

United States Patent Office.

AARON M. DANIELS, OF HARTFORD, CONNECTICUT.

Letters Patent No. 113,269, dated April 4. 1871.

IMPROVEMENT IN CHEMICALLY-PREPARED LAMP-WICKS.

The Schedule referred to in these Letters Patent and making part of the same.

I, AARON M. DANIELS, of Hartford, in the county of Hartford and State of Connecticut, have invented certain Improvements in Chemically-Prepared Lamp-wicks, of which the following is a specification.

Nature and Objects of the Invention.

My invention consists in applying certain well-known chemical substances to ordinary cotton lamp-wicks for burning hydrocarbon oils, with the object of improving their properties as conductors to the flame, and also improving the flame itself.

General Description.

I first dissolve gum camphor in oil of sassafras, in the proportions of one ounce of camphor to one fluid ounce of the oil. Next, I dissolve an equal weight of alum in an equal quantity of the same oil. The two solutions are then mixed, and the wicks are soaked in the mixture for three or four hours, when they are taken out and dried. They are then placed in a pure petroleum oil of a high-fire test, as high as 140° being the best, and allowed to remain about five minutes, after which they are dried ready for use. They continue to improve, however, for eight or ten days.

Each of the separate solutions above mentioned will improve the burning of the wick, but the use of both of them together is more advantageous, and gives a better flame when burning.

Other oils that will dissolve camphor and alum may be used in place of the oil of sassafras, but the latter is preferable.

The advantages of my invention are—

Safety from explosion, on account of the chemically-prepared wick taking up and conducting to the flame all the gases formed above the oil in the lamp.

It prevents the overflow of the oil at the top of the wick-tube by causing a more uniform and regular flow of the oil.

It keeps the wick-tube cooler.

It prevents the odor from the burning oil.

It prevents charring of the wick.

It increases the volume, intensity, and steadiness of the flame. With the same amount of oil my improved wick will outlast six or more ordinary unprepared wicks.

Claims.

1. A wick prepared with camphor, alum, and oil, substantially as herein described.
2. A wick prepared with camphor, alum, oil, and petroleum, substantially as herein described.

AARON M. DANIELS.

Witnesses:

THEO. G. ELLIS,
HENRY M. JACOBS.