## UNITED STATES PATENT OFFICE

ALPHEUS DOVE, OF BROOKVILLE, OHIO, ASSIGNOR OF ONE-HALF HIS RIGHT TO CYRUS M. BAKER, OF SAME PLACE.

## IMPROVEMENT IN SOAP.

Specification forming part of Letters Patent No. **184,512**, dated November 21, 1876; application filed November 14, 1876.

To all whom it may concern:

Be it known that I, ALPHEUS DOVE, of Brookville, in the county of Montgomery and State of Ohio, have invented a new and useful Washing and Toilet Soap; and I do hereby declare that the following is a full, clear, and exact description of the same.

The nature of my invention consists in the combination of the ingredients hereinafter specified, forming a soap of great cleansing properties, of easy and ready manufacture, and very economical in point of use.

To enable others skilled in the art to make and use my invention, I will proceed to specify the proportion of each ingredient used, and the mode and order of their admixture.

Take twenty pounds bar-soap; four pounds carbonate of soda; one-half pound borate of soda; one pound aqua-ammonia; one-half pound sulphate of soda; one-half pound glycerine; thirty pounds rain-water; one pound alcohol; two ounces oil of winter-green.

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To manufacture the washing and toilet soap, I cut the bar-soap into fine shavings with a carpenter's plane, and then put them into twenty-five pounds of rain-water, and boil slowly until all the soap is thoroughly dissolved. Then I add the remaining five pounds of rain-water, in which the carbonate of soda, borate of soda, aqua-ammonia, sul-

phate of soda, and glycerine have been previously mixed and dissolved, and boil twenty or thirty minutes longer, stirring the solution all the time, when it can be removed from the fire. After the above has cooled somewhat, the oil of winter-green, (or any other essential oil,) thoroughly shaken with the alcohol, may be added; and when sufficiently mixed or incorporated by stirring the compound, run into suitable molds, and, when cold, can be cut into bars of proper size.

I am aware that all the ingredients named have been used in soaps before. In my case Ilay stress upon the specific proportions given. Thus, for example, while sulphate of soda has before been used, it is essential that regard should be had to the proportion employed. Too much tends to thin the soap.

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

The above-described soap compound, consisting essentially of bar-soap, carbonate of soda, borate of soda, aqua-ammonia, and sulphate of soda, substantially in the proportions above specified.

ALPHEUS DOVE.

Witnesses:

A. Moore,

D. P. Cowl.