

No. 705,289.

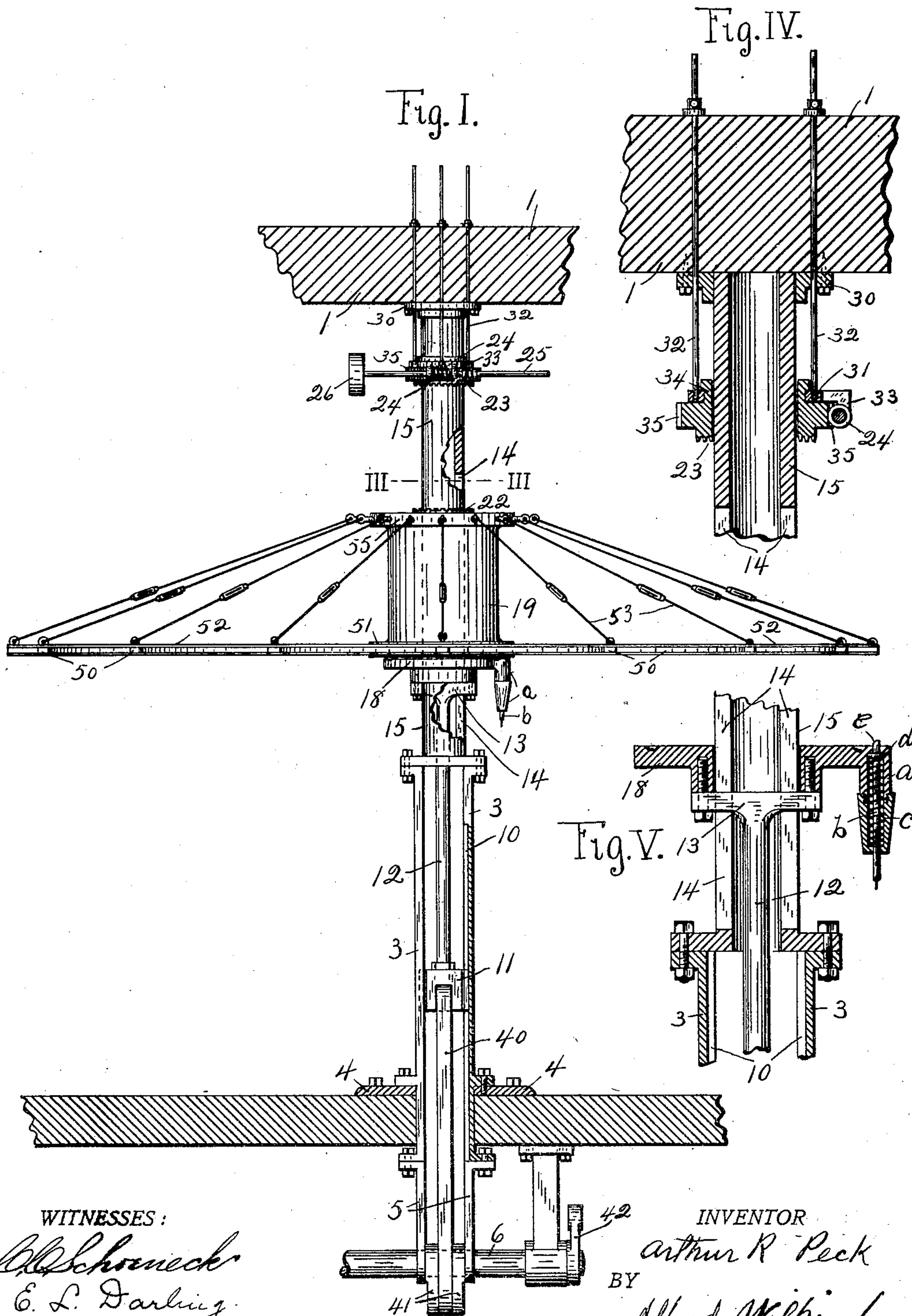
Patented July 22, 1902.

A. R. PECK.  
CANDLE MAKING MACHINE.

(Application filed Nov. 17, 1900.)

(No Model.)

3 Sheets—Sheet I.



WITNESSES:

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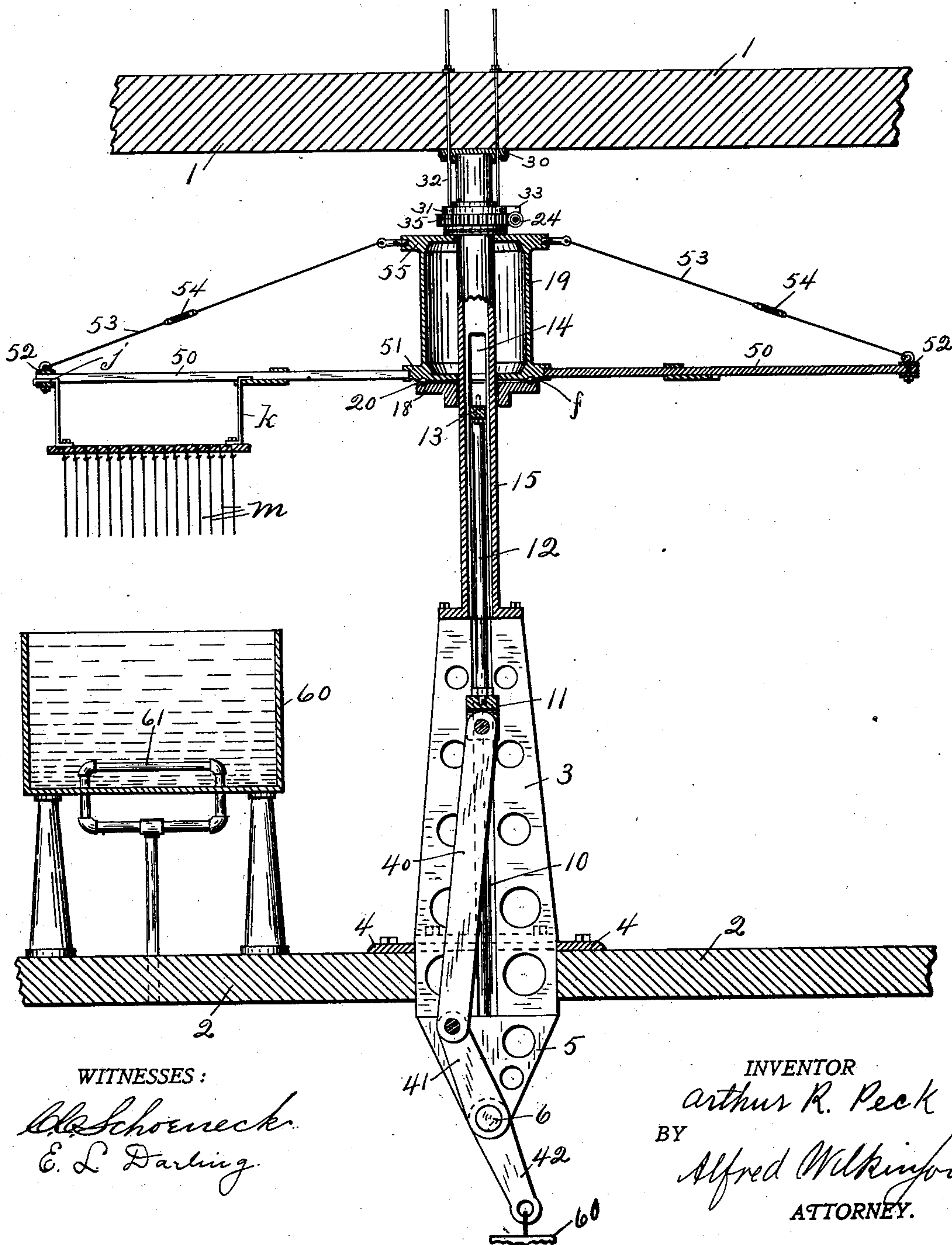
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Fig. II.



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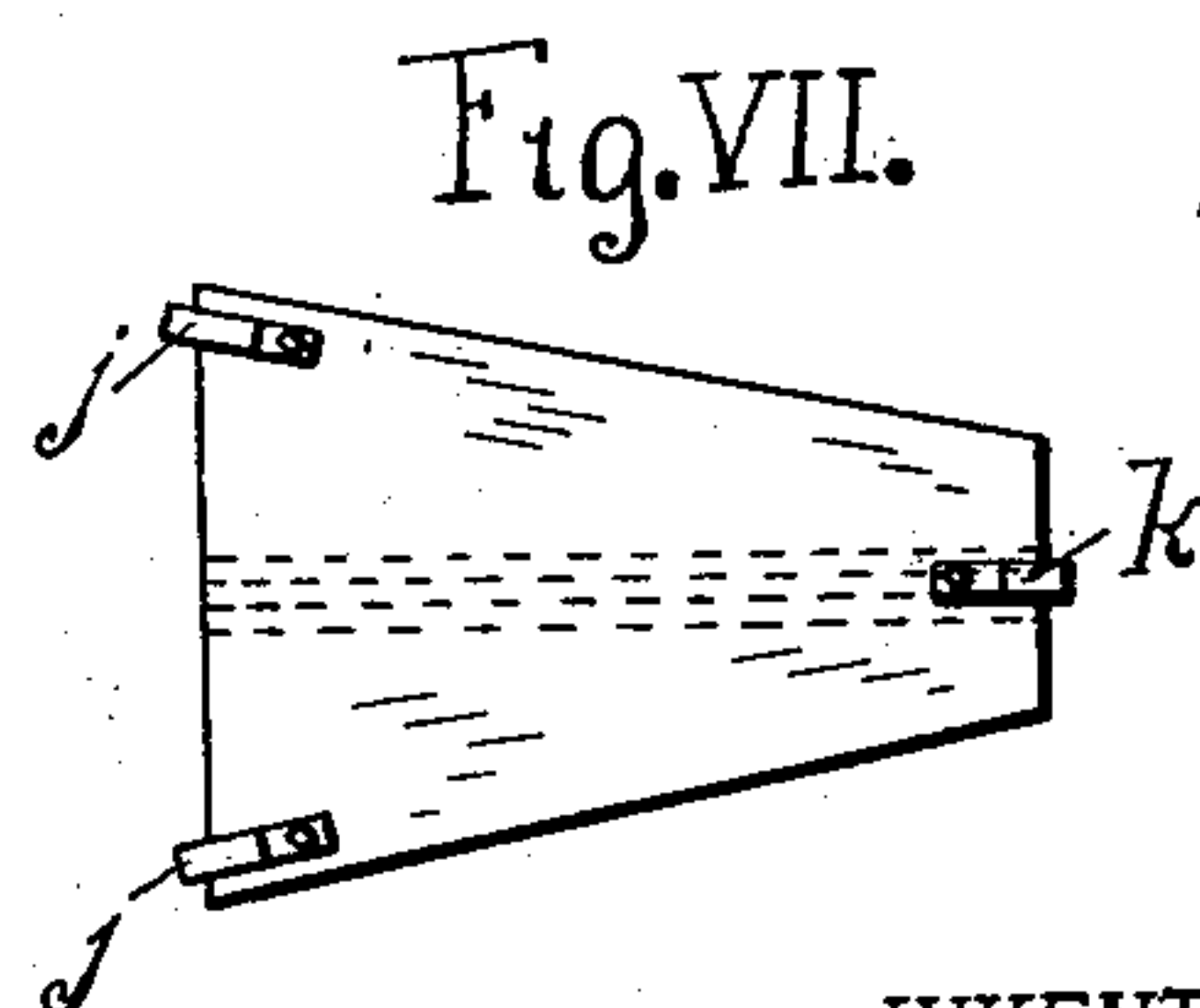
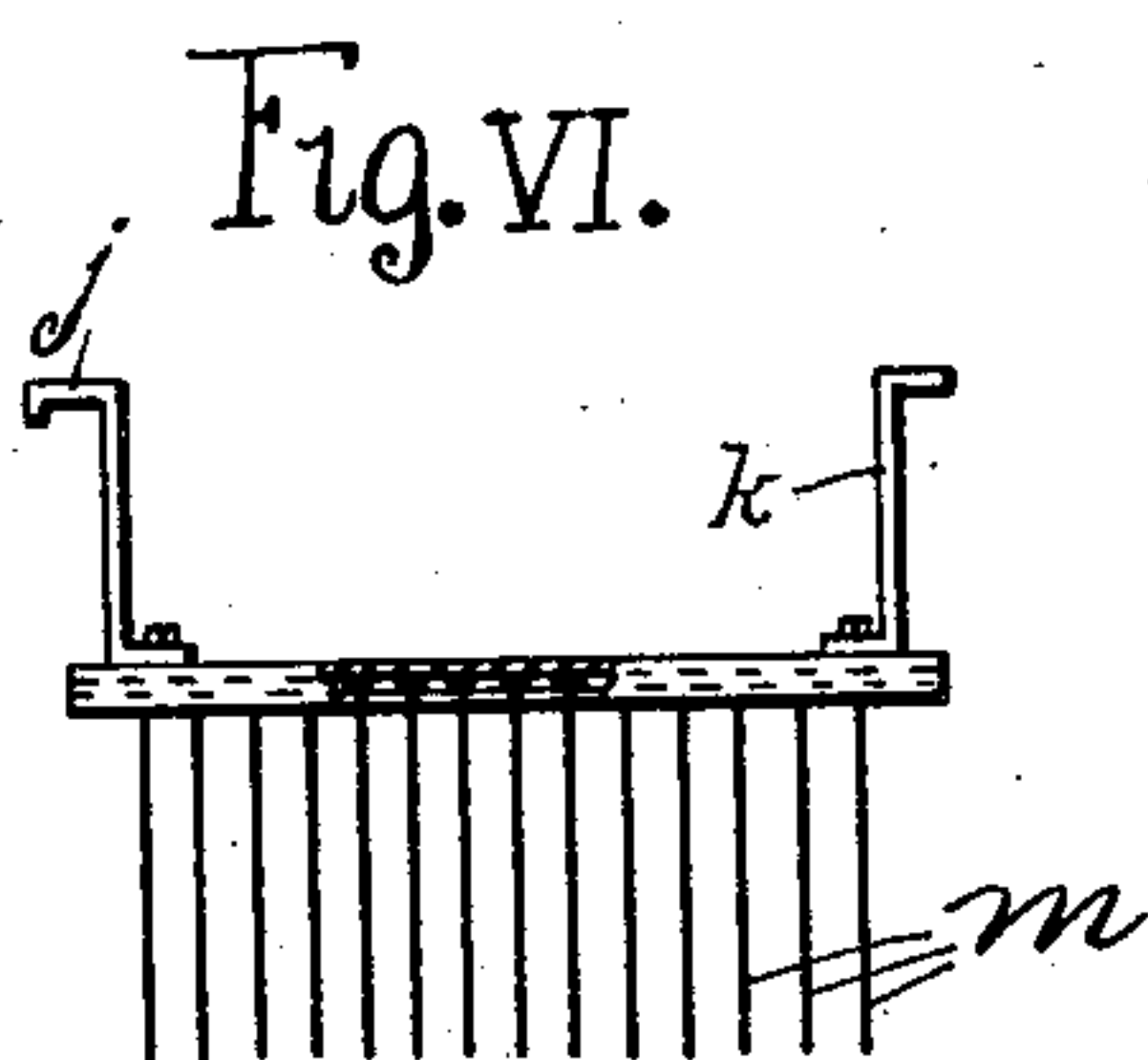
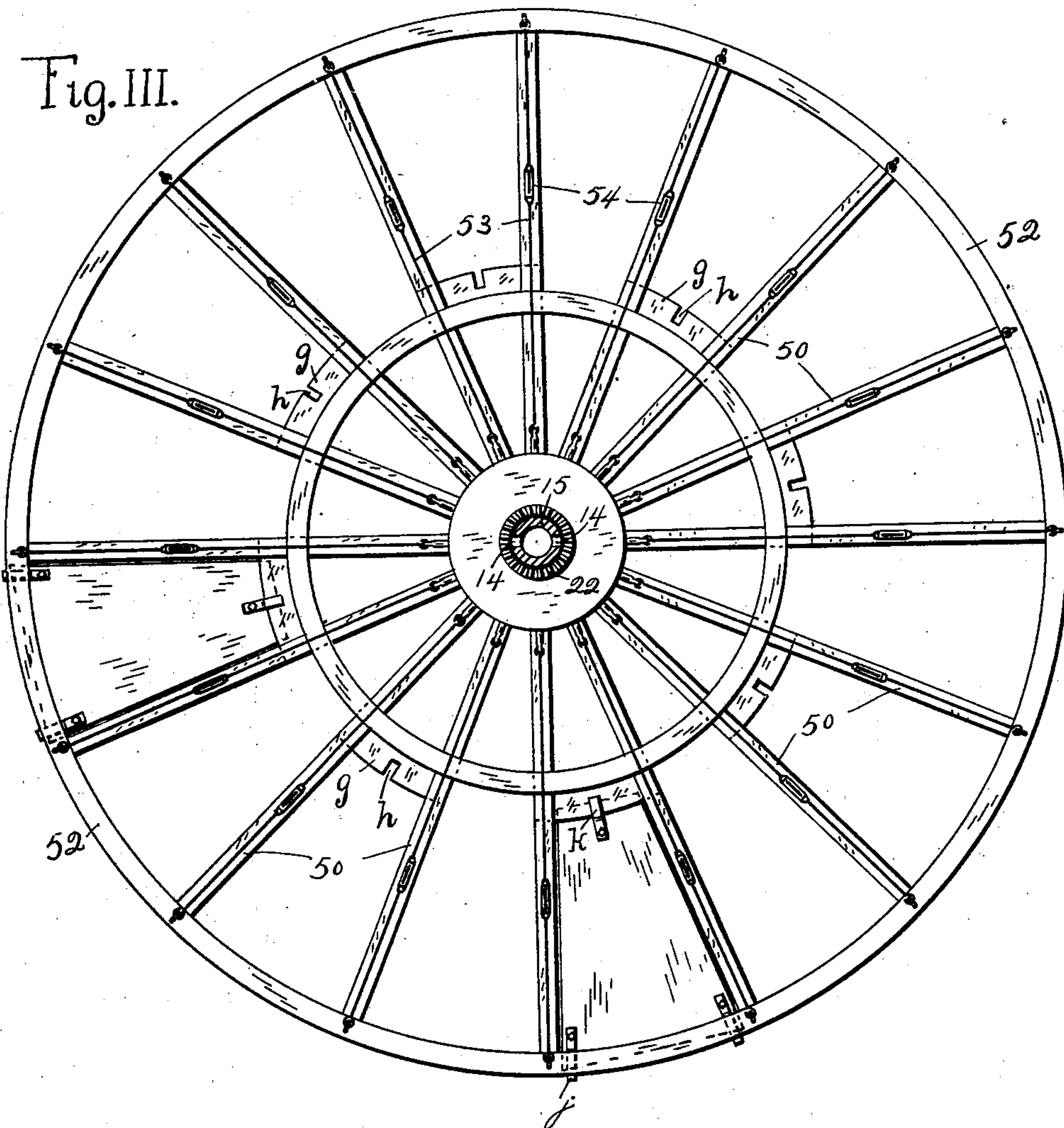
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# UNITED STATES PATENT OFFICE.

ARTHUR R. PECK, OF SYRACUSE, NEW YORK.

## CANDLE-MAKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 705,289, dated July 22, 1902.

Application filed November 17, 1900. Serial No. 36,798. (No model.)

*To all whom it may concern:*

Be it known that I, ARTHUR R. PECK, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and  
5 useful Improvements in Candle-Making Machines, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention consists in a candle-making  
10 or candle-dipping machine of simple, strong, and durable construction by which a large number of wicks may be continuously, quickly and economically dipped, easily set in place on the rotating support, and easily  
15 removable therefrom; this machine consists essentially of a rotating support or wheel, means for supporting a series of wicks detachably thereon, means for rotating the frame intermittently at a suitable rate of  
20 speed and periodically disconnecting the support from the rotating mechanism to dip the wicks in the wax or other composition, in a molten state contained in suitable vessels, also in the details of construction and ar-  
25 rangement of the various parts.

My invention is clearly shown in the drawings herewith, in which and in the specification the same reference characters indicate the same parts in all of the figures.

30 Figure I is a vertical elevation of my invention, portions being broken away and portions shown in sections. Fig. II is a vertical section at right angles to Fig. I. Fig. III is a section on line III III of Fig. I. Figs. IV  
35 and V are enlarged details in vertical section. Figs. VI and VII are respectively side elevation and top plan of a wick-rack detached.

In the figures, 1 and 2 indicate, respectively, the upper and lower supports (as the  
40 floor and ceiling of a room) between which the mechanism is supported. 3 represents upright parallel plates forming a standard or pedestal bolted to lower support 2 by flanges 4 and having lower arms 5, in which is jour-  
45 naled shaft 6, by which the wheel is periodically elevated, as hereinafter described.

On the inner surface of plates 3 are the guideways 10, to which is fitted the block 11, carrying the piston 12, having on its upper  
50 end supporting-arm 13, fitting guide-slots 14 in guide-tube 15, secured on the upper end of the pedestal 3.

On the outwardly-extending ends of arm 13 is secured the annular base-plate 18, on which is carried the hub or drum 19 of the wheel 55 by means of balls 20 to afford an antifriction, bearing, so that the wheel will turn freely when rotated by the following mechanism: The hub, preferably hollow and fitted to tube 15, is provided with a ratchet 22 on its upper 60 face, which on elevation of the piston and wheel engages with the upper ratchet 23, rotating, by screw 24, shaft 25 and pulley 26, whereby the lower ratchet 22 and the wheel carrying the wicks are turned during such 65 engagement over a greater or less arc to turn the wicks after they have been elevated from one dip to give them time to harden before another dip.

In Fig. IV is shown the upper end of the 70 slotted guide-tube 15, bolted by a flanged collar 30 to ceiling 1, and the bearing-ring 31 vertically adjustable by hangers 32 and nuts having the integral bearings 33 for shaft 25 and screw 24. On this bearing-ring is ro- 75 tated the gear-collar 34, substantially fitting the tube, by teeth 35 engaging with screw 24 and carrying the upper ratchet 23.

To elevate the wheel after the dip, so as to bring the ratchets into engagement and effect 80 rotation, the arm 40 is journaled in block 11 and pivotally connected to lever (or wheel) 41, keyed to shaft 6, which is rotated by crank 42 or by other suitable means whereby the block, piston, and wheel are reciprocated 85 up and down. Crank 42 may have weight 60.

The wheel is composed of spokes 50, se- 90 cured to lower hub-flange 51, carrying parallel annular plates 52 52 on their outer ends, whose weight is also supported by wires 53, provided with turnbuckles 54 and attached to the upper drum-flange 55.

As shown in Figs. I and V, to base-plate 18 is secured a socket *a*, in which is arranged a latch *b*, forced upwardly by spring *c*, bearing 95 against collar *d* on the latch, so that its upper beveled end *e* will engage with notches *f*, correspondingly arranged in the lower surface of the hub, and prevent rotation of the wheel when the ratchets are not in engage- 100 ment. When, however, they are engaged, the wheel, turning from right to left, slides over the beveled tip *e* and unlocks itself.

Concentrically and at a suitable distance



within the rim is secured to the spokes an annular plate or an annular series of supporting-pieces *g*, formed with notches *h*. The wick-carrying racks are plates of wood or  
 5 other suitable material, as shown in Figs. III, VI, and VII, provided with suitable hooked clamps *j* to fit between the plates 52 52 of the wheel-rim and engage therewith and a clamp  
 10 *k*, fitting the notches *h*. The form and function of these clamps are best shown in Figs. II and VI. On the lower face of the rack are secured the wicks *m* on hooks or inserted in a groove or by other suitable means. In Fig.  
 15 II, 60 indicates the vat or vessel containing the wax, kept in a melted condition by a steam-pipe 61 or other suitable means, of which vessels there may be as many as desirable.

From this description the operation of my  
 20 mechanism will be clear. The speed of rotation of pulley 26 and shaft 6 may be so proportioned to each other, that they may operate continuously to rotate and depress the wheel, so as to dip the wicks as rapidly as  
 25 possible and yet give them between the dips sufficient time to harden, or the rotation of shaft 6 to depress and elevate the wheel may be effected as desired by throwing on and off a belt.

30 This machine is simple, effective, rapid as is possible to permit the successive coats on each wick to harden, and very steady—necessary not to set the wicks swinging.

Having thus described my invention, what  
 35 I claim, and desire to protect by Letters Patent, is—

1. In a candle-dipping machine, the combination with a suitable standard, of a wheel fitted thereto and rotating thereon to carry  
 40 the wicks, means to secure the wicks on the wheel, rotating mechanism on the standard continuously rotated by power, connections between the wheel and the rotating mechanism, arms fitted to the standard to support  
 45 the wheel in engagement with the rotating mechanism, and a hand-operated lever connected to said arms to elevate the wheel into engaging position, and to depress it periodically into dipping position.

50 2. In a candle-dipping machine, the combination with a hollow standard, of a rotating wheel fitted thereto, jointed connections fitted to the standard and connected to the wheel, rotating mechanism operated by power, teeth  
 55 on the main wheel to engage with said rotating mechanism when the wheel is in elevated position, and a hand-operated lever connected to the jointed connections periodically to depress and elevate the wheel, substantially  
 60 as described and shown.

3. In combination in a candle-dipping machine, upper and lower supports, a pedestal secured to the lower support, a piston fitting the pedestal and vertically reciprocating therein, a wheel carried on the piston, a  
 65 ratchet on the wheel, a ratchet on the upper support, means for rotating the upper ratchet,

and means for elevating the piston and wheel to bring the ratchets into engagement intermittingly. 70

4. In combination in a candle-dipping machine, upper and lower supports, a pedestal secured to the lower support, a piston fitting the pedestal and vertically reciprocating therein, a wheel carried on the piston, a  
 75 ratchet on the wheel, a ratchet on the upper support, means for rotating the upper ratchet, means for elevating the piston and wheel to bring the ratchets into engagement intermittingly, and frames provided with means for  
 80 the attachment of the wicks and with hooks for securing the respective frames on the wheel.

5. In combination in a candle-dipping machine, upper and lower supports, a pedestal  
 85 secured on the lower support having depending arms, a piston fitted to the pedestal and vertically reciprocating therein, a shaft journaled in the lower arms, a compound lever connecting the shaft to the pedestal, a base-  
 90 plate supported on the piston, an enlarged hub and wheel supported on the plate, anti-friction-balls arranged between the hub and plate, a ratchet on the wheel-hub, an upper ratchet on the upper support, means for ro-  
 95 tating the upper ratchet, and means for rotating the lower shaft periodically to elevate the piston and wheel to bring the two ratchets into engagement.

6. In combination in a candle-dipping machine, suitable upper and lower supports, a  
 100 hollow pedestal on the lower support, lower arms depending from the pedestal, a shaft journaled in said arms, a block and piston fitted to the pedestal and reciprocating there-  
 105 in, a compound lever connecting the shaft to the block, a guide-tube supported on the pedestal formed with opposite guide-slots, a cross-arm on the upper end of the piston outwardly extending through the slots, a wheel base-  
 110 plate supported on the cross-arm, an enlarged hub and wheel supported on said base-plate, anti-friction-balls arranged between the wheel and the base-plate, a ratchet on the upper end of the hub, an upper ratchet supported  
 115 by hangers below the upper support, a worm and gear, and means for rotating the worm to rotate the upper ratchet, means for rotating the shaft periodically to elevate the wheel, and detachable frames provided with means  
 120 for attachment of the wicks, and with hooks for securing the frames to the wheel.

7. In combination in a candle-dipping machine, suitable upper and lower supports, a  
 125 hollow pedestal on the lower support, lower arms depending from the pedestal, a shaft journaled in said arms, a block and piston fitted to the pedestal and reciprocating therein, a compound lever connecting the shaft to the block, a guide-tube supported on the ped-  
 130 estal formed with opposite guide-slots, a cross-arm on the upper end of the piston outwardly extending through the slots, a wheel base-plate supported on the cross-arm, an enlarged



hub and wheel supported on said base-plate, antifriction-balls arranged between the wheel and the base-plate, a ratchet on the upper end of the hub, an upper ratchet supported  
5 by hangers below the upper support, a worm and gear, and means for rotating the worm to rotate the upper ratchet, means for rotating the shaft periodically to elevate the wheel-ratchet into engagement with the up-  
10 per ratchet and turn the wheel, detachable frames provided with means for the attach-

ment of the wicks and with hooks for securing the frames to the wheel, a latch on the base-plate having a beveled tip, and a spring for forcing it up into engagement with the 15 hub.

In testimony whereof I have hereunto signed my name.

ARTHUR R. PECK. [L. S.]

Witnesses:

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E. L. DARLING.