

UNITED STATES PATENT OFFICE.

ISAAC N. STERN, OF KEOKUK, IOWA.

IMPROVEMENT IN ALKALIES FOR SOAP

Specification forming part of Letters Patent No. 160,726, dated March 9, 1875; application filed January 8, 1875.

To all whom it may concern:

Be it known that I, ISAAC N. STERN, of Keokuk, in the county of Lee and State of Iowa, have invented certain new and useful Improvements in Alkali for Soap; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same.

Soap made by the use of caustic soda, without the aid of salt, becomes nauseous in warm weather, and unfit for use during the warm seasons and in warm climates. Salt has been used for clearing and hardening soap after, but not in, the saponifying process. But I have discovered that it may be used in the process of making the soap, and that when thus used in the right proportion, in combination with caustic soda, it quickens the process of uniting the lye and grease, thus shortening the time of saponification, while at the same time it purifies and clears the soap, removing the properties which cause it to become nauseous in warm weather, and assists in hardening the soap for use. But inexperienced persons, in attempting to use salt in the making or purifying process, are constantly liable to spoil the soap by the use of too little or too much salt. When too little salt is used the soap becomes nauseous in warm weather, and the use of too much salt renders the soap too brittle and crumbly.

The object of this invention is to furnish a compound concentrated lye, containing the right proportion of salt, with which persons, experienced or inexperienced in soap-making, may with certainty, and in less than the usual time, make a superior soap, free from the liability of becoming nauseous in warm weather; and my invention consists of a compound concentrated lye or saponifier, composed of one (1) part of common salt and fifteen (15) parts of caustic soda, put up in packages or quantities of a weight and size convenient for sale and use, each separate package or quantity containing the exact proportions of the ingredients.

The compound lye may be made by either one of the following-named processes: First, by melting the caustic soda in an iron vat or kettle, and, while in a molten state, mixing with it the right proportion of salt; second, by grinding the caustic soda in a combined crushing and grinding machine, and, when thus granulated, mixing with it the right proportion of salt. And in order that each package may with certainty contain the exact proportions of the ingredients the mixing is done in the packages by first placing the required quantity of salt in each package, and then adding the required quantity of the caustic soda in a molten or granulated state, and mixing them together.

The process of making soap with this lye is substantially the same as the well-known process of making soap with caustic soda or other concentrated lyes. The presence of the salt purges the grease, fat, or tallow of its impurities and watery parts while melting, and, when boiled, uniting on the surface the clear soap mass, which, after boiling two hours, is ready to be taken off to harden; and while the soap is hardening the presence of the salt forces out all the superfluous water, thus assisting to solidify the soap for use in less time than where no salt is used, and producing a purer and clearer soap.

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

A compound for making soap, consisting of caustic soda and common salt, combined in the proportions and in the manner substantially as specified and described.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

ISAAC N. STERN.

Witnesses:

JOHN W. HOBBS,
EDMUND JAEGER.