E. L. BLAKESLEE.

PARAFFINING MACHINE.

APPLICATION FILED JUNE 1, 1915.

1,198,610. Patented Sept. 19, 1916.

FIG. 1

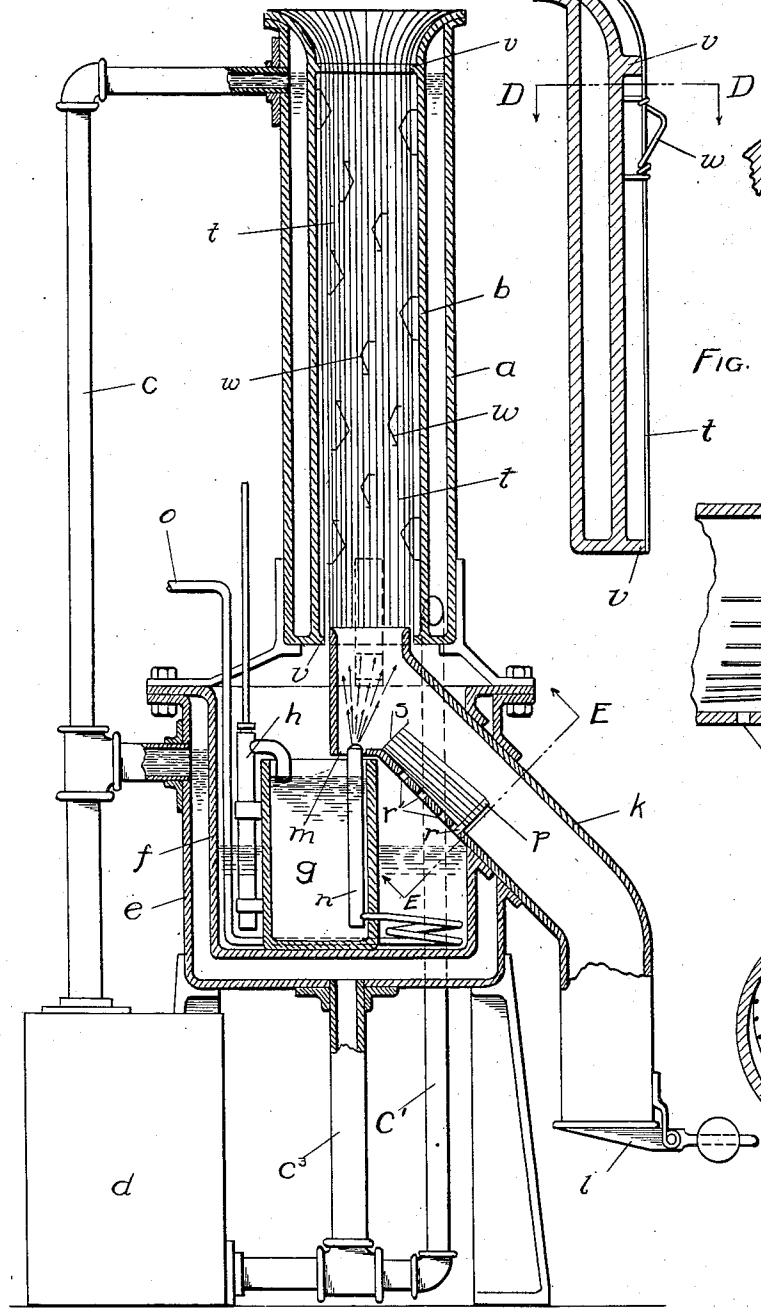


FIG. 2

FIG. 3

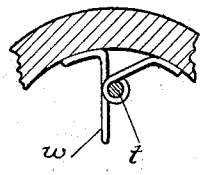


FIG. 5

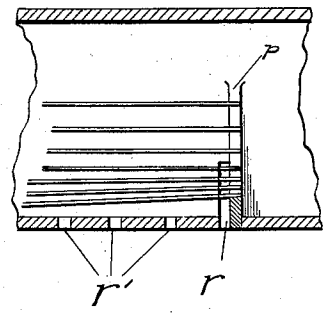
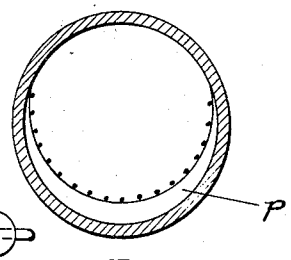


FIG. 4



WITNESSES:

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PARAFFINING-MACHINE.

1,198,610. Specification of Letters Patent. Patented Sept. 19, 1916.

Application filed June 1, 1915. Serial No. 31,627.

To all whom it may concern:

Be it known that I, EVERETT L. BLAKESLEE, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Paraffining-Machines, of which the following is a specification.

The object of my invention is to provide a device that shall deposit an extremely thin, evenly distributed film of paraffin upon any small object, and I accomplish said object by means of the construction illustrated in the accompanying drawing, which therefore becomes a part of this application for Letters Patent, and in which:—

Figure 1 is a longitudinal section of a machine embodying my invention. Fig. 2 is an enlarged detail longitudinal section of a portion of the entrance tube showing the guard wire construction. Fig. 3 is a transverse section on line D—D of Fig. 2. Fig. 4 is a transverse section of the discharge pipe, taken on line E—E of Fig. 1. Fig. 5 is a transverse section of a portion of the discharge pipe on an enlarged scale.

Like characters of reference indicate like parts throughout the several views of the drawing.

The entrance pipe is composed of an outer cylindrical wall, *a*, and an inner cylindrical wall *b*, the two walls forming a water-tight jacket for hot water, and being connected by pipes *c* and c^1 to a water heater *d* of ordinary construction. The entrance pipe is mounted upon a paraffin kettle composed of an outer wall *e*, and an inner wall *f*, the two walls forming a water-tight jacket for hot water, and being connected by pipes *c* and c^3 to a water heater *d* of ordinary construction. Within said paraffin kettle is a receptacle *g*, and intermediate said receptacle and said paraffin kettle is a pump *h*, of ordinary construction, and adapted to pump liquid paraffin from said kettle into said receptacle, said pump being operated from any convenient outside source of power.

Communicating with the lower end of the entrance pipe is a discharge pipe *k*, said discharge pipe extending downward and outward through the paraffin kettle, and having at its outer end a weighted trap door *l*, adapted to open and discharge a predetermined weight of finished product. Said discharge pipe is provided with an orifice *m*, located over the receptacle *g*, and adapted to receive the discharge end of an atomizer *n*, said atomizer being operated by compressed air supplied from an outside source through pipe *o*, said pipe being provided with coils submerged in the melted paraffin contained within the kettle, for the purpose of heating the air previous to delivery to the atomizer.

Provision is made for draining surplus paraffin out of discharge pipe *k* into the kettle as follows:—A crescent-shaped dam *p* is inserted transversely in pipe *k*, as shown in Fig. 1, and immediately to the rearward of said dam is located a transverse slot *r* in said pipe. Rearward of said slot are a plurality of orifices r^1, and immediately above said orifices and said slot are located a plurality of wires, said wires being made fast to pipe *k* at *s*, and also to dam *p*, solder or other convenient method of fastening said wires being used.

In order to prevent the product being paraffined from contacting with the side *b* of the entrance pipe, a plurality of wires *t* are placed longitudinally within said pipe, said wires being secured (by solder or other convenient means) to annular bridges *v*, located at top and bottom of said pipe, the inside diameter of the bridge at the bottom being larger than the outside diameter of discharge pipe *k*, for the purpose of allowing the paraffin to drain off of wall *b* into the kettle without passing through the discharge pipe.

Bumpers *w* are secured at irregular intervals to wires *t* for the purpose of interrupting the straight passage of the product through the entrance pipe, and to cause said product to turn and twist in its descent through said pipe. Said bumpers are constructed of wire bent to form an angle, the two ends of which are secured to wires *t* by a twist about same, said ends being then bent away from each other and formed to contact with the wall *b* of the entrance pipe, thereby preventing the bumper from rotating about the wire *t*, as shown in Figs. 2 and 3.

The formed product entering the entrance pipe passes downward through said pipe filled with hot paraffin vapor from atomizer *n*, and into discharge pipe *k*, whence it is discharged when a sufficient weight has accumulated to actuate the weighted trap *l*.

Having described and illustrated my in-

vention so that others skilled in the art may be enabled to construct and use the same, what I claim as new and desire to secure by Letters Patent, is:—

1. A paraffining device comprising a heated entrance tube, a heated melting kettle beneath said entrance tube, a receptacle within said kettle, a pump intermediate said kettle and said receptacle, a discharging tube communicating with the lower end of said entrance tube and intermediate said entrance tube and said receptacle, said discharging tube extending outside said kettle, and an atomizer within said receptacle communicating with said discharging tube by means of an orifice therein, said orifice being substantially upon the axis of said entrance tube, and said atomizer being parallel to said axis.

2. A paraffining device comprising a vertically disposed entrance tube; a heating kettle communicating with the lower end of said entrance tube, and adapted to contain liquid paraffin; means within said heating kettle to force a continuous vertical spray from said liquid paraffin upward within said entrance tube; a discharging tube leading from said entrance tube to a point exterior of said kettle; a dam within said discharging tube; said discharging tube having orifices adjacent said dam and connecting with said kettle.

3. A paraffining device having a coating chamber, a plurality of wires annularly arranged within said coating chamber and a small distance within the inner wall of same, each of said wires extending longitudinally throughout said chamber, and bumper pieces secured to said wires.

4. In a device for paraffining articles, a coating chamber; a plurality of guards secured within said coating chamber, said guards being disposed so as to prevent contact between said articles and said chamber as said articles are passing therethrough, and bumper pieces secured to said guards.

5. A paraffining device having a discharge pipe, a dam within said discharge pipe, said dam covering only a small portion of the internal area of said pipe, orifices in said pipe, said orifices being located upon one side of and adjacent to said dam, and a plurality of wires within said pipe adjacent to said orifices, said wires being attached at one end thereof to said dam, and at the opposite end thereof to said pipe, said orifices lying between the opposite points of attachment of said wires.

In witness whereof I claim the foregoing as my own, I hereunto affix my signature in the presence of two subscribing witnesses.

EVERETT L. BLAKESLEE.

Witnesses:
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