

No. 743,677.

Patented November 10, 1903.

# UNITED STATES PATENT OFFICE.

HAVENS B. BAYLES, OF NEW YORK, N. Y.

## FUEL.

SPECIFICATION forming part of Letters Patent No. 743,677, dated November 10, 1903.

Application filed July 2, 1903. Serial No. 164,002. (No specimens.)

*To all whom it may concern:*

Be it known that I, HAVENS B. BAYLES, residing at No. 125 Seventh avenue, in the borough of Brooklyn, city of New York, State of New York, have invented certain new and useful Improvements in Fuel, of which the following is a specification.

My invention has for its object to provide a smokeless fuel capable of emitting great heat, but at the same time perfectly safe to handle and non-explosive at the ordinary temperature.

I have discovered that if asbestos is saturated with glycerin the latter may be gradually burned out, producing a very hot smokeless flame. The asbestos may be used over and over again, as it is not consumed. I have also discovered that the asbestos can be re-saturated when hot—indeed, even when the flame is burning—as the glycerin is non-explosive at that temperature. In order to start combustion, it is necessary to apply heat, such as the flame of a match, to a very small

piece of the saturated asbestos, which is picked up for that purpose, and when this is lighted the flame gradually spreads over the entire mass. I prefer to use asbestos as a base; but any similar substance, such as mineral wool, &c., can be substituted therefor. Cotton can also be used as a base, but is objectionable, inasmuch as it gradually consumes itself.

Having described my invention, what I claim is—

1. As a new article of manufacture, fuel composed of a fibrous substance, saturated with glycerin, substantially as described.
2. As a new article of manufacture, fuel composed of asbestos saturated with glycerin, substantially as described.

In witness whereof I have hereunto set my hand this 24th day of June, in the year 1903.

HAVENS B. BAYLES.

Witnesses:

AUGUSTUS M. PRICE,  
GEO. C. BRUCHNER.