

UNITED STATES PATENT OFFICE.

CHARLES WALPUSKI, OF BROOKLYN, NEW YORK.

COPYING-PENCIL.

SPECIFICATION forming part of Letters Patent No. 376,456, dated January 17, 1888.

Application filed June 30, 1887. Serial No. 243,016. (No specimens.)

To all whom it may concern:

Be it known that I, CHARLES WALPUSKI, of Brooklyn, in the county of Kings, New York, have invented certain new and useful Improvements in Copying-Pencils, of which the following is a specification.

This invention relates to an improved black copying-pencil by which permanent marks are produced on the paper, which are not liable to fade in the sun, and by which at the same time a clear and distinct copy of the writing is obtained; and the invention consists of a copying-pencil composed of nigrosine, lamp-black, tannate of iron, a suitable oleate, and a binding medium.

In preparing the composition used for my black copying-pencil the following proportions are used: nigrosine, three and one-half to four parts; lamp-black, one and one-half to two parts; tannate of iron, one to two parts; a suitable oleate, from four to six parts, and a binding medium in such quantity as to give the desired degrees of hardness. I have found by practical tests that a mixture of palmitate of alumina and oleate of soda has given good results.

In preparing the composition the oleate is first dissolved in a copper kettle to a liquid, and then mixed with tannate of iron and lamp-black, to which latter a small quantity of carbolic or acetic acid is added. The tannic acid in the tannate of iron combines with the oleate

and forms with the lamp-black a fixed black color. The nigrosine and the binding medium (which may be any suitable gum) are then added, the latter in dissolved state. The mass is thoroughly mixed and then evaporated until the proper consistency is obtained for the purpose of pressing it into the form of pencils, crayons, or other shape. In the form of a more liquid paste it may be used as a copying-ink for printing and lithographic purposes. The pencil produces clear black marks on paper, which can be easily copied in the letter-press. The composition gives a clear and legible copy, and leaves fixed black lines on the paper, which do not fade in the sun.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A copying-pencil composed of a mixture of nigrosine, lamp-black, tannate of iron, a suitable oleate, and a binding medium, substantially as set forth.

2. A copying-pencil composed of nigrosine, a mixture of lamp-black, tannate of iron, palmitate of alumina, oleate of soda, and a binding medium, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

CHARLES WALPUSKI.

Witnesses:

MARTIN PETRY,
SIDNEY MANN.