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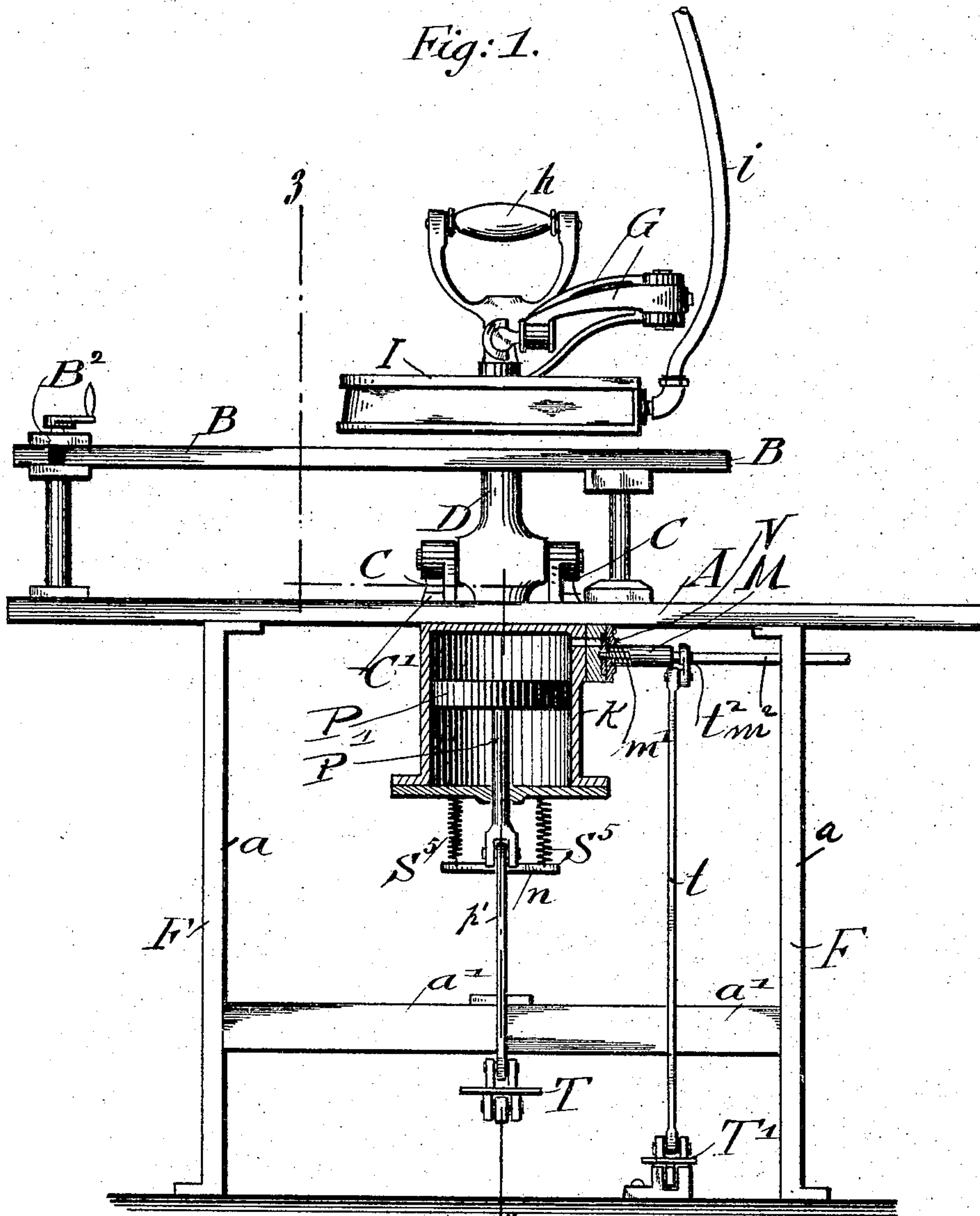
PATENTED AUG. 9, 1904.

A. T. BEACH & F. C. GOULD.  
CLOTHES PRESSING MACHINE.

APPLICATION FILED SEPT. 5, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES

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INVENTORS

*Arthur T. Beach*  
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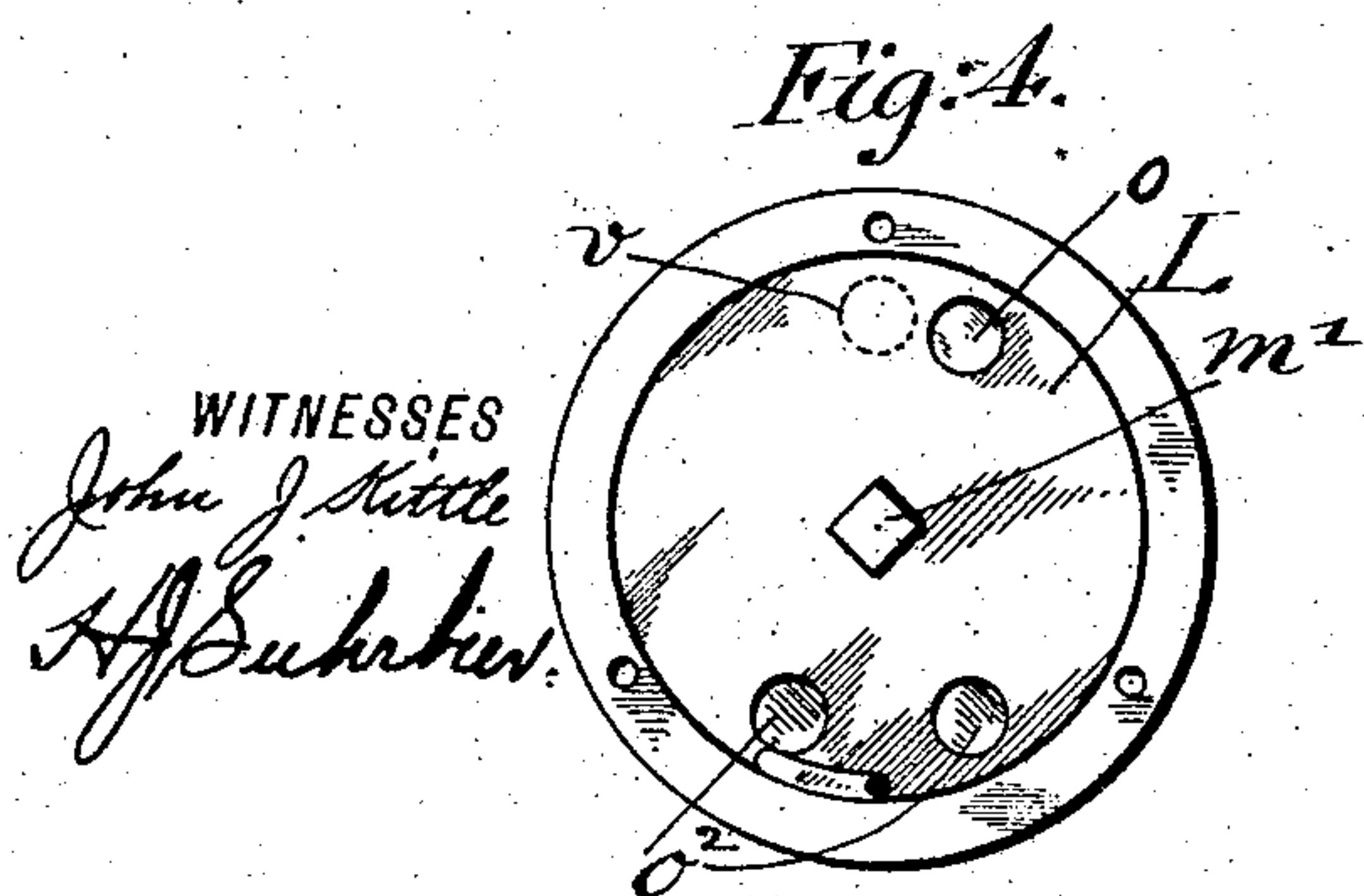
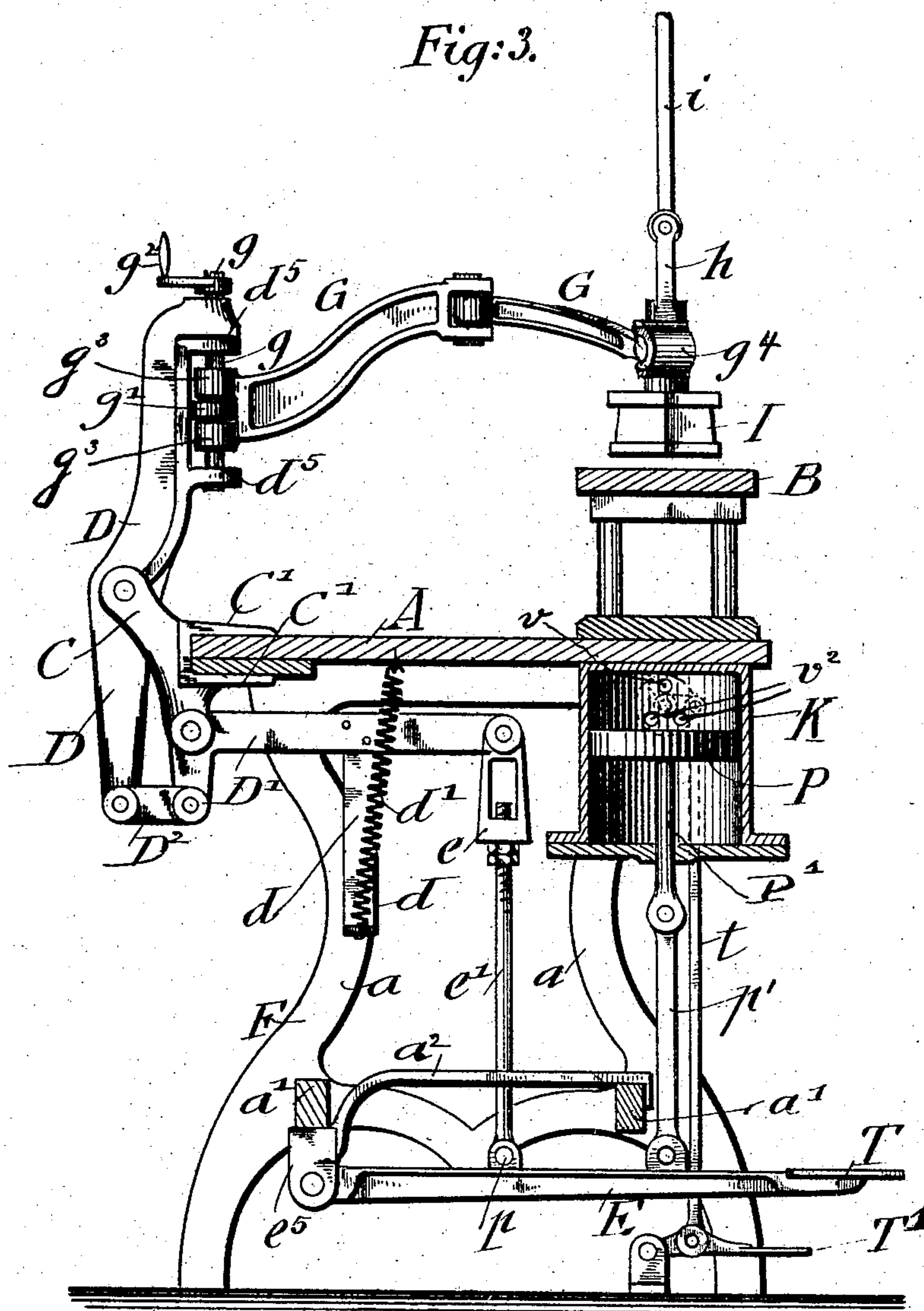
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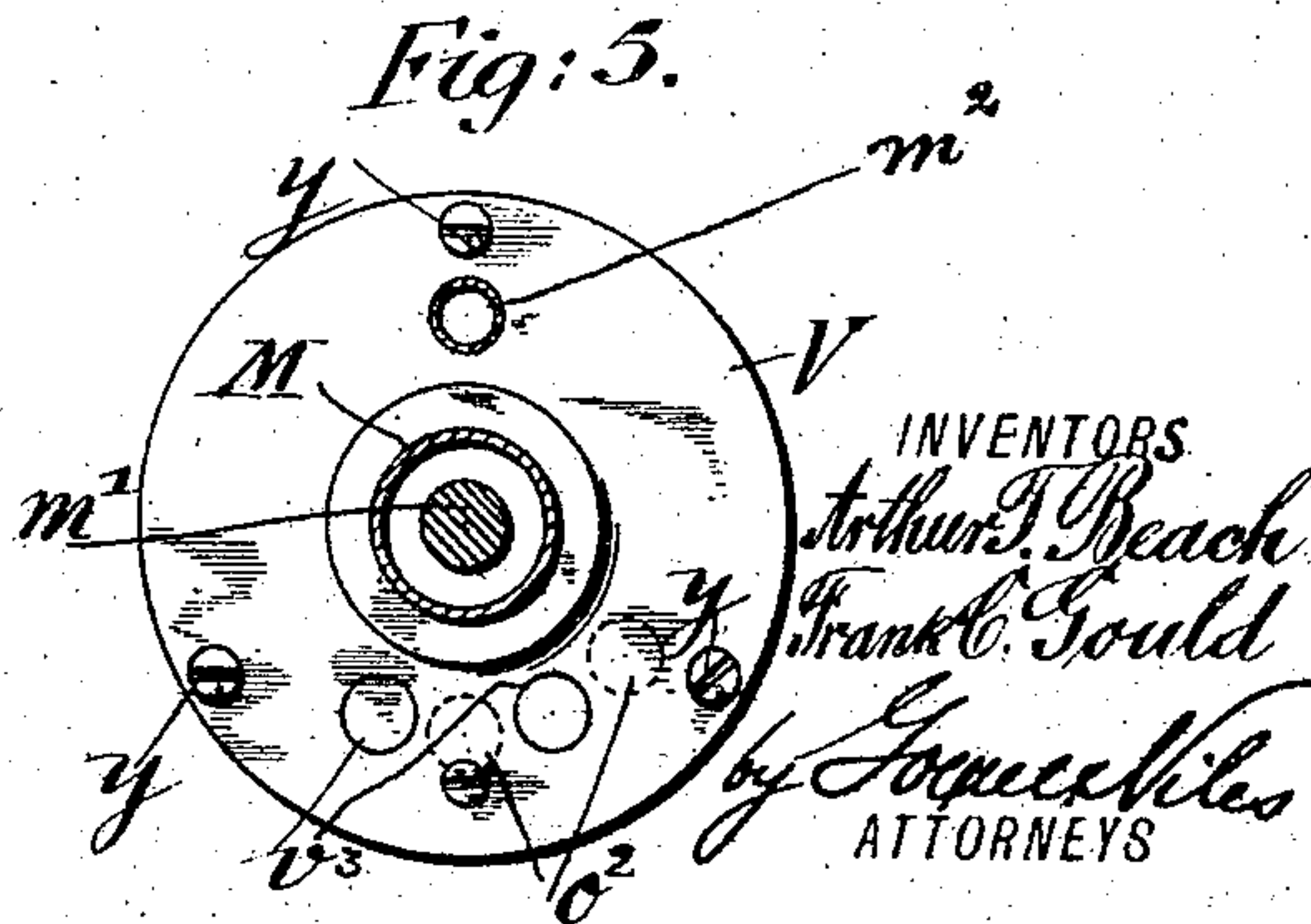
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NO MODEL.

2 SHEETS—SHEET 2.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

ARTHUR T. BEACH AND FRANK C. GOULD, OF NEW YORK, N. Y.

## CLOTHES-PRESSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 767,324, dated August 9, 1904.

Application filed September 5, 1903. Serial No. 172,046. (No model.)

*To all whom it may concern:*

Be it known that we, ARTHUR T. BEACH, residing in the borough of Brooklyn, and FRANK C. GOULD, residing in the borough of Queens, city and State of New York, citizens of the United States, have invented certain new and useful Improvements in Clothes-Pressing Machines, of which the following is a specification.

In machines for pressing clothes, such as cloaks and fabrics, in which heavy pressing is required, the gas-heated sad-iron is forced by means of a foot-pressure on the fabrics to be pressed. The entire weight of the foot has to be placed on the operating-treadle. This requires considerable force and is very fatiguing, especially in the summer, when bodily efforts of this kind are more wearing, together with the heat of the sad-iron.

The object of this invention is to furnish an improved clothes-pressing machine in which the bodily exertions are entirely dispensed with and the pressure required is controlled by the simple pressure of an ordinary foot-treadle, so that the fatigue connected with the pressing of heavy fabrics is diminished and the work of the machine-tender facilitated; and for this purpose the invention consists of a clothes-pressing machine in which the pressing-iron upon a supporting-arm is pressed on the ironing-board by lever-and-treadle mechanism connected with an operating piston and cylinder attached to the under side of the table in connection with a valve for supplying and interrupting the supply of compressed air or other motor fluid into and from the cylinder, so that the piston by its connecting-rod operates the lever mechanism and presses the iron on the clothes to be pressed.

The invention consists, further, of certain details of construction and combinations of parts which will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a front elevation of our improved clothes-pressing machine, partly in section, through the motor-cylinder. Fig. 2 is a detail vertical longitudinal section of the valve for supplying the motor-cylinder with the motor fluid. Fig. 3 is a side elevation, partly in vertical transverse section, on line 3 3, Fig. 1;

and Figs. 4 and 5 are details of the valve for supplying the motor fluid to the motor-cylinder.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the table of our improved clothes-pressing machine. The table A is supported by a frame F, which is composed of side standards  $a$  and connecting-braces  $a'$ , connected in turn by a transverse brace  $a''$ . On the table is supported a pressing-bar B of the usual size and construction and held in place by a mechanism B<sup>2</sup>. To the rear part of the table A is attached a strong bracket C by means of suitable clamping devices C'. The upper end of the bracket C is fulcrumed to and supports an upright lever-frame D, while the lower end is fulcrumed to and supports an elbow-lever D', which is connected by a pivot-link D<sup>2</sup> with the lower end of the upright lever D, as shown most clearly in Fig. 3. The elbow-lever D' is located below the table A and provided with a downwardly-extending arm  $d$ , which is connected by a helical spring  $d'$  with the under side of the table A. The spring  $d'$  serves to return the elbow-lever D' into its normally raised position after each depression of the actuating-treadle, to which the elbow-lever is connected. The forward end of the elbow-lever D' is connected by a turnbuckle  $e$  and connecting-rod  $e'$  with a pivot  $p$  on a treadle-lever E, which is pivoted at its rear end to ears  $e^5$  of the rear brace  $a'$  and provided at its front end with a foot-rest T. A forwardly-extending arm G is pivoted to the upper end of the lever-frame, which is provided with suitable ears  $d^5$  for supporting the screw-threaded pivot-rod  $g$ , which is provided with a collar  $g'$ , on which the perforated pintle-sockets  $g^3$  rest, and a crank  $g^2$  for raising or lowering the pivot-rod  $g$ . To the front end of the jointed arm G is connected by a ball-and-socket joint  $g^4$  the pressing-iron I, which is provided with a handle  $h$  above the joint  $g^4$  and which is supplied with gas or other heating medium by a gas-supply pipe  $i$ . The machine described constitutes the ordinary manually-operated clothes-pressing machine well known to the trade, and we do not lay any claim to the same.

The feature which is added and which is in-



tended to be used in connection with the machine consists of a cylinder K, that is attached to the under side of the table A and is provided with a piston P. The piston-rod P' is connected by a pivoted connecting-rod p' with the treadle-lever E, as shown in Figs. 1 and 3. The cylinder K is supplied with compressed air or other suitable motor fluid from a suitable receptacle and pipe m<sup>2</sup>, connected with a valve M, which is shown in detail in Figs. 2, 4, and 5 and which is operated by an independent foot-treadle T' and connecting-rod t, which connects it with a crank t<sup>2</sup> on the valve-spindle m', as shown in Figs. 1 and 2. Any suitable construction of valve may be used, as we do not confine ourselves to the construction shown in the drawings. Our preferred form of valve consists of a disk L, provided with an inlet-opening o, corresponding to an inlet-opening v in the upper part of the cylinder, which openings o and v when one registers with the other permit the motor fluid to enter the cylinder K. The disk is also provided with exhaust-openings o<sup>2</sup>, which when registering with the openings v<sup>2</sup> in the cylinder K and with aperture v<sup>3</sup> in the cap V permit the motor fluid to exhaust through the same. To the cylinder K is attached the valve-spindle m', to which the crank t<sup>2</sup> is attached. The disk L is suitably guided by a cap V, secured by screws y. As soon as the motor fluid enters the cylinder K the piston P is moved in downward direction, and thereby the intermediate lever mechanism p' E e' D' D<sup>2</sup>, lever-frame D, jointed arm G, and iron I operated so that the latter is pressed with considerable force on the clothes or other articles that are placed on the pressing-board B. As soon as the treadle T' is released the piston is returned into its normally raised position by the discharge of the motor fluid through the outlet-ports v<sup>2</sup> of the cylinder and ports o<sup>2</sup> of the valve, the piston being instantly returned into raised position by auxiliary springs S<sup>5</sup>, which are applied to a cross-bar n on the connecting-rod p', and by the return-spring d' of the elbow-lever D'. As the gas applied to the pressing-iron is usually mixed with compressed air, whereby the latter becomes available, it is preferable to use compressed air for operating the piston P. It is supplied by a suitable supply-pipe m<sup>2</sup> to the valve M and piston P.

If desired, the foot-rest T may be removed

from the treadle-lever E; but it is preferable to retain the same so as to permit the working of the clothes-pressing machine in case for some reason or other the supply of motor fluid should fail or the supply-valve or other parts require repairs. Inasmuch as all that is required for operating the machine is to lower by slight pressure of the foot the treadle T' and then take hold of the handle of the pressing-iron and direct the same over the clothes to be pressed, it follows that by means of our improvements a clothes-pressing machine may be operated by any one without requiring the exercise of much power to do so.

We claim as new and desire to secure by Letters Patent—

1. In a pressing-machine, the combination of a frame, a cylinder on the frame, a piston in said cylinder, a piston-rod on the piston, a lever connected with the piston-rod, a bell-crank on the frame, a rod connecting said lever with one arm of the bell-crank, a lever on the frame swinging in a vertical plane, a link connecting said latter lever with the other arm of the bell-crank, a presser-arm pivoted on said vertically-swinging lever, a pressing-iron on the free end of the presser-arm, a valve for controlling the supply of motor fluid to the cylinder, and a treadle for operating the valve, substantially as set forth.

2. In a clothes-pressing machine, the combination, with a supporting-table, a pressing-board on the same, a pressing-iron, a jointed arm connected by a ball-and-socket joint with said pressing-iron, a fulcrumed lever-frame for supporting said jointed arm, a treadle, and a lever connection between the treadle and the lower end of said lever-frame, a cylinder, a piston in said cylinder having a rod, a connecting-rod between the piston-rod and the treadle, a valve for supplying the motor fluid to said cylinder, and mechanism connected with said valve for admitting to or discharging the motor fluid from said cylinder, substantially as set forth.

In testimony that we claim the foregoing as our invention we have signed our names in presence of two subscribing witnesses.

ARTHUR T. BEACH.  
FRANK C. GOULD.

Witnesses:

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C. P. GOEPEL.