

UNITED STATES PATENT OFFICE.

GEORGE FRANÇOIS JAUBERT, OF PARIS, FRANCE.

MANUFACTURE OF PEROXID OF POTASSIUM.

No. 892,842.

Specification of Letters Patent.

Patented July 7, 1908.

Original application filed May 16, 1907, Serial No. 373,995. Divided and this application filed January 30, 1908.

Serial No. 413,351.

To all whom it may concern:

Be it known that I, GEORGE FRANÇOIS JAUBERT, manufacturing chemist, a citizen of the Swiss Republic, and residing at 155 Boulevard Malesherbes, Paris, in the Republic of France, have invented certain new and useful Improvements in the Manufacture of Peroxid of Potassium, of which the following is a specification.

10 This invention relates to a process for the manufacture of peroxid of potassium from a liquid alloy of potassium and sodium, particularly from alloys very rich in potassium, such as those having the formula NaK and

15 NaK_2 . The process consists in first transforming potassium alone into oxid of potassium by the action of air at an ordinary temperature, and after separating the oxid of potassium, transforming it into peroxid by a slow current of air at a temperature not exceeding 20 300 or 350° C.

In this process the oxid of potassium is obtained by a careful oxidation of a liquid alloy of potassium and sodium, which oxidizes 25 in a cold state.

The reaction may be effected, for example, in an iron tube, such as described and illustrated in my U. S. application Ser. No. 30 373,995, filed May 16, 1907. The said tube is provided with mica windows, and may be heated externally in any suitable manner. The alloy of potassium and sodium is placed in a vessel located inside the tube, and a current of dry and decarbonated air is led 35 slowly through the tube at an ordinary temperature. Under these conditions, the sodium does not take any part in the reaction. The oxid of potassium formed gathers on the surface in the form of a thick layer of a black or indigo-blue color. This layer may be col-

lected by skimming or scraping the surface of the liquid. The intermediate product, the oxid of potassium, is then transformed into peroxid by a slow current of air, the tube 45 being heated, first to a temperature of 150 to 200° C., then to 300 or 350° C., when the absorption of air decreases, as in the U. S. application Ser. No. 373,995.

I claim:

1. The method of manufacturing peroxid of potassium which consists in oxidizing a liquid alloy of potassium and sodium at ordinary temperature, collecting the oxid of potassium which forms on the surface of the alloy, and heating moderately the said oxid 50 in the presence of a limited quantity of air, thereby effecting the absorption of a considerable part of the oxygen of the air without ignition; substantially as described. 55

2. The method of manufacturing peroxid of potassium, which consists in oxidizing a liquid alloy of potassium and sodium at ordinary temperature, collecting the oxid of potassium which forms on the surface of the alloy, and placing said oxid in an inclosing chamber, heating the chamber externally to 60 about 150° to 200° C., and passing through said chamber a slow current of dry and decarbonated air, thereby effecting the absorption of a considerable part of the oxygen of the air, and increasing the temperature to 65 about 300° to 350° C. as the absorption of the air decreases; substantially as described. 70

In testimony whereof I have hereunto 75 placed my hand this thirteenth day of January, 1908.

GEORGE FRANÇOIS JAUBERT.

In the presence of two witnesses:

HANSON C. COXE,
ALARCK. D'ORNHJELM.