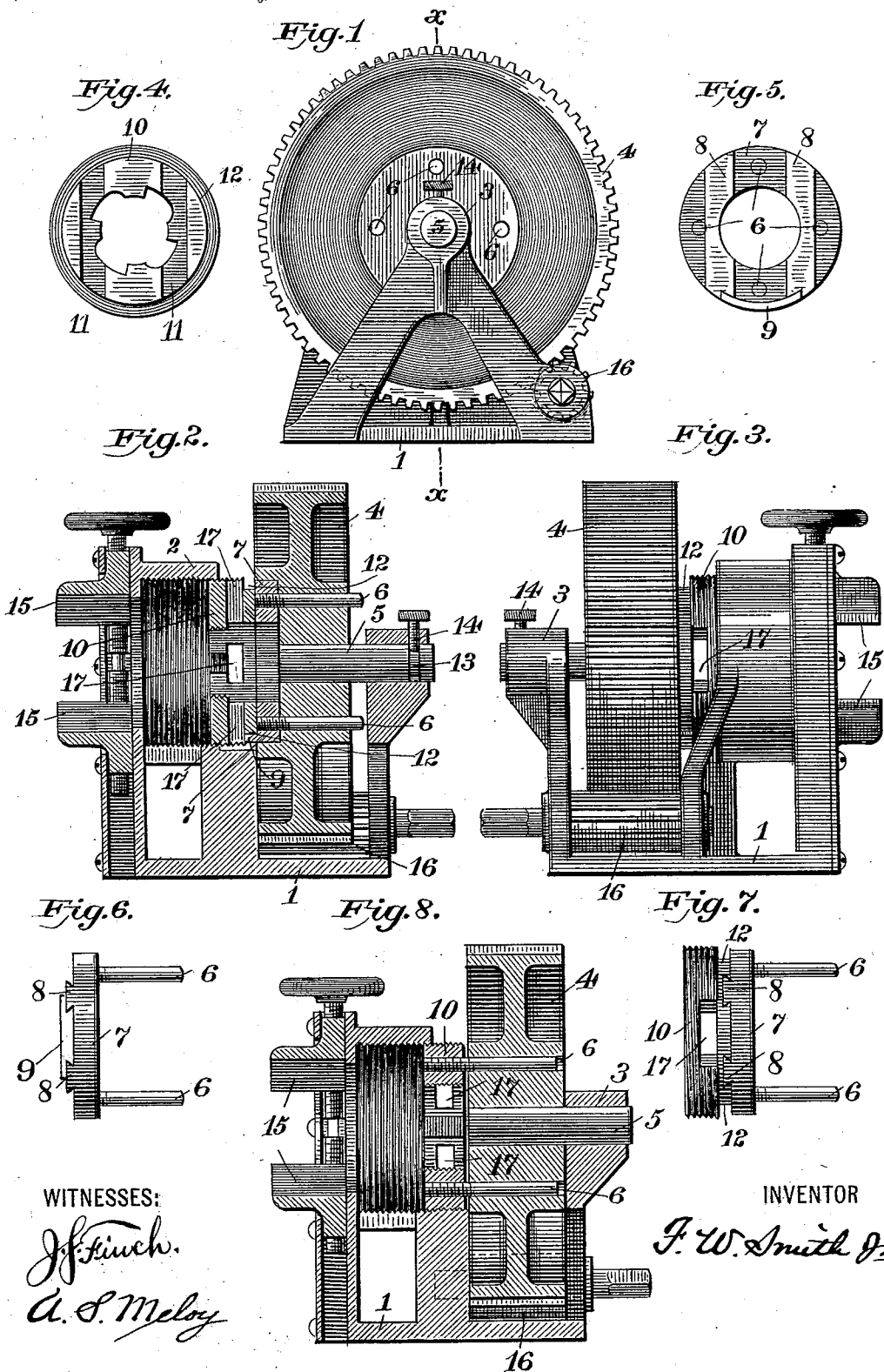


(No Model.)

F. W. SMITH, Jr.
PIPE THREADING MACHINE.

No. 508,582.

Patented Nov. 14, 1893.



WITNESSES:

J. F. Smith.
A. S. Meloy

INVENTOR

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UNITED STATES PATENT OFFICE.

FRIEND W. SMITH, JR., OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO
CURTIS & CURTIS, OF SAME PLACE.

PIPE-THREADING MACHINE.

SPECIFICATION forming part of Letters Patent No. 508,582, dated November 14, 1893.

Application filed February 27, 1893. Serial No. 463,859. (No model.)

To all whom it may concern:

Be it known that I, FRIEND W. SMITH, Jr., a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Pipe-Thread-
ing Machines; and I 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 apper-
tains to make and use the same.

My invention relates to certain improve-
ments in pipe threading machines, and will
be best understood from the following de-
scription, reference being had to the accom-
panying drawings, in which—

Figure 1 is an end view of my improved machine; Fig. 2, a sectional elevation at the line *x, x*, of Fig. 1; Fig. 3, a side elevation; Fig. 4, a detail elevation of the die-head; Fig. 5, a detail front elevation of the die-plate; Fig. 6, a detail side elevation of said plate; Fig. 7, a detail side elevation showing the die head and plate assembled together, and Fig. 8, a sectional elevation similar to Fig. 2, but showing a slight modification of my improve-
ments.

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

1 is a bed-plate having rising therefrom a casing 2 and journal bearings 3.

4 is a wheel having gear teeth on its periphery and provided with an axial shaft 5 extending from its rear side and journaled in the bearing 3. Extending through this wheel from front to rear are pins 6 preferably four in number, said pins being free to move back and forth and secured at their forward ends to a die-plate 7 which latter fits within a recess in the face of the wheel so as to be flush with said face. This plate is superficially free from the wheel so as to be capable of an inward and outward movement. Projecting from the face of this plate are dovetailed ways 8 (see Figs. 5 and 6) and an arcuate rib 9, which latter extends laterally from the periphery of said plate.

10 is the die-carrying head having recesses 11 for the ways 8, whereby said head may be secured to the plate 7 so as to revolve there-
with. This rear of this head is reduced, as

seen at 12, so as to fit snugly against the rib 9 and thereby insure the accurate centering of said head, as will be understood by reference to Figs. 2, 4 and 5. The interior of the casing is threaded, and the head 10 is correspondingly threaded, so that when said head revolves it will advance within the casing and lead the threaded dies on to the pipe. The shaft 5 has an annular groove 13 within which a pin 14 is inserted from the bearing 3, whereby said shaft and the wheel 4 are prevented from moving lengthwise. During the advance of the head 10 within the casing, the pins 6 will insure harmony of rotation between the wheel and head. 15 is any ordinary pipe holding vise secured to the back of the casing, and 16 is a pinion in engagement with the teeth on the wheel whereby the latter may be revolved. In removing the die-head it is merely necessary to withdraw the pin 14 from the groove 13, and then slide the shaft 5 and the wheel carried thereby backward, and when the head is clear from the casing, said head may be readily withdrawn.

17 are openings in the die-head, whereby the thread cut on the pipe may be inspected from time to time. The die-head may be made integral with the die-plate, as shown in Fig. 8, but in such instance, no change at threading-dies can be made without first removing the pins 6 and then the wheel.

I do not wish to limit my invention to the use of pins 6, as it is only necessary that the die-plate should be rigid with the wheel as to rotary movement and at the same time to be capable of a sliding movement independent of said wheel, and there are many ways well known in the mechanical arts for accomplishing this result.

I claim—

1. In a pipe threading machine the combination of a casing adapted to be secured to the object to be threaded, a rotary toothed ring stationary as to sliding movement during operation and having an axial shaft extended rearward therefrom and journaled within suitable bearings rising from the casing, and a die-head projecting from the face of the wheel and supported circumferentially within said casing, said die-head rigid with the casing as to rotary movement but capable

of an independent sliding movement during its rotation, substantially as shown and set forth.

2. In a pipe threading machine the combination of the rotary wheel having axial shaft extended rearward therefrom and journaled in a suitable bearing, said shaft capable of a sliding movement within said bearing, means for securing said shaft as against lengthwise movement during the operation of the machine, the die-plate having a sliding connection with said wheel and adapted to revolve

in harmony therewith, the die-head detachably secured to said plate, and the casing within which said head is supported circumferentially, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

FRIEND W. SMITH, JR.

Witnesses:

HOWARD N. WAKEMAN,
J. S. FINCH.