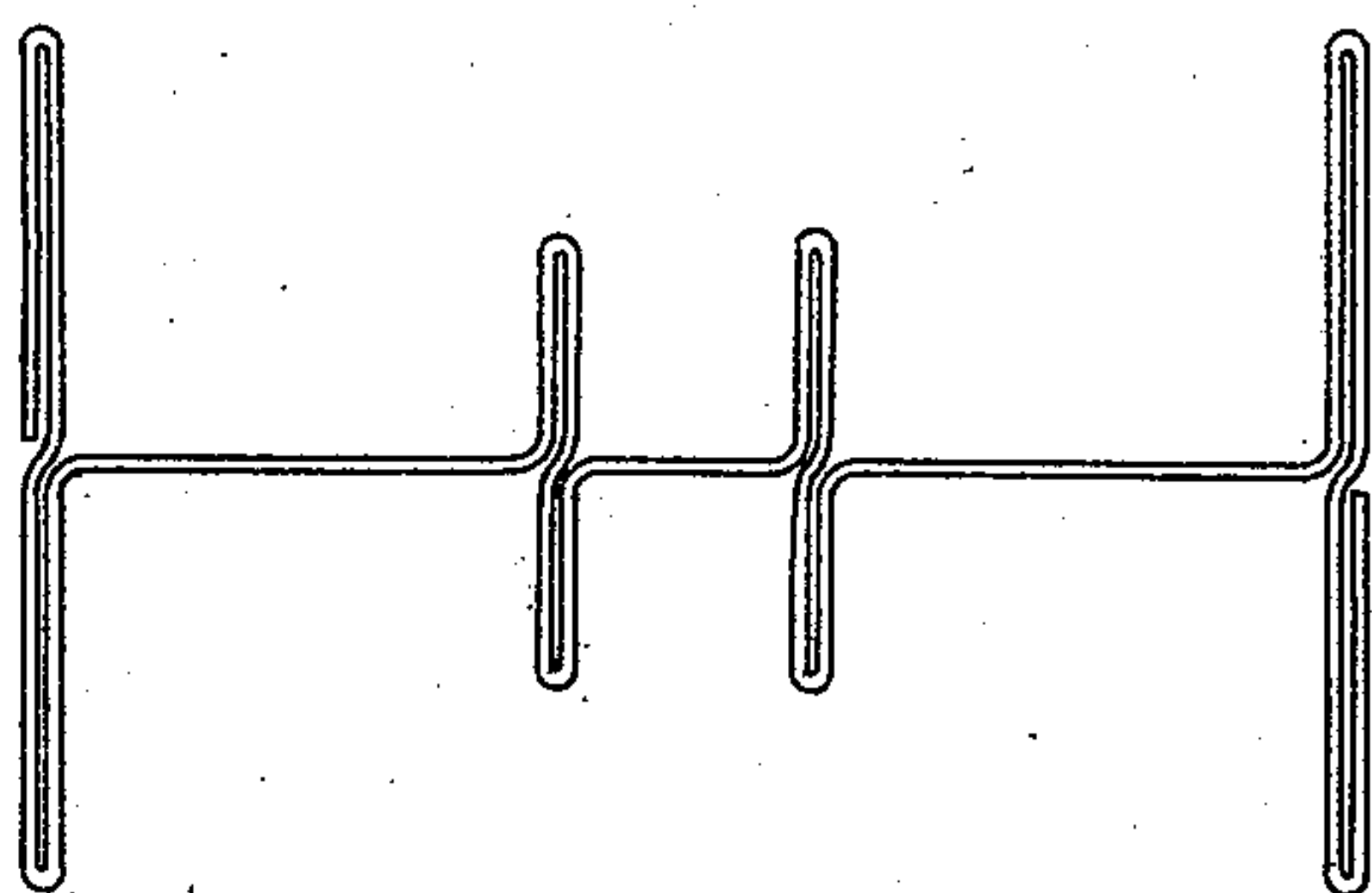
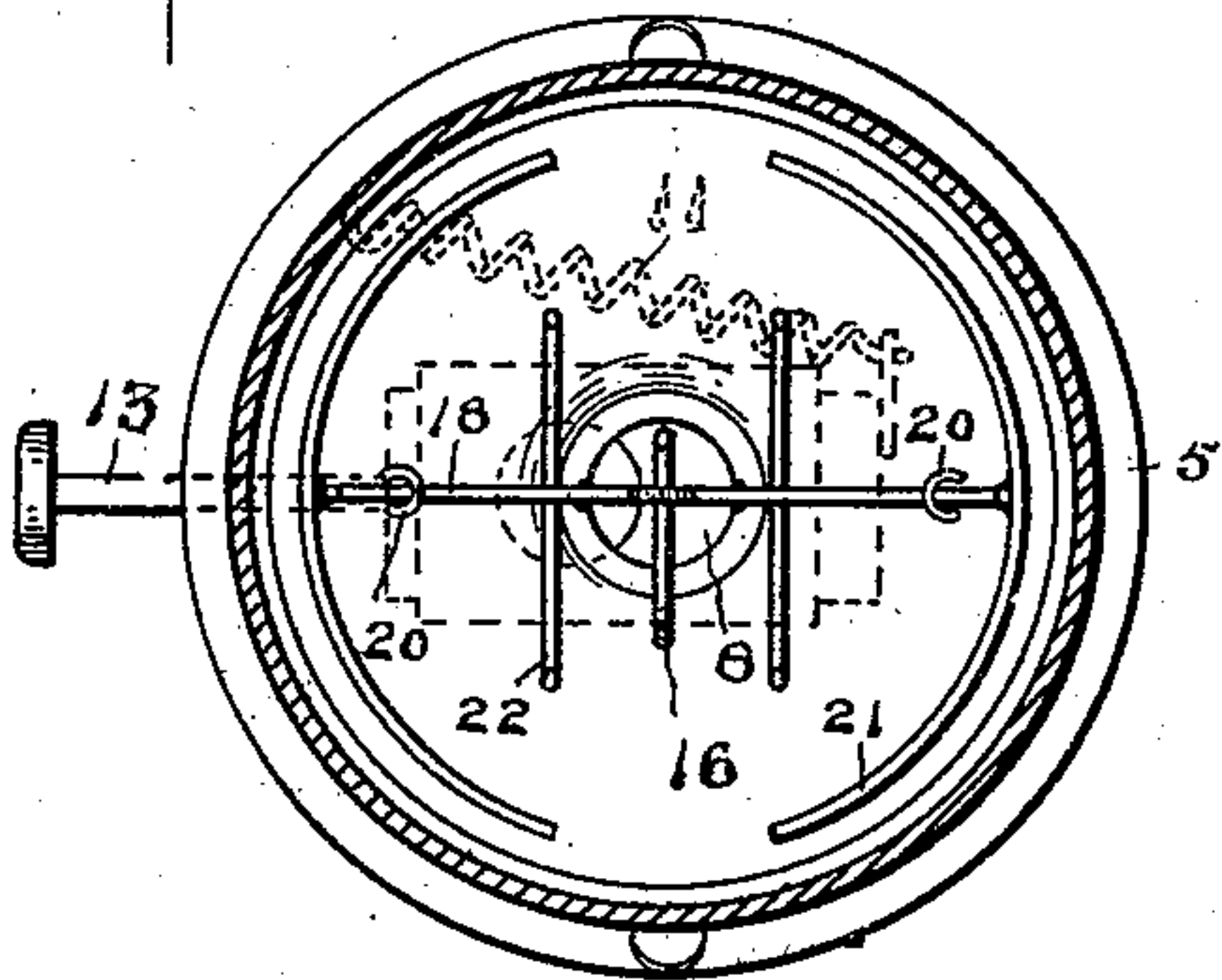
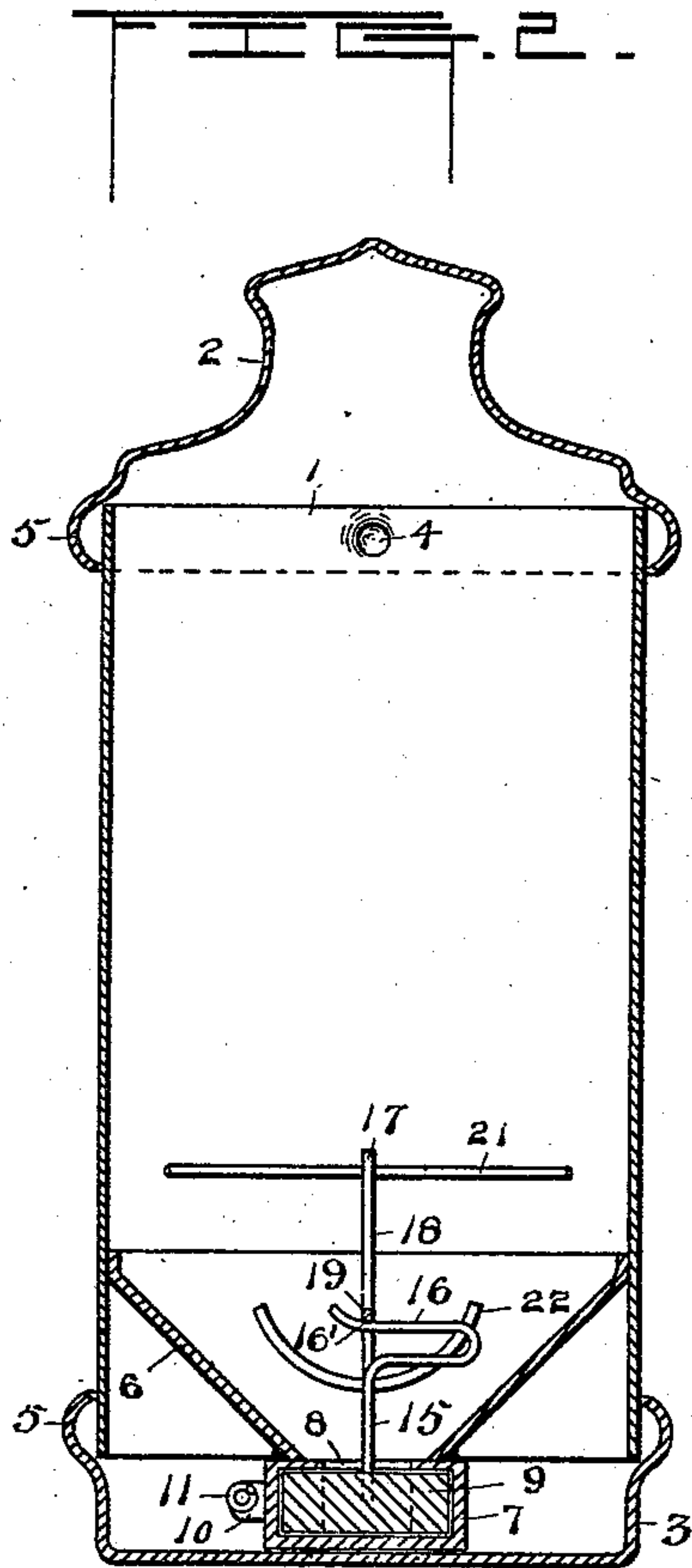
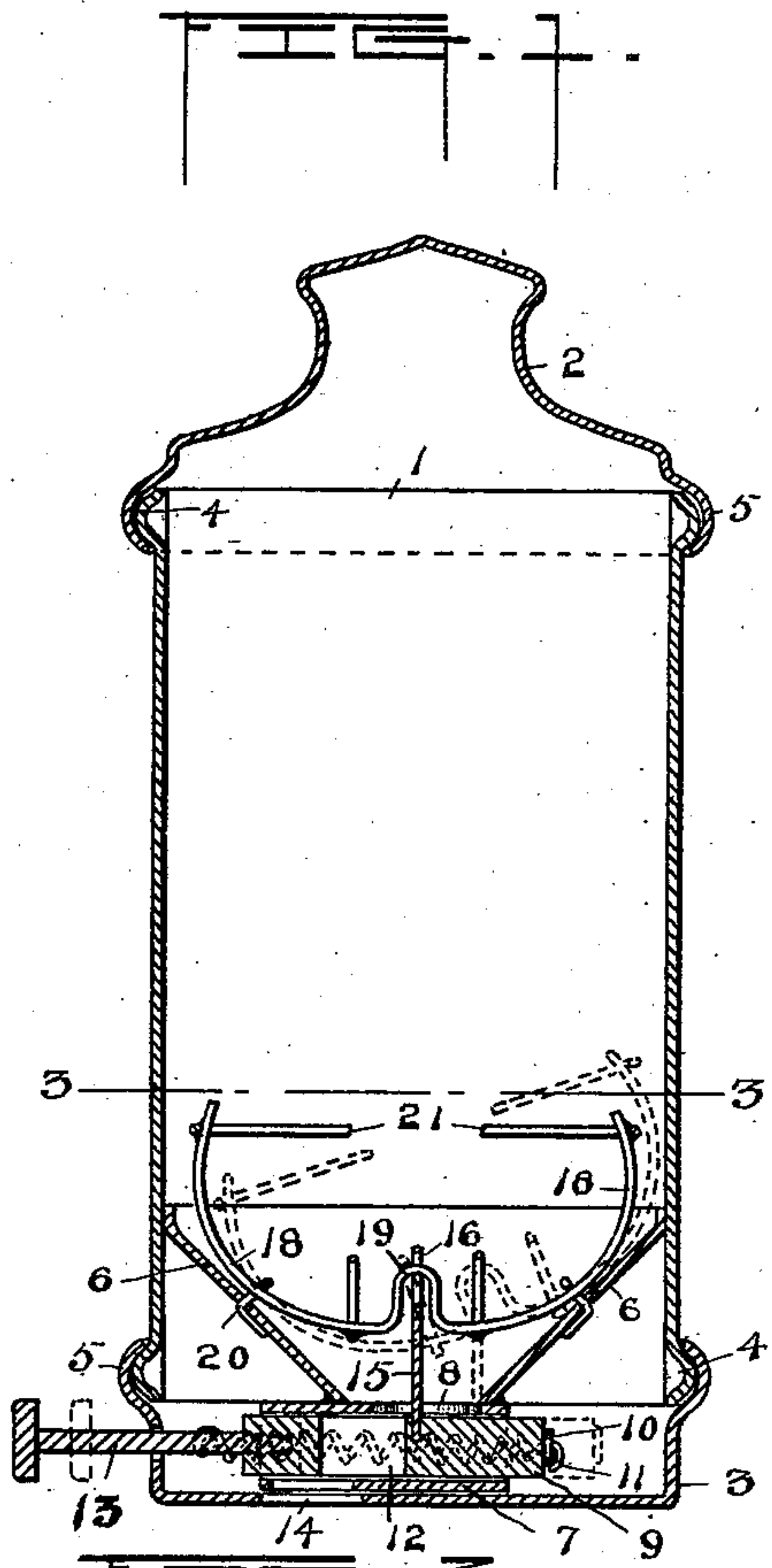


(No Model.)

W. F. ROSS & W. WILCKLOW.  
SOAP DISTRIBUTER.

No. 531,599.

Patented Dec. 25, 1894.



Witnesses  
Arch. M. Cathin.  
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# UNITED STATES PATENT OFFICE.

WILLIAM F. ROSS AND WILLIAM WILCKLOW, OF ROCHESTER, NEW YORK.

## SOAP-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 531,599, dated December 25, 1894.

Application filed June 7, 1894. Serial No. 513,740. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM F. ROSS and WILLIAM WILCKLOW, residents of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Soap-Distributers; and we do hereby 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 pertains to make and use the same.

The invention relates to means for distributing powdered soap and has for its object to increase the efficiency of stirring and discharging devices and at the same time secure economy of construction and ease of operation; and it consists in the construction hereinafter described and particularly pointed out.

In the accompanying drawings Figure 1 is a vertical central section. Fig. 2 is a similar view taken at right angles to Fig. 1. Fig. 3 is a section on line 3—3 of Fig. 1; and Fig. 4 is a modified detail.

N numeral 1 denotes the body of the holder constituting the reservoir for powdered soap or like material.

2 and 3 indicate respectively a cover and a bottom each removably secured by a well known fastening resembling a bayonet joint and comprising projections or bosses 4 and a groove 5. When desired the cover may be fixed upon the body if the bottom is made removable, as it will be by preference, in order to facilitate the assemblage of the parts. The holder can be charged with material upon removing the cap or if that is fixed upon removing the bottom and the hopper.

6 denotes a hopper held in the holder by friction or otherwise and closely fitting the same.

7 denotes a sleeve or open ended casing having in its top a hole 8 through which it may communicate with the hopper fixed on said top about the hole.

9 is a plug fitted to slide lengthwise of the sleeve and provided with a stop 10 adapted to receive the end of a returning spring 11.

In the removable plug or slide 9 is a hole 12 passing entirely therethrough and having about the same transverse dimensions and form as the opening at the bottom of the hopper.

13 denotes a removable operating pin secured by screw threads or otherwise to the slide and extending out through the side of the removable bottom 3. One end of the spring 11 is connected to the slide and the other to the holder and said spring is adapted to be put under tension by the inward movement of the slide caused by pressing the suitably headed pin 13. This movement of the slide carries the hole 12 immediately under the open bottom of the hopper in situation to receive a charge of soap therefrom. The return movement of the slide caused by the spring carries the hole over an opening 14 in the bottom through which the charge of soap is discharged.

Such substances as powdered soap are liable to become packed in a hopper situated and used as herein set forth and it is important that the contents of the hopper be thoroughly stirred at and after each discharge. To secure this object by simple and efficient means a post 15 is secured into the slide in manner to be easily turned therein and at its top it is provided with a bent spring arm 16. Upon this arm rests a frame 17 conveniently made of wire and consisting of two curved members 18 connected by a bend 19 adapted to rest upon the spring arm in a depression 16' therein. Each limb 16 passes loosely through staples 20 secured in the walls of the hopper. At the upper ends of the members 16 are attached inwardly curved arms 21 situated in an approximately horizontal plane near the junction of the upper end of the hopper with the body of the hopper. 22 are arms curved in vertical planes and fixed to members 16 near the foot of the bend 19. The construction is such that the before described movement of the slide causes the members 18 to move reciprocally through the eyes or staples 20 whereby the arms 21 are oscillated near the top of the hopper and at the foot of any arch of the material contained by the hopper which is otherwise apt to be formed with its support at or near the junction of the hopper and body. Any tendency of the material to pack or form a lower arch within the hopper itself is overcome by the similarly oscillating arms 22.

The loose support of the stirring device consisting of its bend 19 hanging upon the spring



arm 16 co-operates with the limited rotary motion of the post 15 to give ease and freedom of motion thereto and the agitation caused by the oscillating arms simultaneously near the top and bottom of the hopper acts to thoroughly loosen the contents and insures its even and free discharge.

In some cases it is proposed to make the stirrer out of a single piece of wire as diagrammatically indicated in Fig. 4. The staples are not essential and if desired the bend 19 of the stirrer may be engaged by and held in a loop in the arm 16.

As the bottom of the holder and the hopper are removable easy access can be had to the slide and stirrer. By unscrewing the post 15 and detaching the returning spring the slide can be removed and the various parts cleaned in case material should happen to become packed about the slide.

The advantage of the operating pin and returning spring consists in part in the fact that the hand which pushes in the pin by a thumb for example can at the same time be held underneath the discharge aperture to receive the soap. Such returning spring in an analogous combination is not new, neither is a hopper combined therewith and with a slide having apertures adapted to register at will with the hopper outlet and with stirring devices situated in the hopper, and such combinations are not claimed herein. Our improvement is characterized by a stirring device of novel form and mode of operation consisting of an oscillatory frame loosely resting upon a post fixed to and movable with the slide, said frame having lower arms bent to conform approximately in vertical planes to the bottom of the hopper and movable transversely across the same in curved lines and having also arms curved in a plane at right angles to the arms first named and situated near the top of the hopper, the construction being such that the post when moved by the discharging slide cuts the contents of the lower part of the hopper centrally in a vertical plane, while the lower arms oscillate near its

walls at the lower part in an approximately horizontal direction and the upper arms oscillate in an approximately transverse direction in the upper part of the hopper. The construction is simple, efficient and in movement unlike any prior device for the same general purpose.

Having thus described our invention, what we claim is—

1. In a soap distributor the open ended case having holes in top and bottom, the hopper seated on the case about the upper hole, the slide having a discharge passage there-through, the post secured in said slide and standing above the same within the hopper, and the stirring device loosely suspended on the top of said post, said device consisting of two members 18 provided with curved arms 21 and 22 the latter situated near the bottom of the hopper and conforming approximately to its sides in a vertical direction and the former near its top and conforming approximately to its sides in a horizontal direction, substantially as set forth.

2. In a soap distributor the combination of a hopper, a discharge slide, a post secured in said slide and standing above the same within the hopper and provided with a bent arm at its top, and a stirrer having two members 18 connected by a bend adapted to hang loosely on said arm and provided with curved stirring arms 21 and 22 situated near the walls of the hopper, and means for moving the slide and post whereby the contents of the hopper are cut centrally and whereby the curved stirrer arms are caused to oscillate near the curved surface of the hopper both at top and bottom, substantially as set forth.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

WILLIAM F. ROSS.  
WILLIAM WILCKLOW.

Witnesses:

ADELBERT J. WEBB,  
LIBBIE G. HAINES.