

(No Model.)

N. B. LITTLE.
CLOTHES POUNDER.

No. 452,525.

Patented May 19, 1891.

Fig. 1.

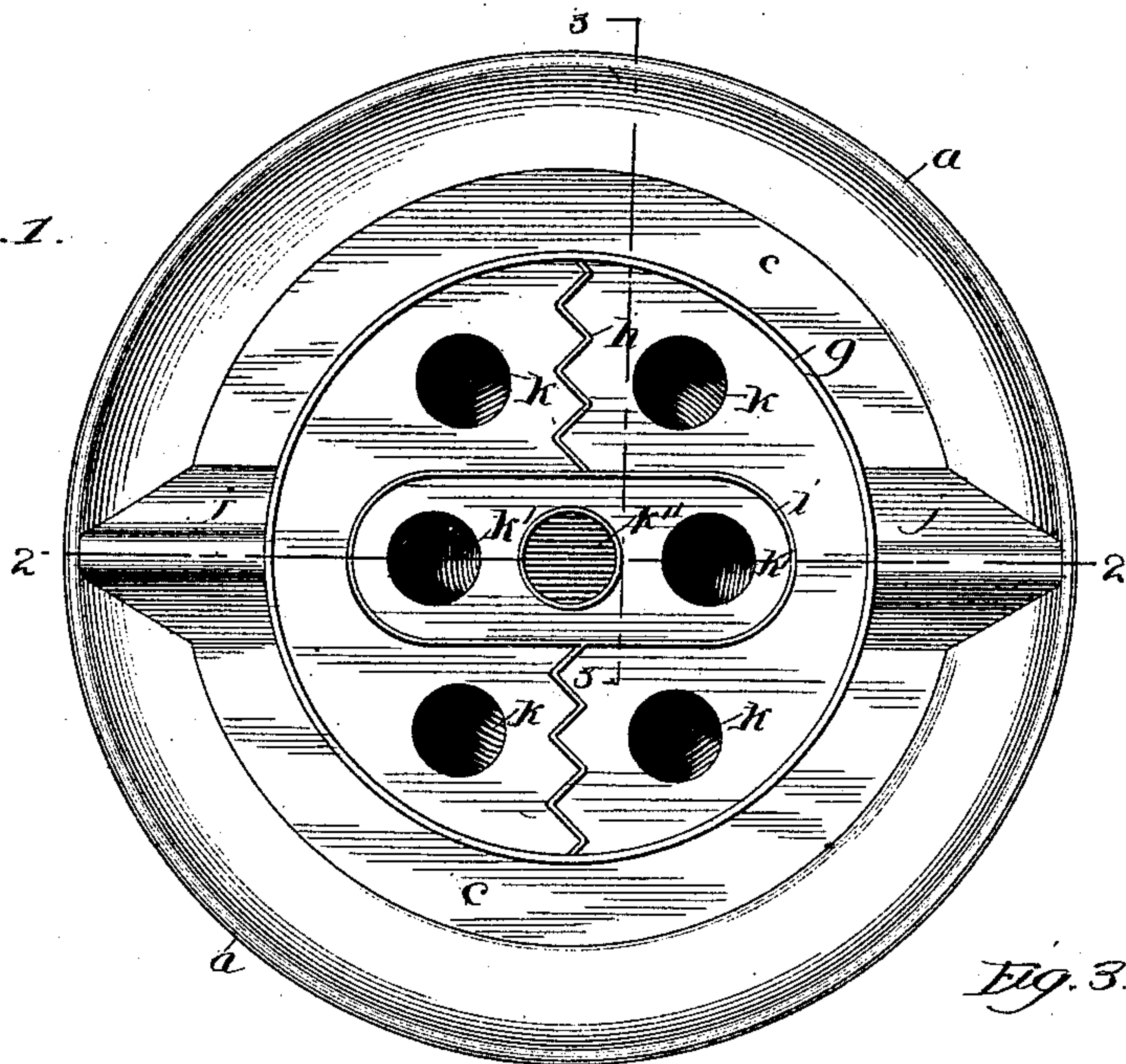
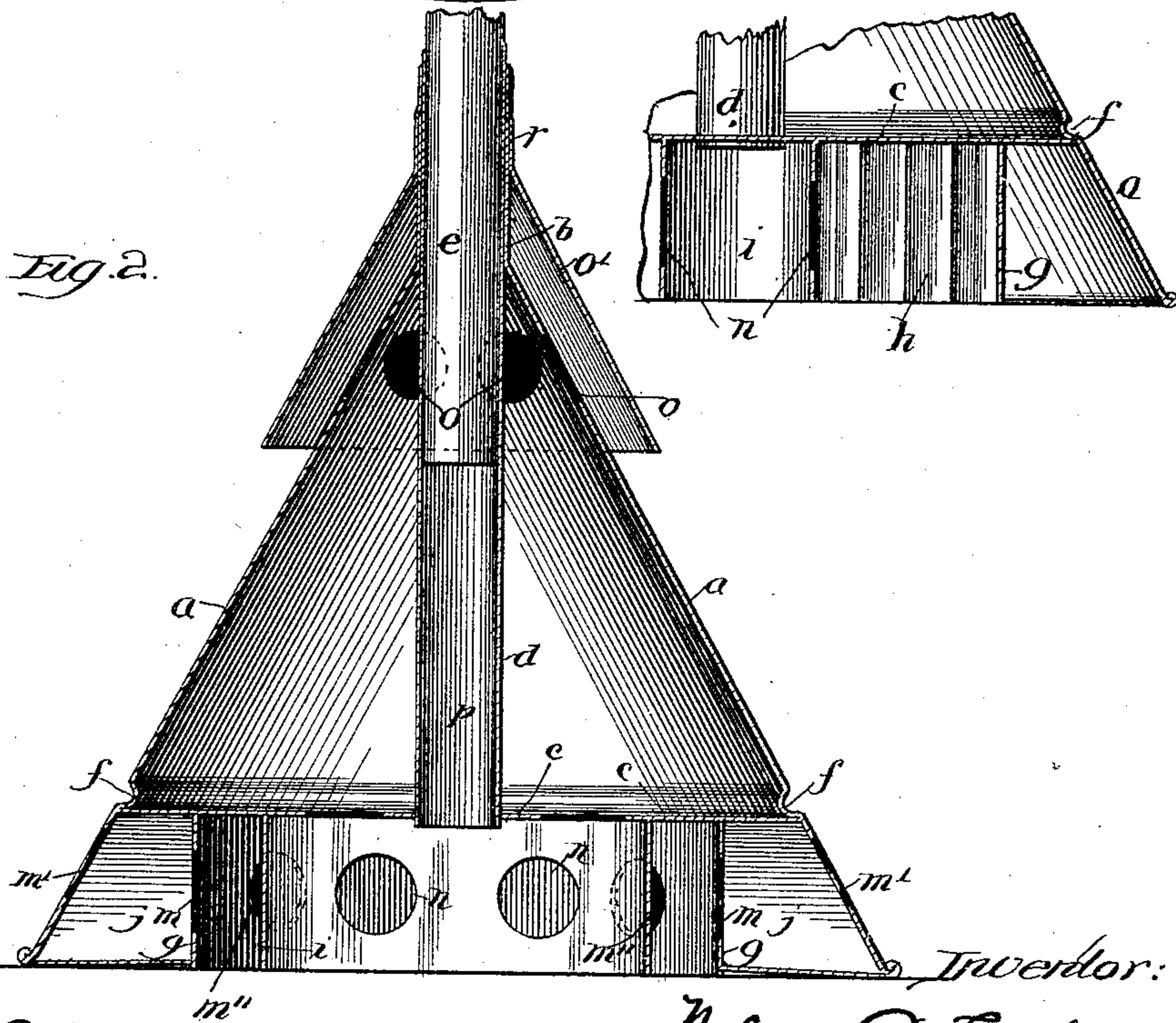


Fig. 3.

Fig. 2.



Witnesses:

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CLOTHES-POUNDER.

SPECIFICATION forming part of Letters Patent No. 452,525, dated May 19, 1891.

Application filed January 31, 1891. Serial No. 379,825. (No model.)

To all whom it may concern:

Be it known that I, NELSON B. LITTLE, residing at Chicago, in the county of Cook and State of Illinois, and a citizen of the United States, have invented certain new and useful Improvements in Atmospheric Clothes-Pounders, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a view of the lower end of my device. Fig. 2 is a vertical section on line 2 2 of Fig. 1; and Fig. 3 is a detail, being a vertical section on line 3 3 of Fig. 1.

My invention relates to washing-machines, and more particularly to that class of washing-machines which are adapted to produce a thorough circulation of the water throughout the articles to be washed by a kneading or pounding operation of the device.

The object of my invention is to make a cheap and efficient clothes-pounder which will cause the water to flow freely through the clothes that are struck and into the pounder, and thus materially assist in the dissolving of any dirt in said clothes. Another object is to prevent the water from being dashed out of the tub. I accomplish these objects as illustrated in the accompanying drawings and as hereinafter described. That which I regard as new will be pointed out in the claims.

Similar letters refer to similar parts throughout the drawings.

In the drawings, *a* indicates the main shell of the device, which is made of a conical shape, as shown, and terminates in a tube *b* at its smaller end. The shell *a* is provided with a horizontal partition *c* near its larger end, and said partition is provided with holes *k k k k k' k' k''*, one of the holes *k''* being in the center of said partition. Through the tube *b* and the central hole *k''* a tube *d* is inserted and securely soldered to the tube *b* and the partition *c*. The tube *d* is adapted to receive a handle by which the device is operated, the lower end of said tube being left open, thus leaving a small chamber *p* in said tube closed at the top and open below. The holes *k k* are provided to allow the water to flow into the upper part of the pounder when the clothes are struck. In the shell *a* is turned a groove *f*, bent inwardly, and the edges of

the partition *c* rest against and are securely soldered to this groove.

Resting on the partition *c* and securely fastened thereto is a ring *g*, concentric with the shell *a*. This ring is provided with openings, as best shown at *m''* and *m* in Fig. 2. Two of these holes *m* open into and are covered by angular braces *j j*, directly opposite each other, which are securely fastened to the shell *a*, the partition *c*, and the ring *g*.

m' indicate openings in the shell *a*, which communicate with the passages formed by the braces *j*. The braces *j* being angular, great strength is secured, and by reason of their hollow construction the water from the interior of the pounder is directed from within the ring *g* through the holes *m*, braces *j*, and holes *m'* to the exterior of the shell *a* and materially assists in the agitation of the water and the consequent washing of the clothes. The other holes in the ring *g*, two of which are best shown as *m'' m''*, allow the water to flow freely from the spaces inclosed by the shell *a*, the ring *g*, and the brace *j* to the space within the ring *g*, whence it flows through the holes *k k* and through the holes *m* and *m'*. Securely fastened to said partition *c* is an elongated elliptical brace *i*, the major axis of which is in a line with the braces *j j* and the rounding ends of which serve to direct the water through the openings *m m*. As shown, the brace *i* is provided with holes *n*. The ends of this brace *i* may be made pointed, if desired. This elliptical brace *i* is strengthened by two fluted braces *h h*, securely fastened to the middle of its longer sides and to the partition *c* and ring *g*, a detail of which is shown in Fig. 3. The flutes are introduced to strengthen the braces *h h*. The lower edges of the parts *g*, *h*, *i*, and *a* may be beaded, as usual, to prevent their cutting the clothes, and said edges and the downward angle of the braces *j* are all in the same plane, which plane is at right angles to the perpendicular axis of said conical shell *a* and parallel to said partition *c* and a short distance therefrom. Said partition *c* is firmly braced by the shell *a* and the groove *f*, tube *d*, the braces *j*, *h*, and *i*, and the ring *g*.

The shell *a* is provided near its smaller end with holes, as best shown in Fig. 2 at *o o*.

Extending over said holes and a short distance from them is placed a conical cap *o'*, secured to the tube *d* a short distance above the top of the conical part of the shell *a*. Said cap *o'* extends a little below the holes *o o*, so that any water escaping by the holes *o o* will be directed against the cap *o'* and fall back into the vessel in which the clothes are placed. The object of the holes *o o* is to allow the free escape of water and air when the clothes are struck, and thus allow a circulation of the water through the pounder.

The operation of my device is as follows: The clothes being struck with the pounder are caught by the edges of the ring *g*, the shell *a*, and the braces *h*, *i*, and *j* and have the water forced up through them into the recesses between said shell, the rings, and braces, and the water flowing between the various spaces inclosed by the shell *a*, the partition *c*, the ring *g*, and the braces *h*, *i*, and *j* and out of the holes *k m m m'* materially assists in the operation of washing. I have endeavored to obtain as great a circulation of water as possible without causing the water to be thrown from the vessel in which it is placed. Each stroke of the pounder compresses the air in

the chamber *p*, and its expansion, when the force of the blow is expended, aids in the agitation of the water and the consequent washing of the clothes. This chamber *p* may, if desired, be enlarged.

That which I claim as new, and desire to secure by Letters Patent, is—

1. In a clothes-pounder, the combination of an exterior conical shell *a*, having a partition *c* and holes *m'*, and a tube *b* with hollow angular braces *j* and ring *g*, having holes *m*, said holes *m m'* communicating with the passages formed by the braces *j*, substantially as and for the purpose specified.

2. In a clothes-pounder, the combination, with an exterior shell having a partition *c*, a ring *g*, angular hollow braces *j*, and holes *m m'*, communicating with the passages formed by the braces *j*, of an elliptical brace *i*, adapted to direct the water through the openings *m m'*, substantially as and for the purpose specified.

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Witnesses:

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