March 11, 1952 G. H. RODENBURG ET AL 2,588,989

SCREEN PRINTING TABLE

Filed April 16, 1949 2 SHEETS--SHEET 1

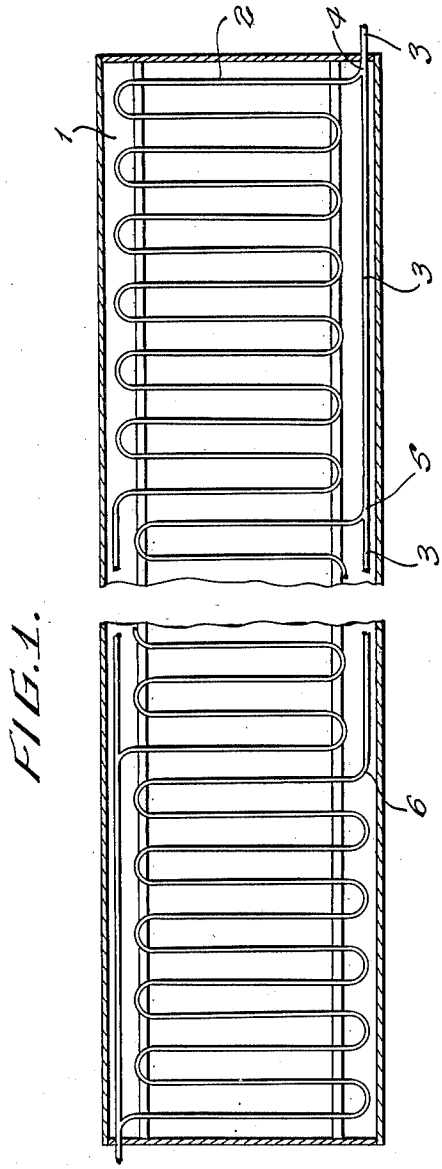


FIG. 1.

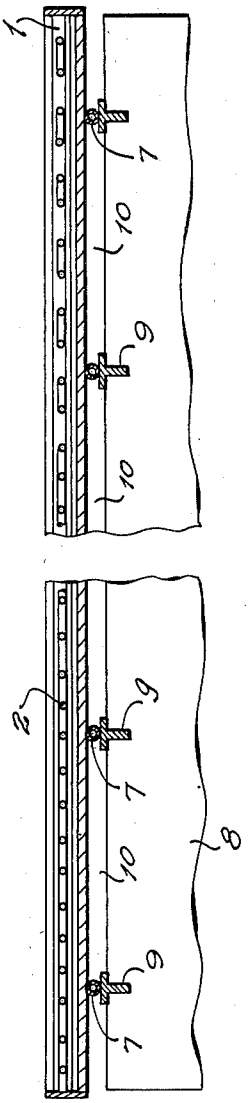


FIG. 2.

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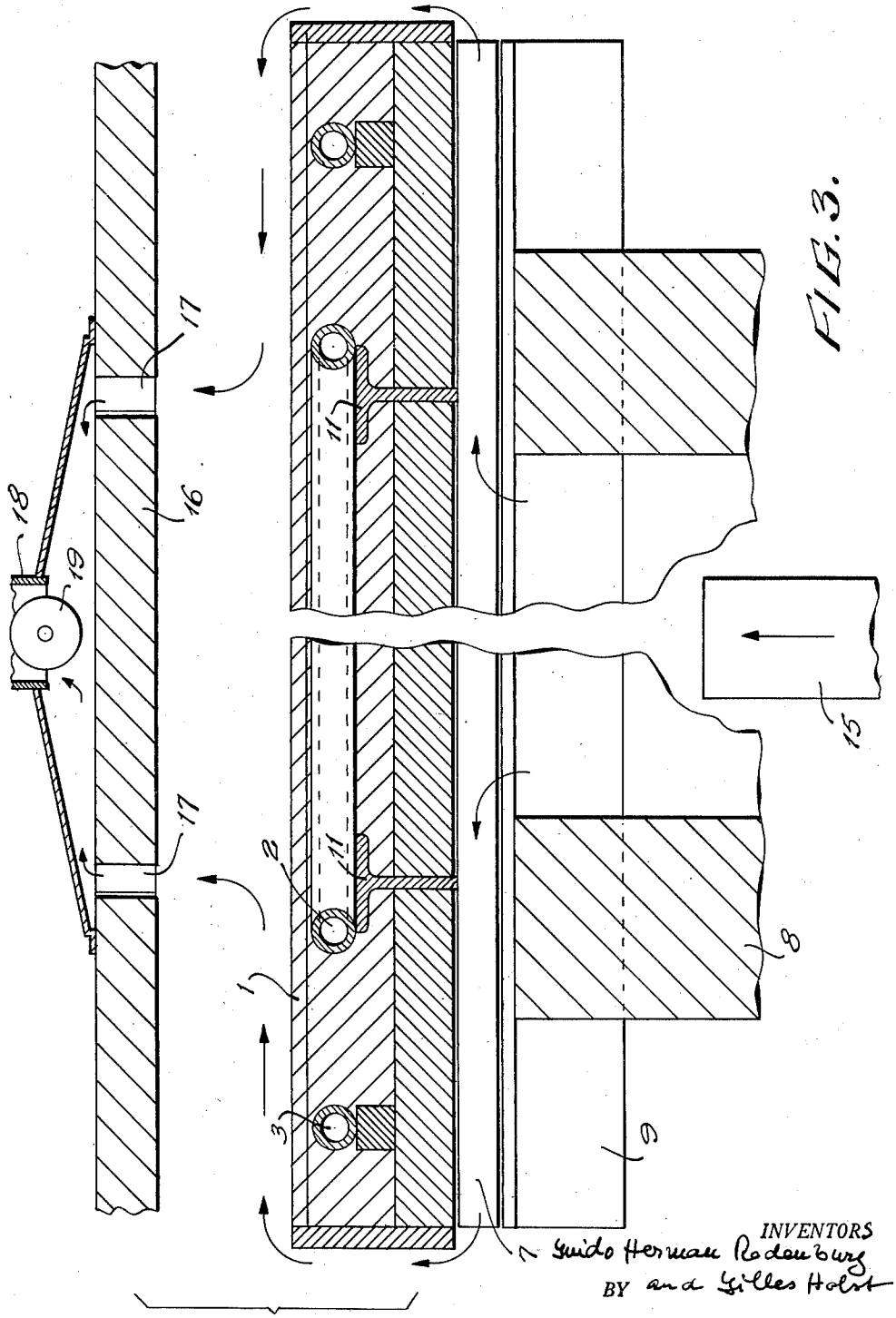


FIG. 3.

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SCREEN PRINTING TABLE

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Application April 16, 1949, Serial No. 88,017
In the Netherlands April 3, 1948

7 Claims. (Cl. 34—151)

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Screen printing tables comprising an internally heated screen top resting on a support are already known.

Breadths of fabric are situated on such tables, which are very long—even up to 90–100 m. and which are e. g. provided with a layer of felt or a layer of rubber. On the fabric, stencils are laid through which dye is applied to the fabric. The textile printers stand in passages between the screen printing tables which are parallel.

The drying of the printed textile is a problem just as the heating of the screen top also is a problem.

In the patent application Ser. No. 88,018 filed April 16, 1949, is mentioned how the screen top can be heated efficiently.

An object of the present invention is to improve the drying process and to facilitate working at screen printing tables, irrespective of the way in which the screen top is heated.

With conventional screen printing tables the screen top is situated on bearing walls, generally in such a way that the screen top can freely expand with respect to the bearing walls, whereas between the bearing walls and the screen top a layer of tarred paper or similar matter is provided. The warm, moist air can only ascend above the table.

When executing the method according to the present invention the moist air is sucked off at the top of the table, whereas at the lower side of the table drying air is supplied, this drying air moving up along the longitudinal edges of the table.

A screen printing table suited for the execution of this new method has a screen top which can be heated and which is supported in such a way that drying air can be supplied and be carried off along the longitudinal edges of the screen top by means of air supply devices arranged at the lower side of the screen top. The screen top is supported by bearing walls in such a way that drying air can escape in an upward direction between the bearing walls and the screen top at several places situated side by side in a longitudinal direction. If, in order to enable the expanding of the screen top, the screen top rests on rollers, which rollers are supported by the bearing walls, these rollers form the necessary passages to transmit the drying air. The passages for the air can also be provided in the upper side of the bearing walls.

As the hot air, which has become moist by absorbing moisture, is carried off above the screen top, some underpressure exists above the table. The drying air being supplied from under the table can then come above the table, absorb moisture and be carried off.

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When the drying air coming from under the table has a moderate temperature, the workman stands beside the table in a cooler atmosphere than when warm air comes from the heated table, so that it is more healthy and pleasant to work at the new screen printing table.

The drying air is supplied to pipe 15 which is located so as to discharge the drying air beneath the table into the space between supports 8. This drying air rises to the top of supports 8 and escapes over the top of supports 8 through the space between the supports 8 and the lower surface of screen top 1 and between the rollers 7. In the ceiling above screen top 1 are located openings 17 which are in communication with discharge pipe 18 wherein is located the exhaust fan 19. Due to the suction created by exhaust fan 19 the drying air escaping from beneath screen top 1 is drawn up around the sides screen top 1, over the top of screen top 1 and up through the openings 17 to the discharge pipe 18.

The drying effect is of course greater as the temperature of the drying air is higher.

In order to be able to carry off the air above the tables, openings can be made in the ceiling above the table, these openings communicating with an air discharge pipe in which an underpressure may be excited by means of a fan. The moist air being carried off can be freed from moisture in a known way.

The invention is shown more precisely in the accompanying drawing, in which an embodiment is illustrated.

Fig. 1 shows schematically a cross-section of the screen top, which can be heated.

Fig. 2 shows a vertical section through a screen top with its supports.

Fig. 3 shows on an enlarged scale a transverse section through the table.

In the screen top 1 used with this embodiment, a heating tube 2 is provided in such a way that the material of the screen top lies against the side of the heating tube and surrounds same.

The heating tube 2 is connected to the supply pipe 3. The tube 2 has a zigzag winding, whereas the supply pipe 3 is straight. At the places 5, 4 and 6 the heating tube is fed. In Fig. 3 it is shown that the tube 2 rests on supports 11, which are provided in the material of the table.

As appears from Fig. 2, the screen top 1 is supported by bearing walls 8, which extend in the longitudinal direction of the screen top. Between

these bearing walls and the screen top, rollers 7 are arranged, these rollers resting on T-shaped supports 9. In this way passages 10 are formed between the lower side of the screen top and the bearing walls. The drying air, which is supplied between the bearing walls 8 and the lower side of the screen top, is now carried off in an upward direction through these passages along the longitudinal edges of the screen top.

We claim:

1. In a screen printing table, in combination, supporting members for said table arranged so as to form a space between said members; a plurality of spaced mounting members located on said supporting members so as to form between themselves spaces communicating with said space between said supporting members; a screen top mounted on said spaced mounting members; means for supplying drying air to said space between said supporting members, so that said drying air will pass above said supporting members, beneath said screen top and between said spaced mounting members; and suction means located above said screen top so as to draw said drying air around the edges of said screen top, over the top thereof and upwardly therefrom, whereby the drying air comes in contact with workers who are adjacent to said screen printing table so as to render their working conditions more comfortable.

2. In a screen printing table, in combination, supporting members for said table arranged so as to form a space between said members; a plurality of spaced mounting members located on said supporting members so as to form between themselves spaces communicating with said space between said supporting members; a solid screen top mounted on said spaced mounting members; means for supplying drying air to said space between said supporting members, so that said drying air will pass above said supporting members, beneath said screen top and between said spaced mounting members; and suction means located above said screen top so as to draw said drying air around the edges of said screen top, over the top thereof and upwardly therefrom, whereby the drying air comes in contact with workers who are adjacent to said screen printing table so as to render their working conditions more comfortable.

3. In a screen printing table, in combination, a pair of elongated supporting members for said table arranged in side by side relation to each other and spaced from each other so as to form a space between said members; a plurality of elongated spaced mounting members located on said supporting members and arranged transversely thereto so as to form between themselves spaces communicating with said space between said supporting members; a solid screen top mounted on said spaced mounting members; means for supplying drying air to said space between said supporting members, so that said drying air will pass above said supporting members, beneath said screen top and between said spaced mounting members; and suction means located above said screen top so as to draw said drying air around the edges of said screen top, over the top thereof and upwardly therefrom, whereby the drying air comes in contact with workers who are adjacent to said screen printing table so as to render their working conditions more comfortable.

4. In a screen printing table, in combination, a pair of elongated supporting members for said table arranged in substantially parallel relation to each other and spaced from each other so as to form a space between said members; a plurality of elongated spaced rollers located on said supporting members and arranged transversely thereto so as to form between themselves spaces communicating with said space between said supporting members; a solid screen top mounted on said spaced rollers; means for supplying drying air to said space between said supporting members, so that said drying air will pass above said supporting members, beneath said screen top and between said spaced rollers; and suction means located above said screen top so as to draw said drying air around the edges of said screen top, over the top thereof and upwardly therefrom, whereby the drying air comes in contact with workers who are adjacent to said screen printing table so as to render their working conditions more comfortable.

5. In a screen table, in combination, a pair of elongated supporting members for said table arranged in substantially parallel relation to each other and spaced from each other so as to form a space between said members; a plurality of elongated spaced rollers located on said supporting members and arranged transversely thereto so as to form between themselves spaces communicating with said space between said supporting members; a flat elongated solid screen top horizontally mounted on said spaced rollers; means for supplying drying air to said space between said supporting members, so that said drying air will pass above said supporting members, beneath said screen top and between said spaced rollers; and suction means located above said screen top so as to draw said drying air around the edges of said screen top, over the top thereof and upwardly therefrom, whereby the drying air comes in contact with workers who are adjacent to said screen printing table so as to render their working conditions more comfortable.

6. In a screen printing table, in combination, a pair of elongated supporting members for said table arranged in substantially parallel relation to each other and spaced from each other so as to form a space between said members; a plurality of elongated spaced rollers located on said supporting members and arranged transversely thereto so as to form between themselves spaces communicating with said space between said supporting members; a flat elongated solid screen top horizontally mounted on said spaced rollers; means for supplying drying air to said space between said supporting members, so that said drying air will pass above said supporting members, beneath said screen top and between said spaced rollers ; and suction means located above the ceiling over said screen top, and comprising at least one opening passing through said ceiling so as to draw said drying air around the edges of said screen top, over the top thereof and upwardly therefrom, whereby the drying air comes in contact with workers who are adjacent to said screen printing table so as to render their working conditions more comfortable.

7. In a screen printing table, in combination, a pair of elongated supporting members for said table arranged in substantially parallel relation to each other and spaced from each other so as to form a space between said members; a plurality of elongated spaced rollers located on said supporting members and arranged transversely thereto so as to form between themselves spaces communicating with said space between said sup-

porting members; a flat elongated solid screen top horizontally mounted on said spaced rollers; means for supplying drying air to said space between said supporting members, so that said drying air will pass above said supporting members, beneath said screen top and between said spaced rollers; and suction means located above the ceiling over said screen top, and comprising at least one opening passing through said ceiling, a discharge pipe located above said ceiling in communication with said opening passing through said ceiling and an exhaust fan located in said discharge pipe so as to draw said drying air around the edges of said screen top, over the top thereof and upwardly therefrom, whereby the drying air comes in contact with workers who are adjacent to said screen printing table so as

to render their working conditions more comfortable.

GUDO HERMEN RODENBURG.
GILLES HOLST.

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