figure 1 is a front elevation of a pipe threading machine equipped with our improvements; Fig. 2, a plan view; Fig. 3, a section at the line  $x$ , of Fig. 1; Fig. 4, a detail perspective of the hand dog and sliding finger in a detached condition; Fig. 5, a rear elevation partly in section, and Fig. 6, a view similar to Fig. 5, but

showing my invention as applied in connection with the usual vise-screw and supporting toe.

Similar numbers and letters denote like parts in the several figures of the drawings. 1 is the die-carrying ring adapted to have a free sliding movement within the inclosing casing 2.

3 is a finger within a housing 4 at the top of the casing and capable of a sliding movement only. The forward end of this finger depends in front of the ring 1, while the casing behind said end is recessed, as seen at 5, so that when the finger is moved backward it will bear against the ring and force the same rearward.

6 are ears rising from the housing 4, and between these ears at  $a$  is pivoted the upper end of the dog 7. Immediately below the dog the housing is open, and said dog has depending therefrom a rib 8 spirally disposed from side to side of the lower face of the dog, which rib extends within a spiral slot 9 in the finger 3.

Extended from the bottom of the dog parallel with the face of the ring 1 is a hand lever 10 by which said dog may be operated. When this lever is raised, the dog will be swung on its pivotal point and the rib 8 will act in the slot 9, after the manner of a wedge, and the finger will thereby be projected to normal position.

To prevent accidental dropping of the lever, we pivot to the latter a short leg 11 which serves to prop up said lever, as shown in dotted lines at Fig. 1. If desired, a spring 12, shown in dotted lines at Fig. 1, may be secured to the casing and lever for the purpose of making the effective action of the finger continuous and automatic.

13, 14, are the vise-jaws adapted to slide in ways 15 in the casing and supported respectively on the right and left handed threaded portions of the operating screw 16. Extending from the casing is a ledge 17 and through the latter the screw 16 passes freely.

18, 19, and 20, 21, are sets of nuts and jam-nuts on the screw above and below the ledge. By easing on one set of nuts and tightening the other set against the ledge the screw is raised or lowered as the case may be in order to properly center the jaws.



When the upper face of the ledge or the lower face of the nut 18 become worn by constant use, the plane in which the jaws operate is lowered accordingly, so that the pipe cannot be clamped concentric with the threading dies. To compensate for such wear the set of nuts 18, 19, are tightened from time to time, and, if necessary, a new set of nuts may be substituted for those that are worn. This idea of adjusting the screw bodily to a given horizontal plane is an improvement of considerable value, for it saves a good deal of expense hitherto necessary for repairs, and it insures true results.

At Fig. 6, we have shown the usual way of supporting the screw, the latter being recessed midway of its length, as seen at 22, while a toe 23 extends within this recess. This toe, as before stated, has hitherto been fixed to the casing, but at Fig. 6, we have shown the outer end of said toe loose around a stationary short screw 24 secured to the casing, while nuts 25, 26, and 27, 28, are on said screw on opposite sides of the toe. When any wear occurs, the nuts 25, 26, are backed and the nuts 27, 28, are tightened, thereby elevating the toe and consequently the screw 16 and vise-jaws to their proper normal plane.

The construction just described with reference to Fig. 6 is the clear equivalent of the

construction shown at Fig. 5, the gist of our invention in this respect residing in the idea of adjusting the operating screw bodily to a given plane.

We claim—

1. In a pipe threading machine, the combination with the die-carrying ring having a sliding movement, of the finger capable of lengthwise reciprocation and bearing against the face of said ring, the dog pivoted to the frame of the machine and provided with a hand lever, said dog and finger having respectively a transverse inclined rib and slot in engagement one within the other, substantially as set forth.

2. The combination of the ledge extending from the casing, the operating screw passed loosely through said ledge, the jaws suspended on the threads of said screw, and the sets of nuts and lock-nuts on said screw above and below said ledge whereby the screw may be adjusted to a given plane, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

RODERICK P. CURTIS.  
LEWIS B. CURTIS.

Witnesses:

F. W. SMITH, Jr.,  
J. S. FINCH.