

No. 857,401.

PATENTED JUNE 18, 1907.

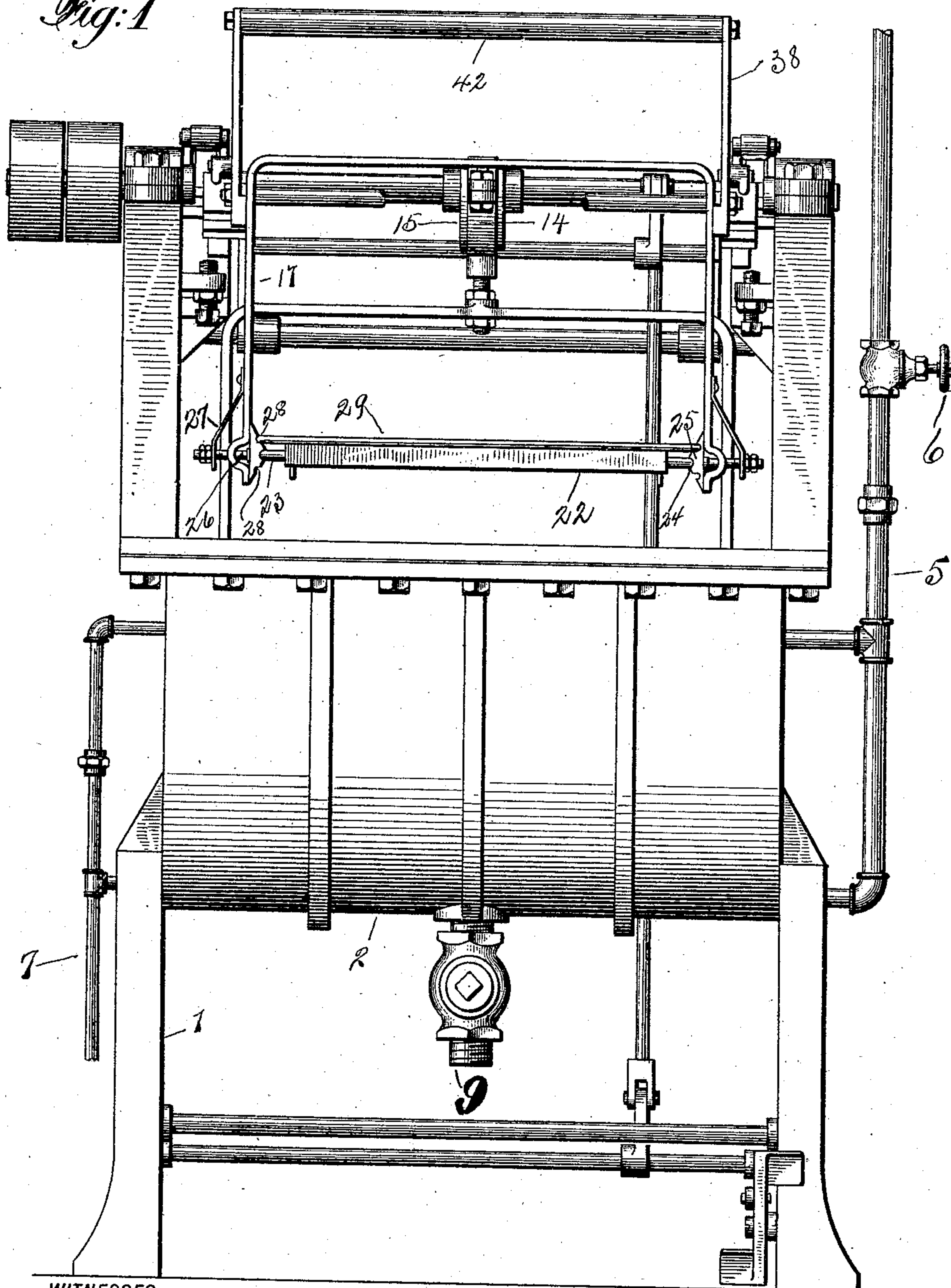
L. N. HARTOG.

MACHINE FOR IMMERSING THE CORES OR CENTERS OF CONFECTIONS.

APPLICATION FILED APR. 19, 1907.

4 SHEETS—SHEET 1.

Fig: 1



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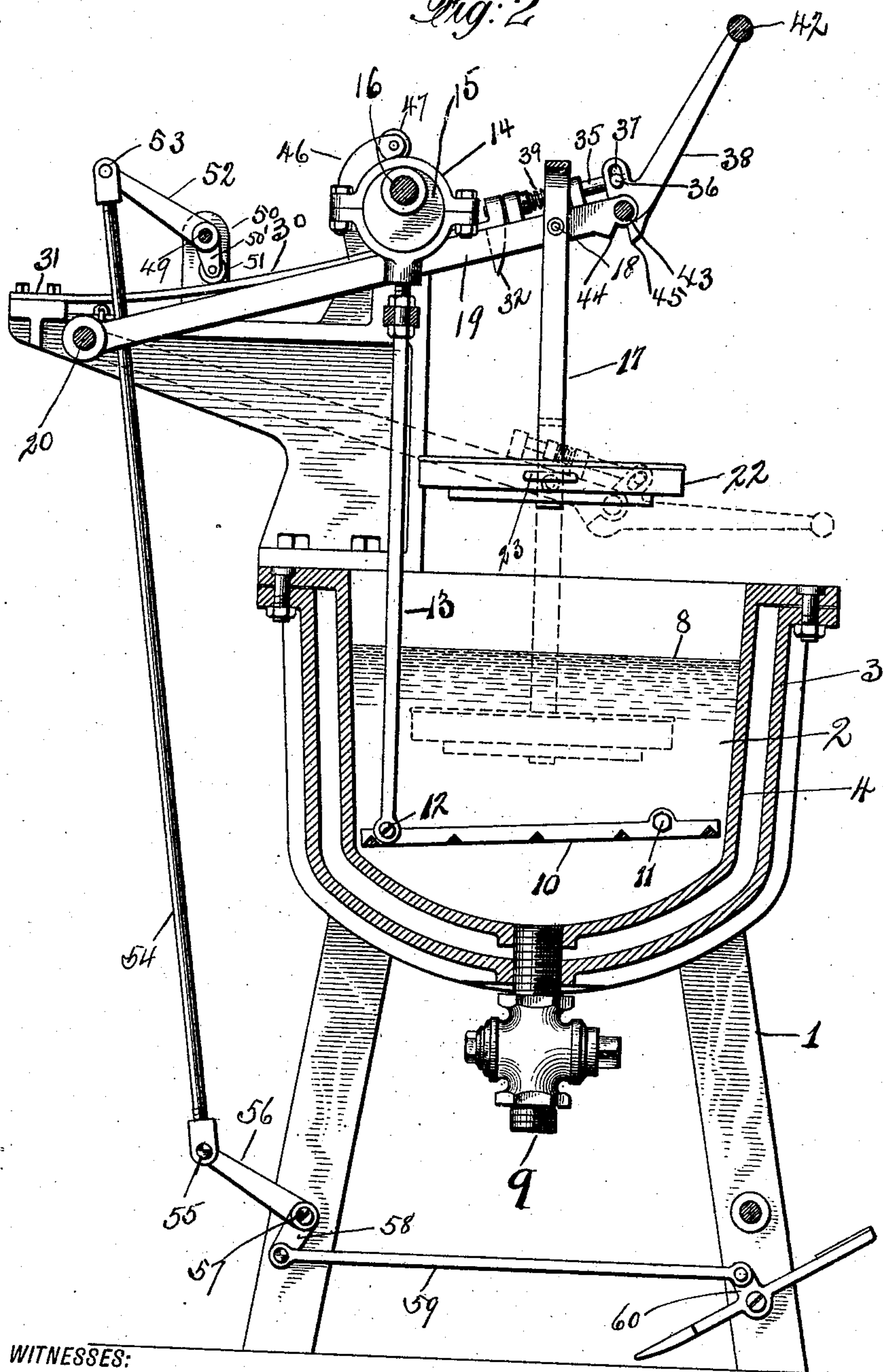
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4 SHEETS—SHEET 2.

Fig: 2



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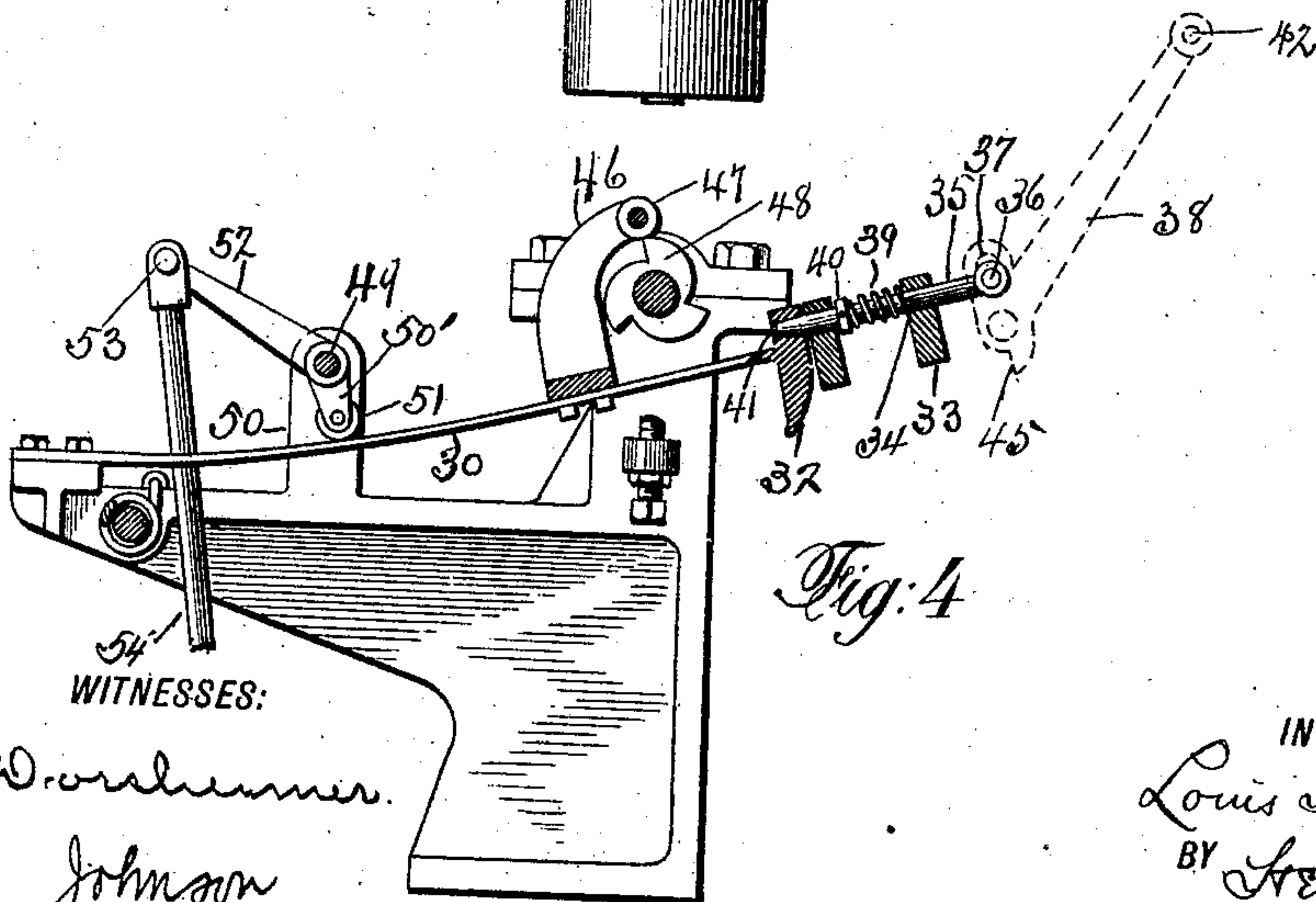
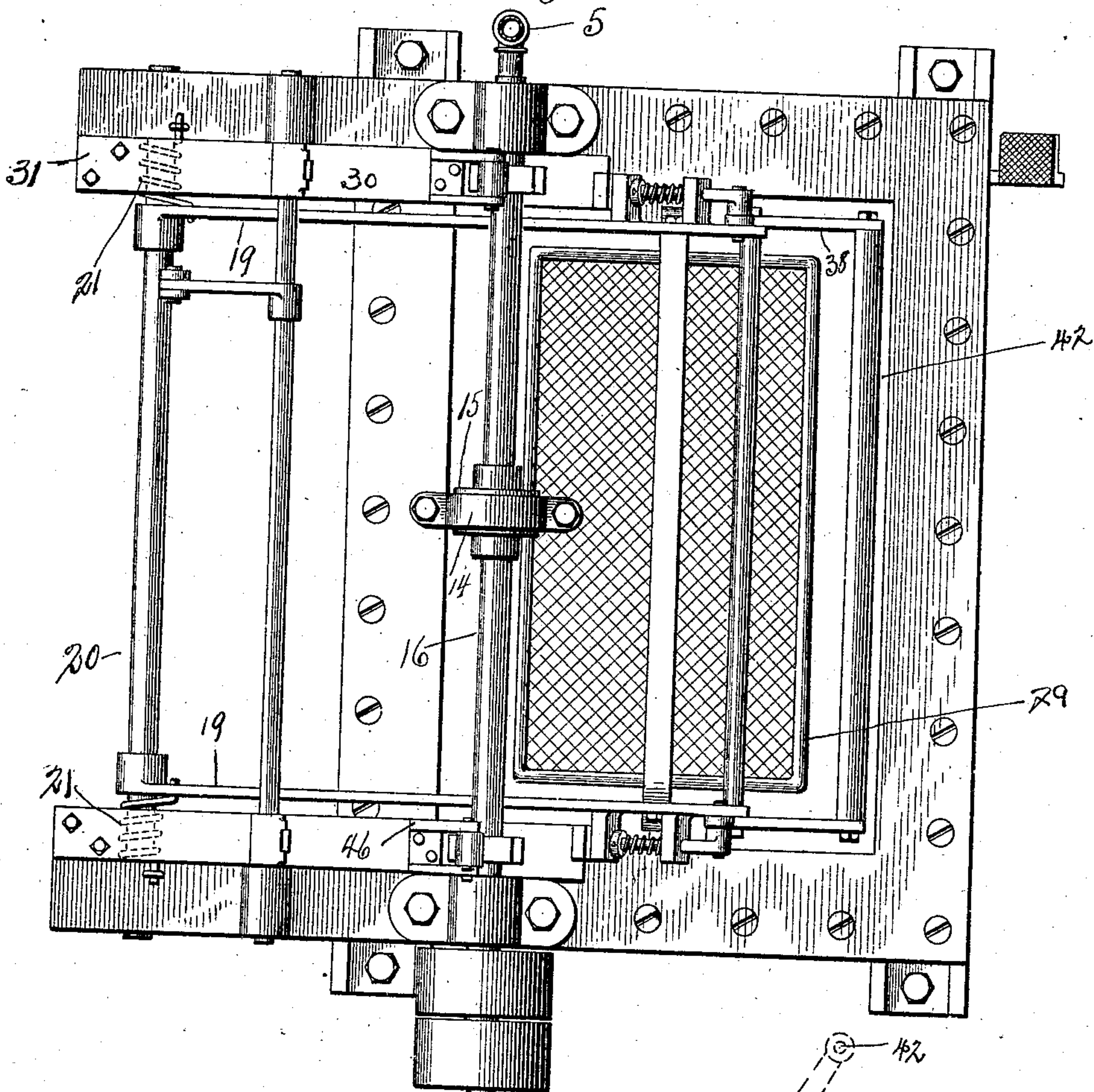
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4 SHEETS—SHEET 3.

Fig. 3



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Fig. 4

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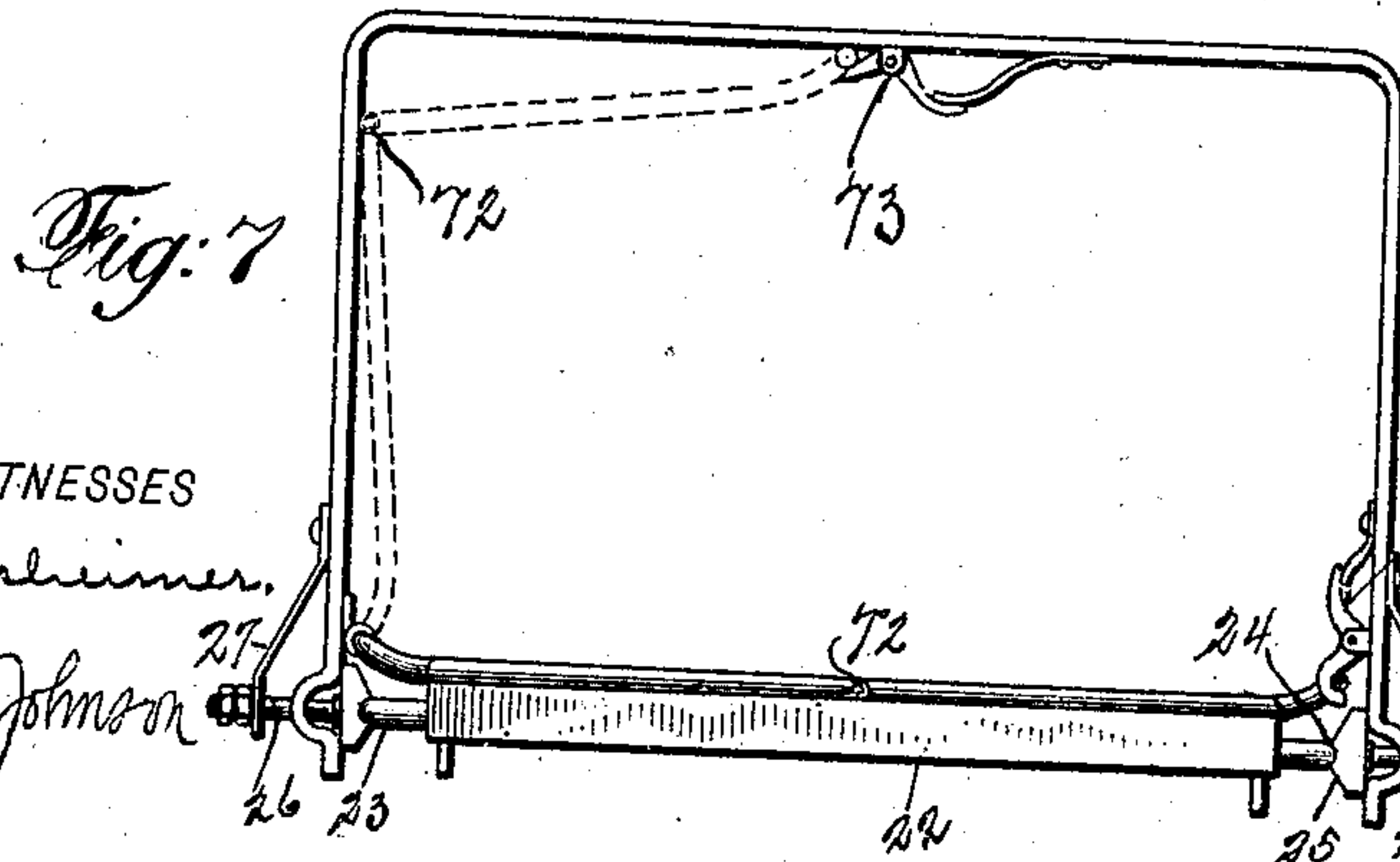
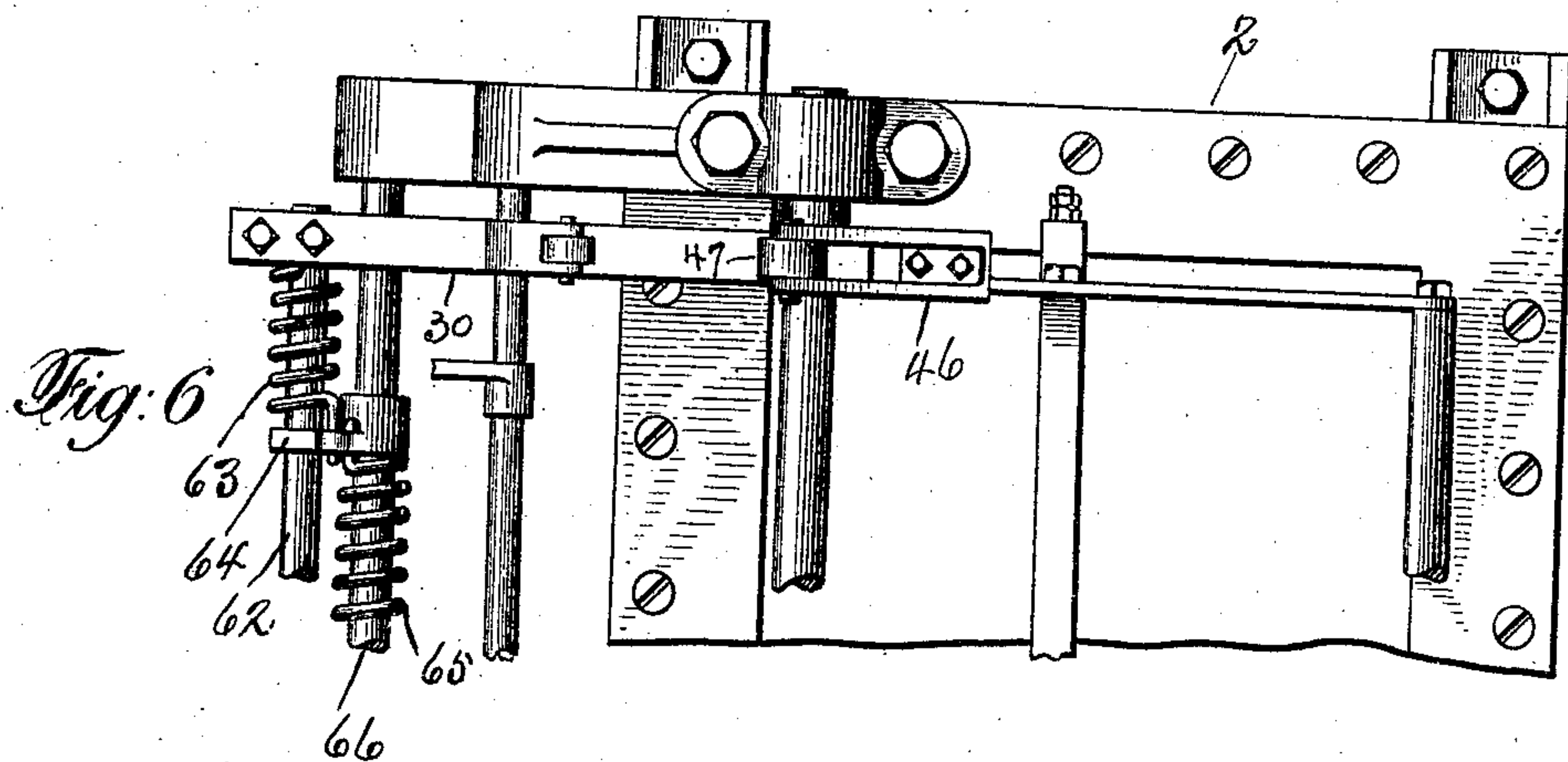
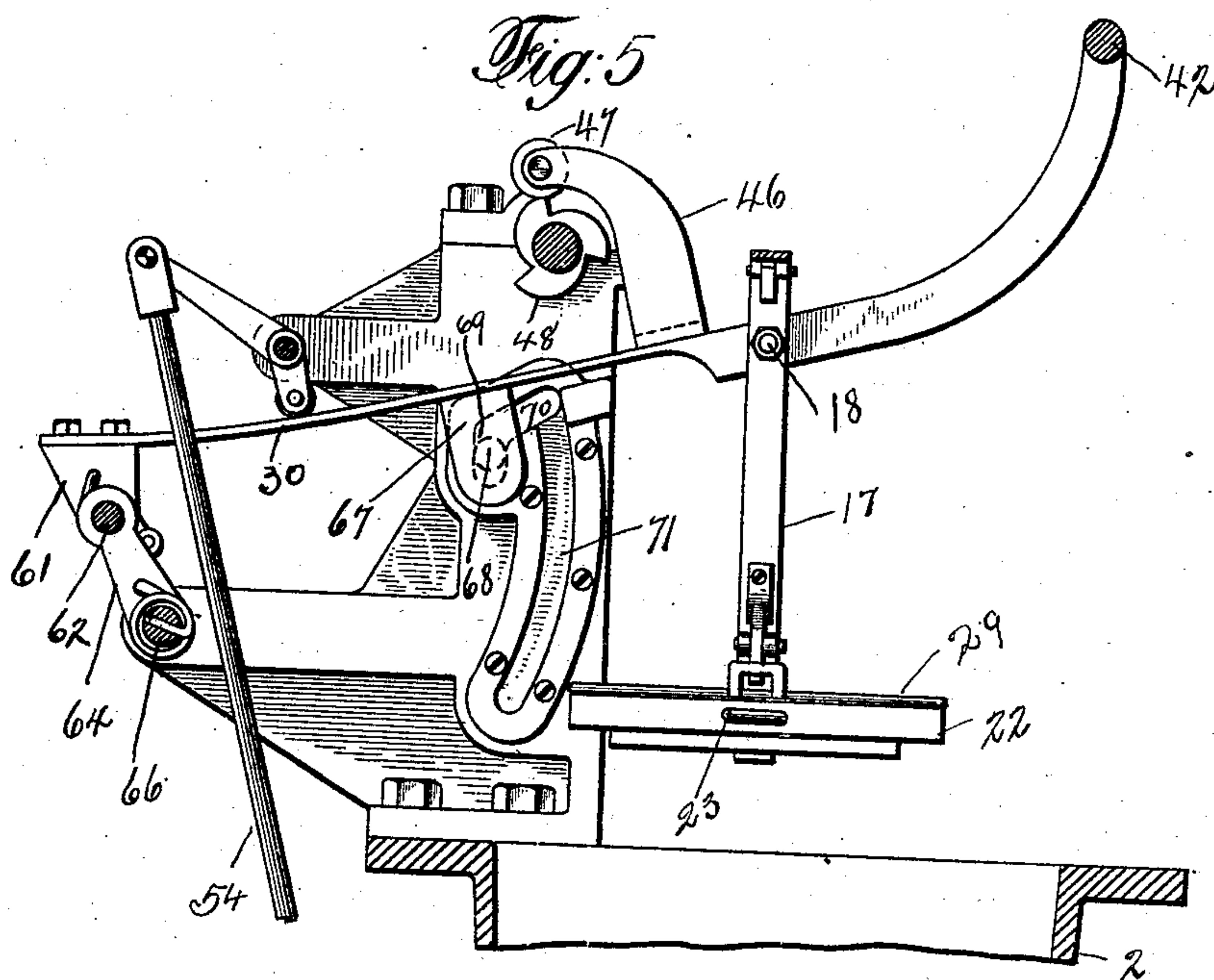
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4 SHEETS—SHEET 4.



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LOUIS N. HARTOG, OF NEW YORK, N. Y.

MACHINE FOR IMMERSING THE CORES OR CENTERS OF CONFECTIONS.

No. 857,401.

Specification of Letters Patent.

Patented June 18, 1907.

Application filed April 19, 1907. Serial No. 369,085.

To all whom it may concern:

Be it known that I, LOUIS N. HARTOG, a citizen of the United States of America, residing at the borough of Manhattan, city of New York, State of New York, have invented certain new and useful Improvements in Machines for Immersing Cores or Centers of Confections, of which the following is a specification.

My present invention relates, as aforesaid, to an improvement in machines for perfecting confections, and it is particularly adapted for the immersion and coating of cores or centers with a creamy finish; it is adapted and intended, in fact, for employment in the coating of what is known in the trade as bonbons. In the treatment of this coating material, creamy in its nature but quickly resuming a hardened condition upon any falling off of the proper and necessary temperature, but which temperature is variable, machines more or less automatic for the utilization of such a finishing product have heretofore been entirely, from a commercial standpoint, unsatisfactory and unsuccessful. It is a fact not generally understood and little appreciated that the consistency of the compound necessary to result in the aforesaid creamy finish does not bear a fixed relation to its temperature, and it is not appreciated, that rapidity of action is absolutely necessary, and that the immersion and the withdrawal and the removal of superfluous material must be carried on with great rapidity and dexterity to insure success and to provide that even and uniform coating which would and will render the commodity marketable. The result has been that all such sugar-coated cores or centers have been heretofore made by hand, and the fact remains that at the present day and date no automatic machine is now employed in the United States for producing and manufacturing what is known in the trade as sugar-coated confections or bonbons.

In carrying my invention into effect, I have had these difficulties preëminently in mind and have devised and have practically applied a machine which can be utilized and has been utilized on a commercial scale.

In order to more particularly and specifically describe my invention, I will proceed to explain it in connection with the accompanying drawings which form a part of this specification and in which

Figure 1 represents a front elevation of my

machine. Fig. 2 represents a vertical section. Fig. 3 represents a plan view of my machine. Fig. 4 represents a detailed sectional view. Figs. 5, 6 and 7 illustrate a preferred form of my invention.

In these drawings, 1 represents a stand or frame which supports a tub, trough or receptacle 2, composed of two parts 3 and 4, having a hollow space or chamber between them and into which hollow chamber steam or hot water can be directed by means of the pipes 5, controlled by the cock 6, and removed when desired by the pipes 7. The material which serves as a coating body which, in my invention, constitutes a plastic mass, is placed in the receptacle 2, and may be kept at the height shown at the line 8, (see Fig. 2). When at this height the immersion of the cores or centers in the manner hereinafter described is feasible and in fact can be carried on to the best advantage. A pipe 9 is provided at the bottom of the trough or receptacle 2, which can be utilized for draining and cleaning when desired.

Means for stirring the finished compound or plastic mass is shown at 10. This may be a grating or other suitable structure hinged at 11 and connected at 12 to a rod 13, which, at its upper end, is provided with a collar 14, traveling on a cam 15, the latter being mounted upon and rotating with the main shaft 16 of my machine, the latter receiving motion from any suitable source. In the operation of my machine, this stirrer is in constant motion, so that the coating material or plastic mass for immersing the cores or centers is constantly moving, so that any hardening or setting of the mass is rendered, in co-operation with the heat surrounding the same, impossible.

At 17 I show a yoke, mounted at 18 on forwardly extending arms 19, the latter being mounted on a rock shaft 20 at the rear of the machine. This rock shaft is provided with torsional springs 21, at each end. In the operation of my machine the springs 21 are utilized to return the core immersing tray hereinafter described to its upper position. The springs are sufficiently strong for that purpose. They also co-operate in sustaining the immersing tray in its upper position during the shaking operation.

The core immersing tray 22 is shown in its upper position both in Figs. 1 and 2 and in its lower or immersed position in dotted lines in Fig. 2. This tray consists of a rec-

tangular frame with cross wire netting forming suitable pockets for the reception of the cores or centers. The tray is provided with end handles 23 which fit into receptacle 24 arranged centrally in the cheeks 25 the latter being mounted upon pins 26 extending through the lower ends of the arms 17. Springs 27 are provided which tend to throw the pins 26 inwardly and serve in connection with some resiliency in the arms 17 to press against the tray and hold it in position. By reason also of this construction and of the fact that the tray is supported therein means are provided for turning or rotating the tray between the arms 17 and also removing it; in other words I provide a reversible or rotating and also a removable immersing tray. The cheek pieces 25 are also provided with pockets 28, one set above the centrally located receptacles 24 and one set below. These pockets receive and are adapted to retain in locked position the cover 29 of the tray. The operation of this part of my machine is as follows; When the cores or centers of the candies to be immersed are duly and properly arranged in the pockets of the tray it is taken to the machine and being placed in approximate position it can by slight pressure be snapped into place by means of the mechanism hereinbefore described and the handle of the tray will enter and be held in the receptacles 24. The cover can then be brought into position and it can also be snapped into place in the pockets 28 just above the tray. The tray is then ready for immersion.

At 30 I show spring arms attached at their rear ends 31 to the body of the machine. These spring arms extend forwardly to points somewhat beyond the median line of the machine. At their forward ends they have heads 32 curving backwardly and downwardly on their outer faces.

The arms 19 have shoulders 33 with openings 34 through which extend pins 35. These pins at their outer ends are attached to cross pins 36 the latter mounted and adapted to have slight vertical play in the slots 37 of the operating arms 38. The pins 35 are further provided with springs 39 and keys 40 which when the operating arms 38 are depressed are compressed and the pins 35 are withdrawn from the openings 41 of the heads 32. This movement unlocks the parts which are attached to and suspended from the arms 19 from the spring arms 30 and permits the descent of the immersing tray.

The downward movement of the tray is caused by the depression of the arms 38 (for convenience of operation I have provided a bar or handle 42 extending between them). The arms 38 turning in the studs 43 causes the withdrawal of the pins 35 from the openings 41; when the pins have been so with-

drawn the shoulders 44—45 have met and a further downward movement of the handle 42 will cause the lowering of the arms 19 and the depression of the tray 22 to the position shown in dotted lines in Fig. 2; when the pressure on the handle 42 is removed the springs 21 will automatically return them to the upper position shown in full lines in Fig. 2 and the spring controlled pins 35 riding on the outer convex faces of the heads 32 will arrive at and enter the openings 41. The spring supported arms 19 and the parts which they support and the spring arms 30 thus become locked together.

When the immersing tray has returned to its upper position as shown in full lines in Fig. 2 the cores or centers being covered with an excess of the coating material it becomes necessary to shake the tray for the purpose of removing this excess material. For performing this service I have the following mechanism. Mounted upon and securely attached to the spring arms 30 are the curved arms 46 having at their upper and outer ends the rollers 47; upon the main shaft 16 I place the toothed wheels 48. I show rock shaft 49 the latter seating and turning in suitable journals in the posts or extension pieces 50 of the main body of the machine. The rock arms 50' are provided with rollers 51 which bear upon the upper faces of the spring arms 30. The rock shaft 49 is further provided with the arm 52. The latter is pivotally connected at 53 to the vertical rod 54 and this rod is secured by pin 55 to the arm 56 the latter being mounted on the transverse shaft 57 journaled in the main body of the machine and being connected by arm 58 and horizontal bar 59 to the treadle 60. When the treadle 60 has been thrown by the operator to the position shown in Fig. 2 the rollers 51 are brought down by said operation to bear upon the spring arms 30 which in turn pull the rollers 47 down on to the toothed wheels 48. This action causes the wheels 47 to jump from the teeth of the wheels 48 resulting in a violent shaking of all the connected parts, assuming the main shaft 16 is in motion. This being the case and the parts being in position shown in full lines in Fig. 2, the immersing tray having been withdrawn from the trough, the superfluous coating material on the cores or centers is, by this violent action, removed; when the shaking has taken place, the cover of the tray is removed and the tray by the rotating and snapping movement hereinbefore described is turned up side down whereupon by placing a board of suitable size, not shown, beneath the tray and again subjecting it to the shaking action the cores or centers are forced from the pockets of the tray which latter can then be removed to make way for a freshly filled tray.

In Figs. 5, 6 and 7 I have shown another

form of my invention. In this form the tray supporting arms are merged into a single set of arms as shown at 30. The apparatus including the treadle, not shown, for depressing these arms to bring about the shaking operation is the same. The arms 30 are extended forward and the handle 42 joins their outer ends; the immersing tray is hung directly from these arms. The position of the arm 46 carrying the roller 47 is reversed; their office and mode of operation however are the same. In this form of my invention the rear ends of the spring arms 30 are attached to brackets 61 mounted and adapted to turn on cross bars 62 and attached by means of torsional springs 63 to fingers 64 to the torsional springs 65 surrounding and affixed to the bar 66 mounted in the main body of the machine. These torsional springs when free to act keep the spring arms 30 in their upper position. The bar 66 is anchored in the main body of the machine and the fingers 64 turn thereon. The outer ends of the torsional springs 65 are fixed in the fingers 64 and the inner ends are anchored in the bar 66. The bar 62 extends through and is adapted to turn in the outer ends of the fingers 64. At 67 I show small pin bearing plates attached to the under side of the spring arms 30; having pins 68. These pins are arranged to travel in guide ways 69, 70, 71; when the machine is in the position shown in Fig. 5, the pins 68 have been thrust into the guide ways 69 by means of the rollers 51; having been brought down onto 30, these springs arms will turn slightly through their supporting brackets 61 and connecting bar 62 on the fingers 64 and the rollers 47 will be forced down on the toothed wheels 48. The parts are then in the shaking position; when it is desired to immerse the tray the treadle releases the shaking mechanism whereupon the pins 68 will ride up into the guide ways 70. The operator by taking the handle 42 can draw the connected parts toward him and the pins 68 can be forced downward on the guide way 71, the parts turning on the bar 66; when the operator withdraws the pressure the torsional springs 63 and 65, but more particularly the latter, return the parts to their upper position.

In Fig. 7, I show another form of cover for the immersing tray. It is divided centrally at 72 so as to fold up, as shown in dotted lines, when it is desired to remove and renew the immersing tray. Locking devices 73, 74 are provided to retain the said cover in its open or its closed position.

Having thus described my invention the following is what I claim as new therein and desire to secure by Letters Patent.

1. In a machine for the immersion of the cores or centers of confections, the combination of a trough or receptacle, an immersing tray, means whereby said tray may be manu-

ally lowered into the trough, spring withdrawing mechanism, spring controlled shaking mechanism, and means whereby the spring withdrawing, and spring controlled shaking mechanism, will co-operate during the shaking operation.

2. In a machine for the immersion of the cores or centers of confections, the combination of a trough or receptacle, an immersing tray, means whereby said tray may be manually lowered into the trough, automatic spring withdrawing mechanism, spring controlled shaking mechanism, and means for throwing said shaking mechanism into and out of its operating position.

3. In a machine for the immersion of the cores or centers of confections, the combination of a trough or receptacle, an immersing tray, a pair of spring supported forwardly extending arms in which said tray is mounted, means whereby said supporting arms and tray may be manually lowered, means for automatically restoring same to their upper position when the pressure is withdrawn and means for shaking the tray after withdrawal.

4. In a machine for the immersion of the cores or centers of confections, the combination of a trough or receptacle, an immersing tray, a pair of forwardly extending arms in which said tray is mounted, means whereby said supporting arms and tray may be manually lowered, and a pair of torsional springs for supporting and withdrawing said arms when the manual pressure is withdrawn.

5. In a machine for the immersion of the cores or centers of confections, the combination of a trough or receptacle, an immersing tray, a pair of forwardly extending arms in which said tray is mounted, means whereby said supporting arms and tray may be manually lowered, a pair of torsional springs for supporting and withdrawing said arms when the manual pressure is withdrawn, and means for shaking the tray after withdrawal.

6. In a machine for the immersion of the cores or centers of confections, the combination of a trough or receptacle, an immersing tray, a pair of forwardly extending arms in which said tray is mounted, means whereby said supporting arms and tray may be manually lowered, a pair of torsional springs for supporting and withdrawing said arms when the manual pressure is withdrawn, a spring controlled shaking mechanism and means for operating same after the withdrawal of the tray.

7. In a machine for the immersion of the cores or centers of confections, the combination of a trough or receptacle, an immersing tray, a pair of forwardly extending arms in which said tray is mounted, means whereby said arms and tray may be manually lowered, springs for supporting said arms and for withdrawing them to their upper position when the manual pressure is removed, a

spring controlled shaking mechanism and means for operating same after the withdrawal of the tray.

8. In a machine for the immersion of the cores or centers of confections, the combination of a trough or receptacle, an immersing tray, a pair of forwardly extending arms in which said tray is mounted, means whereby the tray, so supported, may be manually lowered into the trough, springs for supporting said arms and for withdrawing them to their upper position when the manual pressure is removed, a spring controlled shaking mechanism and means whereby the spring withdrawing and the spring controlled shaking mechanism will be made to co-operate during the shaking process.

9. In a machine for the immersion of the cores or centers of confections, the combination of a trough or receptacle, an immersing tray, a pair of arms extending across and above the trough hung in the frame or body of the machine at their rear ends and provided with a handle connecting their forward ends, means whereby the tray may be manually lowered into the trough, springs at the rear ends of the arms for automatically withdrawing the tray upon the release of the manual pressure, spring controlled mechanism for shaking the tray after withdrawal and means whereby both of said sets of springs are thrown into conjunctive operation during the shaking process.

10. In a machine for the immersion of the cores or centers of confections, the combination of a trough or receptacle, an immersing tray, a pair of spring supporting arms extending across and above the trough hung in the frame or body of the machine at their rear ends and having a handle connecting their forward ends, means whereby the tray may be manually lowered into the trough, spring controlled tray shaking mechanism consisting of forwardly extending spring arms and means for throwing said shaking mechanism into and out of operative position.

11. In a machine for the immersion of the cores or centers of confections, the combination of a trough or receptacle, an immersing tray, means whereby said tray may be manually lowered and automatically withdrawn, forwardly extending spring arms, mechanism for shaking the said spring arms and means for throwing said shaking mechanism into and out of operative position.

12. In a machine for the immersion of the cores or centers of confections, the combination of a trough or receptacle, an immersing tray, spring arms attached to the rear side of the machine and extending forwardly over the trough, curved arms extending upwardly from said spring arms, rotatable toothed wheels, and means for throwing the said curved arms into operative combination with

the said toothed wheels, all arranged substantially as and for the purposes set forth.

13. In a machine for the immersion of the cores or centers of confections, the combination of a trough or receptacle, an immersing tray supported above said trough, means for manually lowering the tray into the trough, spring mechanism for automatically withdrawing same, spring arms secured to the rear of the machine and extending forwardly over the trough, means, when the tray is withdrawn, for throwing the spring withdrawing mechanism and the forwardly extending spring arms into conjunctive operation for shaking the tray.

14. In a machine for the immersion of the cores or centers of confections, the combination of a trough or receptacle, an immersing tray, means whereby the tray may be manually lowered into the trough spring mechanism for automatically withdrawing the tray and supporting it in its upper position, forwardly extending spring arms attached at their rear ends to the machine, rollers means for bringing said rollers to bear upon the spring arms whereby the said spring arms and the tray withdrawing springs are brought into conjunctive operation and means whereby when the parts have reached such position the tray is subjected to a shaking operation.

15. In a machine for the immersion of the cores or centers of confections, the combination of a trough or receptacle, an immersing tray, means whereby said tray may be manually lowered into the trough, means for automatically withdrawing the same and supporting the tray in its upper position, forwardly extending spring and tray supporting arms attached at their rear ends to the machine and having a connecting handle at their forward end, curved arms attached to and extending upwardly from said spring arms and provided with rollers 47, toothed wheels having means of rotation and arranged immediately below said rollers 47 and means whereby the rollers 47 can be brought down upon the said toothed wheels and shake the tray after withdrawal.

16. In a machine for the immersion of the cores or centers of confections, the combination of a trough or receptacle, an immersing tray, forwardly extending spring arms, pivotally supported at their rear ends upon torsional springs, with said springs, means for securing the tray above said trough, curved arms 46 having rollers 47, toothed wheels 48 and main shaft 16 upon which said toothed wheels are mounted and means whereby the said rollers 47 can be thrown into operative proximity to the wheels 48 for the purpose of shaking the tray.

17. In a machine for the immersion of the cores or centers of confections, the combina-

tion of a trough or receptacle, an immersing tray, the forwardly extending spring arms, means for suspending the tray in said spring arms, spring controlled means whereby said
5 spring arms can be drawn backward and forward over the trough, means for locking the arms in their rear position and a guide way for directing the said arms downwardly and immersing the tray when in their forward po-
10 sition.

18. In a machine for the immersion of the cores or centers of confections, the combina-
tion of a trough or receptacle, an immersing tray, the forwardly extending spring arms,
15 means for supporting the immersing tray near their forward ends, two way guides upon the machine, means secured to the arms operating in connection with both said two way guides and capable of moving from one to the
20 other, and two sets of torsional springs ar-

ranged between the rear ends of the spring arms and the body of the machine substantially as and for the purposes set forth.

19. In a machine for the immersion of the
cores or centers of confections, the combina- 25
tion of a trough or receptacle, an immersing tray, means on said tray for removably and reversibly securing it in the yoke, means for supporting said yoke whereby the said tray
may be lowered into and withdrawn from the 30
trough and a cover for the tray made to fold midway of its length and having means for locking it in its open as well as its closed position.

This specification signed and witnessed 35
this 11th day of March, 1907.

LOUIS N. HARTOG.

Signed in the presence of—

MARGARET A. RUSH,
ARTHUR J. CLARK.