

UNITED STATES PATENT OFFICE.

ROYAL S. DAVIS, OF NEWMIRE, COLORADO, ASSIGNOR TO PRIMOS CHEMICAL COMPANY,
OF PRIMOS, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

PROCESS FOR SECURING THE PRECIPITATION OF THE RARE-METAL OXIDS.

1,119,929.

Specification of Letters Patent.

Patented Dec. 8, 1914.

No Drawing.

Application filed February 19, 1913. Serial No. 749,436.

To all whom it may concern:

Be it known that I, ROYAL S. DAVIS, a citizen of the United States, residing at Newmire, San Miguel county, Colorado, have invented a certain new and useful Process for Securing the Precipitation of the Rare-Metal Oxids, of which the following is a specification.

The invention relates to a process for securing the precipitation of the oxids of the rare metals such as vanadium, tungsten, uranium, molybdenum, and tellurium, and has for its objects, the provision of a process wherein a more complete precipitation may be secured than by other processes known in the art; and the provision of a method in which the necessity of using oxidizing or other agents is avoided and the process correspondingly cheapened.

As illustrative of the process, one of the solutions to which the process is applicable is sodium vanadate from which it is desired to precipitate vanadic oxid (V_2O_5). In applying the process to this solution, the sodium vanadate is first acidulated with sulfuric or other acid, which causes a partial precipitation if the solution is strong enough. The solution is then brought near to the boiling point and subjected to a pressure preferably of an ounce or more. This treatment causes nearly a complete precipitation of the vanadic oxid. The foregoing is merely illustrative, and various changes may be made from the process as thus specifically described without departing from the invention in its broad form as defined in the claims.

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

1. A method of securing the precipitation of the oxids of the rare metals, from solutions containing the acids, which consists in applying super-atmospheric pressure to the acidulated and heated solutions.

2. A method of securing the precipitation of vanadic oxids from a solution of vanadium, which consists in acidulating the solution and applying super-atmospheric pressure thereto.

3. A method of securing the precipitation of vanadic oxid from an acidulated solution of vanadium which consists in applying heat to said solution and subjecting it to a super-atmospheric pressure of approximately one ounce.

4. A method of securing the precipitation of vanadic oxids from an acidulated solution of vanadium, which consists in applying super-atmospheric pressure thereto.

5. A method of securing the precipitation of vanadic oxids from an acidulated solution of vanadium, which consists in applying heat and super-atmospheric pressure thereto.

In testimony whereof I have hereunto signed my name in the presence of the two subscribing witnesses.

ROYAL S. DAVIS.

Witnesses:

A. MARTIN,
L. A. MYERS.