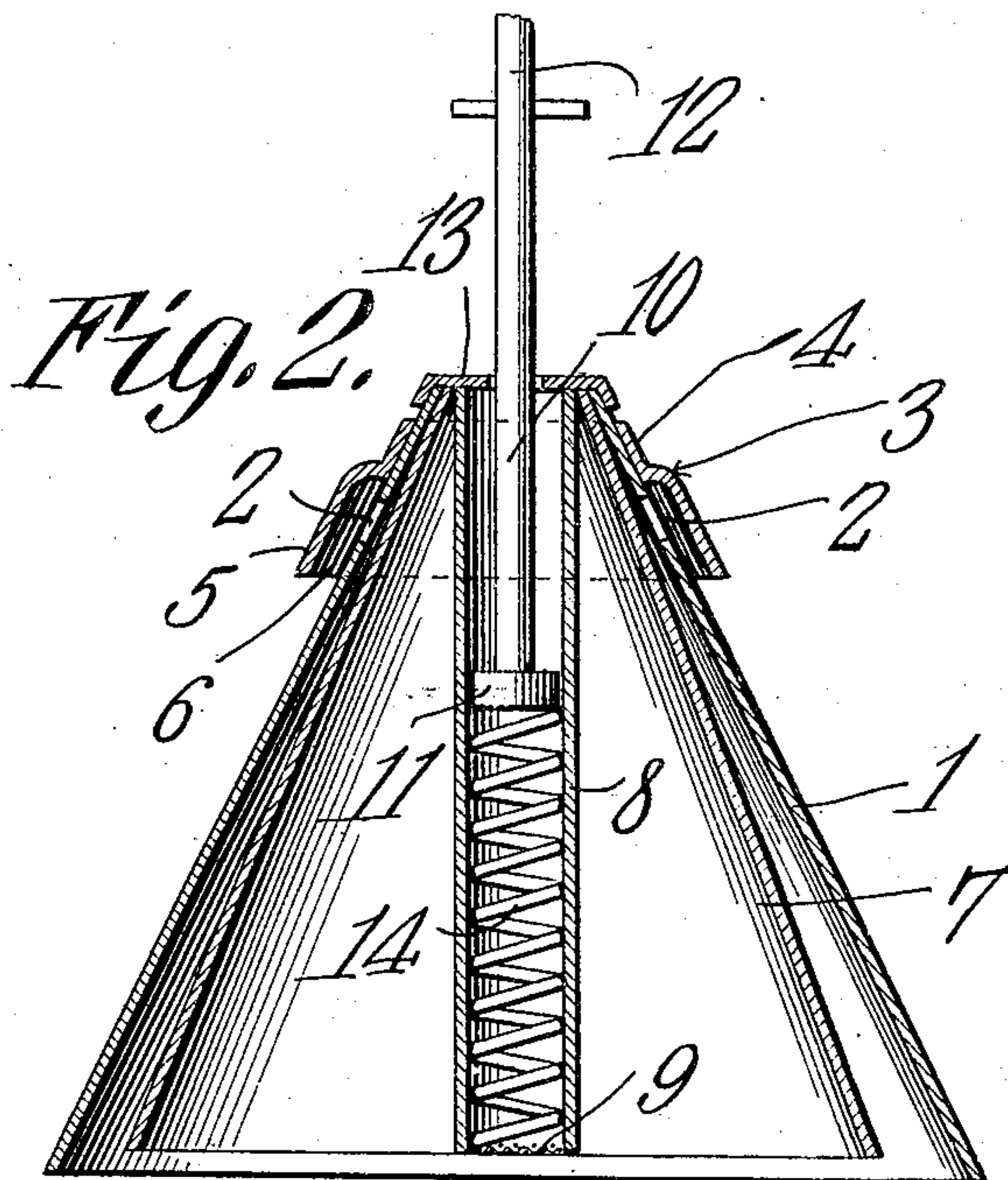
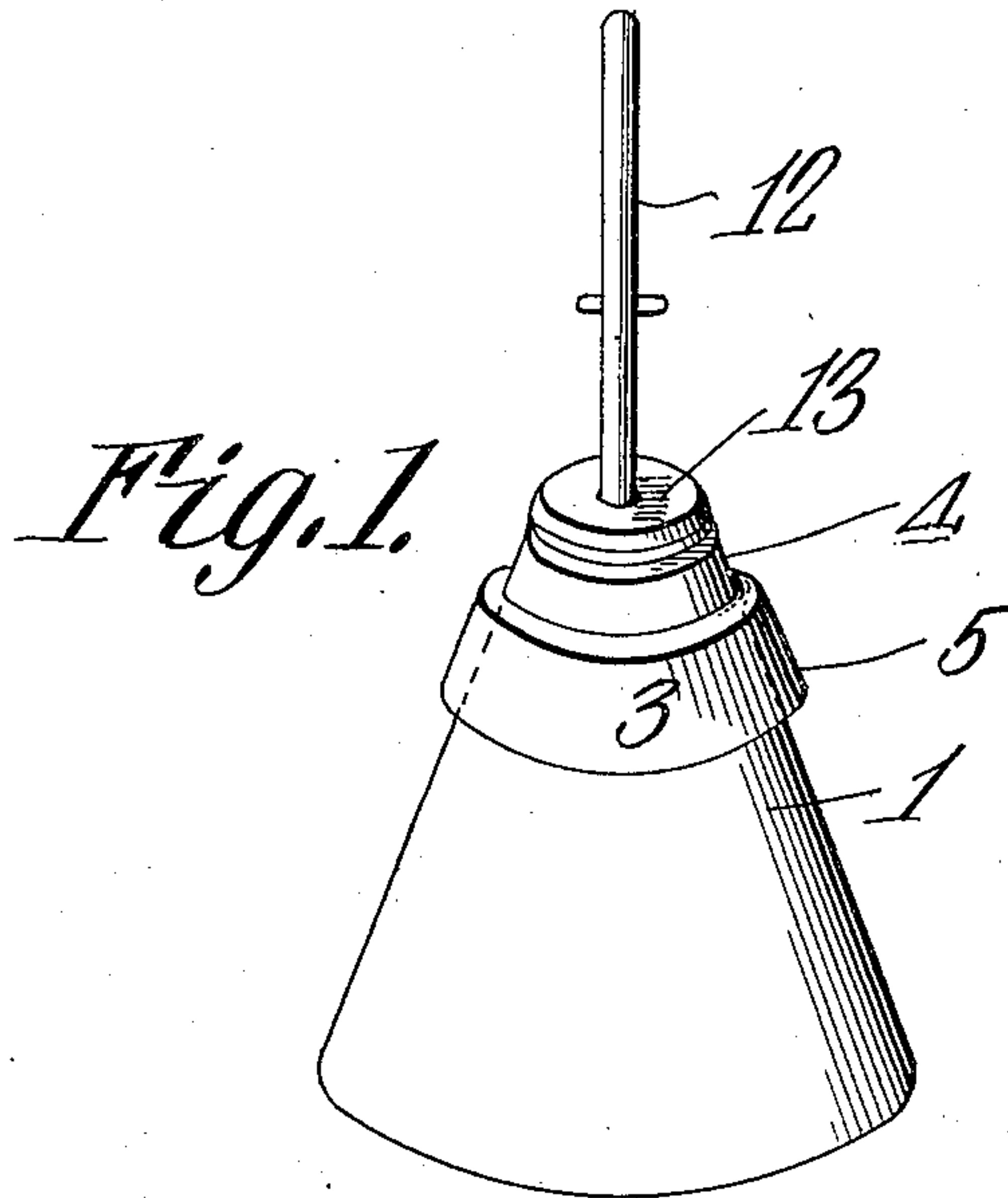


No. 886,675.

PATENTED MAY 5, 1908.

J. H. BOWLING.
CLOTHES POUNDER.

APPLICATION FILED APR. 22, 1907.



James H. Bowling,
INVENTOR.

WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES H. BOWLING, OF RUSSELLVILLE, KENTUCKY.

CLOTHES-POUNDER.

No. 886,675.

Specification of Letters Patent.

Patented May 5, 1908.

Application filed April 22, 1907. Serial No. 369,586.

To all whom it may concern:

Be it known that I, JAMES H. BOWLING, a citizen of the United States, residing at Russellville, in the county of Logan and State of Kentucky, have invented a new and useful Clothes-Pounder, of which the following is a specification.

My present invention relates to improvements in clothes washing devices of the character embodying a chamber adapted to be introduced into the receptacle containing the clothes and a plunger mounted to reciprocate therein for forcing the fluid through the clothes during the washing operation, and it has for its object to provide an improved device of this kind that will thoroughly cleanse the clothes in a comparatively short time and the effort required to operate the device is minimized, so that the operator will not be unduly fatigued, the device being so constituted that it may be readily manufactured of sheet metal and sold at a nominal price.

To these and other ends, the invention comprises the various novel features of construction and combination and arrangement of parts, which will be hereinafter more fully described, and pointed out particularly in the appended claims.

In the accompanying drawing:—Figure 1 is a perspective view of a clothes pounder constructed in accordance with my present invention. Fig. 2 represents an axial section of the device shown in Fig. 1.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

The device shown in the present embodiment of the invention is so constructed that the fluid will be forced directly through the clothes during the reciprocating movements of the plunger, and during the return strokes of the plunger the suction or vacuum will be relieved to such an extent as to permit a quick return of the plunger without the aid of the operator, this result being attained without the necessity of employing valves or other operating parts that would render the device costly and would be liable to get out of order.

The device shown in the present instance comprises an outer casing 1, conical or tapered in form, and it may be composed of sheet metal or other suitable material. This casing is provided at points in proximity to its apex with one or more apertures 2 extending through its walls, and surrounding

the casing adjacent to these apertures is a hood 3 having an attaching portion 4 preferably of angular form and conforming to the angular surface of the conical casing, this attaching portion being soldered or otherwise fastened to the outer surface of the conical casing at a point above the apertures, the lower portion of the hood being expanded or flared, as at 5, to form passages 6 communicating with the apertures from their lower sides, the flared portion of the hood serving as a deflector for directing fluid issuing from the apertures into a downward course.

Arranged within the outer casing is an inner casing 7 preferably of conical or tapered form having a pitch angle smaller than that of the outer casing, the ends thereof toward the apex being truncated and joined to the wall of the outer casing at a point above the vents or apertures 2 therein, and having its lower end or base extending to a point slightly above the level of the bottom of the casing, the lower ends of the two casings being open, and the variations in the pitch angle of the two casings forming an annular passage leading from the lower ends of the casings to the vents or apertures 2 in the upper portion of the outer casing.

Mounted axially of the inner casing is a cylinder 8 formed, in the present instance, of a tube having its lower end covered by a screen of gauze 9 to prevent the clothing from entering the lower end of the cylinder and movable axially of the cylinder is a plunger 10 having a suitably packed head 11 closely fitting the cylinder and provided with a handle portion 12 by means of which the plunger may be reciprocated, the flanged cap 13 being fitted over the upper ends of the casings and serving to guide the plunger. The return strokes of the plunger are preferably accomplished automatically, and for this purpose a helical spring 14 is inserted in the lower portion of the cylinder which bears at its upper end on the under side of the plunger, the action of the spring normally operating to remove the plunger toward the upper end of the cylinder.

A clothes pounder constructed as hereinbefore described is used by placing it into a receptacle containing the clothes and a suitable washing fluid, the lower open end of the outer casing bearing upon the clothes with sufficient pressure to form a substantially fluid tight seal or closure between the inner

and outer sides of the outer casing, while the lower end of the inner casing will not engage the clothes with sufficient pressure to prevent the passage of fluid between its inner and outer sides, by reason of its relatively shorter length. Reciprocation of the plunger, when the device is so placed, will cause a quantity of fluid to be alternately drawn into and expelled from the cylinder, the return, or upstroke, of the plunger under action of its actuating spring serving to fill the cylinder with fluid, and the working stroke of the plunger serving to expel this fluid and force it directly into the clothes which are directly opposite to the lower or discharge end of the cylinder. However, in operating on a considerable quantity, the vacuum produced by the increased resistance encountered by the fluid in passing through the clothes will retard the return stroke of the plunger, unless means are provided to relieve the vacuum, and this function is performed by the vents or apertures which permit fluid to reach the inside of the outer casing and enter the cylinder during the return stroke of the plunger, air being admitted when the level of the water is below the edge of the hood, and water being admitted when the hood is immersed in the water. The flared portion of the hood serves to deflect the water, if any, that discharges from the vents, in a downward course, during the working stroke of the plunger.

A clothes pounder constructed in accordance with the present invention is so simple in construction that it may be made very cheaply and sold at a relatively low price, and, as there are no valves to become deranged, its operation will be reliable and repairs will be unnecessary.

What is claimed is:—

1. A clothes pounder embodying inner and outer concentric casings of different diameters and forming an annular space between them, vents being formed in the walls of the outer casing and communicating with the annular space, a hood secured to the upper portion of the outer casing and having flared portions arranged opposite to and extending below the vents, a cylinder mounted within the inner casing and having its lower

end opening into the inner casing, and a plunger mounted to reciprocate in the cylinder and serving to induce a flow of fluid through the annular space between the casings and through the vents, the hood serving to deflect the fluid discharging from the vents.

2. A clothes pounder embodying inner and outer conical casings arranged concentrically and having pitches of different angles, the inner casing joining the upper portion of the outer casing and having its lower end opening at a level above that of the outer casing, the latter being provided with vents below the level of the upper end of the inner casing, a hood embodying an annular attaching portion secured to the outer casing above the vents and having a flared portion spaced from the upper surface of the casing opposite the vents and opening at the lower sides thereof, and a cylinder mounted in the casing having its lower vent discharging therein, a plunger operating in the cylinder, and a spring for effecting the return strokes of the plunger.

3. A clothes pounder embodying a conical outer casing having vents formed in its upper portion, a conical inner casing having a smaller pitch angle than that of the outer casing and mounted concentrically thereon, the upper end of the inner casing being joined to the outer casing at a point above the vents, and the lower end of the inner casing opening at a level above the lower end of the outer casing, a cylinder mounted within the casing and having its lower end discharging therein, a plunger mounted to operate in the cylinder, a spring for effecting the return strokes of the plunger, and a head having an annular attaching portion secured to the outer casing above the vents therein and provided with an annular flared portion extending downwardly over the vents.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JAMES H. BOWLING.

Witnesses:

WALTER MATTHEWS,
W. P. ROBINSON.