

UNITED STATES PATENT OFFICE.

WILLIAM B. BRITTINGHAM, OF NEW YORK, N. Y., ASSIGNOR TO MARTHA E. BRITTINGHAM, OF SAME PLACE.

DETERGENT.

SPECIFICATION forming part of Letters Patent No. 477,403, dated June 21, 1892.

Application filed July 10, 1891. Serial No. 399,060. (No specimens.)

To all whom it may concern:

Be it known that I, WILLIAM B. BRITTINGHAM, of New York, in the county of New York and State of New York, have invented a new and useful Improvement in Detergents, of which the following is a specification.

My invention consists in the discovery that the salts of tungstic acid with the alkalies have powerful detergent properties.

10 I have discovered that the salts or tungstates which tungstic acid forms with the alkalies, especially the tungstates of soda and potassa, are very powerful detergents, and that they are at the same time free from the
15 injurious effects of strong alkalies when used for washing purposes. I find that by adding tungstate of soda to common soap (I prefer to use three drams of tungstate of soda to each pound of soap, though this proportion may be
20 varied at pleasure) I very materially increase the detergent efficiency of the soap and make it very soft to the skin.

In making yellow or rosin soap the percentage of rosin can be carried very high
25 without impairing the quality of the soap. This class of soap made with ninety pounds of rosin to one hundred pounds of grease and

about three hundred drams of tungstate of soda is soft and pleasant to the skin, is nearly twice as efficient, weight for weight, as any soap of this class which I have been able to procure, and gives good results with cold water, while soap made in the ordinary manner requires boiling water to give good results.

The tungstate may be incorporated in the soap at any time. I however prefer to add it while the soap is still soft in the process of manufacture and mix it thoroughly through the mass.

The proportion of tungstate may be varied at pleasure, that above named being merely one which gives good results.

I have used the word "soap" to designate all washing compounds by whatever name known.

What I claim as my invention, and desire to secure by Letters Patent, is—

A detergent compound containing a tungstate of an alkali, substantially as described.

WILLIAM B. BRITTINGHAM.

Witnesses:

GEO. S. TERRY,
GEO. C. OWEN.