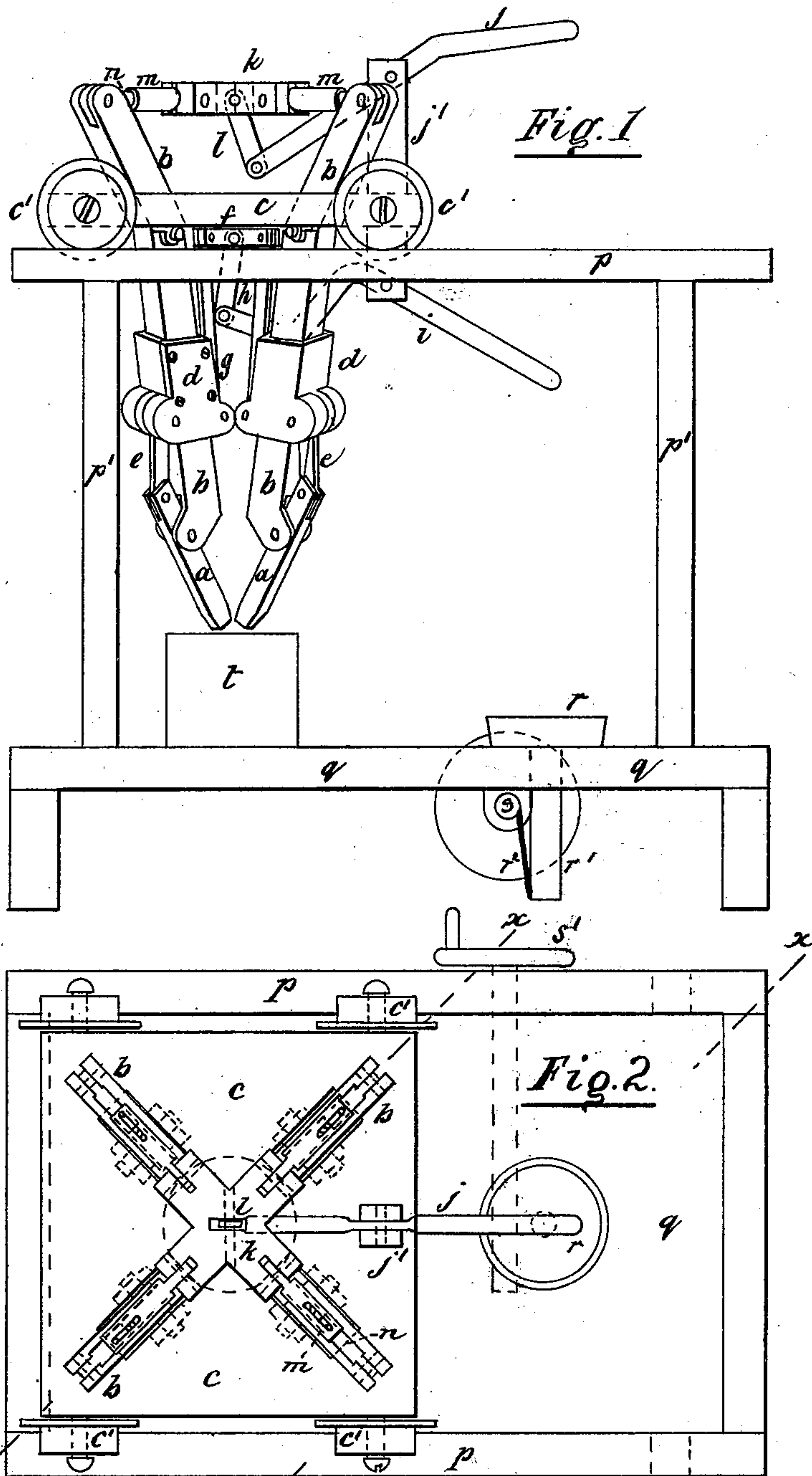


J. H. MACY.
Branding Machine.

No. 230,427.

Patented July 27, 1880.



Witnesses.

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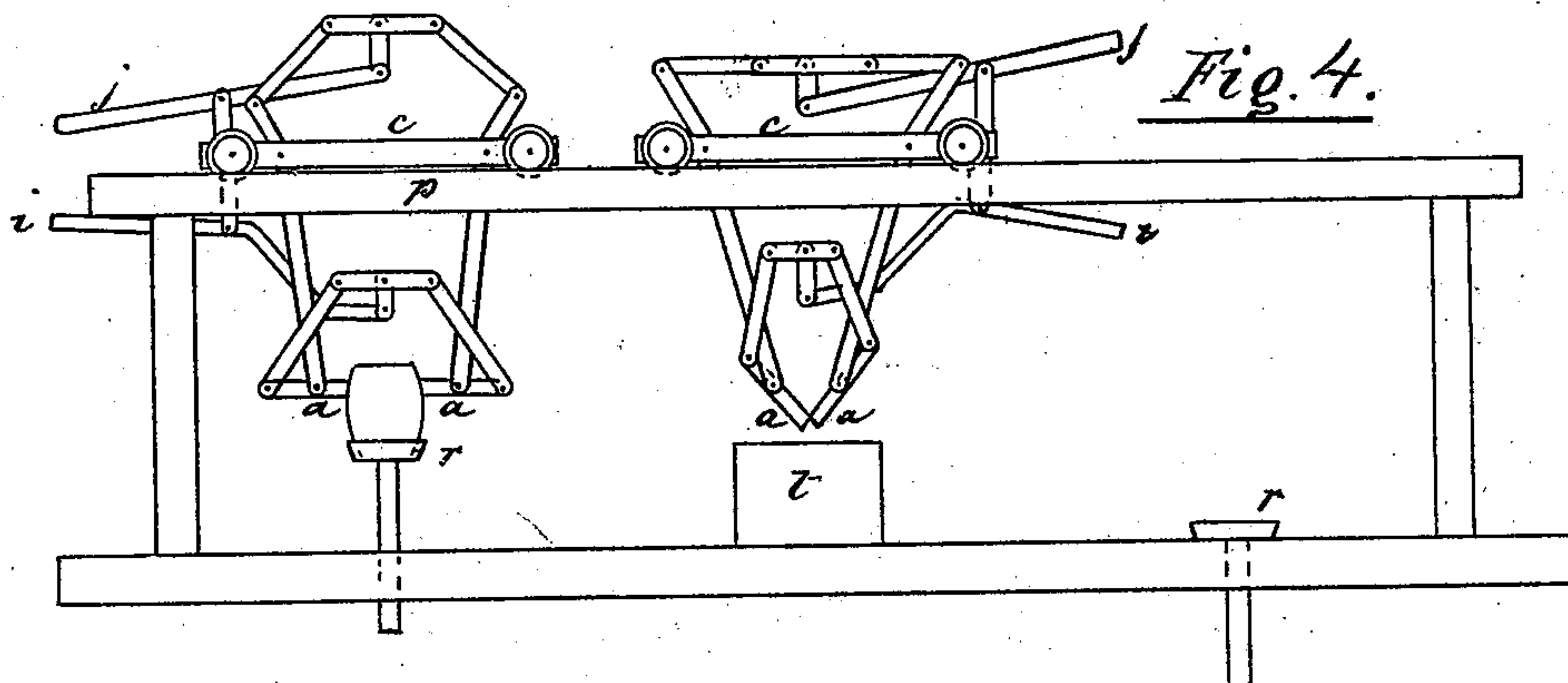
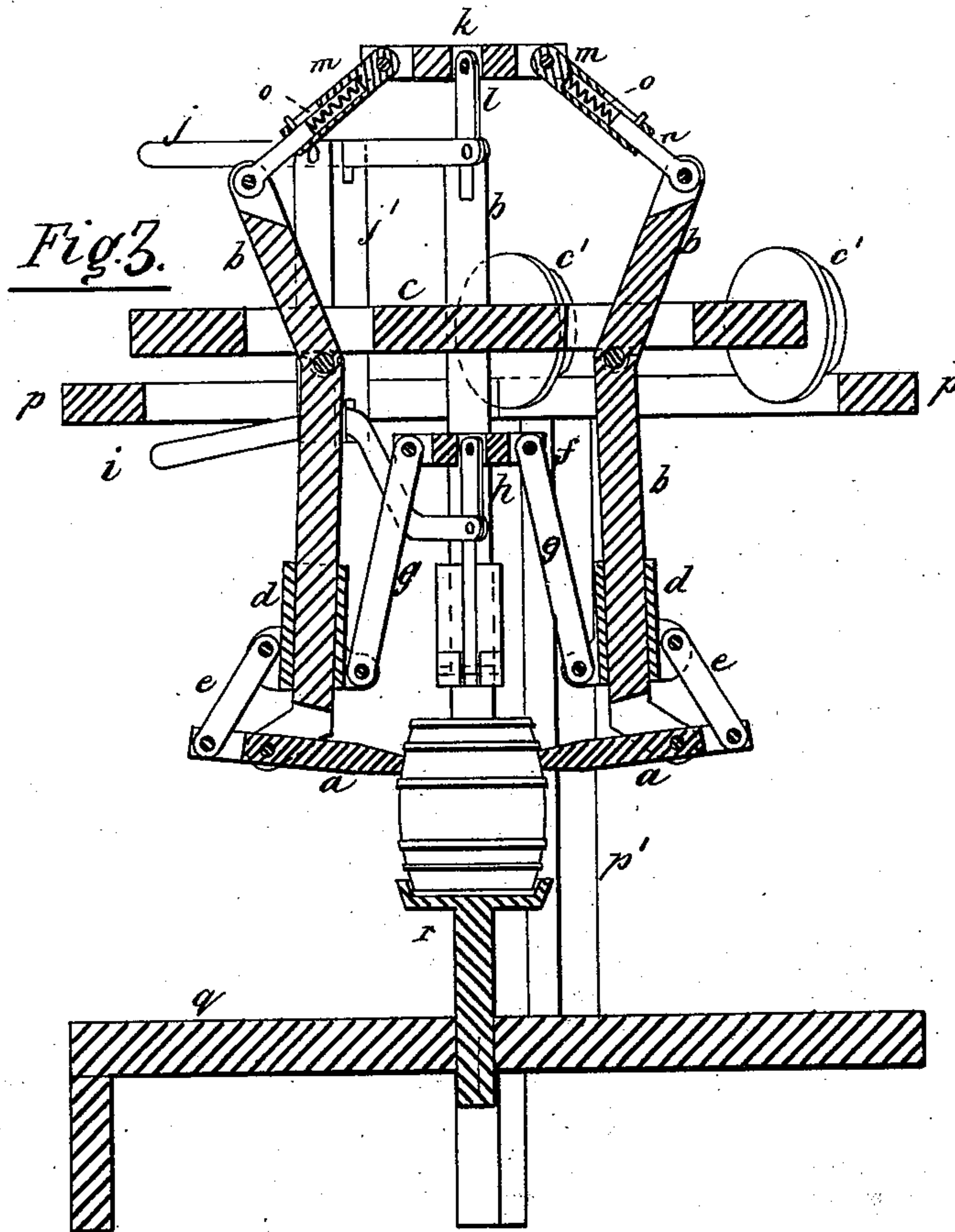
Inventor

per Alfred Herlock atty.

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per Alfred Sheddock
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UNITED STATES PATENT OFFICE.

JOSIAH H. MACY, OF HARRISON, ASSIGNOR TO CHARLES G. SINGER, OF
NEW YORK, N. Y.

BRANDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 230,427, dated July 27, 1880.

Application filed July 2, 1879.

To all whom it may concern:

Be it known that I, JOSIAH H. MACY, of Harrison, Westchester county, State of New York, have invented a certain new and useful Improvement in Branding Machines, of which the following is a specification.

This invention, which is a machine for branding barrels, &c., in a similar manner to that described in another application for Letters Patent filed by me simultaneously herewith, consists of a series of single-letter brands pivoted at their centers to the lower ends of a series of pivoted bars radially arranged on a carriage, which is supported on a suitable frame, so as to be capable of being moved over a furnace to heat the brands, and from thence over an adjustable platform to brand the barrel which is supported thereon. The brands are connected to a hand-lever by means of links, by which they are adjusted in relation to the bars so as to be in line therewith, or pointing to a common center at right angles thereto, and another hand-lever is connected by links to the upper ends of the bars, by which the faces of the brands are caused to approach or recede from the common center, all of which will be fully hereinafter described by reference had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an elevation, showing the machine over the furnace with the brands in position to be heated. Fig. 2 is a plan view of the same. Fig. 3 is a vertical section cut through the line *x x*, showing the machine moved over the adjustable platform in position to brand a barrel; and Fig. 4 is an outline sketch of two machines in combination with one furnace.

The brands *a a* are plain bars of metal having the letters formed on one end of them. They are pivoted at or near their centers to the lower ends of the bars *b b*, which are secured at about two-thirds of their length from their lower ends to the carriage *c*, by means of bolts or studs, which act as fulcrums on which they move. They pass down through radial slots in the carriage *c*, the parts above the carriage being bent outward at a slight angle to the parts hanging below the carriage.

On the bars *b b* are fitted the sliding blocks *d d*, which are connected to the extreme outer ends of the brands *a a* by means of the links *e e*, and all these sliding blocks *d d* are connected at their inner sides to the plate *f* by means of the links *g g*, the plate *f*, in its turn, being joined, by means of the short link *h*, to the hand-lever *i*, which is pivoted at its center to a projection from the under side of the carriage *c*.

The hand-lever *j* is pivoted to the standard *j'*, projecting upward from the carriage *c*, and the inner end of this hand-lever is connected to the center of the plate *k* by means of the link *l*, the plate *k* being connected to the upper ends of the bars *b b* by spring-acting connections, which consist of tubular pieces *m m*, pivoted to the plate *k*, in which slide the rods *n n*, pivoted to the top ends of the bars *b b*. These rods *n n* are prevented from sliding entirely out of the tubular pieces *m m* by means of pins fixed in the rods and working in slots cut through the sides of the tubular pieces. Inside the tubular pieces *m m* are the springs *o o*, which bear against the ends of the rods *n n*, so as to extend the connections as far as the slots in the tubular pieces will permit.

The carriage *c* is provided with flanged wheels *c'*, which rest on the top of the rails *p p*, supported on the posts *p' p'*, standing up from the base-plate *q*. At one end of this base-plate, between the rails *p p*, is the barrel-holder *r*, secured to the top of the vertical shaft *r'*, which is connected by a chain or cord, *r''*, to the longitudinal shaft *s*, fitted into bearings on the under side of the base-plate *q*, and provided at one end with crank-handle wheels, and at the other end of the plate *q*, and also between the rails *p p*, is the open furnace *t*.

In using the machine the carriage *c*, with the brands and their operating mechanism, is first pushed over the furnace *t*, and the ends of the brands *a a* are caused to enter the fire of the furnace by pulling down the hand-lever *i*, which raises the blocks *d d* on the bars *b b* and moves the brands *a a* in line with the bars *b b*. The bars and the brands are at the same time caused to approach the central line of the machine by pushing the outer end of the hand-lever *j* upward, which acts on the tops of the

bars *b b* through the medium of the plate *k* and spring-connections *m n o*, so that the lettered ends of the brands are all close together and in the center of the fire.

5 As soon as the brands are sufficiently heated they are moved out of the fire by means of the hand-levers *i j*, which causes the brands to assume a position at right angles to the bars *b b* and spreads the lower ends of the bars
10 apart, in which position the machine is moved from over the furnace to a position directly over the barrel-holder *r*, on which a barrel is placed, and then raised up by turning the crank-handle *s'*, so as to bring the part to be
15 branded in position between the faces of the brands, which are then pressed simultaneously on the sides of the barrel by pushing the hand-lever *j* upward, the pressure of the brands on the barrel being governed by the strength
20 of the springs *o o*. These springs also compensate for any inequalities or irregularities in the sides of the barrel. The faces of the brands are set to correspond to the inclination of the sides of the barrel by means of the
25 hand-lever *i* as they are being pressed up to the barrel. When the barrel is branded the brands are moved outward away from it by a reversal of the before-described movement of the hand-lever *j*. The barrel is then removed
30 and another one adjusted in the machine, and the operation repeated as long as the brands retain sufficient heat to burn the wood. They are then moved over and into the furnace, to be again heated.

35 It will be observed that the brands may be caused to assume any angular position between the vertical and horizontal ones, and to cover a circular range of an extent governed only by the length of the rods *b b* and the
40 amount of movement imparted to them by the hand-lever *j*, so the machine is capable of branding any cylindrical, prismatical, convex, conical, or pyramidal surface within the limit of its operation, and of branding any irregular-shaped surfaces which would be compensated for by the extent of the compressibility
45 of the springs *o o*.

At Fig. 4 of the drawings is shown the manner in which the brands of two machines may
50 be heated by one stationary furnace, so that no time is wasted in heating the brands.

It is obvious that the two plates *f* and *k* may be moved up and down by any of the well-known mechanical devices adaptable therefor other than the simple levers shown; 55 also, that under some circumstances the links *g g* may be connected directly with the brands and the blocks *d d* and links *e e* dispensed with.

Having now described my invention, what 60 I claim, and desire to secure by Letters Patent, is—

1. In a branding-machine, a series of brands constructed and operated, substantially as described, so as to assume any angular position 65 pointing toward a common center, as hereinbefore set forth.

2. The brands *a a*, pivoted to the ends of the bars *b b*, in combination with the plate *k*, attached to the other end of the bars by yielding connections, substantially as hereinbefore 70 set forth.

3. In combination, the brands *a a* and bars *b b*, plate *f*, and their connecting-links, substantially as and for the purpose hereinbefore 75 set forth.

4. In combination, the plate *k*, spring-connections *m n o*, and bars *b b*, pivoted to the carriage *c*, and provided at their lower ends with brands, substantially as and for the purpose hereinbefore set forth. 80

5. The pivoted bars *b b* and pivoted brands *a a* and their controlling mechanism, substantially as described, in combination with a vertically-adjustable barrel-holder, as hereinbefore set forth. 85

6. In combination, the brands *a a*, bars *b b*, links *e e*, sliding blocks *d d*, links *g g*, and plate *f*, substantially as described.

7. In combination, the hand-levers *i* and *j*, 90 plates *f* and *k*, bars *b b*, yielding connections *m n o*, links *e* and *g*, blocks *d*, and brands *a a*, substantially as and for the purpose described.

In testimony whereof I have hereunto set my hand this 28th day of June, 1879.

JOSIAH H. MACY.

Witnesses:

CHARLES G. SINGER,
ALFRED SHEDLOCK.