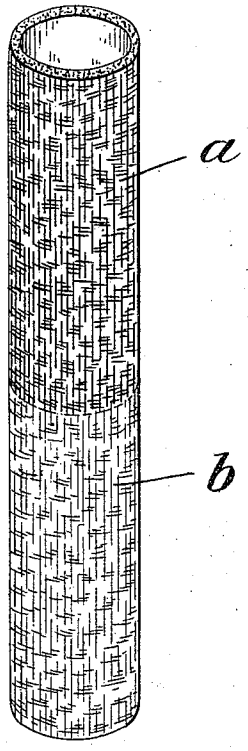
J. C. SMITH.

SAFETY LAMP WICK.

APPLICATION FILED JUNE 9, 1908.

911,622. Patented Feb. 9, 1909.



Attest:

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UNITED STATES PATENT OFFICE.

JOSEPH C. SMITH, OF NEW YORK, N. Y.

SAFETY LAMP-WICK.

No. 911,622. Specification of Letters Patent. Patented Feb. 9, 1909.

Application filed June 9, 1908. Serial No. 437,467.

To all whom it may concern:

Be it known that I, JOSEPH C. SMITH, a citizen of the United States of America, and a resident of Richmond borough, New York city, and State of New York, have invented certain new and useful Improvements in Safety Lamp-Wicks, of which the following is a specification.

My invention relates to wicks such as are used in lamps, oil-stoves, and other articles in which the oil is fed by suction or capillary attraction through the substance of the wick. The two dangers or difficulties of such wicks are the smoking which comes from the fact that oil is sucked up too rapidly to be burned; and the danger of explosion.

The object of my invention is to produce a wick of such character that it is impossible for too much oil to be drawn up through the wick no matter how high the wick may be turned, and for the same reason the flame cannot creep. The wick therefore may be fairly described as a non-smokable wick, and I have found that when on lighting a lamp equipped with my improved safety wick, if the wick is turned too high it will of course flame up high because of the oil saturating the top of the wick, but the flame immediately drops back to the normal height for lack of supply. I have found that this is a matter of a very few seconds therefore there is no danger either of explosion or continued smoking. I have also found that it is perfectly safe to leave the lamp burning at night because the wick will never supply more than a fixed quantity of oil even if the upper edge is uneven.

Another advantage of my improved safety wick is that its use modifies or does away with the yellowness of the ordinary oil flame and gives a pure white light. To accomplish this object I form a paste by mixing equal parts of magnesia, hydraulic lime, and silica together with sufficient vinegar to reduce the mixture to a paste-like consistency. They may be mixed hot or cold as desired. I apply this paste as a thin coating on the outside only of the lamp wick. This mixture being non-flammable protects the outer side of the wick and by filling part of the interstices of the wick diminishes the channel through which the oil can flow, as above set forth.

My invention may be applied to either flat wicks or round wicks, solid or tubular. In the accompanying drawing I have shown a tubular wick.

The upper part of wick, *a*, represents the portion to which the paste is applied, while the lower portion *b*, is left free.

I claim:

A safety lamp wick, the upper portion of which is coated with a paste made of equal parts of magnesia hydraulic lime, and silica dissolved in vinegar whereby the channel through which the oil can flow is diminished and the wick becomes non-smokable.

JOSEPH C. SMITH.

Witnesses:

HELEN G. MURPHY,

W. P. PREBLE, JR.