M. P. COLVIN.
Clothes-Pounder.

No. 202,792. Patented April 23, 1878.

Fig. 1.

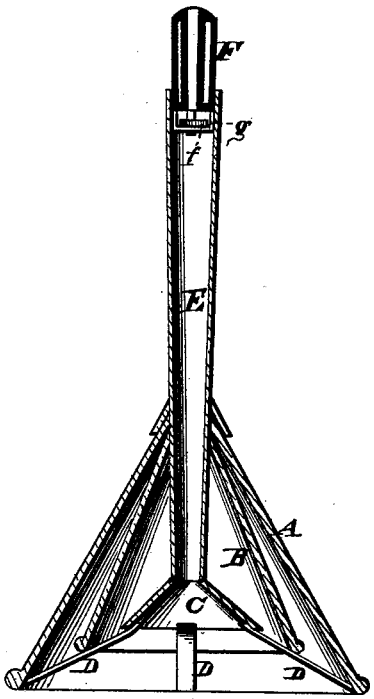


Fig. 3.

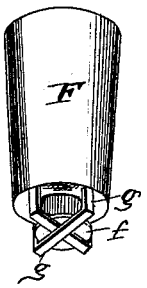
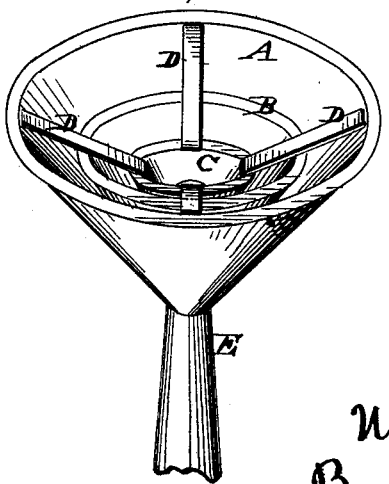


Fig. 2.



WITNESSES
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UNITED STATES PATENT OFFICE.

MARGARET P. COLVIN, OF BATTLE CREEK, MICHIGAN.

IMPROVEMENT IN CLOTHES-POUNDERS.

Specification forming part of Letters Patent No. **202,792**, dated April 23, 1878; application filed January 26, 1878.

To all whom it may concern:

Be it known that I, MARGARET P. COLVIN, of Battle Creek, in the county of Calhoun and State of Michigan, have invented certain new and useful Improvements in Clothes-Pounders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to certain improvements in clothes-pounders; and consists in forming the bottom of the pounder with three conical shells, which decrease in size from the outer to the inner one, the rims of the latter being connected together by inclined braces, said inner shell being formed on the lower extremity of the pounder-shaft, which latter is made tubular, and is provided with a free gravity-valve formed without a stem, and which is adapted to be maintained in a proper operative position by an open valve-casing.

This invention is designed to provide a pounder which, acting as a washing device, will serve to cleanse the clothes thoroughly, and will also be durable in use, as the rim of he shell formation on the shaft constitutes a very firm support for the attachment of the inner ends of the inclined braces, which latter connect with the rim of the outer shell.

Referring to the drawings, Figure 1 is a view, in vertical section, representing my invention. Fig. 2 is a bottom perspective view. Fig. 3 is a detail view of the cap-piece of the tubular shaft, showing the valve mechanism.

The two main conical shells A and B are suitably formed, and secured so as to be rigid with the body of the pounder-shaft, as shown, while the inner conical shell C is secured rigidly to the extreme lower extremity of the shaft, and has soldered or otherwise fastened to its rim the braces D, which latter incline downward and outward to the rim of the outer shell, where their corresponding extremities are similarly fastened. The rim of the middle shell bears against the said braces, and may be either secured rigidly thereto, the same as in the case of the outer and inner shells, or may be without such rigid engagement, and simply have free contact therewith.

The relative sizes of these several shells may be immaterially changed, if desired, so that the two main shells may not be so much larger than the shell formed on the lower extremity of the shaft as shown in the drawings, but the present size of the parts well answers my purpose. In this manner three annular spaces are provided in the bottom of the pounder, which respectively serve their purpose in the operation of washing the clothes. The two which are inclosed on their outer sides by the main shells receive the suds and also a small volume of compressed air, as the pounder is on its downstroke, while the inner shell receives the great proportion of the confined air, and passes the latter up into the tubular shaft. In this manner the latter shell accomplishes a result additional to that which it performs as a strong support for the inner extremities of the inclined braces. The arched-shaped construction of the continuous or constant side forms a support well adapted for this latter purpose.

The tubular shaft E, whose lower extremity connects directly with the clear open space inclosed by the conical shell formed thereon, is provided at its top with the cap-piece F, which latter may be secured in any suitable manner, permanently or detachably, thereto. The lower side of this cap-piece serves as a valve-seat for the free gravity-valve *f*, which is made without a stem, and is adapted to rise and fall within the open valve-casing *g*. This valve is made as a flat metallic disk, free to close or open its valve, governing opening in the cap-piece of the shaft correspondingly with the action of the atmosphere upon it in the operation of pounding. The tubular passage of the cap-piece is smaller in diameter than that of the main shaft, and as the pounder is on its downstroke, the action of the suds-water and clothes upon the air inclosed within the concave open bottom of the pounder forces it upward. The inner conical shell formed on the lower extremity of the shaft receives the great proportion of this air, and from thence passes it up into the tubular shaft. The air thus compressed raises the described valve and closes all means of escape except by passage down and out through the clothes along the rim of the outer shell. This permeation

of the compressed air through the clothes serves to disintegrate the dirt therefrom, cleanses the fabrics by passage through them, and prepares them to allow the suds to readily clean them of all soil. The return or upward movement of the pounder causes the valve to be dropped by the impact of the atmosphere upon its upper surface, and the tubular shaft is again filled with air, the concave bottom of the pounder is refilled with air, and the pounder is ready to repeat the same operation.

I do not broadly claim a pounder constructed with conical shells connected together by inclined braces at their lower rims.

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

The combination, with the two main pounder-shells, of the inner shell formed on the lower extremity of the tubular shaft, said shell being made conical, and the rims of the inner and outer shells being rigidly connected together by the inclined braces, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of January, 1878.

MARGARET PLUNKET COLVIN.

Witnesses:
CLARENCE J. PAUL,
ALBT. C. KINGMAN.

1,250 wds