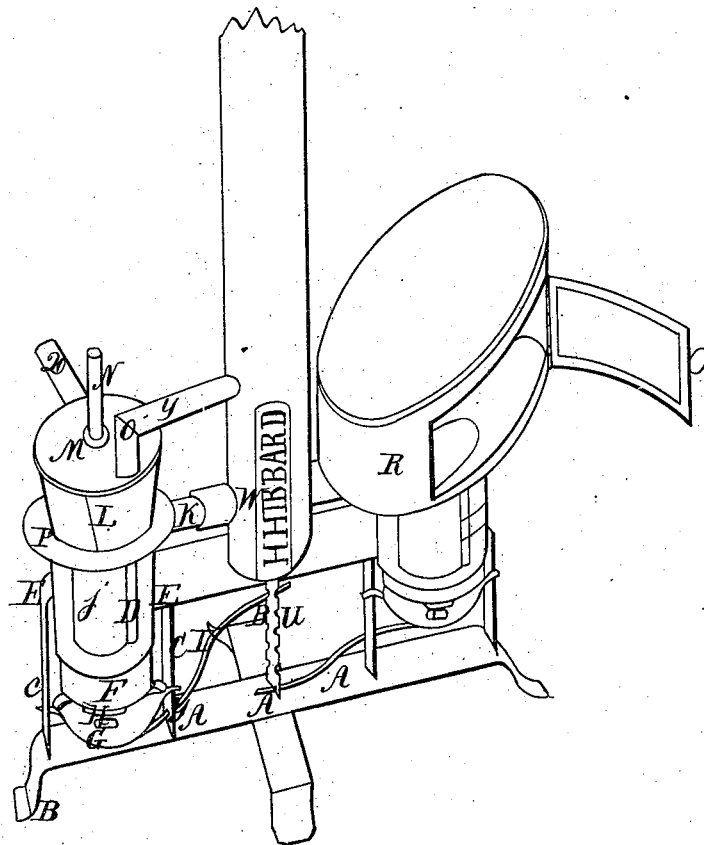


H. Hibbard,

Cook Stove.

No. 1637.

Patented June 17, 1840.



UNITED STATES PATENT OFFICE.

HARMON HIBBARD, OF ATTICA, NEW YORK.

CONSTRUCTION OF STOVES AND KETTLES FOR MAKING VARNISH, &c.

Specification of Letters Patent No. 1,637, dated June 17, 1840.

To all whom it may concern:

Be it known that I, HARMON HIBBARD, of the village of Attica, in the county of Genesee and State of New York, have invented a new and useful apparatus for producing, regulating, graduating, applying and final abduction of heat, also for making varnish, baking, and other culinary purposes, &c.; and I do hereby declare that the following is a full, exact, and clear description of the construction and operation of the same, reference being had to the annexed drawing, making a part of this specification.

The nature of my invention consists in constructing an apparatus, which I style "The economic stove" with appendages to perfect its utility. With this and the use of fuel I produce and regulate heat and apply the same to a variety of purposes. It is well adapted to culinary uses, varnish making, &c. Its internal capacity may be varied to the quality of fuel or heat required to suit circumstances or season.

My invention further consists in a varnish kettle. With this and the furnace, together with the lid and stirring tube, I contrive to obviate the danger of igniting or inhaling the fuliginous vapor emitted during a process of varnish making, by retaining or conducting it away at intervals, thus forming an important auxiliary to accelerate the process in a salutary manner, and also in the construction of an oven as a useful appendage to the stove, which imbibes heat through its bottom only and answers for baking, steaming, &c.

In the first place I construct a base as shown by the letters A, A, A, in the annexed drawing, resting upon legs as shown by the letters B, B, B, B. The base may be of the form represented in the drawing or in other approved form. To this base I attach two uprights as shown by the letters C. At the top or near the top of these uprights I attach the furnace case D, the points of attachment being shown by the letters E. The furnace case is to receive the furnace below and may be cylindrical, oval or of other form, the form of the furnace being made to correspond with it. The furnace F, is made to correspond with the furnace case and of such size as to slide snugly but easily within it.

The furnace is provided with a grate within it, near its bottom, which may be raised and supported by brackets on the sides of the furnace which would diminish the internal

capacity of the furnace and bring the fire near the required point.

This furnace rests upon a curved iron as shown at G, with a scarf or notch at each end fitted to the uprights so as to keep it from turning when raised or lowered; and when down at the lowest point the curved iron rests on the bases.

Letter H represents an ash pit attached to the bottom of the furnace in the form and manner of a drawer, and by sliding in and out may be used to regulate the draft of air.

The furnace may be raised or lowered by means of a lever represented by the letter I, having one end attached to a loop at the bottom of the curved iron, (which loop is invisible in the perspective view in the drawing,) and connected with one of the uprights in a suitable manner and at a suitable point to have the upright serve as a fulcrum (which point in the drawing is represented by the letter Y.) The other end of the lever is secured by notches or hooks in another upright U, so as to gage the height of the furnace as required, or the furnace may be elevated and lowered in any other approved manner.

I have a door J, in and near the top of the furnace case for the reception of fuel into the furnace.

Near the top of the furnace case is a pipe K, connected with a chimney W, for the abduction of heat and smoke.

The varnish kettle is constructed in the form of an inverted cone or sugar loaf, and is made of sheet brass, copper, tinned or Russia sheet iron by double locking to make tight seams. The kettle has a concave lid M, hollowing downward to receive oil or other liquid, adapted to the kettle with felt interposed to prevent the escape of steam. The lid is perforated by a hollow copper tube N, of suitable size to admit the passage of oil or other liquid. The tube is about eight inches longer than the kettle, and contains an orifice, which comes just below the lid, when the tube is fully inserted (which orifice is invisible when the tube is thus inserted, and cannot be seen in a perspective view in the drawings). This furnishes a means of getting oil gradually into the kettle while stirring so as to bring the orifice or a portion of it above the lid, thereby admitting the passage of the oil, &c., through the tube into the kettle. The top end of the tube may be closed with a plug. The tube is sus-

pended through the lid, by means of a bulb formed on it above the lid at which place, a piece of felt is also interposed by perforating the felt with the tube thus bringing the
5 felt between the bulb on the tube and the lid, to prevent in a degree the escape of steam.

The place of the steam cock is at the letter O, near the side of the lid. Its use is to conduct off vapor through an attached pipe Y,
10 at intervals or to check ignition of the same by closing, as there is not much pressure to the smoke of gums while melting.

There is fitted to the kettle a flange P, (a flat ring) slipped on at the bottom to prevent the kettle from sitting too low in the
15 furnace case, and to prevent the circumambient heat from acting on the kettle above the internal dilatation of the gums. The kettle should be of suitable size to permit the
20 circulation of heat around it within the case. The kettle is provided with a handle Q.

The oven shown at letter R, may be constructed in the form of a common band box or in other approved form with sheet or cast
25 iron bottom, containing one or more cavities about four inches deep made to fit any aperture in a stove or furnace left for the recep-

tion of culinary utensils. This cavity or these cavities should occupy about one third of the bottom, and that near the center if
30 convenient. The top and sides of the oven are of tinned iron and should be kept bright, and should not exceed about eight inches in distance from the cavity, as in such case the reflection of heat would not be sufficient for
35 common use without burning at the bottom.

What I claim as my invention and desire to secure by Letters Patent is—

The constructing of stoves for making varnish or other purposes, with a movable
40 furnace, moved, raised or lowered by hand, lever, crank, spring or other similar arrangement, so as to regulate the distance of the fire from the kettle or other utensil, to which the heat is to be applied; likewise the ap-
45 plication of the stirring tube and concave lid to, or their combination with, the varnish kettle as set forth in the specification.

HARMON HIBBARD.

Witnesses:

W. RILEY SMITH,
ABEL WILDER.