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L. D. MAHAN

1,800,692

BLUING AND DYEING DEVICE

Filed May 3, 1929

FIG. 1

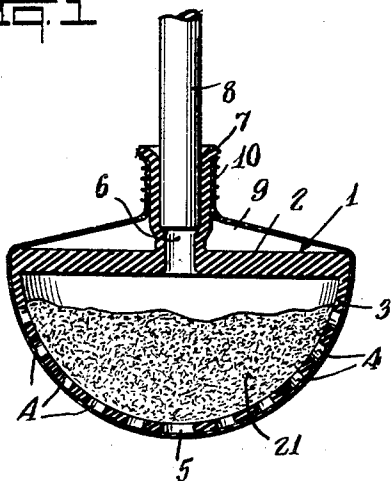


FIG. 3

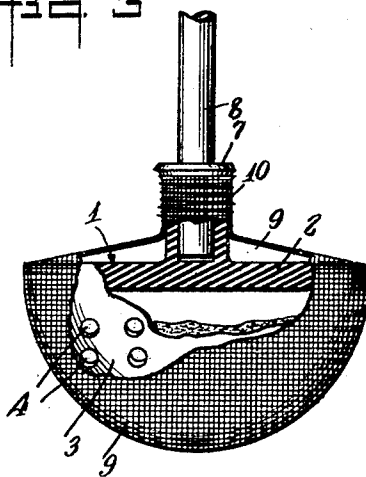


FIG. 2

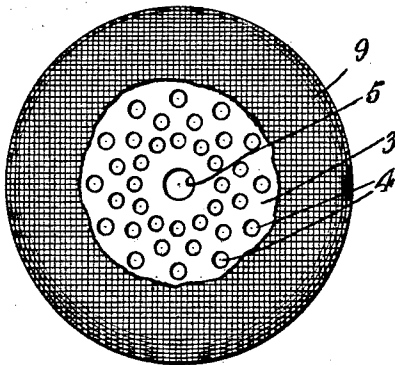


FIG. 4

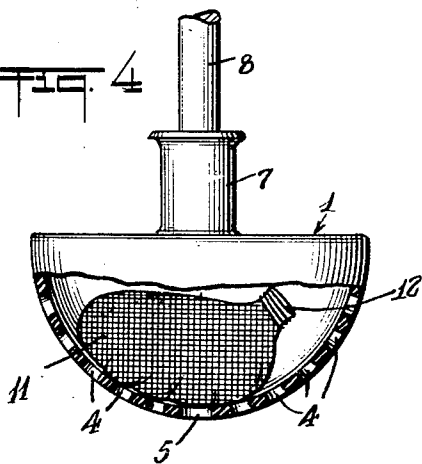
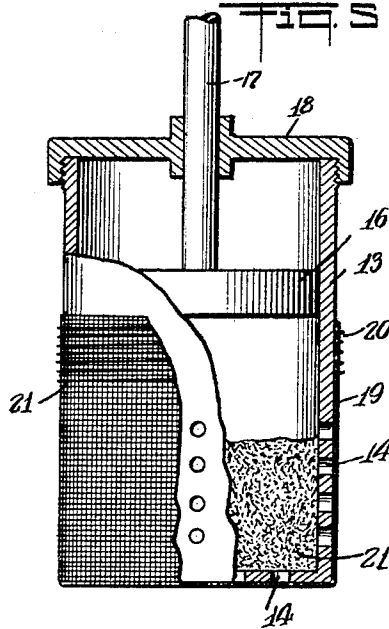


FIG. 5



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BLUING AND DYEING DEVICE

Application filed May 3, 1929. Serial No. 360,127.

This invention relates to new and useful improvements in dissolving and mixing a crystalline powder, such as, bluing, dyes, saccharine, and has for its principal object to provide a simple device for disseminating the dissolved material in an even and forceful manner.

Another object of this invention, is to provide a bluing or dyeing device which is operated on the suction and ejection principle.

A further object of this invention, is to provide a hollow container, which can be filled with bluing or dyeing material and this container so operated as to eject the bluing or dyeing material in an even and forceful manner.

A further object of this invention, is to provide a bluing or dyeing device which holds the bluing material and filters said material at the same time.

A further object of this invention, is to provide a hollow perforated container, which is partly filled with a bluing or dyeing material and can be operated in a vat, and at the same time the device can be used for spreading and stirring of the liquid in the vat.

With these and other objects in view, the invention consists in the novel combination and arrangement of parts which will be fully set forth in the following specification and accompanying drawing, in which:

Figure 1 is a sectional view of the device.

Figure 2 is a bottom view of the device.

Figure 3 is a modified view of the device.

Figure 4 is a view partly in section of a modified mode of using the device.

Figure 5 is still a different form of using the principle.

In the drawing, the numeral 1, indicates a hollow container made of elastic material as rubber. The container 1, has a flat top 2, and a perforated hollow hemispherical portion 3, with openings 4, spaced apart. The perforated portion is also provided with a large opening 5, to be described later.

The flat top 2, is provided with a neck 6, and cup shaped extension 7.

Into the extension 7, a rod 8, is forced which acts as a handle for the device. Into

the hollow portion 3, there is inserted a powdered or crystal bluing or dyeing material 21, either through the neck portion 6, or through the opening 5. A gauze 9, is then placed over the hollow portion 3, and tied around the extension 7, by means of a cord 10.

Figure 3 illustrates a similar device without the neck portion, thereby making it stronger and more durable.

Figure 4, shows a modified form, wherein the bluing is inserted into a bag which has been previously inserted through the opening 5. The bluing is inserted into the bag 11, and then tied by means of a cord 12, and the entire bag forced inwardly through the opening 5.

In Figure 5, a modified form is shown wherein a chamber 13, is provided with perforations 14, and a piston 16, traveling up and down the chamber 13. A piston rod 17, travels through the cap 18, and operates the piston in the usual manner.

A gauze, 19, surrounds the perforations and is tied to the chamber 13, by means of a cord 20. The bluing material 21, is inserted through the top before the cap 18 is screwed on the chamber 13.

In operation, when the device is used as shown in Figure 1, the device is inserted into the liquid and the hollow portion is forced up and down against the bottom of the chamber 3, thus causing the bluing or dyeing material to be forced from the container 3, which oozes, or is filtered through the gauze into the surrounding liquid.

By moving the device up and down, and sideways, you cause the liquid in the vat to become agitated and thereby producing a uniform mixture in the dyeing vat. It also prevents precipitation or the collection of undissolved particles from collecting at the bottom of the vat.

In Figure 4, the operation is similar and the results, of course, the same.

In Figure 5, the operation is somewhat different. In this case, the chamber is inserted into the surrounding liquid and a pumping action started, thus forcing the liquid in and out through the bluing material which is forced out by the piston through

the surrounding gauze 19, where it is filtered.

As various changes may be made in the above embodiment without departing from the spirit or scope of the invention, it is to
5 be understood that all matter herein is to be interpreted as illustrative and not in a limiting sense.

What I claim is:

1. In a device of the class described a hollow semi-spherical container having a flat
10 closed top and a perforated elastic spherical bottom, one of said perforations being enlarged to enable the container to be filled therethrough.
- 15 2. In a device of the class described a hollow semi-spherical container having a flat closed top and a perforated elastic spherical bottom, one of said perforations being enlarged to enable the container to be filled
20 therethrough and a filtering material surrounding said container.

Signed at New York, in the county of New York and State of New York this 18th day of April, A. D. 1929.

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LEONARD D. MAHAN.

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