

UNITED STATES PATENT OFFICE.

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METHOD OF DRYING VARNISHED PATENT-LEATHER.

1,269,931.

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No Drawing.

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To all whom it may concern:

Be it known that I, ERNST HINTZ, chemist, subject of the German Emperor, residing at Nerobergstrasse 24, Wiesbaden, Germany, have invented certain new and useful Improvements in Methods of Drying Varnished Patent-Leather, of which the following is a specification.

The present invention relates to a method of drying varnished (patent) leather, but which may also be advantageously employed for drying any other material.

The invention is based on the known application of luminous rays of short wave length and rich in ultraviolet rays for drying purposes; the invention consists in a specific form of this application by which not only better results but also a considerably shorter exposure is enabled.

According to the drying method heretofore employed the light of short wave length is made to act on the material to be dried in chambers filled with atmospheric air; in consequence of the presence of oxygen ozone is formed thereby, which has been proven to have a detrimental effect. For removing such ozone, or for obviating its detrimental effect various arrangements and processes have been devised. So, for example, this has been attempted by ventilation and regulation of the temperature, by freeing the air as far as possible from steam, and by introducing a small quantity of ammonia into the exposure chamber. In all these instances, however, it has only been possible to reduce the detrimental effect of the ozone to a moderate degree.

The present invention has as its object to completely obtain the desired effect employing in so far a novel line of action, as it does not aim at obviating the detrimental effect of ozone, but completely excludes the formation of the latter. This is obtained according to the present invention by the material to be dried being exposed to the light of short wave length under exclusion of air and thereby also of atmospheric oxygen

which is the origin of the ozone formed. In carrying out the drying method according to the present invention the material is preferably dried in an inactive gas free from air. This inactive gas is employed in a dried condition and heated, according to conditions to a more or less high temperature, whereby the completion of the process may be greatly accelerated.

As such indifferent gas a substance may serve which, at the drying temperature is of a gaseous state or which may be converted into a gas, which, however, must meet the requirement, that it will, when under action of the ultraviolet rays, not split off any oxygen, nor cause the formation of water, and lastly, will not attack the patent leather.

Such indifferent or inactive gases suitable for the present purpose are hydrogen, nitrogen, ammonia and substituted amines, methane, lighting gas, carbonic acid, and carbonic oxid.

The drying of patent leather according to the hereinbefore described method is, owing to the greater certainty of better results (with patent leather for example, the skins will not stick together), and the considerably reduced duration of the process of high importance, both from a technical and an economical point of view.

I claim:

1. Method of drying varnished (patent) leather and the like consisting in exposing the material to be dried under exclusion of all atmospheric air or other oxidizing agent to the action of light of short wave length only and rich in ultraviolet rays.

2. Method of drying varnished (patent) leather and the like consisting in exposing the material to be dried under exclusion of all atmospheric air or other oxidizing agent but in the presence of an inactive medium to the action of light of short wave length only and rich in ultraviolet rays.

PROFESSOR ERNST HINTZ.