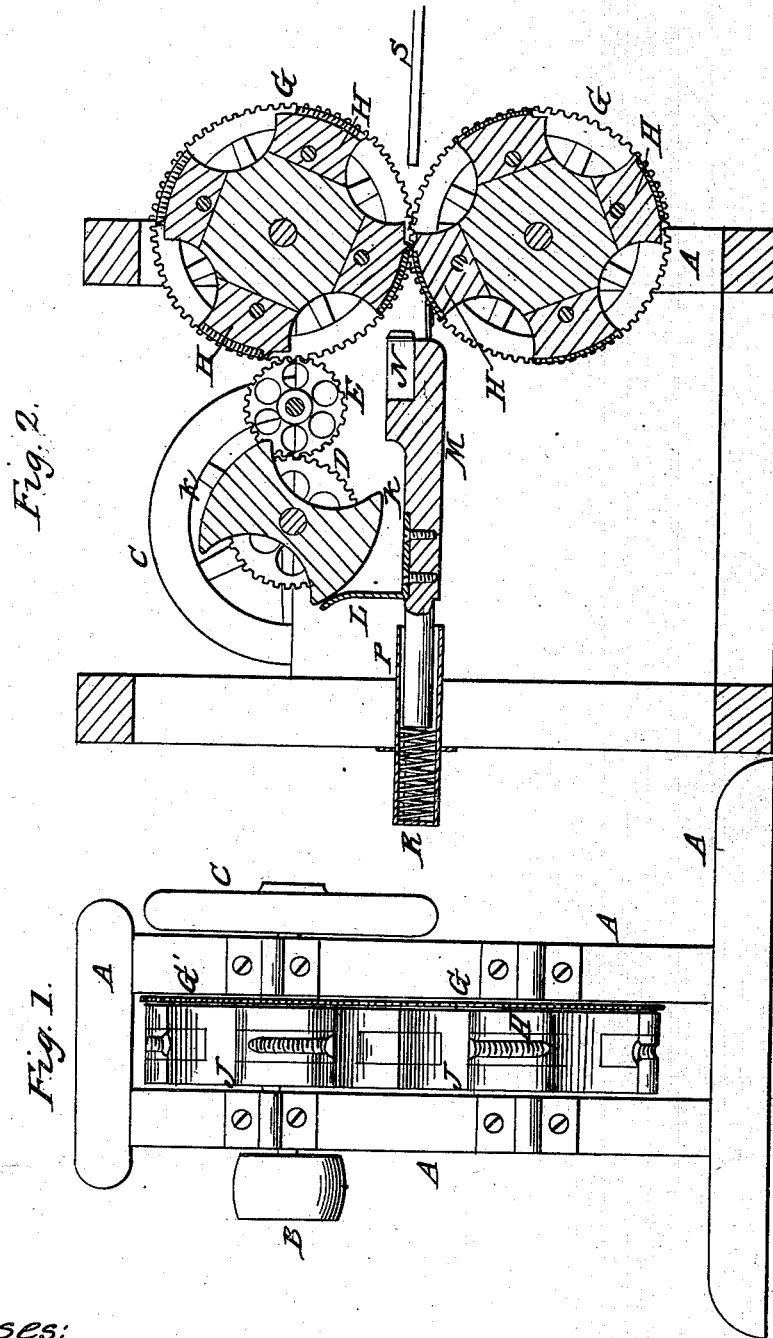


T. WELHAM.

Machine for Pressing and Shaping Screws.

No. 47,236.

Patented April 11, 1865.



Witnesses:
James Franklin Ruggan
St. D. D. D.

Inventor:
T. Welham

UNITED STATES PATENT OFFICE.

THOMAS WELHAM, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVED MACHINE FOR PRESSING AND SHAPING SCREWS.

Specification forming part of Letters Patent No. 47,236, dated April 11, 1865.

To all whom it may concern:

Be it known that I, THOMAS WELHAM, of Washington city, District of Columbia, have invented new and useful Improvements in Machines for Pressing and Shaping Screws; and I do hereby declare the following to be an exact description thereof, reference being had to the accompanying drawings, and to letters of reference marked thereon, making a part of this specification.

The nature of my invention is a series of revolving dies for pressing and shaping screws instead of cutting the threads as heretofore.

Figure 1 represents a side elevation or front view, and Fig. 2 a cross section.

A represents the upright frame; B, a band pulley; C, a fly-wheel.

D is the toothed driving-wheel.

E is the pinion that gears into and connects the driving-wheel D and top cog-wheel, G. The wheels operate on shafts set in ordinary boxes on the sides of the frame.

H represents a steel die, made nearly square and rounding on the face, in which the size and shape of the screw is sunk. The dies H II are adjustable and set firmly in stocks J J, that are cast solid with their toothed wheels G G. On the shaft of the band-pulley B and fly-wheel C there is a revolving cam, K, that operates the upright arm L of the horizontal hammer M. The front end of the hammer has an adjustable die, N, with a chisel-point, for the purpose of making the head of the head of the screw and the nick in the head at

the same stroke. The rear end of the hammer M moves in a cylinder, P, containing a spiral spring, R.

S represents the wire (out of which the screw is formed) as ready to come in contact with the dies.

As the driving-wheel D revolves, it drives the pinion E, which operates the toothed wheels G G and revolves the stocks J J, containing the screw-dies H II, and as the dies come in contact with the wire S they draw the wire through between the revolving dies, at the same time the cam K passes from the arm L and releases the hammer M, that is then driven forward by the power of the spiral spring R against the front end of the wire, making the head and nick of the screw, the die pressing, shaping, and cutting off the screw from the wire, (by the pressure,) the screw dropping below and leaving the wire ready to come in contact with the next die.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination and arrangement of the movable and adjustable dies II and revolving stock J, as herein described, for the purpose of pressing and shaping screws by pressure, instead of cutting and swaging the threads of screws, as heretofore.

THOS. WELHAM.

Witnesses:

J. FRANKLIN REIGART,
EDM. F. BROWN.