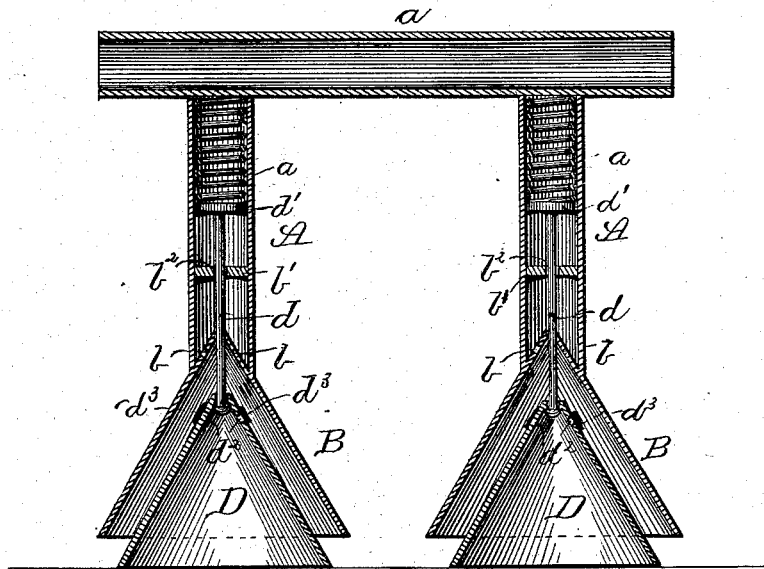


(No Model.)

W. E. KINNEAR.  
CLOTHES POUNDER.

No. 263,917.

Patented Sept. 5, 1882.



Witnesses:  
A. M. Doug.  
M. J. Asgrood

Inventor.  
William E. Kinnear  
per Ronald A. Innes  
Att'y.

# UNITED STATES PATENT OFFICE.

WILLIAM E. KINNEAR, OF FREMONT, ASSIGNOR OF ONE-HALF TO COLLIN  
FORD, OF CINCINNATI, OHIO.

## CLOTHES-POUNDER.

SPECIFICATION forming part of Letters Patent No. 263,917, dated September 5, 1882.

Application filed June 26, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM E. KINNEAR, a citizen of the United States, residing at Fremont, in the county of Sandusky and State of Ohio, have invented certain new and useful Improvements in Clothes-Pounders, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to clothes-pounders; and it consists in the construction and arrangement of its several parts, as will be hereinafter fully set forth, and pointed out in the claim.

The drawing represents a vertical longitudinal section of my invention.

A are the cylinders, arranged vertically parallel to each other, and are secured to handle *a*, as shown. Within the upper portions of the cylinders are coiled springs *a'*, the upper ends of which bear against the handle *a* and their lower ends against pistons attached to the pounder-plungers, as shown.

Secured to the lower ends of the cylinder A, the apex of which projects into their ends, are cones B, as shown. The cones have perforations *b* in their apexes, and within the cylinders, a short distance above the apex of the cones, are arranged disks *b'*, which are provided with central holes, *b''*, for the passage of the plunger-rod, as shown.

D are movable cones, smaller in size than the cones B, and are arranged to operate within them. Through their apexes are secured the plunger-rods *d*, which operate within the cylinders A, passing through the disks *b'*, and are provided at their upper ends with pistons *d'*, against which press the spiral springs *a'*, as shown. Around the apexes of the cones D are perforations *d''*, which allow the air to escape from its interior into the apex of the cone B, and thence through the holes *b* into the lower portion of the cylinder. The holes *d''* have

valves *d'''* arranged over them on the outside of the cone, to prevent the return of the air after being expelled from its interior.

In the operation of the pounder the springs *a'* keep the cones D projected out of the cones B when the device is not pressed upon the clothes. When the pounder is pressed upon the clothes, the cones D, striking them first, are forced up into the cones B against the tension of the spring *a'*, which compresses the air in the space between the cones and forces it up through the holes *b* into the cylinder A below the disks *b'*. The air in the cones D is also compressed by the clothes bulging up unto them, and is forced through the holes *d''*, and thence through the holes *b* into the cylinder-space. The quantity of air in the space will cause it to be very much compressed, and when the pounder is raised from the clothes the suction of the clothes, aided by the spring *a'*, forces the cone D out of the cone B. This creates a partial vacuum in the space between the cones and causes the air in the cylinder-space to rush out and drive the water in the cones B through the clothes, which aids materially the operation of cleaning them.

What I claim is—

The cones B, secured in the bottoms of the cylinders A, their apexes projecting into them, and having perforations *b*, in combination with the tube *a* and cylinders A, provided with the disks *b'*, the cones D, having perforations *d''* in their apexes, covered by valves *d'''*, the rods *d*, pistons *d'*, and springs *a'*, all arranged to operate substantially as shown and described.

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

WILLIAM E. KINNEAR.

Witnesses:

BYRON R. DUCHOW,  
JOHN R. GREENE.