No. 703,089. Patented June 24, 1902.

G. SCHOCK.

SPRINKLING OR SPRAYING DEVICE.

(Application filed Feb. 21, 1902.)

(No Model.)

Fig. 2.

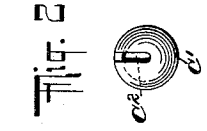


Fig. 1.

Fig. 3.

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SPRINKLING OR SPRAYING DEVICE.

SPECIFICATION forming part of Letters Patent No. 703,089, dated June 24, 1902.

Original application filed August 17, 1901, Serial No. 72,327. Divided and this application filed February 21, 1902. Serial No. 95,022. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV SCHOCK, a citizen of the United States, and a resident of the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Sprinkling or Spraying Devices, of which the following is a specification.

My invention relates to sprinkling or spraying devices, and particularly to such as are adapted for use in the cleaning of barrels.

The object of my invention is to provide simplified means for operating the spray-head and for preventing a discharge of the sprayed liquid except when the spray-head is within the barrel.

The invention will be fully described hereinafter and the features of novelty pointed out in the appended claims.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is a sectional elevation of my improved spraying mechanism. Fig. 2 is a plan of the spray-head, and Fig. 3 is a perspective view of a portion of the lever which serves to move the spray-head.

A indicates a supporting-frame, having sockets A′ to receive balls B, upon which a barrel is adapted to rest while the inside thereof is being sprinkled or sprayed. Suitable runways may be provided for directing the barrels to this portion of the apparatus, and in Fig. 1 I have indicated two such guide-rails A^2 in cross-section. The frame A has an aperture arranged centrally with respect to the balls B, and through this aperture is adapted to be projected a nozzle C, provided at its upper end with a head C′, having a slot C^2, which extends to one side only, as shown in Fig. 2. This nozzle is movable up and down in frame A and is held to turn therein by means of a rib or feather C^3, fitting into a corresponding groove of a gear-wheel D, which is journaled in the bar or frame A, but cannot move vertically. This gear-wheel D engages a bevel-pinion E on a shaft F, which is driven in any suitable manner. The nozzle C may be moved up or down by means of a lever K, fulcrumed at K′ and connected at K^2 with two links J, the lower ends of which are pivotally connected with a socket I, receiving the lower end of the nozzle C. The nozzle is mounted to slide in a box or chamber G, which is stationary and is provided at H and H′ with suitable stuffing-boxes. Further, the box or chamber G is adapted for connection, as at G′, with a water-supply or any other source of fluid to be sprayed. Perforations C^4 are so arranged that when the nozzle is raised they will open into a space communicating with the inlet G′. When, however, the lever and the nozzle are dropped, the perforations C^4 will come below the central chamber of the box G, and thus the supply of water or other fluid will be cut off from the spray-head C′. It will be understood that owing to the feather connection at C^3 the nozzle will rotate continuously; but no fluid is discharged therefrom until the head C′ has been raised a certain distance, and it will further be understood that if the head C′ fails to strike the bung-hole of the barrel the said head will not be able to rise sufficiently to allow a discharge of the liquid therethrough. I thus prevent any spilling of the liquid and all danger of scalding the operator.

It will be observed that the gear-wheel D, by means of which the nozzle is rotated, is arranged upon the central portion of the nozzle or between the supply-openings C^4 and the outlet C^2. Thus I not only reduce torsional strains to a minimum, but am enabled to better guide the nozzle in its up-and-down movement. As shown, the nozzle is guided first in the box G, then in the hub of the gear-wheel D, and lastly in the frame portion A^3 above the wheel D.

For the sake of clearness I have shown the head C′ lower relatively to the balls B than it would be in practice. It is my intention that the fluid should not begin to escape from the spray-head until the latter is well within the barrel. By giving the discharge-slot C^2 the one-sided arrangement shown in Fig. 2 a powerful stream will be discharged against one side of the barrel at a time, and as the nozzle rotates the stream will be directed successively to all points of the barrel.

While I have described my invention in its particular application to a barrel-sprinkling machine, I desire it to be understood that it may be employed for analogous purposes, and, further, I do not wish to restrict myself

to the particular details of construction shown, but consider as embodying my invention any construction which will be described by one or more of the appended claims.

The sprinkling or cleaning machine herein disclosed is also described and shown, but not claimed, in another application for patent filed by me on August 17, 1901, Serial No. 72,327, of which my present application is a division.

I claim as my invention—

1. In a cleaning-machine, the combination of a nozzle mounted to slide, with a gear-wheel held against sliding and mounted to turn with the said nozzle, driving means in permanent engagement with said gear-wheel, and a fluid-supply box in which said nozzle slides and with which it communicates in a predetermined position only said wheel being located upon the nozzle between the outlet thereof and the fluid-supply box.

2. In a cleaning-machine, the combination of a frame provided with a central guide and a bearing adjacent thereto, a gear-wheel held against sliding and provided with a hub mounted to turn in said bearing, a fluid-supply box located on the side of the gear-wheel opposite to said guide, means for driving said wheel, and a nozzle held to turn with the gear-wheel and held to slide lengthwise in the central frame-guide, the hub of the gear-wheel, and the fluid-supply box, said nozzle being arranged to communicate with the said box in a predetermined position only.

3. In a cleaning-machine, the combination of a nozzle having a head with an outlet or slit extending from its center to one side only, and means for rotating said nozzle.

4. In a cleaning-machine the combination of a rotary nozzle, a fluid-supply box in which said nozzle is mounted to rotate and to slide, the nozzle being perforated so as to communicate with the fluid-supply box in a predetermined position, links arranged at each side of the nozzle and pivotally connected therewith, a forked lever connected with said links, and means for rotating the nozzle.

5. In a cleaning-machine, the combination of a longitudinally-slidable nozzle, a stationary fluid-supply box with which said nozzle is adapted to communicate in a predetermined position only, and a driving member held to turn with the nozzle but independent of its sliding motion and located on the nozzle between its outlet and the fluid-supply box.

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

GUSTAV SCHOCK.

Witnesses:
JOHN LOTKA,
EUGENE EBLE.