H. SAWYER.

Bluing-Package.

No. 210,808. Patented Dec. 10, 1878.

Fig. 1.

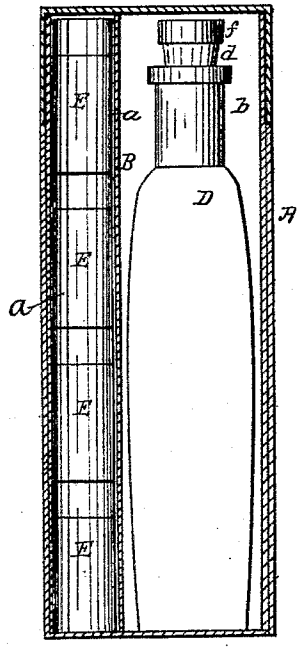



Fig. 2.

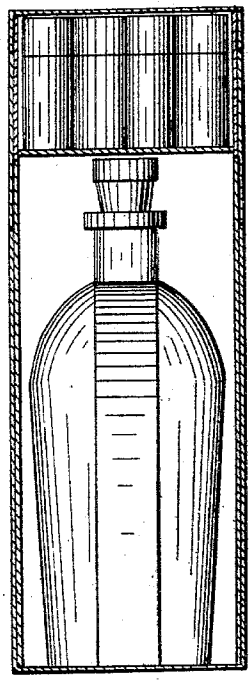


Fig. 3.

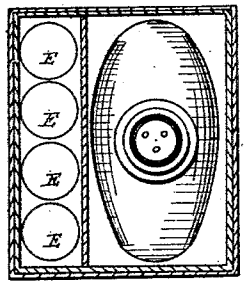
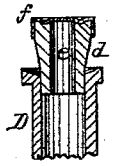



Fig. 4




Witnesses -
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# UNITED STATES PATENT OFFICE.

HENRY SAWYER, OF CHELSEA, MASSACHUSETTS.

## IMPROVEMENT IN BLUING-PACKAGES.

Specification forming part of Letters Patent No. **210,808**, dated December 10, 1878; application filed October 3, 1878.

*To all whom it may concern:*

Be it known that I, HENRY SAWYER, of Chelsea, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Bluing-Packages, of which the following is a specification, reference being had to the accompanying drawings.

The invention relates to an improvement in bluing-packages for mercantile and laundry purposes, and is intended to be employed in the preparation and use of bluing or indigo in liquid form.

In sections where what is known as "hard water" is employed for washing purposes bluing is used in liquid form almost exclusively, the liquid being more readily mixed and less likely to cause the clothing to spot than the other forms in which it is employed. The demand for the liquid preparation has been very extensive, especially in northern latitudes, and has been supplied by goods bottled and packed in the customary way. Much inconvenience, however, has been experienced by manufacturers and dealers on account of the liquid being congealed by frost and the consequent destruction of the bottles and the disfigurement and loss incident to leakage and breakage. Another serious inconvenience has been the difficulty in furnishing the goods, the price being necessarily so low that the cost of bottles, boxes, transportation, and other items incident to the necessity of using bottles in large numbers have rendered it impracticable to produce and sell the article except under very embarrassing restrictions, which have materially interfered with the growth of the art. All of these objections and inconveniences are substantially met and obviated by my invention, the object of which is to provide a package which is of convenient size and shape, which is safe, economical, and convenient, and which in the hands of the consumer may be used effectively to perform all the functions of the most improved bottle now known without being open, in the hands of the manufacturer and dealer, to the objections above recited.

The invention consists in suitably arranging within an appropriate receptacle a bottle and a number of small boxes or packages of dry granulated or pulverized bluing or indigo, the contents of each of the packages being adapted to the capacity of the bottle, so that the contents of each of the packages will make a bottle of liquid bluing of the proper shade.

Heretofore various bluing-packages have been made, one of which consisted in a small cylindrical box composed of an upper and lower section. The bluing was put in the upper section, which, when the lower section was removed, could be inserted in the mouth of a bottle containing water. The bluing dropped by its own gravity into the water, whereby liquid bluing was formed. This could be discharged through an orifice in the top of the upper section of the box. This box was sold as a box of dry bluing *per se*, and if the purchaser preferred to use it in connection with a bottle it could be done. A commercial package has also been constructed, not for laundry bluing, but for medicinal beverages, consisting of a receptacle, a number of small packages, and a bottle, each package holding a quantity of one ingredient adapted to a specified portion of a liquid to be taken from the bottle, the two being mixed in a third vessel, not supplied by the package.

Figure 1 is a plan view, with the side removed, of a package containing an embodiment of the elements of the invention. Fig. 2 is a similar view, showing the invention in a modified form. Fig. 3 is a top view of Fig. 1, with cover removed. Fig. 4 is a detached sectional view of the cork *d*.

In Fig. 1 of the drawings, A represents a box or receptacle divided vertically by the partition B into two compartments, *a b*, one of which is intended to receive the bottle D and the other the small boxes or packages of dry bluing E. The boxes or packages E contain each a charge for the bottle D—that is to say, such quantity of dry bluing as will make a quantity of liquid bluing of the best shade, equal to the capacity of the bottle.

The dry bluing may be of any kind or form; but I prefer to make it granulated, the grains or particles to be about the size of ordinary rifle-powder, as by so doing I am enabled to facilitate its being poured into the bottle. The quantity used in the charges will depend upon the judgment of the producer. I prefer

to use a charge of about two drams for an tight-ounce bottle, the bluing being granulated, as aforesaid.

By preference I use cylindrical wooden boxes to contain the charges, but they may be inclosed in paper or in any other way, as may be desired.

In the instance shown in Fig. 1 boxes are used, and are arranged in three tiers, one upon the other, there being four boxes in each tier. Thus twelve boxes, each containing a proper charge, are presented, with a suitably-constructed bottle, in one package, the single package being equal to twelve bottles of liquid bluing.

The package E may be of any suitable construction or shape; but it is preferred that its mouth be smaller than that of the bottle, so that the contents can be transferred to the bottle without loss or annoyance. It is also preferred to make the mouth of the bottle dished or concave for similar reasons.

The cork or stopper *d* of the bottle is provided with a central vertical aperture, *e*, and on its top with the metal cap *f*, having apertures which lead into the aperture *e*, thus forming a passage through which the contents of the bottle may be shaken at will.

If preferred the cap *f* may be made without perforations, its top being constructed of thin metal that can be readily punctured.

In Fig. 2 is shown a modified form of the invention, which consists in dividing the box transversely into two sections, the upper one being removable and serving as a lid or cover for the lower, in which the bottle is placed, the upper section being also provided with a lid, in which the packages of bluing are placed, all arranged as shown in said Fig. 2.

The manner of using the invention will be readily understood. The contents of a package are emptied into the bottle, when the bottle is filled with water and the bluing dissolved, the operation being repeated as often as necessary.

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

1. The commercial package consisting of a box containing two or more packages of granulated or powdered bluing and a bottle, the contents of each package and the capacity of the bottle being relatively such that the bottle filled with water and the contents of a package constitute a package of liquid bluing of due strength ready for use, substantially as set forth.

2. The package for producing liquid bluing herein set forth, consisting in a bottle and two or more boxes of powdered or granulated bluing, the boxes having mouths adapted to fit into that of the bottle, the capacity of the bottle and the contents of each of the boxes being such as to make, when the latter is combined with the bottle full of water, a bottle of liquid bluing, all inclosed in one box, for the purpose set forth.

In testimony that I claim the foregoing improvement in bluing-packages, as above described, I have hereunto set my hand this 30th day of September, 1878.

HENRY SAWYER.

Witnesses:

C. F. BROWN,

CARROLL D. WRIGHT.