

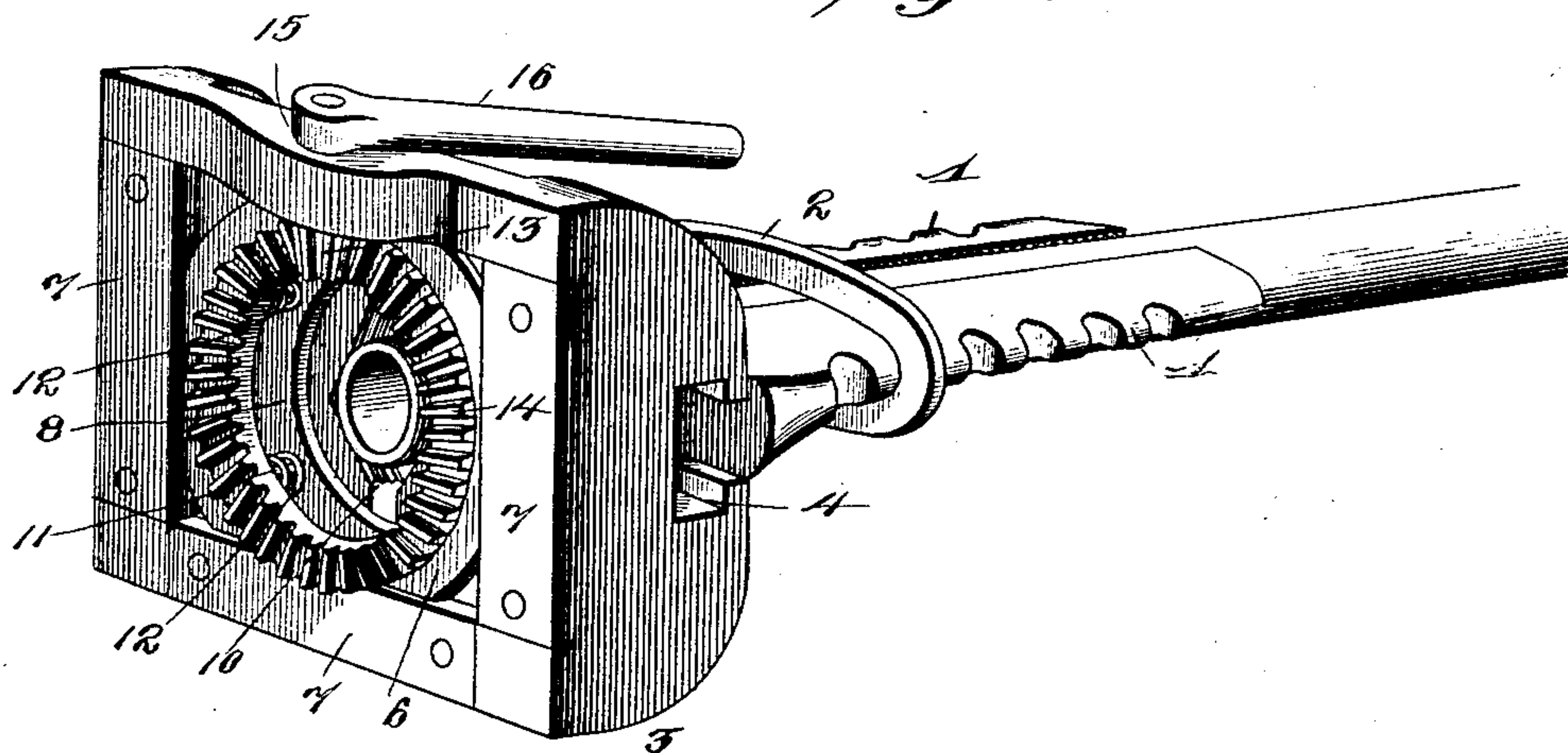
(No Model.)

D. L. HERR.  
PIPE THREADING MACHINE.

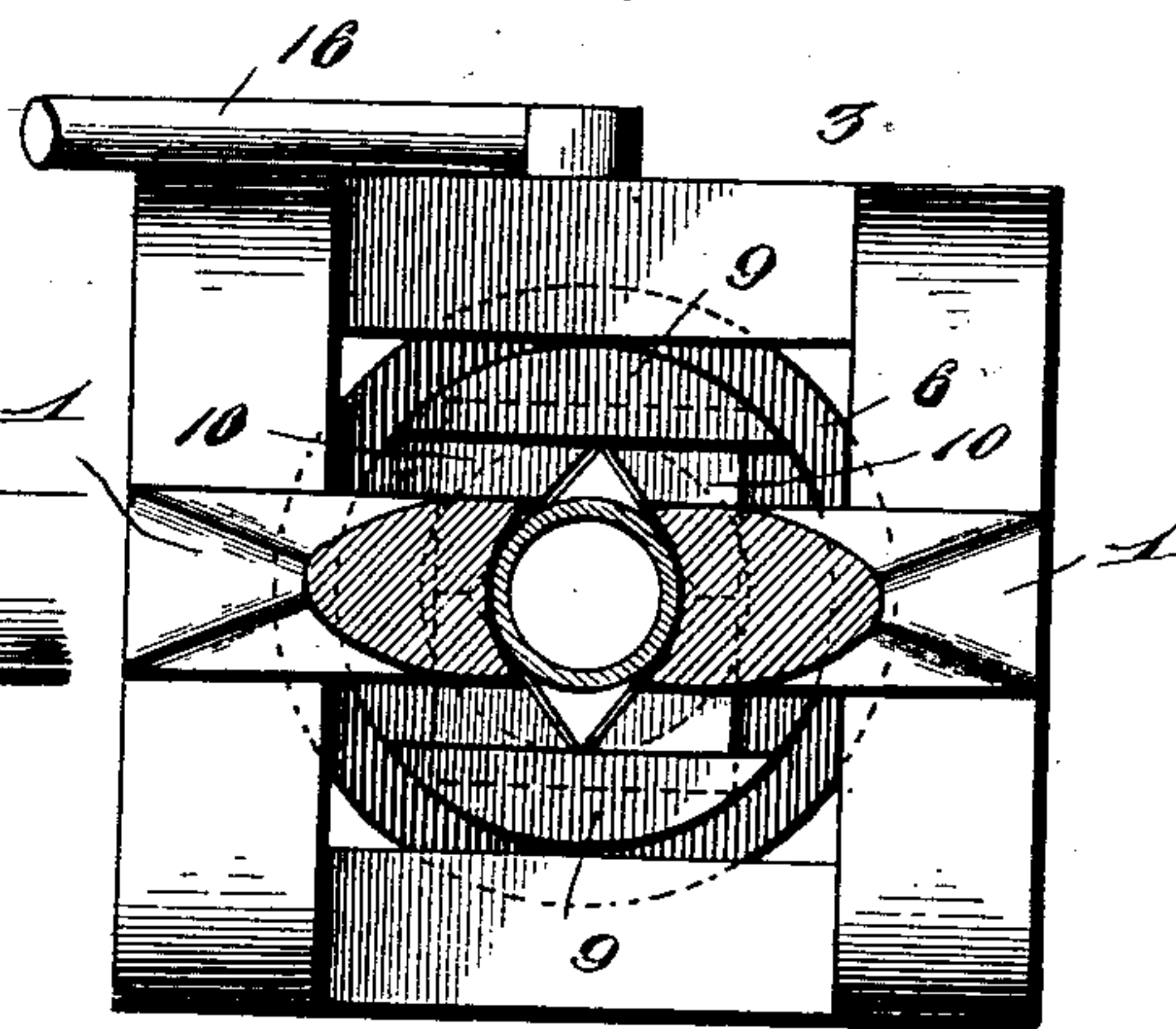
No. 591,967.

Patented Oct. 19, 1897.

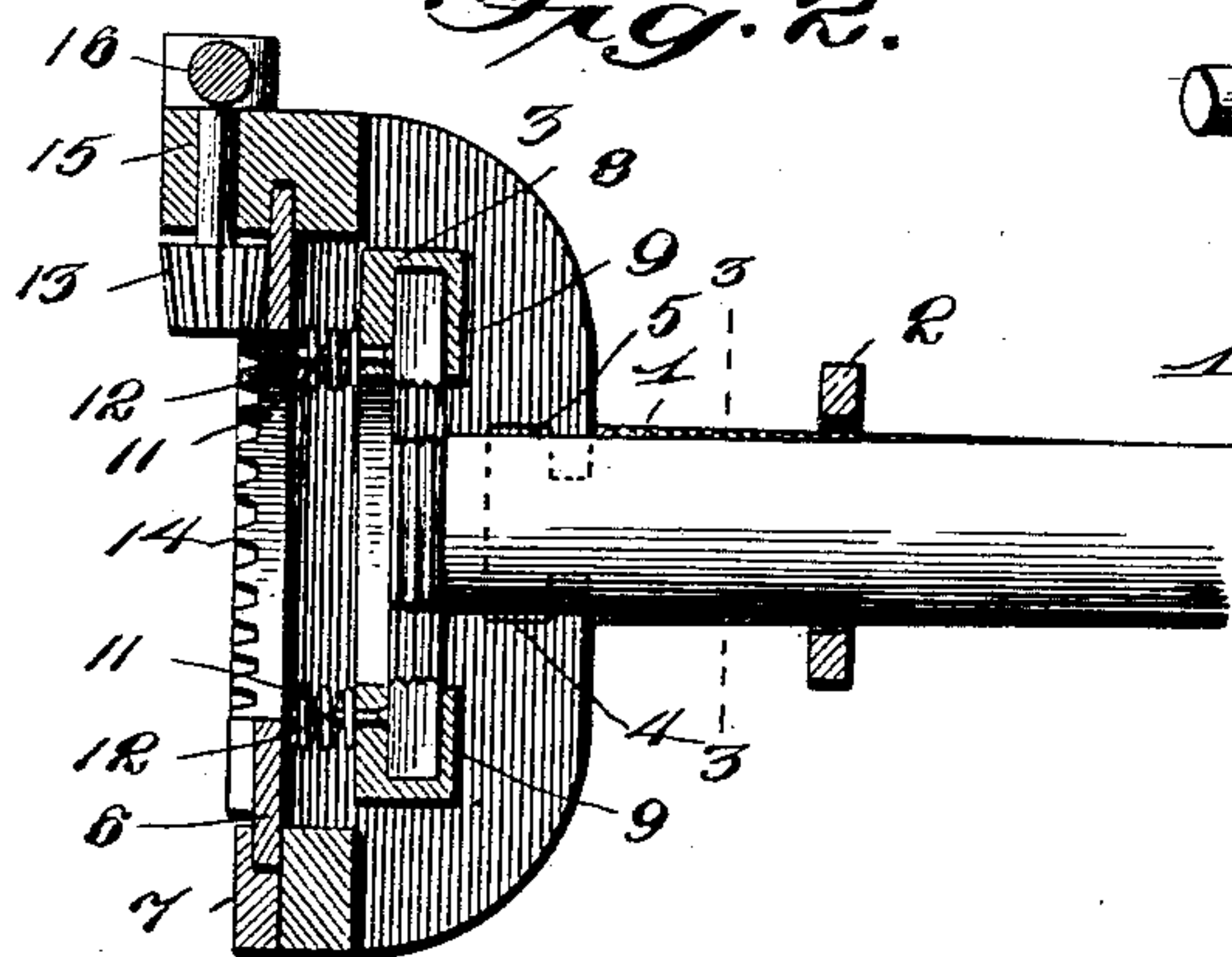
*Fig. 1.*



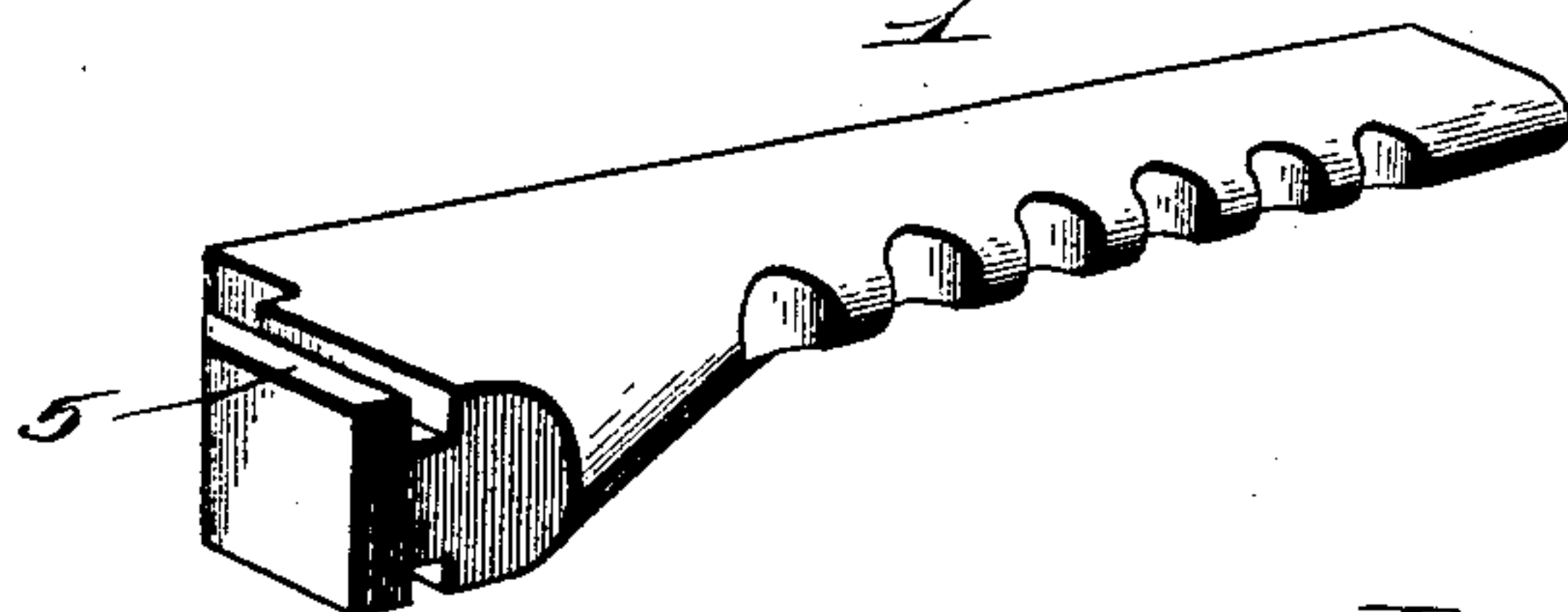
*Fig. 3.*



*Fig. 2.*



*Fig. 4.*



Inventor

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Witnesses

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# UNITED STATES PATENT OFFICE.

DAVID L. HERR, OF LOCK HAVEN, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO WILLIAM R. HERR, OF SAME PLACE.

## PIPE-THREADING MACHINE.

SPECIFICATION forming part of Letters Patent No. 591,967, dated October 19, 1897.

Application filed February 15, 1897. Serial No. 623,464. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID L. HERR, a citizen of the United States, residing at Lock Haven, in the county of Clinton and State of Pennsylvania, have invented a new and useful Pipe-Threading Machine, of which the following is a specification.

My invention relates to pipe-threading machines, and has for its object to provide a simple and efficient construction and arrangement of parts whereby a thread may be formed without the rotation of the frame or of the pipe, to allow the device to be clamped firmly upon the pipe.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a machine embodying my invention arranged in the operative position upon a pipe. Fig. 2 is a central longitudinal section of the same. Fig. 3 is a transverse section on the line 3 3 of Fig. 2. Fig. 4 is a detail view of one of the jaws of the clamp detached.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The mechanism embodying my invention includes a clamp comprising jaws 1, adapted to be arranged upon opposite sides of a pipe or rod to be threaded, and having forwardly-divergent outer sides provided with spaced seats or notches for a clamping-ring 2. By moving this ring toward the front ends of the clamping-jaws the latter may be adjusted relatively to suit the size of the pipe or rod, and it will be understood that further variation in the adjustment of the machine may be accomplished by using clamping-rings of different sizes.

Mounted for lateral movement and adjustment upon the front ends of the clamping-rings is a frame 3, of approximately rectangular form, having opposite sides provided with seats 4 to engage guides 5 on the front extremities of the jaws, said guides consisting of T-heads, whereby the jaws are capable of independent adjustment and separate application to the frame.

Mounted for rotation upon the frame is a die-carrier consisting of a disk 6, peripherally mounted in seats formed in the inner edges of the respectively opposite sides of the frame 3, said disk being held in place by means of plates 7, and a die-plate holder 8, which is of annular construction corresponding with that of the disk 6 and is carried by the latter. The die-holder is provided with opposite guides 9 to receive the die-plates 10, and the holder is yieldingly mounted upon the disk 6, which forms the body portion of the die-carrier, to provide for the longitudinal feeding of the die as the threading operation proceeds. The connections between the yielding holder and the disk 6 include guide-pins 11, and preferably coiled upon these guide-pins and interposed between the contiguous surfaces of the die-holder and disk 6 are actuating-springs 12.

The means which I have illustrated in the drawings for communicating rotary motion to the die-carrier consist of a driving-pinion 13, meshing with a gear formed by a toothed ring 14 on the front side of the disk 6, the spindle of said driving-pinion being mounted in a bearing 15 on the frame and being fitted with an operating crank or lever 16.

In applying the apparatus to an object, as a pipe or rod, to be threaded, the clamping-ring is first slipped over the end of the object. The frame which carries the die-holder is then arranged in operative position with relation to the object, as by bringing the end of the object in contact with the die-plates, the actuating-springs of the die-holder being repressed, after which the clamp members are applied laterally to the frame, at opposite sides of the pipe or rod, and after being brought into contact therewith are secured by means of the clamping-ring. Since the connection between the clamp members and the frame is of a sliding quality, it is obvious that the desired lateral adjustment of the die-holder may be secured by movement of the frame independently of the clamp, and that during the operation of the driving-pinion and the cutting of the die-plates into the object to be threaded the holder will be fed axially, by reason of its actuating-springs, to form a continuous thread. Hence the clamp-



jaws are separately attachable to the frame which supports the die-holder, and also are separately removable when it is desired to displace the apparatus, and as the guides on the clamp members and the seats on the frame are interlocked in all relative positions of said parts it is obvious that any desired relative transverse adjustment of the clamp members may be accomplished, to suit the diameter of the object to be threaded, without detracting from the efficiency of the apparatus.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

1. In a pipe-threading machine, the combination of a clamp having separate jaws for contact with opposite sides of an object to be threaded, said jaws having divergent outer surfaces and a cooperating clamping-ring, and threading devices having a frame upon which the jaws are detachably mounted, substantially as specified.

2. In a pipe-threading machine, the combination of a clamp having separate jaws to bear against opposite sides of an object to be threaded, said jaws being provided with divergent outer sides and spaced seats or notches, a clamping-ring encircling said jaws to engage the seats or notches, and threading devices having a frame upon which the jaws are detachably mounted, substantially as specified.

3. In a pipe-threading machine, the combination with a frame and means for attaching the same to an object to be threaded, of a rotary die-carrier mounted upon the frame and having a yielding die-holder capable of axial movement, and means for communicating motion to the die-carrier, substantially as specified.

4. In a pipe-threading machine, the combination with a frame and means for attaching the same to an object to be threaded, of a ro-

tary die-carrier mounted upon the frame, and including an annular die-holder yieldingly mounted for axial movement, guide-pins for the die-holder, and actuating-springs for advancing the holder, and means for communicating motion to the die-carrier, substantially as specified.

5. In a pipe-threading machine, the combination with a frame and means for securing the same to an object to be threaded, of a rotary die-carrier having an annular disk mounted between the sides of the frame and peripherally fitted in seats formed in the inner edges thereof, a die-holder normally spaced from said disk, and means for yieldingly maintaining the die-holder in its normal position, said disk being provided with a gear, a driving-pinion meshing with said gear, and an operating lever or handle connected to the spindle of the driving-pinion, substantially as specified.

6. In a pipe-threading machine, the combination with a frame and threading devices mounted thereon, of a clamp for engaging an object to be threaded, having separate jaws detachably mounted upon the frame in terminally-open guides for independent transverse adjustment and removal, and means for securing the jaws in their adjusted positions, substantially as specified.

7. In a pipe-threading machine, the combination of a frame and threading devices mounted thereon, said frame being provided with transversely-alined undercut guides open at opposite sides of the frame, and a clamp having separate jaws provided with slides fitted in said guides, and independently removable at the outer ends thereof, and means for securing the jaws in their adjusted positions, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

DAVID L. HERR.

Witnesses:

T. M. STEVENSON,  
J. H. FREDERICK.