No. 786,090. PATENTED MAR. 28, 1905.

A. L. BETZER.

WASHING MACHINE.

APPLICATION FILED DEC. 16, 1903.

2 SHEETS—SHEET 1.

Fig. 1.

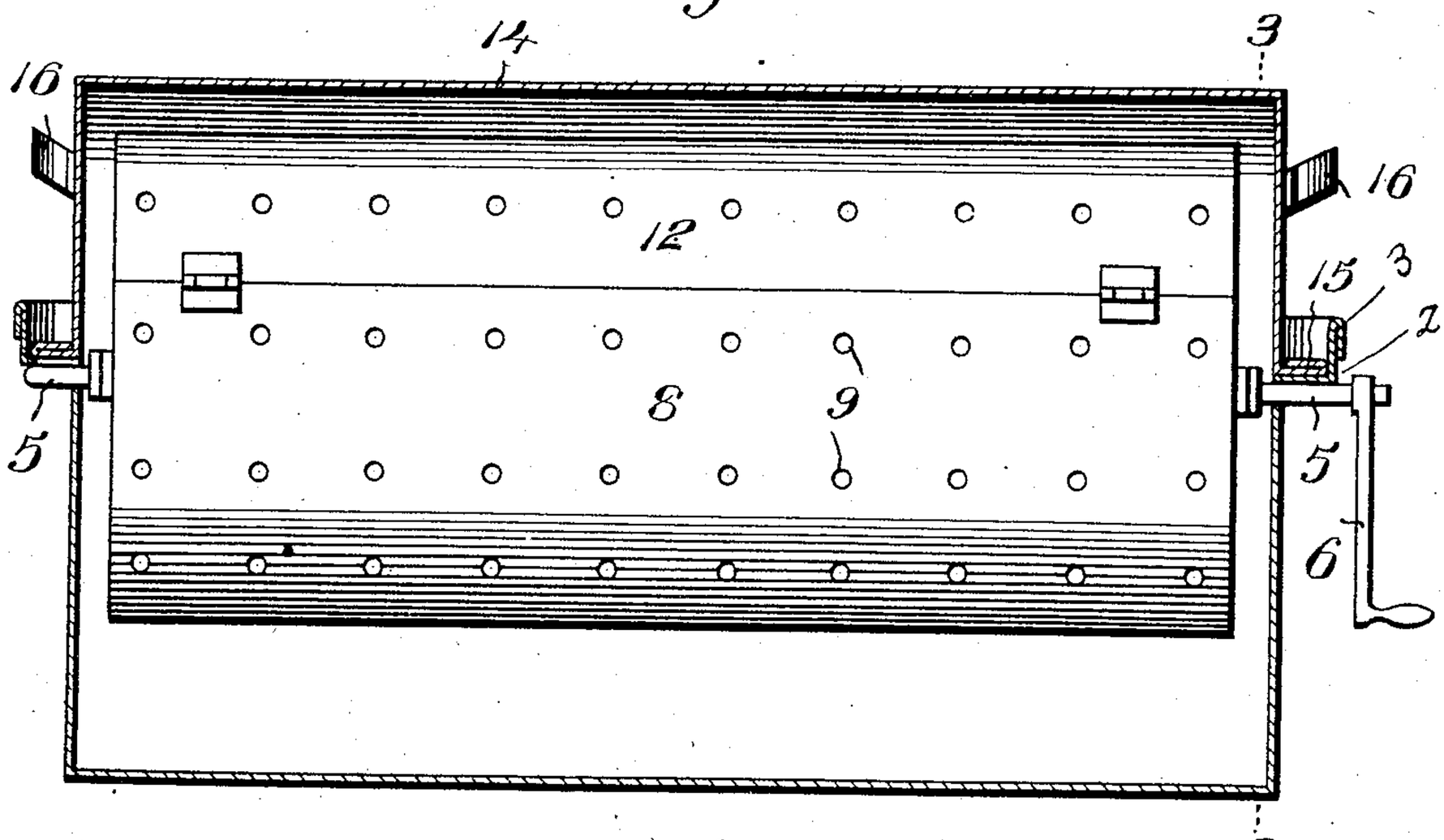
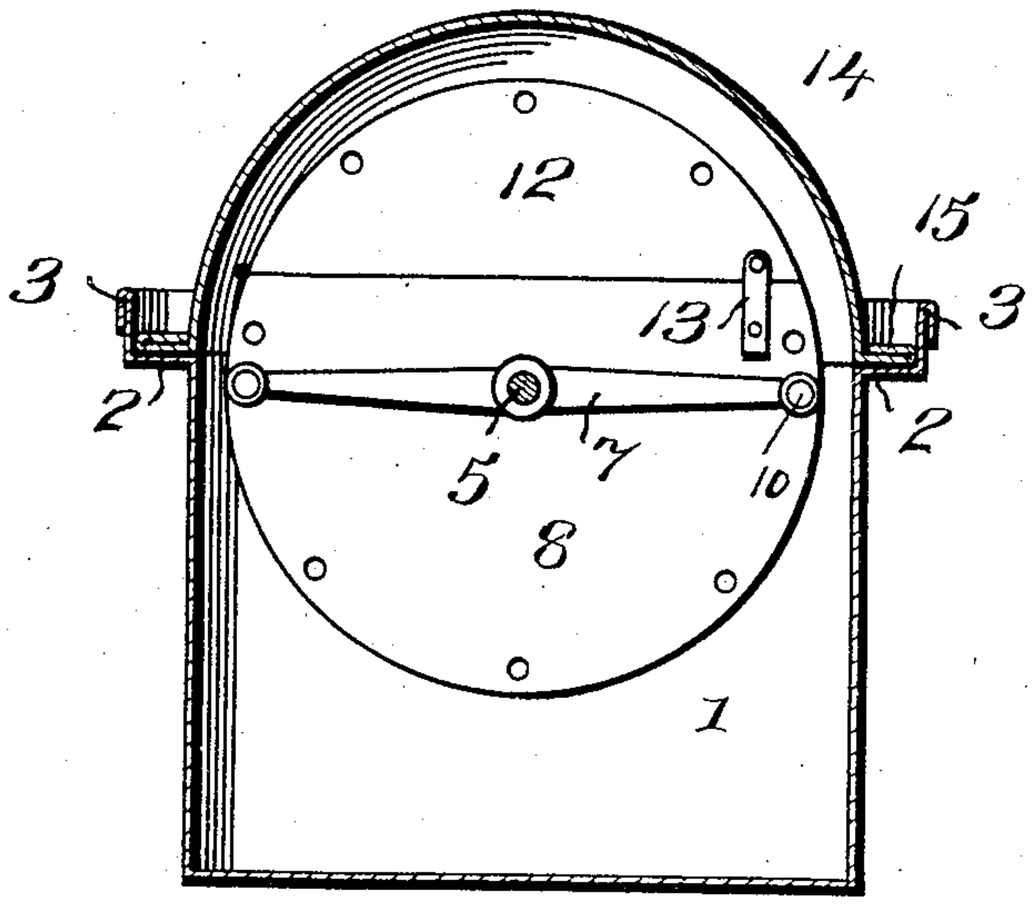


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 2.

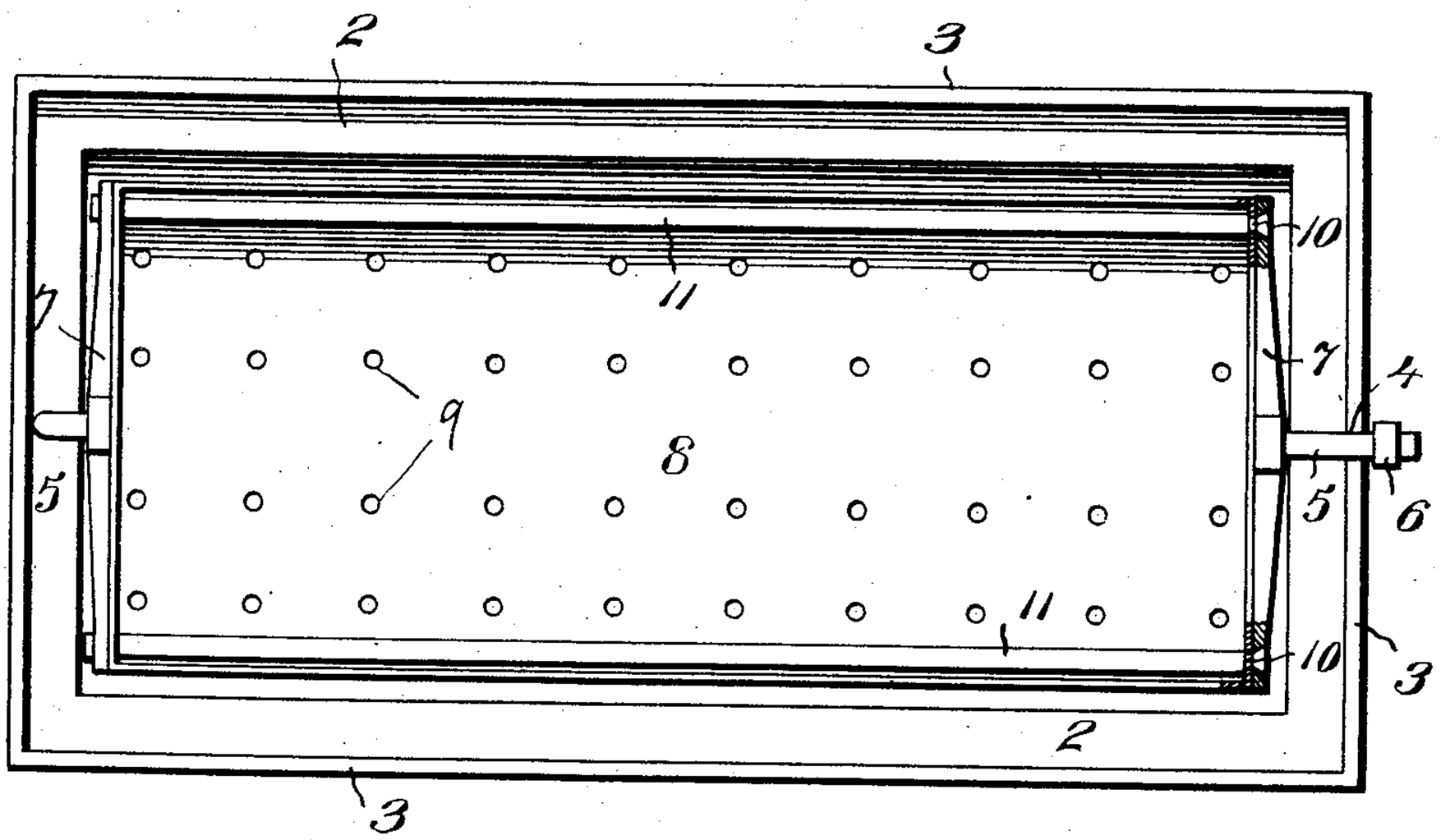
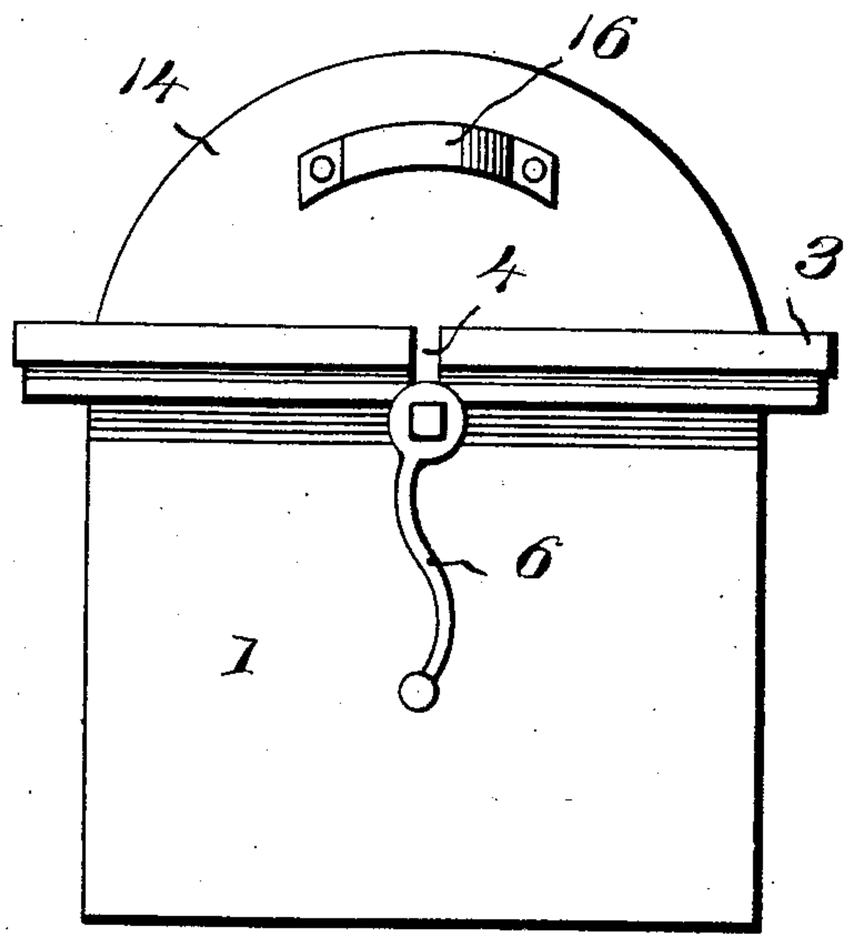


Fig. 4.



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No. 786,090. Patented March 28, 1905.

UNITED STATES PATENT OFFICE.

ANTHONY L. BETZER, OF KANSAS CITY, MISSOURI.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 786,090, dated March 28, 1905.

Application filed December 16, 1903. Serial No. 185,405.

To all whom it may concern:

Be it known that I, ANTHONY L. BETZER, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented new and useful Improvements in Washing-Machines, of which the following is a specification.

My invention relates to new and useful improvements in washing-machines; and its object is to provide a simple, inexpensive, and compact device of this character so constructed as to permit clothes or other articles to be readily placed therein.

A further object is to provide a washing-machine adapted to support the articles out of contact with the water contained within the device, but in such position as to permit steam to contact with all parts thereof.

Another object is to provide a holder of durable construction adapted to receive the garments to be cleaned and to be rotated in any suitable manner.

With the above and other objects in view the invention consists of a casing comprising a body and a cover, said cover being adapted to rest upon a flange formed at the edges of the body portion of the casing. Trunnions extend from the ends of a cylinder located within the casing, and these trunnions bear within the ends of said casing and are removable therefrom. The trunnions are preferably secured to the cylinder by means of sleeves, extending longitudinally within the cylinder and having securing devices therein which engage cross-strips arranged on the outside of the ends of the cylinder and having the trunnions projecting therefrom.

The invention also consists in the further novel construction and combination of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a vertical longitudinal section through the washing-machine and showing the cylinder in elevation. Fig. 2 is a plan view thereof with the covers of the casing and the cylinder removed. Fig. 3 is a section on line 3 3, Fig. 1; and Fig. 4 is an end elevation of the washing-machine.

Referring to the figures by numerals of reference, 1 is a preferably rectangular casing, having a flange 2 formed at the upper edges thereof, the outer edge of this flange being provided with an integral wall 3. A slot 4 is formed at the center of each end portion of flange 2 and its wall 3, and these slots receive trunnions 5, one of which has a crank 6 secured thereto. The trunnions 5 project from cross-strips 7, which extend across the ends of the cylindrical holder 8, having a series of perforations 9 therein. These cross-strips are secured to the cylinder, preferably by means of threaded rods 10, which project through sleeves 11, arranged longitudinally within the cylinder. The ends of the rods engage the cross-strips 7, and the sleeves 11 serve to brace the cylinder and prevent buckling thereof. The holder 8 has a cover 12, which is hinged to the body portion of the holder and is adapted to be locked in closed position by means of a spring-catch or in any other suitable manner. The casing 1 is also provided with a cover 14, and flanges 15 extend from the edges thereof and are adapted to bear upon the flange 2 before referred to. This cover 14 has handles 16 suitably arranged thereon, so as to permit it to be readily removed from or placed in position.

In using the washing-machine herein described water is placed within the casing 1 and the cylinder 8 is opened by swinging the cover 12 backward. The articles to be washed are then placed within the cylinder, and the cover 12 is locked in place by means of catch 13. Cover 14 is then placed upon the flanges 2 and is held against displacement by the walls 3 thereon. The cylinder 8 does not contact with the water within the casing 1, and therefore after the machine has been placed upon a stove the steam generated will pass upward into the apertures 9 and into contact with the articles contained within the cylinder. During this steaming operation the cylinder is rotated by means of the crank 6, and after the process has been continued for a desired period the contents of the cylinder are removed by first detaching the cover 14 and opening the cover 12. The articles are then rinsed in water.

It will be seen that the cylinder can be read-

ily removed from the casing 1 by simply lifting the trunnions 5 out of the slots 4. This casing 1 can be utilized as a washboiler when desired, and the flange 2 serves as a gutter for catching soapsuds during such use of the device, thereby preventing the overflow of suds.

All of the parts of the device are preferably constructed of non-corrodible metal, and each part is formed in a single piece.

In the foregoing description I have shown the preferred form of my invention; but I do not desire to limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing any of the advantages thereof, and I therefore reserve the right to make such changes and alterations as may fairly fall within the scope of my invention.

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

A washing-machine comprising a boiler having an angular flange at its upper edge and forming a gutter; a detachable cylinder revolubly mounted within the boiler and having perforations therein, cross-strips at the ends of the cylinder, sleeves interposed between the cross-strips and connecting the same, trunnions extending from the cross-strips, and bearing in the opposite ends of the boiler, a hinged cover on the cylinder and having perforations therein, a closure for the boiler having its walls in alinement with the walls of said boiler, and laterally-extending flanges integral with said closure at the edges thereof and adapted to bear upon the bottom of the gutter formed by the angular flange of the said boiler, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

ANTHONY L. BETZER.

Witnesses:

KENNETH PHELPS,

B. T. HICKMAN.