

July 15, 1952

C. GADD-CLAXTON

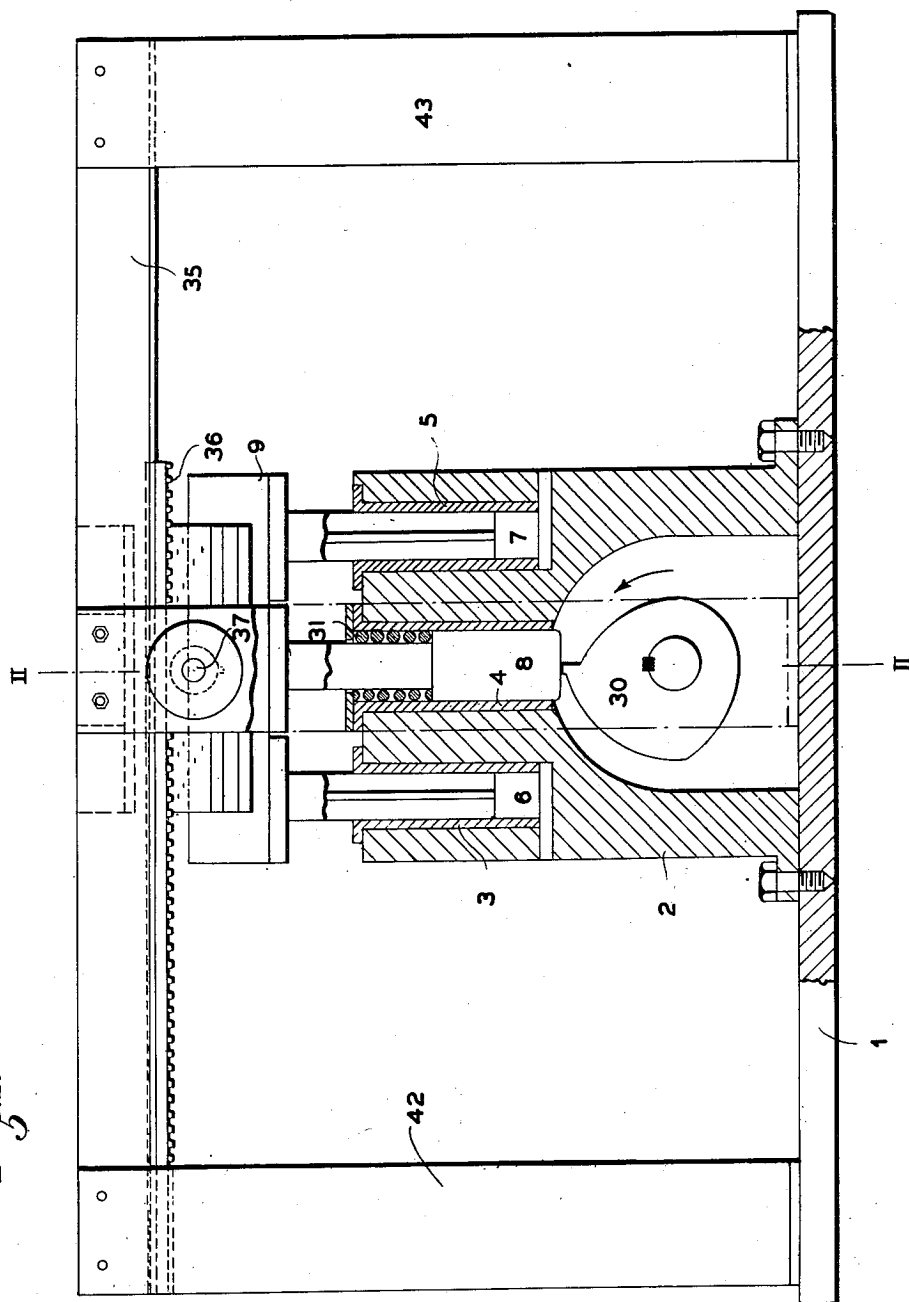
2,602,941

DEVICE FOR THE MANUFACTURE OF HONEYCOMBS

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2 SHEETS—SHEET 1

Fig. 1



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2 SHEETS—SHEET 2

Fig. 2.

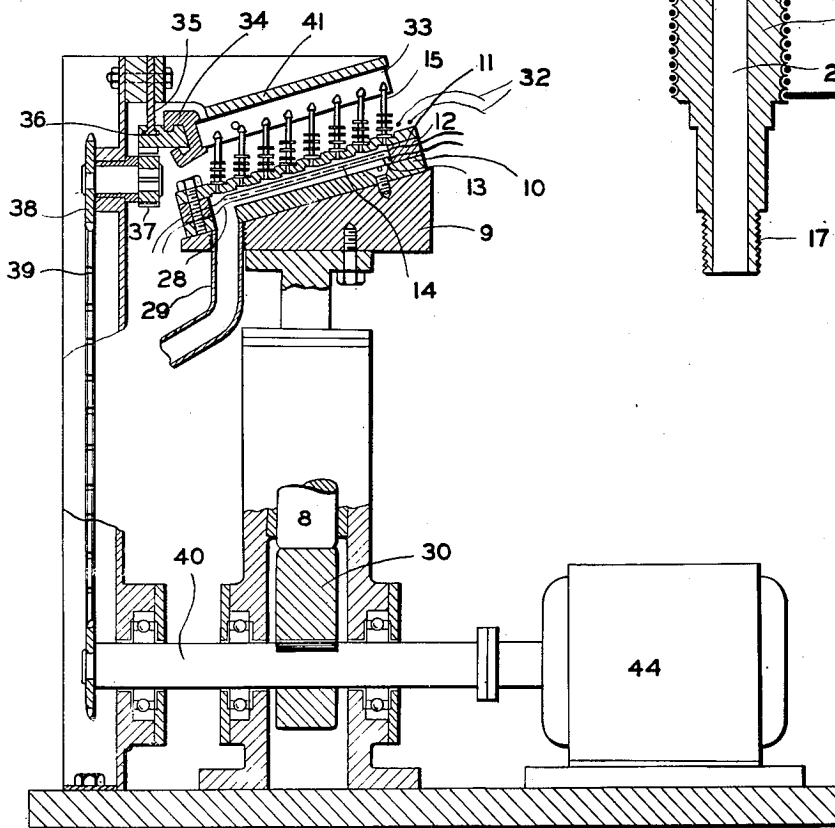
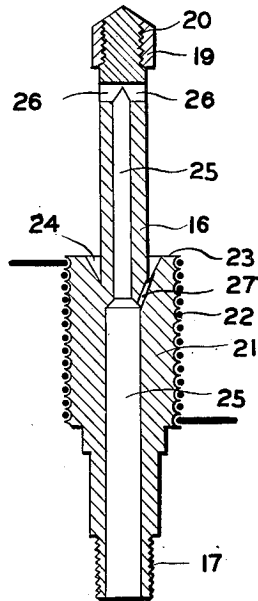


Fig. 3.



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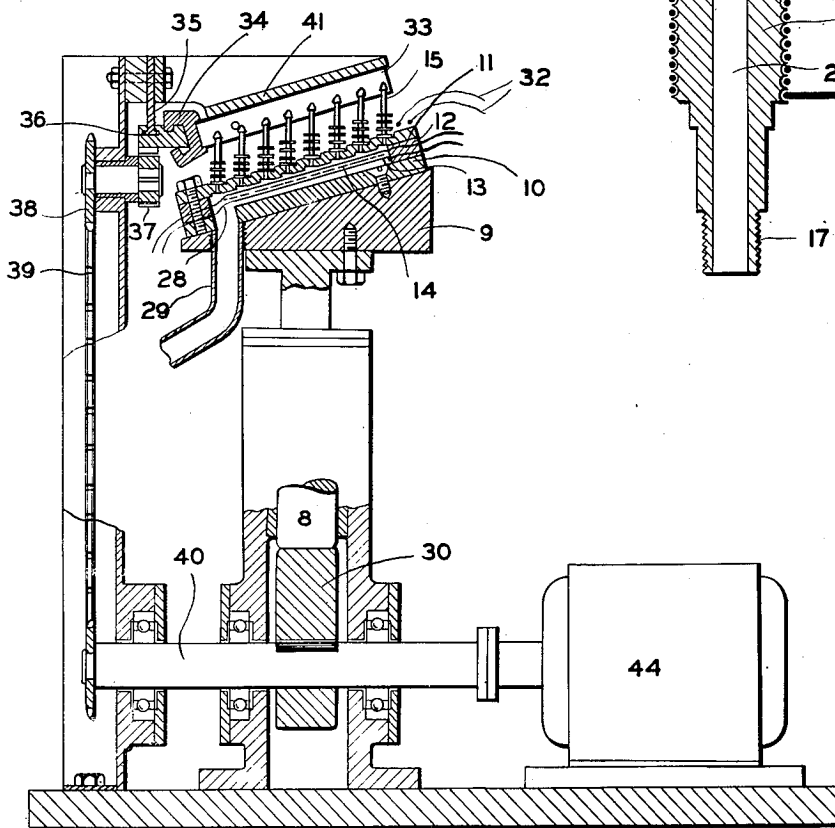
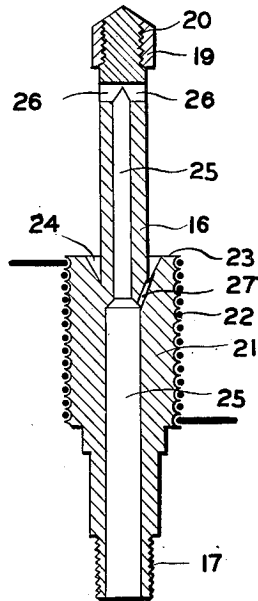


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respectively, a longitudinal bore extending centrally thereof to adjacent the upper end of the former, a bore extending transversely of the upper end of said longitudinal bore, a channel defined around the lower end of said upper portion by said central portion and a bore extending from said channel to said central bore.

4. Apparatus for the manufacture of honey combs from wax slabs, comprising, in combination, at least one series of upwardly extending formers arranged in a row upon a movable support in parallel axial alignment, movable gripping means extending transversely of and adjacent to one end of said row of formers adapted to support a wax slab above said formers and including a rack, conveyor means including a one-tooth pinion having engagement with said rack and adapted to move said gripping means with said wax slab transversely of said row of formers, reciprocating means carrying said movable support and said formers and including a plunger and a cam adapted to impart reciprocating motion to said formers substantially at right angles to the movement of said gripping means, and a prime mover including a shaft operatively connected to said pinion and said cam adapted to rotate said pinion and said cam to alternately move said gripping means for advancing said wax slab in steps and to reciprocate said plunger for impressing said formers into and withdrawing them from said wax slab, said formers being supported by a former plate disposed intermediate said formers and said plunger for reciprocating movement therewith, each of said formers having an upper portion and an adjacent central portion of smaller and larger diameter, respectively, a longitudinal bore extending centrally thereof to adjacent the upper end of the former, a bore extending transversely of the upper end of said longitudinal bore, a channel defined around the lower end of said upper portion by said central portion and a bore extending from said channel to said central bore, said combination including also a wax collecting space extending below said former plate and defined by said former plate, a mounting plate and a rim section disposed therebetween, for collecting molten wax removed from the cell spaces produced by said formers.

5. Apparatus for the manufacture of honey combs from wax slabs, comprising, in combination, at least one series of upwardly extending formers arranged in a row upon a movable support in parallel axial alignment, movable gripping means extending transversely of and adjacent to one end of said row of formers adapted to support a wax slab above said formers and including a rack, conveyor means including a one-tooth pinion having engagement with said rack and adapted to move said gripping means with said wax slab transversely of said row of formers, reciprocating means carrying said movable support and said formers and including a plunger and a cam adapted to impart reciprocating motion to said formers substantially at right angles to the movement of said gripping means, and a prime mover including a shaft operatively connected to said pinion and said cam adapted to rotate said pinion and said cam to alternately move said gripping means for advancing said wax slab in steps and to reciprocate said plunger for impressing said formers into and withdrawing them from said wax slab, each of said formers having an upper portion and an adjacent central por-

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tion of smaller and larger diameter, respectively, a longitudinal bore extending centrally thereof to adjacent the upper end of the former, a bore extending transversely of the upper end of said longitudinal bore, a channel defined around the lower end of said upper portion by said central portion and a bore extending from said channel to said central bore, and an electric heating element disposed circumferentially of the central portion thereof.

6. Apparatus for the manufacture of honey combs from wax slabs, comprising, in combination, at least one series of upwardly extending formers arranged in a row upon a movable support in parallel axial alignment, movable gripping means extending transversely of and adjacent to one end of said row of formers adapted to support a wax slab above said formers and including a rack, conveyor means including a one-tooth pinion having engagement with said rack and adapted to move said gripping means with said wax slab transversely of said row of formers, reciprocating means carrying said movable support and said formers and including a plunger and a cam adapted to impart reciprocating motion to said formers substantially at right angles to the movement of said gripping means, and a prime mover including a shaft operatively connected to said pinion and said cam adapted to rotate said pinion and said cam to alternately move said gripping means for advancing said wax slab in steps and to reciprocate said plunger for impressing said formers into and withdrawing them from said wax slab, said gripping means being adapted to support said wax slab at an upwardly extending angle in a manner to permit said formers to enter said slab at an angle of substantially 15° from the perpendicular with respect to the wax surface.

7. Apparatus for the manufacture of honey combs from wax slabs, comprising, in combination a plurality of series of formers arranged in rows upon a movable support with their axes in parallel alignment, movable gripping means extending transversely of and adjacent to one end of said row of formers adapted to support a wax slab above said formers and including a rack, conveyor means including a one-tooth pinion having engagement with said rack and adapted to move said gripping means with said wax slab transversely of said row of formers, reciprocating means carrying said movable support and said formers and including a plunger and a cam adapted to impart reciprocating motion to said formers substantially at right angles to the movement of said gripping means, and a prime mover including a shaft operatively connected to said pinion and said cam adapted to rotate said pinion and said cam to alternately move said gripping means for advancing said wax slab in steps and to reciprocate said plunger for impressing said formers into and withdrawing them from said wax slab.

8. Apparatus for the manufacture of honey combs from wax slabs, comprising, in combination, at least one series of upwardly extending formers arranged in a row upon a movable support in parallel axial alignment, movable gripping means extending transversely of and adjacent to one end of said row of formers adapted to support a wax slab above said formers and including a rack, conveyor means including a one-tooth pinion having engagement with said rack and adapted to move said gripping means

with said wax slab transversely of said row of formers, reciprocating means carrying said movable support and said formers and including a plunger and a cam adapted to impart reciprocating motion to said formers substantially at right angles to the movement of said gripping means, and a prime mover including a shaft operatively connected to said pinion and said cam adapted to rotate said pinion and said cam to alternately move said gripping means for advancing said wax slab in steps and to reciprocate said plunger for impressing said formers into and withdrawing them from said wax slab, said formers being supported by a former plate disposed intermediate said formers and said plunger for reciprocating movement therewith, and a mounting plate disposed below said former plate, and guide members extending downwardly from said mounting plate parallel to said plunger.

9. Apparatus for the manufacture of honey combs from wax slabs, comprising, in combination, at least one series of upwardly extending formers arranged in a row upon a movable support in parallel axial alignment, movable gripping means extending transversely of and adjacent to one end of said row of formers adapted to support a wax slab above said formers and including a rack, conveyor means including a one-tooth pinion having engagement with said rack and adapted to move said gripping means with said wax slab transversely of said row of formers, reciprocating means carrying said movable support and said formers and including a plunger and a cam adapted to impart reciprocating motion to said formers substantially at right angles to the movement of said gripping means, and a prime mover including a shaft operatively connected to said pinion and said cam to alternately move said gripping means for advancing said wax slab in steps and to reciprocate said plunger for impressing said formers into and withdrawing them from said wax slab, said formers being supported by a former plate disposed intermediate said formers and said plunger for reciprocating movement therewith, each of said formers having an upper portion and an adjacent central portion of smaller and larger diameter, respectively, a longitudinal bore extending centrally thereof to adjacent the upper end of the former, a bore extending transversely of the upper end of said longitudinal bore, a channel defined around the lower end of said upper portion by said central portion and a bore

extending from said channel to said central bore, said combination including also a wax collecting space extending below said former plate and defined by said former plate, a mounting plate and a rim section disposed therebetween, for collecting molten wax removed from the cell spaces produced by said formers, said mounting plate being disposed in an inclined position and having a discharge aperture adjacent the lower side thereof.

10. Apparatus for the manufacture of honey combs comprising, in combination, a plurality of formers rigidly supported by a former plate and extending therefrom in a row in parallel axial alignment; each of said formers having a central bore and bores extending from the outer surface of the former to said central bore and a circumferential heating element; a mounting plate disposed in inclined position adapted to support said former plate and defining a wax collecting chamber with said former plate; gripping means including a rack extending transversely of and adjacent to one end of said row of formers adapted to support a wax slab above said formers; conveyor means in operative engagement with said rack adapted by means of a one-tooth pinion to move said gripping means and said wax slab in steps transversely of the ends of said formers; reciprocating means including a plunger supporting said mounting plate and said formers, and a cam in engagement with said plunger adapted to move said formers into and from said wax slab at right angles to the direction of movement of said conveyor means; a shaft supporting said cam and operatively connected with said conveyor; and a prime mover for said shaft.

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The following references are of record in the file of this patent:

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