(No Model.)

R. P. & L. B. CURTIS.

PIPE THREADING MACHINE.

No. 477,296. Patented June 21, 1892.

Fig. 1.

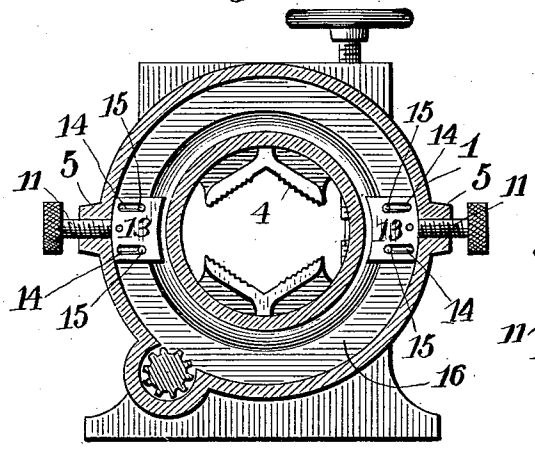


Fig. 2.

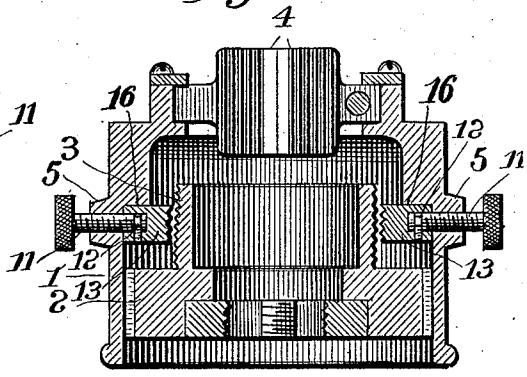


Fig. 3.

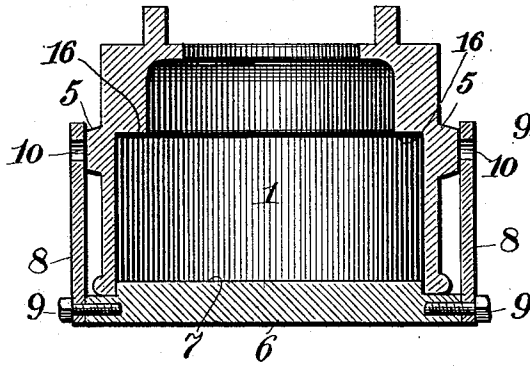
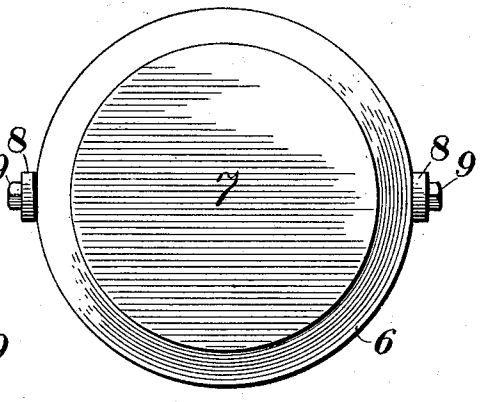


Fig. 4.



WITNESSES:

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RODERICK P. CURTIS AND LEWIS B. CURTIS, OF SOUTHPORT, ASSIGNORS TO CURTIS & CURTIS, OF BRIDGEPORT, CONNECTICUT.

PIPE-THREADING MACHINE.

SPECIFICATION forming part of Letters Patent No. 477,296, dated June 21, 1892.

Application filed July 30, 1891. Serial No. 401,207. (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 especially does our invention have reference to devices for accurately locating the lead-blocks, whereby the latter will engage with the lead-screw carried by the die-ring.

In the accompanying drawings, Figure 1 is a vertical cross-section of a pipe-threading machine equipped with lead-blocks constructed and adapted in accordance with our improvement; Fig. 2, a horizontal section of the same; Fig. 3, a horizontal section of the casing of a pipe-threading machine equipped with our device for locating the thumb-screws for the lead-blocks, and Fig. 4 a detail rear view of said device.

Similar numbers denote like parts in the several figures of the drawings.

Our invention is illustrated in connection with a pipe-threading machine made in substantial accordance with Letters Patent No. 363,626, issued May 24, 1887, to W. D. Forbes, said machine embodying in its structure a casing, a rotatory die-carrying ring supported within said casing and capable of a sliding movement therein, a lead-screw rigid with said ring, and a vise for clamping a pipe or bolt during the operation of the threading-dies.

In machines of this description it has been found advisable to use a plurality of lead-blocks, with which the lead-screw may engage, since in the instance of a single block there is more or less of a strain exerted laterally against the screw, whereas if two lead-blocks are used and placed opposite to each other such strain will not result. Two lead-blocks have heretofore been used; but great difficulty has been met with in properly locating such blocks, because the threads on each block must be adapted as a nut to the lead-screw.

Our present invention locates the position of the lead-blocks accurately and will be readily understood from the following description:

1 is the casing; 2, the die-carrying ring therein; 3, the lead-screw rigid with said ring, and 4 a vise for clamping the pipe or bolt to be threaded.

5 are nipples cast on opposite sides of the casing and having flat ends.

6 is a circular plate having a shoulder 7, adapted to fit snugly within the face of the casing, and 8 are arms opposite to each other and bolted to the outside edge of said plate at 9 and extending across the flat ends of the nipples 5. These arms have perforations 10 at points equidistant from the face of the plate 6. The plate and arms being in the position shown at Fig. 3, it will be readily understood that said perforations will serve as guides to locate the field of a drill, whereby the nipples may be pierced and interiorly threaded at points exactly opposite each other. The thumb-screws 11 are passed through the nipples thus pierced and threaded and are swiveled at 12 to the lead-blocks 13, which latter have elongated slots 14, within which pins 15 extend from the casing 1 to afford means for properly guiding or steadying said blocks, as shown at Figs. 1 and 2. Of course more than two lead-blocks may be used, if desired; but two are all that are necessary.

16 is an annular seat within the casing and parallel with the face thereof. This seat is milled, so that its entire area is in the same vertical plane, and the lead-blocks are abutted against said seat, thereby causing the threads on said blocks to assume a relative position, the same as if they were continuously cut on a single nut. The outer walls of the slots 14 are countersunk and the pins 15 are slightly enlarged at the outer ends and closely adapted to said countersunk portions, in order that said blocks may be firmly held against the seat 16.

It will thus be seen that the lead-blocks may be accurately located at any point in the casing as long as they are seated against the seat 16, and this is the most important fea-

ture of my invention, the accurate location of the screws 11 being adjunctive rather than essential.

By equipping the casing with the seat 16 the lead-blocks are rendered interchangeable, different blocks with different threads may be substituted therefor, and it is immaterial whether two, three, or more lead-blocks are used.

We claim—

1. In a pipe-threading machine, the casing having therein an annular seat, in combination with separate and independent lead-blocks secured against said seat and capable of an inward-and-outward movement, substantially as set forth.

2. In a pipe-threading machine, the combination of the annular seat in the casing, having its entire area in the same vertical plane, the lead-blocks having countersunk slots and abutted against said seat, the pins extended from said seat within said slots and having heads which are closely adapted to said countersunk portions, and means, as thumb-screws, for operating said blocks, substantially as shown and described.

3. In a pipe-threading machine, the combination, with the casing having nipples on opposite sides thereof, of the plate having a shoulder which fits snugly within the face of said casing, and arms secured to opposite sides of said plate and extended across said nipples, whereby the latter may be pierced in accurate alignment with each other to accommodate the thumb-screws for the lead-blocks, 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.