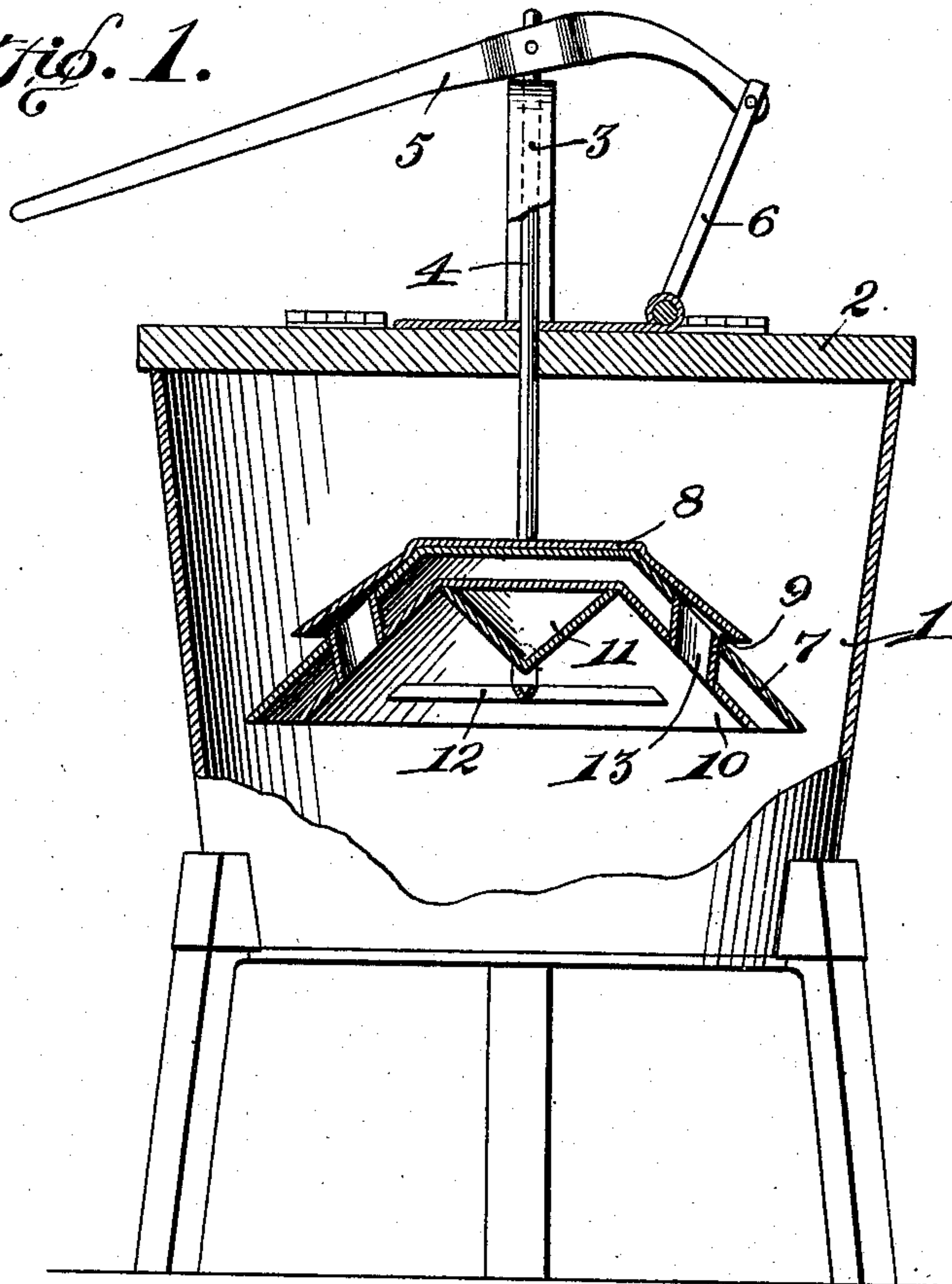


No. 868,015.

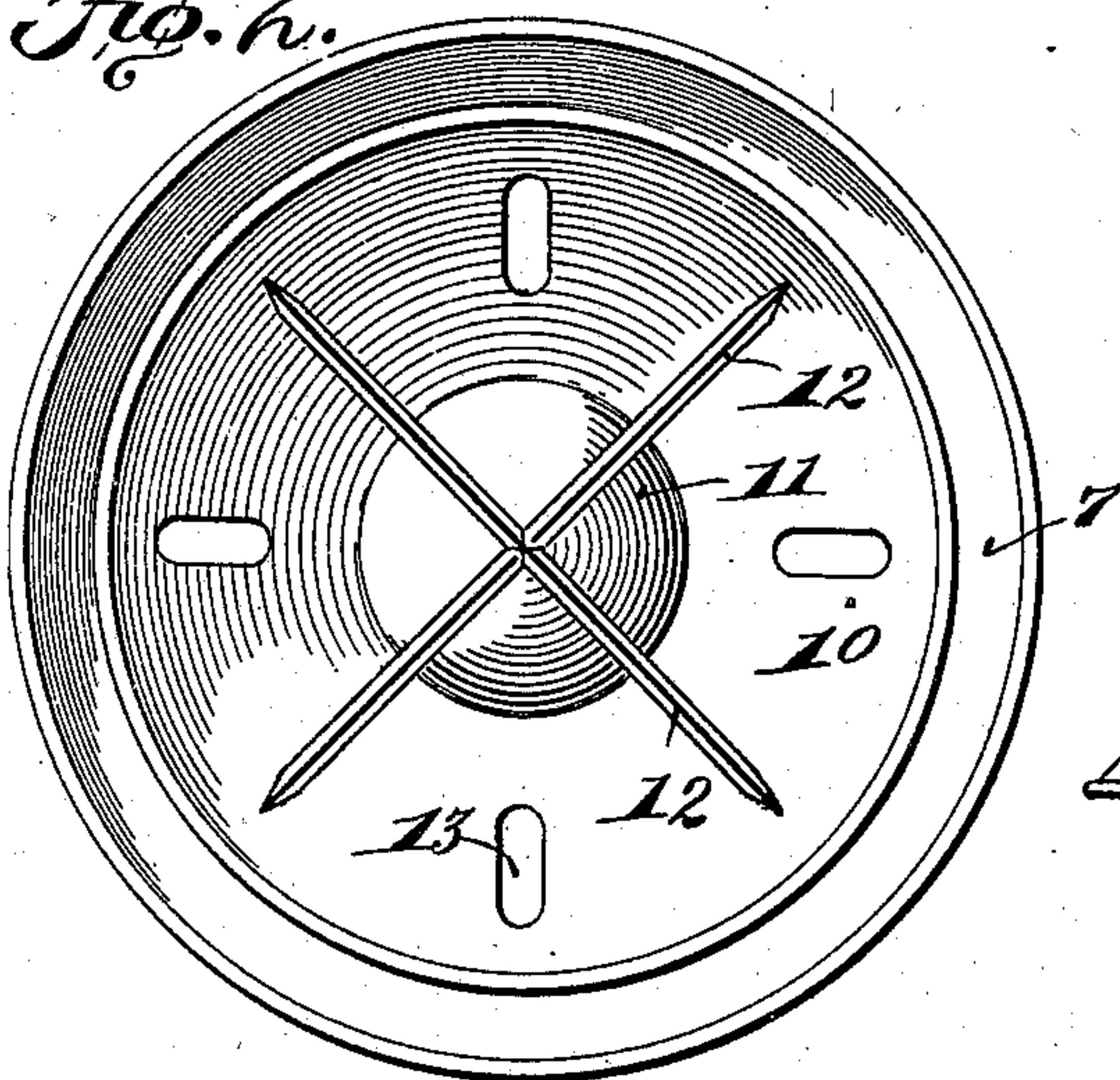
PATENTED OCT. 15, 1907.

G. ROBERTS.  
WASHING MACHINE.  
APPLICATION FILED MAY 8, 1906.

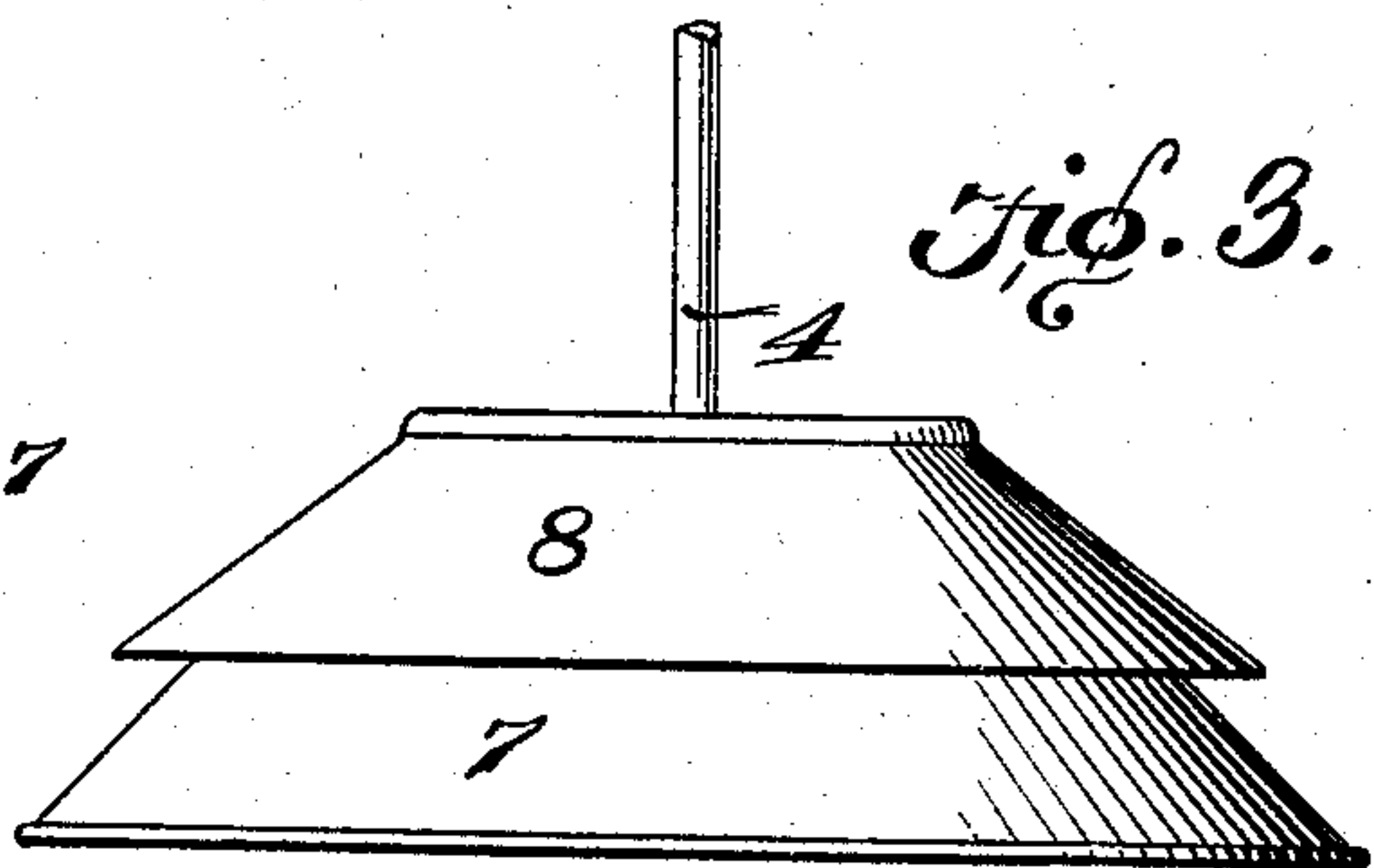
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

GRAND ROBERTS, OF ALVA, OKLAHOMA TERRITORY.

## WASHING-MACHINE.

No. 868,015.

Specification of Letters Patent.

Patented Oct. 15, 1907.

Application filed May 8, 1906. Serial No. 315,794.

*To all whom it may concern:*

Be it known that I, GRAND ROBERTS, a citizen of the United States, residing at Alva, in the county of Woods and Territory of Oklahoma, have invented a new and useful Washing-Machine, of which the following is a specification.

This invention relates to machines for washing clothes and its object is to provide a device of this character which is of very simple construction and which utilizes a pounder of novel form whereby a very thorough circulation of water through the clothes is insured without however injuring the fabric.

The invention consists of a tub having a closure hinged to it on which is slidably mounted a plunger. At the lower end of this plunger is located a pounder consisting of an inverted cup-like device which is seated within a substantially frusto-conical casing and is spaced therefrom by tubes which open through the casing and cup-shaped device. A cap is arranged on the casing at an angle thereto to form an annular compartment to assist in the agitation of the water and a deflecting cone is arranged within the cup-like device for the same purpose.

The invention also consists of certain other novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a vertical section through the machine; Fig. 2 is a bottom plan view of the pounder; and Fig. 3 is an elevation thereof.

Referring to the figures by characters of reference, 1 is a tub suitably supported and having a cover 2 hinged thereon and provided with an upstanding yoke 3 in which is slidably mounted a plunger rod 4. A lever 5 is pivotally connected between its ends to the upper portion of this plunger while one end of the lever is pivoted to a link 6 which, in turn, is pivotally connected to the cover 2. Obviously by swinging the lever upward and downward, a reciprocating motion is imparted to the plunger. Secured to the lower end of the plunger 4 is a frusto-conical casing 7 surrounded adjacent its upper or contracted ends, by a cap 8, which forms an annular compartment 9. An inner casing 10 is disposed within the casing 7 but is of less diameter and has a deflecting cone 11 depending from its upper end and projecting into the casing 10. This inner casing is reinforced near its large or open end by cross strips 12 and tubes 13 are interposed between the two casings at desired intervals and serve to rigidly connect them and hold them spaced apart. A compartment is thus formed around and above the inner casing 10 through which water is adapted to circulate and the water with-

in the casing 10 is free to escape outward through the tubes 13.

In using the device the plunger rod 4 is reciprocated in the manner described and each time the pounder comes into contact with the water a certain amount of air will be trapped in the upper portion of the casings 7 and 10 and will be compressed therein by the pressure of the water thereagainst. This water will be subsequently expelled by the expansion of the air and a thorough cleansing of the fabrics is thus insured. Cone 11 deflects the in-rushing water against the sides of the casing 10 and a portion of the trapped water is adapted to flow upward through the tubes 13 and the outer casing 7. The cap 8 is also advantageous in that it constitutes a trap for air which becomes compressed therein and subsequently expands to expel the water. Water is free to circulate around and over the casing 10 and by reason of the peculiar arrangement of the parts constituting the pounder a very desirable agitation is produced and the fabrics are quickly cleansed. The cross strips 12 not only serve to reinforce the inlet end of the casing 10 but also prevent the clothing from being forced into said casing and against the cone 11. They also prevent the clothing from clogging the tubes 13 so as to interfere with the flow of water therethrough.

The preferred form of the invention has been set forth in the foregoing description but I do not limit myself thereto as I am aware that modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of the invention.

What is claimed is:

A pounder comprising a frusto-conical outer casing having a flat upper face, a frusto-conical inner casing having a flat upper face, said casings forming a continuous air compression compartment therebetween, the open ends of said casings being disposed in the same plane, tubular connections between the casings and constituting the spacing means, said connections forming outlets for liquid trapped within the inner casing, the longitudinal centers of the tubes being arranged along lines extending through the open end of the inner casing, an inverted deflecting cone rigid with and depending from the flat face of the inner casing, cross strips secured across the open end of the inner casing and below the deflector, a cap secured upon the flat portion of the outer casing and extending over the tubular connections, said cap forming an annular compartment, and a plunger rod secured to and extending over the cap.

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

GRAND ROBERTS.

Witnesses:

W. H. ERNST,

D. C. WILHITE.