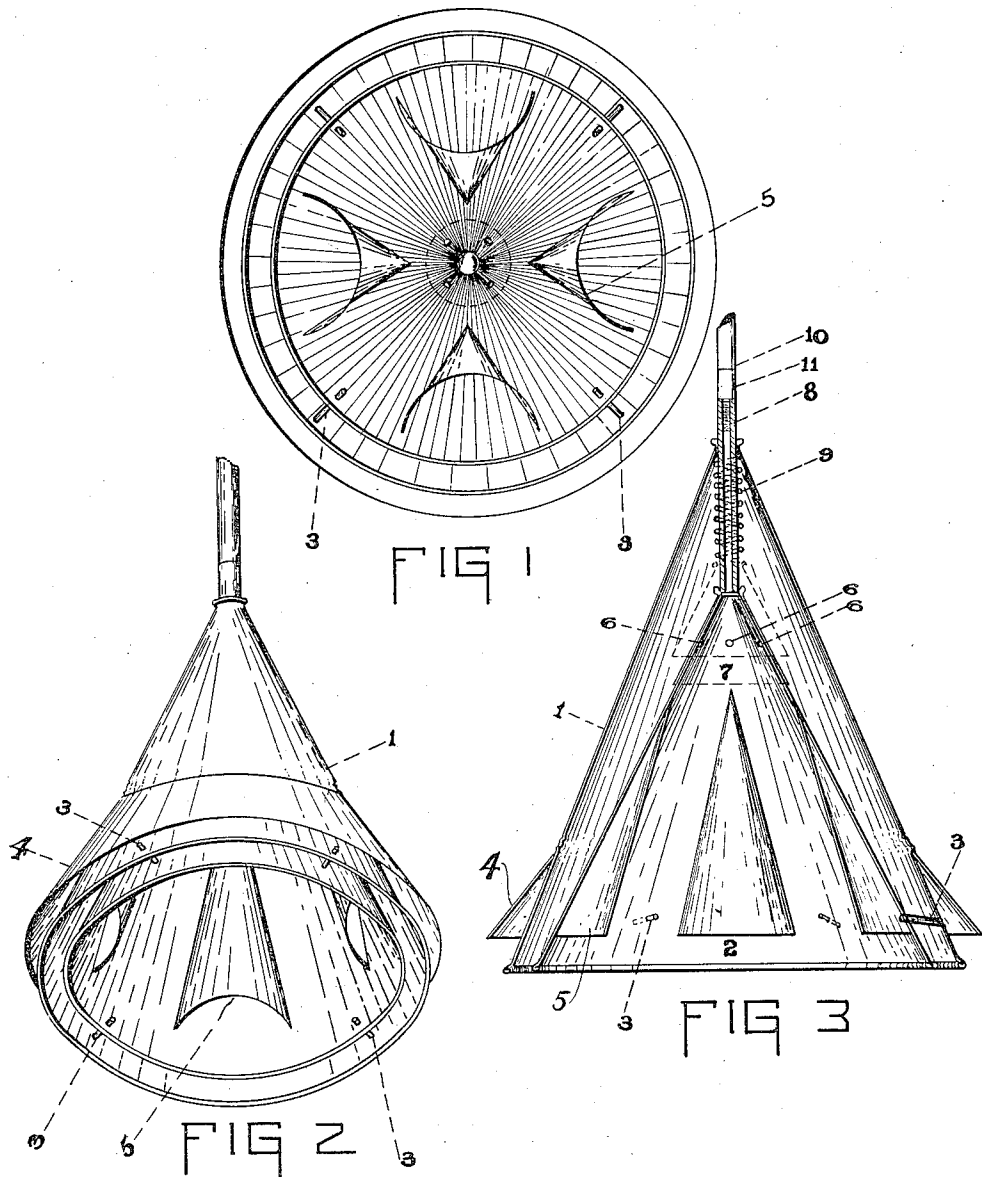


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CLOTHES POUNDER.  
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1,064,679.

Patented June 10, 1913.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

JAMES D. AVERY, OF OGDEN, UTAH.

CLOTHES-POUNDER.

1,064,679.

Specification of Letters Patent.

Patented June 10, 1913.

Application filed August 21, 1912. Serial No. 716,322.

*To all whom it may concern:*

Be it known that I, JAMES D. AVERY, a citizen of the United States, and a resident of Ogden, in the county of Weber and State of Utah, have invented a certain new and useful Improvement in Clothes-Pounders.

My invention relates to such washers as employ a cup or inverted funnel shaped device and in which by rapidly and alternately forcing it downward and lifting it upward in the water, the suds contained in a tub may be forced through the fabric being washed and immediately thereafter sucked back again.

The object of my invention is to overcome the suction of the water in the tub impeding the upward movement of the washer, and yet to provide a washer that will be efficient and easy to use.

I accomplish these objects by the device illustrated in the accompanying drawing and described in detail in this specification.

Referring now to the drawings: Figure 1 is a bottom plan view. Fig. 2 is a perspective and Fig. 3 is a sectional view.

The invention essentially consists of two inverted funnels 1 and 2 placed one within the other so as not to touch each other and held in position by the air ducts 3, 3. Near the bottom of the outer funnel is a flaring annular lip 4 which covers the opening of the air ducts 3, 3. Within the central funnel 2 are a series of bi-sected inverted funnels 5, 5 placed at intervals along the inner wall of the said funnel 2, but not covering the air ducts 3, 3. Near the top of the inverted funnel 2 are a series of air holes 6, 6 and covering them is the smaller funnel 7, which is free to move upward on the stem 8 under tension upon the spiral spring 9. When the bottom of the funnels 1 and 2 is submerged the space inclosed between the two funnels and within the funnel 2 is air tight. The bi-sected funnels 5, 5 act as air pockets. A handle 10 is screwed into the ferrule 11, forming a continuation of the funnel 1.

The operation of my device is as follows: The articles to be washed are placed in the tub and covered with water or gasolene as the case may be. The handle 10 is grasped and the washer thrust into the liquid and immediately raised again. This operation is continued until the desired degree of cleansing has been obtained.

It will be noticed that when the bottom

of the lip 4 has been lifted above the surface of the water, that air will pass under the edge of the said lip through the air ducts 3, 3 and into the interior of the funnel 2, some of it passing into the pockets 5, 5. As the instrument is thrust downward the water forces the air upward through the air holes 6, 6, at its passage lifting the small funnel 7 and escapes into the space between the two funnels 1 and 2. When the instrument is again raised and before the bottoms of the several funnels are clear of the liquid, the suction draws the funnel 7 downward closing the holes 6, 6.

The combining effect of the vacuum and the compressing of air which takes place alternately strongly sucks and forces the air and liquid through the pores of the article being cleansed, cleansing it in a very efficient manner.

I am aware that others washers with funnels have been invented but what I claim as new and desire to secure by Letters Patent is—

1. In devices of the class described consisting substantially of two inverted funnels of unequal size the larger superimposed over the smaller funnel, the addition of a smaller inverted funnel placed upon the top of the inner funnel and adapted to cover and uncover air holes in the top of the said inner funnel, a spring placed above the said smaller funnel adapted to press the said smaller funnel over the said air holes and to permit it to rise and uncover the said holes when pressed upward by the air within the innermost funnel.

2. In devices of the class described the combination of two inverted funnels of unequal size, the larger superimposed upon the smaller funnel, the two funnels connected by air ducts passing between them near the bottom, an open space existing between the two funnels, an annular flaring lip formed upon the outside of the outer funnel and covering the outer openings of the air ducts, air holes in the top of the innermost funnel, another small inverted funnel placed upon the top of the said innermost funnel and moving upon a rod or cylinder extending upward and connecting the tops of the two funnels, a spiral spring surrounding the said rod or cylinder and placed between the tops of the inner funnel and the outer funnel and adapted to exert a tension upon the said smaller funnel and keep the said air

holes closed unless the said spring is compressed by the pressure of the air through the said holes in the said inner funnel.

3. In devices of the class described the  
5 combination of two inverted funnels of unequal size, the larger superimposed upon the smaller funnel, the two funnels connected by air ducts passing between them near the bottom, an open space existing between  
10 the two funnels, an annular flaring lip formed upon the outside of the outer funnel and covering the outer openings of the air ducts, air holes in the top of the innermost funnel, another smaller inverted funnel  
15 placed upon the top of the said innermost funnel and moving upon a rod or cylinder extending upward and connecting the tops

of the two funnels, a spiral spring surrounding the said rod or cylinder and placed between the tops of the inner funnel and the  
20 outer funnel and adapted to exert a tension upon the said smaller funnel and keep the said air holes closed unless the said spring is compressed by the pressure of the air through the said holes in the said inner  
25 funnel, a plurality of vertically bisected inverted funnels placed upon the inside wall of the inner funnel and adapted to form air pockets, all substantially as above described.

JAMES D. AVERY.

Witnesses:

RUTH MORRIN,  
M. J. CAMCOULELE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."