W. A. PERKINS.

WIRE BENDING MACHINE.

APPLICATION FILED DEC. 18, 1905.

905,917. Patented Dec. 8, 1908.

Fig. 1.

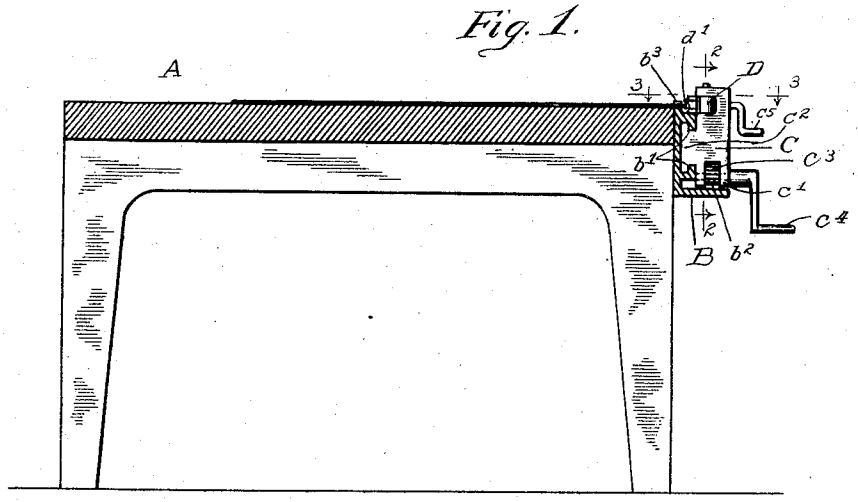


Fig. 2.

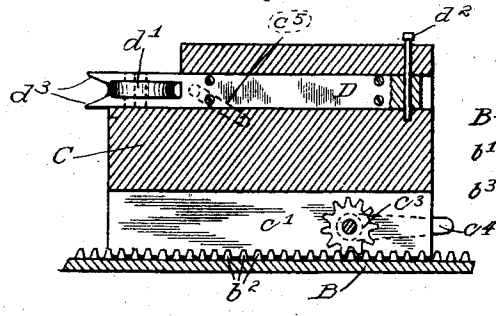
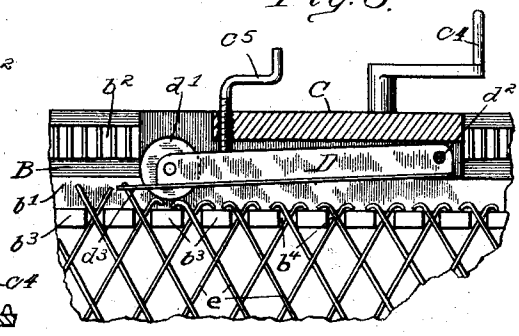


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM A. PERKINS, OF CHICAGO, ILLINOIS.

WIRE-BENDING MACHINE.

No. 905,917. Specification of Letters Patent. Patented Dec. 8, 1908.

Application filed December 18, 1905. Serial No. 292,151.

To all whom it may concern:

Be it known that I, WILLIAM A. PERKINS, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Wire-Bending Machines, of which the following is a specification.

This invention relates to a machine for performing certain finishing operations on woven wire goods such as are commonly used in the construction of partitions, elevator cages, gates, window guards and analogous structures.

The especial object of the improvements which form the subject matter of this application, is to provide a manually or power operated machine which will uniformly turn or bend down the selvage ends of the wires which have been woven into a diamond or other shaped mesh structure, leaving said ends in condition for the attachment of rods or other finishing elements.

In the accompanying drawing which forms a part of this application:—Figure 1 is a view partly in section, showing my invention as applied to a suitable work table; Fig. 2 is a vertical section on an enlarged scale, through the line 2—2 of Fig. 1; Fig. 3 is a view partly in section and partly in top plan view of my invention substantially on the line 3—3 of Fig. 1.

Referring to the details of the drawing, A represents a work table to which my wire bending machine is applied. This table has a flat top of suitable area to support the interwoven wire sections placed thereon.

B is an angle plate which is arranged along one edge of the table and is rigidly bolted thereto. This plate is provided on its vertical part with two longitudinal projecting angle flanges, the edges b' of which are spaced from the outer face of the plate so as to form a slideway.

b^2 is a rack which is formed with or secured to the horizontal member of the plate A, and extends the full length of same. The upper edge of the plate is notched as at b^4 and between the notches are lugs b^3 which serve as stops for the wires which are placed in the notches as shown in Fig. 3.

C is a metal block which is slidably mounted on the plate B. This block is formed with a longitudinal vertical channel c^1 in its under side, and with a tongue c^2 on its inner face, the latter fitting the slideway in the outer face of the plate and serving to hold the block vertically in its bearing against outward pressure. On a shaft which passes through the lower portion of the block, and within the channel c^1, a pinion c^3 is mounted, and the same is turned by a handle c^4 which is secured to said shaft, thus causing the pinion to travel along the rack b^2 and carry the block with it.

D is a pressure bar which is pivoted at one end on pin d^2, on the upper part of the block C. Near the free end of the bar a grooved wheel d^1 is mounted, and the extreme end of the bar is bifurcated so as to form prongs and a V-shaped opening into which the ends of the wires e are guided by the projecting prongs as the block is moved along the edge of the table.

c^5 is a crank set screw which passes through a suitable threaded opening in the block C and has its inner end bearing against the back or outer side of the bar D so that by adjusting the screw the bar may be adjusted relative to the wire.

From the aforegoing description the operation of my wire bending machine will be apparent, and its utility appreciated.

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

1. In a machine for bending the ends of wires, in combination with a table, a block slidably supported on said table, a pressure bar mounted on said block, wire bending means mounted on said pressure bar, and means for operating said block.

2. In a machine for bending the ends of wires, in combination with a table, a block slidably supported on said table, a pressure bar adjustably mounted on said block, wire bending means mounted on said pressure bar, said means comprising a wheel adapted to bear against the wires, and means for operating said block.

3. In a machine for bending the ends of wires, a block, a pressure-bar adjustably mounted on said block and provided with a guideway, wire-bending means mounted on said bar, means for supporting and means for operating said block.

4. In a machine for bending the ends of wires, a plate having a slideway and rack, a block mounted in said slideway, a pinion carried by said block and engaging said rack, means for turning said pinion, a pressure bar adjustably pivoted on said block, a

grooved wheel mounted on said bar, and means for guiding the ends of the wires to said wheel.

5. In a wire bending machine, a plate having spaced notches to receive the wires to be bent, and lugs adapted to form bearing surfaces for the ends of the wires, a pressure bar adjustably and slidably mounted on said plate, and a roller carried by said bar and adapted to impinge on the ends of the wires and turn them against said lugs.

6. In a bending machine, a plate having bearing surfaces for the ends of the material to be bent, a pressure bar adjustably and slidably mounted on said plate, a grooved roller carried by said bar, and a guide on said bar adapted to aline the material with said roller.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM A. PERKINS.

Witnesses:

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WM. B. MOORE.