

C. WESTEN.
MACHINE FOR THREADING PIPE FITTINGS.
APPLICATION FILED JULY 27, 1909.

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Patented Mar. 19, 1912.

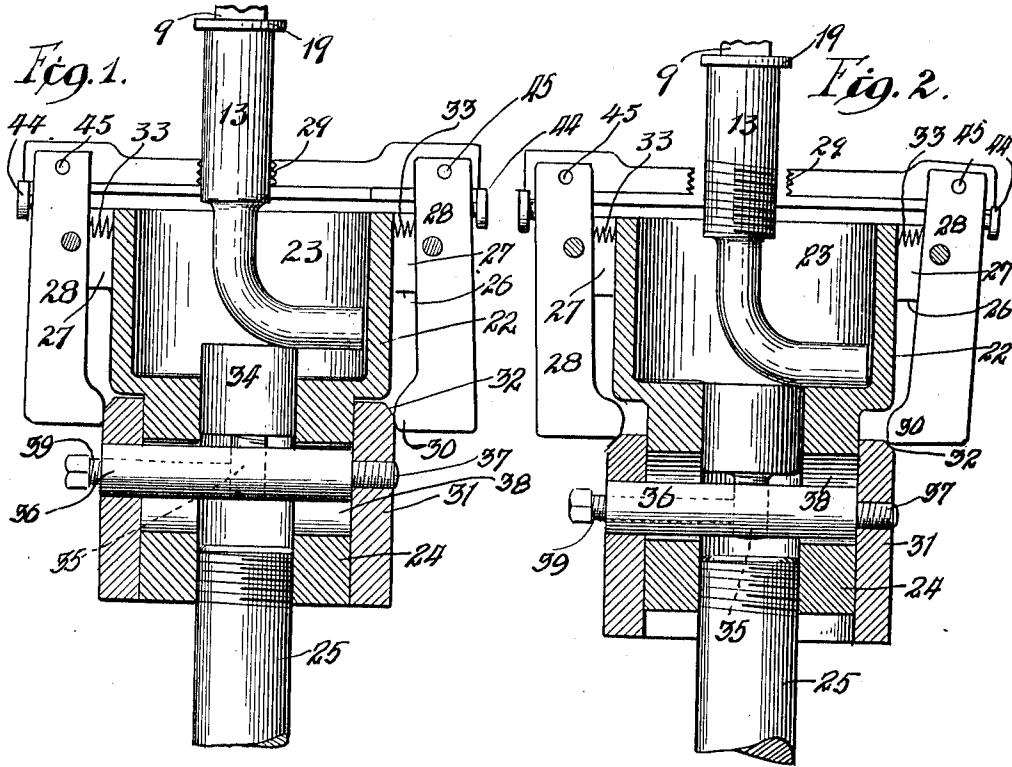
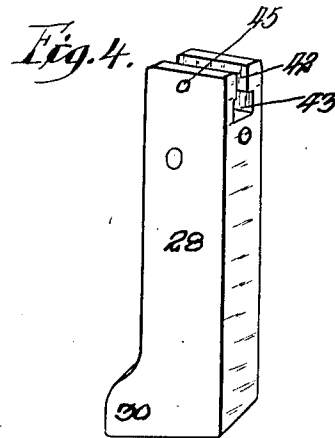
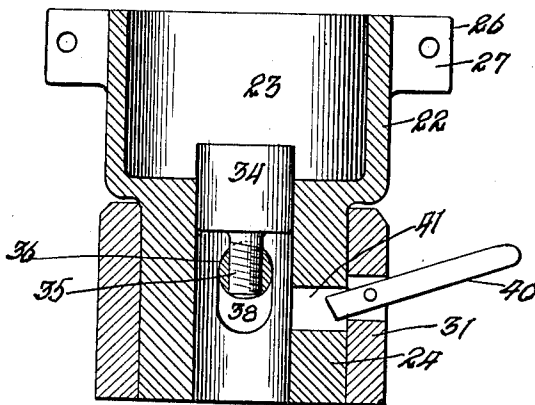


Fig. 3.



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UNITED STATES PATENT OFFICE.

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MACHINE FOR THREADING PIPE-FITTINGS.

1,020,529.

Specification of Letters Patent. Patented Mar. 19, 1912.

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To all whom it may concern:

Be it known that I, CHARLES WESTEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Machines for Threading Pipe-Fittings, of which the following is a specification.

This invention relates to an improved machine intended more especially for threading one-piece pipe fittings; and has for its essential object to construct a device capable of readily threading the one-piece pipe fitting with a minimum of time, labor and material.

The invention consists in the features of construction and combination of parts hereinafter described and claimed.

Figure 1 is a cross section of the threading tool, showing the position of the casting at the beginning of the operation; Fig. 2 a similar view to Fig. 1, showing the position of the casting at the finish of the operation; Fig. 3 a cross section detail, showing the lever for raising the movable collar back to normal position; and Fig. 4 a detail in perspective of one of the die arms.

This machine is adapted primarily to thread a brass or other metallic pipe fitting of the general type illustrated in Figs. 1 and 2, after it has been initially cast.

Referring to Figs. 1, 2, 3, and 4, which illustrate in detail the mechanism for accomplishing this work, a fixed member 22 is formed with a well 23 having a stem 24 attached to the turret of a lathe or other machine by a shank 25. Surrounding the well 23 is a collar 26 having slots 27, in which are pivoted arms 28 carrying a screw-threading die 29. The arms, at their lower ends, each have an inward projection 30 which rests against a movable collar 31, the upper end of the movable collar being beveled at a point 32; and a spring 33 is located above the pivot of the arm 28; and a plunger 34 having a screw-threaded stem 35 is located in the stem 24. A bolt 36, having its end 37 screw-threaded, is fixedly secured to the collar 31 and moves in a slot 38 located in the stem 24, the shank 35 of the plunger 34 entering the bolt 36 and being held in place by a set screw 39. At a point preferably at right angles to the bolt 36 is a handle 40, which is pivoted in a slot formed in the collar 31 and extends into a slot 41, also

formed in the stem 24. When the turret is turned to bring the screw threading member into contact with the casting, the stem of the casting will rest upon the plunger 34. As the casting is fed downward, the stem of the casting will lower the plunger which in turn will lower the bolt 36, which bolt, being fixedly secured to the collar 31, will cause the collar to descend, and, when the beveled surface 32 has descended to a point sufficient to clear the lower edge of the arm 28, the spring 33 will exert pressure and cause the arm 28 to swing inwardly, withdrawing the screw-threading dies 29 from engagement with the casting and stopping the work. The function of the handle 40 is merely to return the collar 31 to normal position after it has been forced down. The arm 28 is provided with a slot 42 having a notched portion 43, in which travels the screw-threading die 29. By adjusting the thumb nut 44 the die 29 can be swung around a pivot 45 and bring a greater or less number of cutting teeth into engagement with the work.

The operation is as follows: The screw-threading tool is brought into position to engage the casting, after which power is applied and the casting revolved, and the teeth on the screw-threading tools act to form the screw threads upon the body of the casting. This is continued until the desired surface has been threaded, when the threading dies 29 will be automatically withdrawn from engagement with the casting, and the operation stopped.

Without limiting myself specifically to the aforesaid construction, I claim:

In an automatic threading machine, the combination of a fixed body portion having an upper cup-shaped portion adapted to receive an L-shaped piece of work, a stem merging therefrom, arms carrying screw-threading dies pivotally mounted between said arms at a point above their pivotal center, whereby the dies are held normally outward from the center of the cup-shaped portion, said stem having a vertically extending bore therein communicating with the interior of the cup-shaped section at a point centrally thereof, said bore being of a reduced diameter from the chamber in the cup-shaped section, a plunger within the

bore against which the work rests, said
plunger extending when projected into the
well and lying when fully depressed flush
with the bottom of the well, whereby the
5 bottom of the well forms a stop to limit the
action of the dies on the work, a slidable
collar surrounding the stem, a bevel face on
the upper portion of the collar against
which the arms carrying the threading dies
10 normally rest, a cross pin fixedly secured to
the slidable collar, the stem of said body
portion having a slot formed therein in

which said cross pin travels, a screw-
threaded stem on the plunger entering the
cross pin, a handle pivotally mounted on the 15
collar for returning said collar to normal
position, said stem having a slot in which
the inner end of the handle lies, substan-
tially as described.

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Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."