UNITED STATES PATENT OFFICE.

AUGUST P. BJERREGAARD, OF MINEOLA, NEW YORK, ASSIGNOR TO CHARLES CALMAN AND HENRY L. CALMAN, PARTNERS DOING BUSINESS UNDER THE FIRM-NAME OF EMIL CALMAN & COMPANY, OF NEW YORK, N. Y.

VARNISH AND PROCESS FOR PRODUCING SAME.

No. 877,482. Specification of Letters Patent. Patented Jan. 28, 1908.

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To all whom it may concern:

Be it known that I, AUGUST P. BJERREGAARD, a citizen of the United States, residing at Mineola, Nassau county, New York, have invented certain new and useful Improvements in Varnish and Process for Producing Same, of which the following is a full, clear, and exact description.

This invention relates to improvements in varnishes.

Economy of production, the obtaining of an effective quick drying varnish, and the obtaining of a dead or matt finish are among the objects and advantages of this invention. This varnish may be very advantageously employed for what is termed the first coat, for it will be found that the necessity of employing the usual filler may be avoided, although of course the varnish may be applied to a surface which has been previously treated with any of the well known fillers. In this respect the varnish possesses a unique advantage, for with the varnishes ordinarily employed a filler is usually required. By the use of this varnish it is unnecessary to rub the surface, but the finishing coats may be immediately applied as soon as the first coat of my improved varnish is dry. Another peculiar advantage of this varnish resides in the ease with which it may be worked under the brush.

The varnish is prepared in the following manner: The gum employed is called "black damar". The solvent employed is benzin or other suitable petroleum products, benzol or its homologues, or mixtures of any or all of them; in other words, a suitable liquid hydrocarbon. The process of preparation comprises dissolving the gum in substantially more of the solvent than is desired in the finished product, which solution is made at substantially ordinary temperature and pressure, then either settling or filtering out the undissolved impurities, and then removing (as by distillation) the surplus solvent until the mixture is of the desired consistency. The object of using a surplus of the solvent in dissolving the gum is to secure a product that will settle or that may be filtered. This, however, is not the finished product, for as above indicated, to secure the finished product requires that the excess of solvent shall be subtracted. It has been found heretofore that with that quantity of solvent required for a given amount of said gum to produce a varnish of the proper consistency for use, a product will be obtained that will not settle and cannot be filtered on account of the slimy nature of the same. I have found that an excess of the solvent in the first instance, these difficulties are removed, and a properly refined product is easily obtained. The surplus solvent after recovery can, of course, be used in making the next batch in place of an equivalent quantity of the original solvent. It will be observed that in the preparation no oil is required, but it should be understood that if I desire to add oil to the product it may be done without departing from the principle of my invention. Care and skill, however, should of course be employed in the addition of any such material. The effect of oil added will be simply to render the varnish more tough, although it will be found on application that it will take longer for a coat of my varnish containing oil to dry.

The finished product may have any desired consistency, for example, that of the ordinary varnish. It will have a cloudy appearance, due not to any insoluble element but to the inherent quality of the gum. When applied and dried it will give a dead or matt surface. One conspicuous and unique advantage of this varnish is that, unlike any other varnish not containing alcohol or a similar solvent, it dries with extreme rapidity, say ten minutes under favorable conditions, and never over a few hours under unfavorable circumstances. Unlike other so-called "quick-drying" varnishes, this varnish may be applied and worked under the brush with the greatest ease; in fact, as easily as any oil varnish. These properties give this varnish a particular value for use as a first coat, so-called. Its dead or matt finish renders it unnecessary to rub or sandpaper the same to make it ready to receive another coat or coats. This is a distinct advantage, because, as is well known, when a coat of varnish is sandpapered or rubbed it is not only impaired but a substantial portion of the same is actually removed. By my invention this is entirely avoided, the matt surface furnishing a most effecti e anchorage for the superposed coat.

Moreover, the labor of rubbing down the coat of varnish, as well as the time required to permit other first coat varnishes to dry, is saved.

What I claim is:

1. A varnish composed of so-called "black damar" gum dissolved in a suitable volatile liquid hydrocarbon, from which varnish the impurities have been removed.

2. A varnish composed of so-called "black damar" gum dissolved in a suitable volatile liquid hydrocarbon, from which varnish the impurities have been removed, and a suitable quantity of oil.

3. The process of manufacturing varnish comprising dissolving a black damar gum in a suitable volatile hydrocarbon solvent at atmospheric pressure and temperature, the quantity of the latter being in excess of that desired in the finished product, then refining to remove insoluble impurities, and then removing the excess of the solvent.

4. The process of manufacturing varnish, comprising dissolving a black damar gum in a suitable volatile hydrocarbon solvent at substantially normal pressure and temperature, the quantity of solvent being in excess of that desired in the finished product, then refining to remove insoluble impurities, and finally distilling to remove the excess of solvent.

AUGUST P. BJERREGAARD.

Witnesses:
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