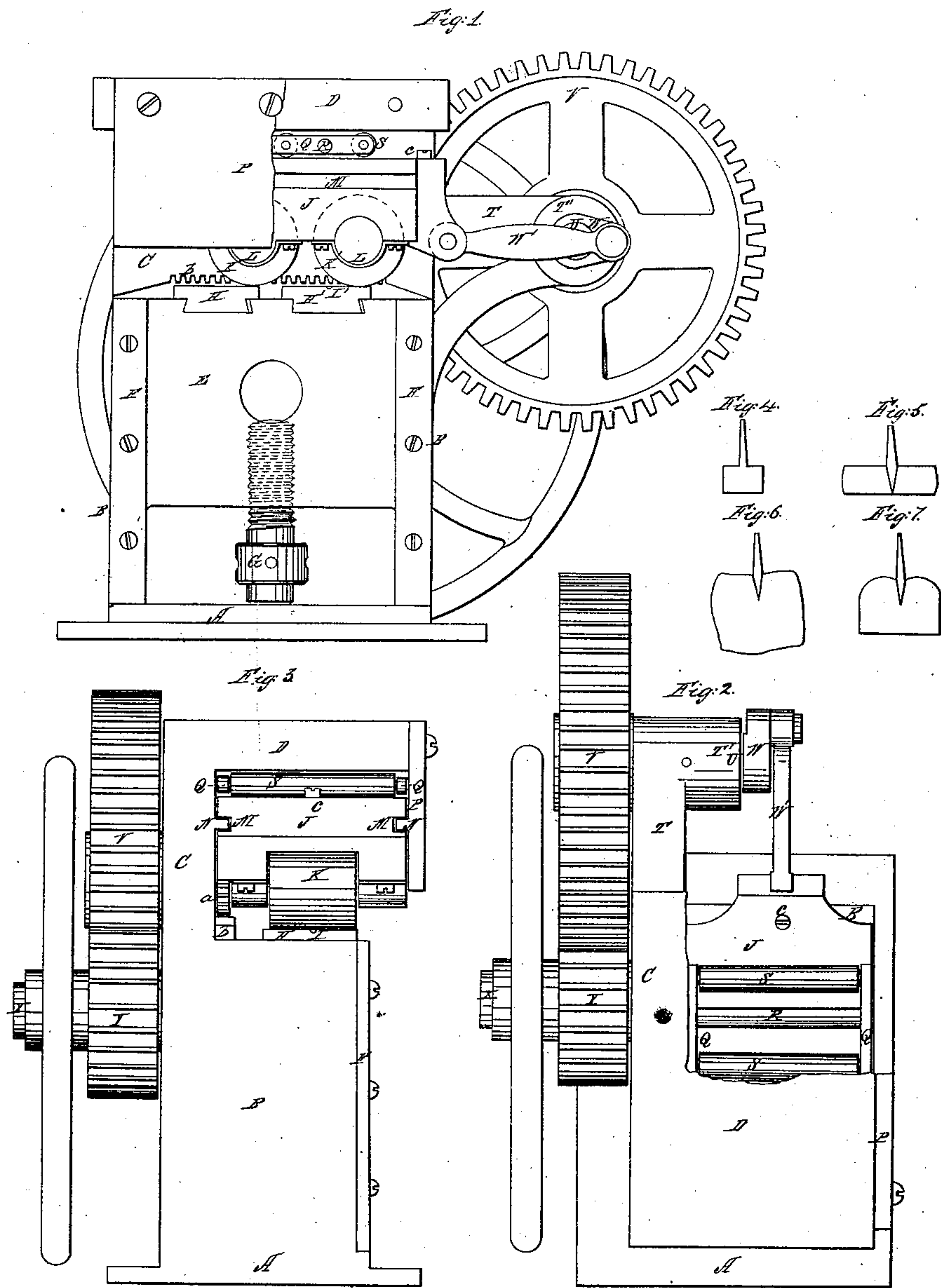


W.F. Stillman,

Rolling Hoes,

N<sup>o</sup> 66,905,

Patented July 16, 1867.



Witnesses:  
J. E. Dennis  
Chas. H. Hurdman

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By his Atty J. Dennis

# United States Patent Office

WILLIAM F. STILLMAN, OF ILION, NEW YORK.

*Letters Patent No. 66,905, dated July 16, 1867.*

## IMPROVEMENT IN MACHINES FOR ROLLING HOES.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM F. STILLMAN, of Ilion, Herkimer county, State of New York, have invented a new and useful Machine for Plating Hoes, Trowels, and other articles having a tang or shank; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements, without further invention or experiment.

The nature of my invention and improvements consists in a stand or frame with horizontal ways for the carriage that carries the rollers to plate the article rolled, and perpendicular ways for an adjustable anvil-block on which the article is rolled; and in a traversing carriage carrying one or more rollers over the anvil-block, which is arranged to be adjusted vertically and graduate the thickness of the article rolled. In the accompanying drawings—

Figure 1 is an elevation of one side of a machine for plating hoes, with my improvements, a part of the front plate being omitted to show the parts covered by it.

Figure 2, a plan, with part of the top omitted to show the parts under it.

Figure 3 is an elevation of one end.

In these drawings A is the base, B B the sides, C the back, and D the top, which may be all cast in one piece, in the form shown in the drawing, or in such other form as will answer the purpose, forming a strong stand or frame. E is the anvil-block, made in the form shown, and fitted to traverse vertically between the sides B B, and is held in place by the clips F F secured to the sides. This block is perforated for the screw G, which is stepped in the base A, and turns in the block E to raise and lower it, as required. There are two grooves across the top of the block E to receive the anvils H H', which are fitted to the grooves in the block, and keyed in. The anvil H has a score, I, in it to form the extension of the shank of the hoe on to the plate, and the anvil H' has a similar score, I', at a right angle to the score I, for the same purpose. I make a carriage, J, to traverse under the top D, and carry the two rollers K and K', which roll across the anvils to plate the hoes. The carriage J is made in the form shown in the drawing, with boxes for the journals of the rollers, which are held in place by the caps L L. This carriage has a groove, M, in each side for the ways N N, on which it traverses, one of which ways is on the back C, and the other on the plate P, screwed to the top to hold the carriage in place. To lessen the friction of the carriage against the top, when rolling, I make a frame of two sides Q Q, and one or more bars R, and fit three or more friction-rollers S to turn in the sides and lie between the carriage J and top D, so that when the carriage is traversed the rollers S turn and roll between the carriage and top, and the frame Q traverses with the rollers. I cast a strong arm, T, with the frame, with a hub, T', which is perforated for the crank-shaft U which turns in it, being carried by the gear V fastened to the shaft. The shaft U has an arm, W, with a crank-pin in it for the link W', which connects it to the carriage J, to traverse it and operate the machine. The stud X is fastened in the back C, for the pinion Y to turn on, which drives the gear V, which pinion may have a pulley fastened to it for a band from some moving power to operate the machine. To compel the rollers to turn as they pass across the anvils, I fasten gears *a* to their rear ends which work into the rack *b*, fastened in the sides B behind the block E. To prevent the rollers S from working off of the carriage I put some stops *c* at each end.

The hoe-blank, Figure 4, is prepared in a manner well known to hoe-makers, and properly heated and placed on the anvil H', with the shank *d* in or opposite the score I', (the rollers being in motion,) the anvil is raised by turning the screw G, and the blank rolled and elongated at a right angle to its shank, and made in the form shown in Figure 5, when it is placed on the anvil H, (with or without reheating,) and with the shank in the score I, when the anvil is raised by turning the screw and the blank elongated parallel with the shank by the roller K, and rolled as thin as required, and cut in the form shown in Figure 7, or such other form as may be preferred, and finished to suit the market.

I contemplate that the anvils or dies may be filed off around the scores so as to make the hoe-plate thicker at and near the rib and shank; and that the ways which hold up the carriage may be pressed up by springs so that the carriage will always press the friction rollers against the top; and that gearing may be applied to the screw that raises the bed, so as to turn the screw by a shaft and crank; also that the top may be connected



to one or both sides, or the base in front, or at the ends of the carriage, to make the frame stronger; and that one roller and one anvil may be used instead of two rollers and two anvils.

1. I claim a stand or frame with horizontal ways for the carriage that carries the rollers, and perpendicular ways for the anvil-block, and a bed for the screw that raises the anvil-block, the whole being constructed and arranged substantially as described.

2. In combination with the subject-matter of the first claim, I claim the carriage J with one or more rollers and the vertical adjustable anvil E, substantially as and for the purposes set forth.

WILLIAM F. STILLMAN.

Witnesses:

GEORGE H. SCRIBER,  
PHINEAS GATES.