

J. GREENWOOD.

Wire-Straightening and Cutting-Machines.

No. 152,989.

Patented July 14, 1874.

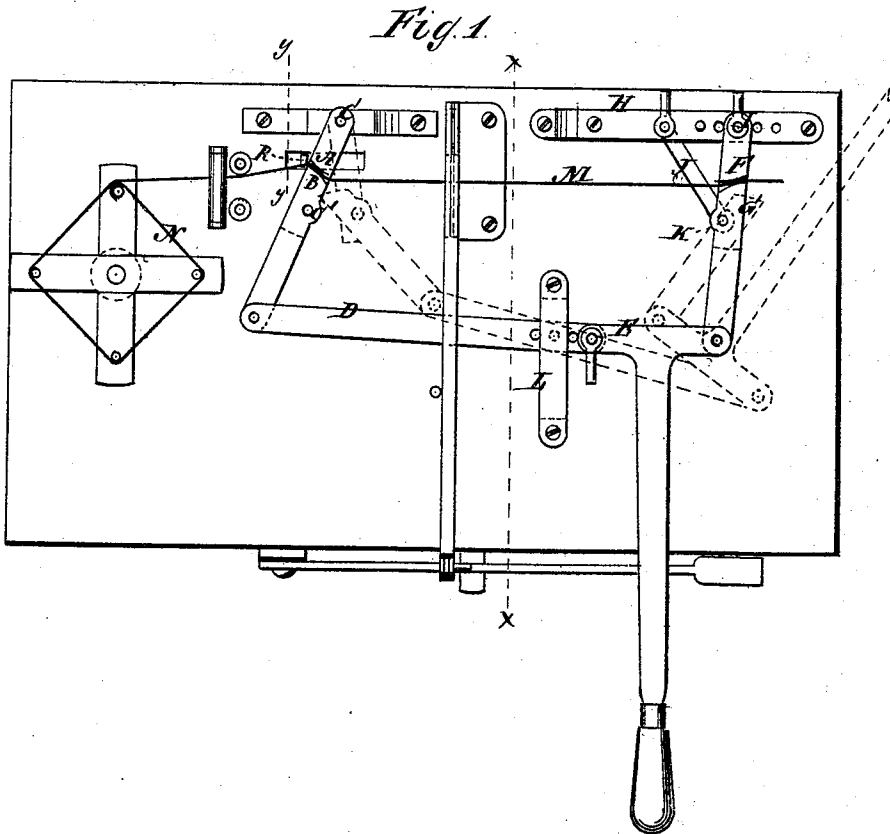


Fig. 2

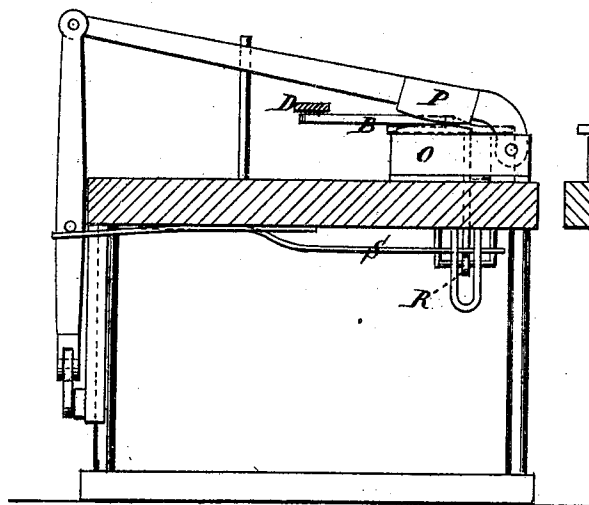
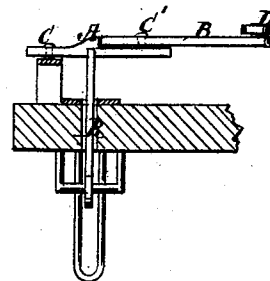


Fig. 3



WITNESSES:

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UNITED STATES PATENT OFFICE

JAMES GREENWOOD, OF MOUNT CARMEL, PENNSYLVANIA.

IMPROVEMENT IN WIRE STRAIGHTENING AND CUTTING MACHINES.

Specification forming part of Letters Patent No. **152,989**, dated July 14, 1874; application filed May 1, 1874.

To all whom it may concern:

Be it known that I, JAMES GREENWOOD, of Mount Carmel, in the county of Northumberland and State of Pennsylvania, have invented a new and Improved Wire Straightening and Cutting Machine, of which the following is a specification:

My invention consists of a pair of grippers and a lever combined in such manner that the grippers are caused to gripe the wire at two points, and then pull it for straightening it by tension; and it also consists of a shears between the grippers for cutting the wire in pieces of any length required after it is straightened, whereby the cutting and straightening of wire from a coil for weaving or other purposes is simplified and cheapened, as compared with the present method of first cutting off the pieces in curved form and then straightening them by hammering on an iron plate, and the exact lengths required are not obtained, so they cannot be readily measured accurately before cutting on account of the bends and curves in the wire or iron rods.

Figure 1 is a plan view of my improved machine. Fig. 2 is a sectional elevation taken on the line *x x* of Fig. 1, and Fig. 3 is a section on line *y y*.

Similar letters of reference indicate corresponding parts.

A and B are grippers, of which A is pivoted to a support at C, and B is pivoted to an arm of A at C', and also connected, by a rod, D, with one arm of the head of a T-lever, E. F and G are also grippers, of which F is attached to a bar, H, at I, and supported by a brace, J, so as not to vibrate, and G is pivoted to an arm of F, at K, and connected directly to the head of the T-lever E. The gripper F is adjustable along the bar H toward and from the

grippers A B, and the connection of rod D with lever E is adapted to be extended or shortened. The rod D is arranged in a slotted guide-block or stand, L, to support the apparatus at one side, while at the other side it is supported by the grippers A and F in a horizontal plane. By swinging the lever E to the right, as indicated by the dotted lines, the grippers are opened and moved toward each other, the wire M being then stretched along from the coil N and adjusted between both sets of the grippers, and the lever E being moved back in the opposite direction, the grippers will be closed on the wire and then moved from each other, so as to stretch the wire and straighten it. O is a stationary cutter, and P a movable one, placed between the grippers, so that the wire will be stretched between them when they are opened, to be cut off as soon as it is straightened. The grippers F G are shifted toward and from the cutters for adjusting the machine for cutting wires of different lengths. R is an elbow-lever, and S a spring for throwing the grippers open when the work is done and the lever E let go.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of grippers A B, adjustable grippers F G, connecting-bar D, and lever E, substantially as shown and described.

2. The combination of the adjustable grippers, as described, and the cutting device for cutting the wire in variable lengths when straightened, as described.

JAMES GREENWOOD.

Witnesses:

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H. D. ROTHERMEL.