W. P. DUNGAN, Jr.

Clothes-Pounder.

No. 209,239. Patented Oct. 22, 1878.

Fig. 1.

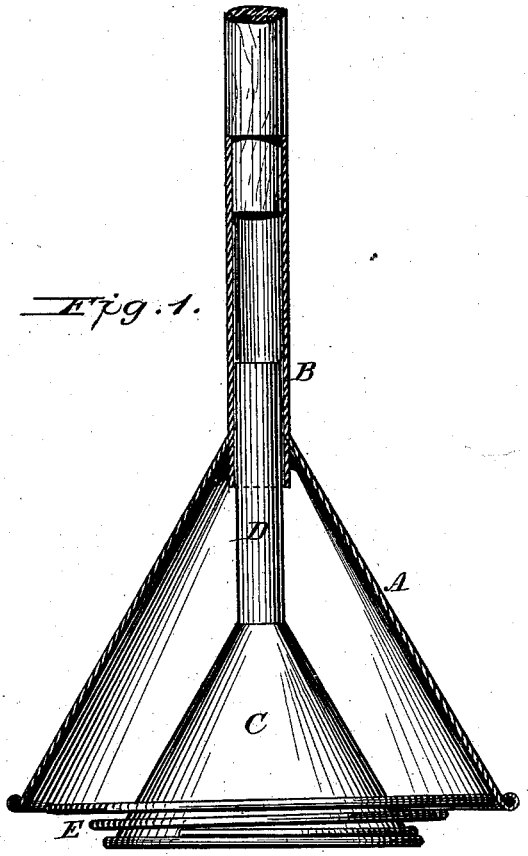


Fig. 2.

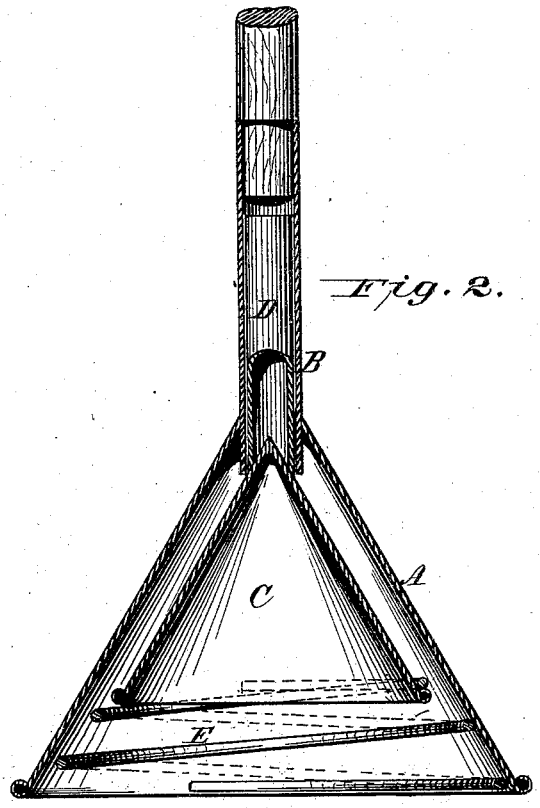
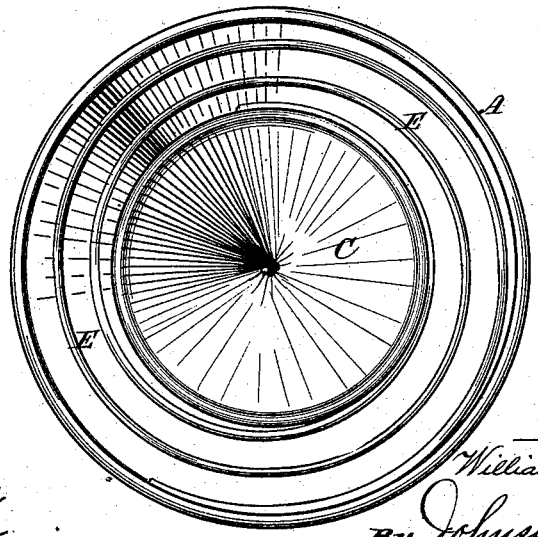


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM P. DUNGAN, JR., OF WATAUGA, TENNESSEE.

IMPROVEMENT IN CLOTHES-POUNDERS.

Specification forming part of Letters Patent No. **209,239**, dated October 22, 1878; application filed April 19, 1878.

To all whom it may concern:

Be it known that I, WILLIAM P. DUNGAN, Jr., of Watauga, in the county of Carter and State of Tennessee, have invented certain new and useful Improvements in Clothes-Pounders; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

I have improved the cone clothes-washer in which a central hollow yielding cone is used by combining with these cones a spring coiled across the space between the bases of the cones, and on a plane therewith, for the purpose of supporting the inner cone and causing it to assist in lifting the washer, and to form a surface of separate wires, all acting upon the clothes at the same time, so that, while the two cones act by suction and the forcing down through the clothes of compressed air, the wire coils will form a rubbing skeleton surface all around the space between the two cones, and thereby render the action of the double-cone washer more effective and speedy.

The spring is attached to the open end of each cone, and the stem of the inner yielding cone passes into the handle-stem as a guide, thus avoiding central fixed tubes within the outer cone for this purpose, and supporting such cone by spring-coils arranged and adapted to act by pressure, and rubbing directly upon the clothes. This combination, with an inner and an outer cone, of a face-coiled acting spring is new, so far as I know, especially in connection with a central air-compressing cone.

Referring to the drawings, Figure 1 represents a vertical section of a clothes-washer embracing my invention, showing the central cone and the face-acting spring in their normal positions; Fig. 2, a similar section, showing the central cone and the spring-coils pressed up by the clothes; and Fig. 3, a bottom view of the same.

The outer cone, A, is about eight inches in diameter at its base, and at its apex I insert and solder a tube, B, one inch in diameter, extending about one inch into said cone and about two inches above to form the handle-socket.

The inner cone, C, is about six inches in diameter at its base, and its stem D extends into the handle-socket, which serves as a guide for the inner cone. By this construction I obtain the advantage of making the inner cone an air-compressor, and which cannot so operate with the usual open-ended sleeve-guide of said cone.

I combine a coil-wire spring, E, with these cones in such manner that, while it supports the inner cone and aids by its reaction to lift the washer from the clothes, it also serves the important advantage of forming a face-rubbing spring in which all the coils act upon the clothes at once all around the space between the two cones and on a plane with their open ends, thus obtaining a wire rubbing-surface upon the clothes, while the cones operate both by suction and air-compression. This spring is made of wire strong enough to hold the inner cone, when in its normal position, about half an inch below the base of the outer cone; and the attachment of both ends of the spring is at the lower edge of each cone, with its coils about half an inch apart, so as not to interrupt the free suction and air-compression function of the outer cone.

In forcing down the washer the inner cone and the coils of the spring attached to its mouth yield upward, as shown in Fig. 2, and the air compressed therein by the water is caused by such compression to be forced down through the clothes and up into the outer cone, in which it is again compressed and forced down through the spaces between the coils of the spring, doing the washing very effectively. The acting edges of the cones are wired.

I claim—

1. The combination, in a clothes-washer consisting of an outer and a central cone, of a coil-wire spring arranged around in the space between the open ends of said cones, on a

plane therewith, the ends of said spring being attached to the base ends of said cones, for the purpose stated.

2. The inner air-compressing cone, having a guide-stem extending into the handle-tube, and supported by the coil-spring attached to the open ends of the inner and outer cone, for operation as specified.

In testimony that I claim the foregoing I have affixed my signature in the presence of two witnesses.

WILLIAM P. DUNGAN, JR.

Witnesses:
JOHN M. BARRETT,
J. G. BRIDGES.