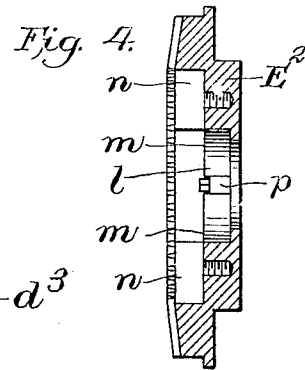
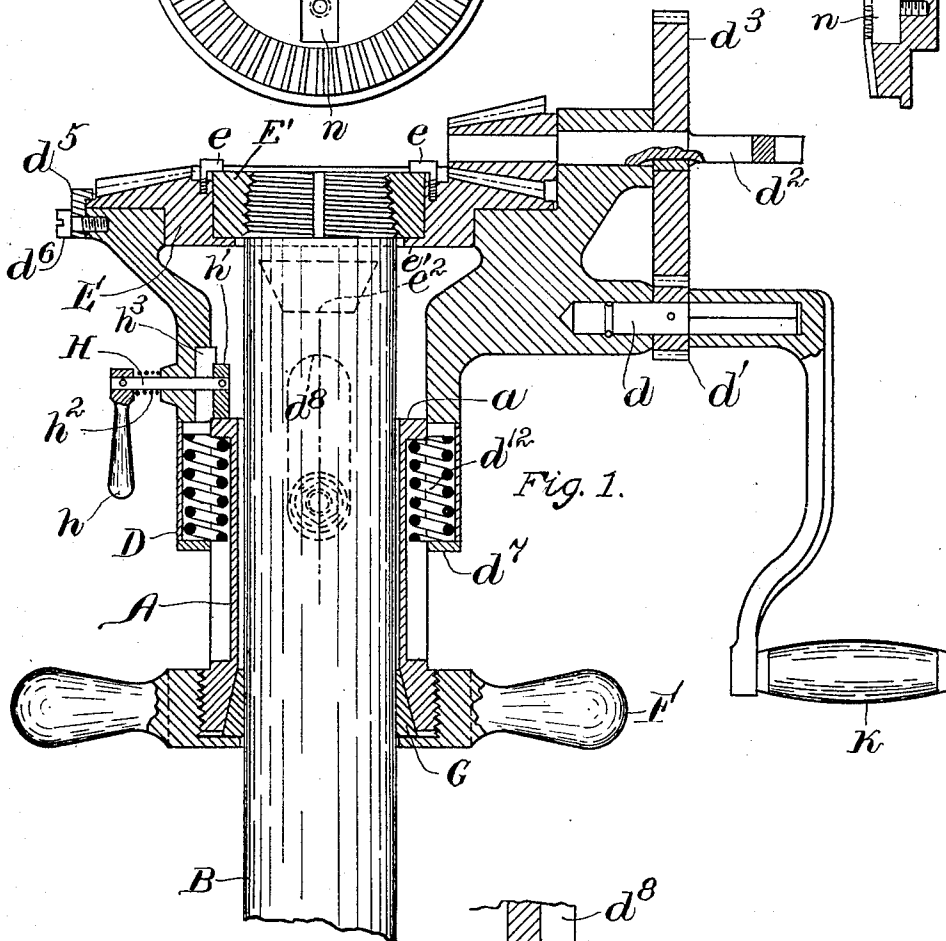
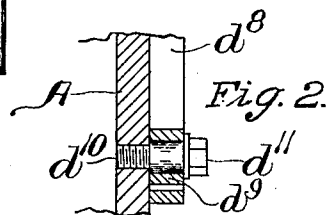


913,089.

Fig. 3.



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UNITED STATES PATENT OFFICE.

VICTOR E. ANKARLO, OF SOMERVILLE, MASSACHUSETTS.

MACHINE FOR THREADING PIPE.

No. 913,089.

Specification of Letters Patent.

Patented Feb. 23, 1909.

Application filed September 12, 1907. Serial No. 392,454.

To all whom it may concern:

Be it known that I, VICTOR E. ANKARLO, of Somerville, in the county of Middlesex and State of Massachusetts, have invented a new and useful Machine for Threading Pipe, of which the following is a specification.

The objects of my invention are to provide a machine for threading pipe which will be more efficient, easier to handle and which will occupy less space than any device now in use, and my invention consists mainly in the combination of a member which is to be attached to the pipe; a second member mounted to move along the first member; a spring which coöperates with both members and when compressed tends to cause relative movement between the two members; and means mounted on one member and engaging the other to cause relative movement between the two members and thereby compress the spring.

Other features will be pointed out below.

In the drawings Figure 1 is a vertical section of a machine embodying my invention; Fig. 2 is a detail described below; Fig. 3 is a plan of my die holder; and Fig. 4 is a section thereof.

Member A which in the form shown is a metal tube, embraces pipe B, which may be held in position by a vise, as usual. The lower end of member A is flared at the inside and threaded at the outside.

Member D may be called an intermediate member and is mounted to slide up and down on member A and carries shaft d and small gear d' as well as shaft d^2 and gear d^3 which is relatively large as compared with gear d^4 . Shaft d^2 carries bevel gear d^4 which meshes with teeth on the die holding member E which is mounted to rotate on member D. The die holding member E is rotatably connected with member D by clip d^5 and screw d^6 .

Die E' has a threaded bore and is held in place in the die holder by clips e e which are screwed into the die holder and may be turned as shown in Fig. 1 to hold the die in place. Flange e' supports the die in the die holder.

I provide aperture e^2 in member D to allow for the escape of clips during the threading of the pipe.

Between annular shoulder a in member A and shelf d' on member D I provide a spring d^{12} which when compressed tends to

force movable member D down along member A.

Mounted in member D is shaft H having at one end handle h and at the other end eccentric h' . The shaft when released will spring outward under the influence of spring h^2 and eccentric h' will then rest in recess h^3 .

Wedge G is placed between member A and the pipe and is pushed upward by rotation of nut F to cause a firm attachment of member D to member A.

Member D is slotted at d^8 to receive roller d^9 which is mounted on bolt d^{10} , whose inner end is threaded to engage member A. Nut d^{11} coöperates with bolt d^{10} to allow up and down movement of member A but to prevent rotary movement of member A. Handle K fits shafts d and d^2 and may be used to give a slow rotation of shaft d to do the threading or by connection with shaft d^2 may be used to give a relatively quick unthreading of the die from the pipe.

Fig. 3 is a plan of my die holder E² being on a smaller scale than the die holder of Fig. 1. This die holder has a circular bore to receive a round die l which is held against rotation by slides p p mounted adjustably in slots o o . If I desire to use a square die I insert it in the die holder which has shelves m m at the four corners to support the die. I may also use two rectangular pieces to form the die in which case each piece would be inserted in recess n .

In using my machine I place it over the pipe to be threaded, which pipe will be secured as usual by a vise or otherwise. The machine is brought down over the pipe until the die rests upon the top of the pipe. Member A is then forced down by cam h' with the result that spring d^{12} is compressed. Nut F is then turned and forces wedge G up between the pipe and member A securely attaching them together. When this is done the eccentric h' is released by withdrawing it into its recess whereupon the spring will tend to force the die down along the pipe. At this time the handle will be rotated and through the gearing the die will also rotate.

When the die has been sufficiently threaded and it is desired to remove the die from the pipe it may be done in several ways, all of which of course contemplate a reversal of the previous rotary movement of the die. One way would be to turn the handle in the opposite direction from that in which it

turned before. Another way is to remove the handle from one shaft to the other and rotate that second shaft and in this case of course the unscrewing of the die will be done much more quickly. Another way would be to unscrew nut F which will release member A from the pipe. Then turn the holding dogs which hold the die in place and lower the machine along the pipe in which case the end of the pipe with the die upon it will be above the machine and the die may be unscrewed by hand.

It will be clear from the above that with my machine the work may be done much more quickly than heretofore, that it can be readily done with one hand, that the work will be much more accurate because the movement of the die along the pipe is had in a rigid bearing and that the machine occupies very much less space than heretofore.

What I claim is:

1. In a machine of the character described the combination of a member to be attached to the pipe; a second member mounted to

move along the first member and carrying a die; a spring coöperating with both members, and when compressed tending to cause relative movement between the two members; and means mounted on one member and engaging the other to cause relative movement between the two members, and thereby compress the spring.

2. In a machine of the character described the combination of a member to be attached to the pipe; a second member mounted to move along the first member and carrying a die; a spring coöperating with both members, and when compressed tending to cause relative movement between the two members; and an eccentric mounted on one member and engaging the other to cause relative movement between the two members, and thereby compress the spring.

VICTOR E. ANKARLO.

Witnesses:

G. A. ROCKWELL,
M. G. HENNESSY.