

(No Model.)

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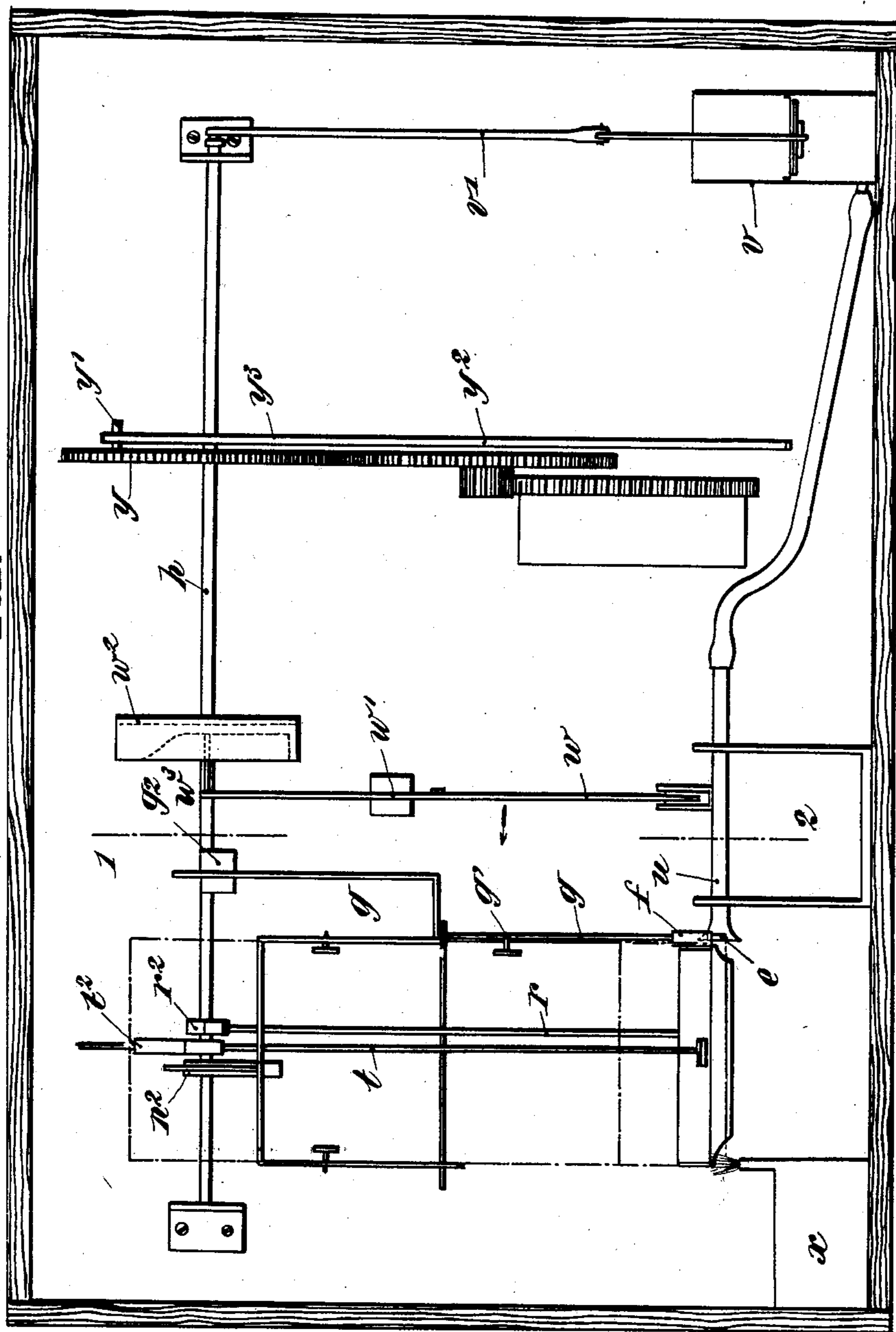
A. CAUDE.

MACHINE FOR VENDING LIGHTED CIGARS OR CIGARETTES.

No. 605,853.

Patented June 21, 1898.

FIG. 1.



2 Witnesses  
R. Albert  
Dr. E. M. M. M.

Inventor  
Achille Caude  
By Brieson Knauth  
his Attorneys

(No Model.)

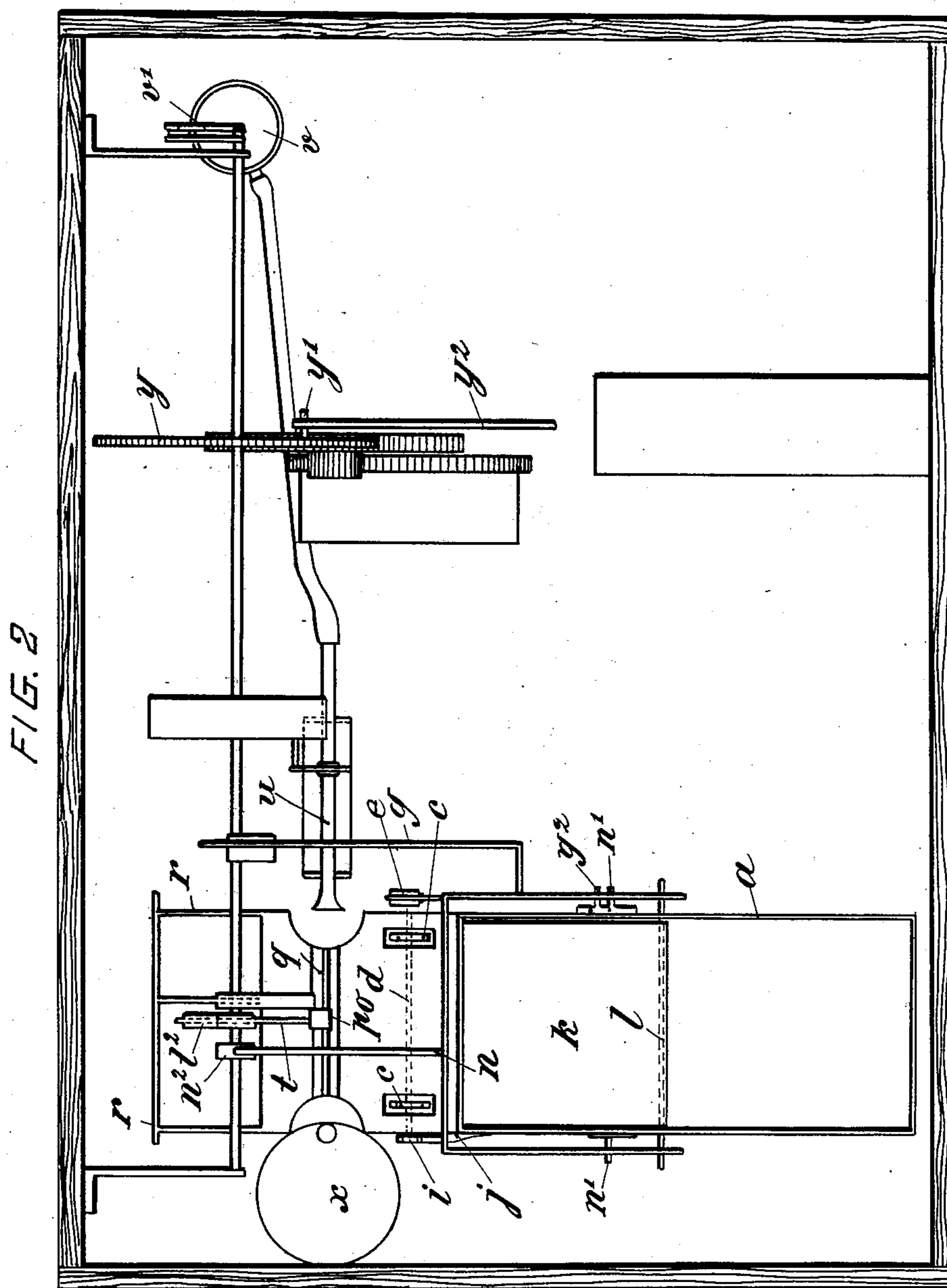
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Witnesses

R. Abadi  
Fr. E. Mearse

Inventor

Achille Cande

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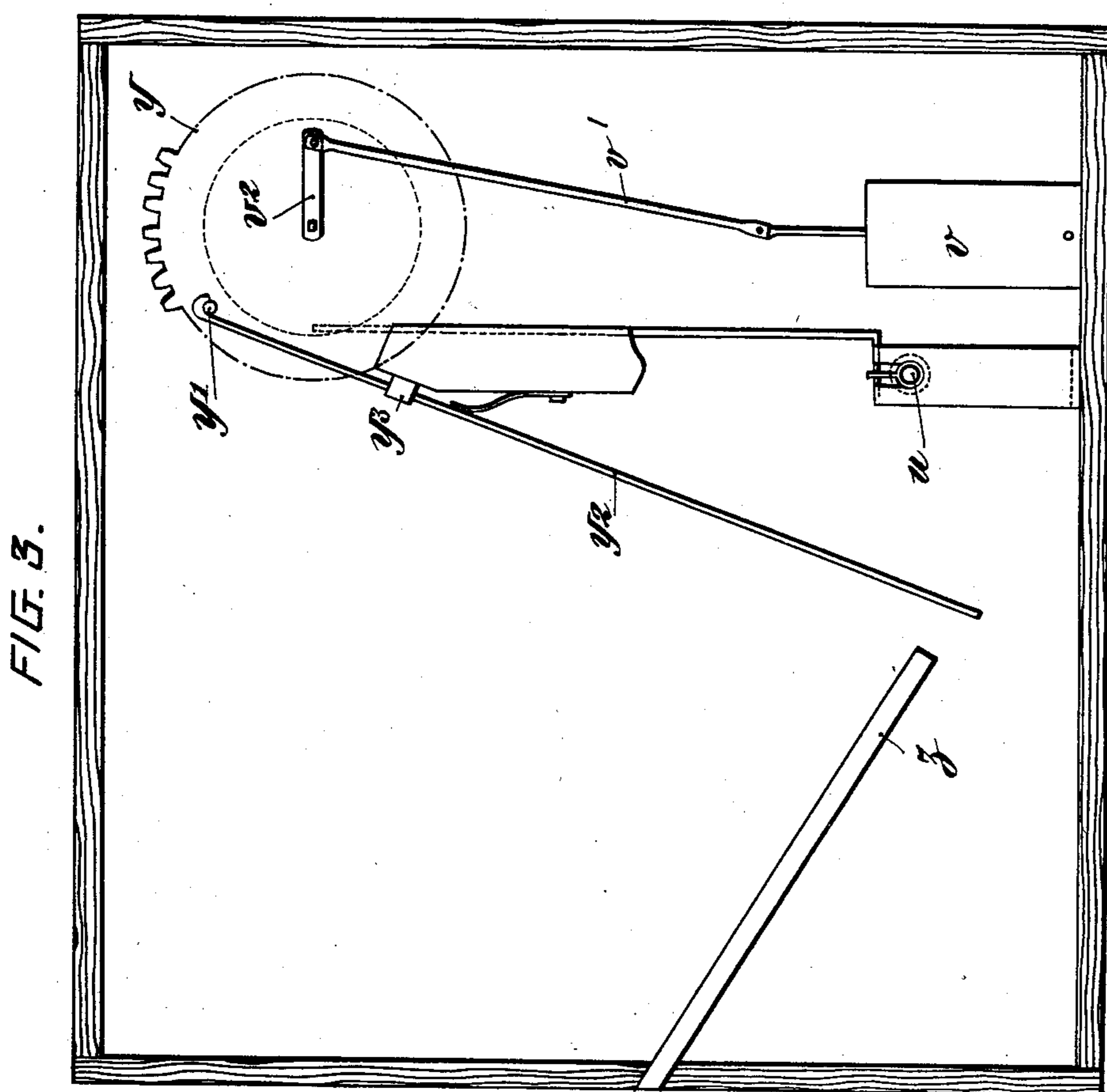
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2 Witnesses  
R. Abulio  
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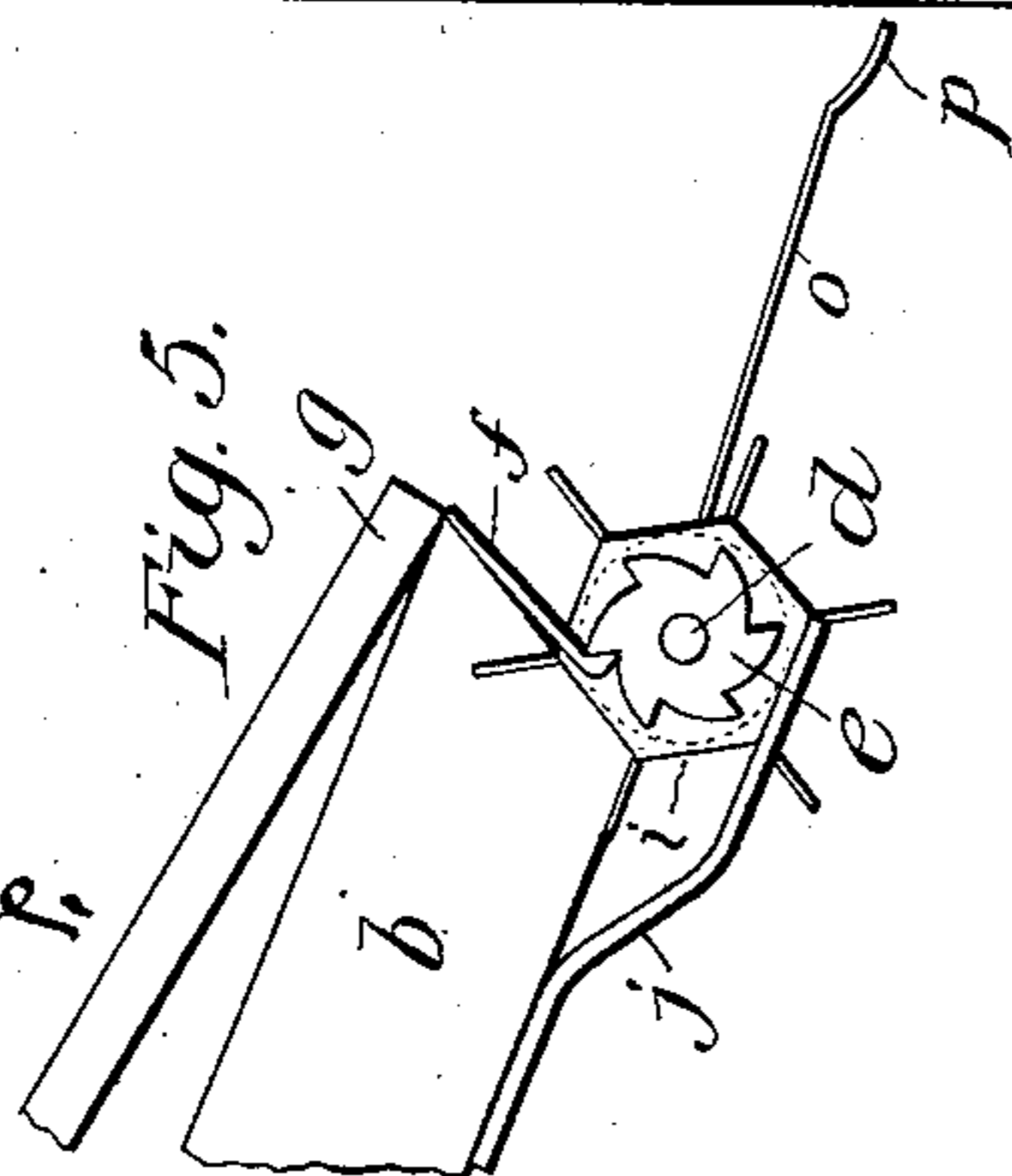
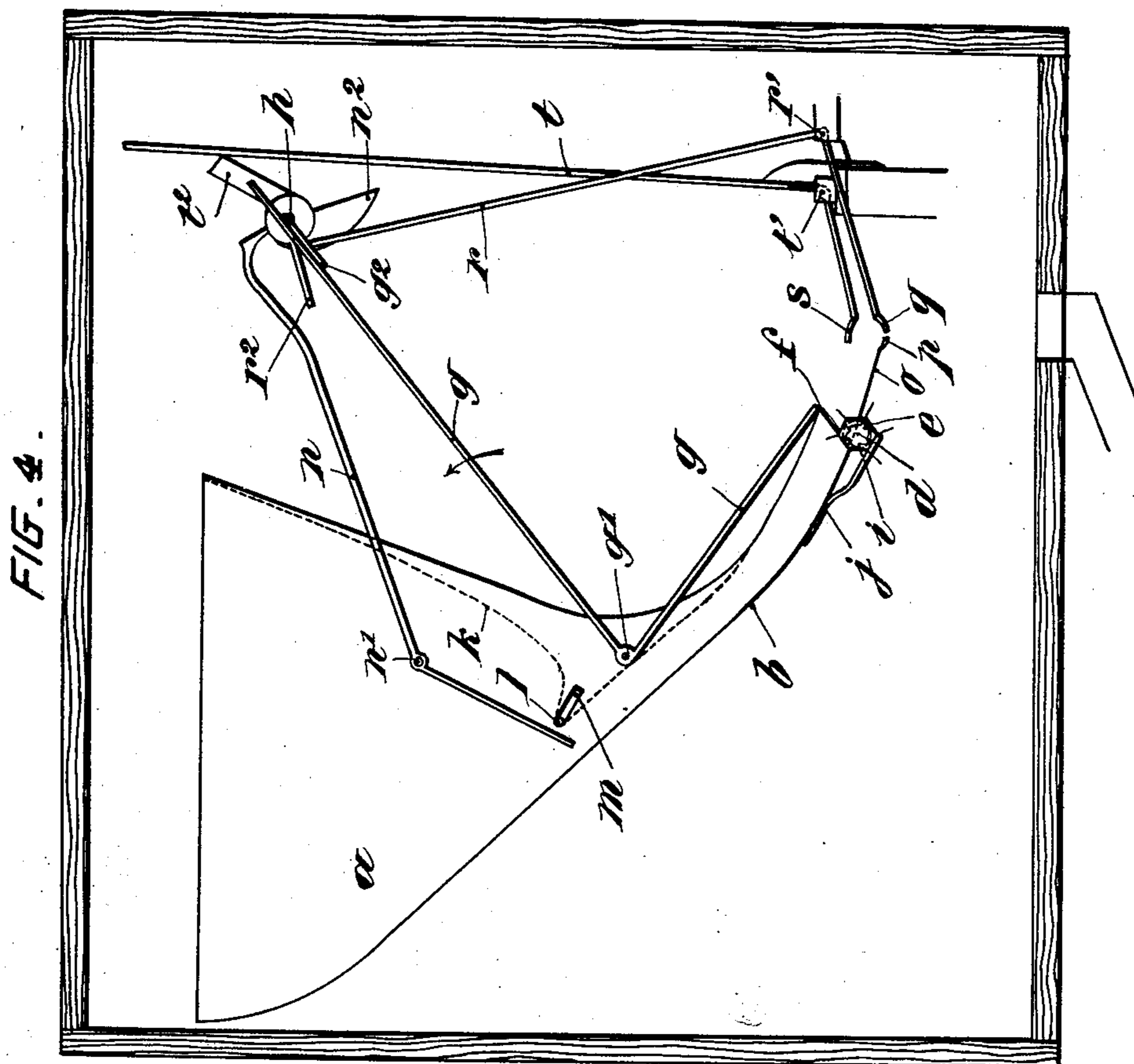
4 Sheets—Sheet 4.

A. CAUDE.

MACHINE FOR VENDING LIGHTED CIGARS OR CIGARETTES.

No. 605,853.

Patented June 21, 1898.



2 Witnesses  
R. Abernethy  
E. O. Thomas

Inventor  
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his Attorneys

# UNITED STATES PATENT OFFICE.

ACHILLE CAUDE, OF CARBES, FRANCE.

## MACHINE FOR VENDING LIGHTED CIGARS OR CIGARETTES.

SPECIFICATION forming part of Letters Patent No. 605,853, dated June 21, 1898.

Application filed November 24, 1897. Serial No. 659,705. (No model.) Patented in France May 21, 1897, No. 267,172, and in Belgium May 21, 1897, No. 128,386.

*To all whom it may concern:*

Be it known that I, ACHILLE CAUDE, of the city of Carbes, (Hautes Pyrénées,) France, have invented an Automatic Machine for Vending Lighted Cigars or Cigarettes, (for which I have obtained Letters Patent in France for fifteen years, dated May 21, 1897, No. 267,172, and in Belgium for fifteen years, dated May 21, 1897, No. 128,386,) of which the following is a full, clear, and exact description.

This invention consists of a coin-freed automatic machine for vending lighted cigars or cigarettes.

The machine consists in the combination of a supply-hopper containing cigars or cigarettes, means for delivering them singly to a gripping device, means for drawing air through the cigars or cigarettes while so held, means for igniting the cigar or cigarette, and coin-freed mechanism whereby the action of the various parts is controlled and the ignited cigar or cigarette delivered to the purchaser.

Reference is to be had to the accompanying drawings, forming part of this specification, wherein—

Figure 1 is a front elevation, and Fig. 2 a plan, of mechanism embodying my invention. Fig. 3 is an end view thereof, showing the coin-actuated releasing-lever and pump. Fig. 4 is a cross-sectional elevation on line 1 2 of Fig. 1, showing the delivery mechanism; and Fig. 5 is an enlarged side elevation of the delivery-drum and its actuating mechanism.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* is the supply-hopper containing the cigars or cigarettes, provided with a spout *b* of a depth corresponding to the diameter of a cigar or cigarette. At the end of this spout is mounted a delivery-drum, by the rotation of which the cigars or cigarettes are delivered singly to a gripper, the drum being formed of a pair of disks *c*, having radial arms and mounted on a shaft *d*, provided with any ordinary ratchet-wheel *e*, with which a spring-pawl *f*, mounted on the end of an elbow-lever *g*, engages. This lever is pivoted at *g'* and is oscillated by a tappet *g<sup>2</sup>* on the main shaft *h*, and in order that the drum shall always be turned to the proper extent

the shaft *d* also carries a polygonal wheel *i*, against whose sides (which correspond in number with the divisions of the drum) a spring *j* bears, which spring is here shown as flat. In order to insure the passage of the cigars or cigarettes from the hopper to the spout *b*, the hopper is provided with a spring-wall *k*, extending its whole length and fastened to the hopper at its upper edge.

The ends of a cross-rod *l*, attached to the spring *k*, play in slots *m* in the sides of the hopper and are engaged by forked arms of a lever *n*, pivoted at *n'* outside the ends of the hopper and whose tail end is acted on by a cam *n<sup>2</sup>*, fast on the main shaft *h*, the form of the cam being such that by its rotation the spring *k* will be pressed gradually forward and then allowed to spring suddenly backward, thus communicating a shaking movement to the whole mass of cigars or cigarettes in the hopper.

Each cigar or cigarette as it is distributed by the drum slides down an incline *o* into a channel formed by two jaws *p q*, the jaw *p* being stationary and attached to the incline *o* and the jaw *q* being movable, being carried by two arms forming one member of an elbow-lever *r*, pivoted at *r'* and acted on by a tappet *r<sup>2</sup>*, fast on the main shaft *h*. The cigar or cigarette is held fast in the channel formed by the jaws *p q* by a movable jaw *s*, carried by one arm of an elbow-lever *t*, pivoted at *t'*. The cam *t<sup>2</sup>* operates the elbow-lever *t* to move the jaw *s* to grip or release the cigar or cigarette.

In line with the gripping device constituted by the jaws *p, q*, and *s* is a suction-tube *u*, flexibly connected to a small pump *v* and mounted to move to and fro in the direction of its length, being so moved by a lever *w*, pivoted at *w'* and having a toe *w<sup>3</sup>* extending into contact with an actuating-cam *w<sup>2</sup>* on the main shaft *h*. The suction-tube *u* is provided with a funnel-shaped mouth adapted to fit the end of the cigar or cigarette, and the piston of the pump *v* is actuated by means of a connecting-rod *v'*, driven by a crank at the end of shaft *h*. The opposite end of the cigar or cigarette, when held in the gripper, is presented to the flame of a small spirit or other lamp *x* or it may be an electric igniter.

Fast upon the main shaft  $h$  is a wheel  $y$ , having a pin  $y'$ , with which engages the hooked end of a detent-lever  $y^2$ , pivoted at  $y^3$  and whose tail end is presented opposite the coin-spout  $z$ , so that the lever will be disengaged each time a coin is introduced.

The shaft  $h$  is driven by a spring-barrel and train in gear with wheel  $y$ , and its motion will be controlled and rendered uniform by a suitable fly, or it may be rotated by hand through an external winch-handle, the clock-work being dispensed with.

The operation is as follows: The parts being in the position shown, the coin introduced through spout  $z$  oscillates lever  $y^2$  and disengages it from pin  $y'$ , thus allowing shaft  $h$  to be rotated, whereby lever  $q$  is oscillated by cam  $q^2$ , and pawl  $f$  turns ratchet  $e$  the distance of one tooth, thereby rotating drum  $c$ , which delivers the cigar or cigarette to channel  $p$   $q$ . The presser  $s$  is then allowed to descend, and the cigar or cigarette being thus gripped the suction-tube  $u$  is advanced by cam  $w^2$  until its funnel-mouth fits against the free end of the cigar or cigarette, whereupon (the other end being then in the lamp-flame) the pump  $v$  makes its inhaling stroke, whereby lighting is effected. The suction-tube  $u$  is then retracted, and the lever  $r$  is oscillated by cam  $r^2$ , so as to lower the part  $q$  and allow the lighted cigar or cigarette to fall through the spout, by which it is delivered to the purchaser. The shaft  $h$  having performed one revolution

the pin  $y$  is reengaged by the detent-lever  $y^2$ . During the revolution of the shaft shaking motion has been communicated to the contents of the hopper by the action of the cam  $n^2$  and lever  $n$  on the spring  $k$ , so as to insure continuity of supply through spout  $b$ .

I claim—

An automatic coin-freed machine for vending lighted cigars or cigarettes consisting in the combination of coin-freed mechanism whereby the machine may be set into action; a supply-hopper having a delivery-spout controlled by a distributing-drum giving passage to one cigar or cigarette at a time; means for communicating shaking motion to the contents of the hopper, means adapted to receive and grip the cigar or cigarette and to present one end thereof to the flame of a lamp; a longitudinally-sliding suction-tube adapted to fit onto the other end of the cigar or cigarette and connected to an air-pump; and cam and lever mechanisms operated from a main shaft whereby the operation of the delivery, gripping, and suction devices in proper order is effected substantially as specified.

The foregoing specification of my automatic machine for vending lighted cigars or cigarettes signed by me this 31st day of October, 1897.

ACHILLE CAUDE.

Witnesses:

E. M. K. TOURGÉE,  
SAUL VOISIN.