L. A. FREEDMAN.

BATTERY FILLING MACHINE.

APPLICATION FILED JUNE 19, 1917.

1,346,948.

Patented July 20, 1920.

3 SHEETS—SHEET 1.

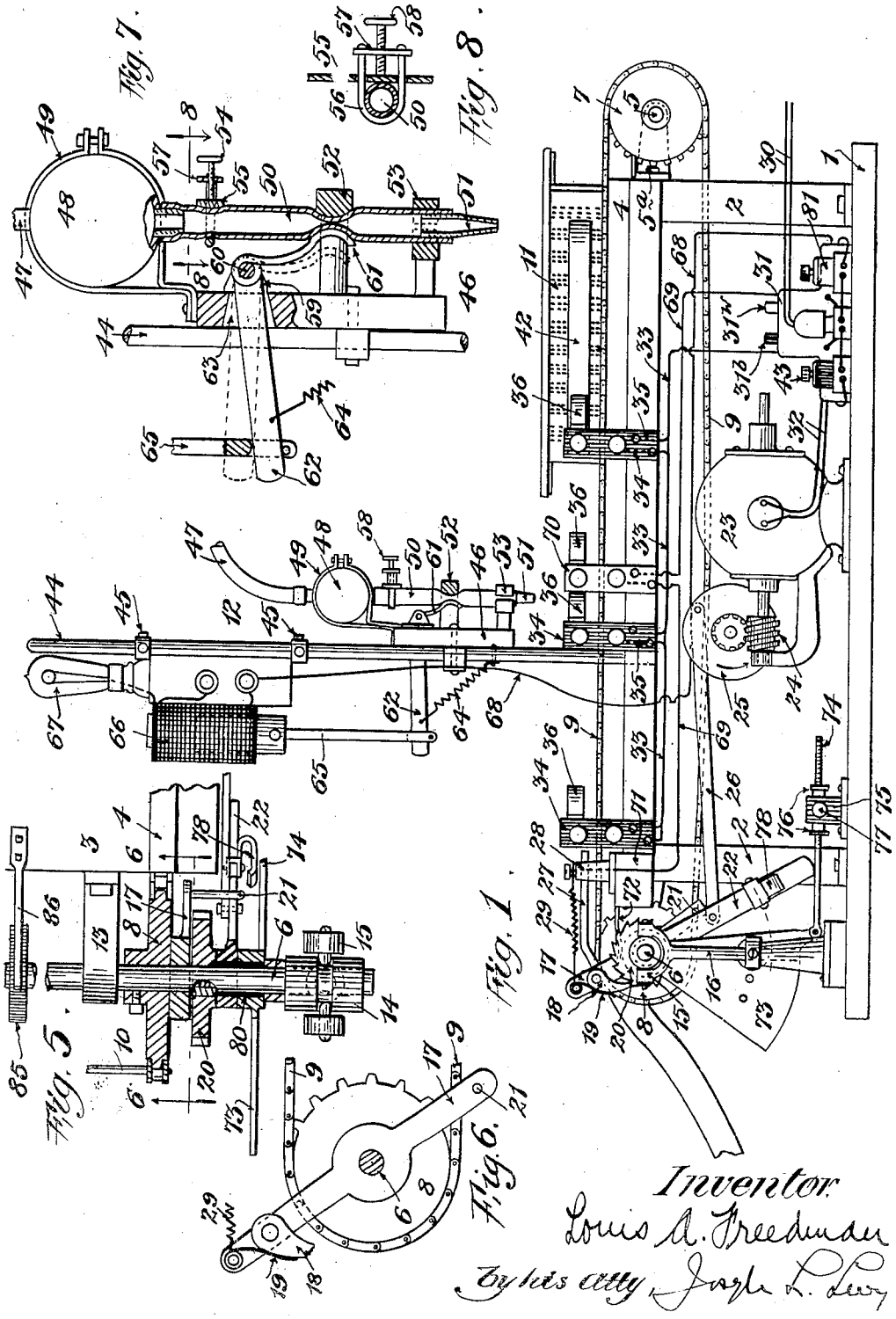


Fig. 1.

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

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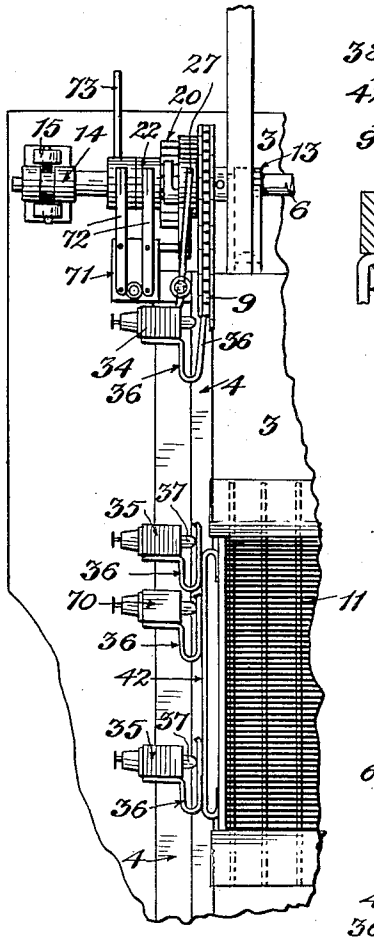


Fig. 3.

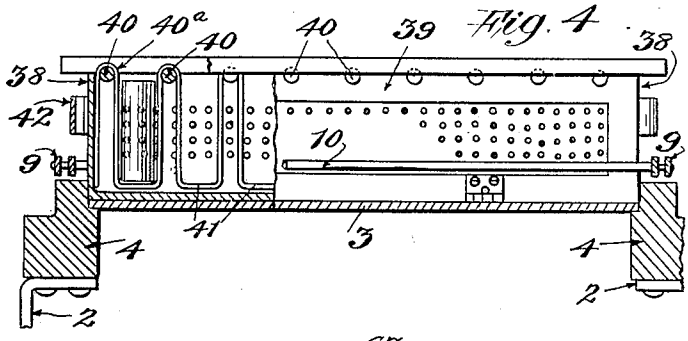


Fig. 4.

Fig. 2.

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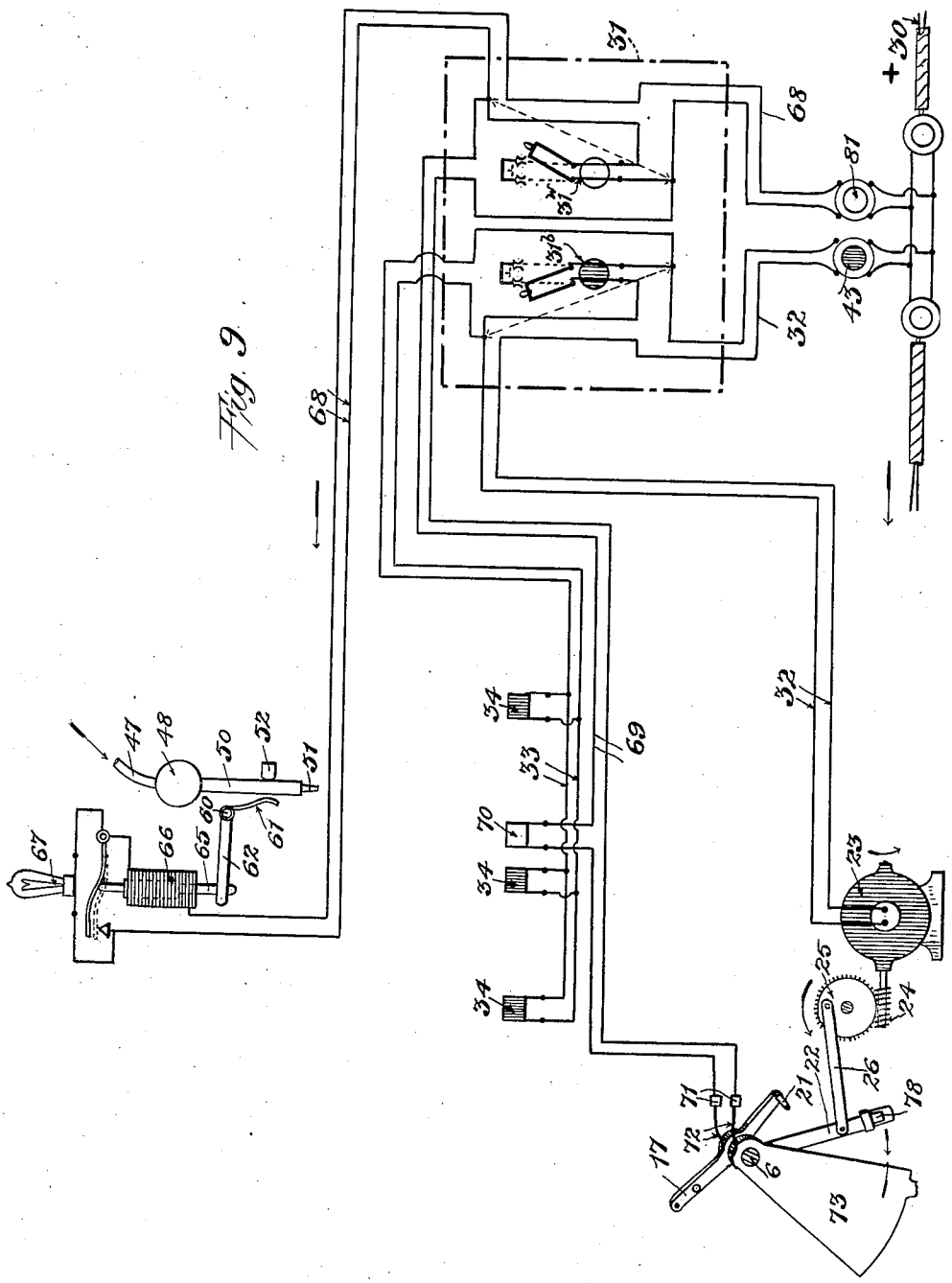
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3 SHEETS—SHEET 3.

Fig. 9.



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UNITED STATES PATENT OFFICE.

LOUIS A. FREEDMAN, OF NEW YORK, N. Y.

BATTERY-FILLING MACHINE.

1,346,948. Specification of Letters Patent. Patented July 20, 1920.

Application filed June 19, 1917. Serial No. 175,666.

To all whom it may concern:

Be it known that I, LOUIS A. FREEDMAN, a citizen of the United States, and a resident of the city, county, and State of New York, have invented a certain new and useful Improvement in Battery-Filling Machines, of which the following is a specification.

This invention relates to machines for automatically filling dry batteries with the liquid solution used in devices of that character and the object of this invention is to provide a machine which will positively, quickly and economically fill the batteries as above set forth.

This and other objects are readily accomplished by my invention, one embodiment of which is hereinafter set forth.

For a more particular description of my invention reference is to be had to the accompanying drawings, forming part hereof, in which:

Figure 1 is a side elevation of my improved machine;

Fig. 2 is an end elevation of the same;

Fig. 3 is a plan view of a portion of the machine;

Fig. 4 is a vertical sectional view of the table and battery carriage, the battery shell receptacle being shown partly in section;

Fig. 5 is a horizontal sectional view of the mechanism at one end of the machine for causing an intermittent motion of the carriage; and electrical commutating switch device;

Fig. 6 is a sectional view on the line 6—6 of Fig. 5, looking in the direction of the arrows;

Fig. 7 is a side elevation, partly in section, of the filling nozzles and valve; and

Fig. 8 is a sectional view on the line 8—8 of Fig. 7, looking in the direction of the arrows.

Fig. 9 is a diagrammatic view showing the wiring system for actuating the motor and filling mechanism.

Throughout the various views of the drawings, similar reference characters designate similar parts.

In the preferred embodiment of my invention, as illustrated in the accompanying drawing, 1 indicates the base of the machine, to which are secured the upwardly extending posts 2, upon which is secured the table 3 which is provided at its sides with the longitudinally extending guide rails 4.

Mounted at each end of the table, which may be as long as required, in suitable brackets, the brackets at one end being 5^a and at the other end 13, are transversely extending rotatable shafts 5 and 6 upon which are secured the sprockets 7 and 8 and these sprockets are connected by a pair of parallel chains 9. These chains 9 are connected by transverse rods 10, which rods are spaced at predetermined distances apart, whereby the battery shell holding receptacle 11 may be placed between them and they will move said receptacle forward, in the direction of the movement of the chains, which form the carriage of the machine. These chains are given an intermittent movement, by mechanism now to be described, whereby the battery receptacles are caused to pass beneath the filling apparatus, generally indicated at 12, in a series of pauses or dwells so that each row of battery shells in the receptacle or container 11 held between the chains is given an opportunity to be filled before the container 11 is moved forward so that the following row of shells in the container 11 comes directly beneath the nozzles of the filling apparatus.

The mechanism for causing intermittent movement of the carriage will now be described. The shaft 6 is mounted in the brackets 13 secured to the table 3, and this shaft has a projecting end which is supported in a bearing 14 mounted in a yoke 15 formed on the upper end of an upright 16 secured to the base 1 of the frame. A lever 17, is pivoted between its ends, on the shaft 6. This lever is not secured to said shaft 6 but is loosely mounted thereon so that the rotation of said shaft 6 does not in any manner effect the lever 17. Pivoted on this lever 17, adjacent the upper end, is a pawl 18, which is spring pressed at 19, and said pawl engages the teeth on a ratchet wheel 20 which is secured on the shaft 6. A laterally extending pin 21 projects from the lever 17, adjacent its lower end, which pin is engaged in a manner to be described whereby an oscillating movement is given to the lever 17 to rotate the ratchet 20.

An arm 22 is loosely mounted on the shaft 6 and this arm is caused to oscillate or swing with a pendulum like movement on the shaft 6. The arm 22 is oscillated by a motor 23 which has, mounted on its shaft, a worm gear 24. It will, therefore, be noted

that as the arm 22 swings toward the motor and reaches the position shown in Fig. 1, it will contact with the pin 21 on the lever 17 and will cause said lever to pivot on its axis whereby the pawl 18 will rotate the ratchet 20 a predetermined distance, thereby causing the shaft 6, to which the ratchet is secured, to rotate so that the chains are accordingly shifted through the medium of the sprockets 7 and 8. The amount of rotation of the ratchet 20 is regulatable by a stop 27 adjustably secured in a bracket 28 mounted at one end of the machine. The lever 17, near its upper end, abuts against this stop 27 and when this stop is adjusted at a desired distance away from the lever 17, the upper end of this lever is drawn toward said stop by the spring 29 which causes the lower end of the lever 17 to move forward whereby the oscillating arm 22 engages the pin 21 sooner as the arm 22 swings rearwardly, or toward the motor and thereby causes the ratchet to rotate a larger distance. To cause the ratchet to rotate a smaller distance the procedure is just the reverse of that heretofore set forth.

Fixed on the shaft 6 is a ratchet wheel 85 which has finely cut teeth on its periphery and secured to the frame or table 3 of the machine is a spring pawl 86 having its end engaging the teeth on the ratchet wheel 85. It will be noted that the teeth on the ratchet wheel 20, heretofore referred to are large and the shaft 6 tends to have a slight backward movement which is prevented by the use of the pawl 86 and ratchet wheel 85 as above set forth.

At 30 are the wires which extend from the source of power. These wires extend through the switch box 31 where they divide to furnish power for the motor and also for the filling apparatus. A pair of wires 32 extend from the switch box to the motor and a further pair of wires 33 extends to a plurality of press button switches 34 secured to one of the side rails 4 of the machine. These switches 34 are connected in multiple so that a pressure on any one of them causes the motor to be put into action. These switches are secured to one of the side rails 4 at suitable distances apart so that while a battery shell receptacle is on the carriage and moving toward or away from the filling apparatus, one of the shell receptacle's side rails hereinafter described will always be in contact with at least one of these switches 34 in multiple connection so that the motor will always be in operation while a battery shell receptacle is on the machine. All of these switches 34 consist of an insulated block 35 secured to the side rail 4 and having a spring tongue 36 secured to its side and curved around to the inner side of the block. The push button 37 on each switch is placed so that a pressure on the spring tongue 36 will force the button inwardly to close the contact and, place the motor in action.

The battery shell receptacle 11 has sides 38, and removable ends 39 through which the shells are passed. A plurality of rods 40 extend from end to end in the receptacle and over these rods 40 is secured a sheet metal plate 40ª having depressions 41 into which the rows of battery shells fit.

The perforations formed in the walls of the receptacle are for use in "cooking" or heating the batteries so that upon using the battery shell receptacle 11 as a basket it permits the water to circulate in between the cells, but which has no bearing upon my invention herein disclosed. Secured to the sides 38 of the receptacle are rails 42. It is but necessary to provide one side of the receptacle with one of these rails 42 but in order that care need not be exercised in placing the receptacle in the carrier, I provide both sides with a rail so that one of these rails will always be at the side of the machine upon which the switches 34 are situated. As the battery shell receptacle 11 is moved along in the carrier or conveyer this rail 42 bears against the spring tongues 36 on the electric switches 35 so that the buttons 37 are pressed inwardly by the spring tongues 36 as heretofore described so that the electric motor is continuously in operation while a receptacle is on the carrier. A snap switch 43 is provided so that the motor can be placed out of action when desired.

The filling apparatus 12 is situated at a position wherever desired on the machine and consists of a pair of uprights 44, connected by cross bars 45 and by the plate 46. The solution supply pipe 47 extends from the source of supply to a manifold 48 supported by the clamps 49 extending from the plate 46. Depending downwardly from the manifold 48 are the filling tubes 50 of rubber or any other like flexible substance and they have at their lower ends the nozzles 51. The lower ends of the tubes and nozzles are held in the bracket 53. Secured to the plate 46 and extending in front of the tubes 50 is a bar 52 which coöperate with the automatic valve to be hereinafter described.

Each of the tubes 50 is provided with a manually operated valve 54, which consists of a continuous plate 55, through which extend a plurality of U bolts 56, each of said U bolts embracing a tube 50. The ends of each U bolt are connected by a plate 57, through which is threaded a set screw 58 having its end bearing against the plate 55. It will thus be noted that when the set screw 58 is threaded inwardly it presses the plate 55 against the tube whereby the sides of said tube are caused to come together cutting off the supply of liquid from the manifold.

Situated below the manually operated valves is an automatically operated valve. Mounted on the plate 46, adjacent its ends is a pair of brackets 59 connected by a shaft 60 and fixed on this shaft in line with each of the tubes 50 are a plurality of valves 61. The shaft 60 is oscillated by means of a lever 62 secured on the same and projecting through a slot 63 in the plate 46. The rod 62 is engaged by a spring 64 extending from one of the uprights 44, and this spring tends to keep the valve normally closed, or in other words, in the position shown in Fig. 7 with the valves 61 pressing the tubes against the cross bar 52 so that the liquid supply from the manifold 48 to the nozzles 51 is cut off.

The arm 62 extends into a slot in the lower end of a plunger 65 actuated by a solenoid 66 situated above it so that when said solenoid is energized in a manner hereafter described the plunger 65 is moved upwardly, whereby the valves are caused to open as indicated in dotted lines in Fig. 7 so that the liquid can pass through the tubes 50 and nozzles 51 to the battery shells carried by the receptacle 11, which is at that moment situated beneath the filling apparatus. A lamp 67 is inserted in the solenoid circuit and is used as an automatic resistance for minimizing the current required to keep the solenoid plunger 65 up into the magnetic field of the solenoid coil.

A pair of wires 68 extend from the switch box 31 to the solenoid 66 to energize the same and connects with a pair of wires 69 forming a series circuit to a sliding shoe spring tongue press button switch 70 secured on the side rail 4. This switch 70 is secured on the same side rail 4, that the switches 34 are placed and is identical in construction with the switches 34, inasmuch as it has a like tongue 36 and press button 37 and is adapted to be actuated by the side rail 42 of the battery shell receptacle 11.

The pair of wires 69 extend through the switch 70 pass therethrough in series connection and extend to a commutator brush block switch 71 placed adjacent the end of the machine where the mechanism for causing the intermittent movement of the carriage is situated.

The commutator brush block switch 71 is provided with a pair of brushes 72, one of which rests on the upper end of the segmental plate 73. The segmental plate 73 and the pendulum arm 22 have their ends or hubs loosely mounted on the shaft 6 and are bushed with insulating material 80 so that said shaft 6 can rotate without regard for the segmental plate and pendulum arm 22, and both are electrically insulated from same. The segmental plate 73 is adjustable to or from the motor 23 by means of a threaded rod 74 secured to it, which threaded rod passes through a bracket 75 where it can be locked in any desired position and is held there in a stationary position during the operation of the machine by means of the lock-nuts 76 and set screw 77.

A tongue 78 is secured to the outer side of the pendulum-arm 22 and this tongue forms a contact with the segmental plate 73 as it swings by and wipes the plate.

As heretofore explained the wire 69 constitutes a series circuit and is normally open at the switch 70 regardless of whether a contact is formed by the pendulum contact point 78 and the segmental plate 73. To form a complete circuit to cause the solenoid to be energized so that it will actuate the valves whereby the solution can flow through the nozzles to the battery shells, it is necessary that a contact be formed between the pendulum arm 22 and the segmental plate 73 and also that the switch 70 be closed by the rail 42 on the side of the battery shell receptacle 11. The switch 70 is so positioned with reference to the filling nozzles so that the shells to be filled in battery shell receptacle will be in proper position beneath the nozzles 51 before the switch 70 is closed by the rail 42. Likewise, if there are no shells to be filled beneath the nozzles 51 this switch 70 cannot be closed to complete the solenoid circuit. A snap switch 81 is provided for this purpose so that the power for actuating the solution filling mechanism may be manually placed out of action.

Located on top of the switch box 31 and forming a cover therefor is a two-button momentary contact switch. This has buttons 31^b and 31^w. The button 31^b is utilized to control the power supplied to the motor 23 and the button 31^w controls the current supplied to the solenoid 66 for actuating the filling valves as heretofore mentioned.

The button 31^b has suitable wires connected in multiple with the wires 33 so that when the button 31^b is pressed it closes this auxiliary circuit through 31^b in parallel with the connections to the switches 34, thereby completing the power circuit 32 with the motor 23 causing the motor to be placed into action to move the carriage without the necessity for a battery shell receptacle being on said carriage.

In like manner the button 31^w operates an auxiliary circuit connected in multiple with the power circuit 68 of the solenoid 66 so that when the button 31^w is pressed, it closes this circuit 68 and energizes the solenoid 66 whereby the valves are opened to allow the flow of solution absolutely without regard for the position of a receptacle on the carrier or whether or not there is a battery shell receptacle on the carrier.

From the foregoing it will be seen that

the buttons 31^b and 31^w form means for manually controlling the carriage and the filling apparatus when desired.

In Fig. 9 I have shown a wiring diagram illustrating the manner in which the circuits are arranged. It will be noted that the wires 30, which extend from the source of power, pass through the snap switch 81, extend to the switch 31^w, which is normally open and from there extend to the solenoid 66 and pass therethrough. They connect with the wires 69 which extend to the switch 70 and to the commutator switch formed by the members 73 and 78 in the manner readily discernible from Fig. 9. The motor circuit can also be readily followed by reference to Fig. 9. The wires 30 pass through the snap switch 43 to the switch 31^b, the wires 33 extending to the switches 34 which are connected thereto in multiple.

From the foregoing, the operation of my improved machine will be readily understood. The battery shell receptacle 11 is filled with shells in transversely extending rows. In the drawings I have shown ten nozzles to accommodate ten shells in a transverse row, although it is obvious that this amount can be increased or decreased as desired. The filled battery shell receptacle 11 is then placed on the carriage or conveyer between the transverse rods 10 and it is moved along thereby until it reaches a certain point beneath the filling apparatus 12. As it is being moved along on the table 3, it is obvious that the rail 42 on the side of the battery shell receptacle is constantly bearing against one or the other of the switches 34 in the manner heretofore set forth, so that the motor is continuously in operation. The battery shell receptacle 11 progresses forward until it reaches a point with its front row of battery shells directly beneath the nozzles 51 at which time the rail 42 begins and continues to bear against the switch 70 thereby closing the electrical circuit in the same and at the same time the pendulum arm 22 has swung in a direction away from the motor and its contact point 78 has contacted with the segmental plate 73 closing the electric circuit of the wires 68 and 69 so that the solenoid becomes energized electrically operating to open the filling valves and the solution pours through the nozzles into the first row of battery shells in the receptacle 11. It will be noted that this filling of the battery shells occurs only when the pendulum arm 22 has swung forward or away from the motor to contact with the segmental plate 73. This occurs only during the intermittent dwell or pause in the movement of the carrier, as the pendulum arm 22 only contacts with the pin 21 to oscillate the shaft 6 on its return movement toward the motor and after the contacts between the point 78 and the plate 73 have been broken. When this return movement of the pendulum arm 22 occurs the battery shell receptacle 11 will then be shifted so that the next row of battery shells is situated in registration with the line of nozzles 51.

It will be seen that the duration of the flow of solution through the nozzles is regulated by the length of time that the pendulum swinging contact point 78 contacts with the stationary segmental plate 73, and as hereinbefore set forth the segmental plate is regulatable to and from the pendulum arm 22 so that this controls electrically the length of time for the flow of solution which may be increased or decreased as desired or required by the size of the batteries to be filled.

Having described one embodiment of my invention, it is obvious that the same is not to be restricted thereto but is broad enough to cover all structures coming within the scope of the annexed claims.

What I claim is:

1. In a machine of the class described, a battery shell holding receptacle, a pair of shafts, a pair of endless chains connecting said shafts to form a carrier for the battery shell receptacle between them, mechanism for intermittently rotating one of said shafts and means for driving said shaft rotating mechanism, means on the battery shell receptacle and means on the shaft driving mechanism for coincidently completing an electrical circuit to cause the filling mechanism to discharge solution into the battery shells.

2. In a machine of the class described, a battery shell receptacle, a carriage for moving the same and mechanism for moving said carriage, a motor for driving the carriage moving mechanism, a plurality of switches on the machine, said switches being in multiple electrical connection with the motor, filling mechanism and mechanism for actuating the same, a filler actuating switch on the machine, an electric circuit connecting said switch, the filler actuating mechanism and the carriage moving mechanism, a switch on the carriage moving mechanism, means on the battery shell receptacle for closing the various frame switches as it moves past them, the filler actuating switch being closed by the receptacle coincidently with the closing of the switch on the carriage moving mechanism.

3. In a machine of the class described, a pair of shafts, sprockets on said shafts and chains connecting said sprockets to form a carriage, a shell receptacle on said carriage, a ratchet wheel on one of said shafts, an arm movably mounted on said shaft, a pawl on said arm to rotate the ratchet, means for

swinging said arm to cause the pawl to rotate the ratchet, an electrical contact point on said arm, a stationary contact point on said shaft, commutating connection between the arm and the stationary contact, an electrical series circuit extending from said commutator to filling mechanism to actuate the same, said circuit also extending to a press button switch, means for closing said press button switch when the shell receptacle is in position to be filled and means for causing an intermittent contact between the stationary contact point and the contact point on the swinging arm whereby the series circuit is intermittently closed and the filling mechanism intermittently operated thereby.

4. In a machine of the class described, a battery shell receptacle, a carriage for moving the same, a shaft for moving said carriage, mechanism for intermittently rotating said shaft, a switch on said shaft having a fixed member and a movable member, a battery shell filling apparatus and mechanism for actuating the same, a press button switch adjacent said filling mechanism and electrical series circuit connecting the mechanism for actuating the filling apparatus and the two switches, means for closing said press button switch when the shells in the battery shell receptacle are in a position to be filled and means for intermittently causing a contact between the fixed and movable members on the shaft.

5. In a machine of the class described, a battery shell receptacle, a carriage for moving the same, a rotatable shaft for moving said carriage, mechanism for intermittently rotating said shaft, a commutator switch on said shaft comprising a fixed member and a movable member, a battery shell filling apparatus and mechanism for actuating the same, a press button switch adjacent said filling mechanism adapted to be closed by the battery shell receptacle on its movement to the filling mechanism, an electrical series circuit connecting the mechanism for actuating the filling apparatus and the both switches and means for intermittently causing a contact between the fixed and movable members of the commutator switch.

6. In a machine of the class described, a battery shell receptacle, an intermittently movable carriage for moving said receptacle, a rotatable shaft for moving said carriage and mechanism for intermittently rotating said shaft, a motor for driving said shaft rotating mechanism, a plurality of switches on the machine in multiple circuit connected with the motor and adapted to be closed by the receptacle as it moves on its carriage, a commutator switch on said shaft comprising a fixed member and a movable member, a battery shell filling apparatus and mechanism for actuating the same, a press button switch adapted to be closed by the battery shell receptacle on its movement to the filling mechanism, an electrical series circuit connecting the mechanism for actuating the filling apparatus and the press button and commutator switches and means for intermittently causing a contact between the fixed and movable members of the commutator switch.

7. In a machine of the class described, a battery shell receptacle for holding rows of battery shells, an intermittently movable carriage for moving said receptacle, a rotatable shaft adjacent one end of the machine for moving said carriage, mechanism on said shaft for intermittently rotating said shaft, a motor for driving said shaft rotating mechanism, a plurality of switches on the machine, said switches being connected in multiple circuit with the motor and adapted to be closed by the receptacle as it moves through the machine, a commutator switch on said shaft comprising a fixed member and a swinging member, a battery shell filling apparatus and mechanism for actuating said filling mechanism, a press button switch adapted to be closed by the battery shell receptacle when it reaches a position with the rows of battery shells in position to receive the discharge of the filling apparatus, and adapted to be kept closed until the last row of shells in the receptacle has passed the filling apparatus, an electrical series circuit connecting the mechanism for actuating the filling apparatus and the press button and commutator switches and means for intermittently causing a contact between the fixed and swinging members of the commutator switch.

8. In a machine of the class described, a battery shell receptacle, filling mechanism, a carriage for moving said receptacle to and from the filling mechanism, a shaft for moving the carriage, a ratchet wheel secured on said shaft, a lever loosely mounted on said shaft and having a pawl on one of its ends for engaging said ratchet, a pin on the opposite end of said lever, a swinging arm loosely mounted on the shaft for engaging the pin on the lever, a contact point on the swinging arm to engage an adjustable member on the shaft to establish an electrical connection and a switch adapted to be engaged by the receptacle to close an electric circuit for actuating the filling mechanism.

9. In a machine of the class described, a battery shell receptacle, mechanism for moving said receptacle, a filling mechanism which said receptacle is adapted to pass, an electric circuit for actuating said filling mechanism, a switch having a fixed member and a movable member, means for actuating said movable member to cause it to periodically contact with the fixed member to intermittently close the electric circuit and a switch adapted to be actuated by the re-

ceptacle as said receptacle is in position to receive filling material in its shells.

10. In a machine of the class described, a battery shell receptacle, mechanism for moving said receptacle, a filling mechanism under which said receptacle is adapted to pass, an electric circuit for actuating said filling mechanism, a switch for said electric circuit adapted to be closed by the battery shell receptacle when said receptacle is in position to receive filling material in its shells, and a periodically acting switch adapted to close said circuit and cause an intermittent discharge of the filling material by said filling mechanism.

11. In a machine of the class described, a battery shell receptacle, a carriage for moving the same, and mechanism for moving said carriage, a motor for driving the carriage moving mechanism, a plurality of switches on the machine, said switches being in multiple electrical connection with the motor, means on said receptacle for contacting with and holding each of said switches in closed position while it passes the same, filling mechanism, means for operating the same, an electric circuit for actuating said filling mechanism operating means, and a switch on the machine for closing said circuit, said switch being adapted to be closed by the receptacle as it passes the same.

12. In a machine of the class described, a battery shell receptacle, a carriage for moving the same, mechanism for moving said carriage, a commutator switch comprising a fixed member and a movable member, filling mechanism and means for actuating the same, a switch adapted to be closed by the battery shell receptacle and held in such position until the receptacle passes the same, an electrical series circuit connecting the mechanism for actuating the filling apparatus and both switches and means for intermittently closing the commutator switch.

13. In a machine of the class described, a receptacle for holding a plurality of containers to be filled, a carriage for moving said receptacle, mechanism for moving said carriage, a commutator switch, a filling apparatus and mechanism for actuating the same, a switch adjacent said filling mechanism adapted to be closed by the receptacle as it is moved in position to have the containers filled, an electrical series circuit connecting the mechanism for actuating the filling apparatus and both switches and means for intermittently closing the commutator switch.

14. In a machine of the class described, a battery shell receptacle, means for moving the same, an electric circuit for actuating said receptacle-moving means, switches for closing said circuit being adapted to be closed by the battery shell receptacle as said receptacle is moved, filling mechanism, an electric circuit for actuating the same, a commutator switch and a press button switch for closing said circuit, said press button switch being adapted to be closed by the receptacle and means for intermittently closing the commutator switch.

15. In a machine of the class described, a battery shell receptacle, means for moving the same, an electric circuit for actuating said receptacle-moving means switches for closing said circuit, said switches being adapted to be closed by the battery shell receptacle as said receptacle is moved, filling mechanism, an electric circuit for actuating the same, a commutator switch and a press button switch for closing said circuit, said press button switch being adapted to be closed by the receptacle when it is in position to receive filling material in its shells, means for intermittently closing the commutator switch and means for adjustably regulating the periods that said commutator switch is held in closed position.

16. In a machine of the class described, a filling mechanism comprising a reservoir, a plurality of tubes leading therefrom, valves for acting on said tubes to prevent passage therethrough of a filling substance, electrical means for operating said valves, a series circuit for actuating said valve operating means, a commutator switch and a press button switch for closing said circuit, means for intermittently closing the commutator switch and means for closing the press button switch when containers are in position to be filled.

17. In a machine of the class described, a battery shell receptacle, filling mechanism, means for moving said receptacle to said filling mechanism, a plurality of flexible tubes forming part of said filling mechanism, valves adapted to act on said tubes to prevent passage therethrough of a filling substance, a solenoid for actuating said valves, an electric circuit for operating said solenoid, a press button switch and a commutator switch for closing said circuit, said press button switch being adapted to be closed by the receptacle and means for intermittently closing the commutator switch.

Signed at the city, county and State of New York, this 13th day of June, 1917.

LOUIS A. FREEDMAN.