No. 711,923. Patented Oct. 21, 1902.

E. C. FALES.

BLUING DEVICE.

(Application filed Dec. 27, 1901.)

(No Model.)

Fig. 1.

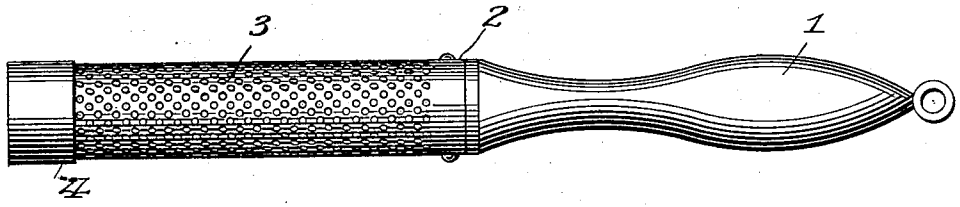


Fig. 2.

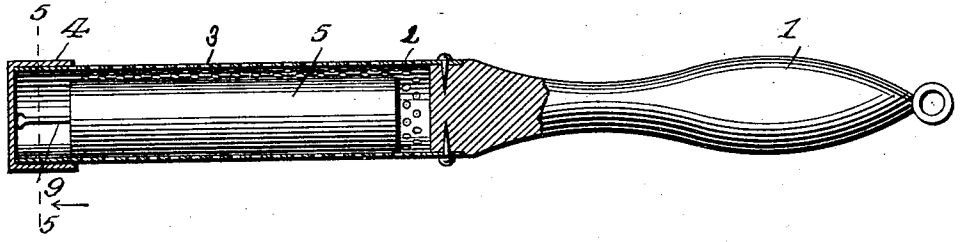


Fig. 3.

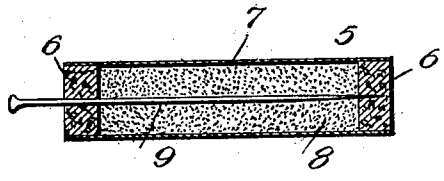


Fig. 4.

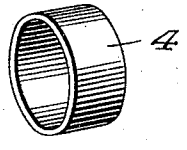
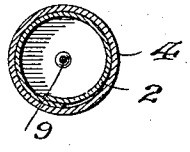


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

ELLIS C. FALES, OF FOXBORO, MASSACHUSETTS.

BLUING DEVICE.

SPECIFICATION forming part of Letters Patent No. 711,923, dated October 21, 1902.

Application filed December 27, 1901. Serial No. 87,490. (No model.)

To all whom it may concern:

Be it known that I, ELLIS C. FALES, a citizen of the United States, residing at Foxboro, in the county of Norfolk and State of Massachusetts, have invented new and useful Improvements in Bluing Devices, of which the following is a specification.

This invention relates to a bluing device embodying a removable color-cartridge and adapted for use in bluing rinsing-water in the process of washing clothes.

The main object of the invention is to provide a bluing device of a simple and effective nature which can be operated without soiling the hands, clothes, or surrounding objects and which diffuses its color without sediment and is convenient and economical in the use of the bluing material.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is an elevation of a bluing device embodying the features of the invention. Fig. 2 is a partial longitudinal vertical section of the same, a portion of the handle being shown in elevation. Fig. 3 is a longitudinal vertical section of the color-cartridge. Fig. 4 is a detail perspective view of the closing-cap of the holder. Fig. 5 is a transverse vertical section through the holder, showing the lap-rolled construction thereof.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates a handle which may be composed of wood or metal in the shape shown, and attached thereto in any suitable manner is one end of a cylindrical holder 2. This holder 2 for a greater portion of its length is foraminous or perforated, as at 3, and removably fitted over the free end thereof is a closing-cap 4. The holder 2 can be conveniently used without other particular additions or auxiliaries for diffusing the ordinary blue coloring matter or substances used in bluing the rinsing-water in the process of washing clothes. In some instances the bluing matter in bulk, preferably in powdered or granular form, might be disposed in the holder 2 and the latter then vibrated within the rinsing-water to diffuse the coloring substance without allowing the hands, clothes, or surrounding objects to come in contact with the coloring contents of the said holder. After use of the bluing device the coloring-matter remaining within the holder 2 will become quickly dry, in view of the fact that the perforate construction of said holder will permit a circulation of air therethrough, and thereby rapidly dry up the moisture contained within the coloring substance. The perforated or foraminous holder 2 is lap-rolled, the spring of the material allowing its expansion and contraction, thereby adjusting itself to the shrinking and swelling of the handle 1, if it be of wood, and operating to retain the cap 4 in applied position. The cap 4 not only serves as a closure for the holder, but also as a drip-cup for the purpose of receiving and retaining the drip from the coloring substance when the device is withdrawn from the water, and thereby prevent any possible soiling of the floor or other objects. The cap 4 has been set forth as removable to give access to the holder 2; but it will be understood that said cap might be permanently secured to the end of the holder with which it engages and the handle 1 made removable, this being an obvious reversal as well as an equivalent structure.

The improved device is rendered more efficient by and it is preferred to use in connection therewith a color-cartridge 5, comprising opposite heads 6, to which is secured in any suitable manner an inclosure 7, and between the heads the coloring substance 8, either of solid or granular form, is disposed. After the cartridge has been structurally completed in the manner just explained a pin or analogous device 9 is inserted longitudinally thereinto and engages the heads 6, said pin having one extremity projecting for convenience in handling or placing the cartridge in relation to the holder 2 without soiling the fingers, if the cartridge be wet, and to assist in the proper disposition of the same in the initial insertion in the said holder. This center pin, in view of its rigidity and consequent supporting characteristic, is also particularly for the purpose of keeping the cartridge from collapsing and settling to-

gether after becoming moistened or wet, and the projecting extremity of the said pin extends downwardly into the drip-cup, and thereby keeps the body of the cartridge out of the cup, so as to avoid interference with the capacity of the cup in receiving the drip, and also allows for a more perfect ventilation and drying out of the cartridge after use. The closure 7 of the cartridge may be constructed of various materials, but in all instances should allow the coloring-matter to filter therethrough. In some manufactures this closure will be formed of a gelatinous or other analogous material which is soluble in water and perforated, so that it will permit the bluing substance to filter therethrough and also allow the closure to gradually disappear as the bluing substance is used up. The mode of securing the closure 7 to the heads 6 is immaterial, as many means could be devised for practically arriving at this result to meet the demands of the functions of the cartridge as an entirety.

The advantages of the improved device, including the cartridge, or of the cartridge and holder individually, are manifold, and among many may be mentioned the economy in the use of bluing material or substances and cleanliness in the operation of the device, particularly after withdrawal from the water treated thereby. The color-cartridge presents a novel, neat, and convenient package or holding means from which the coloring substance cannot spill, will not become broken, or freeze, and said cartridge is easily inserted in and removed from the foraminous holder therefor without soiling the hands or surrounding objects.

The heads 6 are preferably formed of cork and have a buoyant effect when the holder containing the cartridge is immersed in the rinsing-water or other liquid treated, and in conjunction with the center pin said heads serve to maintain the cartridge as an entirety up in the holder.

Having thus described the invention, what is claimed as new is—

1. A bluing device comprising a yielding foraminous lap-rolled holder, and a combined cap and drip-cup removably applied to one end thereof.

2. A bluing device comprising a foraminous holder with a handle, a drip-cup removably mounted on one end thereof, and a dissolving color-cartridge disposed within the handle and having means for holding it at a distance from the drip-cup.

3. A bluing device comprising a foraminous holder, and a coloring-cartridge mounted therein and having a filtering soluble closure.

4. A bluing device comprising a foraminous holder, and a coloring-cartridge mounted therein and having a soluble closure formed to permit the coloring-matter to filter therethrough and provided with rigid means for maintaining it in a positive position and at a distance from one end of the holder.

5. A bluing device comprising a foraminous holder, a combined cap and drip-cup on one end of the holder, and a coloring-cartridge within the holder having a rigid projecting device at one end to engage a portion of the drip-cup and prevent the cartridge from moving into the latter, the said projecting device extending longitudinally through the cartridge.

6. A bluing device comprising a foraminous holder having a drip-cup at one end, and a coloring-cartridge having heads formed of buoyant material and a projection at one end to prevent the cartridge from settling down and obstructing the capacity of the drip-cup.

7. As an improved article of manufacture, a coloring-cartridge for a bluing device having opposite heads and a filtering inclosure, and means engaging the heads for preventing the cartridge from collapsing when moist.

8. As an improved article of manufacture, a coloring-cartridge having a soluble closure having a rigid reinforcing device extending longitudinally therethrough.

In testimony whereof I affix my signature in presence of two witnesses.

ELLIS C. FALES.

Witnesses:
JOHN R. FALES,
EZRA C. COMEY.