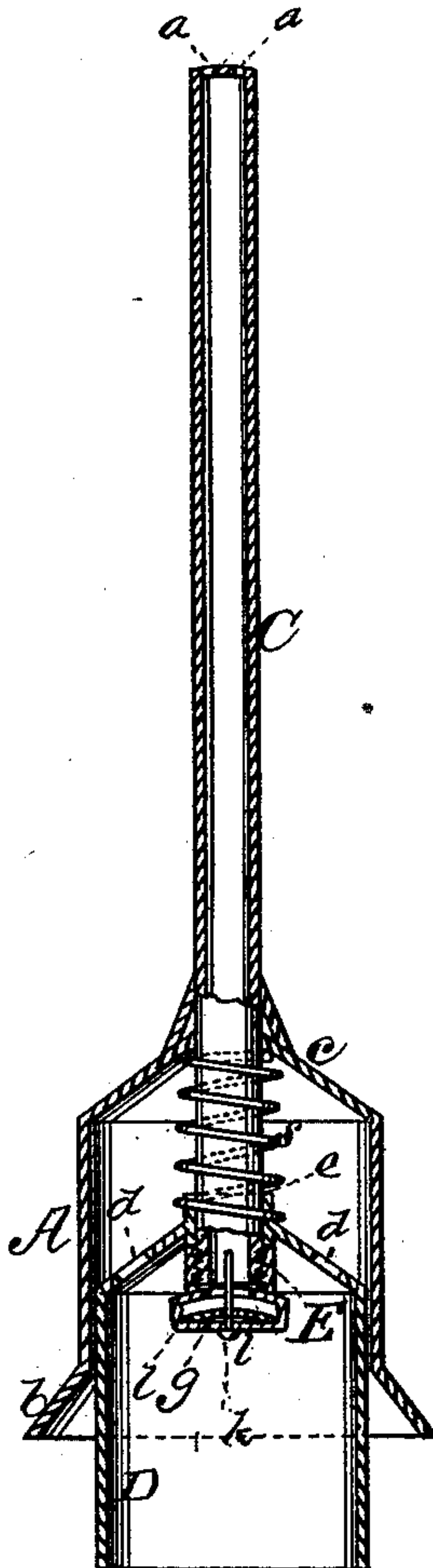


D. SQUIER.
Clothes-Pounder.

No. 215,176.

Patented May 6, 1879.



WITNESSES

Villette Anderson
F. J. Chas.

INVENTOR

Daniel Squier.
by E. W. Anderson
ATTORNEY

UNITED STATES PATENT OFFICE.

DANIEL SQUIER, OF BATTLE CREEK, MICHIGAN.

IMPROVEMENT IN CLOTHES-POUNDERS.

Specification forming part of Letters Patent No. **215,176**, dated May 6, 1879; application filed January 11, 1879.

To all whom it may concern:

Be it known that I, DANIEL SQUIER, of Battle Creek, in the county of Calhoun and State of Michigan, have invented a new and valuable Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making a part of this specification, and to the letters and figures of reference marked thereon.

The drawing is a representation of a longitudinal section, taken centrally, of my improved pressure washing-machine.

The nature of the invention consists in the construction and novel arrangement of a clothes-pounder, having a hollow handle extending downward within a plunger and threaded at its lower end, in combination with an inner reciprocating plunger and a threaded cap, having a disk-valve working on a pin fixed to a cross-bar under the cap.

It also consists in a cylinder clothes-pounder having a perforated hollow handle, valved at its lower end, a reciprocating inner cylinder fitting neatly within the outer plunger, kept in position by a spring, and having communicating openings at its top, whereby an enlarged air-chamber is formed, which is contracted by the stroke forcing the inner cylinder up into the outer one, as hereinafter shown and described.

In the accompanying drawing, the letter A designates the main cylinder of the plunger, having a flaring flange, *b*, at its mouth. C represents the hollow handle of the plunger, having air-holes *a* in its outer end, and extending into the plunger-cylinder A about half the distance between its top *c* and its flange *b*. The lower end of this hollow handle is externally threaded.

D indicates the extension or inner movable cylinder, which is formed to fit neatly but not tightly within the main plunger-cylinder, which therefore acts as a guide and bearing for the inner cylinder in its movements. In its top are made air-holes *d*, and a central

aperture, *e*, through which passes the end of the handle C, which is within the plunger, and serves as a central guide to keep the inner cylinder true.

A screw-cap, E, having a valve, *g*, is turned upon the threaded end of the handle, and secures the inner cylinder in place.

The valve *g* consists of a concave plate or disk having a central perforation, whereby it is centered upon a pin, *k*, which extends into the cap from a cross-bar, *l*, under the same, connected to each side thereof, and forming a guard to prevent any obstruction from interfering with the free action of the valve. It also serves as a handle to screw the cap on its seat.

Between the tops of the two cylinders is arranged a spiral spring, *s*, which keeps the inner cylinder extended beyond the lower margin or flange of the outer cylinder when the machine is not pressed in contact with any object which would overcome the power of the spring.

This machine operates as follows: Being pressed down on the articles in the wash-tub, the outer plunger-cylinder is forced down over the inner one, and the air-space therefore contracted, and the disk-valve at the lower end of the hollow handle being closed, the air is ejected from under the bottom of the inner cylinder, and acts upon the articles in the tub. When the plunger is raised the spring keeps the inner cylinder down, and the enlarged air-space thus formed is filled by the passage of the air through the perforations in the handle end, the disk-valve in the lower end of the handle being opened.

I am aware that it is not new to arrange a reciprocating cone below the main conical plunger, and I do not claim such devices.

What I claim, and desire to secure by Letters Patent, is—

1. The handle of a washing-plunger extended downward within the plunger and threaded, in combination with an inner reciprocating plunger and a threaded cap, having a disk-valve working on a pin fixed to

the cross-bar under said cap, substantially as specified.

2. A cylinder clothes-pounder having a perforated hollow handle, C, valved at its lower end, and an inner extension-cylinder, D, fitting the outer cylinder neatly, having communicating openings *d* in its top, and kept in projected position by a spring, *s*, thereby forming an enlarged air-chamber, which is contracted

by the stroke forcing the inner cylinder up into the outer one, as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

DANIEL SQUIER.

Witnesses:

C. L. PARKER,

C. A. SQUIER.