

(No Model.)

L. GODDU.

MACHINE FOR INSERTING METALLIC FASTENINGS.

No. 301,114.

Patented July 1, 1884.

Fig:2.

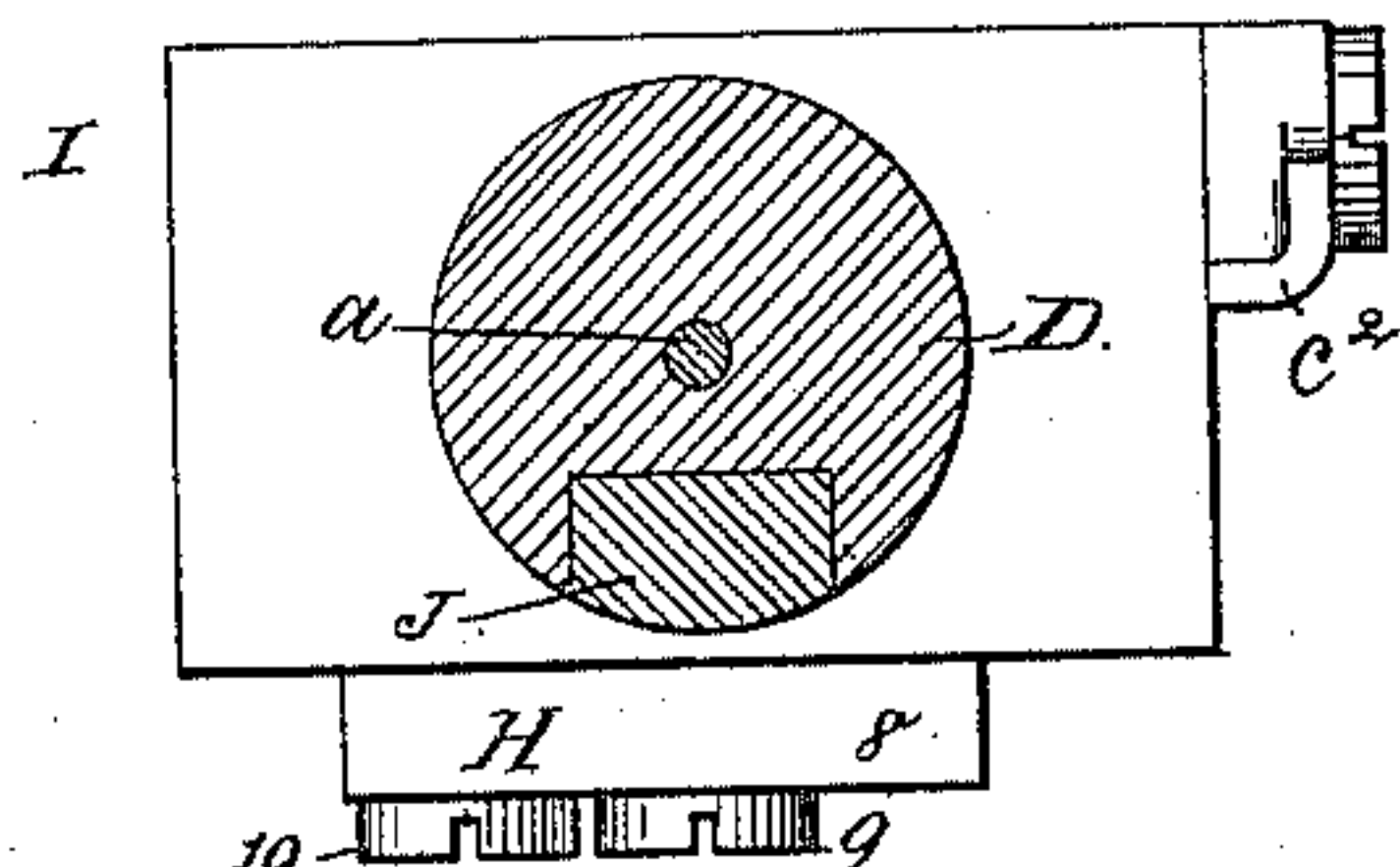


Fig:3.

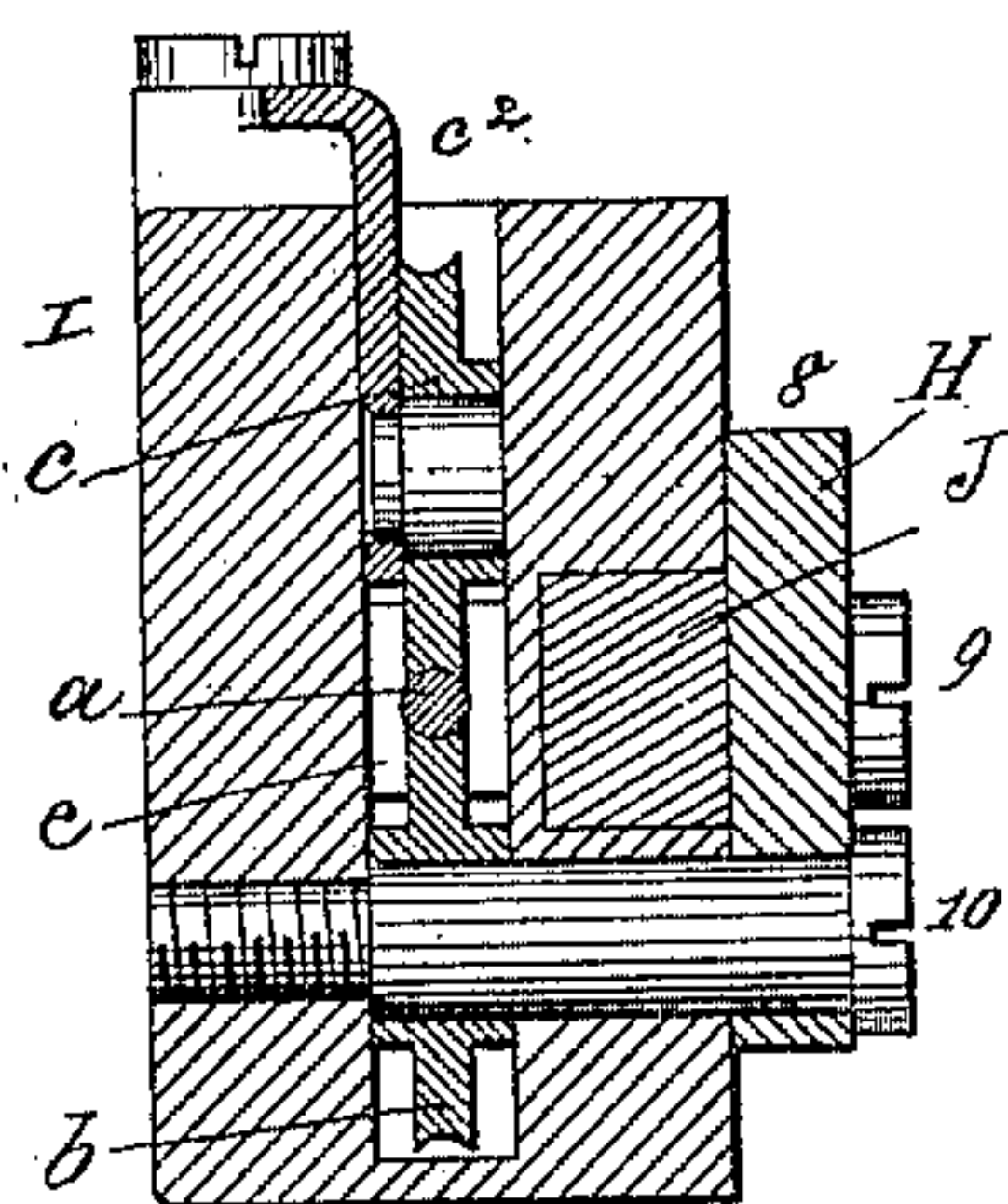


Fig:1.

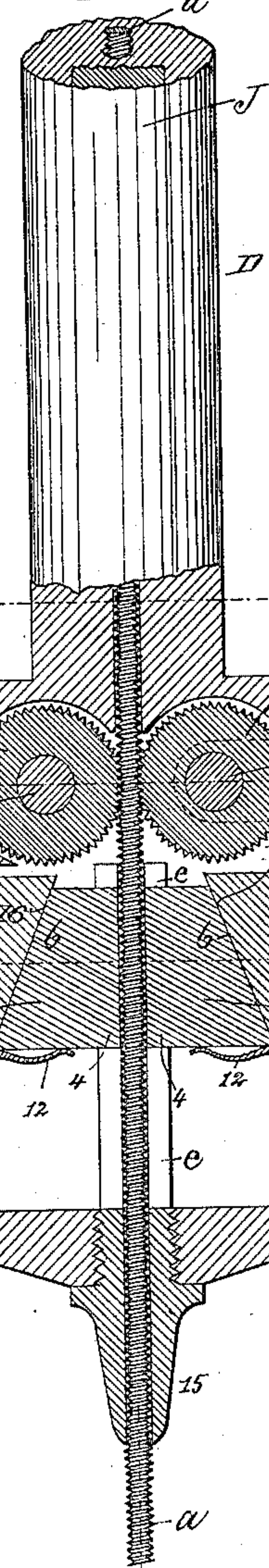


Fig:4.

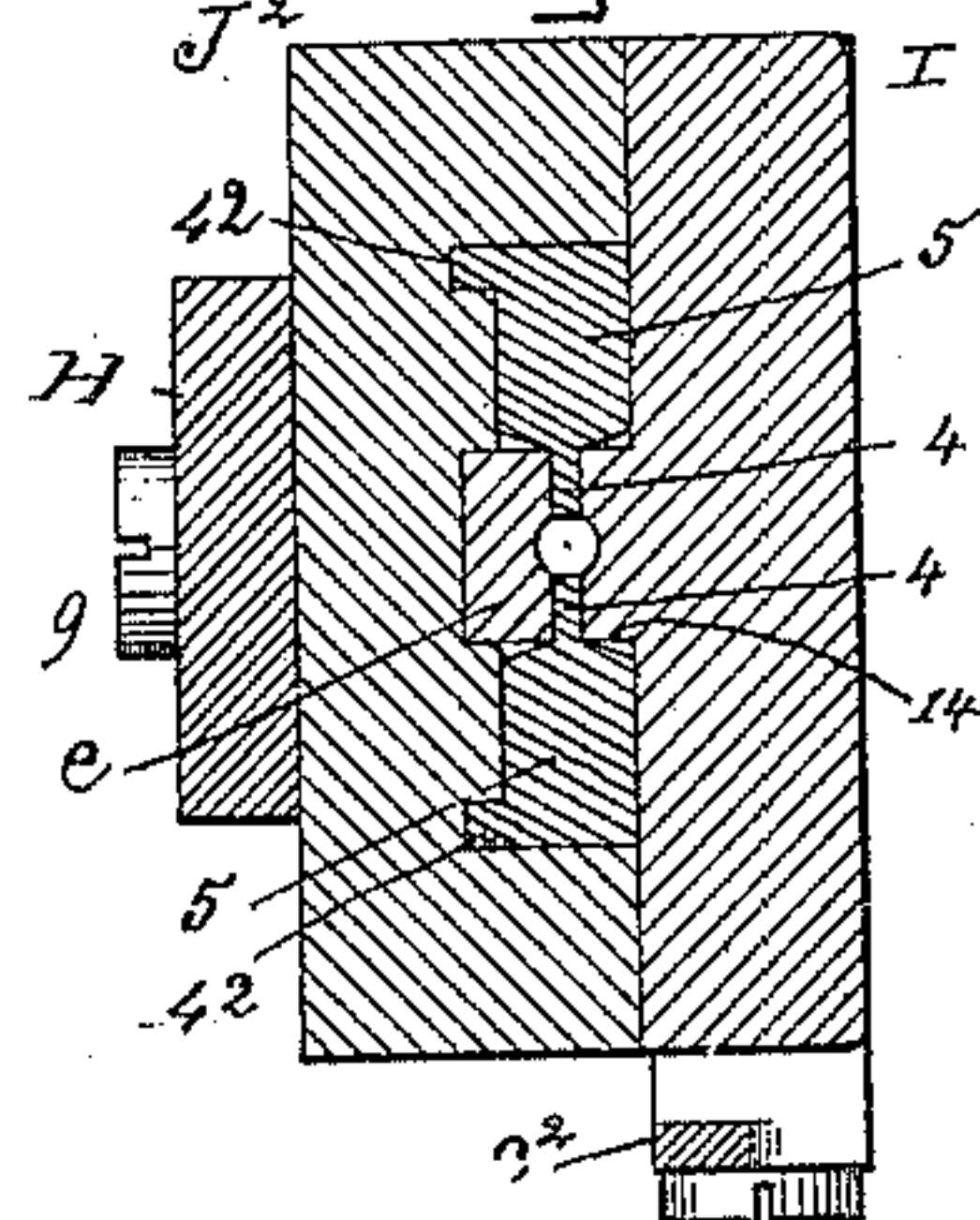
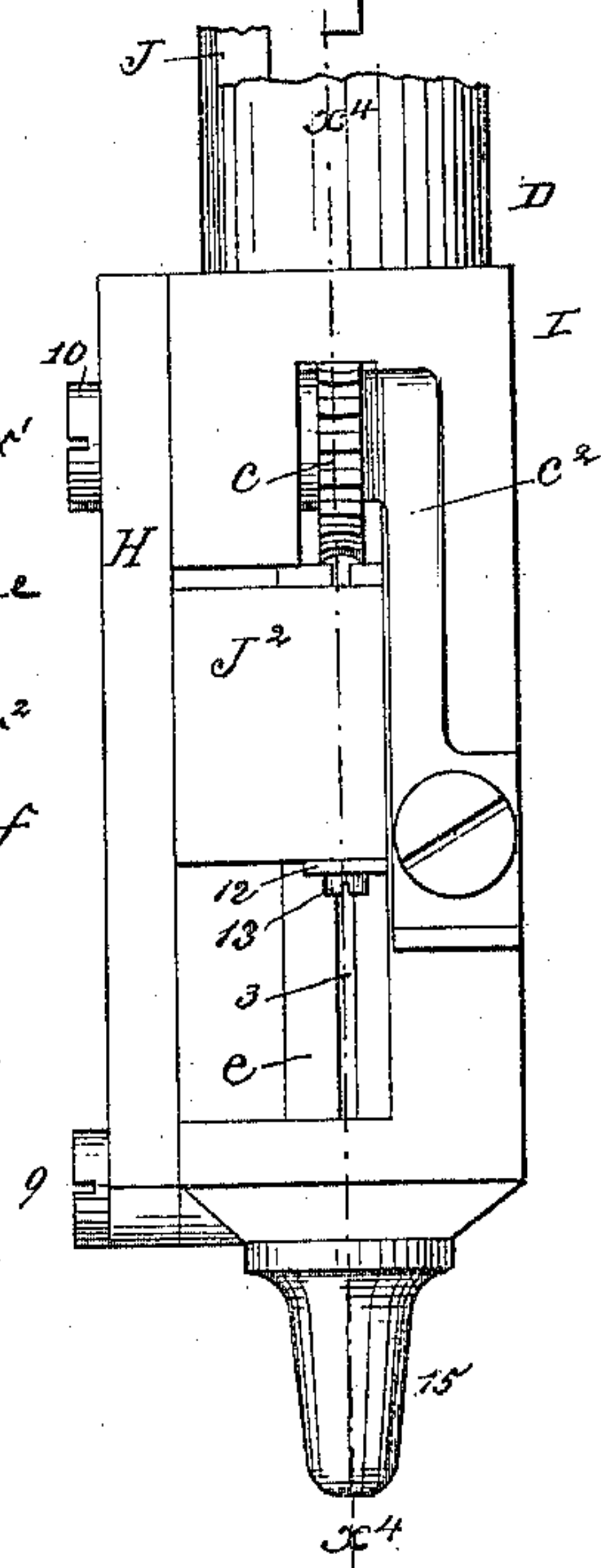


Fig: 6.



Witnesses.

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UNITED STATES PATENT OFFICE.

LOUIS GODDU, OF WINCHESTER, MASSACHUSETTS.

MACHINE FOR INSERTING METALLIC FASTENINGS.

SPECIFICATION forming part of Letters Patent No. 301,114, dated July 1, 1884.

Application filed March 22, 1884. (No model.)

To all whom it may concern:

Be it known that I, LOUIS GODDU, of Winchester, county of Middlesex, State of Massachusetts, have invented an Improvement in Machines for Inserting Metallic Fastenings, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This invention is an improvement upon that class of machines represented in United States Patent No. 171,610, granted to me December 28, 1875, wherein a threaded wire is inserted into the material resting upon a horn; and my
15 present invention relates especially to the means for forcing into the material the end of the wire from which the fastening is to be formed.

20 Figure 1 represents, partially in elevation and partially in section, the wire-carrying spindle and some of the attached parts, the section being in the line $x^4 x^4$, Fig. 6. Fig. 2 is a section thereof on line $x x$; Fig. 3, a section on the line $x' x'$; Fig. 4, a section on the line $x^2 x^2$; Fig. 5, a vertical section on the line x^3 ; and Fig. 6, a partial side elevation of the spindle, viewing it from the right.

25 The spindle D, having a central hole for the reception of the wire a , and provided with a head, I, and the slide J, fitted into a groove in the said spindle, are substantially the same as the parts indicated by like letters in my said patent, except as will be hereinafter specified, and the said spindle will be rotated and the
35 said slide reciprocated therein. In the said patent the said slide is shown as joined to a threaded sleeve provided with a loose collar, which, through intermediate devices, is attached to a lever designated in the said patent by the letter K. In that patent the slide J is
40 provided with a rack, and is employed to rotate the feed-wheels, which grasp and feed the screw-threaded wire from the spool above the spindle; but herein the said slide, as will be described, is provided with a head, J, which
45 receives and actuates clamping-dogs f , which engage and feed the wire, and holding the wire act to prevent the same from being bent or buckled when being driven into the stock.
50 The head I of the spindle is recessed to receive two wire-holding rollers, $b c$, suitably notched or cut to engage with and preferably so as to

correspond with the indentations and projections of the surface of the wire d . The roller b is held by a screw, 10; but the roller c has its
55 axles acted upon by a suitable spring, e^2 , whereby the roller c is enabled to adapt itself to the diameter of the wire being used. These rollers are not for feeding the wire, but merely to prevent the same from being lifted as the
60 clamping-dogs are being slid over the wire toward them. A considerable portion of one side of the head I of the spindle D is cut away from the point 20, just below the roller b , to the point 22, leaving, however, a bottom ledge, 23, into which is screwed or inserted the usual
65 nose or foot, 15, where it is held by the screw 9, and so as to leave a centrally-projecting wire-guide, e , which, from just below the rollers $b c$ to the ledge 23, is slotted at each side, as at
70 3, to receive the thin parts 4 of the wire clamping and feeding dogs f , the faces of the said dogs next the wire a being suitably threaded, scored, or indented, to properly engage the
75 wire, and in case of a screw-thread not spoil the same. These dogs are placed between the head I and the head J^2 of the slide J, and the inner face of the said slide is cut away next the head I to receive the said dogs, (see Figs.
80 4 and 1,) the head J^2 in Fig. 1 being sectioned vertically in the line $x^4 x^4$, Fig. 4. The head I has a face-plate, H, attached to it by screws 9 10, the latter serving as a stud to support the wheel b , and the head J^2 is made to slide
85 in the space between the said plate and head I. The dogs f have their backs beveled or inclined, as at 6, and they are also provided with projecting ribs 42, parallel with their backs. The recesses made in the inner face of the head
90 J^2 to receive the said dogs are cut to form inclined shoulders 16, (see Fig. 1,) against which the backs of the dogs are guided, the lower ends of the said dogs being supported in the said recesses by springs 12, attached to the
95 head J^2 by screws 13, the strength of the said spring being sufficient to lift the dogs and slide or slip them upward along the serrated wire as the slide and its attached head J^2 are lifted, the dogs during the upward movement of the
100 head J^2 moving radially away from the nose by reason of the shoulders 42 thereon, which enter grooves in the head J^2 . (See Fig. 4.) While the dogs are being slipped up over the wire a the latter is held by the rollers $b c$.

The head J^2 is raised more or less to correspond with the thickness of the stock between the nose 15 and the usual horn or work-support, or according to the length of the fastening desired.

The sides of the projection e serve as guides for the shoulders 14 of the dogs. As soon as the slide commences to descend, the inclined edges 16 of the head J^2 , acting upon the inclined backs of the dogs f , push their thin faces 4 quickly and snugly into the slots 3, against and so as to bite the wire and carry the same down with it, forcing the end of the wire into the stock between the end of the nose 15 and the horn or other support for the stock.

I claim—

1. In a machine for inserting metallic fastenings, a rotating spindle provided with a head adapted to guide a wire, wire-feeding dogs provided with inclined backs, and a reciprocating slide provided with a recessed head having inclined shoulders to receive against them the inclined backs of the said dogs, the head in its descent acting to force the faces of the dogs against the said wire to carry the latter down and drive the end of the wire into the stock below the nose, and means to support the said dogs loosely in the recesses

of the said head, and to lift them and permit the dogs to slip over the said wire as the head is moved away from the stock, substantially as and for the purposes described.

2. In a machine for inserting metallic fastenings, a spindle provided with a head adapted to receive a wire, rollers to engage and hold the said wire from backward movement, a reciprocating slide having a head provided with inclines, and wire clamping and feeding dogs having inclined backs next the inclines of the head, and having narrow faces to grasp the wire, combined with springs to retain the said dogs in the recesses in the head of the slide, while the slide is moved away from the nose of the spindle, the inclines of the head acting to force the dogs against the wire and feed the same along and force the end of the wire into the stock for the required distance while the head of the said slide is being moved toward the said nose, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LOUIS GODDU.

Witnesses:

B. J. NOYES,

W. H. SIGSTON.