

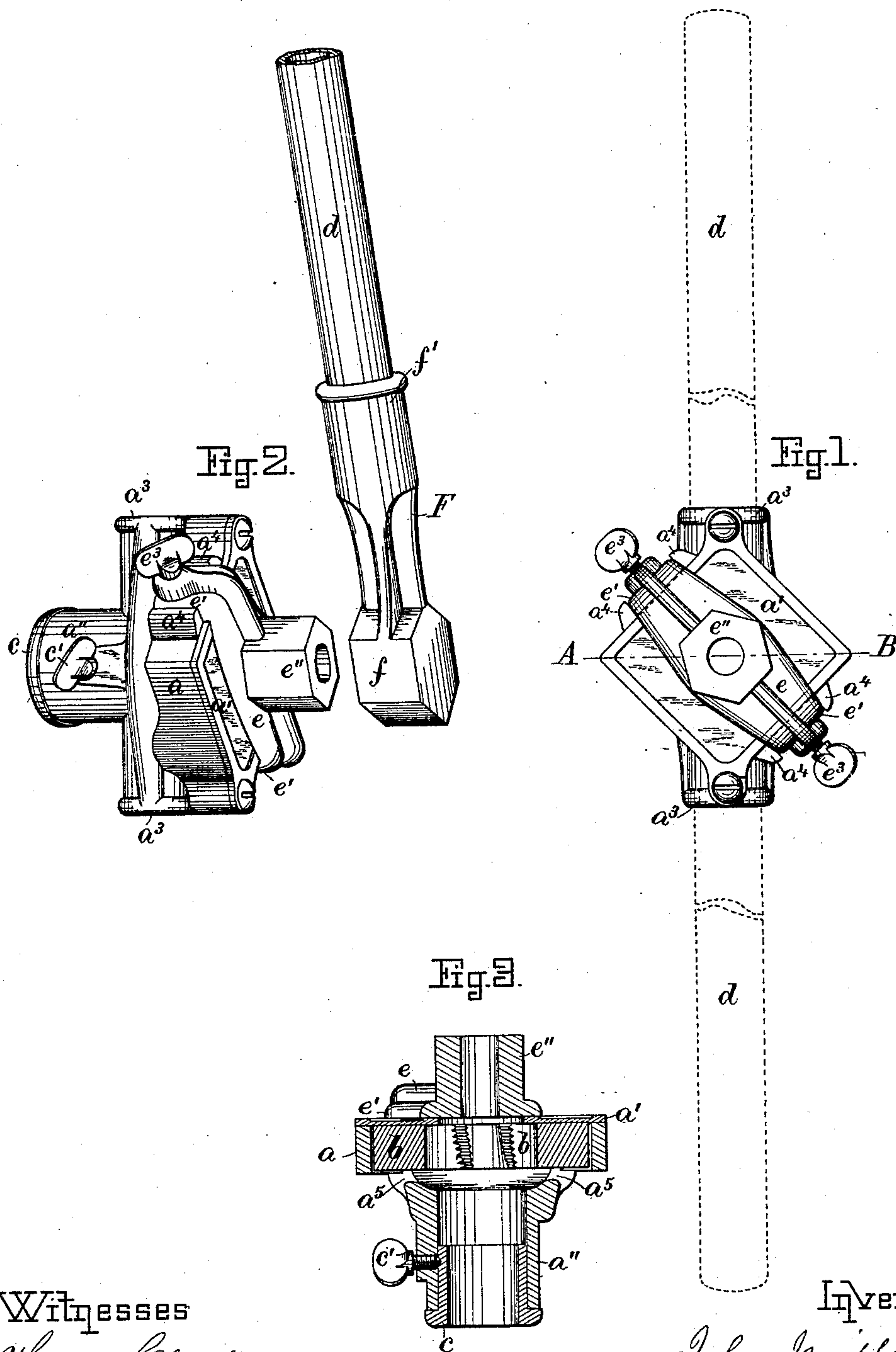
(No Model.)

J. MILLER.

SCREW THREADING DEVICE.

No. 338,282.

Patented Mar. 23, 1886.



Witnesses

Henry Chadbourn.

Ella F. Blandin

Inventor

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his atty.



# UNITED STATES PATENT OFFICE.

JOHN MILLER, OF CAMBRIDGEPORT, MASSACHUSETTS.

## SCREW-THREADING DEVICE.

SPECIFICATION forming part of Letters Patent No. 338,282, dated March 23, 1886.

Application filed August 7, 1885. Serial No. 173,820. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN MILLER, a citizen of the United States, residing at Cambridgeport, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Screw-Threading Devices; and I do hereby declare that the same are fully described in the following specification and illustrated in the accompanying drawings.

This invention relates to improvements in screw-threading devices; and it is carried out as follows, reference being had to the accompanying drawings, where—

Figure 1 represents a plan view of the invention. Fig. 2 represents a perspective view; and Fig. 3 represents a cross-section on the line A B, shown in Fig. 1.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

Die-stocks for cutting screw-threads on pipes or rods are generally made of two kinds—namely, direct-acting—that is, with handles secured to the die-stock and by means of which the die is turned around the pipe or rod to be screw-threaded—and ratchet die-stocks adapted to be turned by means of a reciprocating ratchet-lever for the purpose of cutting screw-threads on pipes or rods located in a corner of a room or other place where there is not sufficient space for swinging a handle in a complete circle.

The object of my present invention is to combine with an ordinary direct-acting die-stock a simple detachable device by means of which the tool can be used for cutting threads on pipes or rods located in corners, or in such places where a direct-acting tool could not be operated, and in this manner the use of the tool is materially increased without adding much to its cost.

$a$  is the cutter-holding frame, as usual, in which is contained the detachable screw-cutting die  $b$ .

$a'$  is a hinged cover on top of frame  $a$ , as usual.

$c$  is the detachable guide-sleeve secured to the tubular shank  $a''$  on frame  $a$  by means of a set-screw,  $c'$ , in the ordinary manner.

$a^3 a^3$  are screw-threaded hubs extending in

diametrically - opposite directions from the frame  $a$ , as shown in Fig. 1, to which hubs are secured the screw-threaded ends of the detachable handles  $d d$  when the device is to be used as a direct-acting die-stock in the usual manner.

On two opposite sides of the frame  $a$  are made vertical projections or guide-ribs  $a^4 a^4$ , between which are inserted the downwardly-projecting ends  $e' e'$  of the detachable clamp  $e$ , as shown in Figs. 1 and 2. The clamp  $e$  has midway upon it an upwardly-projecting polygonal head,  $e''$ , preferably made hexagonal in form, but may be made square or of any other desirable polygonal or equivalent form, as may be desirable. The clamp  $e$  is adapted to be secured to frame  $a$  by means of thumb-screws or set-screws  $e^3 e^3$ , passing through the downwardly-projecting ends  $e' e'$  and screwed against the sides of frame  $a$ , as shown.

$F$  is the socket-wrench for turning the die-stock when operated in corners or other limited spaces, such socket-wrench having in one end a polygonal socket,  $f$ , adapted to fit over the polygonal head  $e''$  on the clamp  $e$ , and having in its other end a hollow screw-threaded sleeve,  $f'$ , adapted to receive one of the screw-threaded handles  $d$  after being unscrewed from its screw-threaded hub  $a^3$ .

If the die-stock is to be used as a direct-acting one, I secure the handles  $d d$  to the screw-threaded hubs  $a^3 a^3$ , as shown in dotted lines in Fig. 1, and, if so desired, the clamp  $e$  may be detached from frame  $a$ , although it may remain affixed thereto, if so desired.

When the tool is to be used where there is not space enough to swing the handles  $d d$  completely around, I unscrew the latter from their respective hubs  $a^3 a^3$ , and screw one of said handles into the hollow screw-threaded sleeve  $f'$  of the socket-wrench  $F$ , as shown in Fig. 2. The clamp  $e$  is then secured to frame  $a$  by inserting its downwardly-projecting ends  $e' e'$  between the guide-ribs  $a^4 a^4$  on frame  $a$ , and tightening the thumb-screws  $e^3 e^3$  against the outsides of frame  $a$ , as shown in Fig. 2. The die-stock can now easily be turned by placing the socket of the wrench  $F$  on the polygonal head  $e''$  on the clamp  $e$ , and swinging the handle of the wrench as far as the limited space will allow, after which the wrench is

detached and again placed on the polygonal head  $e''$  in position to enable it to turn the die-stock a part of a revolution around the pipe or rod to be screw-threaded, and so on.

5 When a pipe or rod is to be screw-threaded, it is usually secured in a vise or other holder in a horizontal position, and ordinarily it is difficult to lubricate the die without wasting a large part of the liquid lubricant. To ob-  
o viate this difficulty, I make perforations  $a^5 a^5$  through the frame  $a$  back of the die  $b$ , as shown in Fig. 3, through which the lubricant can easily and directly be introduced without  
5 waste, so as to reach the central screw-threaded part of said die as well as that part of the pipe or rod that is being acted upon by the die while in the act of cutting the screw-thread.

Having thus fully described the nature, con-

struction, and operation of my invention, I wish to secure by Letters Patent, and claim— 20

In a die-stock, the frame  $a$ , having guide-ribs  $a^4 a^4$ , in combination with the clamp  $e$ , having polygonal head  $e''$  and downwardly-projecting ends  $e'$ , provided with thumb or set screws  $e^3 e^3$ , the construction of the frame 25 and clamp being such that the device is adapted to be operated either by the handles  $d d$  or by the wrench  $F$ , as and for the purpose set forth.

In testimony whereof I affix my signature in 30 presence of two witnesses.

JOHN MILLER.

Witnesses:

ALBAN ANDRÉN,

HENRY CHADBURN.