

U. A. LANTEIGNE.
Machines for Embossing Wood.

No. 158,952.

Patented Jan. 19, 1875.

Fig. 1.

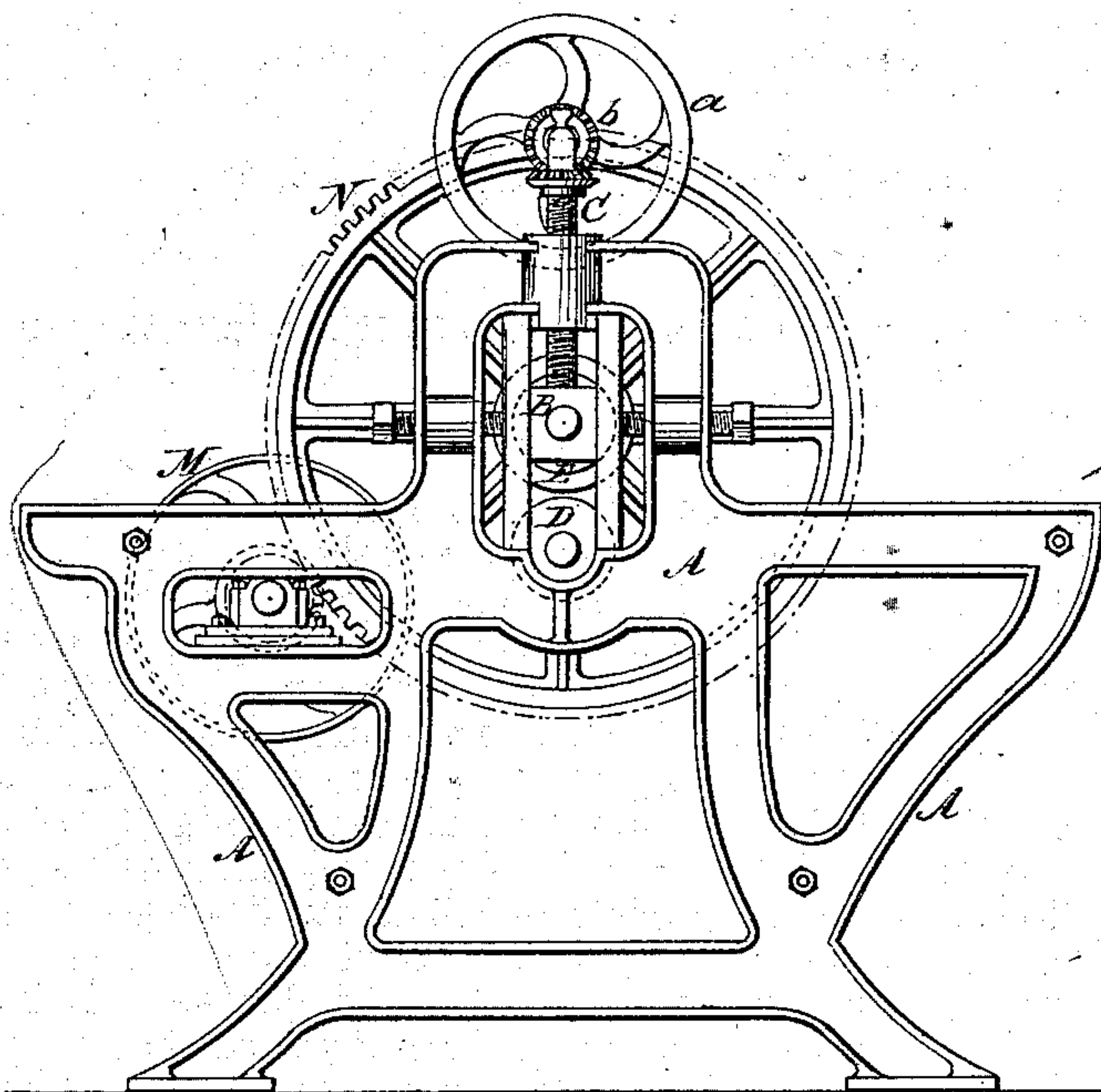


Fig. 2.

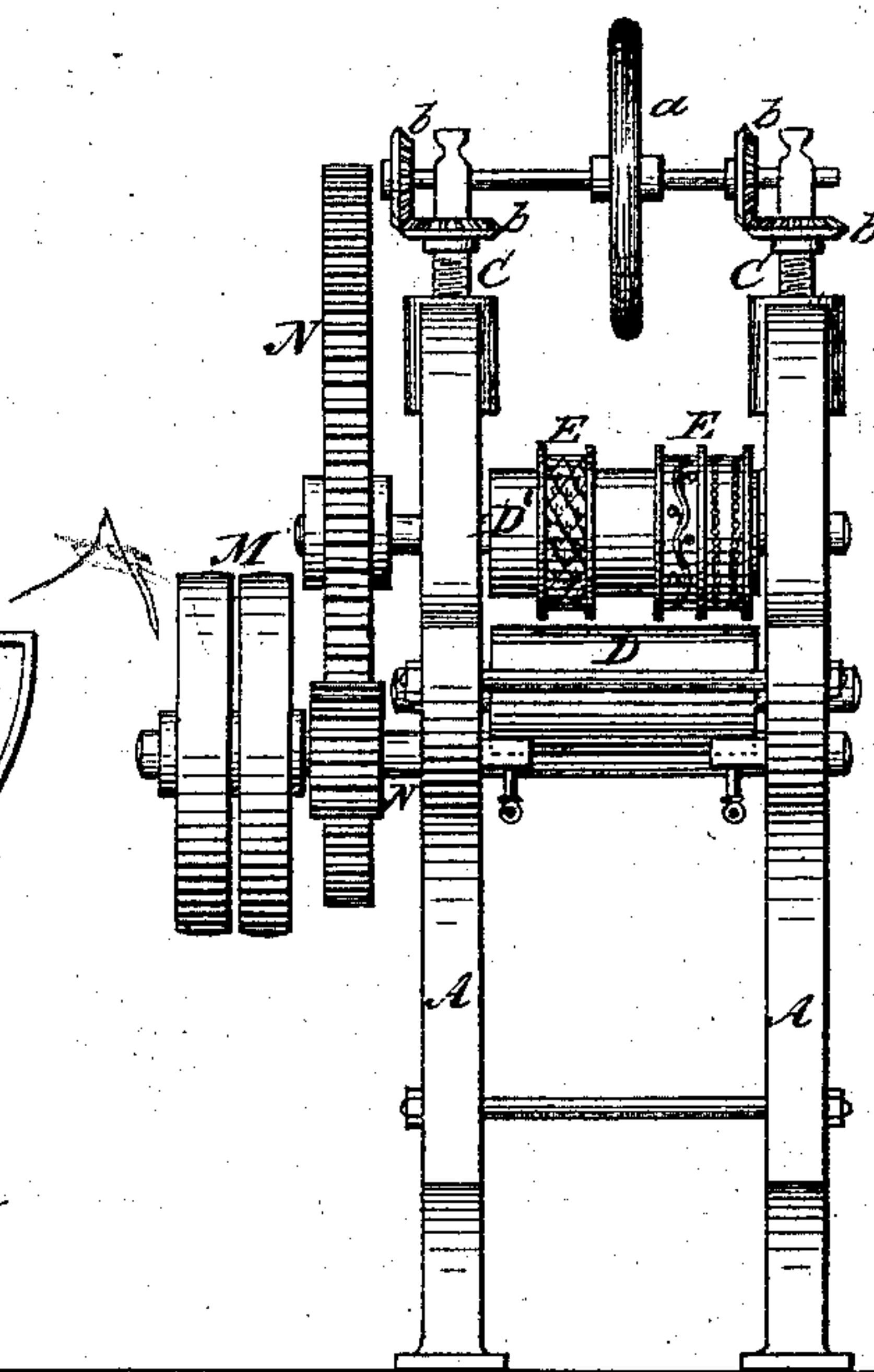


Fig. 3.

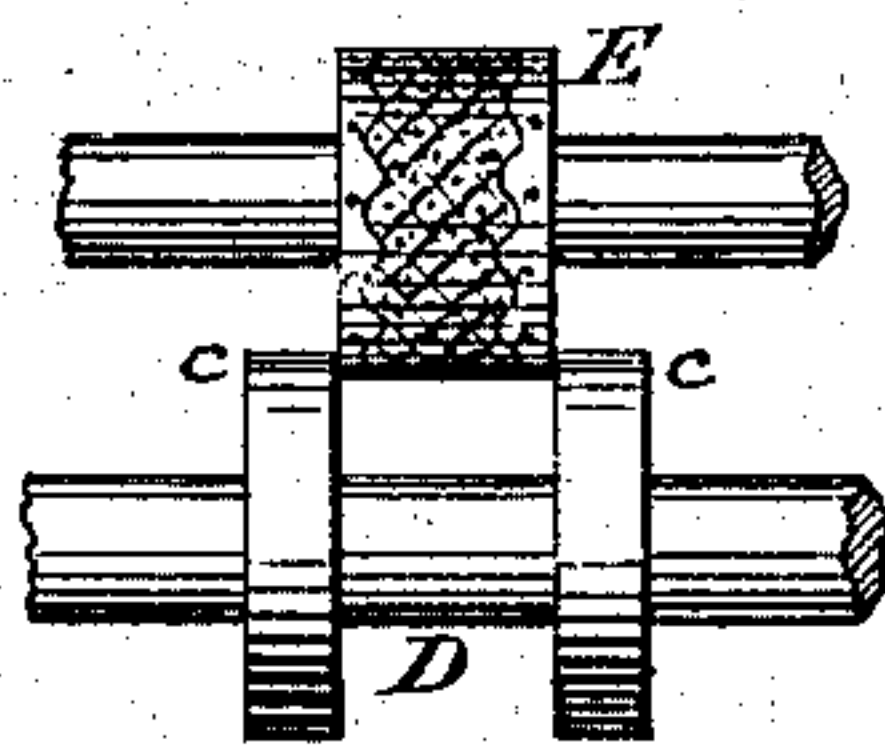


Fig. 5.

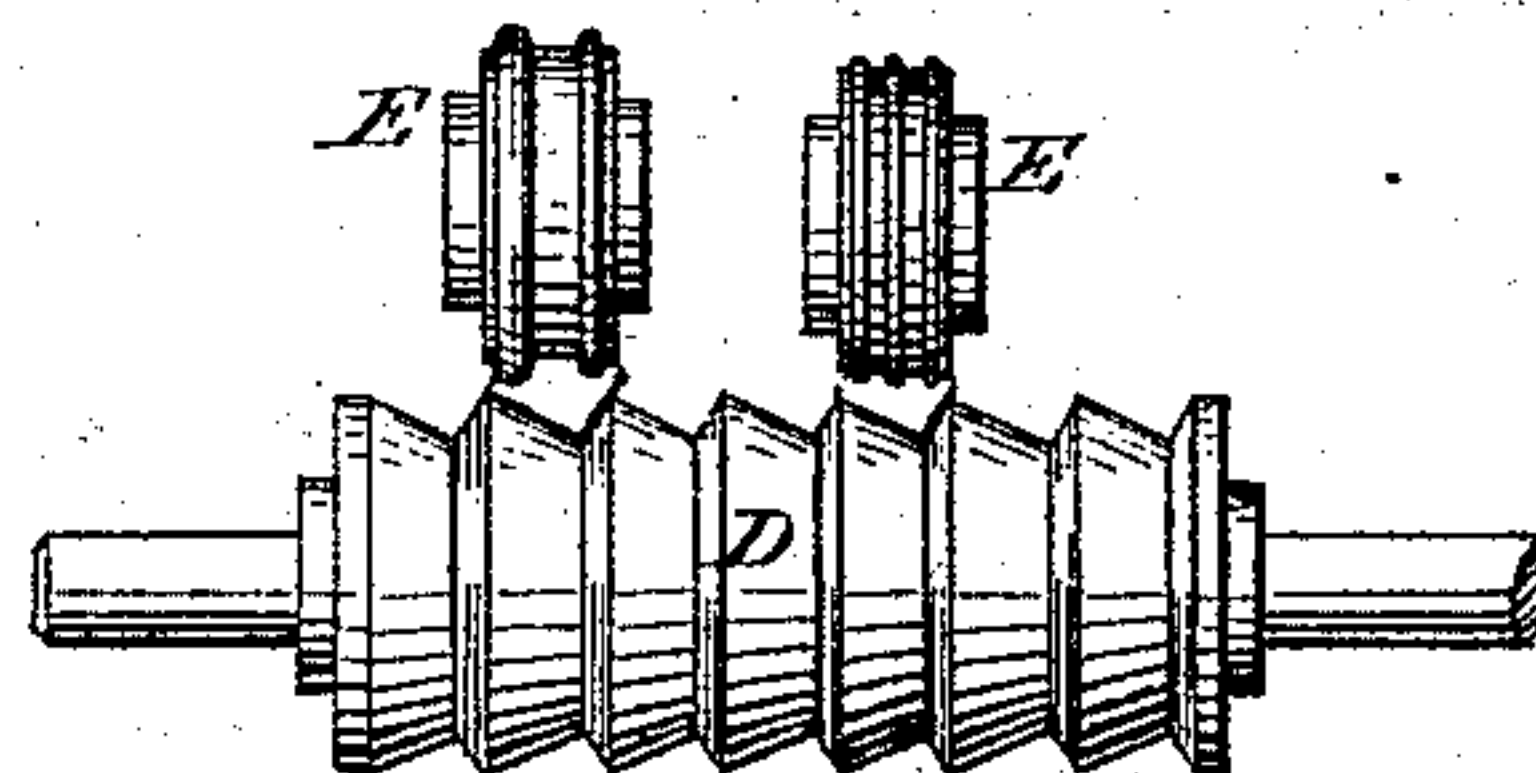


Fig. 4.

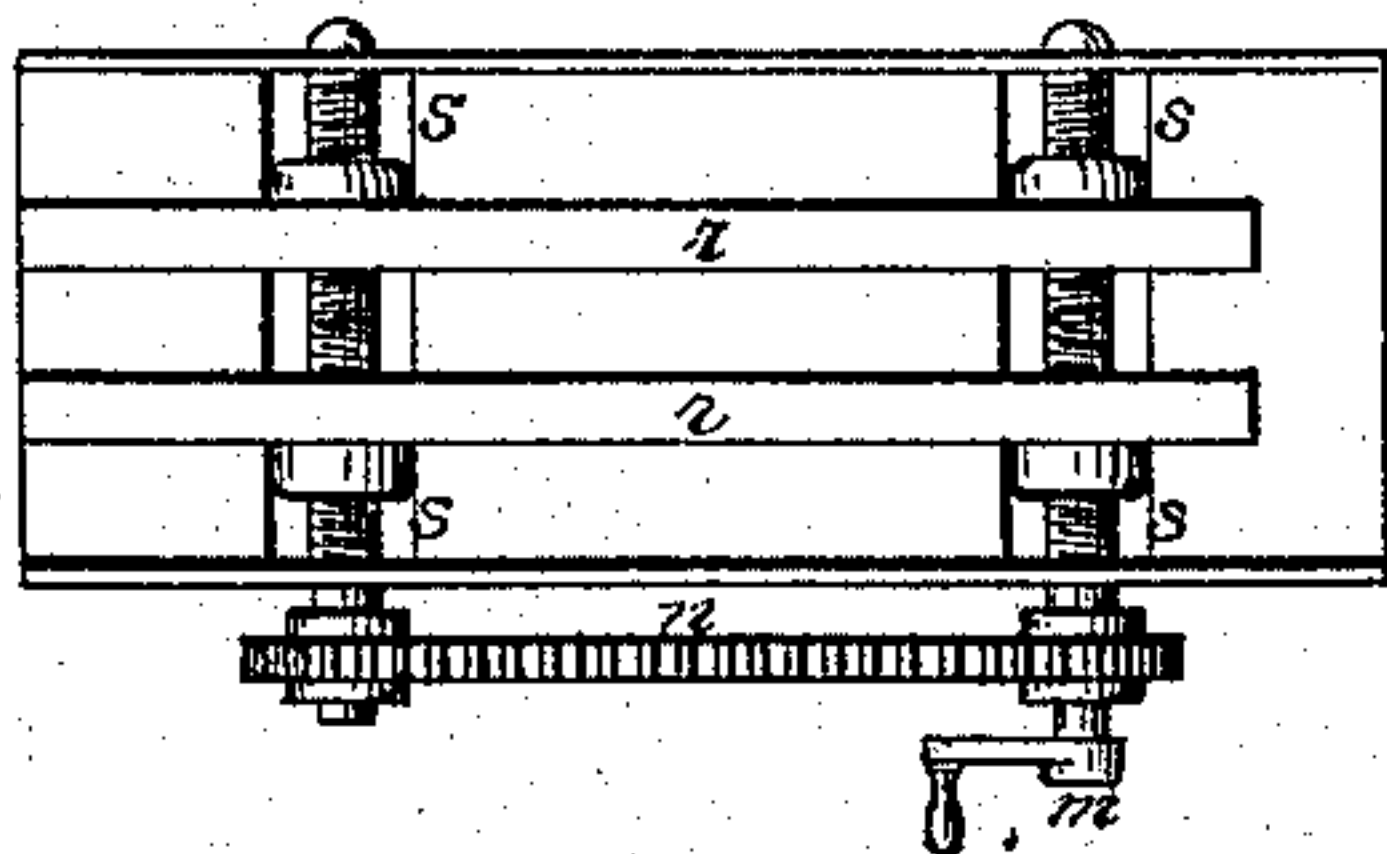
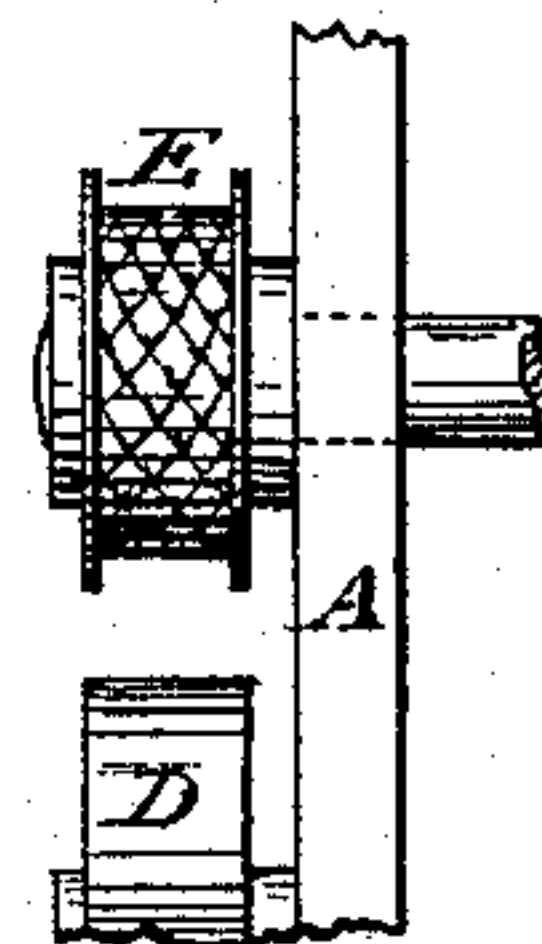


Fig. 6.



Witnesses;

J. H. Thurman
A. J. Tibbitts

Inventor,

Urbain A. Lantaigne
By Atty
Chas. C. Carle

UNITED STATES PATENT OFFICE.

URBAIN AUGUSTE LANTEIGNE, OF PARIS, FRANCE.

IMPROVEMENT IN MACHINES FOR EMBOSSING WOOD.

Specification forming part of Letters Patent No. 158,952, dated January 19, 1875; application filed April 22, 1874.

To all whom it may concern:

Be it known that I, URBAIN AUGUSTE LANTEIGNE, of Paris, in the Republic of France, have invented a new Improvement in Machinery for Ornamenting, Engraving, Embossing, or Sculpturing Wood or other material; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a lateral elevation; Fig. 2, a front view of the same. The remaining figures represent special devices in detail.

This invention relates to an improvement in machines specially adapted to the sculpture and engraving of wood and other materials by mechanical chasing or milling and pressure, by means of circular matrices having revolving movements. The embossing or sculpture is thus obtained, without chips or waste, by the simple pressing inward of the fibers of the wood.

The principal features of my improvement are, first, the combination of the adjustable matrices of one cylinder with the lateral collars of the other cylinder, between which they revolve, in order to guide the wood or other material to be worked, and thus avoid the least irregularity in the sculpture or engraving produced; second, the arrangement of a table with movable reglets, which may be pressed or loosened at will by means of screws provided with contrary furrows, in order to rigidly maintain the wood to be worked, and to prevent the same from deviating under the action of the pressure of the matrices; third, the combination of the guide-cylinder with flutings, in which are loosely placed the wood wands, intended for receiving the pressure of the matrices, in order to produce moldings for frames, panels, &c.

Referring to the drawings, the frame-work A, Fig. 1, of the machine is formed of two cheeks or side frames, held firmly at the proper distance apart by cross-bars and bolts; and to the cheeks is fixed a table, level with a supporting-cylinder, D, below the matrices E. In the table are grooves, in which are placed

screws, provided with nuts and ears, for regulating, by means of movable bars, the spaces between the edges of the pieces of wood, and which permit them to be directed under the matrices without supervision. In spaces in the side frames A are sliding blocks B, forming bearings for the shaft of the cylinder D'; to which circular matrices E, Fig. 2, are adjusted and fixed. For giving the required vertical separation of the shafts, there are screws C, which, by being turned in one direction or the other, bring the cylinder and matrices closer together or farther apart, according to the thickness of the wood which is to be passed between the matrices and the supporting-cylinder. The said screws C are actuated by means of the fly-wheel *a* and conical pinions *b b*. For working and stopping the machine, there is a fast and loose pulley, M M, the shaft of the fast pulley communicating, by toothed wheels N N, with the shaft of the supporting-cylinder; and, by employing a greater or less number of toothed wheels, the speed of the cylinder and matrices is varied, according to the nature of the wood to be worked.

The circular matrices E E may be arranged vertically, in order to ornament both sides of the wood. This arrangement enables each face or side of the work produced by the machine to be seen.

Fig. 3 shows the arrangement of a circular matrix, E, guided between two collars, *c c*, of the supporting-cylinder D, in order to drive the piece of wood during the work of pressure.

Fig. 4 shows an arrangement of devices for guiding and maintaining the wood to be worked; and it consists of two reglets, *r r*, which are brought nearer or removed apart, at will, by means of the screws *s s*, which are disposed with contrary furrows, and which are simultaneously actuated by means of a winch-handle, *m*, and a gall's chain, *n*, passing upon two pinions.

In Fig. 5 is shown the construction and arrangement of a cylinder or mandrel, D, having grooves or profiles of different shapes, in which the piece of wood is driven when it is desired to produce moldings for framings, panels, &c.

Fig. 6 shows the arrangement of the matrices E and cylinders D and D' on the outside

of the cheeks of the frame, when it is necessary to produce moldings on the edge of large panels, which could not be introduced between the cheeks of the frame A.

I claim as my invention—

1. The combination and arrangement of the matrices E of the one cylinder D' with the lateral collars c c of the supporting-cylinder D, between which they revolve, as herein described.

2. The arrangement of a table with movable reglets r r, which may be pressed or loosened, at will, by means of screws s s provided with contrary furrows, in order to rigidly maintain the wood to be worked and prevent the same

deviating under the action of the pressure-matrices E E, as described.

3. The combination of the supporting-cylinder D with flutings, grooves, or profiles, in which are loosely placed the pieces of wood intended for receiving the pressure of the matrices E E, for the purpose specified.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

U. A. LANTEIGNE.

Witnesses:

CH. F. THIRION,
ALBERT CAHEN.