

UNITED STATES PATENT OFFICE.

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ETHER MIXTURE FOR DISINFECTING.

No. 812,631.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, TOMÁS BARGIELA, merchant, a subject of the King of Spain, JOSÉ PINZANI MISLOWSKY and ALFREDO CARICCHIA, chemists, subjects of the King of Italy, and LOUIS EMILIANO ODIO, merchant, a citizen of the United States of America, and residents of No. 590 Calle Reconquista, in the city of Buenos Ayres, Argentina, have invented a new and useful Improvement in Ether Mixtures for Disinfecting purposes, of which the following is a specification.

Our invention refers to a new compound which possesses special properties for deodorizing and aromatizing petroleum and other hydrocarbons.

In the manufacture of our new compound we proceed as follows: We macerate, during fifteen days, leaves of eucalyptus globulus, thirty grams; camphor, five grams; in unrectified ethylic alcohol, three hundred grams; in unrectified methylic alcohol, three hundred grams; in unrectified amylic alcohol, three hundred grams; in commercial hydrochloric acid, one hundred grams. After fifteen days we add dehydrated sea-salt, three hundred and eighty grams; commercial sulfuric acid, thirty-five grams; acetate of ammonia, sixty grams. The whole is left to macerate forty-eight hours longer, after which it is submitted to distillation, the vapors being concentrated in a Liebig cooler, which deposits the product in a suitable receiver resting in a freezing mixture. At the same time binoxid of nitrogen is led from another generator into this receiver until the nitryls shall have formed.

The resulting compound retains its properties under any condition of temperature and keeps indefinitely without any deterioration. It is also to be noted that it does not prejudicially affect any of the other properties of petroleum nor of alcohol. Neither does it leave any residuum after combustion. In its manufacture we use dehydrated sea-salt on account of the very small cost of the same, while it contains the chlorids, bromids, and sulfates of sodium, potassium, calcium, and magnesium which we require to utilize; but we might employ any of the compounds containing the above-mentioned substances or components for the purpose of extracting from the same the materials which compose our compound.

The acetate of ammonia is employed as a

source of the production of acetic acid and of ammonia; the methylic, ethylic, and amylic alcohols acidulated with hydrochloric acid for the purpose of forming the ether compounds appertaining to the different compounds, and, finally, the bidoxid of nitrogen to the end that it may intervene in the formation of the nitryls and aldehydes, which are oxidizing and disinfecting agents, specially those of methylic alcohol, the antiseptic properties of which are well known. The eucalyptus and camphor contribute to avoid any disagreeable emanations during the combustion of the hydrocarbons, apart from the advantages to be derived from the well-known balsamic and hygienic properties of those ingredients.

To carry out the deodorization and aromatization of kerosene or other hydrocarbons, it suffices to add to the same from ten to thirty-five per millimeter of our compound, according to the quality of the article under treatment. In certain cases we may commence by adding to the kerosene not more than three per millimeter, by weight, of alum and decanting after forty-eight hours and then treating the kerosene by our compound. After the very simple treatment we have thus described it will be found that the characteristic odor of petroleum will have completely disappeared, being replaced by an agreeable aroma. At the same time it will be observed that the oil has lost some of its greasiness; that its illuminating power is greater, the light being clearer, while the flashing-point is higher, which is a great advantage, as the danger of accidental ignition is thus diminished. These latter effects may be attributed to the formation of chlorids, bromids, and sulfates of the salts contained in the sea-salt employed in the preparation. Furthermore, the kerosene treated in this manner becomes suitable for the employment in the manufacture of varnishes through the increase which takes place in its siccative power and the elimination of all disagreeable odor.

The operation of denaturalizing alcohol consists merely of adding to the same ten to fifteen per millimeter of our compound. It may be colored with any of the usual substances or with eosin, hematoxylin, carmine fuchsin, or picric acid in any of its various combinations. The alcohol thus treated is unfit to be taken into the stomach; but its

strong, but not disagreeable, odor effectively prevents all possibility of mistake. It should also be pointed out that it loses none of the properties which render it available for other industrial and domestic uses. Our compound when used for this purpose possesses the highly-valuable property of becoming so intimately combined with the alcohol as to render it quite impossible to eliminate it by redistillation or by any other process whatever. So there is no danger of the alcohol ever being used in the preparation of any article which is to be taken into the stomach. It may be used in the preparation of varnishes, which will be more brilliant and dry quicker. The combustion of this alcohol produces no smoke, the products of the same being rather aromatic and disinfectant and have besides the balsamic and hygienic properties which, as is well known, eucalyptus and camphor possess.

Among other purposes for which our compound may be used we may mention the aromatization of animal fats and oils, the said agent being added in the proportion that may be most expedient in each case.

Candle-wicks may be impregnated with this substance, as the light given will be found to have increased brilliancy.

Having thus described our invention, what

we claim as new, and desire to secure by Letters Patent, is—

1. The aromatic and disinfecting compound of ethers and by-products, consisting of the distilled product of a mixture of eucalyptus-leaves and camphor in ethylic, methylic and amylic alcohol, hydrochloric acid, sea-salt, sulfuric acid and acetate of ammonia in or about the proportions described.

2. The aromatic and disinfecting compound of ethers and by-products, consisting of the distilled product of a mixture of eucalyptus-leaves and camphor in ethylic, methylic and amylic alcohol, hydrochloric acid, sea-salt, sulfuric acid, acetate of ammonia and binoxid of nitrogen, in or about the proportions described.

In witness whereof we have signed our names to this specification in the presence of two subscribing witnesses.

TOMÁS BARGIELA.

JOSÉ PINZANI MISLOWSKY.

ALFREDO CARICCHIA.

LOUIS EMILIANO ODIO.

Witnesses:

P. A. BRENEY,

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