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HUMIDOR FOR STEREOTYPE MATS

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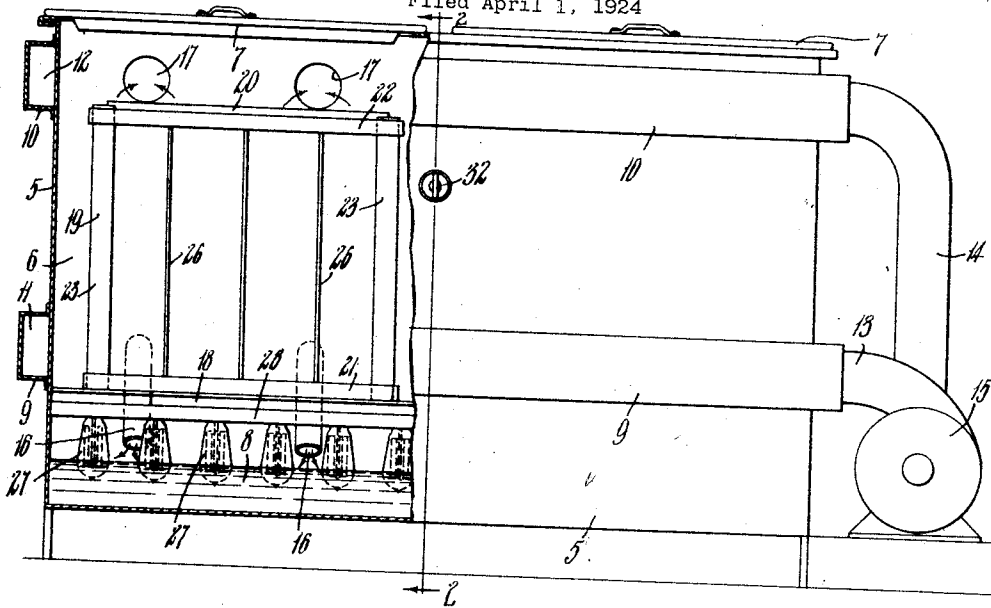


Fig. 1.

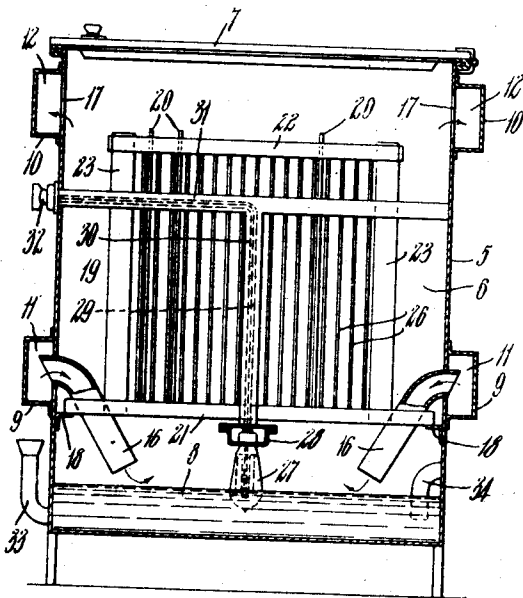


Fig. 2.

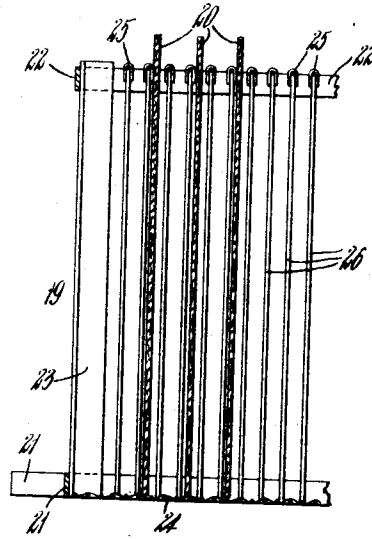


Fig. 3.

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UNITED STATES PATENT OFFICE.

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HUMIDOR FOR STEREOTYPE MATS.

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This invention relates to a humidor for stereotype mats.

In the process of constructing stereotype plates, it is customary to employ paper mats for the purpose of making an impression of the form of type which it is desired to reproduce upon said plates and prior to the making of said impression it is necessary to first soften said mats to a certain extent in order that they may be rendered sufficiently plastic to have a clear impression of the type formed thereon.

The object of the invention is to provide a humidor in which stereotype mats may be placed and exposed for a certain period to a vapor in order that they may be softened for the purpose mentioned.

Another object of the invention is to provide a means within the humidor for supporting and spacing the stereotype mats in order that the entire surface of said mats may be exposed equally to the vapor.

Still another object of the invention is to provide a means for causing a circulation of the vapor within the humidor and between the mats.

The invention consists in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the claims.

Referring to the drawings:

Figure 1 represents a side elevation of a humidor embodying my invention, a portion of the casing of said humidor being broken away and illustrated in section, thereby exposing a portion of the interior of the device.

Fig. 2 is a vertical transverse section taken on the line 2—2 of Fig. 1, looking in the direction of the arrows on said line.

Fig. 3 is an enlarged sectional view illustrating a portion of one of the mat supporting and separating frames.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 5 represents a casing, preferably constructed of sheet metal and being provided with a chamber 6 upon the interior thereof. The casing 5 is provided at the top thereof with covers 7 which are secured thereto in any suitable manner. A quantity of water 8 is located in the chamber 6, the level of said water being maintained at all times approximately as illustrated in the drawings.

Secured to the outer side of the casing 5 and extending entirely therearound are

channel-shaped members 9 and 10, preferably constructed of sheet metal, the member 9 having a passageway 11 provided therein, and the member 10 having a passageway 12 provided therein. The members 9 and 10 are connected through the medium of suitable pipes 13 and 14 respectively with a blower 15. The passageway 11 communicates with the chamber 6 through the medium of a plurality of pipes 16, each of which has a discharge opening at its lower end which is located a short distance above the surface of the water 8 as illustrated in Fig. 2. The member 10 is located adjacent to the top of the casing 5, and the passageway 12 upon the interior thereof communicates with the upper portion of the chamber 6 through the medium of a plurality of orifices 17 which are formed in the wall of the casing 5.

Extending longitudinally of the casing 5 upon the interior thereof and at a point a suitable distance above the level of the water 8 are angle irons 18, which form supports for removable frames 19, the latter constituting supports for a plurality of stereotype mats 20. Each frame 19 embodies therein a plurality of bars 21 which are fastened together in any suitable manner to form a base for said frame, together with a plurality of other bars 22 which are secured together in any suitable manner to form a top for said frame, and said base 21 and top 22 are spaced apart by a plurality of angle irons 23, one of which is located at each corner of said frame. Secured to the base portion of the frame 19 in any suitable manner is a sheet of foraminous material preferably a wire screen 24, said screen constituting a means for supporting the mats 20 within the frame 19 and permitting vapor to pass upwardly therethrough and between said mats. Means are provided for spacing the mats 20 within the frame 19, said means comprising a plurality of horizontally disposed rods 25 which are supported upon the upper edges of the bars 22 and extend transversely across the frame 19. Other rods 26 are also provided for the purpose of spacing the mats 20, said rods 26 being vertically disposed, the upper ends thereof being secured in any suitable manner to the transverse rods 25, and the lower ends of said rods 26 being secured to the wire screen 24 as illustrated in Fig. 3.

Means are provided for heating the water 8 and thereby creating a vapor within the

chamber 6, said means comprising a plurality of electric light bulbs 27, the latter being mounted in any suitable manner in a lamp socket frame 28 which extends longitudinally within the chamber 6 a suitable distance above the surface of the water 8. The electric light bulbs 27 when in position within their respective sockets in the frame 28 project downwardly into the water 8 a short distance as illustrated. Electric wires 29 forming a portion of the electric circuit in which the electric light bulbs are located extend upwardly from the frame 28 through a vertical tube 30 and into and through a transversely extending tube 31 to a switch 32 which is employed as desired in opening or closing the electric circuit to the electric light bulbs 27. The casing 5 is provided with an inlet pipe 33 for the water 8 and also an overflow pipe 34 for said water.

The general operation of the humidor is as follows:—The stereotype mats 20, which are well known to those skilled in the printing art, are placed within the frames 19 between the spacing rods 25 and 26 as illustrated in Fig. 3, the lower edges of said mats resting upon the wire screen 24. The frames 19 rest upon the angle irons 18 within the chamber 6 a suitable distance above the level of the water 8. When it is desired to create a vapor within the chamber 6, the electric light bulbs 27 are lighted through the medium of the switch 32 and as the water 8 becomes heated, a slight vapor is formed within the chamber 6. The vapor thus formed is not an exceedingly moist vapor, nor is it desirable to employ an exceedingly moist vapor or too hot a vapor in softening the mats.

When it is desired to cause a circulation of the vapor within the chamber 6 and between the mats 20 the blower 15 is set in operation and said blower will draw the vapor from the upper portion of the chamber 6 through the orifices 17 into the passageway 12, from thence through the pipe 14 into the blower from which it is blown through the pipe 13, passageway 11 and pipes 16, being returned to the interior of the chamber 6 at points just above the level of the water 8. This circulation of the vapor within the chamber 8 and between the mats 20 decreases the time required for softening the mats and causes the vapor to be evenly distributed thereover, making it possible to obtain a perfect impression of the type upon the entire surface of the mat.

I claim:

1. A humidor for stereotype mats comprising, in combination, a casing provided with a chamber in the interior thereof, said casing having passageways formed therein communicating with said chamber, means to create a vapor in said chamber and means to cause a circulation of said vapor through said chamber and passageways.

2. A humidor for stereotype mats comprising, in combination, a casing provided with a chamber in the interior thereof, said casing having passageways formed therein communicating with said chamber, water located within said chamber, means to vaporize said water and means to cause a circulation of vapor through said chamber and passageways.

3. A humidor for stereotype mats comprising, in combination, a casing provided with a chamber in the interior thereof, said casing having passageways formed therein communicating with said chamber, water located within said chamber, means to support stereotype mats within said chamber above said water, means to vaporize said water and means to cause a circulation of vapor within said chamber and passageways and between said mats.

4. A humidor for stereotype mats comprising, in combination, a casing provided with a chamber in the interior thereof, said casing having passageways formed therein communicating with said chamber, water located within said chamber, means to support stereotype mats within said chamber above said water, means to space said mats upon said support, means to vaporize said water, and means to cause a circulation of vapor within said chamber and passageways and between said mats.

5. A humidor for stereotype mats comprising, in combination, a casing provided with a chamber in the interior thereof, said casing having passageways formed therein communicating with said chamber, water located within said chamber, means to support stereotype mats within said chamber above said water, means to space said mats upon said support, an electric circuit including a plurality of electric light bulbs located within said chamber and means to cause a circulation of vapor within said chamber and passageways and between said mats.

6. A humidor for stereotype mats comprising, in combination, a casing provided with a chamber in the interior thereof, said casing having passageways formed therein communicating with said chamber, water located within said chamber, a frame embodying therein a sheet of foraminous material for supporting stereotype mats within said chamber above said water, means to space said mats upon said frame, means to vaporize said water and means to cause a circulation of vapor within said chamber and passageways and between said mats.

7. A humidor for stereotype mats comprising, in combination, a casing provided with a chamber in the interior thereof, said casing having passageways formed therein extending therearound and communicating with said chamber, water located within said chamber, means to support stereotype mats

within said chamber above said water, means to vaporize said water and means to draw vapor from said chamber at points adjacent to the top thereof and return said vapor to said chamber at points adjacent to the surface of said water.

8. A humidor for stereotype mats comprising, in combination, a casing provided with a chamber in the interior thereof, said casing having passageways formed therein communicating with said chamber, water located within said chamber, a frame embodying therein a sheet of foraminous material for supporting stereotype mats within said chamber above said water, means to space said mats upon said frame, an electric circuit including a plurality of electric light bulbs located within said chamber and means communicating with said passageways to draw vapor from said chamber at points adjacent to the top thereof and return said vapor to said chamber at points adjacent to the surface of said water.

9. A humidor for stereotype mats comprising, in combination, a casing provided

with a chamber in the interior thereof, means to create a vapor in said chamber, and means to cause a circulation of said vapor within said chamber.

10. A humidor for stereotype mats comprising, in combination, a casing provided with a chamber in the interior thereof, means to create a vapor in said chamber, and means to draw vapor from said chamber adjacent to the top thereof and return said vapor to said chamber adjacent to the bottom thereof.

11. A humidor for stereotype mats comprising, in combination, a casing provided with a chamber in the interior thereof, water located within said chamber, means to vaporize said water, and means to draw vapor from said chamber at points adjacent to the top thereof and return said vapor to said chamber at points adjacent to the surface of said water.

In testimony whereof I have hereunto set my hand.

GEORGE G. McCAFFERTY,