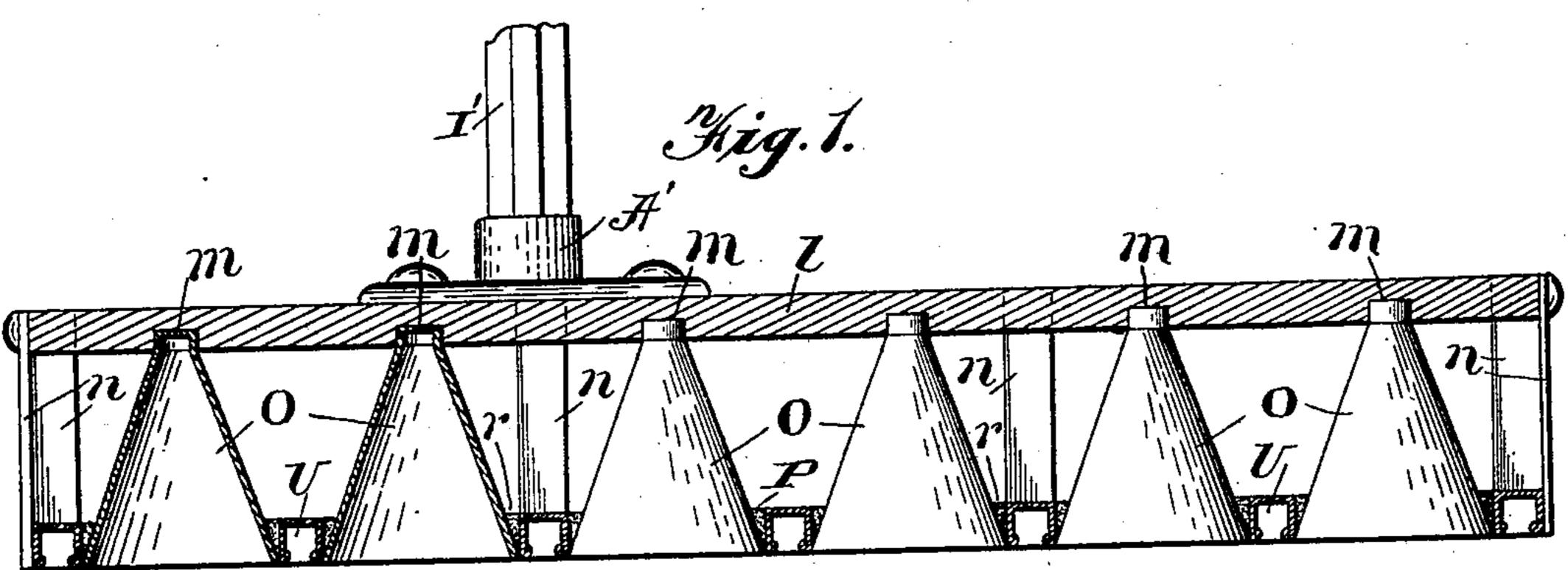
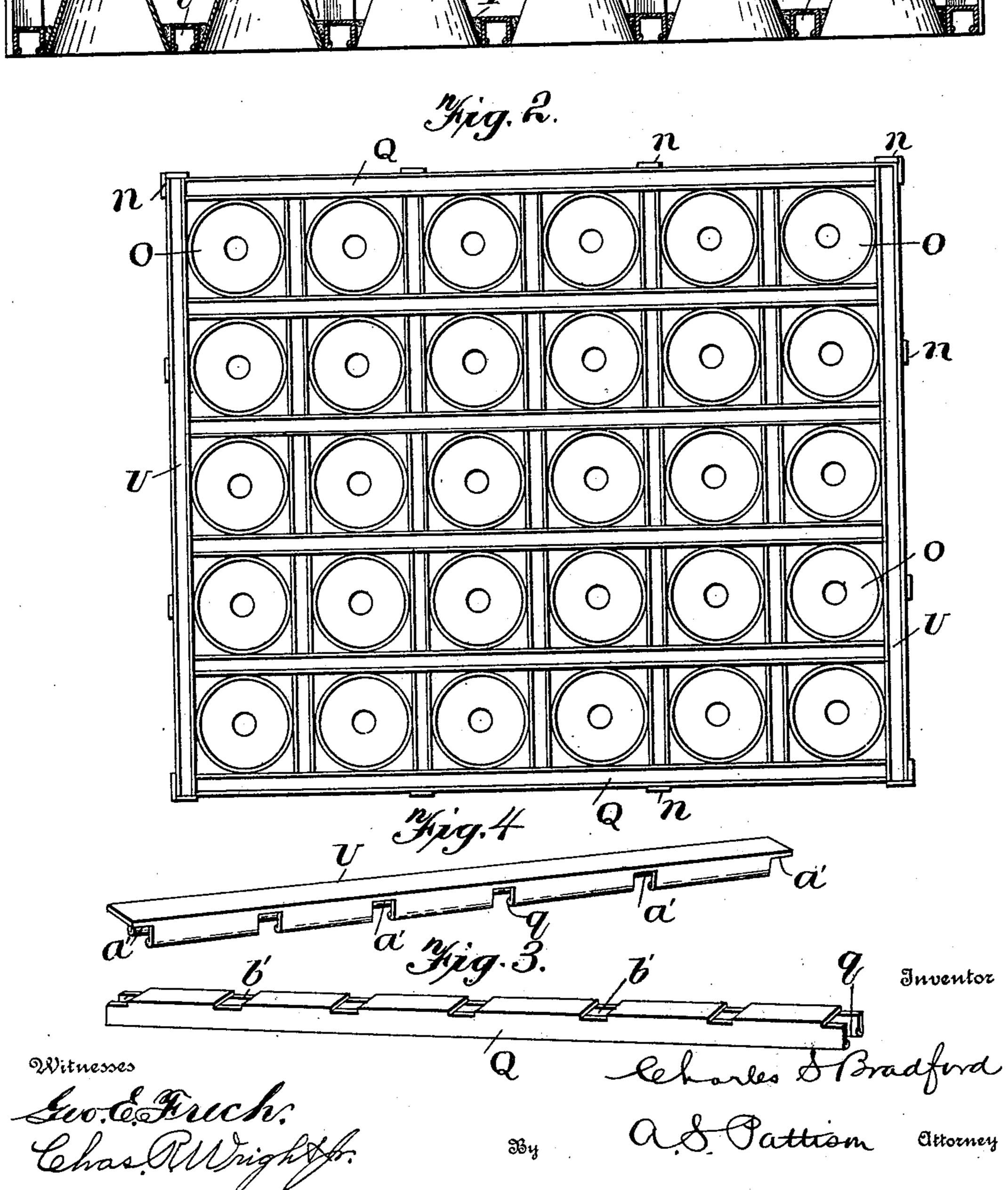
## C. S. BRADFORD. WASHING MACHINE.

(Application filed Feb. 4, 1901.)

(No Model.)





## United States Patent Office.

CHARLES S. BRADFORD, OF WEST UNION, OHIO, ASSIGNOR OF ONE-HALF TO HARVEY J. THOMPSON.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 677,629, dated July 2, 1901.

Application filed February 4, 1901. Serial No. 46,006. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. BRADFORD, a citizen of the United States, residing at West Union, in the county of Adams and State of 5 Ohio, have invented new and useful Improvements in Washing-Machines, of which the following is a specification.

My invention relates to improvements in

clothes-pounders.

One object of my invention is to provide a clothes-pounder in which air and water are forced through the clothes as well as being acted upon by the lower face of the pounder.

Another object of my invention is to pro-15 vide a simple, cheap, and durable pounder which will accomplish the above result with-

out injuring the clothes.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of my pounder. 20 Fig.  $\bar{2}$  is a bottom plan view of my pounder. Fig. 3 is a perspective view of one of the longitudinal U-shaped strips. Fig. 4 is a perspective view of one of the transverse Ushaped strips.

25 Referring now to the drawings, I' represents the vertical operating-stem, which has its lower end rigidly secured in the socket A', which is secured to the top of the flat upper horizontal board l of the pounder. The said 30 board has its bottom provided with annular recesses m, which are adapted to receive the upper reduced ends of the funnel-shaped

members O and secured therein by any desired means. The outer edges of the said 35 board l is provided at each corner and intermediate thereof with downwardly-projecting arms n, which have their lower ends connected in any manner to the rectangular frame P. The said arms and frame are preferably made 40 of metal and galvanized to prevent rusting

and staining the clothes. The said funnelshaped members extend within said frame and flush with the lower edge thereof, as clearly shown in Fig. 2, and the said frame is 45 composed of transverse strips U and longitu-

dinally-arranged strips Q, resting between the outer edges of the funnel-shaped members and preferably soldered thereto; but other means might be used. The said strips are 50 U-shaped in cross-section, and the transverse

strips have their lower faces notched, as shown at a', and the longitudinally-arranged strips Q have their upper faces notched, as shown at b', registering with the notches a' in the transverse strips, thus bringing the outer 55 edges of said transverse and longitudinal strips flush with each other in one plane. The said strips are made of galvanized metal, and the outer free edges of said U-shaped strips are rolled, as shown at q, to form a round 60 smooth surface to come in contact with the clothes and prevent cutting the clothes.

While I have shown the pounder operated by hand, yet it is applicable to any machine in which a reciprocating pounder is used with- 65

out departing from my invention.

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

1. A pounder comprising a stem, a base 70 having recesses in its bottom, funnel-shaped tubes having their small ends within said recesses in said plate, downwardly-projecting arms carried by said plate, and transversely and longitudinally arranged bars carried by 75 said arms and surrounding said funnelshaped tubes and secured thereto, substantially as described.

2. A clothes-pounder comprising an operating-stem, a supporting-plate carried by said 80 stem, funnel-shaped members carried by bottom of said plate, transverse strips secured to said members and having their outer faces notched and longitudinal strips having their inner faces notched and registering with the 85 notches in the other members, and soldered to said funnel-shaped members, substantially

as described.

3. A clothes-pounder comprising a stem, a supporting-plate carried by said stem, fun- 90 nel-shaped members carried by bottom of said plate, transverse inverted - U-shaped strips having rolled outer edges secured to said funnel-shaped members and having their outer faces notched and longitudinal inverted-U- 95 shaped strips having rolled outer edges and notched inner faces registering with the notches in the transverse strips and soldered to said funnel-shaped members, substantially as described.

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4. A clothes-pounder comprising a stem, a supporting-plate carried by said stem, funnel-shaped members carried by the bottom of said plate, and inverted-U-shaped strips surrounding the lower edges of said funnel-shaped members, substantially as described. In testimony whereof I have hereunto set

my hand in the presence of two subscribing witnesses.

CHARLES S. BRADFORD.

Witnesses:

WILL HAVELLS, JOHN SHUMAKER.