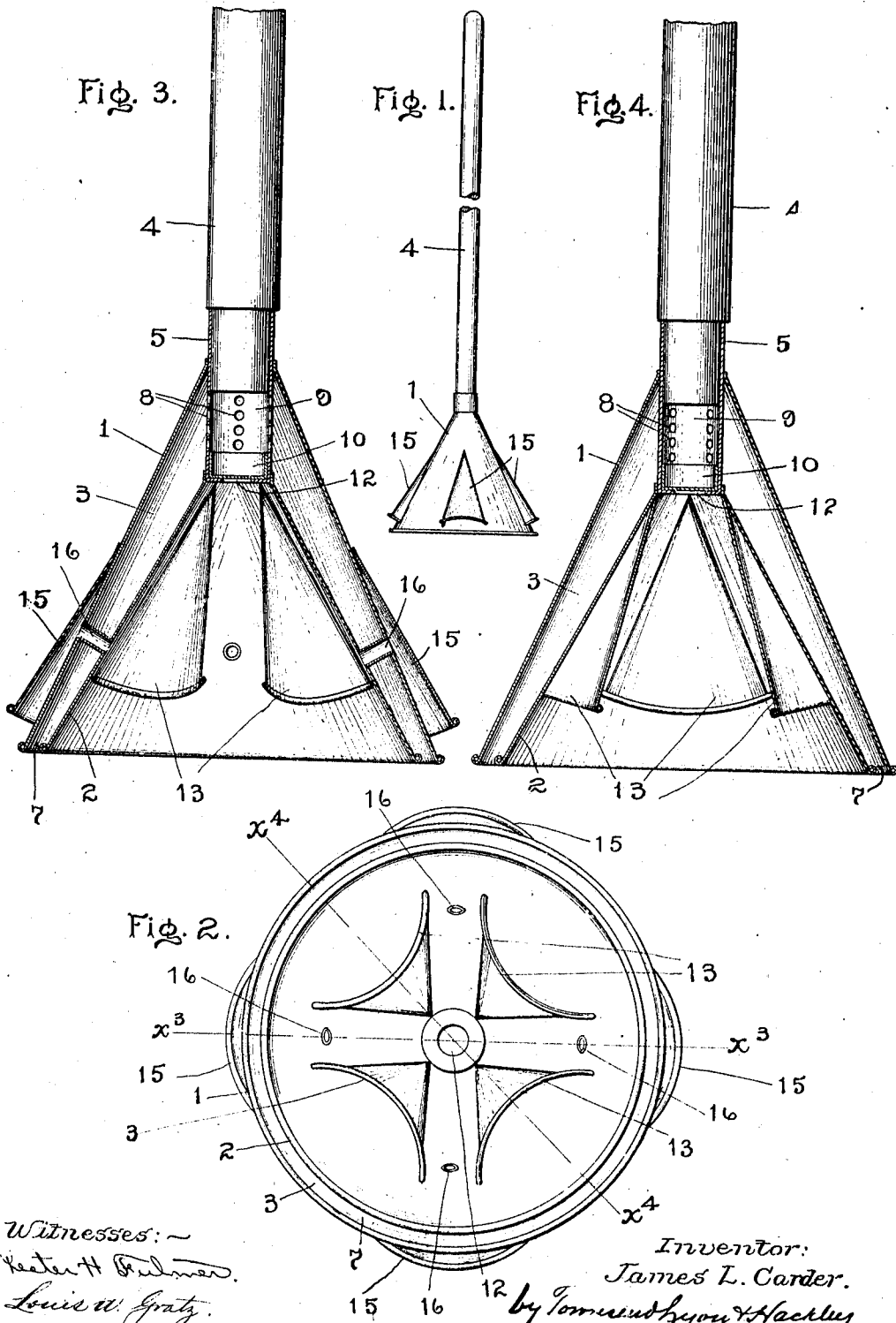


J. L. CARDER.
CLOTHES POUNDER.
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980,199.

Patented Jan. 3, 1911.



Witnesses: ~
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Louis W. Gratz.

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his Atty.

UNITED STATES PATENT OFFICE.

JAMES L. CARDER, OF LOS ANGELES, CALIFORNIA.

CLOTHES-POUNDER.

980,199.

Specification of Letters Patent.

Patented Jan. 3, 1911.

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To all whom it may concern:

Be it known that I, JAMES L. CARDER, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Clothes-Pounder, of which the following is a specification.

This invention relates to a clothes washing device of the class known as clothes pounders, comprising a conical member provided with a handle and so constructed that on being moved up and down in the water containing the clothes it squeezes and pounds the clothes bringing them more effectively into contact with the water and forcing the water through the clothes.

The main object of the present invention is to provide means whereby air is violently forced through the body of water and the clothes in the pounding operation.

Another object of the invention is to provide means for this purpose in which the suction tendency will be relieved during the upward stroke of the pounder, thereby reducing the labor involved in the manipulation thereof.

Other objects and advantages will appear hereinafter.

The accompanying drawings illustrate the invention, and referring thereto: Figure 1 is a side elevation of the device. Fig. 2 is an inverted plan of the device. Fig. 3 is a transverse section on the line x^2-x^3 in Fig. 2. Fig. 4 is a transverse section on the line x^4-x^4 in Fig. 2.

The device comprises a conical or funnel-shaped outer shell 1, a conical inner shell 2, means connecting and supporting said shells, so as to form a chamber 3 therebetween, and a handle 4 for supporting and operating the shells.

The means for connecting the shells consists of a sleeve 5 extending within the smaller end of each conical shell and fastened to the respective shells, so as to space the shells apart. The inner shell 2 is preferably formed at a more obtuse angle than the outer shell, so that the shells converge toward their lower ends forming a comparatively narrow annular outlet 7 for the chamber 3 between the shells at the lower ends thereof. The sleeve 5 is perforated, as at 8, so as to establish communication between the chamber 3 and chamber 9 in the interior of said sleeve, said chamber 9 constituting a valve chamber and containing a valve 10

which slides within the sleeve 5 and is guided therein. Sleeve 5 is partly closed at its lower end and is provided with a valve port or opening 12 therein for cooperation with the valve 10.

The inner shell 2 is preferably provided on the interior thereof with a plurality of pockets 13 open at the bottom and converging upwardly, said pockets being closed except at their lower ends and being preferably formed as sectors of cones. Pockets 15 may also be provided on the outside of the outer conical shell 1, said pockets 15 being open at the lower end and formed as sectors of cones attached to the shell 1, tubes 16 being provided communicating with the interior of said pockets and with the space on the inside of the inner shell 2 between the inside pockets 13, said tubes 16 extending through the chamber 3. The handle 4 is secured within the sleeve 5 in any suitable manner.

The operation of the device is as follows: By means of the handle 4, the device is forced down into the water and onto the clothes with the result that the air imprisoned within the inner shell 2 and compressed by the downward pressure of the device forces the valve 10 upwardly and passes through the ports 12 and 8 into the chamber 3, said chamber therefore serving as a compressed air reservoir or storage chamber and delivering air in an annular sheet or jet which issues at all points of the device around the same, passing violently through the water and aiding the circulation and forcing of the water through the clothes. On account of the imprisonment of the air within the blind pockets 13, a cushioning effect is produced aiding in the lifting of the device after its downward thrust. The outer pockets 15 operate mainly as auxiliary to the operation of the inner cone and the air chamber 3, the air passing up through said outer pockets into the inner chamber, so that said pockets increase the amount of air compression produced by the apparatus.

As the device is raised by means of the handle 4, pressure on the inside of the inner shell 2 is relieved, allowing the valve 10 to descend and close the port 12, thereby retaining a portion of the compressed air within the chamber 3.

What I claim is:

1. A clothes pounder comprising conical inner and outer shells with a chamber therebetween, means establishing communication

from the interior of the inner shell to the said chamber, a valve controlling said means of communication to open the communication when the air is compressed within the inner conical shell and to close the communication upon release of such pressure, the said inner and outer conical shells being separated at their lower ends to form a contracted annular outlet for the said air chamber.

2. A clothes pounder comprising a conical outer shell, a conical inner shell, a sleeve connected to said shells and supporting the same whereby an air chamber is formed between the shells, said shells being separated at their lower ends to form a contracted annular outlet, and said sleeve having an interior valve chamber and being perforated to establish communication between said valve chamber and said air chamber, a valve movable in said valve chamber, said valve chamber having an opening in its lower part communicating with the interior of the inner conical shell, and a handle secured to said sleeve.

3. A clothes pounder comprising conical inner and outer shells with a chamber therebetween, means establishing communication from the interior of the inner shell to the said chamber, a valve controlling said means of communication to open the communication when the air is compressed within the

inner conical shell and to close the communication upon release of such pressure, the said inner and outer conical shells being separated at their lower ends to form a contracted annular outlet for the said air chamber, and pockets on the inside of the inner shell, said pockets being open at the bottom and closed at their upper portions.

4. A clothes pounder comprising conical inner and outer shells with a chamber therebetween, means establishing communication from the interior of the inner shell to the said chamber, a valve controlling said means of communication to open the communication when the air is compressed within the inner conical shell and to close the communication upon release of such pressure, the said inner and outer conical shells being separated at their lower ends to form a contracted annular outlet for the said air chamber, pockets on the outside of said outer shell, said pockets being open at the bottom, and means for establishing communication between the upper portions of said pockets and the interior of the inner shell.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 10th day of June, 1910.

JAMES L. CARDER.

In presence of—

ARTHUR P. KNIGHT,
FRANK L. A. GRAHAM.