

(No Model.)

A. BLAIR.
TUMBLER WASHER.

No. 388,248.

Patented Aug. 21, 1888.

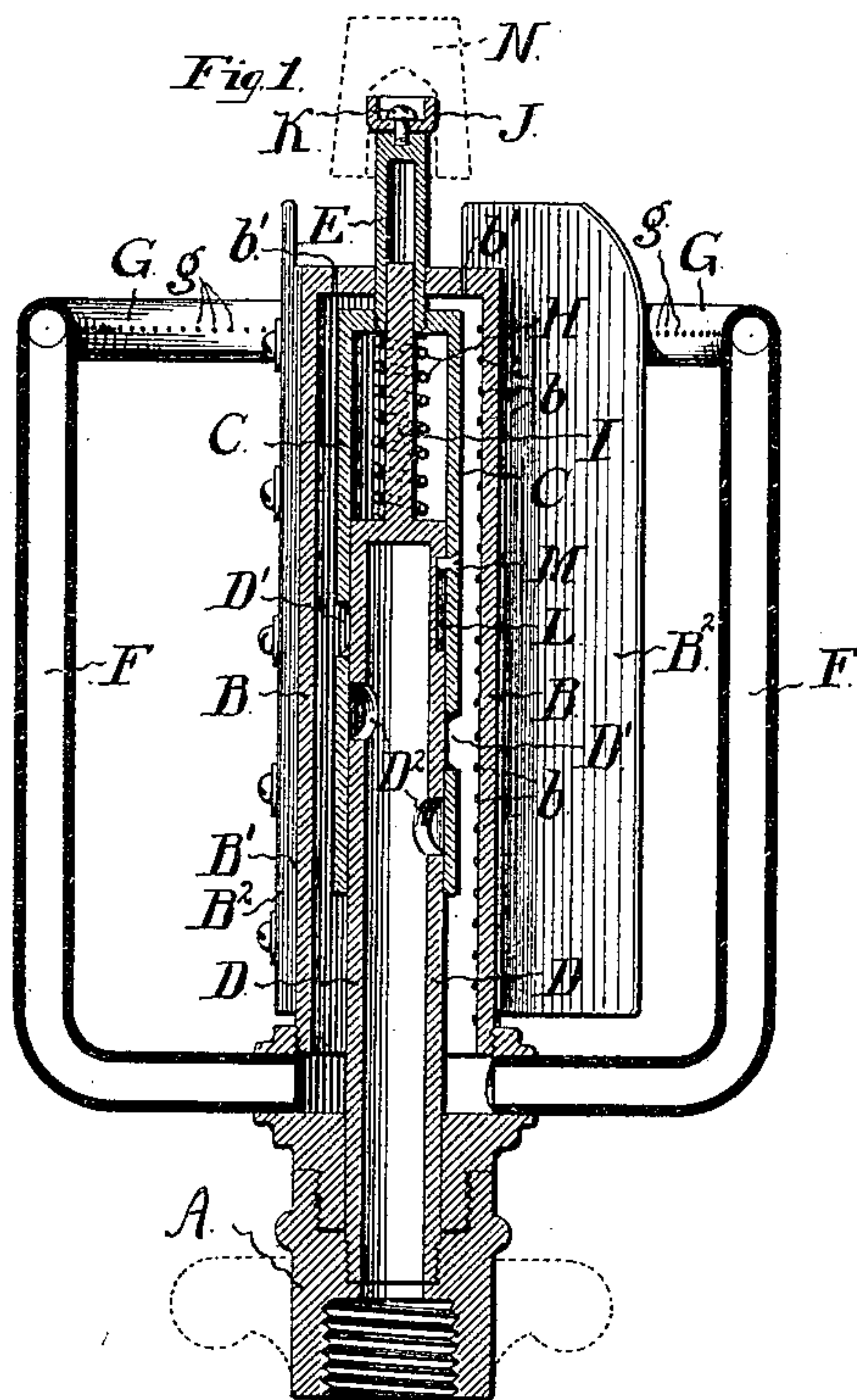


Fig. 2.

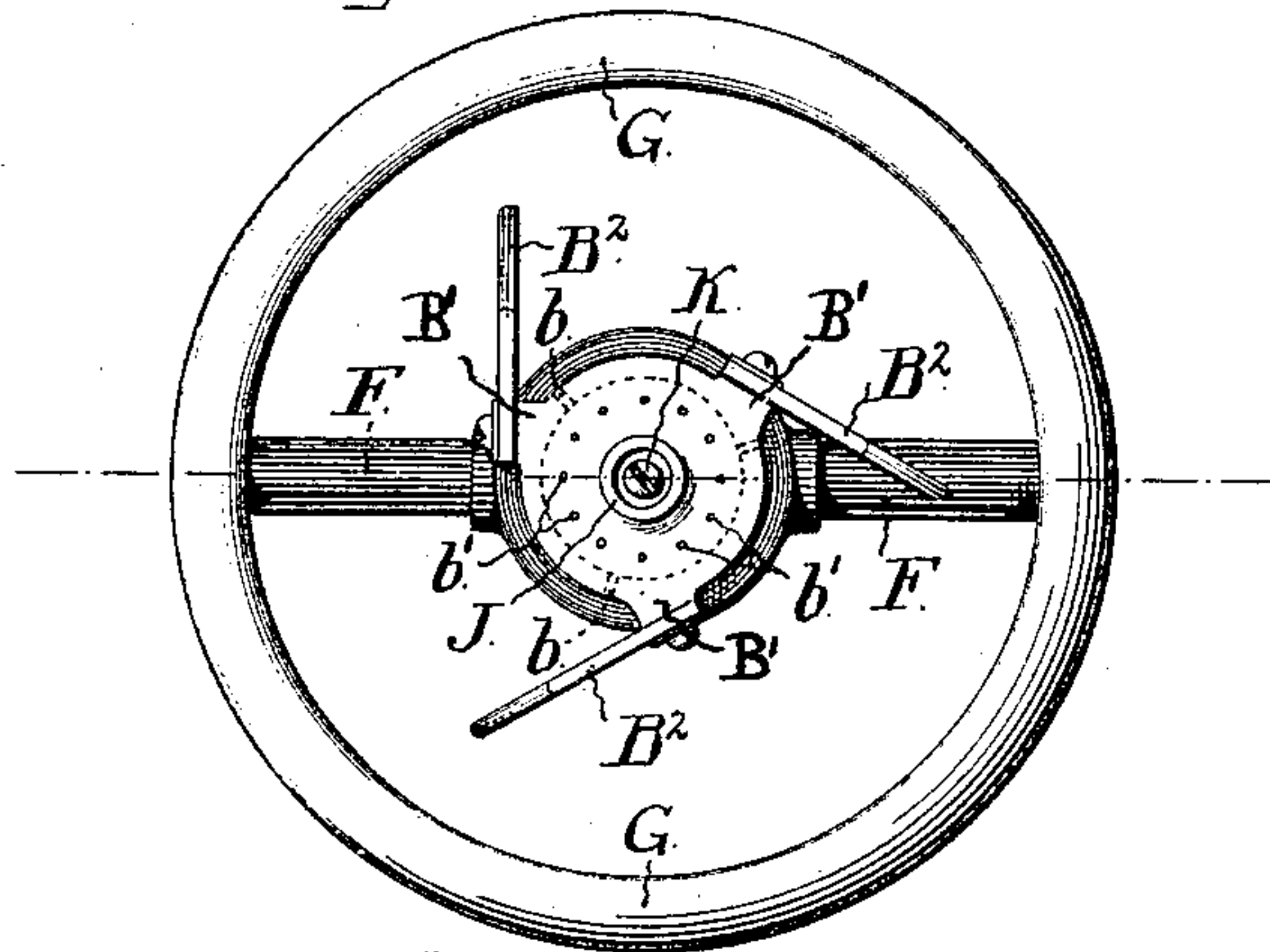
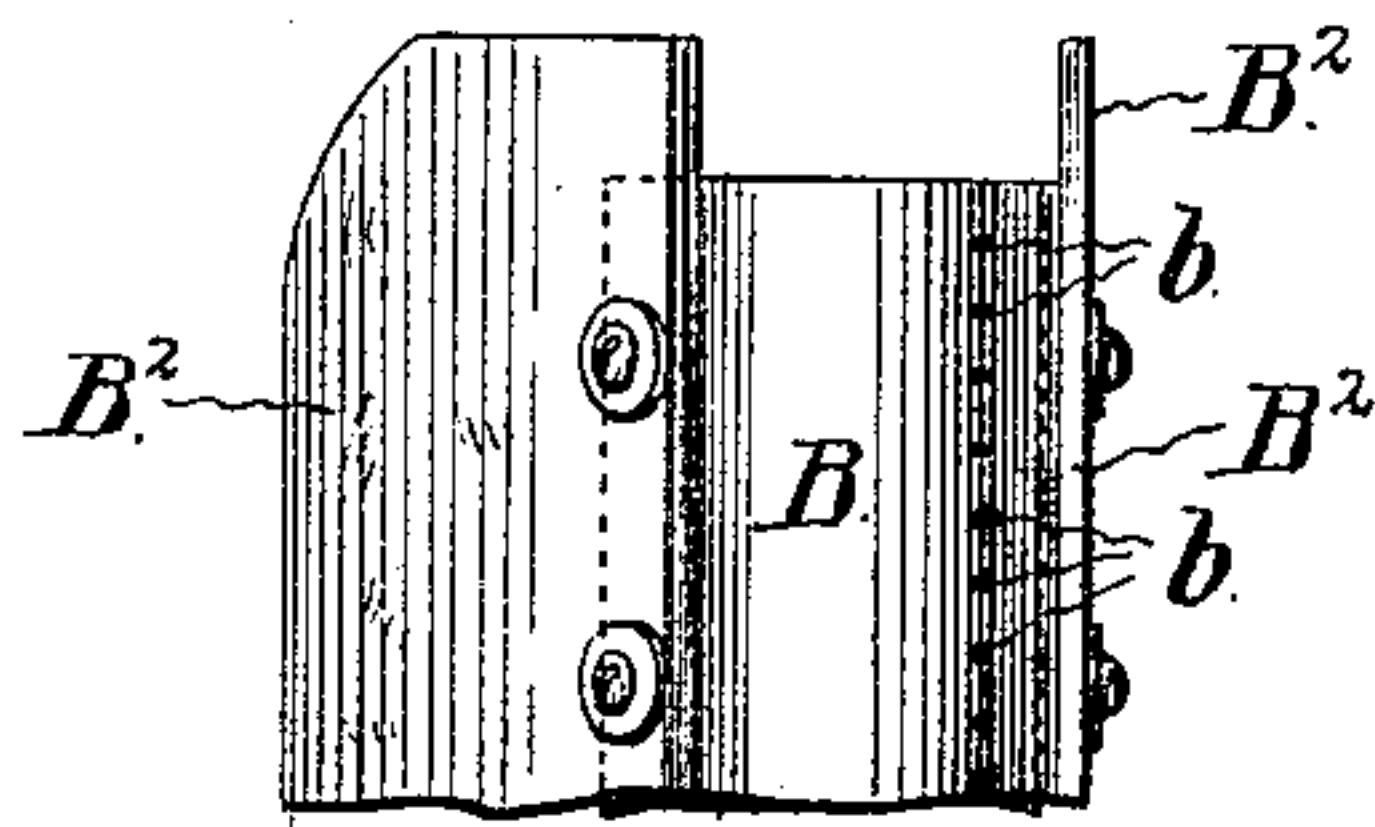


Fig. 3.



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TUMBLER-WASHER.

SPECIFICATION forming part of Letters Patent No. 388,248, dated August 21, 1888.

Application filed October 17, 1887. Serial No. 252,637. (No model.)

To all whom it may concern:

Be it known that I, ANDREW BLAIR, of the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Tumbler-Washers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 represents a vertical central section of a tumbler-washing apparatus constructed in accordance with my improvements. Fig. 2 is a top plan view of the same. Fig. 3 is a detail view showing the outer tube with its perforations and attached rubber.

My invention has reference to apparatus employed in connection with soda-fountains, or in restaurants, or other places where it is essential to have the means always at hand for washing tumblers, glasses, or other like articles, both interiorly and exteriorly, speedily and thoroughly.

In carrying out my invention I provide an ordinary coupling device, A, Fig. 1, or other suitable means for connecting the apparatus to a water-supply.

Referring to that portion of my apparatus upon which the tumbler is placed and from which water is discharged into the interior of the tumbler, it will be seen that it consists of an outer upright pipe or tube, B, having one or more rows of perforations, preferably perpendicularly arranged, as shown at *b*, Fig. 3, and through which water is discharged to the interior of the tumbler, the lower end of said tube being securely fastened to the coupling A.

Within the tube B is an inner upright pipe or tube, D, securely fastened at its lower end to the coupling A, closed at its upper end, and provided at desired places along its length with holes or openings D².

C is a sleeve or sliding tube fitting closely over the tube D, and likewise provided at desired places along its length with holes or openings D'. The purpose of said holes or openings D' and D² is, when brought in line with each other, to form outlets for the escape of water from the tube D to the outer pipe or tube, B.

M is a set screw or pin on the tube D, and operates in the slit or opening L in the sleeve or sliding tube C, the obvious purpose of which

is to steady and guide the sleeve C while sliding over the tube D.

E is a hollow rod or stem mounted on the top of the sleeve or sliding tube C, and extending up through the tube B, and has attached at its upper end, by means of a screw and washer, K, or in any suitable manner, a rotary head, J, provided with a cushion, N, on which to seat the tumbler or other article to be washed and provide an easy turning for the same while under pressure.

I is a rod mounted on the tube D, extending up through an opening for the same in the top of the sleeve C, and into the hollow rod or stem E when the latter is forced downward.

H is a spiral or other spring on the rod I, its lower end operating against the top of the tube D and its upper end against the under side of the top of the tube C. The office of said spring is, when pressure is removed from the apparatus, to raise and support out of action the sleeve C, and thus cut off the flow of water from the tube D. The top of the outer pipe or tube, B, is provided with a series of perforations, *b'*, to allow water to be discharged directly upon the bottom of the tumbler being washed.

B' B' B', Fig. 2, are ribs, flanges, or braces on the tube B, secured to which, by means of screws, bolts, rivets, or in any convenient manner, are what I term "rubbers," B², made of rubber or any suitable material, and of a desired size and shape, and large enough to come in frictional contact with the inner sides of the tumbler or other article to be washed, so that when the tumbler is given a turn the rubbers rub against the sides thereof and tend to effect a thorough cleansing of the same.

In connection with the apparatus just described for washing and cleansing the interior of the tumbler, I employ a device (not new with me) for washing the exterior of the same, consisting of one or more upright pipes, F F, connected with and opening into the outer pipe or tube, B, which support and open into an annular pipe, G, provided with a series of orifices or perforations, *g*, from which water is discharged directly upon the tumbler resting on the cork N. The lower ends of the pipes F F open into the tube B at a point above the coupling, so that when water is admitted to the tube B, through the outlets D' and D², it

will pass not only through the perforations *b* and *b'* in the tube B to the interior of the tumbler, but also through the pipes or conduits F F into the annular pipe G, whence it will be discharged in small streams or jets through the orifices or perforations *g* upon the exterior of the tumbler.

In operation, the apparatus having been connected to a water-supply, the water is turned on and flows into and completely fills the tube D. The tumbler or other article to be washed is then inverted and seated on the cushion N, downward pressure applied and continued until the sleeve C is forced as far down over the tube D as it will go, when the openings or holes D' and D² in the tubes C and D will be in line with each other and form outlets for the escape of the water from the tube D to the tube B, whence it is discharged to the interior of the tumbler through the perforations *b* along its length to the sides of the tumbler, and through the perforations *b'* at its top to the bottom of the tumbler, and to the exterior of the tumbler by passing through the conduits F F to the annular pipe G, and through the orifices or perforations *g* directly upon the outside of the tumbler. A turn is then given to the tumbler, and the rubbers B², which are in frictional contact with the interior of the tumbler, rub or act against the inner sides thereof and a thorough cleansing is accomplished. The tumbler is then lifted off the cushion N and, the pressure having ceased, the sleeve C, by means of the spring H, is raised and supported out of action and the further escape of water prevented by reason of the holes or openings D' and D² being then out of line with each other and making the tube D a water-tight compartment.

It is obvious that as many rubbers can be employed as there are ribs, flanges, or braces on the tube B. I consider three a good number when arranged as shown in the drawings.

The rubbers may be made of rubber, felt, or any suitable soft and pliable material.

The apparatus constructed as above described is cheap, simple, durable, and not likely to get out of order, and effects the cleansing of the tumbler or other article to be washed, both internally and externally, speedily and thoroughly.

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

1. In a tumbler-washing apparatus, the following elements in combination: a tube, D, provided with holes or openings D², a sleeve or sliding tube, C, adapted to slide under pressure over the tube D, and likewise provided with holes or openings D', the said holes or openings so relatively disposed to each other that when pressure is communicated to the sleeve C said sleeve will slide over the tube D until the holes or openings in the respective

tubes are in line with each other and form outlets for the escape of the water from the tube D to an outer tube or casing, B, an outer tube or casing, B, provided with a series of perforations for the escape of water to the interior of the tumbler, and with laterally-extending horizontal rubbers adapted to come in contact with the inner side of the tumbler, and a spring, H, for raising and supporting the sleeve or sliding tube C when pressure is removed therefrom and preventing the further escape of water, the whole arranged and operating substantially as described, and for the purposes set forth.

2. In a tumbler-washing apparatus, in connection with a water-supply, the combination of the tube B, mounted on the coupling A, having attached thereto rubbers B², for cleaning the interior of the tumbler, and provided with a series of orifices or perforations along its length and at its top for the discharge of water to the interior of the tumbler, the tube D, mounted on the coupling A, closed at its upper end and provided along its length with holes or openings D², a sleeve or sliding tube, C, fitting closely over the tube D, and provided along its length with holes or openings D', and adapted under pressure to slide over the tube D, said holes or openings D' and D² so relatively disposed to each other as to come in line when pressure is communicated to the sleeve C, and form outlets for the escape of water from the tube D to the tube B, the hollow rod or stem E, mounted on the sleeve or sliding tube C, the rod I, mounted on the tube D, extending up through the top of the sleeve C and into the hollow rod or stem E, mounted on the sleeve C, when the latter is forced downward, a spiral spring, H, on the rod I, for raising and supporting out of action the sleeve C when pressure is removed from the same, and cutting off the flow of water from the tube D, a set-screw or pin on the tube D, operating in the slot or opening in the sleeve C, to steady and guide the sleeve C when forced over the tube D, the rotary head J, mounted on the upper end of the rod or stem E, and a cushion, N, on said rotary head, on which to seat the tumbler, the pipes or conduits F F, supporting and opening into the perforated annular tube G, and the perforated annular tube G, from which water is discharged directly to the exterior of the tumbler through the orifices or perforations *g* in the same, the whole arranged and operating substantially as described, and for the purpose set forth.

In testimony whereof I have hereunto signed my name this 12th day of October, A. D. 1887.

AND W. BLAIR.

In presence of—

JOHN W. LEWIS,
H. C. BLAIR.