

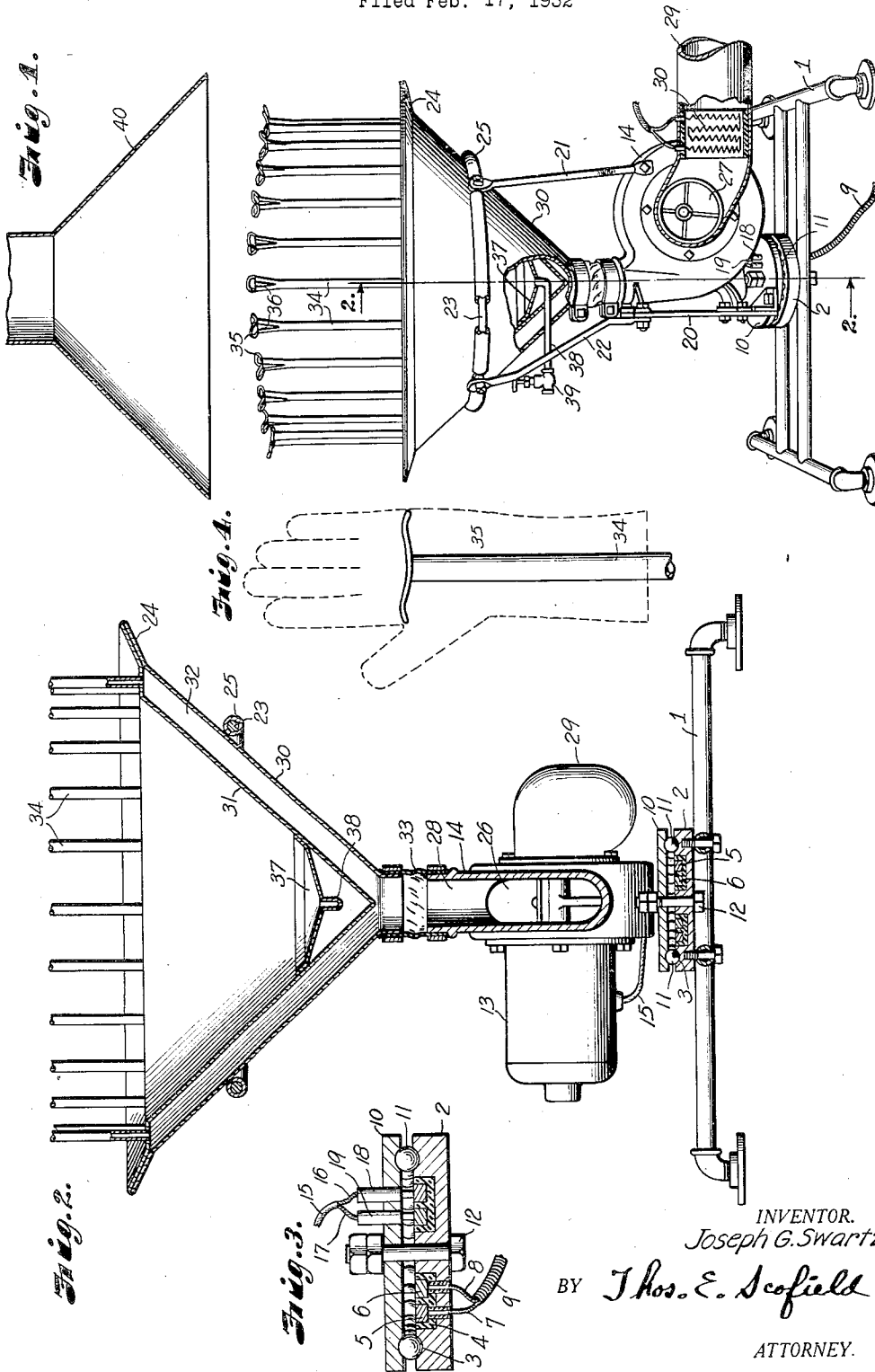
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GLOVE DRYING DEVICE

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GLOVE DRYING DEVICE

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9 Claims. (Cl. 34—26)

My invention relates to a glove drying device and more particularly to a device adapted to dry a plurality of gloves by a plurality of air streams.

Electricians working around equipment carrying high voltage are required by safety regulations to wear rubber gloves. It is necessary to test these gloves periodically to determine whether or not their dielectric strength has been impaired in use. The gloves are tested by fitting upon a copper handshaped electrode which is immersed in an electrolyte which is in contact with an electrode of opposite sign, so that any impairment of the dielectric strength and insulating qualities of the glove will become apparent by the electrolysis of the electrolyte. Due to the fact that the gloves have become wet in the testing operation, it becomes necessary to dry them thoroughly. Failure to dry the gloves will result in their deterioration.

It has been the practice to fit the gloves upon racks and permit them to dry naturally. The time consumed in drying rubber gloves in the usual manner varies from eight to twelve hours, depending upon the humidity of the atmosphere. It will be appreciated that the floor space required to install racks in a large organization is considerable.

One object of my invention is to provide a device which will rapidly and efficiently dry rubber gloves in a short space of time.

Another object of my invention is to provide a glove drying device which will occupy a small floor space.

In the drawing:

Fig. 1 is a perspective view, partly in section, of one modification of my invention, provided with a hood for conducting away any vapors which may be evolved.

Fig. 2 is a sectional view taken on the line 2—2, Fig. 1.

Fig. 3 is a detail view of my rotatable mounting showing the electrical connections for the motor.

Fig. 4 is a fragmentary view showing a glove mounted on a support tube.

In general, my invention consists in a rotatably mounted support which is provided with a manifold. Extending from the manifold I provide a plurality of hollow supports upon which the gloves to be dried are positioned, and through which the drying air passes. I provide a blower which will force air into the manifold, from which it will pass out through the supporting tubes, to blow the moisture from the gloves and to induce a rapid drying. Due to the fact that my manifold is rotatably mounted, an operator may stand in a

single position and place the gloves upon all of the glove supporting tubes.

It will be manifest that my invention is also adapted to drying gloves of other description. For example, kid gloves which have been cleaned at a dry cleaners with a dry cleaning fluid may be dried on my device. Due to the fact that dry cleaning fluid is usually an inflammable liquid, I provide a hood for conducting the vapors away from my device to preclude the danger of fire.

More particularly, referring now to the drawing, a suitable pedestal 1 supports a bearing member 2 which is provided with a ball race 3. The bearing member 2 is recessed. The recess is provided with insulation 4 into which is set a pair of conducting rings 5 and 6. The conducting rings are in contact with the leads 7 and 8 of an electrical conductor 9 which is connected to any suitable source of potential. An upper bearing plate 10 rests upon ball bearings 11 and is secured to lower bearing 2 by any suitable means such as bolt 12. Upon pedestal 10, I mount electric motor 13 which drives blower 14. Motor cable 15 has its conductors 16 and 17 connected to a pair of brushes 18 and 19 which contact with the conducting rings 5 and 6. It will be appreciated that the pedestal 10 may be rotated freely and maintained in electrical connection between the source of current and the motor.

By a suitable frame work composed of braces 20, 21 and 22, a circular support 23 is maintained in position to support a cone-shaped manifold 24. The circular support 23 is provided with a rubber cushion 25, the purpose of which will be herein-after more fully explained. The blower 14 is of the centrifugal type and is provided with blades 26, which will throw air drawn through inlet 27 through the outlet nozzle 28. If desired, I may provide blower inlet 27 with an inlet duct 29 in which I position a heating element 30 to heat the incoming air and induce more rapid drying of the gloves. It is to be understood that it is not necessary to heat the incoming air in order to get efficient results.

The conical shaped manifold 24 consists of an outer wall 30 and an inner wall 31, forming therebetween an air manifold 32. The lower portion of the air manifold 32 is connected to the blower outlet 28 by means of a flexible coupling 33. It will be noted that the air manifold 24 is resiliently positioned by a rubber cushion 25 and has no direct contact with any metal part. I have found that if direct contact is made between my air manifold and the blower outlet on the support, that the air manifold will act as a loud speaker

and will amplify the hum of the motor and blower. It will be appreciated that by supporting the manifold in the manner described, and preventing a direct contact between it and the blower outlet, that I am enabled to greatly reduce undesirable noise.

A plurality of glove supporting tubes 34 are positioned in communication with the air manifold 32. The upper end of the tubular supports 34 are provided with glove supporting means 35. I have shown wire loops connected to the glove supporting tubes 34 in any suitable manner. It is to be understood that any suitable glove supporting means may be employed without departing from the spirit of my invention.

The upper end of the glove supporting tubes 34 are split at 36 to provide lateral openings for the passage of air issuing from air manifold 32 through the tubes 34. It is to be understood that any suitable lateral openings may be provided. Water which is blown from the gloves when my device is in operation will be collected in the conical space formed by the inner wall 31 of my air manifold and will collect in the bottom 37 thereof.

I provide a drain line 38 controlled by a valve 39 for withdrawing the water which collects in the water collecting space. In event that gloves of other description, such as kid gloves which have been cleaned with an inflammable fluid, are to be dried, I may provide a hood 40 in which a suction blower (not shown) is positioned to draw away any vapors which may be evolved during the drying operation.

It will be appreciated that I have provided a device which accomplishes the objects of my invention. Whereas it now takes eight to twelve hours to dry rubber gloves which have been tested, I am enabled by my device to dry them thoroughly within the space of three minutes. Due to the fact that I am enabled to dry gloves in such a short space of time, I greatly reduce the amount of rack space required. Inasmuch as a smaller number of gloves is made unavailable for use by the necessity of waiting for them to dry, a smaller stock of gloves may be used by an organization equipped with my device. Since the gloves will dry thoroughly in a short space of time, deterioration of the gloves due to inadequate drying will be greatly reduced. Rapidly drying the gloves after exposure to the electrolyte greatly lengthens the life of the glove.

It is to be understood that certain features and sub-combinations are of utility and may be employed without reference to other features and sub-combinations. This is contemplated by and is within the scope of my claims. It is further obvious that various changes may be made in details within the scope of my claims without departing from the spirit of my invention. It is, therefore, to be understood that my invention is not to be limited to the specific details shown and described.

Having thus described my invention what I claim is:

1. A glove drying device comprising in combination a base, a rotatably mounted plate thereon, a frame work mounted on said plate, a manifold supported by said framework, said manifold being formed by a pair of spaced cone-shaped wall members, a plurality of hollow glove-supporting elements supported by said manifold and being in communication therewith, a prime mover mounted on said plate, an air blower mounted on said plate and adapted to be driven by said prime mover, said blower having an air intake and an air outlet, means for connecting said outlet to said manifold whereby air is introduced thereinto for distribution by said hollow glove supporting elements into the interior of the respective gloves to effect their drying, the inner of said cone-shaped manifold wall members being adapted to act as a liquid reservoir for the collection of liquid blown from the gloves, and means for draining liquid from said reservoir.

2. A glove drying device as in claim 1 wherein said framework is provided with a cushioning means at the points of contact with said manifold.

3. A glove drying device as in claim 1 in which said air intake comprises a duct and means positioned in said duct to heat the incoming air.

4. A glove drying device as in claim 1 in which said prime mover is an electric motor, leads from said motor to said plate, a pair of brushes extending through said plate and having electrical connection with said leads, a pair of insulated conducting rings mounted in said base adapted to be contacted by said brushes and means for supplying electrical potential to said rings whereby the current supply to said motor is maintained during rotation of said plate.

5. A glove drying device as in claim 1 having friction reducing means interposed between said base and said plate.

6. A glove drying device as in claim 1 having a vapor education hood supported over said glove supporting elements.

7. In a glove drying device as in claim 1, a diaphragm mounted in said inner cone-shaped manifold wall adapted to act as the bottom of the liquid collecting receptacle, and having said draining means connected to said diaphragm.

8. A glove drying device comprising in combination an annular manifold formed by a pair of spaced side walls, a plate cooperating with the inner of said side walls to form a receptacle, a plurality of hollow glove supporting elements in communication with said manifold, means for supplying air to said manifold and a drain for said receptacle.

9. A glove drying device comprising in combination a pair of conical members supported in telescoped spaced relation to form a manifold, means to supply air to said manifold, a plurality of hollow glove supporting elements in communication with said manifold, the interior of said conical members having a bottom forming a receptacle for the reception of water and a drain for said receptacle.

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