

I. DOEG.

Devices for Dressing the Sides of Nuts.

No. 144,265.

Patented Nov. 4, 1873.

Fig. 1.

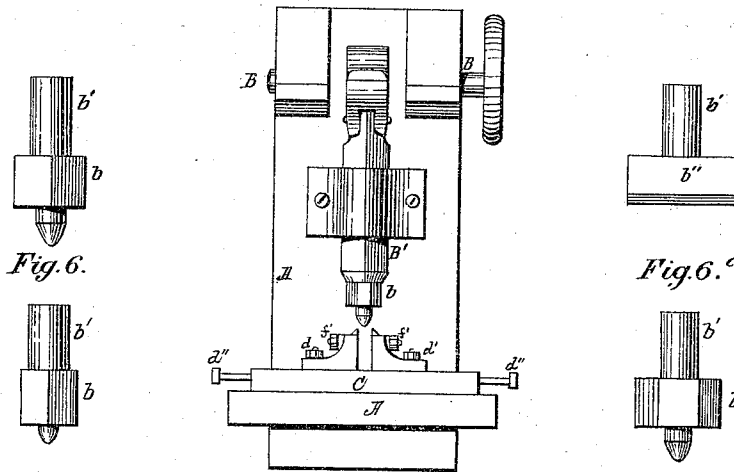


Fig. 2.

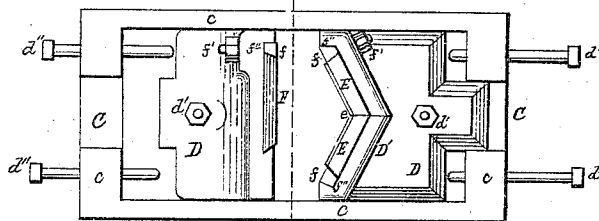


Fig. 3.

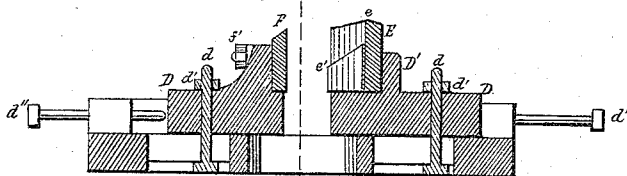


Fig. 4.a.



Fig. 5.

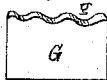
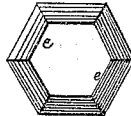


Fig. 4.a'.



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UNITED STATES PATENT OFFICE.

ISSACHAR DOEG, OF NEW MARKET, NEW HAMPSHIRE, ASSIGNOR OF ONE-HALF HIS RIGHT TO ORRIN MURRAY, OF SAME PLACE.

IMPROVEMENT IN DEVICES FOR DRESSING THE SIDES OF NUTS.

Specification forming part of Letters Patent No. **144,265**, dated November 4, 1873; application filed August 9, 1873.

To all whom it may concern:

Be it known that I, ISSACHAR DOEG, of New Market, in the county of Rockingham, in the State of New Hampshire, have made certain Improvements in Machines for Cutting and Dressing Nuts, of which the following is a specification:

The object of this invention is to produce a means of finishing and dressing the sides of the nut smooth by forcing the nuts through dies that will practically perform the function and accomplish the object, and also, in being able, without reorganizing the machine—other than the removal of some of the parts and supplying their places with other parts—so that the machine may perform a variety of operations; and it consists in the construction and arrangement of the parts that produce results, as will be fully hereinafter described.

In the drawings, Figure 1 represents a front elevation of the machine; Fig. 2, a top view of the cutting-dies and their adjustments; Fig. 3, a longitudinal sectional view of same; Figs. 4, 5, and 6, details of construction.

A represents the usual support for the cutting-dies, reciprocating punch, and cutters; B, the revolving shaft that reciprocates the punch or cutter; and B', the reciprocating shaft that receives a forcing-die, *b*, or cutter *b''*, of any desired form. The base-plate C, in which the dies are adjusted and secured, rests upon the platen of the support or frame A, and has longitudinal slots in its bottom plate to allow bolts to slide therein, and a raised edge, *c*, to receive the adjustable jaws that contain the dies or cutters. D D are the movable and adjustable jaws, to which the cutting-dies or cutters are secured. *d d* are screw-bolts that pass through slots in the base-plate and through the jaws D, and when the jaws and cutters are adjusted to the proper position the screw-nuts *d' d'* are screwed down upon the horizontal part of jaws D, and secure them and their cutters or dies in position. *d'' d'' d'' d''* are temper-screws, that are screwed through a screw-tapped hole in the raised edge *c* of base-plate C, and bear against and adjust the jaws with their cutters to the proper position. E is a section of a polygonal die, which may be of any desired number of opposite sides, such as hexag-

onal or octagonal, or other forms, if desired, and has its upper edge *e* beveled, or made so that its cutting-edges shall be the highest at the angle, as seen in Fig. 3, cutting the nut from the center each way, which prevents splitting. This die, on its inner face and below the cutting-edge *e*, has another inwardly-projecting and angular cutting-edge, *e'*, the purpose of which is, as the nut has been forced upon the cutting-edges *e* and been partially trimmed or finished, it is still further trimmed and finally finished on its sides by being forced onto and cut by the inclined cutting-edges *e'*, when, by reason of the enlarged diameter of the die below the cutting-edge *e'*, the nut is discharged through the bottom of the die, out through an opening in the base-plate for such purpose. F is a straight die or cutter, and used with jaws having a straight face to which it is secured, and will trim off the unfinished sides of a rectangular or any opposite parallel-sided nut, or be arranged to act as a part of the means for cutting off bars of iron to any length desired. These cutters or dies are secured to the adjustable jaws D by means of a wedge-shaped head or bevel-block, *f*, on a screw-bolt, and held in place by nut *f'* and the dovetail or angular recesses *f''* in the jaw, and an angular edge of the cutter or die to fit the shoulder in the jaw, as seen in Fig. 2.

The cutter can be moved up as the edges wear away, and held in place by putting plates under them.

Fig. 4^a is a side view of a hexagonal die, and Fig. 4^{a'} is a top or plan view of the same die, that can be secured within the jaws D and used as a finisher to such nuts as are forced through it, as the die represented in Figs. 4^a and 4^{a'} has the same cutting-edge *e* that the die E has.

The jaws D, in which the dies are secured, are of such form in their upright parts D' as to receive any shaped die or cutter that is to be used in finishing nuts or cutting off bars of metal.

The reciprocating bar B' has a hole bored centrally in its lower end to receive the shank *b'* of any of the follower or forcing dies *b* or cutter *b''*, as any of them can be removed and another put in its place—as the follower *b* is

nearly of the same size and shape as the cutting-die into and through which the nut is forced—so that the cutting on the sides of the nuts will be perfect, and all the excess of metal removed. Nuts finished by this means are all smooth, of the same size, and require no further dressing.

In Fig. 6^a, *b''* represents a shear-cutter, that, when occasion requires, the follower or forcing die *b* may be removed and this cutter inserted; and it can be used, in connection with cutter G, Fig. 5, to cut bars of iron into lengths for bolt-blanks, the cutting-edge *g* being corrugated to hold the bars when round from slipping, and the corrugations are of different sizes to receive and hold different sizes of bars, to be cut to any given length.

Having thus described my invention, what I

claim, and desire to secure by Letters Patent, is—

1. The finishing-dies E having the inclined and additional cutting-edge *e'*, in the manner and for the purpose substantially as described.

2. The dies E having angular or beveled edges on one side, fitting into dovetail or angular recesses in the jaws D, and secured therein by means of the beveled block *f* and screw bolt and nut *f'*, substantially as described.

3. The movable and adjustable jaws D with their dies or cutters E, in combination with the base-plate C, when constructed in the manner and for the purposes described.

Witnesses:

ISSACHAR DOEG.

DAVID MURRAY,

BRADFORD S. KINGMAN.