

M. V. Nobles,

Weaving Wire.

No. 97,218.

Patented Nov. 23, 1869.

Fig. 1.

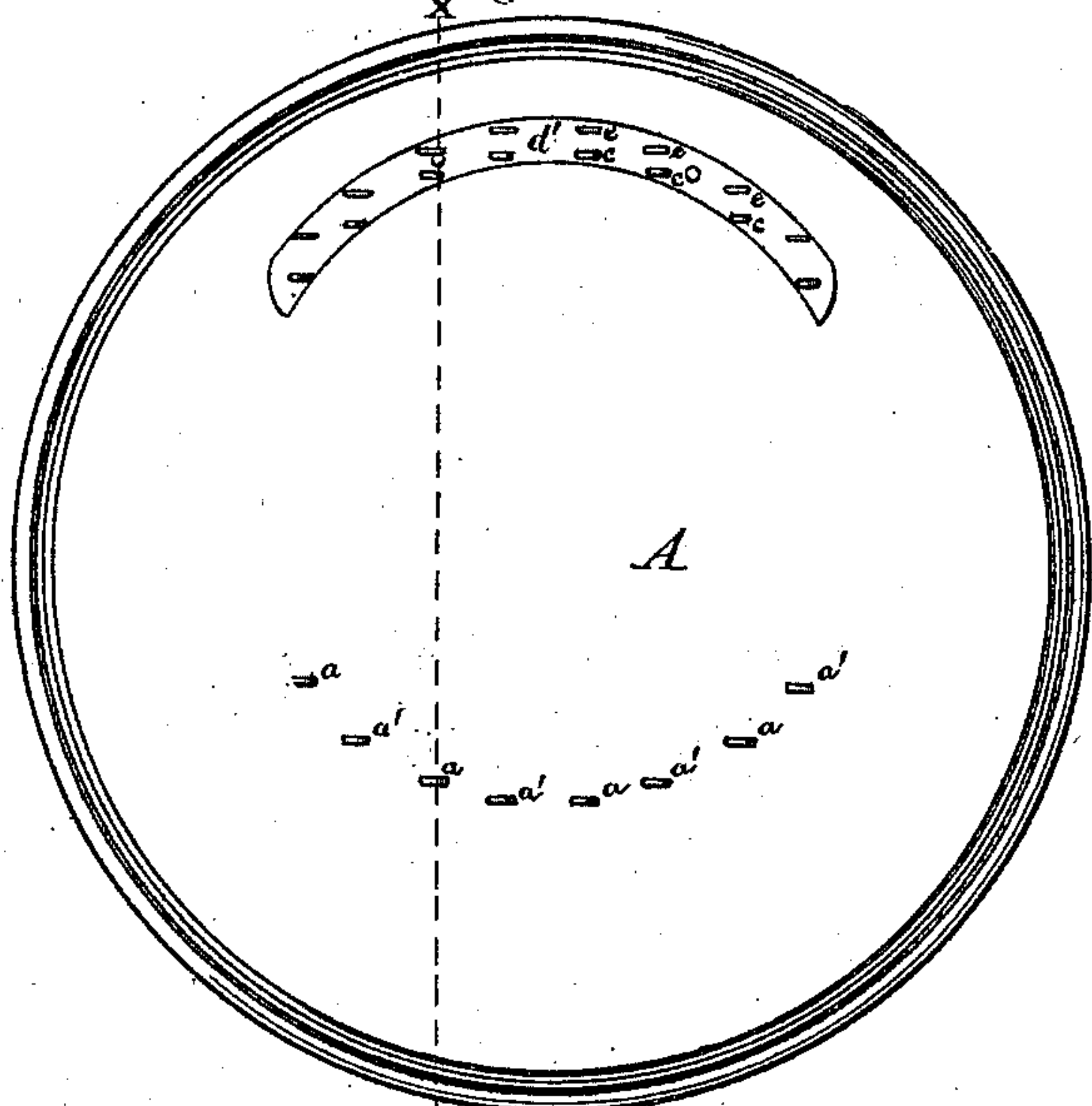


Fig. 2.

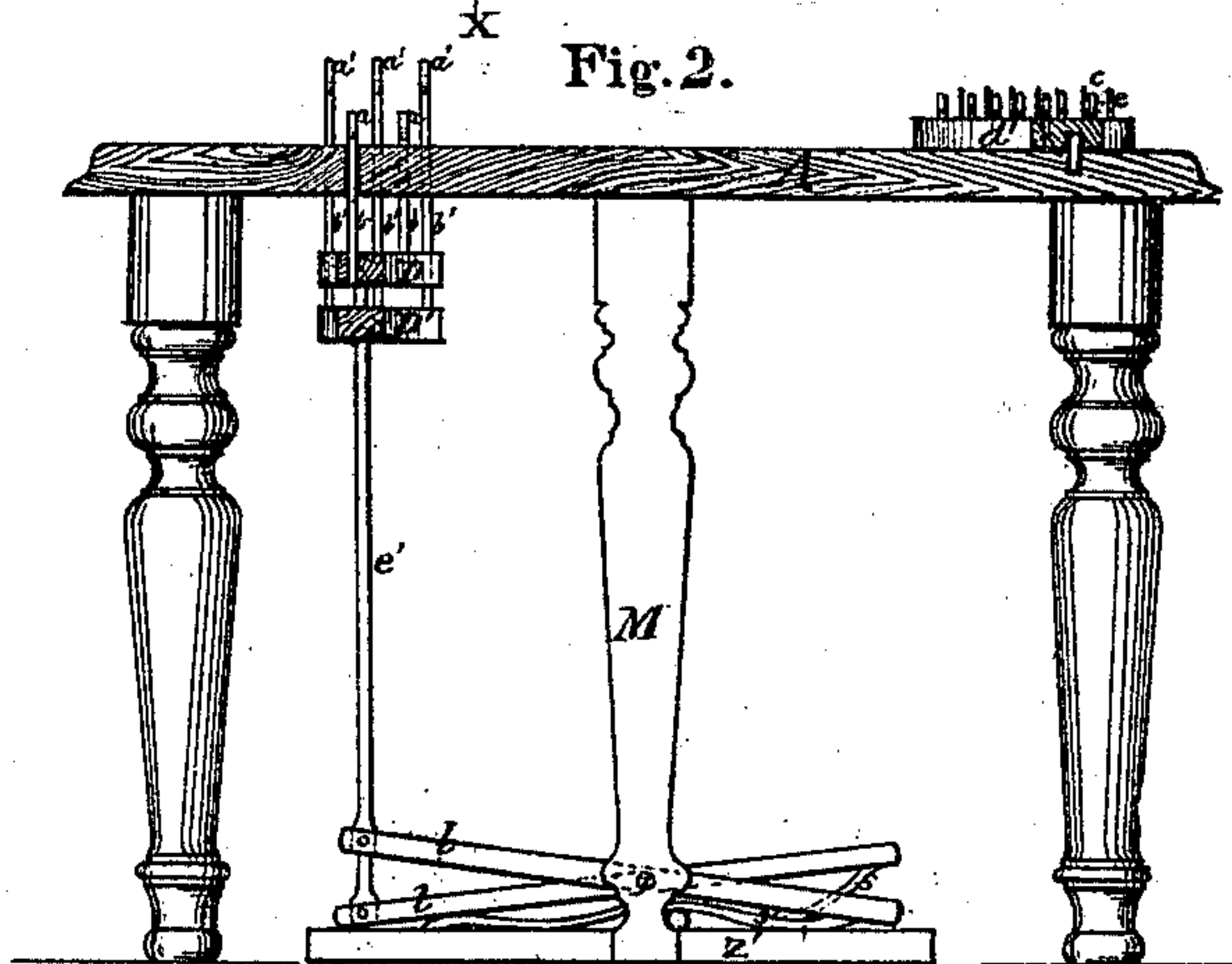


Fig. 3.



Witnesses.

E. W. Anderson

L. D. Kane,

Inventor.

M. V. Nobles

Chipman, Hosmer & Co

Attorneys,

United States Patent Office.

M. V. NOBLES, OF ELMIRA, NEW YORK.

Letters Patent No. 97,218, dated November 23, 1869.

IMPROVEMENT IN DEVICES FOR FORMING THE SHED IN WEAVING WIRE.

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, M. V. NOBLES, of Elmira, in the county of Chemung, and State of New York, have invented a new and valuable Improvement in Wire-Weaving Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a top view of my invention.

Figure 2 is a vertical section through the line *z z*.

Figure 3 represents a detached view of the removable arc.

My invention relates to means for weaving wire, and consists, mainly, in the construction and novel arrangement of devices whereby the wires forming the warp are alternately raised, one-half at a time, to admit between them the wires which form the woof.

The letter A of the drawings designates the frame of the machine, a circular table, supported on four standards.

Immediately in front of the operator, and secured upon two pins set in the table, is an arc, *d*, of wood, in which are fastened, at equal distances apart, the rings *c* and guard-plates *e*.

Corresponding in number, and directly opposite the rings *c*, on the other side of the table, are arranged the rings *a a'*, formed on the ends of the rods or wires *b b'*, which shoot up through the table from the elevating-arcs *D D'*, to which they are secured.

The arc *D* is situated immediately over the arc *D'*, so that the wires *b'*, in their passage to the tables from the arc *D'*, pass through the arc *D*.

The arcs *D D'* are fastened to the ends of the rods *e e'*, which are pivoted at their lower ends to the ends of the levers or treadles *l l'*.

The treadles *l l'* are pivoted on a common fulcrum-pin, *z*, secured between the uprights *M M'*, which connect the platform *z* and the centre of the table.

The reverse motion of the treadles is accomplished by the springs *s s'*, fastened to the platform *z'*.

The operation of my machine is as follows:

The wires of the warp are first arranged by passing them through the rings *a, a'*, and *c*, until they are stopped by the guard-plates *e*. Then the operator, who is seated in front of the arc *d*, by pressure upon the treadle *l*, raises the arc *D*, and with it the alternate wires held by the rings *a*.

A wire is now easily passed across between the wires of the warp, and drawn, as closely as may be desired, to the rings *c*.

The arc *D* having been allowed to fall, pressure is applied to the treadle *l'*, thereby raising the arc *D'*, and the alternate wires of the warp held by its rings *a'*.

Another wire is now passed across, and drawn up as closely as may be desired to its predecessor, which thereby becomes secured in position.

This operation is repeated, pressure being applied to each treadle alternately, until all the wires of the woof have been introduced, and the weaving is completed.

In this machine it is not necessary that the rings, which hold the ends of the warp-wires, and confine the weaving, should be arranged in arcs of circles.

An oval or elliptical edge may be formed to the weaving, or a polygonal design may be employed.

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

The wire-weaving machine herein described, having, in combination with the spring-treadles *l l'*, the removable arc *d*, with rings *c* and guard-plates *e*, and the elevating-arcs *D D'*, provided with the rods *b b'* and rings *a a'*, all constructed and arranged to operate as specified.

In testimony that I claim the above, I have hereunto subscribed my name, in the presence of two witnesses.

Witnesses:

E. W. ANDERSON,
D. D. KANE.

M. V. NOBLES.