No. 751,536. PATENTED FEB. 9, 1904.

W. MORGAN.

SCREW CUTTING DIE HEAD.

APPLICATION FILED SEPT. 18, 1903.

NO MODEL.

Fig. 1.

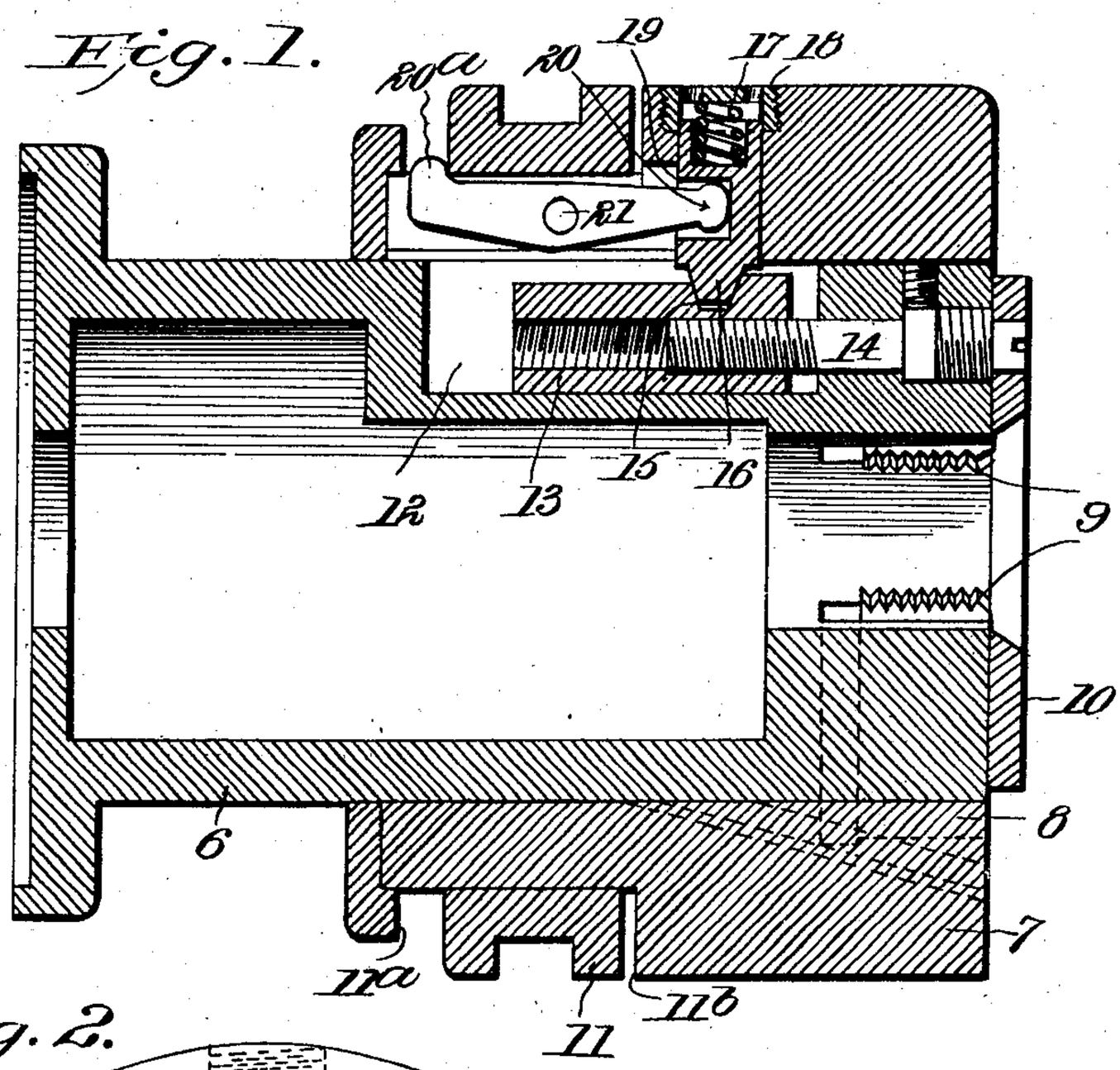


Fig. 2.

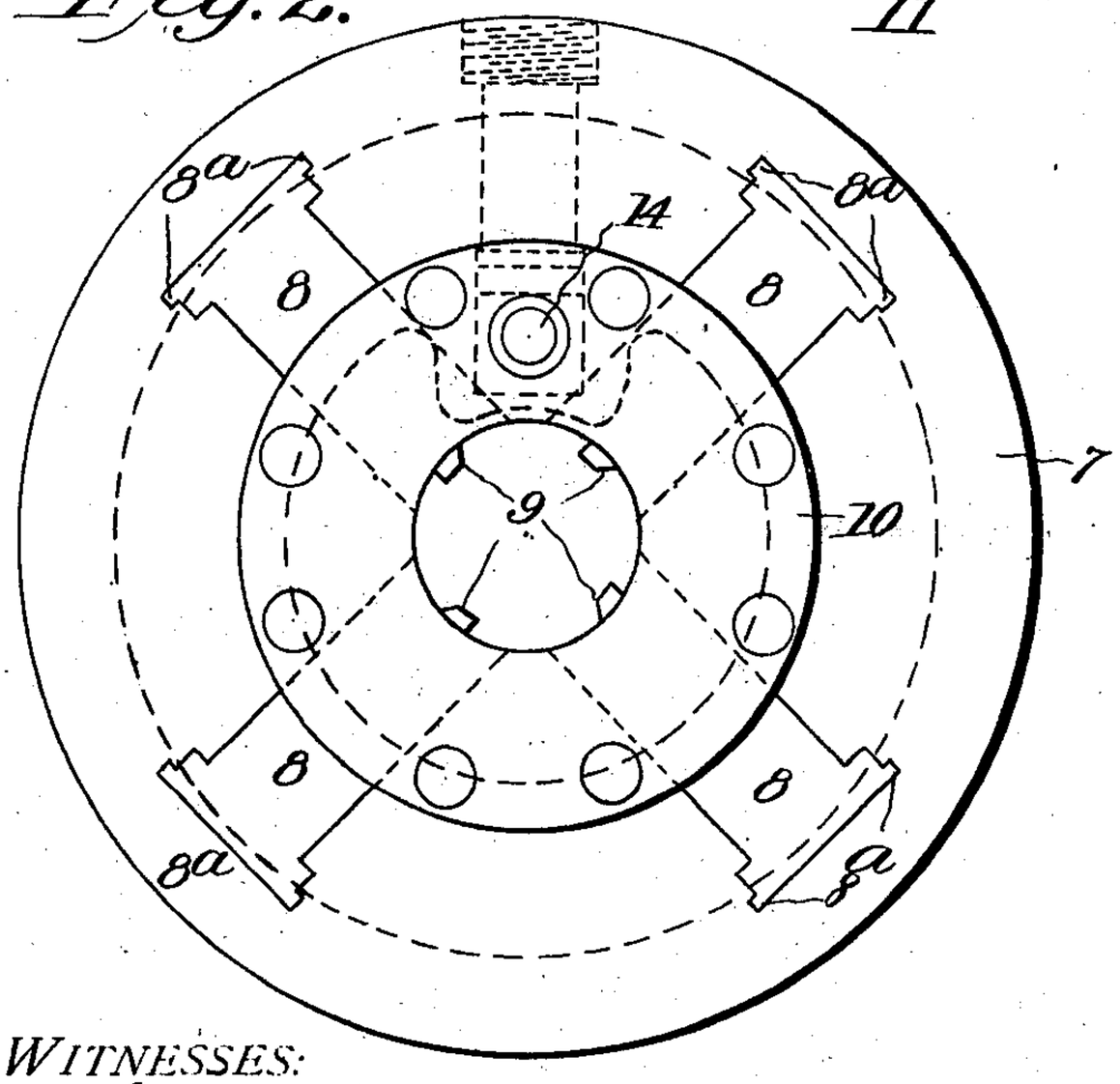
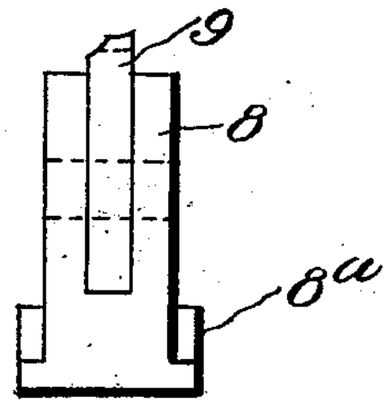


Fig. 3.



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No. 751,536. Patented February 9, 1904.

UNITED STATES PATENT OFFICE.

WILLIAM MORGAN, OF CLEVELAND, OHIO.

SCREW-CUTTING DIE-HEAD.

SPECIFICATION forming part of Letters Patent No. 751,536, dated February 9, 1904.

Application filed September 18, 1903. Serial No. 173,690. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MORGAN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Screw-Cutting Die-Heads, of which the following is a specification.

This invention relates particularly to that class of screw-cutting die-heads in which the chasers are carried by holders having radial movement produced by diagonal slots in a ring or sleeve on the barrel of the head, which slots receive inclined tongues or flanges on the chaser-holder.

The object of the invention is to produce improved means for stopping and locking the movement of the die-ring which controls the movement and position of the chasers.

The construction is particularly an improvement upon that described in my Patent No. 501,685, dated July 18, 1893. Instead of working the lock with a spring and a wedge, as shown in said patent, I work the lock with a lever actuated by a sliding collar.

In the accompanying drawings, Figure 1 is a longitudinal section of the cutter-head. Fig. 2 is a front end view thereof, and Fig. 3 is an end view of one of the die-holders.

Referring specifically to the drawings, 6 indicates the barrel of the head; 7, the die-ring or sleeve slidable thereon; 8, the die-holders, having inclined flanges 8^a and carrying the chasers 9; 10, the ring or cap on the front end of the head to hold the chasers in place, and 11 a collar on the sleeve 7, slidable between shoulders 11^a and 11^b. These parts are old, as disclosed in my former patent. One side of the barrel contains a recess or groove, (indicated at 12,) in which an adjusting-block 13 is slidable. This block is bored and threaded to receive a screw 14, which is tapped through the front end of the barrel and by means of which the position of the block in the slot is regulated. On the outward side the block contains a notch 15, adapted to receive the inner end of a locking-pin 16, which extends and works radially in a hole or bore in the sleeve 7. The pin is under pressure of a spring 17, bearing against the outer end of the pin and confined and adjusted by a screw-cap 18, tapped into the sleeve. The pin is notched, as at 19, to receive the head of a lever 20, which is pivoted at 21 in a lengthwise groove produced in the sleeve 7. The groove joins the bore in which the pin 16 works, so that the head of the lever may enter the notch. The tail of the lever (indicated at 20^a) projects beyond the surface of the sleeve when the locking-pin is in locking position, as shown in Fig. 1.

In operation the sleeve is moved back and forth on the barrel to move the chasers in and out in a manner common to this class of devices, the movement of the sleeve being produced by movement of the collar 11, as by a suitable hand-lever, and by the contact of said collar against the shoulders 11^a and 11^b in the respective movements. The block 13 is adjusted by the screw 14 to bring the notch 15 in proper position to receive the locking-pin and stop the forward or outward movement of the sleeve, according to the size of the bolt to be threaded, and when the sleeve is thrust outward or forward the locking-pin travels along the surface of the block until it reaches the notch, into which it drops by the pressure of the spring 17. This stops the movement. When the chasers are to be retracted, the collar 11 is moved inwardly, and in the beginning of its movement it contacts with the rounded tail 20^a of the lever and forces the same down or in. This causes the head of the lever to lift the pin from the notch, and continued inward or rearward motion of the collar 11 causes it to strike the shoulder 11^a and carry the sleeve with it until the chasers are withdrawn from the work. Then in the opposite motion the collar is moved forwardly or outwardly and releases the lever, so that when the desired position of the sleeve is reached the pin will fall into the notch. It will be seen that the parts are few and simple and the action effective for the purpose intended.

What I claim as new, and desire to secure by Letters Patent, is—

In a cutter-head, the combination with the barrel, the sliding sleeve thereon, the sliding collar on the sleeve, and the bevel-closing chaser-holders carried by the barrel and

adapted to be actuated by the sleeve, of an adjusting-block slidable in the barrel and having a notch, a yielding locking-pin carried by the sleeve and adapted to engage in the notch, and a lever pivoted on the sleeve and engaging at one end the pin and projecting at the other end in the way of the collar, to disengage the pin when the collar is retracted.

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

WILLIAM MORGAN.

Witnesses:
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LOTTIE NEWBURN.