

P. L. FITRER.
Nut-Machine.

No. 159,252.

Patented Feb. 2, 1875.

Fig 1

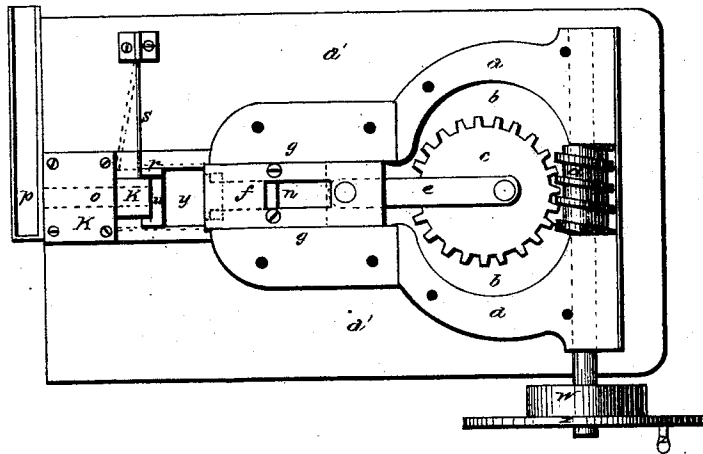


Fig 2.

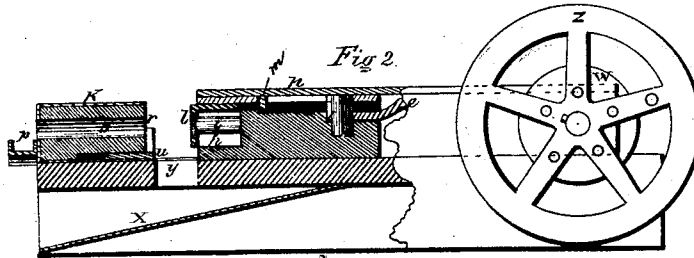


Fig 3.



WITNESSES.

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN NUT-MACHINES.

Specification forming part of Letters Patent No. **159,252**, dated February 2, 1875; application filed December 19, 1874.

To all whom it may concern:

Be it known that I, P. L. FITRER, of Reading, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Making Nuts; and I 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in machines for making nuts; and consists in the arrangement and combination of parts that will be more fully described hereafter.

The accompanying drawing represents my invention.

a represents a frame, of suitable construction, upon the bed-plate *a'*, and in which the space *b* is occupied by the wheel *c*, geared with the screw *d*, which is turned by the crank *z* or the pulley *w*. Connected by the rod *e*, pivoted to the top of the wheel *c*, is the plunger *f*, which slides between the guides *g*. In the forward end of the plunger is an opening, *h*, of the form and size of the nuts to be made, and in the center of this opening is rigidly fastened the punch *i*, the outer end of which is flush with the end of the plunger. Inside of the opening is the ejector *l*, consisting of a vertical plate through which the punch passes, and is then bent backward at a right angle. This horizontal part, extending under the slot *n* over the plunger, is acted upon by the stop *m* fastened to the under side of the plate which covers the frame. In front of the plunger, at the end of its movement, is firmly secured the perforated block *K*. The side of this block, which is turned toward the plunger, is of the size of the nuts to be formed, and fits precisely to the opening in the plunger, so that

when the plunger is moved forward against the block, the nut is cut off and pressed against the punch into the plunger. A hole, *o*, corresponding to the punch, passes through the block *K*, and through this hole the plugs, punched out of the nuts, are pushed into the slanting trough *p*. Under the block *K*, and projecting toward the plunger, is a movable plate, *u*, to the side of which is vertically attached the stop *r* on a line with the side of the block. On its approach the plunger pushes this plate back into a recess under the block, the stop *r* passing on the side of the block, which plate is to be brought back again to its former position by the spring *S* when the plunger moves back. Under this movable plate *u*, in front and under the plunger, is an opening, *y*, in the bed-plate, through which the nuts drop when ejected from the mouth of the plunger, and fall upon an inclined plane, *X*, from which they slide to the ground in front of the machine. The heated bar is pushed in between the block *K*, and the plunger against the stop *r*, and by the pressure of the plunger a piece of the dimensions of the mouth of the plunger is forced into it and at the same time punched. The nut thus formed is then ejected, and drops through the opening *y* upon the incline *X*, and is carried to the front of the machine.

Having thus described my invention, I claim—

The combination of the wheel *c*, screw *d*, crank *z*, connecting-rod *e*, plunger *f*, ejector *l*, punch *i*, and stop *m*, substantially as shown.

In testimony that I claim the foregoing, I have hereunto set my hand this 16th day of December, 1874.

PETER L. FITRER.

Witnesses:

ISRAEL C. BECKER,
C. F. FISHER.