

UNITED STATES PATENT OFFICE.

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LAUNDRY BLUE.

No. 824,294.

Specification of Letters Patent.

Patented June 26, 1906.

Application filed August 22, 1905. Serial No. 275,296.

To all whom it may concern:

Be it known that we, ROBERT G. GRISWOLD and WILLIAM T. DONOVAN, citizens of the United States, residing at Quincy, in the county of Norfolk and State of Massachusetts, have invented a new and useful Bluing for Laundry and other Purposes, of which the following is a specification.

This invention relates to bluing for laundry and other purposes.

The object of the invention is to furnish a laundry bluing in a convenient and concentrated form which shall be free from objectionable features present in existing articles of this character and one that in addition to supplying a definite amount of coloring in diffused condition will also supply a disinfectant and a color-bleaching agent in such quantities as shall be thoroughly effective in securing the objects sought, which shall be compact, can be handled without soiling either hands or clothing, can neither spill nor scatter, and will not freeze as do liquid forms of laundry bluing.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel form of compressed and effervescent laundry bluing, as will be hereinafter fully described and claimed.

The bluing is composed of the following ingredients in substantially the proportions specified by weight: anilin-blue, one hundred and ninety-two parts; sodium bicarbonate, seventy-four parts; tartaric acid, one hundred and fourteen parts; carbolic acid, twelve parts; calcium hypochlorite, ten to twenty parts; saccharin, glucose, or dextrin, two to four parts. These ingredients are thoroughly mixed before being formed into tablets by grinding in a ball-mill. During this step of the procedure either ethyl or methyl alcohol is blown into the mass from a suitable atomizer, and the pigment, which is soluble in either of these alcohols, forms a close mechanical mixture with the other ingredients that are not soluble, or only sparingly so, in the alcohol. The resulting paste is then removed from the ball-mill to a granulating-mill, where it is granulated by passing through

a series of perforated screens onto trays or endless belts. These belts pass through an oven or evaporator, where the excess of alcohol is evaporated by gentle heat, leaving the granules perfectly dry, and the mass is then finally fed to a machine, which compresses a measured quantity into a tablet. In using these tablets it is only necessary to throw a tablet into water, whereupon it instantly dissolves and disseminates and diffuses the color throughout the liquid, carrying with it to all parts the disinfecting and bleaching agents.

The chemical action that takes place when a tablet is dropped into water is as follows: The acid and alkaline ingredients are brought into intimate contact in solution and form a new chemical compound. One of the educts of this action is a gas which is generated so rapidly that it tears the tablet asunder, and thus gives the water an opportunity to come into contact with practically the entire amount of the pigment at once. The rapidly-rising bubbles of gas set up a current which carries the dissolved pigment throughout the entire body of water instead of allowing it to lie as an inert mass of colored water at one place. By employing the calcium hypochlorite, the bleaching properties of which are well known, should an excess of coloring-matter lodge upon a garment it will be prevented from unduly staining it. The phenol acts as a disinfectant to neutralize or destroy any germs present and also imparts a pleasant odor to the garments. Further on in the completion of the laundering it acts in an effective manner to prevent starch from souring.

Having thus described the invention, what is claimed is—

1. An effervescent laundry bluing including calcium hypochlorite and a disinfecting agent.

2. An effervescent laundry bluing including calcium hypochlorite and carbolic acid.

3. An effervescent laundry-bluing tablet consisting of anilin-blue, sodium bicarbonate, tartaric acid, calcium hypochlorite, carbolic acid, and a binder.

4. An effervescent laundry-bluing tablet consisting of the following ingredients in sub-

stantially the proportions specified by weight
anilin-blue one hundred and ninety-two parts,
sodium bicarbonate seventy-four parts, tar-
taric acid one hundred and fourteen parts,
5 carbolic acid twelve parts, calcium hypo-
chlorite ten to twelve parts and saccharin,
glucose or dextrin two to four parts.

In testimony that we claim the foregoing

as our own we have hereto affixed our signa-
tures in the presence of two witnesses.

ROBERT G. GRISWOLD.
WILLIAM T. DONOVAN.

Witnesses:

WILLIAM MCSWEENEY,
MICHAEL A. HORIGAN.