

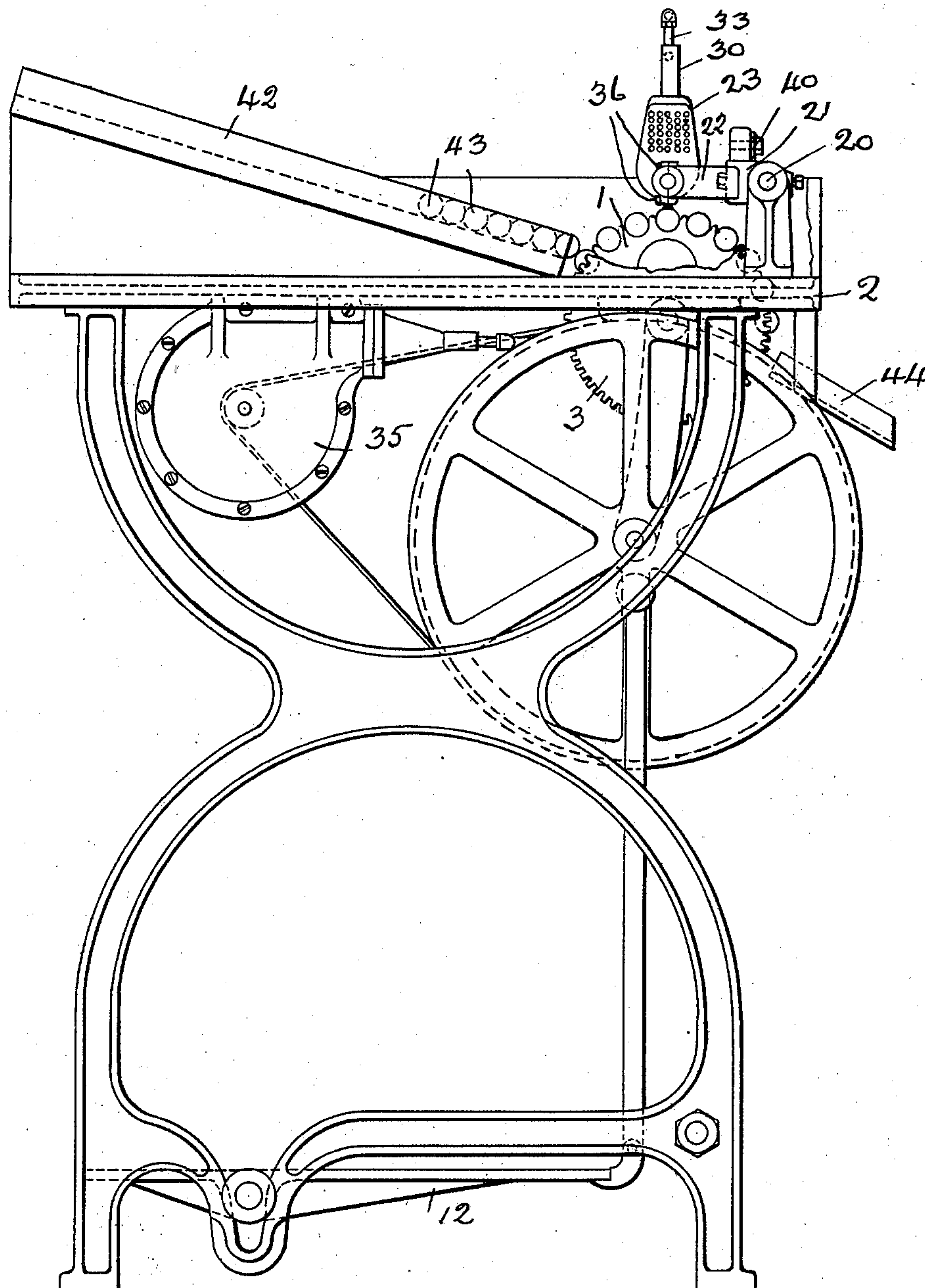
No. 747,990.

PATENTED DEC. 29, 1903.

I. LIBERMAN.
CIGAR BRANDING MACHINE.
APPLICATION FILED JUNE 4, 1903.

NO MODEL.

4 SHEETS—SHEET 1.



WITNESSES:
Mae Hofmann
Alice D. Burroughs

Fig. 1

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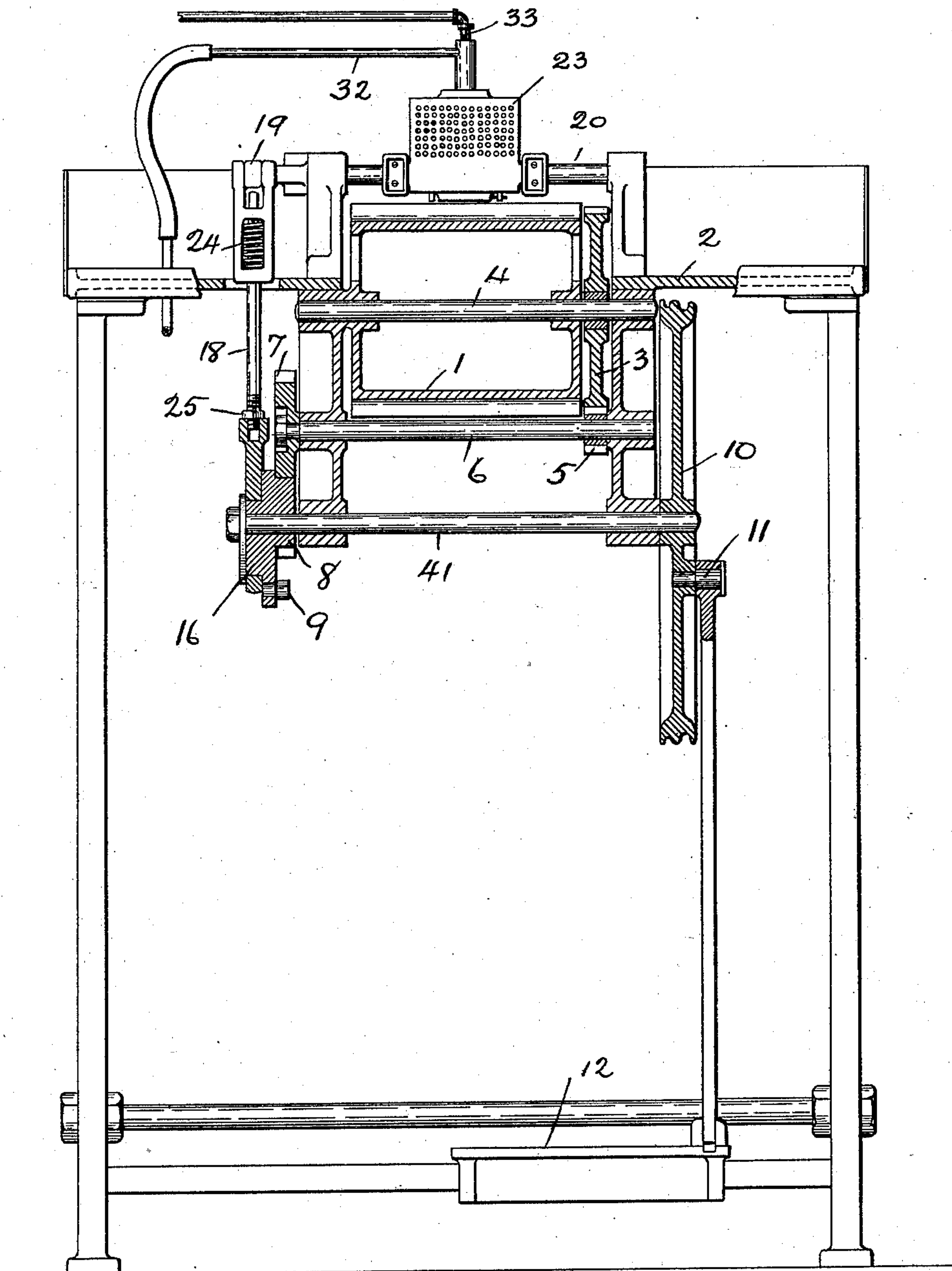
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Fig 2

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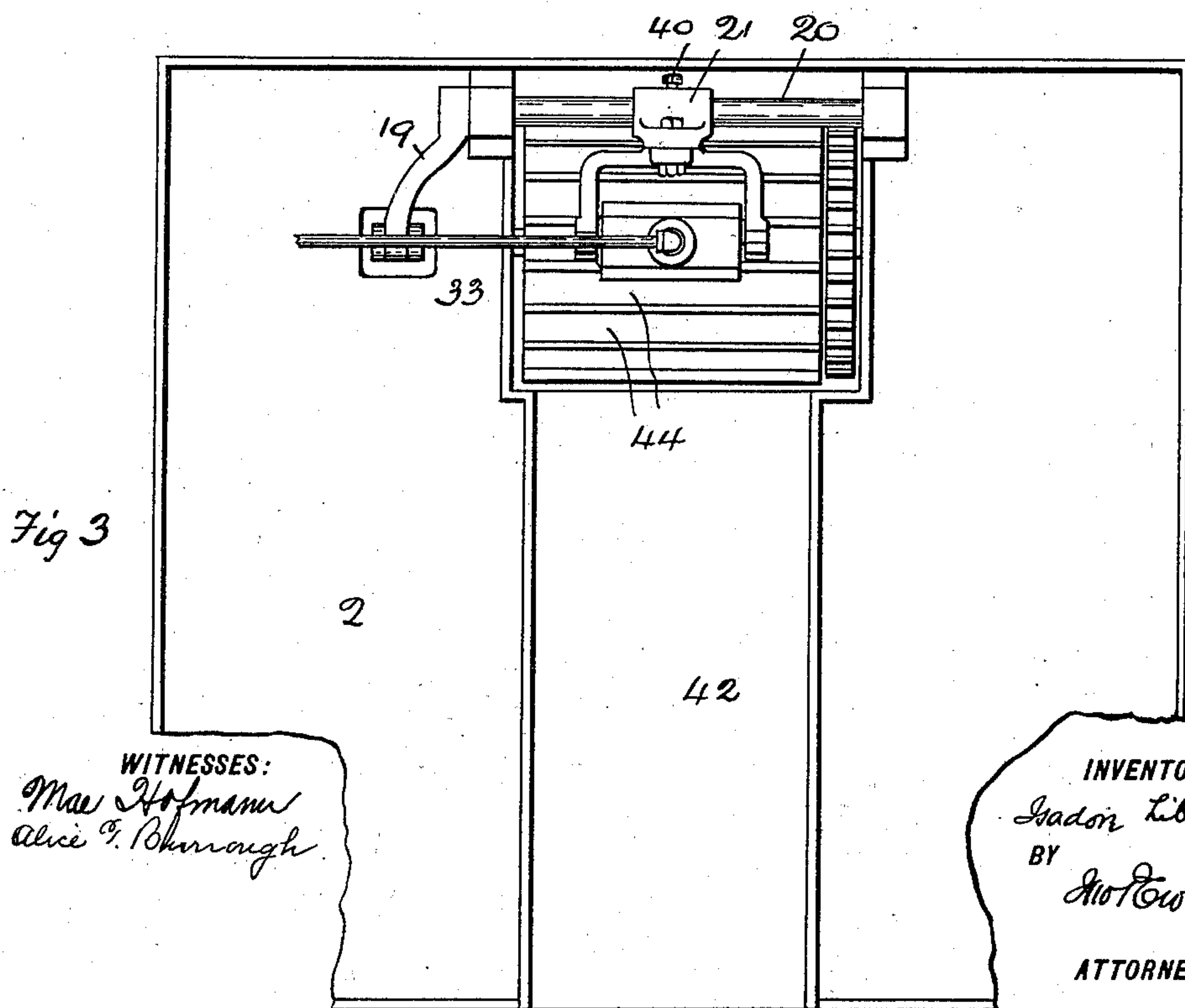
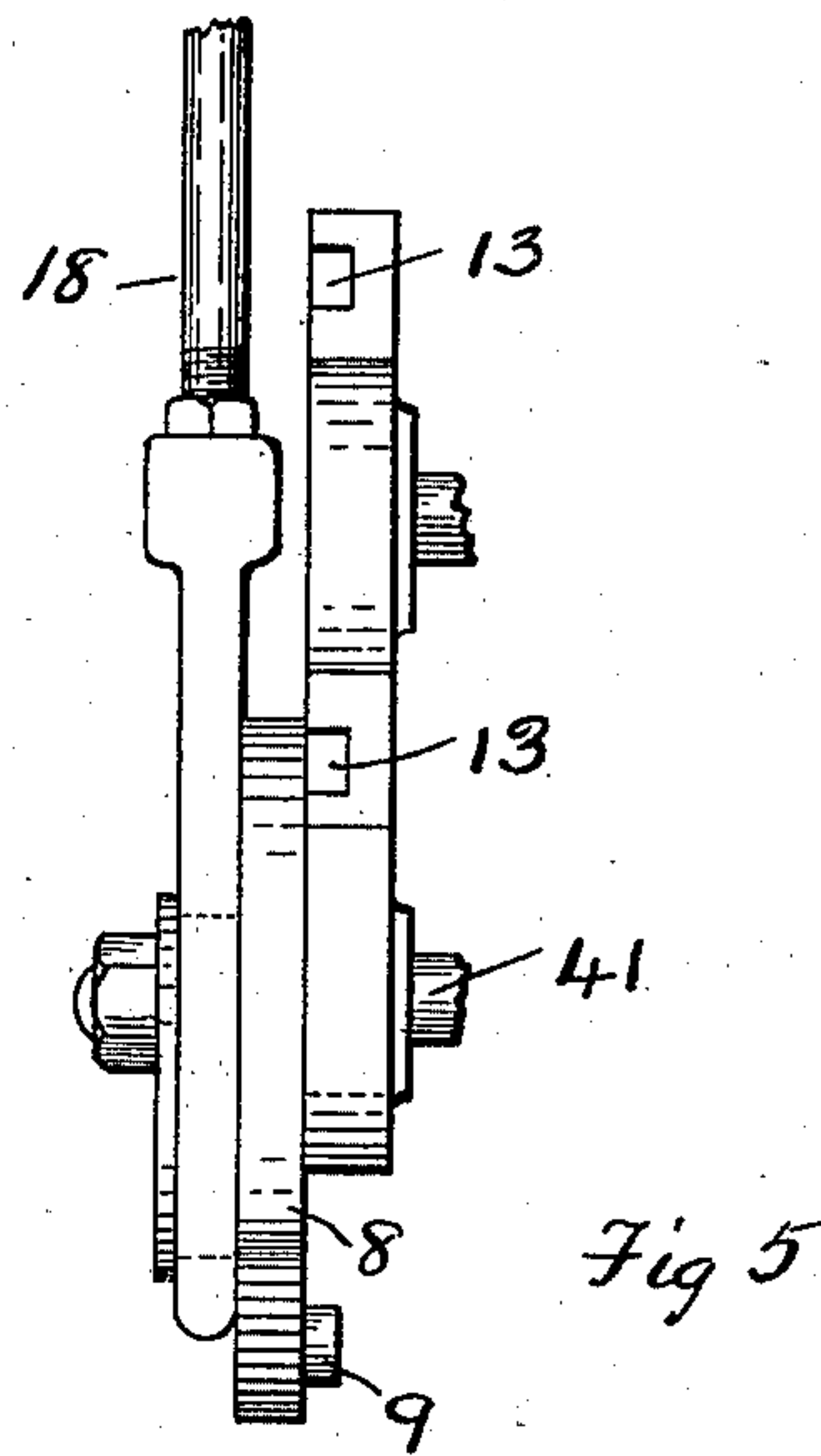
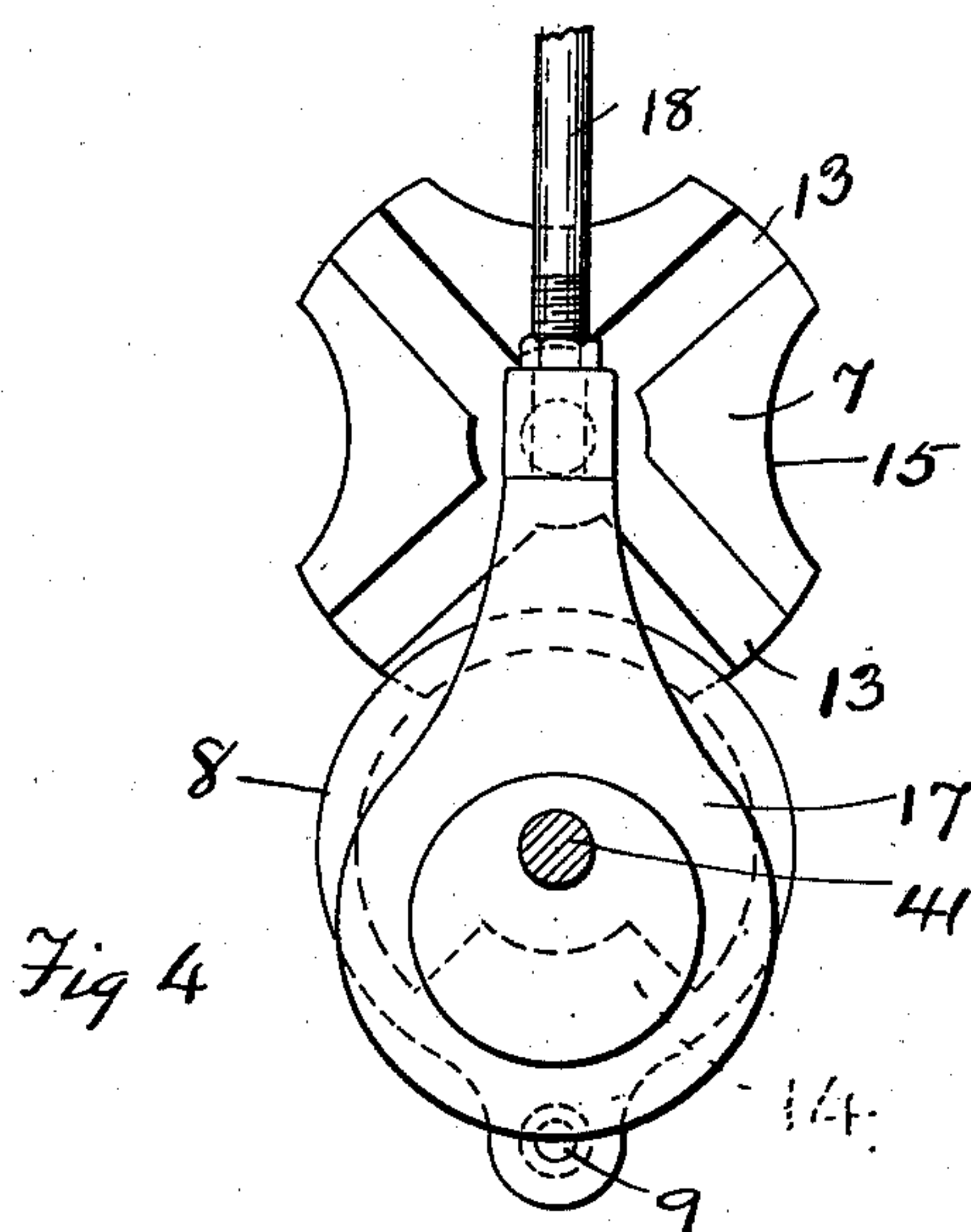
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4 SHEETS—SHEET 3.



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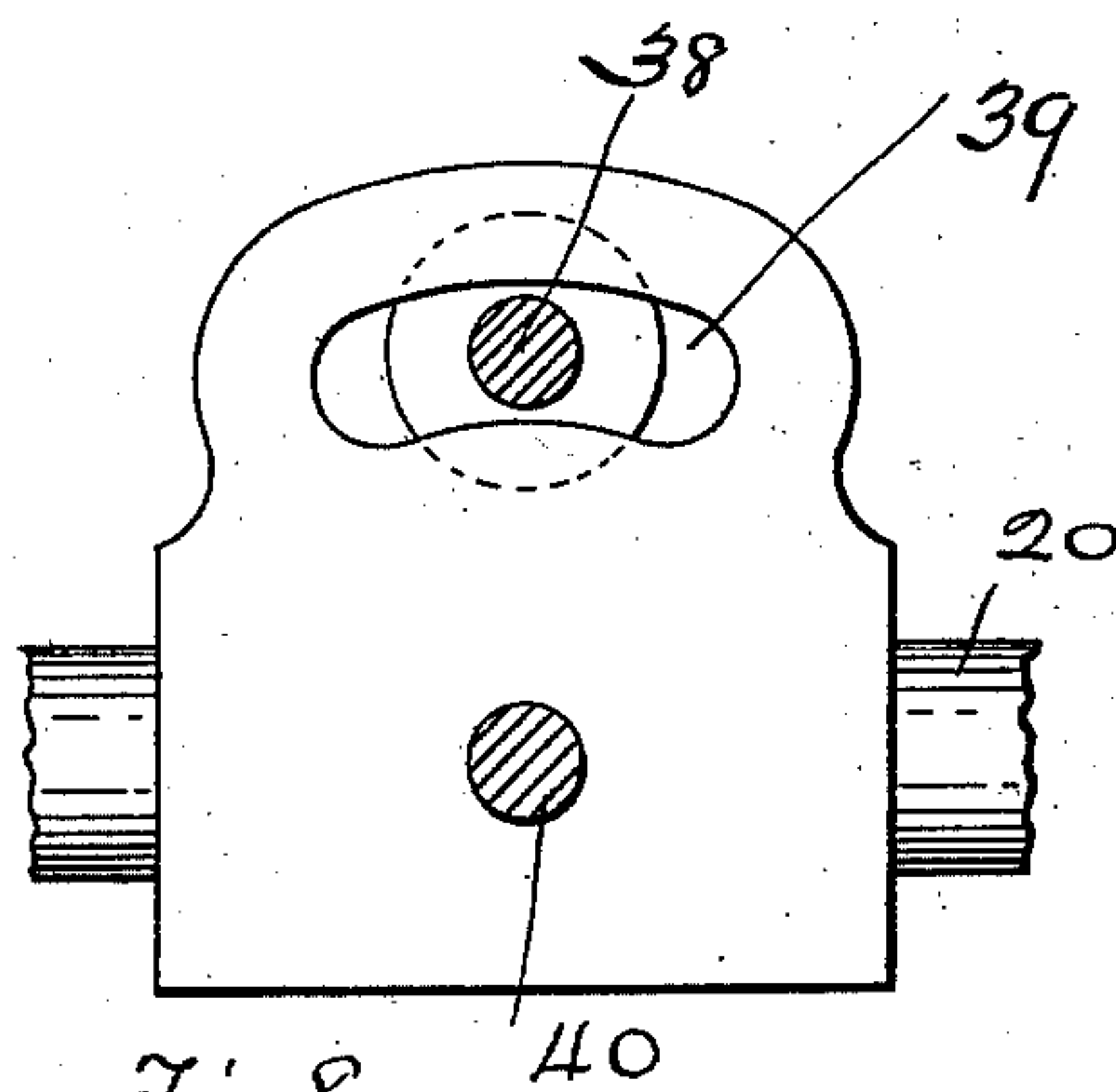
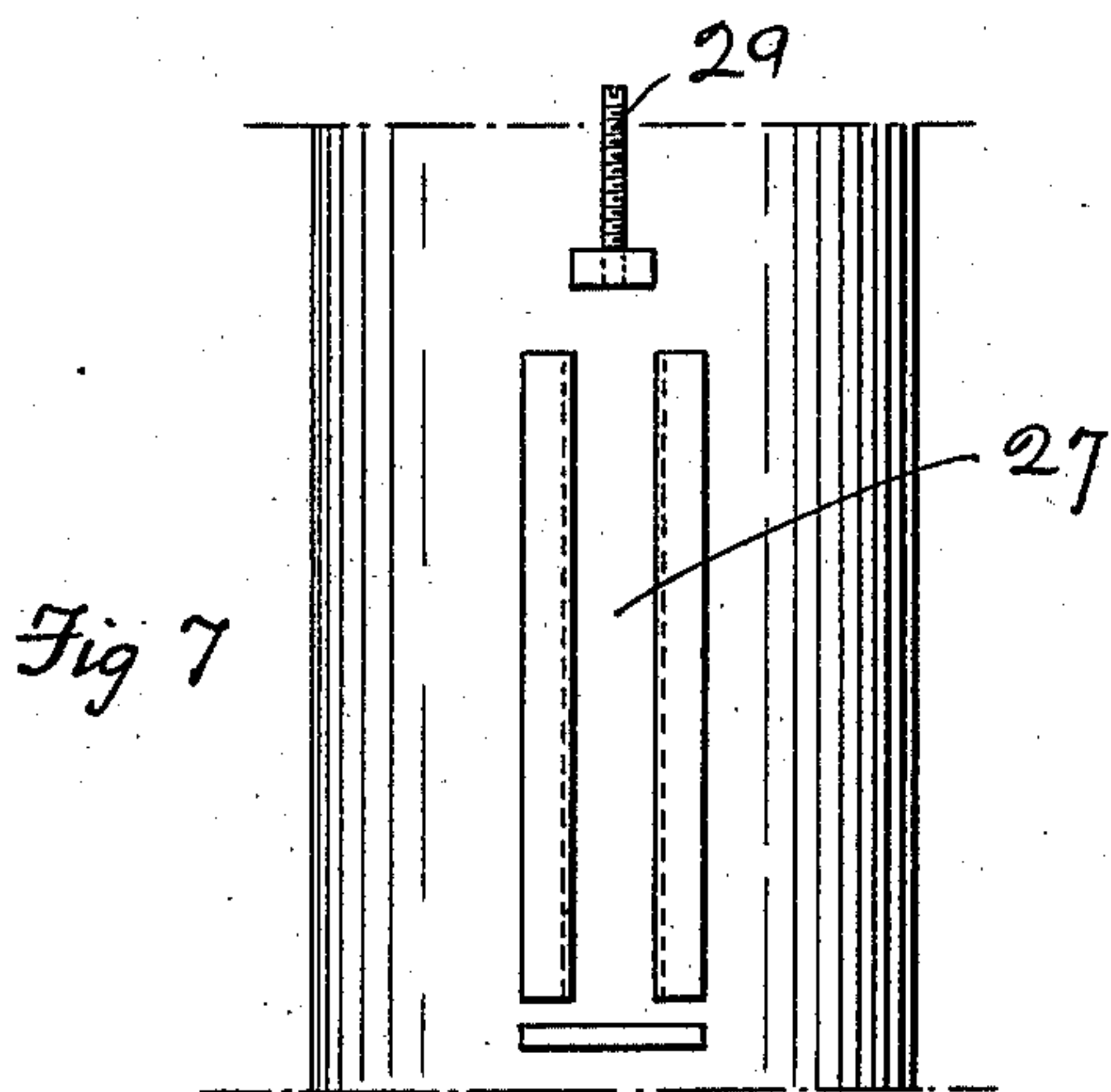
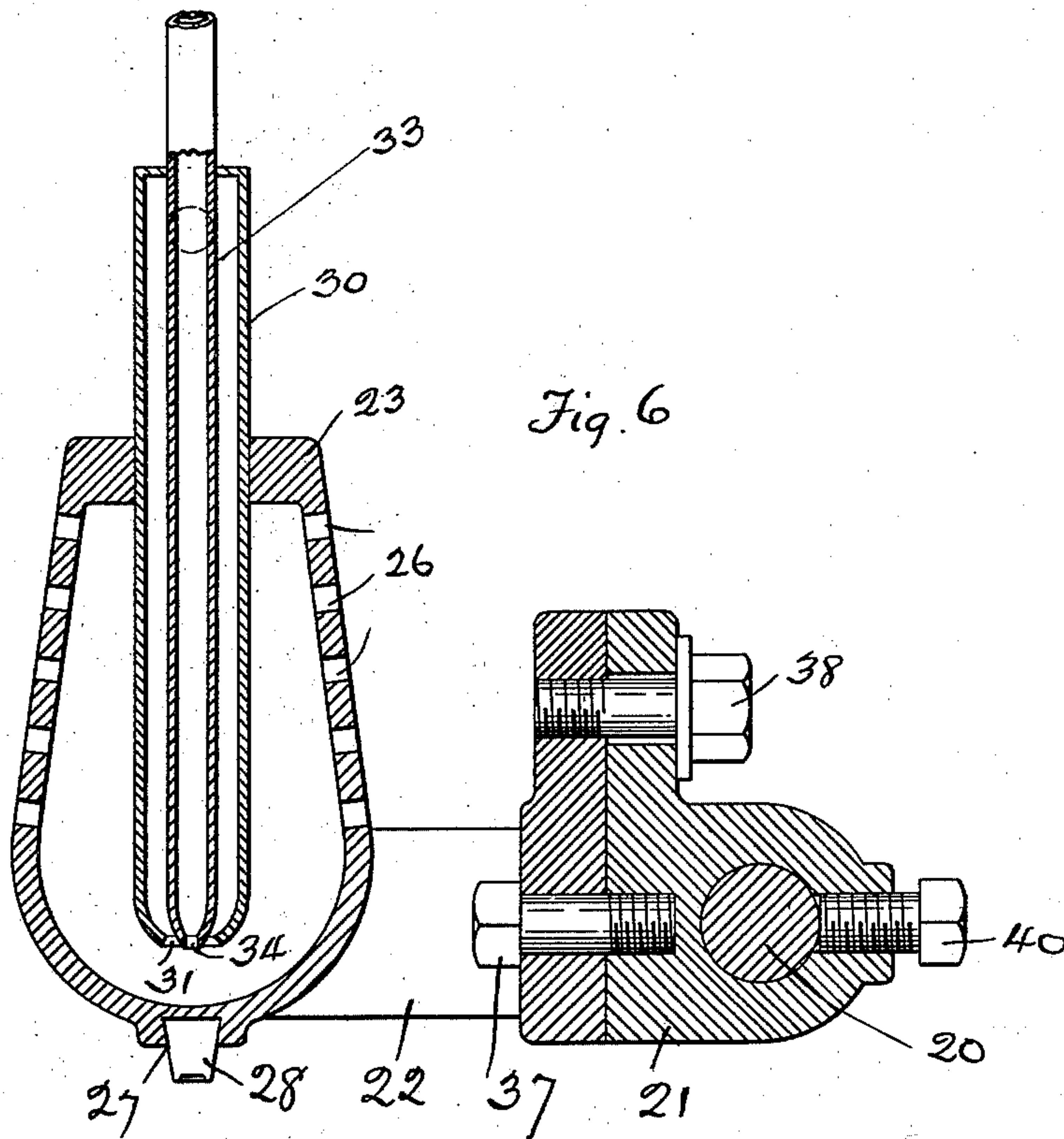
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4 SHEETS—SHEET 4.



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Fig 8
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UNITED STATES PATENT OFFICE.

ISADORE LIBERMAN, OF PHILADELPHIA, PENNSYLVANIA.

CIGAR-BRANDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 747,990, dated December 29, 1903.

Application filed June 4, 1903. Serial No. 160,037. (No model.)

To all whom it may concern:

Be it known that I, ISADORE LIBERMAN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Cigar-Branding Machine, of which the following is a specification.

My invention relates to cigar-branding machines, my object being to provide improved means for automatically branding the cigars with any desired letter, figure, or combination thereof, and especially consists in improved mechanism for maintaining the branding-types at a desired temperature and for raising and lowering said branding-types into and out of contact with each cigar when the same is brought into proper position therefor.

Referring to the drawings, Figure 1 is an elevation of my device. Fig. 2 is an elevation of the device at right angles with the elevation shown in Fig. 1, part being in section on lines 2 2 of Fig. 1. Fig. 3 is a top or plan view of same. Fig. 4 is a detail of the eccentric and cam mechanism for moving the cigar-cylinder step by step and maintaining it fixed during the branding operation. Fig. 5 is an edge view of the mechanism shown in Fig. 4. Fig. 6 is a vertical section on lines 6 6 of Fig. 2. Fig. 7 is an end view of the burner shown in Fig. 2. Fig. 8 is a front elevation of bracket member supporting the burner with the ends of the rotative shaft connected therewith broken away.

Similar numerals refer to similar parts throughout the several views.

Referring to Fig. 2, the channeled cylinder 1 is rotatably mounted on the table 2 and is operated by the gear 3, keyed to the shaft 4 of said cylinder, said gear meshing with gear 5 on shaft 6, having at its other end mounted the cross-slotted cam member 7, which is adapted to cooperate with the member 8, which is rigid with and rotates with shaft 41, which is driven by the wheel 10 or crank 11, connected with the foot-treadle 12. As shaft 41 is rotated it will be noticed that member 8 rotates, carrying with it pin 9, which is adapted to enter one of the channels 13, causing approximately a quarter-rotation of member 7 as pin 9 travels into and out of said channel 13. It will be noticed that simul-

taneously with the entry of pin 9 into channel 13 the cut-away portion 14 of member 8 comes into such a position as to accommodate the projecting portion of member 7, so as to permit said quarterly-rotative movement of member 7. When pin 9 has left channel 13, the curved or convex part of member 8 comes into engagement with the curve or concave surface 15 of member 7 and holds said member 7 against rotation until such further rotation of member 8 has taken place to bring the pin 9 again into the following channel 13, when the movement of member 7 is repeated. It is thus noted that with each revolution of member 9 there is a quarter-revolution of shaft 6. During the other three-quarters revolution said shaft 6 is held rigid. From this it follows that with each revolution of shaft 41 there is a resultant partial revolution of shaft 4, and consequently of cigar-cylinder 1. This is so adjusted by the relative proportions by gears 3 and 5 as to procure sufficient movement of the cigar-cylinder to bring a new cigar into an alignment with the branding-type during the first quarter of the revolution of shaft 41 and to hold it there firmly during the balance of the revolution of shaft 41, during which latter period the branding-type is brought down upon the cigar and lifted therefrom by the following mechanism: Member 8 is also provided with the eccentric-cam portion 16, upon which work the member 17 and connecting-rod 18, which is secured at its upper extension with the crank 19, which is secured to the shaft 20, upon which is mounted the bracket 21, to which is adjustably secured the extension 22 of the burner member 23. It will thus be seen that with each rotation of the shaft 41 the crank 19 is reciprocated, causing a rotative movement of shaft 20, and a consequent reciprocating movement of burner member 23. The adjustment of this cam member is such as to cause the type to engage with the cigar during that cycle of the operation of the machine in which the cigar-cylinder is held fixed.

The spring 24, which operates between the connecting-rod 18 and the crank 19, causes the branding-type to exert spring-pressure on the cigar. This spring-pressure may be ad-

justed by turning the connecting-rod 18 in the member 16, with which it has a threaded engagement. The desired position of connecting-rod 18 is secured by the lock-nut 25. Referring to Fig. 6, the burner member 23 consists of a hollow sheet provided with perforations 26, having a beveled slot 27 at its lower extension in which are secured the type 28. These type are inserted at the open end of the slot 27 and are securely locked in position by the screw 29. (See Fig. 7.)

Through the top of the burner member 23 is inserted the tube 30, provided with the opening 31 at its lower end and connected near its upper extension with the pipe 32. Extending downwardly through tube 30 is the tube 33, having an opening 34 within the opening 31. This tube 33 is connected with a source of gas-supply, while tube 32 is connected with a source of air-supply under pressure, such as a blower 35. This blower 35 is operated by a belt from the grooved fly-wheel 10. From this it will be obvious that the air-blast created by the blower 35 in co-operation with the gas-supply results in a blast-flame of great efficiency delivered directly against the bottom of burner member 23, which serves to maintain the type 28 at a high degree of temperature. This heater member 23 is adjustably secured to the yoke member 22 by the bolts 36, while the yoke member 22 is in turn adjustably secured to the bracket 21, being bolted thereto by the bolt 37, upon which it has a rotative movement which is controlled by the bolt 38, adjustable in slot 39 of member 21. Member 21 has a further adjustment on shaft 20 at right angles with the adjustment just described and secured against rotation on said shaft by the bolt 40.

Referring to Fig. 4, it will be noted that the channels 13 in the cam member 7 are not strictly radial from the center thereof, but are each located slightly back of their true radial position. This results in a more gradual engagement of pin 9 with the walls of the channels 13 and a consequent more gradual actuation of member 7 by the movement of pin 9 of member 8, and thus prevents a hammering engagement between said pin 9 and the member 7 in the rapid operation of the machine.

The inclined trough 42 (see Figs. 1 and 3) is so placed as to discharge the cigars 43 at its lower end into the channels 44 of the cylinder 1 as the cylinder rotates.

The operation of my device is as follows: The fly-wheel 10 is rotated either by the treadle 12 or from a suitable source of power communicated thereto by a belt on one of the grooves of said fly-wheel, whereby from the mechanism above described the burner member is reciprocated so as to come into contact with the cigar upon each revolution of shaft 41, and during the period in which the branding-type are out of engagement with the cigar the cylinder by the mechanism above

described is rotated one step to bring the next cigar into position for being branded. This, as already described, is done by approximately a quarter-rotation of shaft 41, while during the balance of rotation of said shaft 41 the cylinder is held fixed while the type are brought into contact with the cigar and then out of contact therewith. As the cylinder 2 continues to rotate the cigars are discharged therefrom into the chute or trough 44, by which they are conducted to boxes or other suitable receiving devices.

What I claim is—

1. In a cigar-branding device, the combination of a rotatable cylinder having peripheral channels horizontal with the axis thereof, a driving-shaft and a connecting-shaft operating between the driving-shaft and the cylinder having gear connection with the cylinder and intermittent operative connection with the driving-shaft as means for rotating said cylinder step by step and holding the cylinder fixed for a period of time between each step of its movement.

2. In a cigar-branding device, the combination of a rotatable cylinder having peripheral channels horizontal with the axis thereof, a driving-shaft and a connecting-shaft operating between the driving-shaft and the cylinder having gear connection with the cylinder, intermittent operative connection with the driving-shaft as means for rotating said cylinder step by step and holding the cylinder fixed for a period of time between each step of its movement, and a branding device having such operative connection with the driving-shaft as to cause the engagement of the branding device with the cigar while the cylinder is held fixed.

3. In a cigar-branding machine, the combination of a branding member comprising a perforated chamber with branding-type secured to the bottom thereof, a gas-tube and an air-tube surrounding the gas-tube both projecting into said chamber and discharging against the bottom thereof and means connected with the operative mechanism of the branding-machine for creating an air-blast to cooperate with the gas-supply.

4. In a cigar-branding machine, the combination of a rotatable cigar-drum having peripheral channels for holding the cigars, a rotatable driving-shaft, a cam member mounted thereon provided with a pin near its outer edge, a connecting-shaft geared with the cylinder and provided with a cam member having radial channels on its face adapted to receive the pin of the former member so as to cause its actuation through approximately a quarter of a revolution with each revolution of said rotatable shaft, said two cam members being so proportioned as to prevent the movement of the channeled cam member during the balance of the revolution of the rotatable shaft.

5. In a cigar-branding machine, the combination of a rotatable cigar-drum having pe-

ripheral channels for holding the cigars, a rotatable driving-shaft, a cam member mounted thereon provided with a pin near its outer edge, a connecting-shaft geared with the rotatable drum and provided with a cooperating cam member having approximately radial channels on its face, said channels being slightly out of true radial position and adapted to receive the pin of the former member so as to cause its actuation through approximately a quarter of a revolution with each revolution of said rotatable shaft, said two cam members being so proportioned as to prevent the movement of the channeled cam member during the balance of the revolution of the rotatable shaft.

6. In a cigar-branding machine, the combination of a pivotally-supported branding member, a rotatable driving-shaft and a spring-controlled pitman between said driving-shaft and the branding member to cause the rocking of the latter to exert a spring-pressure on the cigar.

7. In a cigar-branding machine, the combination with a cigar-shifting device, a pivotally-supported branding member, a rotatable driving-shaft and a spring-controlled pitman operating between said driving-shaft and the

branding member to cause the rocking of the latter to exert a spring-pressure on the cigar. 30

8. In a cigar-brander, the combination of a heater member and a yoke member for supporting the same, means for adjustably securing the heater member to the yoke member, a bracket member, means for securing the yoke member to the bracket member, adjustable in a plane at right angles with a plane of adjustment between the yoke and heater members, a rocking supporting-shaft and means for securing the bracket member thereto. 40

9. In a cigar-brander, the combination of a heater member and a yoke member for supporting the same, means for adjustably securing the heater member to the yoke member, a bracket member, means for securing the yoke member to the bracket member, adjustable in a plane at right angles with a plane of adjustment between the yoke and heater members, and a rocking supporting-shaft and means for adjustably securing the bracket member thereto. 50

ISADORE LIBERMAN.

Witnesses:

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EUGENE ZIEGLER.