

UNITED STATES PATENT OFFICE.

RUDOLF PETERS, OF HEIDELBERG, GERMANY.

PROCESS OF UTILIZING WASTE ENDS OF CARBONS.

SPECIFICATION forming part of Letters Patent No. 778,703, dated December 27, 1904.

Application filed February 12, 1904. Serial No. 193,330.

To all whom it may concern:

Be it known that I, RUDOLF PETERS, a subject of the German Emperor, and a resident of Heidelberg, Germany, have invented a Process of Utilizing the Waste Ends of Carbons from Arc-Lamps, of which the following is a specification.

The invention relates to a process for preparing colors or paints used for the first coats for walls, putties, Chinese and marking inks, and other similar products by means of crayons and waste ends from arc-lamps.

The present invention relates precisely to a process whereby these waste ends of carbons can be used without any difficulty for the manufacture of putties, colors, and inks.

This process consists in heating the waste ends of carbons in crucibles of iron, porcelain, or graphite to a temperature of about 2,000° to 2,500° centigrade in suitable ovens, placing the mass when still hot in a bath of linseed-oil, wherein it is allowed to remain for twelve to thirty-six hours, placing and drying this mass upon metal nettings in heated chambers, and finally pulverizing it by means of any suitable mechanism, crusher, mill, &c. The powder produced is then treated with linseed-oil or other analogous substances and transformed into colors, putties, and inks.

While I have specified twelve to thirty-six hours as the time for allowing the waste ends to remain in the bath of oil, yet this period of time may be departed from, it being only necessary to allow the ends to remain in the oil until they absorb a certain quantity of the oil. I might also state that I employ a relatively large bath of the oil, so that there will be no ignition of the oil from the hot carbon ends, a small amount of carbon being placed in a large quantity of oil and the latter being changed as soon as it becomes heated to such an extent that it is not possible to bear the hand in it. By placing the hot mass in a bath of oil its prolonged contact with the oil renders the mass brittle, whereby its crushing or pulverizing is greatly facilitated. To put out

or cool the mass, it will suffice to employ, for instance, linseed-oil, which afterward is used for the preparation of the colors or putties.

While for manufacturing colors or fine putties it is absolutely necessary to first temper the mass by means of oil, it suffices when it is desired to manufacture more ordinary colors or putties to thoroughly dry the waste ends of carbons and to make them red-hot in a suitable oven, then to allow them to slowly cool upon a drier, and finally to pulverize them when the mass has become quite dry and lost its hardness.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The herein-described process of utilizing the waste ends of carbons from arc-lamps by producing therefrom a product which is adapted for use in the manufacture of colors, putties, Chinese and marking inks, &c., which process consists in heating the waste ends to from 2,000° to 2,500° centigrade; then placing said ends while so heated in a bath of oil and allowing them to remain therein until they absorb a quantity of the oil, then removing the ends and allowing them to dry in a heated chamber, and then pulverizing the dried ends to produce a powder.

2. The herein-described process of utilizing the waste ends of carbons from arc-lamps which consists in heating the waste ends to from 2,000° to 2,500° centigrade, then placing said ends while so heated in a bath of oil and allowing them to remain therein until they absorb a quantity of the oil, then removing the ends and allowing them to dry in a heated chamber, then pulverizing the dried ends and finally mixing the powder with linseed-oil.

In testimony whereof I have hereunto set my hand in presence of two witnesses.

RUDOLF PETERS.

Witnesses:

H. W. HARRIS,
JOS. H. SEUTÉ,