

UNITED STATES PATENT OFFICE.

ROBERT ESCHÈ, OF ARLON, BELGIUM.

MANUFACTURE OF SLOW-BURNING WICKS.

SPECIFICATION forming part of Letters Patent No. 722,091, dated March 3, 1903.

Application filed September 6, 1902. Serial No. 122,414. (No specimens.)

To all whom it may concern:

Be it known that I, ROBERT ESCHÈ, a subject of the King of Belgium, and a resident of Arlon, Belgium, have invented a certain new and useful Improvement in the Manufacture of Slow-Burning Wicks, of which the following is a specification.

The object of the present invention is a slow-burning wick and process for making the same.

The invention consists in impregnating the fibrous material of the wick with certain other substances which, on the one hand, render the combustion slower and, on the other hand, make the wick more capable of conducting the fuel and which finally cause the cinders formed to be reduced to a minimum.

In carrying out this invention a wick made of materials having a vegetable or animal origin is impregnated with the substances and in the order hereinbelow given. The wick is first dipped into a solution consisting of one hundred grams of soluble glass (silicate of soda) in one liter of distilled water and after being completely impregnated therein is dried. The wick is then submitted to an impregnation in a solution consisting of fifty grams of hyposulfite of soda in one liter of distilled water. Again the wick is dried and is for a third time dipped, but this time in a solution composed of eighty grams of bichromate of ammonium in one liter of water. The object of these different solutions is as follows: The silicate of soda prevents a rapid combustion, which without this impregnation would infallibly take place. The hyposulfite of soda causes the consumption and destruction of cinders formed by the combustion, while the bichromate of ammonium prevents the burning end of the wick from hardening and at the same time causes this end to

become porous and slightly swelled. The proper quantity of oil, &c., can thus pass without difficulty through the wick, which absorbs it.

The best oils for this wick are those commonly called "vegetable" and which can be eventually mixed with mineral oils.

In order to give a certain stiffness to the wick thus prepared, it is after the last impregnation has taken place given a thin coating of Japanese vegetable wax.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The process for manufacture of slow-burning wicks consisting in first impregnating the material of the wick in a watery solution of silicate of soda, drying it, next impregnating it in a solution of hyposulfite of soda, drying it, then impregnating it in a solution of bichromate of ammonium and finally drying it.

2. The process for manufacture of slow-burning wicks, consisting in first impregnating the material of the wick in a watery solution of silicate of soda, drying it, next impregnating it in a solution of hyposulfite of soda, drying it, then impregnating it in a solution of bichromate of ammonium, drying it, and finally giving it a thin coating of vegetable wax.

3. A slow-burning wick containing silicate of soda, hyposulfite of soda, and bichromate of ammonium.

In testimony whereof I have hereunto set my hand in presence of two witnesses.

ROBERT ESCHÈ.

Witnesses:

GREGORY PHELAN,
R. S. WILLIAMS.