N. HOLMAN.

FURNACE FOR COOKING AND MIXING CANDY.

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1,040,681. Patented Oct. 8, 1912.

Fig-1-

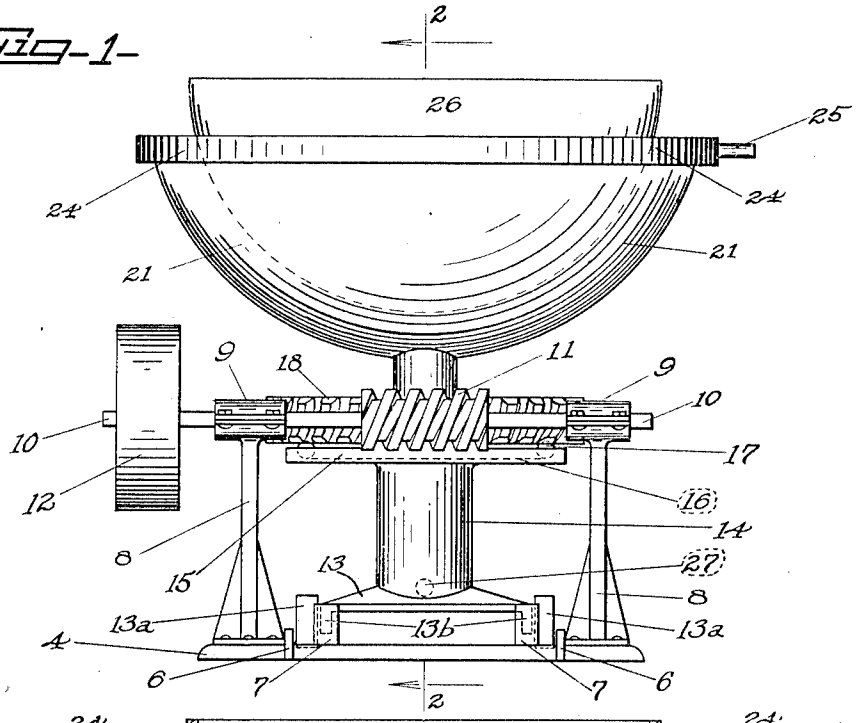

Fig-2-

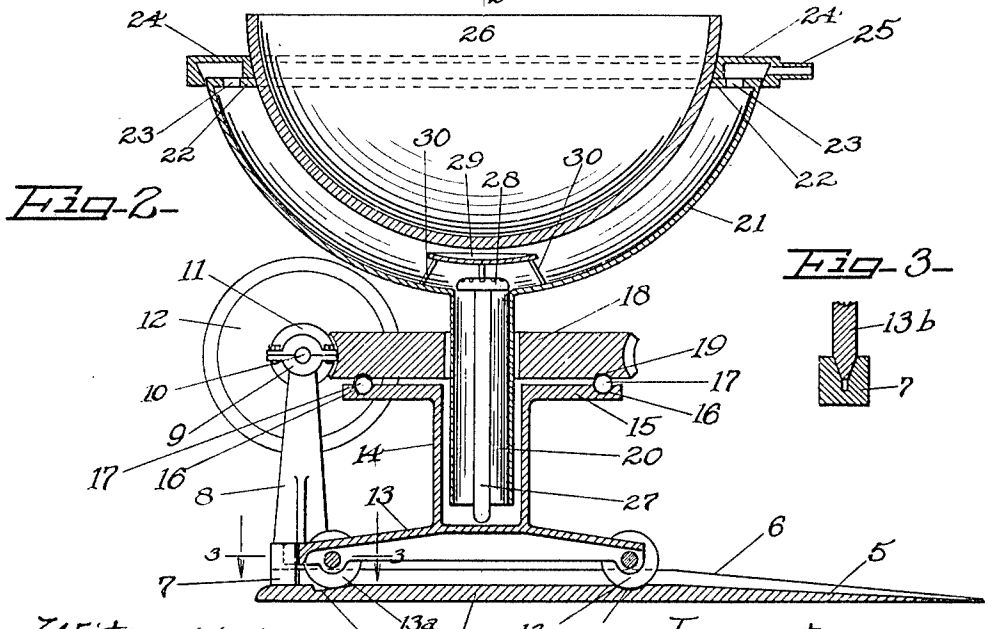

Fig-3-

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FURNACE FOR COOKING AND MIXING CANDY.

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To all whom it may concern.

Be it known that I, NICHOLAS HOLMAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Furnaces for Cooking and Mixing Candy, of which the following is a specification.

The object of my invention is to provide a portable revolving furnace by which all parts of the contents of the kettle placed therein can be brought under the direct observation and reach of the operator, the contents be equally heated, the wasted heat products be carried away, the furnace and kettle be revolved by manual or motor power, and the furnace and kettle be wheeled away at will from the stationary driving mechanism to the cooling tables or other place desired, and be wheeled back into connection with the driving mechanism as described in the following specification and drawing in which:—

Figure 1 is an end elevation of the stationary driving mechanism and vertical elevation of the furnace and kettle. Fig. 2 is a central vertical section on the line 2—2 Fig. 1. Fig. 3 is a detail of a stop adjustment by which the connection of the furnace and driving mechanism is made.

In the drawings 4 is a stationary platform, the end 5 of this base is beveled down to form an incline runway for the portable furnace. On each side of this platform is a vertical guide wall 6, shown in side elevation in Fig. 2 and in end elevation in Fig. 1. At the rear end of the platform Fig. 1 are two stop blocks 7 shown in section in Fig. 3. Outside the guides 6 on the platform are two standards 8, having bearing boxes 9. Rotatable in these boxes is a shaft 10 on which is a worm 11 and a pulley 12.

The parts so far described constitute the stationary and driving parts of my device.

The portable furnace consists of a stand, having a base 13 supported on the wheels 13^a a vertical cylinder 14 and a horizontal circular flange 15 having an annular groove 16. Supported in this groove are bearing balls 17. Supported on these balls is a grooved worm gear 18, in mesh with the worm 11, and the groove 19 corresponds with the groove 16 in the flange 15. Through the center of this gear and fixed therein is a vertical tube 20. The lower part of this tube extends down into the cylinder 14. Fixed on this tube above the gear is a kettle holder 21. The top of this holder is turned inward and forms a kettle supporting flange 22. In this flange is a number of apertures 23. Covering these apertures is a stationary hollow ring 24, having a nozzle 25 to which a fixed pipe or flexible tube can be attached. Supported in the holder 21 by the flange 22 is a kettle 26, spaced from contact with the interior of the holder 21. Extending through and up the center of the cylinder 14, is a supply pipe 27. On the end of this pipe and extending into the holder is a burner 28. Over this burner is a deflecting plate 29 supported by legs 30.

When my device is constructed as described, its operation is as follows:—The portable furnace can be wheeled up the incline 5 of the platform 4 between the side guide walls 6, up to the stops 7, in which position the worm 11 and gear 18 are in mesh, the wheels 13^a then rest in the depressions 4′ the incline of which causes the weight of the furnace, kettle and its contents to press the V shape ends 13^b of the base 13 into the V grooves in the stop blocks 7 and to thereby maintain the relative position of the worm and gear while in mesh. Fixed or flexible connections can then be made with the furnace pipe 27 and the heat supplied to the kettle from the burner 28, strikes the deflector 29 and is thereby prevented from overheating that part of the kettle directly above the burner, by this means an equable temperature fills the space between the furnace bowl and the kettle. Any suitable pipe connections can be made with the nozzle 25 of the ring 24 for the disposal of the waste gases. The power is then applied to the shaft and the furnace slowly revolved. When the cooking is complete the furnace can be drawn from the platform to the place desired for the disposal of the contents of the kettle, and the furnace moved back on the platform on which it is adjusted in position by the aid of the guide walls and stop blocks, gear and worm as described.

What I claim is:—

1. In a device of the kind described the combination with a stationary structure consisting of a platform having side guides and stop blocks, and a shaft having a worm and pulley, said shaft being supported on said platform; of a portable furnace having a wheel supported base adapted to be moved

on to said platform between said guide walls into contact with said stops; a flanged cylinder fixed on said base, bearing balls movable in an annular groove in said flange, a worm gear adapted to mesh with said worm, having an annular groove for said bearing balls, a central vertical tube fixed in said gear extending downward into said flanged cylinder, a kettle-holder fixed on said tube above said gear, said kettle holder being provided with an apertured flange, a burner supported in said kettle holder, a supply pipe extending from the outside through said cylinder, up said tube to said burner, a deflector over said burner in said kettle-holder and a hollow ring fixed on said flange of said kettle-holder, as described.

2. In a device of the kind described, the combination with a fixed platform, having guides and stops thereon and a worm shaft rotatably secured thereon; of a portable rotary furnace adapted to be moved on and off said platform and adjusted thereon by means of said guides and stops, a worm gear on said furnace adapted to be placed in mesh with said worm, by means of said platform, guides, and stops in position to be rotated, means for supporting a kettle in said furnace, means for supplying heat in said furnace, means for distributing the heat in said furnace to a kettle supported therein, and means for the disposal of waste products of heat from said furnace as described.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."