

No. 777,129.

PATENTED DEC. 13, 1904.

A. NICOLLET.  
EMBOSSING MACHINE.

APPLICATION FILED OCT. 6, 1903. RENEWED MAY 11, 1904.

NO MODEL.

2 SHEETS—SHEET 1.

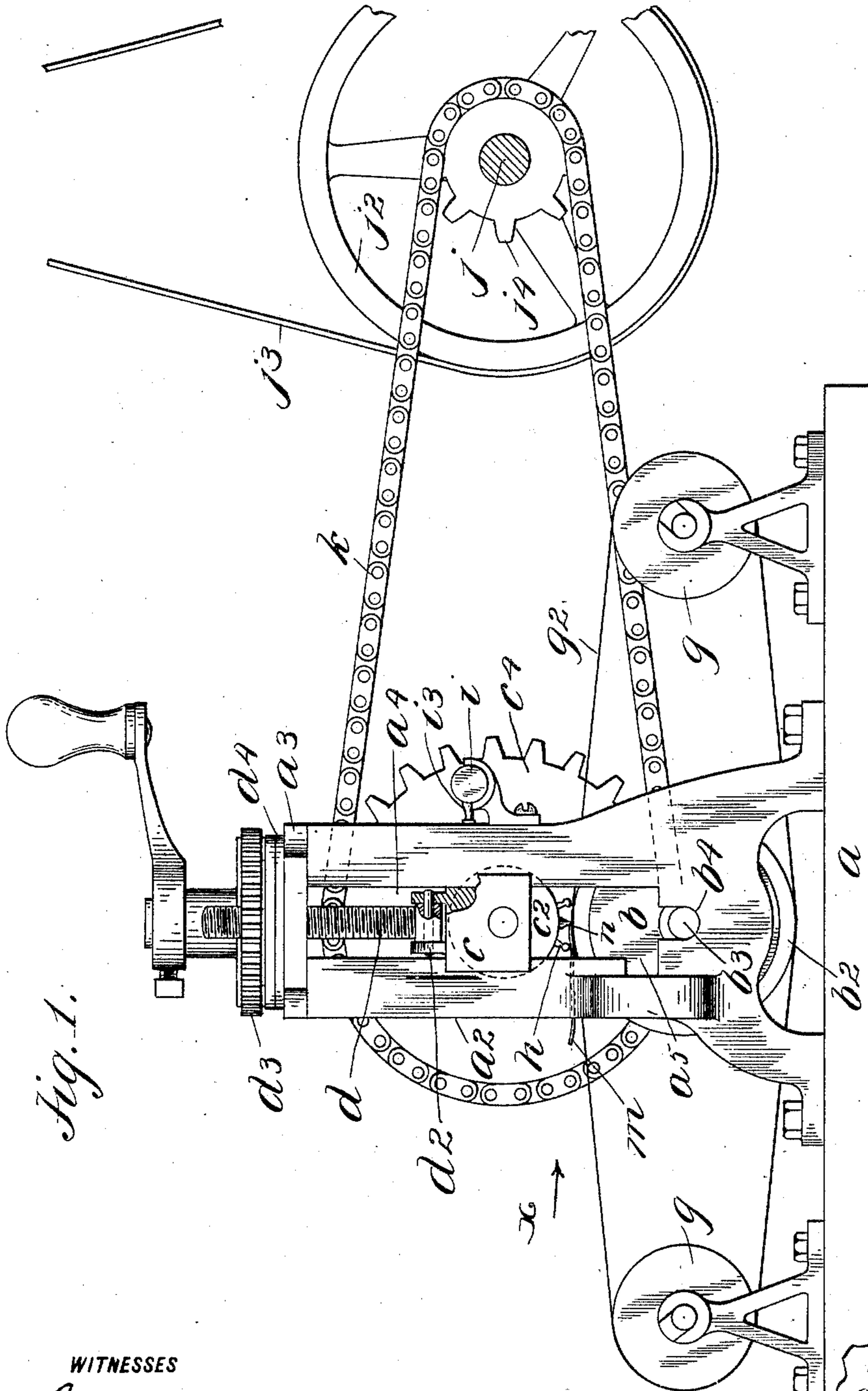


Fig. 1.

WITNESSES

*F. A. Stewart*  
*& E. Mulcahy*

BY

*Edgar Sale & Co*

ATTORNEYS

INVENTOR

*Auguste Nicolle*

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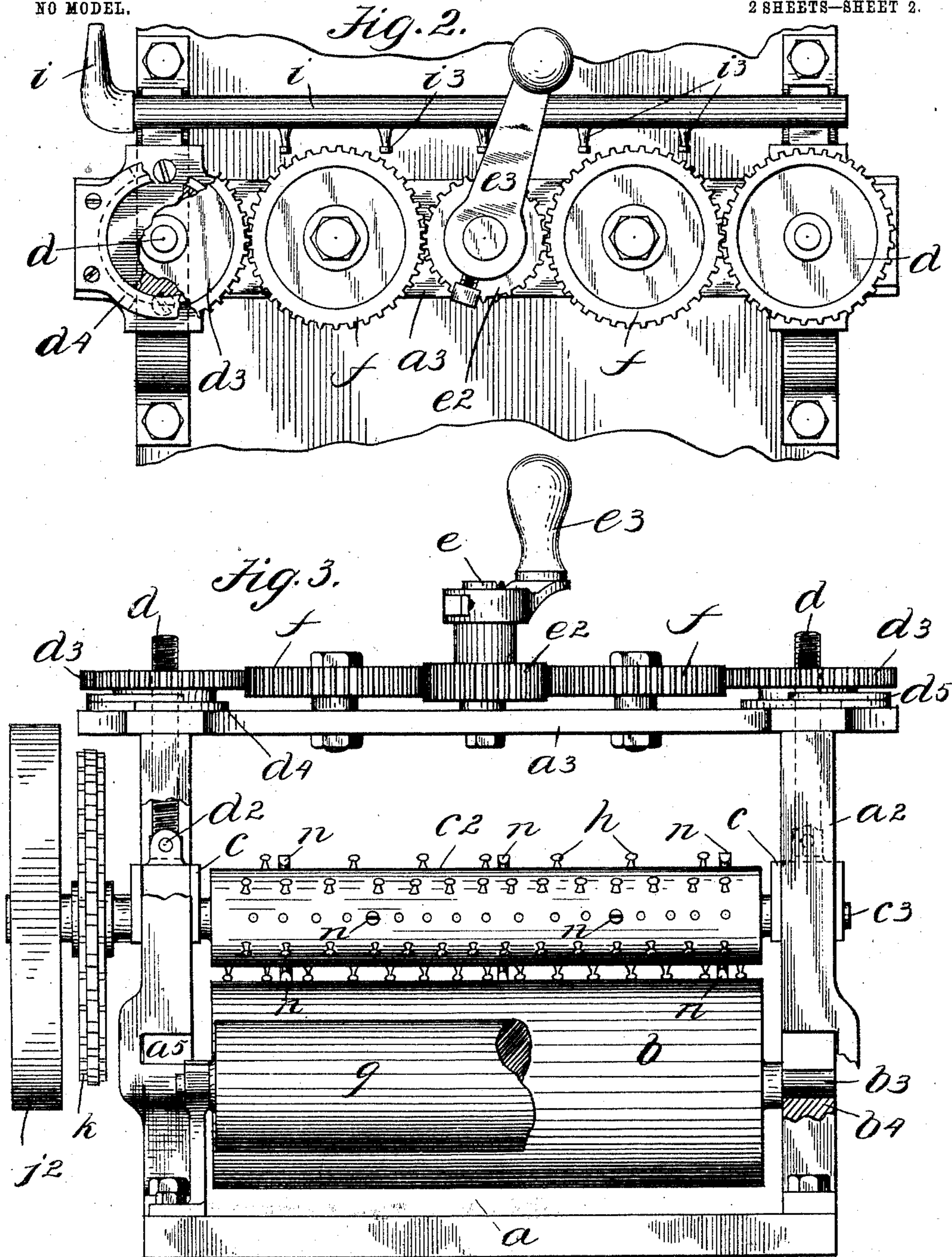
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*J. A. Stewart*  
*L. E. Mulhany*

INVENTOR

BY *Auguste Nicollet.*  
*Edgar Paley & Co.*

ATTORNEYS

## UNITED STATES PATENT OFFICE.

AUGUSTE NICOLLET, OF HILLSDALE MANOR, NEW JERSEY.

## EMBOSSING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 777,129, dated December 13, 1904.

Application filed October 6, 1903. Renewed May 11, 1904. Serial No. 207,370. (No model.)

*To all whom it may concern:*

Be it known that I, AUGUSTE NICOLLET, a citizen of the United States, residing at Hillsdale Manor, in the county of Bergen and State of New Jersey, have invented certain new and useful Improvements in Embossing-Machines, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide an improved machine for embossing leather, paper, and other material in the manufacture of flowers and decorative articles; and with this and other objects in view the invention consists in a machine of the class specified constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a side view of a machine of the class specified constructed according to my invention, part of the construction being broken away; Fig. 2, a plan view thereof, and Fig. 3 a rear end view thereof.

In the practice of my invention I provide a main frame which is preferably composed of a base  $a$  and upright side members  $a^2$ , which are connected at the top by a cross-plate  $a^3$  and in the bottom portion of which is mounted an impression-roller  $b$ , provided with a thick covering  $b^2$  of soft rubber. The upright members  $a^2$  of the main frame are provided with vertical slots or openings  $a^4$ , and at the bottom of said slots or openings said upright members  $a^2$  are provided on one side with transverse openings or recesses  $a^5$ , and by means of this construction the ends of the shaft of the roller  $b$  or the journals  $b^3$  of said roller may be passed laterally into or out of the bearings  $b^4$  thereof.

Mounted in and vertically movable in the slots or openings  $a^4$  are bearing-boxes  $c$ , which support a vertically-movable form-roller  $c^2$ , the shaft  $c^3$  of which passes there-through, and the shaft  $c^3$  of the form-roller  $c^2$  is provided at one end with an ordinary drive or sprocket wheel  $c^4$ .

The bearing-boxes  $c$  are made vertically movable by means of screws  $d$ , connected therewith, as shown at  $d^2$ , and passing upwardly through the plate  $a^3$  of the main frame and provided at their upper ends with gear-wheels  $d^3$ , having bottom flanges or rims  $d^4$ , over which are secured segmental collars  $d^5$ , which prevent the vertical movement of the wheels  $d^3$  on the screws  $d$ .

Mounted centrally over the cross-plate  $a^3$  is a stub-shaft  $e$ , provided with a gear-wheel  $e^2$  and a crank  $e^3$ , and between the gear-wheel  $e^2$  and the wheels  $d^3$  are intermediate gear-wheels  $f$ , which operate in connection with the wheels  $d^3$  and the central wheel  $e^2$ , and by means of this construction the wheels  $d^3$  may be operated so as to raise and lower the bearing-boxes  $c$ , as will be readily understood, and this operation also correspondingly raises and lowers the form-rollers  $c^2$ , the direction of this movement depending on the direction in which the crank  $e^3$  is turned.

Arranged at the front and back of the impression-roller  $b$  or at both ends of the main frame is a roller  $g$ , and passed over these rollers and over the roller  $b$  is an endless belt  $g^2$ , the width of which in practice is preferably the same as the length of the roller  $b$ . The form-roller  $c^2$  is provided with a plurality of formers  $h$ , which may be connected therewith in any desired manner, and the form or shape or style of these formers will depend on the character of the work to be done. If leaves are to be made, the formers  $h$  will be shaped so as to form the imprint or representation of a leaf, and if flower leaves or petals are to be formed the formers  $h$  will be correspondingly shaped.

Arranged at the rear of the form-roller  $c$  and preferably slightly above the horizontal center thereof is a gas-burner tube  $i$ , provided at one end with a coupling device  $i^2$ , by means of which a gas-tube may be connected therewith, and said tube  $i$  is also provided with burners  $i^3$ , which are directed toward the form-roller  $c^2$ .

Supported at the rear of the main frame in any desired manner is a power-shaft  $j$ , provided with a drive-wheel  $j^2$ , over which is passed a belt  $j^3$ , which may be driven in any

desired manner and by means of any preferred power, and the shaft  $j$  is provided with a drive-wheel  $j^4$  smaller but similar in construction to the wheel  $c^4$ , and these wheels are geared  
5 in connection by an ordinary drive-chain  $k$ .

In Fig. 1 of the drawings I have shown at  $m$  a leaf which may be cut from any preferred material such as is usually employed for this purpose, and in practice the form-roller  $c^2$  is  
10 provided with a plurality of feed-teeth  $n$ , which in the form of construction shown are arranged horizontally on said roller, but which may be arranged in any desired manner, and the material to be embossed or ornamented,  
15 whether it be a leaf  $m$  or any other article or substance, is fed into the machine in the direction of the arrow  $x$  in Fig. 1, and one or more of the teeth  $n$  catches the same and feeds it between the rollers  $c^2$  and  $b$ . It will be understood that the belt  $g^2$  is carried around the rollers  $b$  and  $g$  constantly in the operation of the machine, and the material to be embossed or ornamented is carried through the machine on said belt, and in this operation the form-  
25 ers  $h$  press upon the material and give it the desired conformation or shape. In this operation both the material to be ornamented and the belt  $g^2$  are pressed downwardly into the soft-rubber covering  $b^2$  of the roller  $b$  and  
30 the material to be ornamented is crimped or pressed into the desired form, as will be readily understood. It will also be apparent that the form-roller  $c^2$  may be removed and another substituted whenever desired by taking  
35 off the cross-plate  $a^3$  of the main frame, and this plate may be connected with the uprights  $a^2$  in any desired manner.

The endless belt  $g^2$  is preferably made very thin, but of comparatively strong material,  
40 so that the formers  $h$  will work properly in connection therewith so as to give the desired imprint or form to the material to be embossed or ornamented.

The object of making the impression-roller  
45 laterally removable from the main frame is to provide means whereby a new impression-roller may be substituted whenever desired, as the operation of the machine in the man-

ner described renders it necessary to provide a new impression-roller or new soft covering  
50 therefor at all times by reason of the fact that the rubber employed thereon is destroyed or becomes inoperative by being constantly subjected to the operation of the heated formers  $h$ .

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

1. In a machine of the class described, a frame, an impression-roller mounted therein, an endless belt movable thereover, a vertically-  
60 movable form-roller mounted over the impression-roller, means for heating the form-roller and means for driving the form-roller, substantially as shown and described.

2. In a machine of the class described, a  
65 frame, an impression-roller mounted therein, an endless belt movable thereover, a vertically-movable form-roller mounted over the impression-roller, means for heating the form-roller and means for driving the form-roller,  
70 said impression-roller being laterally removable from the frame, substantially as shown and described.

3. In a machine of the class described, a main frame, an impression-roller mounted  
75 therein, an endless belt movable over said impression-roller, a vertically-movable form-roller mounted over the impression-roller, a heater-tube arranged parallel with the form-roller and provided with burners which ex-  
80 tend in the direction thereof, vertically-movable screws connected with the bearings of the form-roller and adapted to raise and lower the same, gear-wheels mounted on said screws, a crank-shaft geared in connection with said  
85 wheels, and means for driving the form-roller, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 5th day  
90 of October, 1903.

AUGUSTE NICOLLET.

Witnesses:

F. A. STEWART,  
C. J. KLEIN.