

# UNITED STATES PATENT OFFICE.

PETER R. GOTTSTEIN, OF HOUGHTON, MICHIGAN.

## IMPROVEMENT IN MINERS' CANDLES.

Specification forming part of Letters Patent No. 172,423, dated January 18, 1876; application filed August 29, 1874.

*To all whom it may concern:*

Be it known that I, PETER R. GOTTSTEIN, of Houghton, in the county of Houghton and in the State of Michigan, have invented certain new and useful Improvements in Miners' Candles; and do hereby declare that the following is a full, clear, and exact description thereof.

The design of my invention is to lessen the cost, and increase the durability, of candles for use in mines; and it consists, as a new article of manufacture, of a candle composed of grease-stearine and tallow-stearine, substantially as and for the purpose hereinafter specified.

In the manufacture of my candles for summer use, I employ forty-seven and one-half parts of grease-stearine, forty-seven and one-fourth parts of tallow-stearine, five parts of rosin, and one-fourth part of coloring matter, and of the composition thus constituted make said candles by any ordinary process.

For winter use the proportion of grease-stearine is decreased, and that of the tallow-stearine correspondingly increased.

The ingredients named cost less than those ordinarily employed, while the candles made therefrom have largely-increased durability, and equal illuminating properties.

Having thus fully set forth the nature and merits of my invention, what I claim is—

As a new article of manufacture, a candle composed of grease-stearine and tallow-stearine, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 19th day of August, 1874.

PETER R. GOTTSTEIN.

Witnesses:

M. VAN ORDEN,  
CHAS. R. DODGE.