

UNITED STATES PATENT OFFICE.

AUGUST E. NIENSTADT, OF NEWARK, NEW JERSEY, ASSIGNOR OF FIFTY-ONE ONE-HUNDREDTHS TO GEORGE W. KUCHLER, OF NEW ROCHELLE, NEW YORK.

BLEACHING COMPOSITION.

No. 817,267.

Specification of Letters Patent.

Patented April 10, 1906.

Application filed June 7, 1904. Serial No. 211,474.

To all whom it may concern:

Be it known that I, AUGUST E. NIENSTADT, a citizen of the United States of America, and a resident of Newark, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Bleaching Compositions, of which the following is a specification.

This invention has reference to a novel bleaching composition adapted to be used in the arts and trades for bleaching goods, and especially fabrics.

A particular application of the bleaching composition is its use as a household commodity for bleaching the wash during the process of cleaning same.

The principal active agent in the novel bleaching composition is peroxid of sodium. This consists of two atoms of sodium and two atoms of oxygen. It is well known that this chemical compound is easily decomposed by water or moisture, when sodium hydroxid is formed and oxygen set at liberty. This oxygen naturally appears in the nascent state and acts very powerfully. In fact, the action of this compound is so great that there is danger of ignition. In most instances the powerful action of the compound is undesirable and uncontrollable, the oxidation in many instances being carried too far. In order to overcome the described deficiencies of the peroxid of sodium for the purpose of bleaching, same is mixed with other substances tending to retard its action and making its action controllable. The retardation of the action of the peroxid of sodium insures a uniform effect on the fabrics to be bleached. Assuming that the wash while being cleaned is to be bleached, then a substance should be admixed with peroxid of sodium, which acts as a retarding medium and has at the same time a cleaning effect. Such a substance is anhydrous carbonate of sodium, or, as it is commercially termed, "soda-ash." It is of course understood that all carbonates of the group of the alkali metals will also answer the purpose. Soda-ash, however, is preferred for economical and commercial reasons. Peroxid of sodium and the soda-ash may be mixed in various proportions, according to

requirements. For bleaching the wash, however, I prefer to compound one part of peroxid of sodium with four parts of soda-ash. This composition has given very satisfactory results and permits of selling the article at a reasonable price, so that it is within the reach of everybody.

The new bleaching composition may be applied in various ways. If the wash is not soiled too much, some of the bleaching composition may be dissolved in the water in which the wash is soaked over night. The bleaching composition may also be added to the water in the washboiler. However, it is best to add it to the clean rinsing-water, thus bleaching the wash after it has been washed and boiled. Then the wash is clean and easily bleached, while soiled and greasy spots will not bleach well, because the bleaching agent does not reach the actual fiber.

This novel bleaching composition is far superior to other bleaching agents, particularly such substances as evolve chlorin. The oxygen from my novel composition acts in *statu nascendi* and does not produce any injurious effect on the wash, while chlorin is liable to do so.

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

1. As a new article of manufacture a novel composition of matter composed of one part of peroxid of the alkali metals and four parts of anhydrous carbonate of the alkali metals and existing in form of powder.

2. As a new article of manufacture a novel composition of matter composed of one part of peroxid of sodium and four parts of anhydrous carbonate of alkali metals and existing in form of powder.

3. As a novel composition of matter a dry powder composed of one part of peroxid of sodium and four parts of anhydrous carbonate of sodium.

Signed at New York, N. Y., this 6th day of June, 1904.

AUGUST E. NIENSTADT.

Witnesses:

HATTIE B. LUEDERS,
NICHOLAS CELIA,