

# UNITED STATES PATENT OFFICE.

EDWARD WILLIAM LANCASTER, OF WESTMINSTER, ENGLAND.

## PROCESS OF PREPARING CALCIUM CARBID.

SPECIFICATION forming part of Letters Patent No. 683,562, dated October 1, 1901.

Application filed October 8, 1900. Serial No. 32,399. (No specimens.)

*To all whom it may concern:*

Be it known that I, EDWARD WILLIAM LANCASTER, a subject of the Queen of Great Britain, residing at 28 Victoria street, Westminster, England, have invented certain new and useful Improvements in the Preparation of Calcic and other Carbids, (for which I have applied for Letters Patent in Great Britain, such application being numbered 9,334 and bearing date May 21, A. D. 1900,) of which the following is a specification.

As is well known, calcic and other carbids when exposed to the air absorb moisture therefrom and become decomposed, giving off acetylene gas, which defect renders it necessary to protect such carbids from the atmosphere by storing them in air-tight receptacles.

The attempts hitherto made to prevent the decomposition of carbids have been in the direction of coating the lumps of carbid with such substances as a mixture of petroleum, glucose, and carbonate of lime, a mixture of paraffin-wax, cocoa-butter, and sugar, and other substances which will form an impervious coating on the outside of the carbid. These coatings have the disadvantage that it may be necessary to break the lumps of carbid before placing them in the generator in order to allow free access of water to the carbid.

The object of this invention is to obviate the defects incidental to ordinary carbids and carbids treated as above described by treating calcic and other carbids with certain substances which will protect them from the action of atmospheric moisture and also retard the decomposition of the carbids when immersed in water and prevent too-rapid generation of acetylene gas.

Now according to this invention I saturate or partly saturate the carbid with creosote, either plain or diluted, with crude petroleum, kerosene, or other suitable hydrocarbon or other liquid which will not decompose the carbid. If the carbid has to be stored for any considerable length of time, I immerse lumps of carbid in a bath of commercial cre-

osote, to which may be added a little petroleum or kerosene or other suitable hydrocarbon, and when the carbid is required for use I neutralize the effect of the creosote by immersing the carbid in a solution of potassic hydrate or other suitable alkali. The alkaline solution may be potassic or sodic hydrate one part, and petroleum nine parts.

If the carbid has to be stored for a short time only, the creosote may be largely diluted with petroleum, kerosene, or other suitable liquid which will not decompose the carbid, the effect of using diluted creosote being to render it unnecessary to neutralize the effect of the creosote before using the carbid. When using diluted creosote, I may proceed in either of two ways. I may immerse lumps of carbid in a bath of petroleum, kerosene, or other suitable hydrocarbon and when the carbid is sufficiently saturated I remove it from the bath and immerse it in a bath of creosote, to which may be added a little petroleum or kerosene. The carbid after its removal from the creosote-bath may be exposed to the air for some time without decomposition and consequent evolution of acetylene gas, and when immersed in water the treated carbid is decomposed much more slowly than carbid which has not undergone the above treatment, or I may use one bath only in which the carbid is immersed, the said bath consisting of commercial creosote, one part, and petroleum or kerosene four parts.

What I claim as new, and desire to secure by Letters Patent, is—

1. As a new article of manufacture a prepared carbid consisting of calcic or other carbid saturated or partly saturated with creosote for the purpose stated.

2. As a new article of manufacture a prepared calcic or other carbid consisting of a suitable carbid saturated or partly saturated with creosote diluted with petroleum or kerosene for the purpose stated.

EDWARD WILLIAM LANCASTER.

Witnesses:

T. E. HALFORD,  
G. H. DUNHAM.