

UNITED STATES PATENT OFFICE.

GEORGE L. BURNHAM, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN COMPOSITIONS TO RENDER FABRICS IMPERVIOUS TO GAS.

Specification forming part of Letters Patent No. 120,368, dated October 31, 1871.

To all whom it may concern:

Be it known that I, GEORGE L. BURNHAM, of the city and county of Providence, in the State of Rhode Island, have invented an Improved Compound for Rendering any Fabric Impervious to Gas, of which the following is a specification:

I make a solution of the following components and in the proportions named, to wit: One pound of bar-soap, one pound of glycerine, one ounce of beeswax, one ounce of rosin.

This compound is useful in the manufacture of elastic tubing, which is in common use for conducting illuminating gas to portable burners. The tubing is covered with a woven fabric, which, however, in the piping, as heretofore made, is an insufficient protection against the escape of the gas, even with the various linings or glazings commonly employed. Different contrivances more or less effectual have been resorted to in order to obviate this difficulty which renders the use of the elastic tubing so objectionable; but the composition I have invented accomplishes the desired purpose perfectly, and at a less cost and

labor than others now used. It is spread over the textile covering of the tube as a coating, and, being liquid, readily fills the interstices between the threads of the fabric, thus preventing the escape of the gas.

When dry, this compound does not become stiff and unyielding, but remains pliable and elastic, so that the tube may be bent in any direction, yet the coating will not crack or in any manner permit leakage.

The compound as above described is first to be heated before using; but if it is desirable to keep it in a liquid state and to spread while cold, I add to the ingredients already named, after dissolution, one-quarter pound of glycerine and one ounce of gum arabic or gum tragacanth.

I claim as my invention—

The compound made of the ingredients and in the proportions named, for the purpose specified.

GEO. L. BURNHAM.

Witnesses:

J. ERASTUS LESTER,
LOUIS L. NORTHUP.

(35)