APPARATUS FOR DRYING AND AIRING GLOVES

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Albert Hill
Inventor

By C.A. Snow & Co.
Attorneys.
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By C. A. Snow & Co.
Attorneys
This invention comprises certain improvements in or relating to apparatus for drying or airing fabric or like articles after a cleaning treatment, of the type in which the articles are placed in a stove through which a current of air is passed which may be heated by directing the ingoing current of air over steam pipes located in the bottom of the stove, and relates to apparatus for drying gloves.

According to the present improvements, the apparatus for drying gloves, comprises a cabinet means for passing warm air through the cabinet, and a number of runners which form hangers for the gloves, and which runners close the cabinet both when in the cabinet or when extended therefrom. The base of the cabinet containing steam pipes is covered by a foraminous plate and the air enters at one side and is deflected upwardly at the opposite and/or intermediate positions. Each runner comprises a front panel, a rear panel, a top connecting bar slidably mounted in a guide, and a bottom connecting bar slidably mounted in a guide. The air pipe for blowing air into the cabinet is provided with two branches controlled by a valve so that the air may be supplied to a glove expanding air nozzle and/or to the drying cabinet.

Referring to the drawings:

Figure 1 is a front elevation, partly cut away, of the apparatus constructed according to this invention.

Figure 2 is a sectional plan view, the section being taken on the line $X-X$ of Figure 3.

Figure 3 is an end view of the apparatus with a portion cut away for convenience of illustration.

Figure 4 is a plan view of the frame or runner and doors or panels hereinafter referred to, and

Figure 5 is an enlarged cross sectional view of the mounting for the frames or runners, the section being taken on the line $Y-Y$ of Figure 3.

According to a convenient embodiment of this invention, the apparatus comprises a suitable framework which may be constructed of L or other suitable section metal welded or riveted together, the two ends, top and back of the frame being covered by sheet metal or other panels. The front of the framework is also covered by a metal panel but this panel has a number of rectangular openings 1 arranged side by side. A partition 2 above the floor or bottom 3 of the cabinet is formed by a foraminous sheet or wire mesh to prevent articles falling into the base of the cabinet.

A steam heated unit 4 is arranged in the base of the cabinet and comprises a length of tubing (preferably with heat distributing external fins thereon) which is bent into a zigzag shape and in two superimposed tiers. Thus a very large heating area is provided.

A shelf or support 5 is fixed to the legs 6 and supports an electric motor 7 which drives a fan or air blower 8 which is connected to the delivery pipe or conduit 9. This pipe or conduit is in this particular embodiment formed with two branch pipes 10 and 11 one of which (10) leads into the chamber containing the aforesaid steam heated pipe 4. The air flows into this chamber and is heated by the said pipe 4. The air is then deflected into the drying cabinet through the foraminous partition 2. In order to distribute the air a deflector 12 is fitted intermediate the ends of the compartment and a deflector 13 is arranged at the end of the compartment. At the centre of each of the said side by side openings 1 and level with the top and bottom edges thereof, are fixed lengths of channel bar 14. These members 14 form guide bars and extend the full width of the cabinet and are fixed to suitable longitudinally arranged supports. A rectangular frame or runner formed of top and bottom horizontally arranged T section bars 15, which are connected at the rear end by a bar 16, is mounted to slide backwardly and forwardly in each of the guide channels 14 and, to reduce friction, rollers 17 are mounted at intervals on pins fixed to the guide bars 14, which rollers support the top and bottom of the runner. The forward ends of the horizontal T section bars 15 are connected together by means of a door or panel 18 which is inwardly flanged on all edges to fix into and seal the aforesaid side by side rectangular openings 1 in the front.
of the cabinet. The horizontal T-section bars 15 are fixed to these doors or panels by brackets. The rear vertical connecting strip 16 has a metal or other panel 19 fixed to the rear face and this panel may be flanged. The purpose of this rear panel is to seal the opening 1 at the front of the cabinet, when the frame is slid outwardly, and thereby prevent the escape of the hot air from the cabinet. This rear sealing plate 19, when the runner is pulled out, engages the flanged door opening which is also engaged by the front door or panel 18 when the runner is in the cabinet. Suitable hooks or the like 20 are fixed to the lower edge of the central limb of the upper T-shaped runner 15 to receive the formers on which the gloves are placed for drying purposes. A wire mesh or like trough or basket may be fixed at the bottom of each frame and is of the same width as the doors or panels. A suitable number of air outlet cowls 21 are provided in the top of the drying cabinet. As aforesaid the air conduit 9 from the air blower 8 has two branches; the branch 11 after passing into the heating compartment is divided into two branches 11a which lead the air to glove expanding nozzles 22 located at each side of the cabinet. These nozzles are of conical formation and taper towards the front end, and are utilized for blowing open the glove preparatory to placing on the former. Each of these branch pipes 11a passes towards the front corners of the inside of the cabinet and are bent upwardly close to the inside face of the cabinet. The upper end of each of these branch pipes is closed and, at a suitable distance from the top and/or a convenient distance from the floor, an outwardly directed pipe or conduit 30 is arranged which is in communication with the inside of the said branch pipes 11a. Each of these outwardly directed pipes projects a suitable distance from the front face of the cabinet 1 to detachably receive the said outlet nozzle 29, which is conical. The nozzles may be locked in position by a bayonet or other suitable detachable joint. The gloves are opened or blown out, in order that they may be placed on a dummy hand or former, by placing the open end of the glove over the nozzle and turning-on the supply of air. The conical nozzle enables the gloves to be readily fitted in position making contact around or substantially around the nozzle. A suitable valve for controlling the air supply comprises a pivoted flap 23 which is mounted at the junction near the blower 8, this flap being of such a size that it will completely close either of the said branch pipes 10-11 or allow air to pass to both. A suitable lever 24 is provided to effect the movement of the flap. A folding or collapsible table 25 may be provided at the front of the cabinet to receive the gloves taken from the cabinet or gloves ready for drying or for any other purpose. A storage cupboard 26 and nest of drawers 27 for storing articles pertaining to the cleaning and/or drying of the gloves etc., is arranged at one end of the cabinet. A plate 28 may be detachably fixed along the back of the cabinet for convenience when installing the heater unit 4 or for inspection or repairs. The end wall of the cabinet may also be formed by a detachable plate 29. The cabinet may be constructed so that additional sections may be added, each section containing a number of runners or frames and the attendant parts.

A steam pipe or pipes 31 may also be mounted on the side of the cabinet, the conical ends 32 being adapted to receive the fingers of the gloves so that such fingers may be blown out by the steam. The steam pipe or pipes 31 may be connected to any steam pipe.

By this invention therefore the gloves will be quickly, uniformly and thoroughly dried by the hot air which is continuously circulated through the drying cabinet or compartments.

I claim:

1. Apparatus for drying gloves, comprising a cabinet, steam pipes in the bottom of the cabinet, so that heat can freely rise therefrom to the upper part of the cabinet, an air blower, an air pipe having two branches, one of which delivers air from said blower into one side of the cabinet to pass over the steam pipes, means for deflecting the warm air up the cabinet, air outlets at the top of the cabinet, sets of upper and lower hollow channel bars located entirely in the cabinet, rollers mounted in the interior of the said bars at intervals there along, a number of runners on which the gloves are hung, the runners being mounted to run over the rollers, a front plate forming part of each runner, a flange on such front plate for engaging in and sealing the edge inside an opening in the cabinet, a back plate forming part of each runner, a flange on the back plate for engaging the edge of the said opening in the cabinet to seal such opening and support the runner when withdrawn, the other branch of the air pipe passing through the heated cabinet, and leading to a conical nozzle mounted on the cabinet, for blowing the gloves open.

2. Apparatus for drying gloves, constructed as set forth in claim 1, in combination with means under the control of an operator for governing the flow of air from the air pipe to said branches, said means comprising a flap valve pivoted at the junction of said branches so that the flap valve can be moved to close either of said branches, or lie in an intermediate position.

In witness whereof I have signed this specification, Birmingham, England.

ALBERT HILL.