

# UNITED STATES PATENT OFFICE.

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## DETERGENT.

SPECIFICATION forming part of Letters Patent No. 648,733, dated May 1, 1900.

Application filed July 28, 1899. Serial No. 725,410. (No specimens.)

*To all whom it may concern:*

Be it known that I, CHARLES H. FITCH, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented new and useful Improvements in Detergent Compounds, of which the following is a specification.

My invention relates to and its purpose is to produce a novel detergent compound.

10 It is my aim to provide a cheap fluid composition which can be easily and quickly applied and which shall have the properties of an insecticide and germicide, a disinfectant and deodorizer, and of a cleansing fluid and a dye, all combined or united in a single mixture by which carpets, upholstered furniture, carriage-linings, car-seats, and goods of every kind may be thoroughly cleansed, their colors renovated, brightened, or increased in brilliancy, and all insects, germs, and odors destroyed and removed by a single application of the fluid.

20 To enable others to understand and to practice my invention, I will now proceed to describe the manner of compounding and using the detergent fluid.

30 The compound consists of three gallons of water, six drams or three-quarters of an ounce of muriate of ammonia and the same quantity of bichlorid of mercury and chlorid of zinc, three drams of carbonate of soda, one ounce of aqua-ammonia having a strength of sixteen per cent., one-eighth of an ounce of fuchsin, and one-fourth of an ounce of yellow anilin. The manner of compounding these ingredients is as follows: The muriate of ammonia is used only as a solvent of the mercury bichlorid or to assist the solution of the latter. These two ingredients are placed 40 in four ounces of water, which may be hot or cold, and the mixture is poured into three gallons of boiling water. The chlorid of zinc, carbonate of soda, and aqua-ammonia are then added, the fuchsin and yellow anilin or "naphthol yellow" being added last. This formula is adapted for goods of a crimson or red color, the fuchsin being used in combination with the yellow anilin or naphthol yellow for coloring such goods.

50 For goods of other colors—such as "old gold," brown, and black—the fuchsin is omitted.

For fabrics of green, blue, or purple both the fuchsin and yellow anilin are omitted, and in their place other anilin colors are substituted to correspond with or suit the colors in the fabrics. Any color or shade may be used that is soluble in water.

Bichlorid of mercury is a germicide, chlorid of zinc is a disinfectant and deodorizer, aqua-ammonia is a cleansing ingredient and in the presence of a dye it acts as a mordant, and sodium carbonate has cleansing properties and also softens water that is drawn from mineral strata.

60 The compound is applied to the fabric boiling hot, a stiff flat brush being preferred for such a purpose. A single application is all that is required, and there is no necessity of removing the fabrics from furniture or other surfaces to which they may have been applied. No dangerous or injurious fumes are produced, and the hands are not affected by contact with the fluid while using it. The compound is easily and quickly applied, and the fabric, which dries in a few moments, is ready for further use.

75 In using the fluid a suitable quantity should be heated to boiling in a vessel of tin, copper, or porcelain, and a flat bristle brush should be used, one end of which is dipped into the heated fluid and then applied to the fabric, rubbing hard in both directions until the fabric is well rubbed and saturated. It should then be thoroughly sponged off in such a manner as to take up and remove the dirt which rises to the surface with the foam. After such an application and after drying the fabric will be found entirely free from every living thing, with every germ destroyed, all odors removed, and as thoroughly and perfectly cleansed as if it had been removed from the furniture and immersed in a bath.

85 If the nap is a little harsh after treatment, it can be softened again by brushing the hand over it. The cleansing process may be repeated from time to time as long as the nap remains.

90 The compound is very cheap, and any person can use it without any instructions or previous experience, save what is obtained from the simple directions for use, which accompany each package and which are the same as those given in this specification.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. The detergent, disinfecting fluid described, consisting of muriate of ammonia, bichlorid of mercury, chlorid of zinc, sodium carbonate, aqua-ammonia, and coloring-matters, the whole dissolved in water in the proportions described.

2. The detergent, disinfecting fluid compound described, consisting of muriate of ammonia, bichlorid of mercury, chlorid of zinc,

sodium carbonate, aqua-ammonia, and fuchsin, the whole dissolved in water in the proportions substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES H. FITCH.

Witnesses:

WM. J. NOLAN,

CHARLES L. MILLER