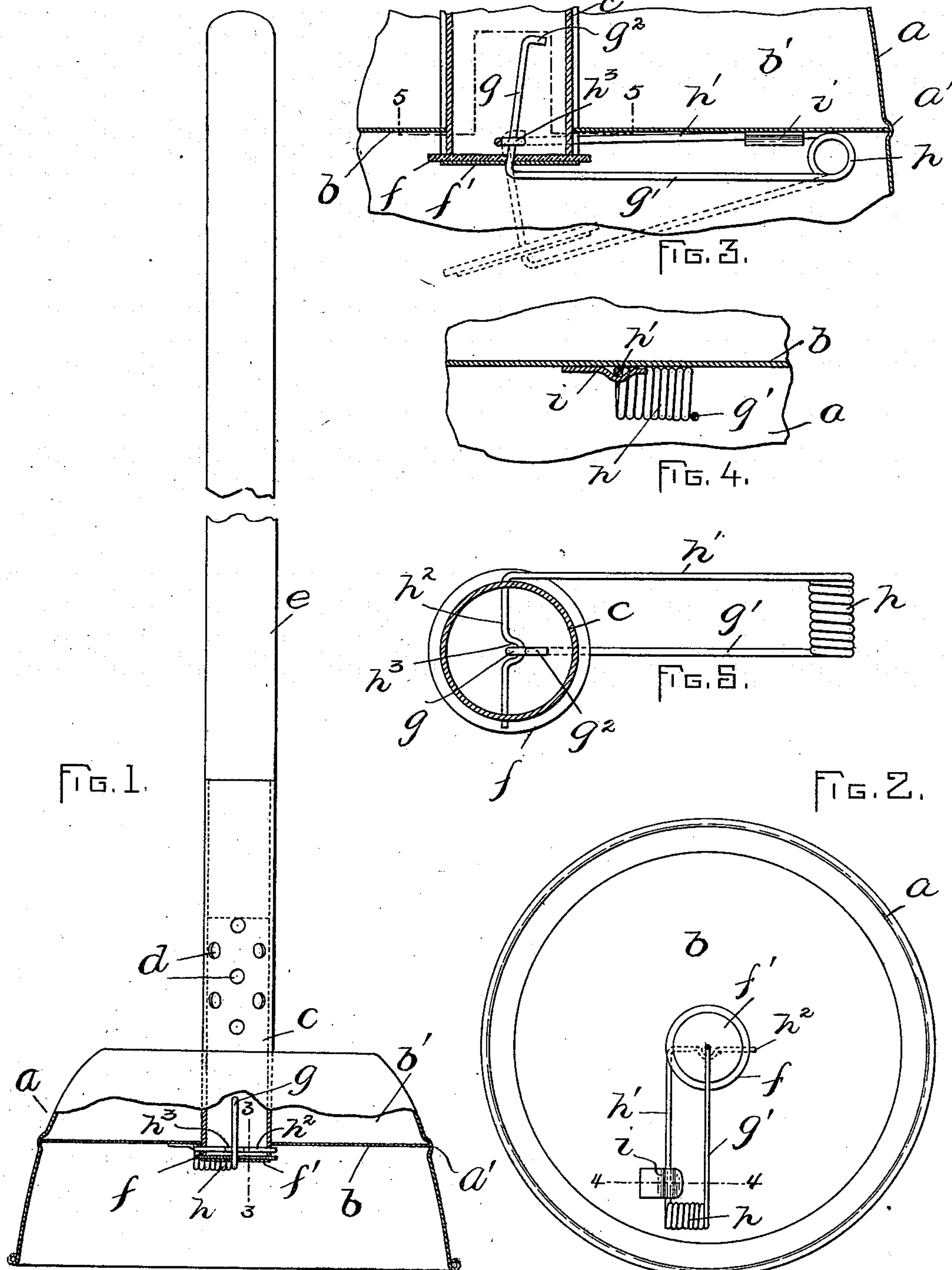


(No Model.)

W. P. GREENLAW.
CLOTHES POUNDER.

No. 560,985.

Patented May 26, 1896.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM P. GREENLAW, OF CAMBRIDGE, MASSACHUSETTS.

CLOTHES-POUNDER.

SPECIFICATION forming part of Letters Patent No. 560,985, dated May 26, 1896.

Application filed June 19, 1893. Serial No. 478,149. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. GREENLAW, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Atmospheric Clothes-Washers, of which the following is a specification.

This invention relates to that class of implements known as "atmospheric clothes-washers," which, as generally constructed, comprise a handle carrying an inverted air-cup with which the clothes are pounded and valve mechanism by which to confine the air in the cup during a downstroke and to admit air thereto during an upstroke.

It is the object of this invention to produce an implement of cheap and simple construction and perfectly practical.

The invention is illustrated in the accompanying drawings, of which—

Figure 1 shows a part section and part elevation of an implement embodying the invention. Fig. 2 shows a bottom view of the same. Fig. 3 shows a sectional view on line 3 3 of Fig. 1. Fig. 4 shows a sectional view on line 4 4 of Fig. 2. Fig. 5 shows a section on line 5 5 of Fig. 3.

The same letters of reference indicate the same parts in all the views.

In the drawings, the letter *a* designates the inverted cup, and *e* the handle, which is fastened in a tubular socket *c*, secured in the cup. It is a great desideratum in the construction of an implement of this character to avoid any metal edges or surfaces which will rust, as this rust will be transferred to the clothes. I therefore form the cup by striking it up out of a single piece of sheet-tin, thus avoiding a seam, and by the retinning process all edges are covered, and there is no place for rust to form. A cup of this construction is perfectly adapted for a clothes-pounder, for it is impervious to rust, besides possessing great strength and not being liable to leak. I have found that by forming the cup in the shape of the frustum of a cone, as shown, and providing the socket *c* with numerous small openings *d*, extending close to the flat top *a*², splashing is prevented, and no danger of the clothes catching in the openings exists. This is explained by the fact that by truncating the cone and bringing the inlet-openings close

down to the top of the same the clothes are drawn over the sides of the cup and prevent splashing. In striking up the cup a groove *a*¹ is formed around it and provides a shoulder against which to secure a partition *b*, which constitutes a support or brace for the socket *c*, the latter extending through the partition to form a valve-seat. This partition also forms an air-tight compartment in the top of the cup, which renders it more buoyant and facilitates its manipulation. A valve is provided to seat upward against the end of the tube *c* and comprises a disk *f*, of soft rubber or like material, to form a water and air tight closure, and a metal disk *f*¹. The latter is fastened on an arm *g* of a wire rod *g*¹, the said arm extending into the tube and having a bent end *g*² to serve a purpose hereinafter explained. The rod *g*¹ extends over the outer side of the valve and is formed into a spring-coil *h*, whose function is to hold the valve against its seat. The wire rod continues from the coil in an arm *h*¹, which fits against the partition *b* and is held by a spring-clip *i*, fastened at one end to said partition and having sufficient resiliency to permit forcing the arm *h*¹ under it laterally. The said arm is bent at right angles, as shown at *h*², and passes through the projecting portion of the tube *c*, being formed at the middle with an offset *h*³ to accommodate the arm *g*. It will be seen that the amount of opening of the valve is limited by the bent end *g*² encountering the offset *h*³.

The valve and its support may be completely removed by disengaging the arm *h*¹ from the clip *i* and working the arm *h*² out of the tube *c*. This can be accomplished very readily, as all the manipulation is performed where access is easy. This construction will be found of great advantage when repairs are necessary or when the valve mechanism has to be replaced. It will be observed that the engagement of the arm *g* with the offset *h*³ causes the valve to be guided in opening and closing and prevents its displacement.

The operation of the device may be described as follows: When the cup is first brought down upon the clothes, the air confined in the cup is compressed, and in escaping causes an agitation of the water and drives the same through the clothes. The

upstroke is relieved by entrance of air through the openings *d* and past the valve. The continued reciprocations of the cup keep up a constant agitation of the water and a circulation through the openings *d* and valve, for a number of said openings are under water during the operation. The effect of this circulation of the water is to draw the clothes against the sides of the cup, and thereby
10 splashing of the water is prevented.

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

1. An atmospheric clothes-washer, comprising in its construction an inverted cup having a port in the upper side in communication with the atmosphere, a valve over said port, a rod supporting said valve and forming a spring which tends to close the same,
15 said rod being detachably fastened to the cup, and a handle secured to the cup.

2. An atmospheric clothes-washer, com-

prising in its construction an inverted air-cup; a tube communicating with the atmosphere and projecting into the cup; a valve
25 seating on the end of said tube; a rod supporting said valve, said rod comprising an arm which extends through the valve and into the tube and has a bent end, a spring tending to close the valve, and an arm having a portion which extends through the air-tube and
30 is provided with an offset to receive the first-named arm; means for detachably fastening one arm of the rod to the cup; and a handle secured to the cup.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 16th day of June, A. D. 1893.

WILLIAM P. GREENLAW.

Witnesses:

C. F. BROWN,

A. D. HARRISON.