

No. 859,622.

PATENTED JULY 9, 1907.

A. J. SLONECKER.
WASHING MACHINE APPARATUS.

APPLICATION FILED JUNE 19, 1906.

2 SHEETS—SHEET 1.

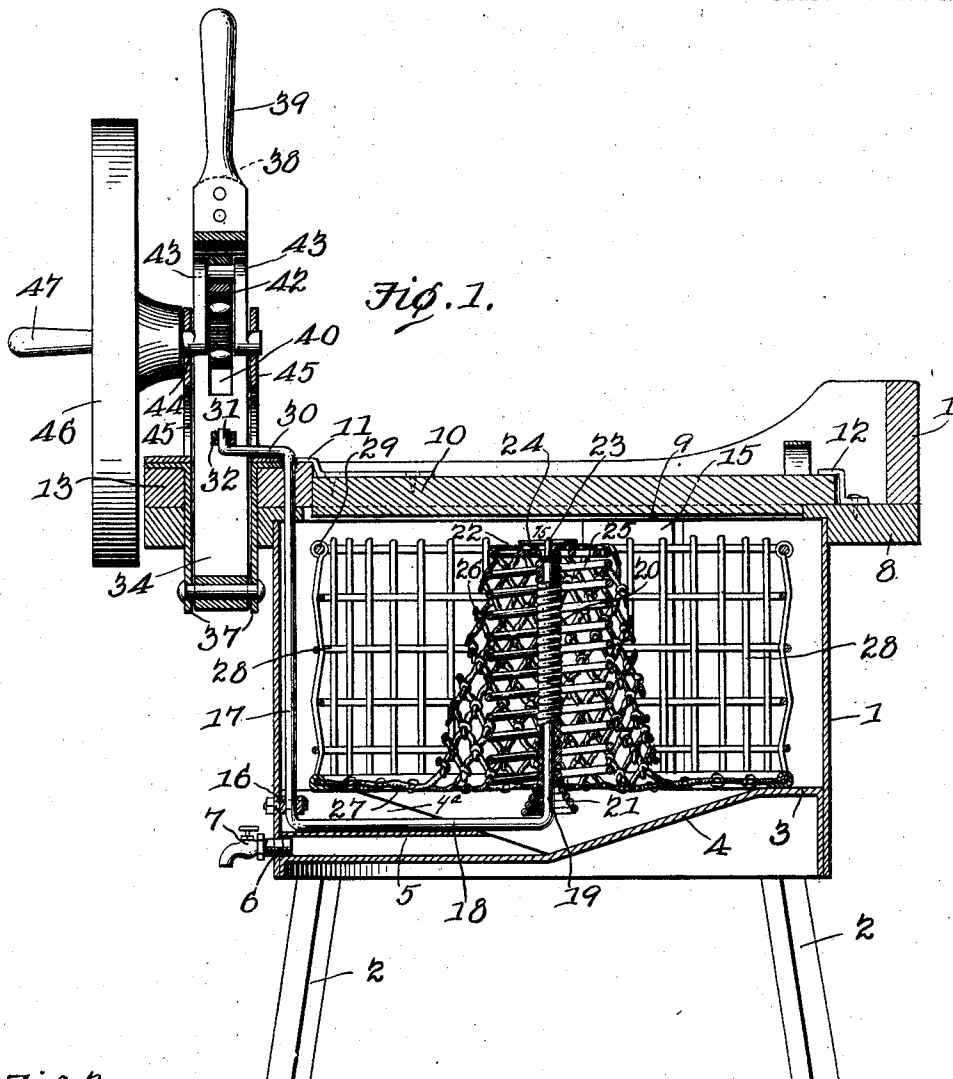
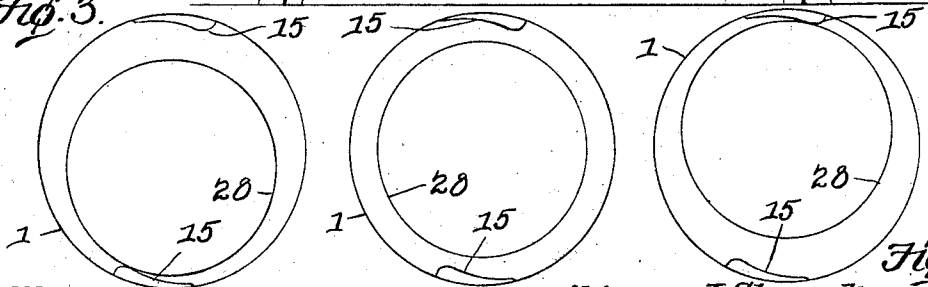


Fig. 3.



WITNESSES:

E. J. Stewart
Hubert D. Lawson

Fig. 4. *Abiram J. Slonecker*
INVENTOR.

By *C. A. Snow & Co.*
ATTORNEYS

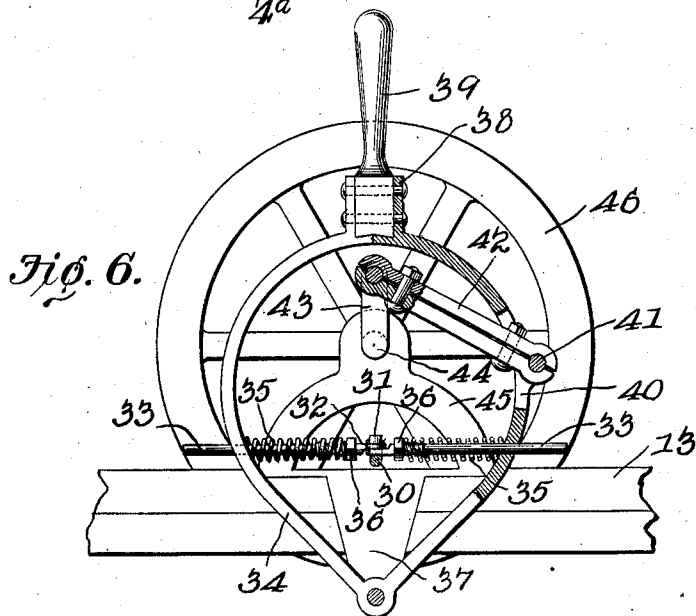
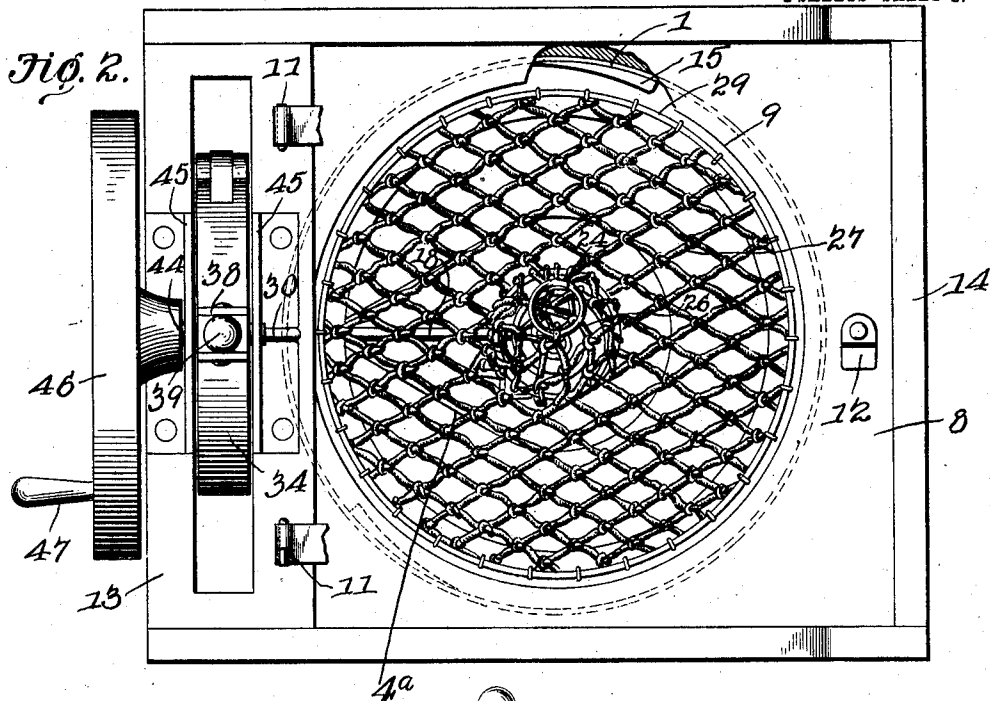
Fig. 5.

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2 SHEETS—SHEET 2.



Abiram J. Stonecker,

INVENTOR.

By

C. A. Snow & Co.

ATTORNEYS

WITNESSES:

E. J. Stewart
Arthur D. Lawson

UNITED STATES PATENT OFFICE.

ABIRAM JOHNSON SLONECKER, OF TRENTON, MISSOURI.

WASHING-MACHINE APPARATUS.

No. 859,622.

Specification of Letters Patent.

Patented July 9, 1907.

Application filed June 19, 1906. Serial No. 322,456.

To all whom it may concern:

Be it known that I, ABIRAM JOHNSON SLONECKER, a citizen of the United States, residing at Trenton, in the county of Grundy and State of Missouri, have invented a new and useful Washing-Machine Apparatus, of which the following is a specification.

This invention relates to washing machines and its object is to provide a machine of this character having novel means for rubbing and agitating the clothes.

10 A still further object is to provide a combined holder and rubber which will rotate slowly during the cleaning operation so that all parts of the clothes contained therein will be acted upon.

15 A still further object is to provide a holder of this character formed of fabric so that injury to the clothes is practically obviated.

20 Another object is to provide novel mechanism for actuating the holder and rubber or agitator, said mechanism requiring but little effort on the part of the operator.

25 With the above and other objects in view the invention consists of a receptacle or tub having an outlet in the bottom thereof in which is mounted an oscillating arm the end of which is upturned and adapted to describe an arc through the center of the receptacle. This upturned portion of the arm projects into a resilient beater which is surrounded by, and supports, an upwardly projecting frusto-conical extension formed at the center of the fabric bottom of a cylindrical basket which is mounted within the receptacle. Means are provided adjacent opposite portions of the receptacle for imparting a slow rotation to the basket when the same is brought into contact therewith, this movement of the basket being produced by the oscillation of the arm and the beater mounted thereon. A novel form of actuating mechanism is provided for oscillating the arm and this mechanism is resiliently connected to the arm so that no injury will result to the mechanism or arm should an undue quantity of clothes become wedged between the beater and the wall of the basket so as to limit the movement of the beater. The actuating mechanism includes both oscillatory and rotatable means for manually operating it, said means adapted to be utilized either independently or simultaneously.

45 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.

50 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 plan view thereof, the cover being removed and a part of the top board being in sec-

tion; Figs. 3, 4 and 5 are diagrammatical views showing 55 relative positions assumed by the basket and receptacle during the oscillation of said basket; and Fig. 6 is a view partly in section and partly in elevation of the power mechanism of the machine.

Referring to the figures by characters of reference, 60 1 is a tub or receptacle of cylindrical form and supported by legs 2 which are fastened to it in any preferred manner. The bottom 3 of the tub has a conical depression 4 at its center. A channel 4^a extends from the center of this depression to the wall of the 65 tub and has a tube 5 in the bottom thereof which extends from the depression to an outlet 6 in which is disposed a valve 7. A top board 8 is secured upon the tub and has a circular opening 9 therein concentric with but of slightly less diameter than the tub and 70 this opening is adapted to be closed by a cover 10 connected to the top board by means of slip hinges 11. Any suitable means such as a button 12 may be employed for fastening the cover when closed. A shelf 13 is formed at one end of the tub and upstanding 75 strips 14 are disposed upon the other end and at the sides of the top board 8. These strips prevent the overflow of any water which may be splashed from the top. Stop strips 15 are disposed vertically within the tub 1 and adjacent opposite portions thereof and 80 have curved inner faces which are for the purpose hereinafter explained.

A bearing 16 is arranged in the upper portion of channel 4^a and rotatably mounted therein is a rod 17 having an arm 18 at its lower end which is disposed 85 longitudinally within the channel 4^a and has an upturned stem 19 adapted to describe an arc through the center of the tub. This stem is loosely mounted within a sleeve 20 preferably formed of coiled wire. The lower end of said sleeve has a funnel-like extension 90 21 while the upper end is closed by means of a bearing plate 22. An eye 23 is arranged upon this plate 22 and a ring 24 is loosely mounted therein. A spring coil 25 is formed integral with and surrounds the sleeve 20 and this resilient coil projects into and supports 95 a frusto-conical extension 26 formed at the center of the bottom 27 of a cylindrical basket 28, there being a continuous clothes receiving space within the basket and around the extension. The bottom 27, and the extension 26 are preferably formed of netting while the 100 circumference of the basket 28 is preferably formed of wire fabric secured to a circular wire 29. Of course the fabric of the basket is not flexible whereas the bottom of the basket and its extension are formed solely of a netting which will not injure clothing when 105 rubbed thereagainst.

A crank 30 is arranged at the upper end of rod 17 and the upstanding portion 31 thereof extends through

registering openings formed in overlapping heads 32 of oppositely extending similar rods 33. Each of these rods is slidably mounted within a substantially oval frame 34 and has a coiled spring 35 thereon which bears at one end upon the frame and at its other end upon a nut 36 adjustably mounted on the rod. By manipulating these nuts the tension of the spring may be regulated. The frame 34 extends downward through the shelf 13 and is pivoted at its lower end between ears 37 depending from the shelf. Ears 38 are arranged upon the upper portion of the frame and a handle 39 is secured between them. A slot 40 is formed in one side of the frame 34 and a bearing pin 41 extends transversely thereof. A pitman 42 formed of oppositely disposed members bolted together is mounted on this pin 41 and upon a crank 43 formed with a shaft 44 which is journaled in bearings 45. These bearings are disposed at opposite sides of frame 34 and a crank 43 is mounted to rotate within the frame 34. A fly wheel 46 is secured to the shaft 44 and has a grip 47 extending from it whereby the wheel and shaft may be rotated manually.

In using this machine the basket 28 is inserted through the opening 9 until it rests on the bottom 3 of the tub. The flexible bottom of the basket is pulled upward so as to enable the stem 19 to be inserted in sleeve 20, the extension 21 serving as a guide to direct the stem into the sleeve. The bearing plate 22 will rest on the end of the stem and the frusto-conical portion 26 of the bottom of the basket will therefore be held around the coil 25. A desired quantity of water, etc., is placed within the tub with the clothes to be cleaned, said clothes resting within the basket and around the extension 26. Rod 17 is rocked either by oscillating the handle 39 or rotating the wheel 46, or both, and this will produce an oscillation of arm 18 so that the coil 25 carried by the arm will be swung from side to side within the basket and carry the extension 26 therewith. Said extension will rub upon the clothes and thoroughly agitate them so as to force water there-through. The swinging movement of the arm 18 will also throw the basket successively into contact with the curved faces of the stop strips 15. Because of the peculiar relation of the basket and stop strips a slight rotation of the basket will be produced each time the same is moved in one direction, this rotation being produced by the rolling action of the basket upon the stop strips. The coil 25 constitutes a resilient support for extension 26 so that an undesirable pressure on the clothes will be prevented. Springs 35 also act as cushions and allow the arm 18 and the parts connected thereto to give when a predetermined amount of resistance is offered to the movement thereof.

After the clothes have been washed they can be quickly removed from the tub by lifting the basket by means of the ring 24. If left to remain within the basket the water adhering to the clothes will quickly drain off.

A wringer may be secured to the strips 14 if desired and will thus be held in a convenient position for removing water from clothes as fast as they are withdrawn from the machine. By providing an outlet tube 5 in the bottom of the device the sediment will collect therein and can be withdrawn from the tub

when desired without necessitating the removal of any considerable quantity of water. A belt may be placed around the fly wheel 46 and the entire machine driven by a suitable motor. The bottom 27 of the basket and the extension 26 thereof may be formed of any preferred material such as stout cord or rope, metal rings, and in fact may be of any construction, resulting in a flexible netting of fabric.

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 claims.

What is claimed is:

1. In a washing machine the combination with a receptacle; of a basket loosely mounted and disposed to rotate within the receptacle, said basket having a flexible bottom with an upstanding portion, and separate means for supporting and oscillating said upstanding portion within the basket.
2. In a washing machine the combination with a receptacle; of a basket loosely mounted and disposed to rotate therein, said basket having a flexible bottom formed with an upstanding portion, means for supporting said upstanding portion, and means for oscillating said supporting means and the upstanding portion.
3. In a washing machine the combination with a receptacle having stop strips adjacent opposite portions thereof; of a basket loosely mounted within the receptacle, means within the receptacle for swinging the basket against the stop strips alternately, and a flexible connection between the basket and its actuating means.
4. In a washing machine the combination with a receptacle having stop strips adjacent opposite portions thereof; of a basket loosely mounted within the receptacle and having a flexible bottom, and means engaging said bottom for moving the basket against the stop strips, to partly rotate it.
5. In a washing machine the combination with a receptacle; of a basket loosely mounted therein and having a flexible bottom provided with an upstanding portion, an oscillating arm mounted within the receptacle, and means for detachably connecting the arm to and for supporting the upstanding portion.
6. In a washing machine the combination with a receptacle; of a basket loosely mounted therein and having a flexible bottom provided with an upstanding portion, an oscillating arm mounted within the receptacle, and resilient means for detachably connecting the arm with and for supporting the upstanding portion.
7. In a washing machine the combination with a receptacle; of a basket loosely mounted therein and having a flexible bottom provided with an upstanding portion, an oscillating arm within the receptacle, a stem thereon, and means within the upstanding portion for detachably engaging the stem to support said portion.
8. In a washing machine the combination with a receptacle; of a basket loosely mounted therein and having a flexible bottom provided with an upstanding portion, an oscillating arm within the receptacle, a stem thereon, and resilient means within the upstanding portion for bearing upon and detachably engaging the stem to support said portion.
9. In a washing machine the combination with a receptacle; of a basket loosely mounted therein, an oscillating arm projecting into and detachably engaging the basket, an actuating device, and a resilient connection between the actuating device and the arm.
10. In a washing machine the combination with a receptacle, and a basket loosely mounted therein; of an oscillating arm, a resilient connection between the arm and basket, actuating means, and a resilient connection between said means and the arm.

11. In a washing machine the combination with a receptacle, and a basket loosely mounted therein; of an oscillating arm, a resilient connection between the arm and basket, oscillating actuating means, and a resilient
5 connection between said means and the arm.

12. In a washing machine the combination with a receptacle, and a basket loosely mounted therein; of an oscillating arm connected to the basket, oscillating actuating means, and a resilient connection between said

means and the arm and rotatable means actuated by the 10 oscillating means.

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

ABIRAM JOHNSON SLONECKER.

Witnesses:

J. S. JOHNSON,

A. B. SLONECKER.