(No Model.)

W. D. FORBES.

SCREW THREADING MACHINE.

No. 270,409. Patented Jan. 9, 1883.

FIG. 1.

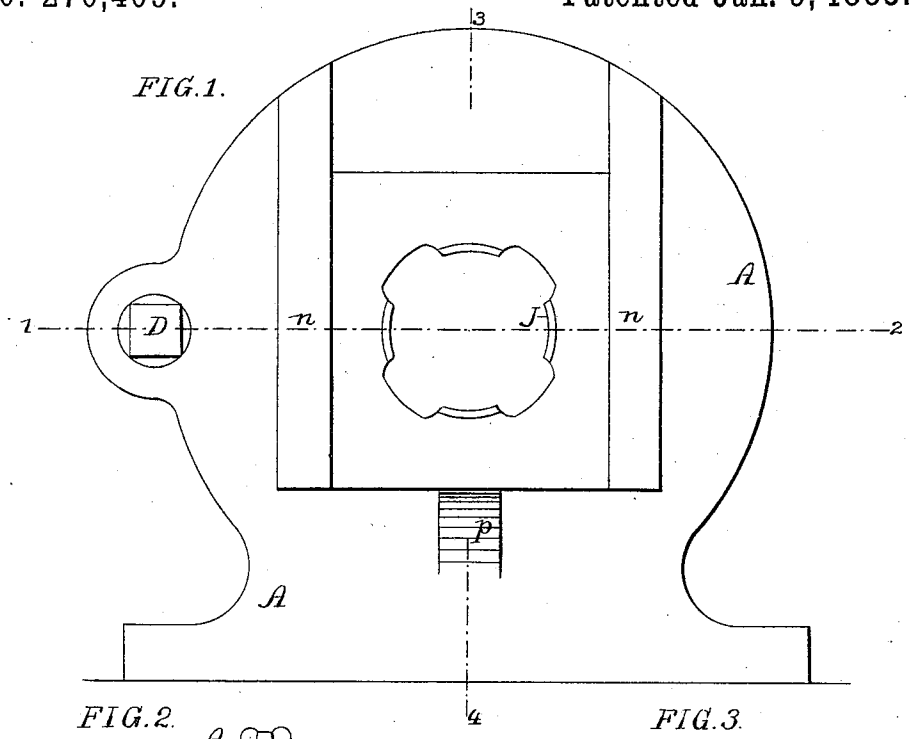


FIG. 2.

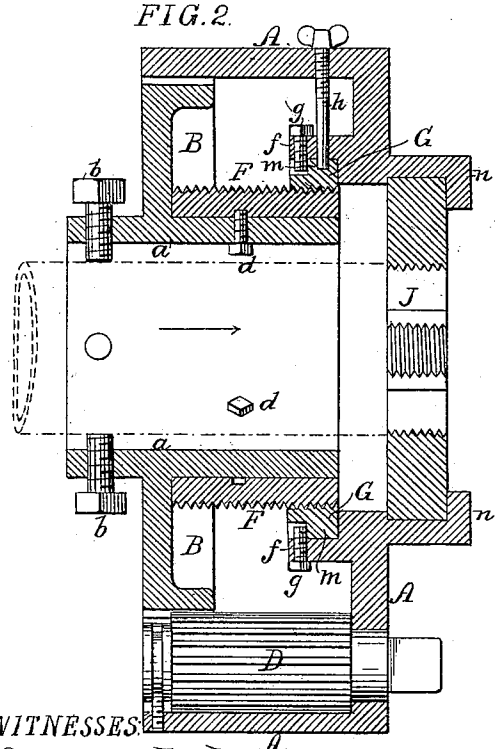
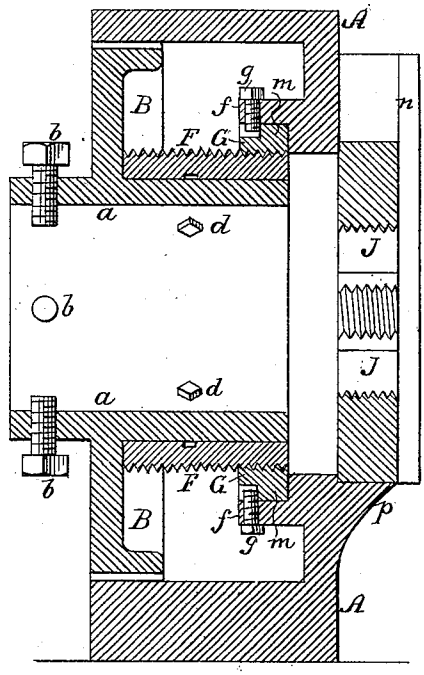


FIG. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM D. FORBES, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR OF ONE-HALF TO RODERICK P. CURTIS, OF SAME PLACE.

SCREW-THREADING MACHINE.

SPECIFICATION forming part of Letters Patent No. 270,409, dated January 9, 1883.

Application filed July 24, 1882. (No model.) Patented in England May 26, 1882, No. 2,508.

To all whom it may concern:

Be it known that I, WILLIAM D. FORBES, a citizen of the United States, and a resident of Bridgeport, Connecticut, have invented certain Improvements in Die-Stocks, of which the following is a specification.

My invention relates to certain improvements in the die-stock for which Letters Patent of the United States No. 253,996 were granted to me on the 21st day of February, 1882, the main object of my present improvements being to readily vary the direction and pitch of the thread, and a further object being to insure accuracy in the cutting of said thread.

In the accompanying drawings, Figure 1 is a front view of my improved die-stock; Fig. 2, a sectional plan view of the same on the line 1 2, and Fig. 3 a vertical section on the line 3 4.

A is the casing of the implement, which is bolted or otherwise secured to a work-bench, and has internal bearings for a toothed ring, B, and an elongated pinion, D, the latter being adapted to rotate the ring without interfering with the longitudinal traversing of the same within the casing. The outer projecting portion of the hub *a* of the ring B has set-screws *b* for clamping to the ring a pipe or rod upon which a thread is to be cut, and to the inner portion of the hub is secured, by set-screws *d*, a threaded ring, F, which constitutes a lead-screw, and is adapted to a nut, G, the latter fitting snugly to a recessed flange, *f*, on the casing A, and being prevented from moving longitudinally by screws *g* passing through the flange and engaging with a shoulder *m* on the nut. The nut G is locked to the flange *f* by means of a screw-pin, *h*, adapted to an opening in the nut, and to a threaded opening in the casing, the withdrawal of said pin leaving the nut free to revolve.

J is the cutting-die, which is adapted to guides *n* on the casing, and rests upon a lug, *p*, so that it is incapable of either rotary or longitudinal movement.

The operation of the device is as follows: The parts being in the position shown in Fig. 2, and a pipe or rod being secured to the ring B, so that its end is in contact with the die J, as shown by dotted lines, the ring B is rotated by means of the pinion, so that, owing to the lead-screw F and nut G, the said ring will be caused to move in the direction of the arrow, and the pipe will be thrust into the die, which cuts the desired thread thereon.

By using a fixed die and rotating and traversing the pipe a truer thread will be cut thereon than if the die was rotated and traversed, as defects in the centering of the pipe can be more easily detected when the pipe rotates than when it is stationary.

When it is desired to cut off the ragged or uneven end of a pipe a cutter may be inserted in place of the die J, and the nut G released from the flange *f* by withdrawing the pin *h*, so that the ring B and the pipe can be turned without any longitudinal movement being imparted thereto.

The detachable lead-screw F and nut G are important features of my invention, as they permit the use of the stock for the cutting of threads of varying pitch, and for cutting either right or left hand threads, one lead-screw and nut being removed and another substituted therefor when a change in the character of the thread to be cut becomes necessary.

I claim as my invention—

1. The combination of the fixed casing A, carrying the die J, and having a nut, G, with the toothed pipe-holding ring B, adapted to rotate and slide in the casing A, and having a leading-screw adapted to the said nut, all substantially as set forth.

2. The combination of the casing A, carrying the die J, and having a flange, *f*, the ring B, provided with a detachable feed-screw, F, the shouldered nut G, and set-screw *g*, all substantially as set forth.

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

WILLIAM D. FORBES.

Witnesses:
JAMES F. TOBIN,
HARRY SMITH.