UNITED STATES PATENT OFFICE.

HERMANN T. VULTÉ, OF NEW ROCHELLE, NEW YORK, ASSIGNOR TO JOHN H. WINGFIELD, OF NEW YORK, N. Y.

RECOVERING POTASH FROM SUINT.

SPECIFICATION forming part of Letters Patent No. 559,826, dated May 12, 1896.

Original application filed November 19, 1890, Serial No. 371,932. Divided and this application filed May 27, 1892. Renewed March 30, 1895. Serial No. 543,592. (No specimens.)

To all whom it may concern:

Be it known that I, HERMANN T. VULTÉ, a citizen of the United States of America, residing at New Rochelle, Westchester county, New York, have invented certain new and useful Improvements in Processes of Recovering Potash from Suint, of which the following is a specification.

My invention is an improved process of recovering the potash compounds present in suint, and particularly of reducing them to the form of the carbonate; and my present application is a division of my application filed November 19, 1890, Serial No. 371,932.

In my process I dissolve the suint in a warm petroleum-oil, and after drawing off the solution hold it at a temperature of about 120° Fahrenheit or higher for a period of from thirty-six to forty-eight hours. The albuminoids present in the suint are thus completely coagulated and settle, together with all the potash compounds. The deposit contains also all the dirt of the solution and a dark-brown liquid of unpleasant odor, which, after the solution is drawn off, can be removed from the deposit by pressure and deodorized. The potash compounds are thus separated from all other valuable constituents of the suint and mixed with albuminoids. The mass is then incinerated and yields carbonate of potash, the albuminoids supplying the organic acids and carbonaceous matter necessary to this result. These carbonates may be purified by lixiviation.

The temperature and the time during which the solution is to be heated may be varied considerably. The temperature stated is sufficiently high to secure good results and the time stated is usually necessary to throw down all the albuminoids and potash compounds of the suint.

In carrying out my process I prefer to use a high-boiling oil, by which I mean one that can be heated to the temperatures required with safety in open vessels—one which boils, say, about 212° Fahrenheit or higher. I also prefer a petroleum neutral oil and recommend a neutral oil of specific gravity of from 30° to 34° Baumé. By a "petroleum neutral oil" I mean a once-run distillate of petroleum of specific gravity 30° to 38° Baumé, freed from bloom. The potash compounds are more insoluble in the high-boiling than in the low-boiling oils, so that the percentage of potash recovered when they are used is larger than where low-boiling oils are used, and the danger of fire and other difficulties incident to the use of warm low-boiling oils is avoided.

By a "neutral oil" I mean a once-run distillate of petroleum of specific gravity 30° to 38° Baumé, freed from bloom.

In my other two applications, Serial No. 542,715, filed March 21, 1895, and Serial No. 538,701, filed February 16, 1895, I have described and claimed the treatment of the solution after it has been drawn off from the deposit and the products resulting therefrom; and I do not in this application claim the solution from which the insoluble matter has been deposited, as such a composition is claimed in my said application filed February 16, 1895, Serial No, 538,701; but

What I claim is—

1. The improved process of recovering from suint the potash compounds, which consists in holding the suint in solution in a warm high-boiling petroleum-oil until the potash compounds settle out, substantially as described.

2. The improved process of recovering from suint the potash compounds in the form of carbonates, which consists in holding the suint in solution in a warm high-boiling petroleum-oil, until the potash compounds and albuminoids present settle out, and incinerating and lixiviating the deposited mass, substantially as described.

Signed by me, in New York city, Thursday, December 24, 1891.

HERMANN T. VULTÉ.

In presence of—

THOMAS EWING, Jr.,

JOHN H. WINGFIELD.