(No Model.)

L. WELDON.

DYEING APPARATUS.

No. 347,404. Patented Aug. 17, 1886.

Fig. 1.

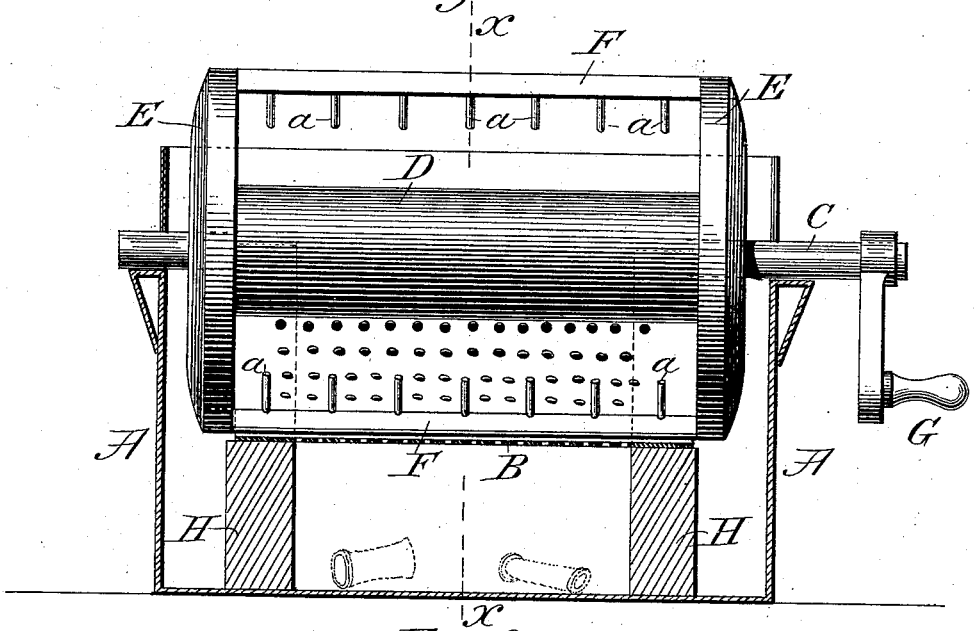
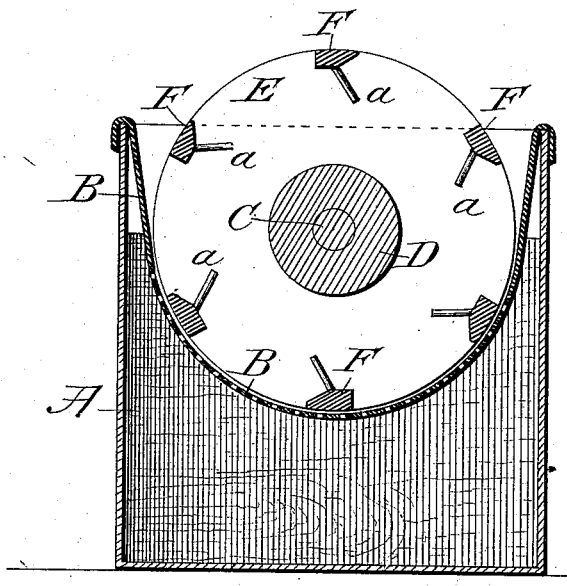


Fig. 2.



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DYEING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 347,404, dated August 17, 1886.

Application filed October 2, 1885. Serial No. 178,845. (No model.)

To all whom it may concern:

Be it known that I, LEONARD WELDON, a citizen of the United States, residing at Amsterdam, in the county of Montgomery and State of New York, have invented certain new and useful Improvements in Dyeing Apparatus; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to an improved dyeing-machine for the dyeing of garments or fabrics of various kinds; and it consists of a construction and arrangement of parts, as will be hereinafter fully set forth and claimed.

In the annexed drawings, illustrating my invention, Figure 1 is a side elevation of the stirring device within the tub, and shows the tub itself in section. Fig. 2 is a transverse section of my improved dyeing-machine on the line *x x* of Fig. 1.

Like letters of reference designate like parts in both views.

A represents a tub or receptacle, of rectangular or other form, constructed of any suitable material, and of any convenient size. This tub is provided with a false semicircular bottom, B, fastened securely therein. It is perforated with small holes, through which the dyeing material, with which the tub A is filled, may pass into the semicircular chamber above the said false bottom, the purpose of the bottom being merely to keep the garments and fabrics close to the stirring device during its revolutions, and prevent them from falling to the bottom of the tub, out of the reach of the stirrer.

In the drawings, in Fig. 1 the false bottom is represented as being upheld by supports H H, which rest on the bottom of the tub. While this may be a convenient mode of upholding the bottom, it is evident that other means may be employed equally well. A shaft, D, passes through the tub above the perforated bottom, and has journal-bearings provided in each end of the tub to receive the spindles C, affixed to the ends of the shaft. A circular disk, E, having a radius a little less than that of the semicircular bottom, is attached to each end of the shaft D, so as to form a sort of a reel. These disks are connected by longitudinal arms or bars F, situated a short distance apart, and each one of which is provided with a series of pegs projecting inwardly toward the shaft, and which are designed to catch the fabrics which are being dyed and convey them up out of the dye into the air and then back again into the dye. It is evident that, without departing from the spirit of my invention, the pegs may extend outwardly from the arms F, instead of inwardly, or they may be attached directly to a solid central shaft, D, which in this case would need to be made larger than when it is used in connection with the disks and arms, as herein described. The pegs in the drawings are shown as set at an angle to the bars, in order that they may more readily catch the fabrics. The shaft D is driven by any appropriate power, as the crank G, (shown in Fig. 1,) or by other common motive powers.

The operation of my device is as follows: First, the dye-tub will be filled with dyeing-matter to a sufficient height that it may pass through the perforated bottom and partially fill the chamber above the same—at least fill it to such a height that each of the bars F may in succession be entirely submerged as the shaft rotates. The garments are next placed in the semicircular chamber and the shaft rotated. The pegs on the arms catch the garments and fabrics and lift them from the dye, and then as the shaft rotates they are again submerged. This rotation is continued until the fabrics are thoroughly dyed, the perforated bottom serving all the while to keep the fabrics close to the rotating device, where they may be caught by the pegs.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a dyeing-machine, the combination of a dye-tub having perforated semicircular partition, and a stirring device consisting of a shaft, to the ends of which are attached circular disks, which are also connected by bars carrying pegs, substantially as shown and described.

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

LEONARD WELDON.

Witnesses:

CHARLES S. NISBET,

MARTIN L. STOVER.