(No Model.)

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MECHANISM FOR SCREW THREADING PIPE.

No. 344,714. Patented June 29, 1886.

Fig. 1.

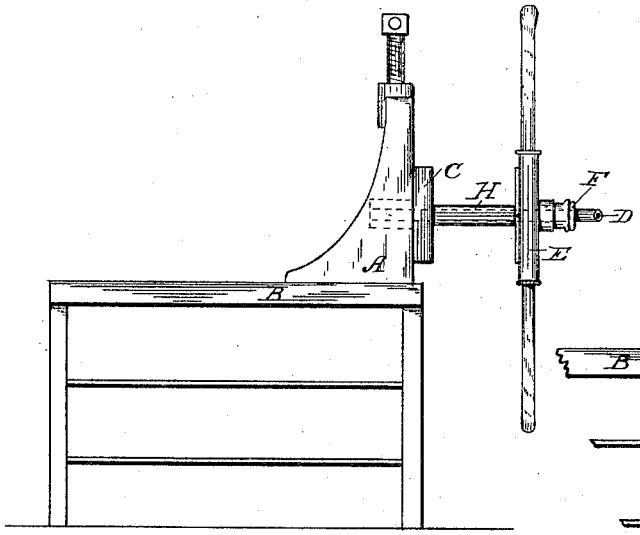


Fig. 2.

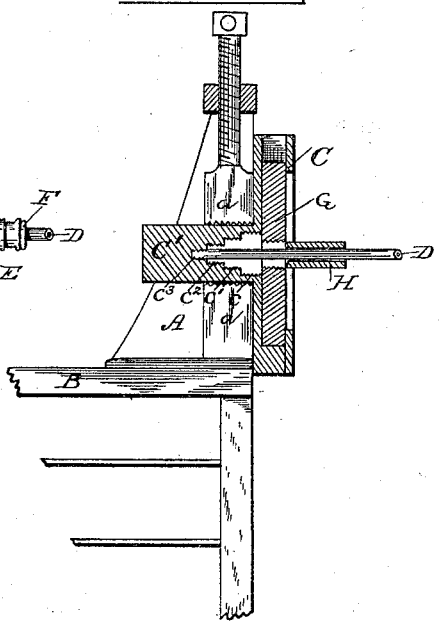


Fig. 3.

Fig. 4.

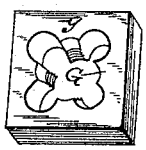
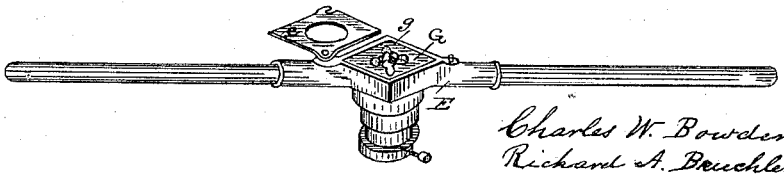


Fig. 5.



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MECHANISM FOR SCREW-THREADING PIPE.

SPECIFICATION forming part of Letters Patent No. 344,714, dated June 29, 1886.

Application filed May 10, 1886. Serial No. 201,767. (No model.)

To all whom it may concern:

Be it known that we, CHARLES W. BOWDEN and RICHARD A. BEUCHLER, citizens of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Mechanisms for Screw-Threading Pipe; 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 mechanism for screw-threading pipes; and it has for its object to provide means whereby the workman can, by the use of an ordinary die-stock, cut screw-threads on both ends of a piece of pipe of any desired length at one operation.

Charles W. Bowden, in an application for Letters Patent of the United States filed April 19, 1886, Serial No. 199,402, has described and illustrated means for screw-threading a pipe or bolt on both ends at one operation; but that invention is applicable only to a screw-threading machine having a fixed vise-head and a longitudinally-movable die head.

Our invention, which is intended to thread pipe only, consists in securing a threading-die to the face of a bench-vise, passing a guide-rod through the die, and firmly securing it in rear of said die, providing a hand die-stock with a guide in the usual manner, and placing another threading-die in the stock with its face toward the fastening-plate.

In the accompanying drawings, Figure 1 is a side elevation showing the application of our invention. Fig. 2 is a sectional view of the vise, its die-holder, (the screw-threaded steps in the stem for holding the guide-rod, which is shown in elevation, being exaggerated for clear illustration,) and a piece of pipe to be threaded. Fig. 3 is a perspective view of an ordinary guide. Fig. 4 is a perspective view of an ordinary threading-die. Fig. 5 is a perspective view of a die-stock with die in place.

Referring to the drawings, A represents a vise mounted on a bench, B, or other suitable structure.

C represents a die-box similar in construction to the box secured to the movable head of a screw-threading machine, except that it is provided with a stem, C′, for being grasped and held by the jaws *a a* of the vise. This stem, as will be seen in Fig. 2, has screw-threaded steps *c c′ c² c³* formed in it, which steps are for the purpose of receiving the screw-threaded end of a guide-rod, D, of the required size, for, as the pipe to be threaded must fit snugly over the guide-rod, it follows that for each sized pipe there must be a corresponding guide-rod, which may be either a piece of pipe or a solid rod.

Heretofore in using a die-stock, as E, a guide, as F, of a diameter to fit snugly over a socket for holding the article to be threaded, has been secured in the end of the tubular extension of the stock E, as seen in Fig. 1, and the threading-die G was placed in the stock with its face side *g* toward the guide, and to thread a short piece of pipe on both ends, as in making nipples, with the stock as thus arranged, it was necessary to first secure a long piece of pipe in the vise, then, with the tubular extension of the die-stock slipped over the pipe until the face of the die contacted with the end of the pipe, proceed to cut threads on that end. After one end was threaded so much of the pipe as was necessary to make a nipple of the required length was cut off, the screw-threaded end inserted in a socket secured in the vise, the stock again placed over the pipe, the guide in the tubular extension passing over the socket, and the operation of threading the other end of the pipe proceeded with, as before described.

Now, by our invention we thread both ends of the pipe at one operation in the following manner: We first secure the die-box C and its contained die G to the face of the vise by clamping the stem C′ of the box between the jaws *a a*. The guide-rod D is then passed through the die in the box, and its end screwed into the step *c*, *c′*, *c²*, or *c³*, adapted to receive it, by which means it is held perfectly true. The pipe, H, to be threaded is then placed over the guide-rod. We then place a die, G, in the die-stock with its face *g* toward the locking-plate *e*, and secure a guide, F, of a size to snugly fit the guide-rod in the tubular extension of the die-stock, in the usual manner. With the stock passed over the guide-rod, face foremost, as shown in Fig. 1, we press against the end of the pipe and turn the die-stock. Should the die on the vise obtain a firmer hold

on the pipe than the other die, the pipe will be held still until the die in the stock has obtained a still firmer hold, when the pipe will turn with the stock, and so on until both ends are threaded to the required extent.

It will be observed that our invention is specially applicable to the manufacture of nipples, as the die in the stock can be made to approach so near to the other die as to almost touch it.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a vise and a threading-die secured to the face of the vise, of a die-stock provided with a threading-die, and a guide-rod for supporting the pipe to be cut, and also for guiding the stock.

2. The combination, with a vise and a threading-die secured to the face of the vise, of a guide rod passed through the die and secured in the vise, for the purposes above set forth.

3. The combination, with a vise, of a die-box containing a threading-die and provided with a stem stepped and screw-threaded interiorly, and a guide-rod passed through the die and secured in one of the steps in the box-stem, substantially as described, and for the purpose set forth.

4. The combination, with a vise, of a threading-die secured to the face of the vise, a guide-rod passed through the die and secured in the vise, a die-stock provided with a guide fitting the guide-rod, and a threading-die placed in the stock so as to face the fastening-plate, for the purpose above set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES W. BOWDEN.
RICHARD A. BEUCHLER.

Witnesses:
I. E. NAGLE,
CHARLES W. HANDY.