

J. A. VANCE.  
COMPRESSED AIR WASHING DEVICE.  
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898,612.

Patented Sept. 15, 1908.

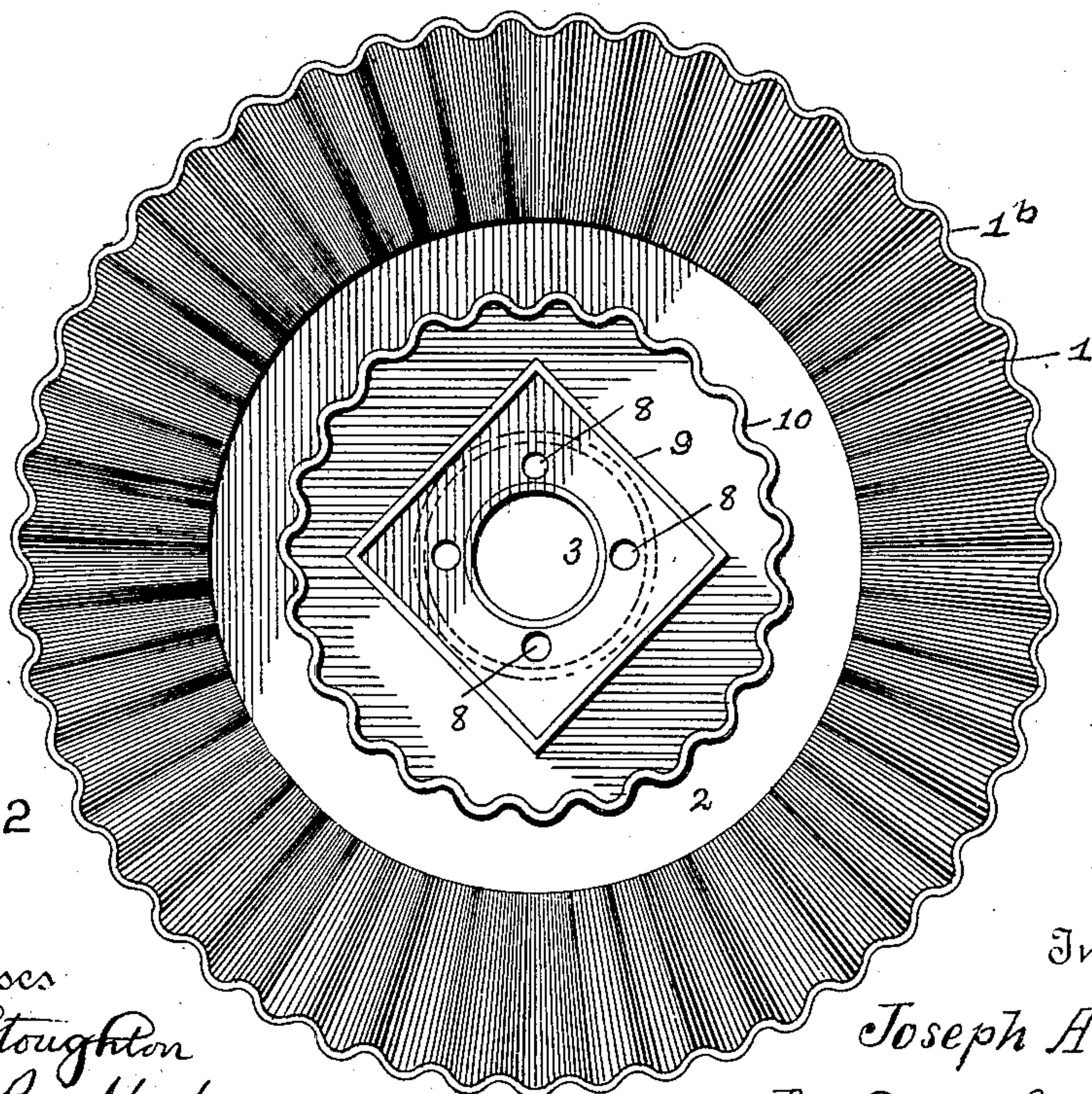
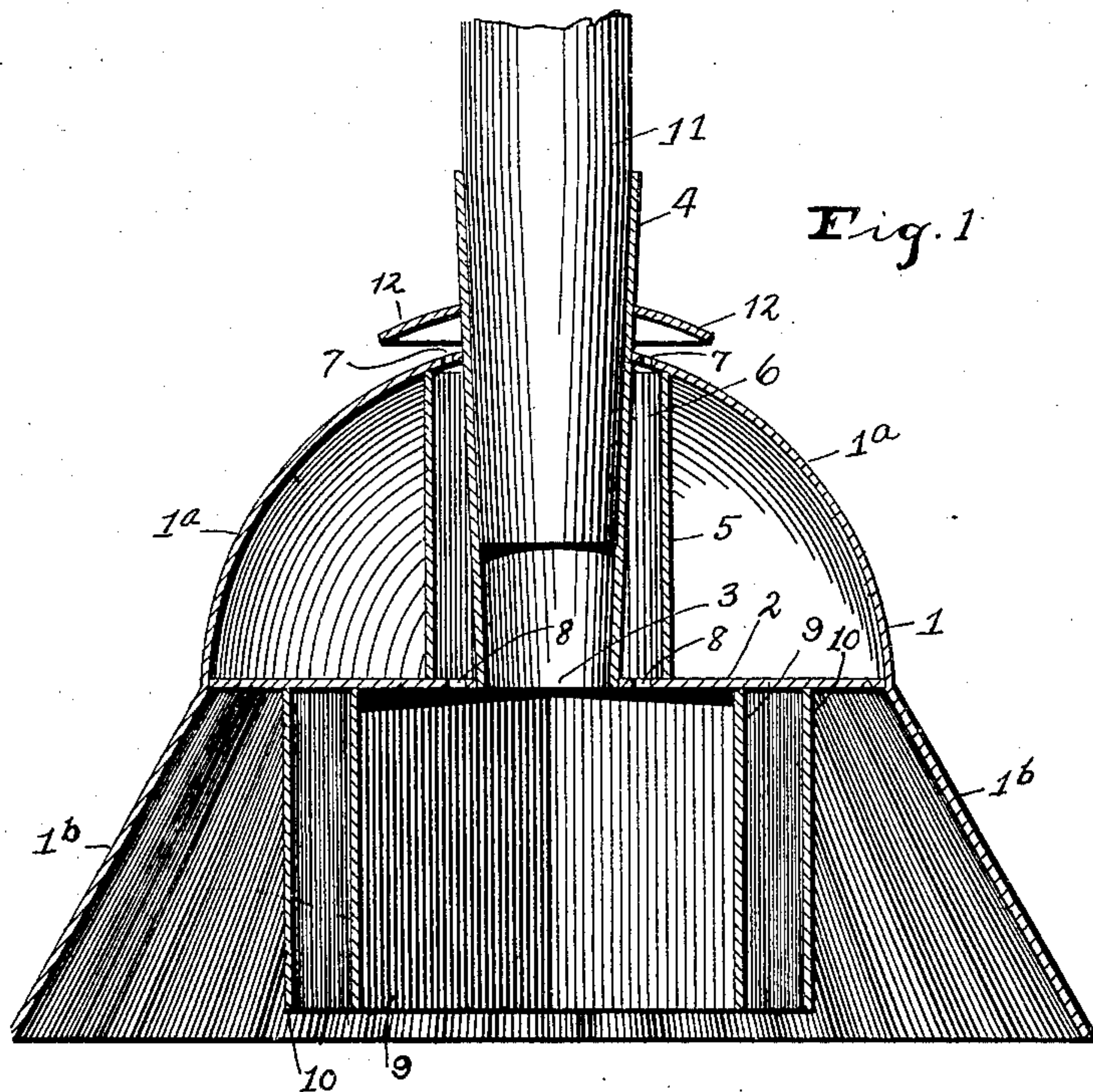


Fig 2

Witnesses  
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# UNITED STATES PATENT OFFICE.

JOSEPH A. VANCE, OF COLUMBUS, OHIO.

## COMPRESSED-AIR WASHING DEVICE.

No. 898,612.

Specification of Letters Patent.

Patented Sept. 15, 1908.

Application filed February 25, 1908. Serial No. 417,747.

*To all whom it may concern:*

Be it known that I, JOSEPH A. VANCE, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Compressed-Air Washing Devices, of which the following is a specification.

My invention relates to the improvement of compressed air washing devices, and has particular relation to the improvement of that class of washing devices commonly known as clothes pounders.

The objects of my invention are to provide a washing device of this class of superior construction and arrangement of parts by means of which the cleansing of clothes may be rapidly and effectually accomplished; to so construct my improved washing device as to insure the entrance of air currents and the forcing or compressing of the air into the water for the purpose of increasing the cleansing action of the parts, and to produce other improvements the details of which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawing, in which:

Figure 1 is a central vertical section of my improved washing device, and, Fig. 2 is an underside view of the same.

Similar numerals refer to similar parts throughout the several views.

1 represents the exterior casing or body of my device, which as indicated in the drawing comprises a dome-shaped or substantially semi-spherical upper portion 1<sup>a</sup> formed of sheet metal or other suitable comparatively thin material. From the circular lower edge of this upper portion 1<sup>a</sup> depends a flaring lower portion 1<sup>b</sup>, this lower portion being substantially in the form of a cone frustrate and being corrugated, as shown, throughout its circumference.

Between the portions or members 1<sup>a</sup> and 1<sup>b</sup> is provided a horizontal partition plate 2 having a central opening 3 therein from about which rises a vertical tube 4 which extends through an opening in the top of the upper or dome member 1<sup>a</sup> of the casing. Within the dome 1<sup>a</sup> and about the tube 4, I provide a vertical casing or sleeve 5, which extends from the top of said dome member to the top of the partition 2 and which is of such size as to result in the formation of an

annular space 6 about the tube 4. The upper side of the dome has formed therein adjacent to the tube 4, the desired number of air inlet openings 7 which communicate with the space 6, while similar openings 8 are formed in the partition 2 at the bottom of said space.

Depending vertically from the underside of the partition plate 2 is a casing 9, the lower end of which is open, the lower termination of said casing being preferably slightly above the lower termination of the flaring member 1<sup>b</sup> of the exterior casing. This casing 9 is surrounded at a distance therefrom by the casing 10 which also depends from the partition 2, the wall of said casing 10 being corrugated as indicated more clearly in Fig. 2 of the drawing.

The upwardly extending portion of the tube 4 above the dome member 1<sup>a</sup> is adapted to receive the lower end of a suitable operating handle 11. 12 represents a short plate or ring which rigidly embraces the tube 4 above the opening 7 of the dome member of the exterior casing.

The herein described washing device is operated after the well known manner of operating clothes pounders, the operation consisting in rapidly forcing the device downward into the water containing the clothes to be washed and raising the same therefrom. In this operation, it will be understood that the clothes will not only be subjected to the cleansing action of the corrugated ends of the exterior casing member 1<sup>b</sup> and the interior member 10, but will also contact with the casing member 9 and it is obvious that air contained between the walls of the casings 9 and 10 and 10 and 1<sup>b</sup> will be compressed or forced into the water, producing currents therein which tend to increase the frictional action of the water against the clothes and facilitate the cleansing of the latter.

It is obvious that as the device is raised after each downward blow thereof, the casing member 1<sup>b</sup> will be supplied with additional air which will pass downward through the openings 7, space 6 and openings 8 into the casing 9, thence outward and into the casing 1<sup>b</sup>. From this operation it will be seen that air is constantly supplied to the casings and that the air thus supplied will be compressed or forced into the water at each downward blow of the device and it will also



be seen that by the corrugation of the members 1<sup>b</sup> and 10, an increased frictional washing surface is provided.

In case small quantities of water should be forced by the downward blow of the device upward and through the space 6 and outward through the openings 7, it will be seen that the shield 12 will prevent the splashing of the water thus escaping, against the operator, the water which may thus come into contact with the underside of said shield being directed downward upon the rounded surface of the dome member 1<sup>a</sup>.

What I claim, is:

1. In a clothes pounder, the combination with a handle receiving tube, of a sleeve surrounding said tube, a horizontal partition to which both the sleeve and the tube are secured there being openings formed through said partition, a dome shaped member rising from the outer edges of the horizontal partition and extending inwardly to the handle receiving tube, there being openings formed through said dome shaped member to establish communication between the interior of the casing and the atmosphere, a deflector plate secured to the handle tube above said openings, a vertically corrugated outwardly flaring casing depending from the outer edge of the horizontal partition and a second vertically corrugated casing depending from the horizontal partition located within the first named corrugated casing, said second corrugated casing terminating short of the bottom of the outwardly flaring casing.

2. In a clothes pounder, the combination with a handle receiving tube, of a sleeve surrounding said tube, a horizontal partition to which both the sleeve and the tube are secured there being openings formed through said partition, a dome shaped member rising from the outer edges of the horizontal partition and extending inwardly to the handle receiving tube, there being openings formed through said dome shaped member to establish communication between the interior of the casing and the atmosphere, a deflector plate secured to the handle tube above said openings, a vertically corrugated, outwardly flaring casing depending from the outer edge of the horizontal partition, a second vertically corrugated casing depending from the horizontal partition located within the first named corrugated casing, said second corrugated casing terminating short of the bottom of the outwardly flaring casing and a third casing located within the second corrugated casing, the lower edge of both of these last named casings, lying flush with each other, the openings in the partition serving to establish communication between the interior of said third named casing and the interior of said sleeve.

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

JOSEPH A. VANCE.

Witnesses:

A. L. PHELPS,  
L. CARL STOUGHTON.