

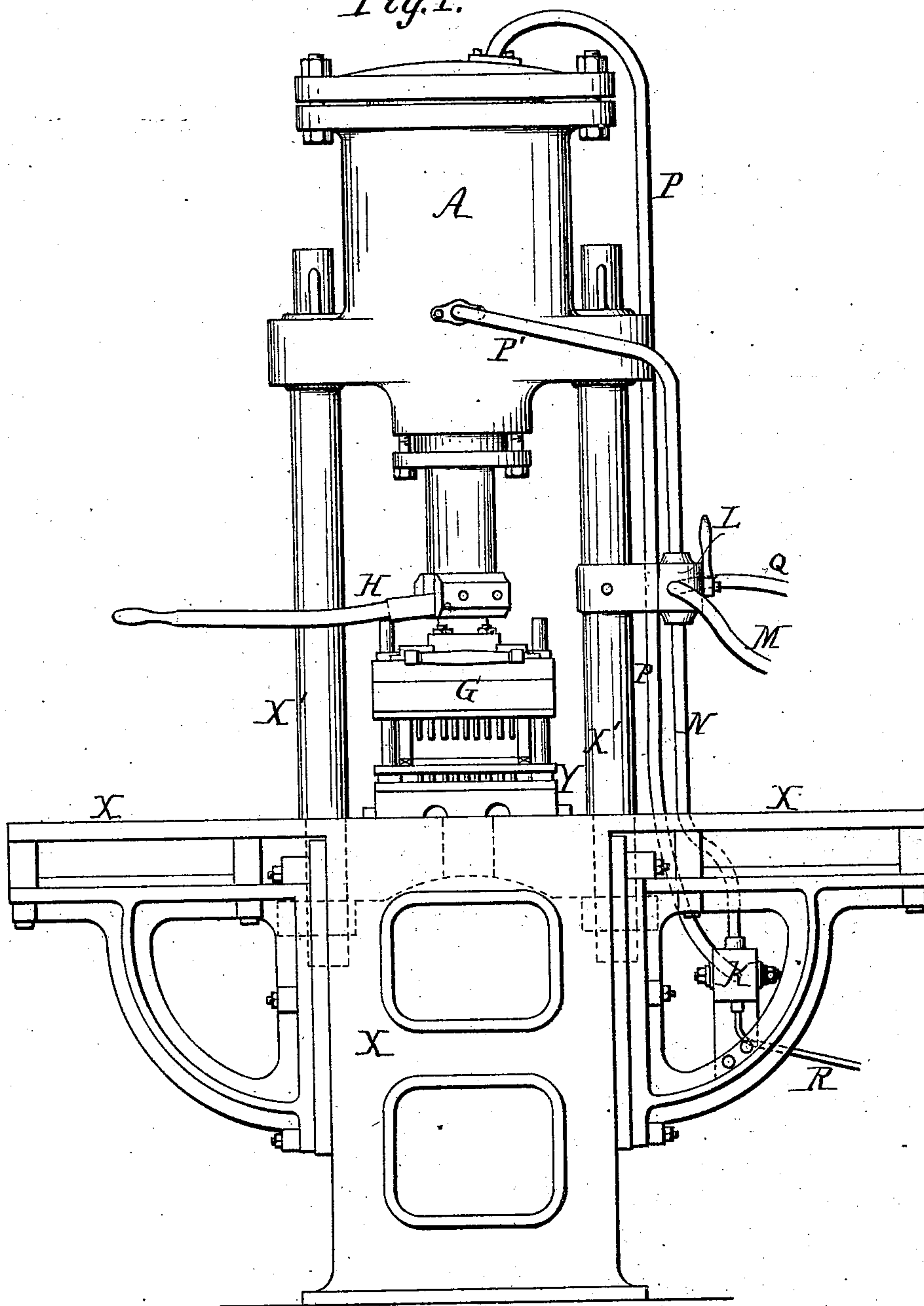
J. F. BAPTEROSSES.

Machine for the Manufacture of Buttons, &c.

No. 226,696.

Patented April 20, 1880.

Fig. 1.



Witnesses,

Henry Howson
Harry Smith

Inventor
Jean Felix Baptesse
by his Attorneys
Horscon and Son

UNITED STATES PATENT OFFICE.

JEAN F. BAPTEROSSES, OF PARIS, FRANCE.

MACHINE FOR THE MANUFACTURE OF BUTTONS, &c.

SPECIFICATION forming part of Letters Patent No. 226,696, dated April 20, 1880.

Application filed January 13, 1880.

To all whom it may concern:

Be it known that I, JEAN FELIX BAPTEROSSES, a citizen of the Republic of France, and a resident of Paris, France, have invented certain new and useful Improvements in Machines for Making Buttons and Similar Objects, of which the following is a specification.

The object of my invention is to construct a machine for pressing buttons and similar objects of plastic material rapidly and under any desired pressure, and this object I obtain by combining with the piston of a hydraulic cylinder and its regulating cocks button-forming devices, as more fully described hereinafter.

In the accompanying drawings, Figure 1, Sheet 1, is a side view of my improved button-machine. Fig. 2, Sheet 2, a sectional plan; Fig. 3, a vertical section of part of the press; and Figs. 4, 5, and 6, sectional views of the cocks for supplying the fluid to the hydraulic cylinder.

On the frame X of the machine are mounted the vertical standards X', supporting the hydraulic cylinder A, the body of which is sufficiently strong to withstand great pressures. To this cylinder is adapted a piston, B, having the usual rod C passing through a stuffing-box in the end of the cylinder. The joints around the cylinder-head, piston, and stuffing-box are rendered water-tight by means of flanged strips D, of leather, rubber, or other suitable packing material, the pressure of the liquid insuring the tightness of the joint.

To the lower end of the piston-rod is secured an extension of the presser-plate G of the button-forming devices Y, which may be of the character described in the Letters Patent granted to me August 12, 1873, No. 141,749.

As shown in Fig. 3, the piston-rod has a longitudinal opening at its lower end and a transverse slot at right angles thereto. In this opening is a bar, F, having a rack at its upper part and carrying at its lower end the plate which carries the pins for piercing the holes in the buttons, as described in my above-mentioned patent. This bar F is supported between an anti-friction roller, e, in the slot above referred to and the toothed end of a hand-lever, H, pivoted to the piston-rod at I,

also in said slot. By acting on this lever the pin-carrying plate may be raised or lowered.

The space in the cylinder above the piston and that below the piston may be made to communicate with either a water-reservoir at a medium pressure or an accumulator at a high pressure through pipes P P', provided with cocks K L and pipes M and N.

Suppose the piston B to be at the top of its stroke and the cocks K and L to be in the positions indicated by full lines in Figs. 4 and 5, the water from the reservoir entering through the pipe M descends into the pipe N through the cock L, and thence through the cock K and pipe P to the space above the piston. The liquid below the piston can flow out through the pipe P' and escape-pipe Q. The piston B descends under this pressure and carries with it the presser-plate, which imparts to the ceramic objects a preliminary pressure. The operator then acting on the lever H depresses the pin-plate and turns the cock K to the position shown by dotted lines in Fig. 5. With the cocks in these positions the space above the piston is in communication with the accumulator through the tubes R and P and the space below the piston with the escape-outlet Q, as before. The piston continuing to descend under the increased pressure, the buttons will be compressed to the required degree. The cock K being then turned to its original position and the cock L turned to the position shown by dotted lines in Fig. 4, the space below the piston is put in communication with the reservoir and the space above the piston in communication with the outlet Q, so that the piston will be raised to its original position and the pressed objects can be removed from the press to the baking-oven.

Thus by simply manipulating suitable cocks I am enabled to impart to the buttons or other objects a gradual pressure, which can be increased to almost any extent, so that the objects which by this means are compactly pressed do not contract in the subsequent baking operation, and consequently are not apt to get out of shape.

I claim as my invention—

1. The combination of a hydraulic cylinder, piston, presser-plate, and button-molding de-

vices Y with pipes P P', cock L, communicating with the reservoir and outlet, the pipe N, and cock K, communicating with an accumulator, all substantially as described.

- 5 2. The combination of the piston-rod, carrying the presser-plate G and having an opening at its lower end, with the rack-bar F, carrying the pin-plate, and with the pivoted hand-lever H, having a toothed outer end

gearing with said bar, all substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JEAN FELIX BAPTEROSSES.

Witnesses:

JOSEPH DELAGEY,

ROBT. M. HOOPER.