UNITED STATES PATENT OFFICE.

LUDWIG BRUMLEU, OF HOBOKEN, NEW JERSEY.

IMPROVEMENT IN THE MANUFACTURE OF THE SUBACETATE OF LEAD.

Specification forming part of Letters Patent No. **130,410**, dated August 13, 1872.

Specification describing a new and useful Improvement in Process for Obtaining a Subacetate of Lead, invented by LUDWIG BRUMLEU, of Hoboken, in the county of Hudson and State of New Jersey.

My invention has for its object to furnish an improved process for obtaining a subacetate of lead, which shall be simple and economical in application, and shall require much less space than when the subacetate is obtained by most of the processes now in ordinary use; and it consists in the process hereinafter more fully described.

In carrying this improved process into practical effect, I take a number of tubs of any desired capacity and of any desired number. These tubs are closely covered, except a small hole for pouring in the liquid, and which should be arranged in two tiers, so that the liquid from each upper tub may be drawn out into the corresponding lower tub. Each of these tubs is filled with lead wire loosely thrown in and the covers replaced. Enough diluted acetic acid to cover the lead wire is then poured into the tubs of the upper tier, and is immediately drawn off into the tubs of the lower tier, from which it is immediately drawn off into tanks or other suitable receivers to be again used. As the acid is drawn off the air enters the tubs, and a very rapid oxidation of the lead occurs, developing a considerable degree of heat, which is kept in by the covers. If desired, hot air of a temperature of ninety degrees (90°) Fahrenheit, more or less, may be forced into the tubs to facilitate the oxidation of the lead. The oxidation at first is very rapid, but becomes gradually slower, so that from six to eight hours is as long as the lead can be allowed to stand profitably.

The acid, as previously used, is then again run through the tubs in the same manner as before, which absorbs the oxide of lead forming a subacetate of lead, and at the same time moistens the lead to cause a new oxidation. The subacetate is then reduced to a neutral acetate of lead by precipitation, and the acid is then used for continuing the process, which is continued until the lead wire is entirely consumed, when fresh lead wire is placed in the tubs, and so on indefinitely.

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

The process for obtaining the subacetate of lead, substantially as herein described and set forth.

Witnesses: LUDWIG BRUMLEU.
JAMES T. GRAHAM,
T. B. MOSHER.