J. J. JENKINS.

GLOVE DRYING AND DEODORIZING APPARATUS.

APPLICATION FILED JAN. 23, 1913.

1,193,152. Patented Aug. 1, 1916.

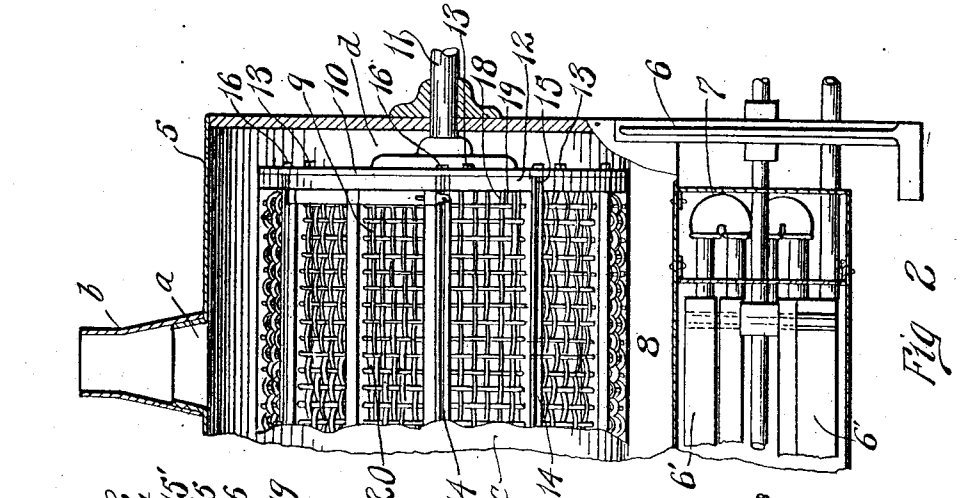


Fig 2

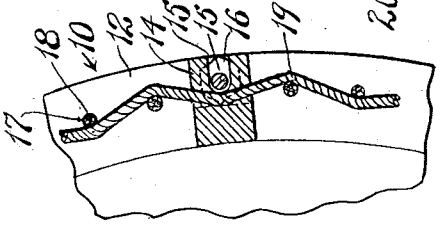


Fig 3

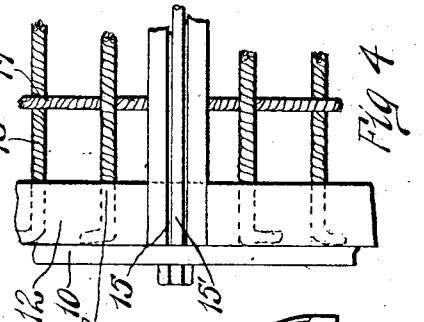


Fig 4

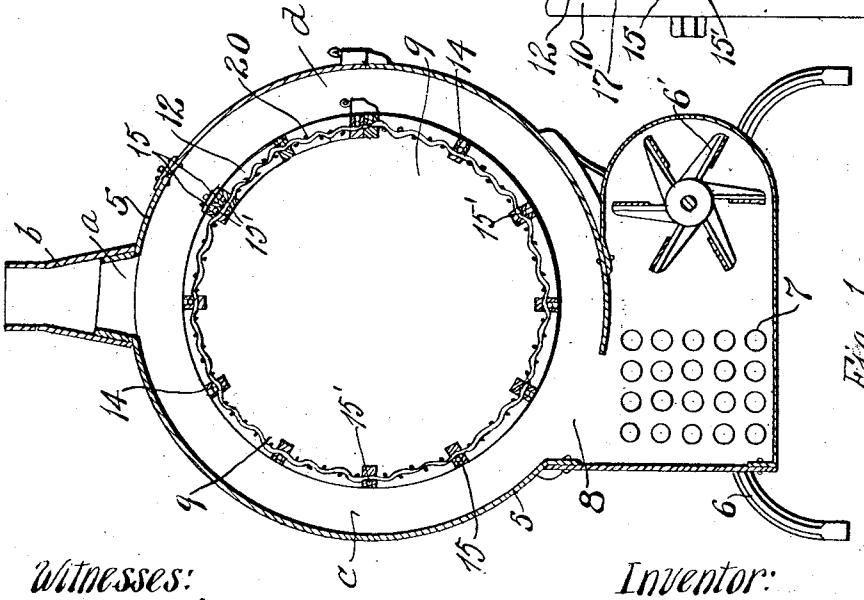


Fig 1

Witnesses:

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JOHN J. JENKINS, OF LOS ANGELES, CALIFORNIA.

GLOVE DRYING AND DEODORIZING APPARATUS.

1,193,152. Specification of Letters Patent. Patented Aug. 1, 1916.

Application filed January 23, 1913. Serial No. 743,730.

To all whom it may concern:

Be it known that I, JOHN J. JENKINS, a citizen of the United States, and resident of Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Glove Drying and Deodorizing Apparatus, of which the following is a specification.

This invention particularly relates to apparatus for drying and deodorizing gloves after the same have been cleaned.

Prior to this invention kid gloves have generally been cleaned in benzin and after having been taken from the benzin, attendants, usually girls, blow into the gloves for the purpose of distending them into a smooth form, and then the gloves are hung up to dry. This method is very tedious and slow, often causing the skin about the mouth to become sore and disfigured.

An object of this invention is to make provision whereby the gloves can be properly dried so that they will be soft and flexible after the benzin has been removed.

The apparatus which I have invented for effecting the desired result is somewhat of the character of centrifugal driers adapted for drying lothes, but this invention differs from clothes-drying apparatus in various features, which I will now specifically set forth. In the first place, it is to be noted that with clothes driers the vapor to be drawn therefrom is aqueous, and it is desirable that the clothes be heated and kept hot in order to throw off the aqueous vapor. In such machines it has been customary to provide a cylinder entirely closed by a perforated jacket, preferably made up of a wire screen extending from one end plate to another, and through such screen air may freely circulate. Outside of the screen there is provided a casing of slightly larger diameter than the revolving cylinder, so that heated air admitted to the casing from nipples or openings thereinto may flow into the rotating drum, and from thence be drawn off from the other side of the casing. Such construction is very dangerous to be used with an inflammable vapor, such as that arising from gloves after they have been cleaned with benzin; and an object of this invention is to provide a safe construction that will not be likely to explode in operation. The cause of such explosion with the old form of clothes-drying apparatus may arise from various conditions, and an object of this invention is to avoid all of the causes of explosion which may occur during the operation of the apparatus. One of said causes is confining the vapors closely within the casing and allowing ignition to occur within the casing. Such explosion may result from the production of static electricity and its conduction to the gloves containing the inflammable liquid. I avoid this danger by providing between the drum and the casing a wide passage through which heated air is driven to a large outlet part way around the casing from the air inlet leading thereinto, and by providing a net of non-metallic material supported by non-metallic means between non-metallic heads, so that there can be no conduction of electricity to the gloves contained in the apparatus.

Another and important advantage in providing the non-metallic drum is the elimination of any liability of staining the gloves by contact with an oxidizing substance such as that often present with the metallic wire screen heretofore employed in the construction of the revolving drum.

In the accompanying drawing, Figure 1, is a vertical cross section of my improved drier. Fig. 2, is a longitudinal section of a portion of the shell showing part of the tumbler therein. Fig. 3, is an enlarged cross section of a portion of the tumbler's head, and, Fig. 4, is a side view of a portion of the tumbler's head and longitudinal rib.

In carrying out my invention I construct a horizontal cylindrical shell 5, of metal or other suitable material, which is mounted on a base 6, this base having therein a fan blower 6', and a heating coil 7, and an opening 8, is formed through the shell 5, along one side, directly above the heating coil. An outlet *a* is provided in the shell, part way around from the inlet opening 8; and said outlet is of large area and is provided with a stack *b* opening away from the apparatus to immediately discharge the products of evaporation outside of said apparatus. By means of said stack the fumes are immediately carried away. Within the shell 5, is revolubly mounted the tumbler cylinder 9. This cylinder comprises a metal head 10, at each end, each head having a stub shaft 11, to serve as a pivot for the tumbler, and one of the stub shafts has means for turning the tumbler. On the inner side of each metal head 10 is a wood or

fiber disk 12, bolted thereto, as shown at 13. At suitable intervals the disk 12, is notched to receive therein the ends of wooden ribs 14, which extend longitudinally from one disk to the other, the outer edges of these ribs being flush with the perimeter of the disks, and each rib has on its outer side a longitudinal groove 15. Within each groove thus constructed there is a clamping rod, 15′ which passes through the respective heads 10, and nuts 16, at the ends of these rods, serve to clamp together and hold firmly the respective parts.

Each head has a plurality of holes 17, near its perimeter and the ribs have also holes through the same at regular intervals to receive longitudinal cords or ropes 18, and circumferential ropes 19, which are woven together and secured at the ends to the disks 12, and to the longitudinal ribs, 14, so as to form a non-metallic grid or fabric in the form of a net which will retain the fabric to be dried within the perforated tumbler thus formed. A door 20 may also be formed of the rope or fabric, as shown, so that the entire inside body of the tumbler is made of wood and suitable fabric, so as to prevent any metallic contact with the glove being cleaned or dried within the tumbler, and the longitudinal ribs, arranged as shown, serve to distribute the gloves as the tumbler turns.

The outlet *a* may be centrally arranged to one side of a vertical line drawn from the outlet, said inlet being so arranged that the air driven by the blower 6′ through the heating coils 7 may be passed quite directly through and around one side of the drum to the outlet *a* and out through the stack *b*. That is to say, a practically direct passage *c* of large cross-sectional area is provided from the heating coil 7 part way around one side of the drum to the outlet *a*, the air thus being passed around one side of the revolving cylinder as well as through said cylinder and through the mass of gloves contained between the ribs and dropping therefrom as the cylinder revolves. The revolving cylinder is centrally arranged within the casing, so that a large air space and passage *d* is provided on the opposite side of the air passage *c*, and there is greater or less circulation through the passage *d* owing to the revolution of the ribs forming part of the drum. In addition to the avoidance of any danger of ignition by electricity conducted to the gloves, an especial advantage arises from the use of the net of which the periphery of the drum is practically constructed; and that is the avoidance of any liability to contact with oxidized substances which might stain the gloves.

One of the important features of this invention is its structure which permits me to easily and quickly change and replace the rope net, as it is only necessary to loosen or remove the tie bolts in order to take out the ribs and the interlaced rope.

What I claim as new is:

1. A drying tumbler, comprising a pair of metallic heads, with journals thereon, a wooden disk secured to the inner surface of each head, a plurality of notches in the perimeter of each disk, a plurality of longitudinal wooden ribs, each having a groove from end to end, in its outer edge, adapted to rest in the notches of the respective disks, and a rod within the groove of each rib and secured by nuts to the metal heads.

2. A drying tumbler, comprising a pair of metallic heads, each with an integral journal, a wooden disk secured to the inner surface of each head, removable longitudinal wooden ribs adapted to be secured to said heads and disks, and a net work of rope between said ribs and wooden disks to constitute a grid for holding fabrics within said tumbler.

3. A drying tumbler, comprising a pair of metallic heads, with journals thereon, a wooden disk removably attached to the inner surface of each head, said disks having notches at regular intervals, a plurality of wooden ribs longitudinally disposed and resting in the notches of the disks, each rib having a groove in its outer surface, a tie bolt in each rib groove, passing through the metallic heads, and a grid formed of cords or ropes which are detachably secured to said ribs and disks.

4. A glove-drying apparatus comprising a shell; a non-metallic perforated tumbler inside of said shell, there being an inlet into the shell and an outlet from the shell and an open passage leading around one side of the tumbler from the inlet to the outlet; means to supply heated air to the inlet; means to rotate the tumbler; and means to discharge the heated air from the outlet away from the apparatus.

Signed at the city of Los Angeles, county of Los Angeles, State of California, this 19th day of July, 1912, in the presence of witnesses.

JOHN J. JENKINS.

Witnesses:
H. E. CLYNE,
J. Z. ZUBER.