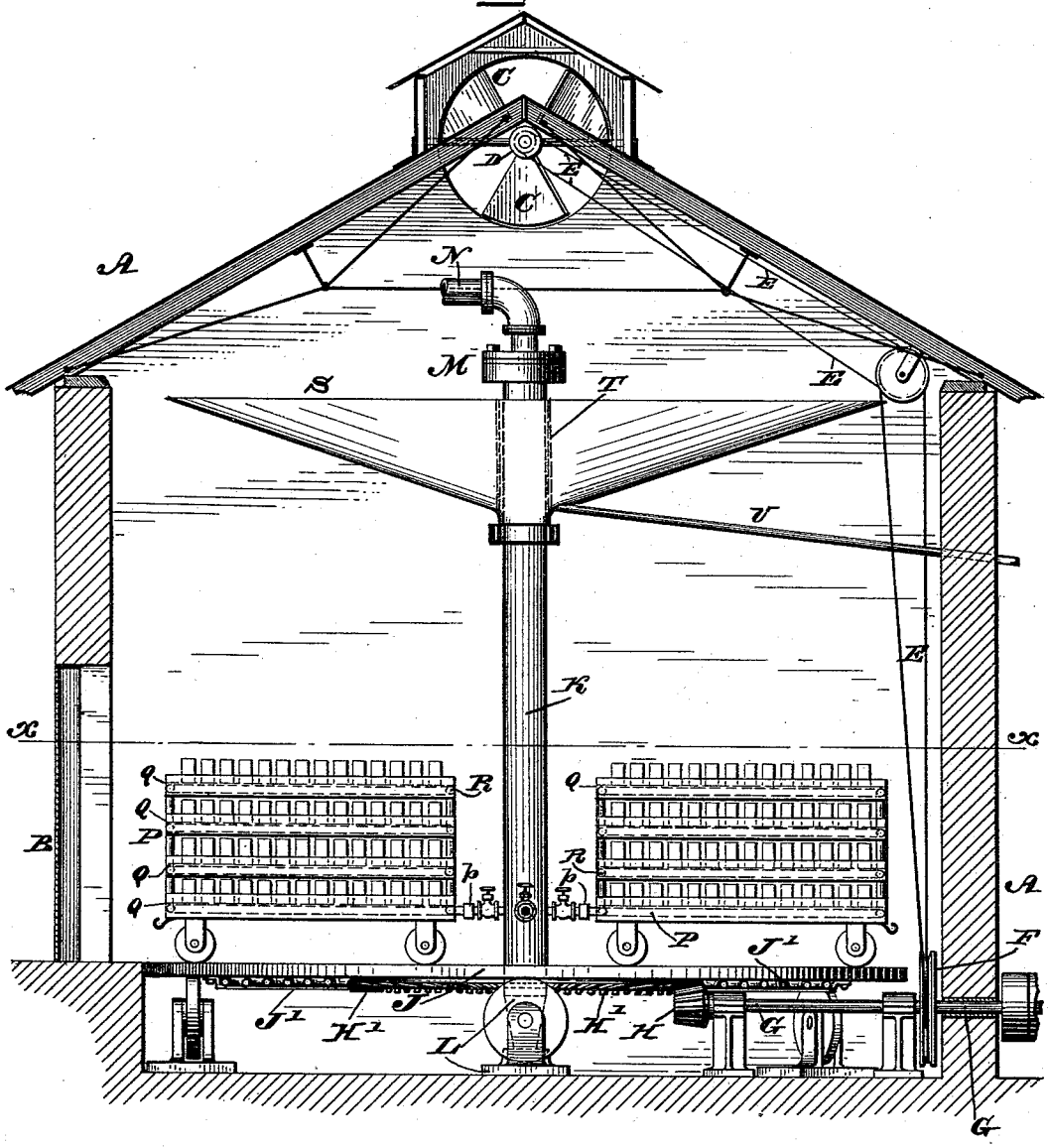
(No Model.) 2 Sheets—Sheet 1.

H. M. SCIPLE.

DRYING APPARATUS.

No. 439,328. Patented Oct. 28, 1890.

Fig. 1.



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Fig. 2.

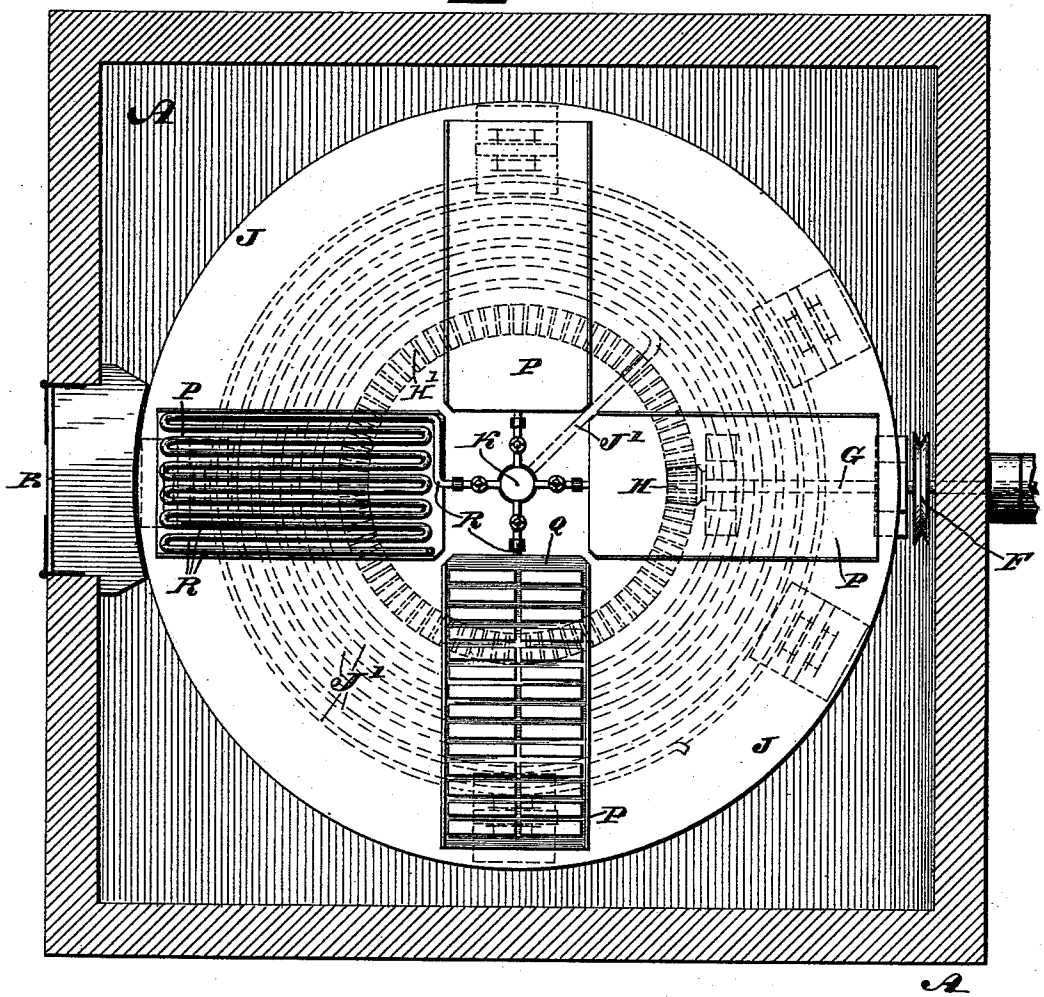


Fig. 3.

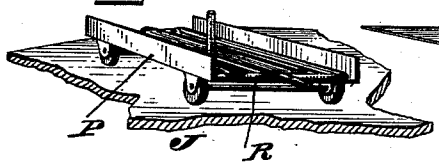


Fig. 4.



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UNITED STATES PATENT OFFICE.

HENRY M. SCIPLE, OF BORDENTOWN, NEW JERSEY.

DRYING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 439,328, dated October 28, 1890.

Application filed January 17, 1890. Serial No. 337,210. (No model.)

To all whom it may concern:

Be it known that I, HENRY M. SCIPLE, a citizen of the United States, residing at Bordentown, in the county of Burlington, State of New Jersey, have invented a new and useful Improvement in Drying Apparatus, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to a drying apparatus; and it consists of an inclosing house or apartment, a rotatable hollow shaft therein forming a steam-supply, a table secured to said shaft, a removable support adapted to be located on said table, composed of tiers of steam-pipe having connection with and supplied with steam from said shaft, and a condenser on the shaft, as will be more fully hereinafter described, and pointed out in the claims.

Figure 1 represents a vertical section of a drying apparatus embodying my invention. Fig. 2 represents a horizontal section thereof on line *x x*, Fig. 1. Fig. 3 represents a perspective view of a portion of one of the cars or trucks. Fig. 4 represents a perspective view of a tray or plate on which articles to be dried are placed.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a drying house or apartment, which is provided with a door B and an exhaust-fan C, the latter being preferably in the roof of the house, motion being communicated to said fan by means of the pulley D, the belt E, and pulley F, the latter being secured to the driving-shaft G, which is properly mounted on the floor or other part of the house. Connected with the shaft G is a bevel-pinion H, which meshes with a circular rack H′ on the table J, the latter being secured to a central hollow rotatable shaft K, which is supported at bottom on the step L and connected at top by a coupling M with a steam-supply pipe N, whereby steam may be admitted into the shaft K. Secured to the under side of the table J by suitable means is a coiled or other pipe J′, which is connected with the shaft K and receives steam therefrom for heating purposes.

P designates trucks or cars, which have a number of plates or shelves Q, placed one above the other and formed of coiled or bent pipes R, one end of which is connected with the shaft K, whereby said pipes may be steam heated.

Above the table is a pan S, which has in its center a collar T, which freely encircles the shaft K, said pan being supplied with cold water for purposes to be hereinafter set forth. The said pan is conical in form, so as to present a large expanse of water-surface for the purpose of condensing vapors passing thereover. The suction exerted by the fan or blower C is of such force as to speedily draw upward all surplus air and what vapors that might have a tendency to descend, thereby bringing said vapors over the pan before they have time to attain a specific gravity sufficient to overcome the force of the said fan or blower and making the air in the vicinity of the table of a dry nature. The pipe U can be of any desired diameter or strength, and, if desired, other means for supporting the pan stationarily may be used.

The operation is as follows, the description being limited to the drying of bricks: The trucks or cars have the bricks placed thereon, the shelves Q being located between the rows, forming tiers, and said trucks are coupled with the shaft K, so that their pipes take steam therefrom. Power is now applied to the table J, whereby the same is rotated, and the bricks are carried around with the same, and by the movement of the bricks through the heated air the vapor or moisture is removed from said bricks. The vapors are drawn upwardly by the exhaust-fan or blower, and as they pass over the pan S they are condensed, owing to the low temperature of the house or apartment above said pan, due to the cold water from the latter, said vapors thus being condensed and dropping into the pan, from whence the surplus water may be discharged by the pipe U. When the drying is completed, the trucks may be uncoupled from the shaft K and run out to the house A, so that the bricks may be removed and the trucks replenished with fresh moist bricks, after which the trucks are returned into the house and coupled with the shaft K, rotary motion being then imparted to the table, and consequently to the trucks, and the operation of drying continued as in the previous case.

It is evident that the dry bricks may be removed from the trucks and wet bricks sup-

plied to said trucks without uncoupling the trucks or removing them from the table.

In Fig. 2 one of the trucks is shown with a coil of pipe exposed, and another truck with a shelf or plate having bricks thereon. The other trucks are shown with shelves, it being evident that the apartment of the house is heated by the heated pipe of the trucks, the pipe J′, and the shaft K, all of which, as has been stated, are steam heated.

The coupling employed for connecting the pipe K with the trucks may consist of a turn-sleeve *p*, uniting a branch of pipe projecting from each truck with a valved branch pipe secured to said pipe K, or any other preferred form of coupling may be used, if desirable.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a drying apparatus, an inclosing house or apartment, a rotatable hollow shaft therein forming a steam-supply, a table secured to said shaft, a removable support on said table, composed of tiers of steam-pipe having connection with and supplied with steam from said shaft, and a condenser mounted on the upper part of the shaft, substantially as described.

2. In a drying apparatus, an inclosing house or apartment having a fan in the upper part thereof, a rotatable hollow shaft in said house or apartment forming a steam-supply, a table secured to said shaft, a removable support on said table, composed of tiers of steam-pipe having connection with and supplied with steam from said shaft, and a condenser mounted on said shaft between the table and the fan, substantially as described.

3. In a drying apparatus, a central hollow shaft forming a steam-supply pipe and a table having a pipe secured to the under side thereof and to said shaft, in combination with a support on said table, formed of pipe which is connected to and supplied with steam from said shaft, substantially as described.

4. In a drying apparatus, an inclosing house or apartment having a fan or blower in the upper part thereof, a central hollow rotatable shaft in connection with a steam-supply, a table on said shaft for supporting the articles to be dried, a coil of steam-pipe, and a gear secured to the under side of said table, and a vapor-condenser above said table, substantially as described.

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