T. C. JOSSELYN.

WASHING MACHINE.

APPLICATION FILED NOV. 25, 1907.

913,506.

Patented Feb. 23, 1909.

2 SHEETS—SHEET 1.

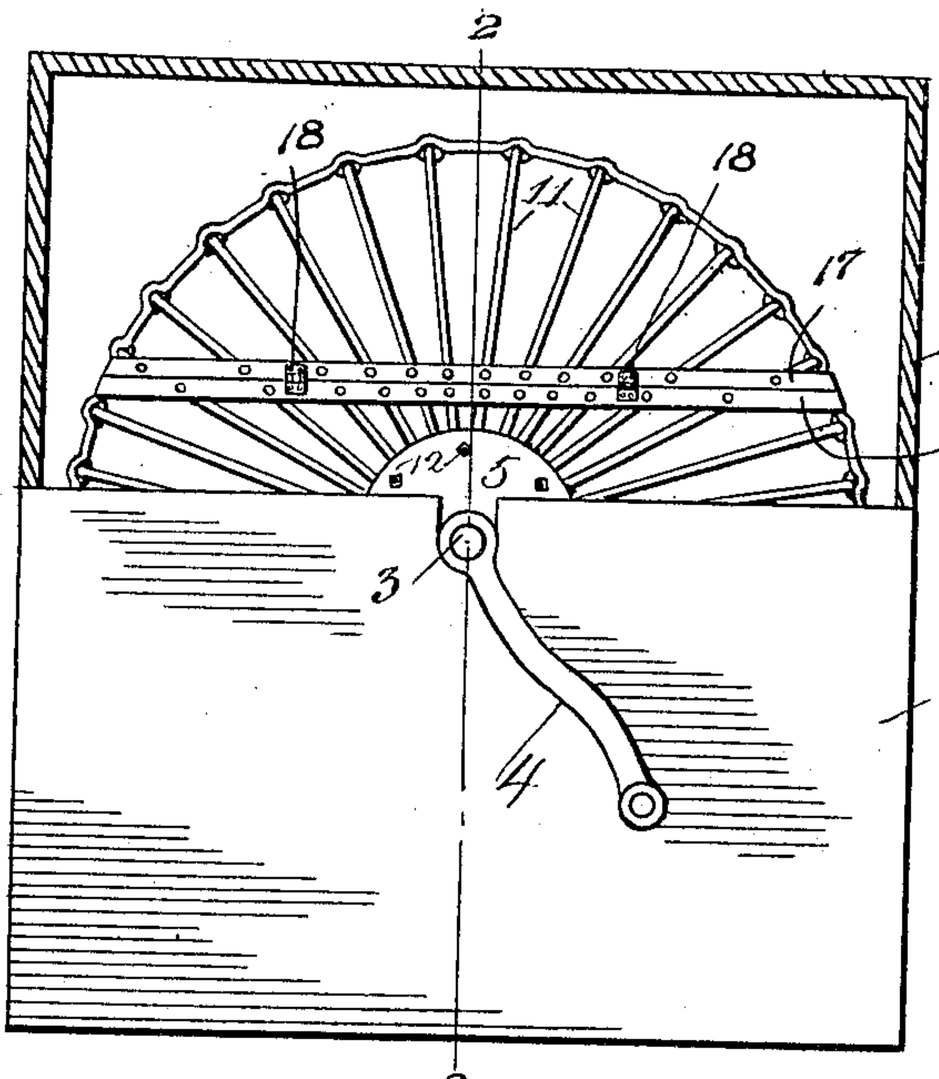



Fig. 1.

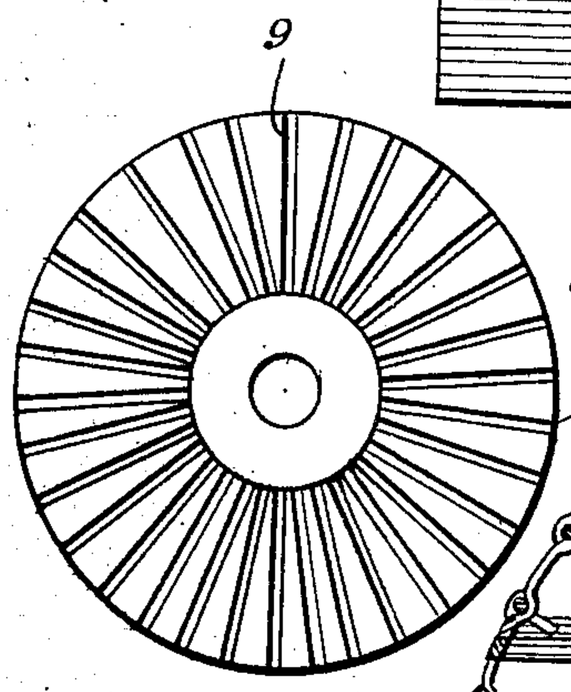



Fig. 5.

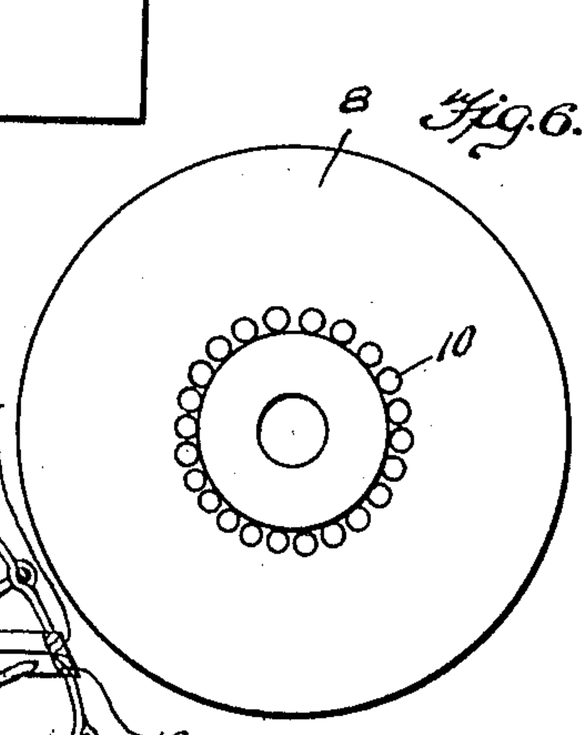
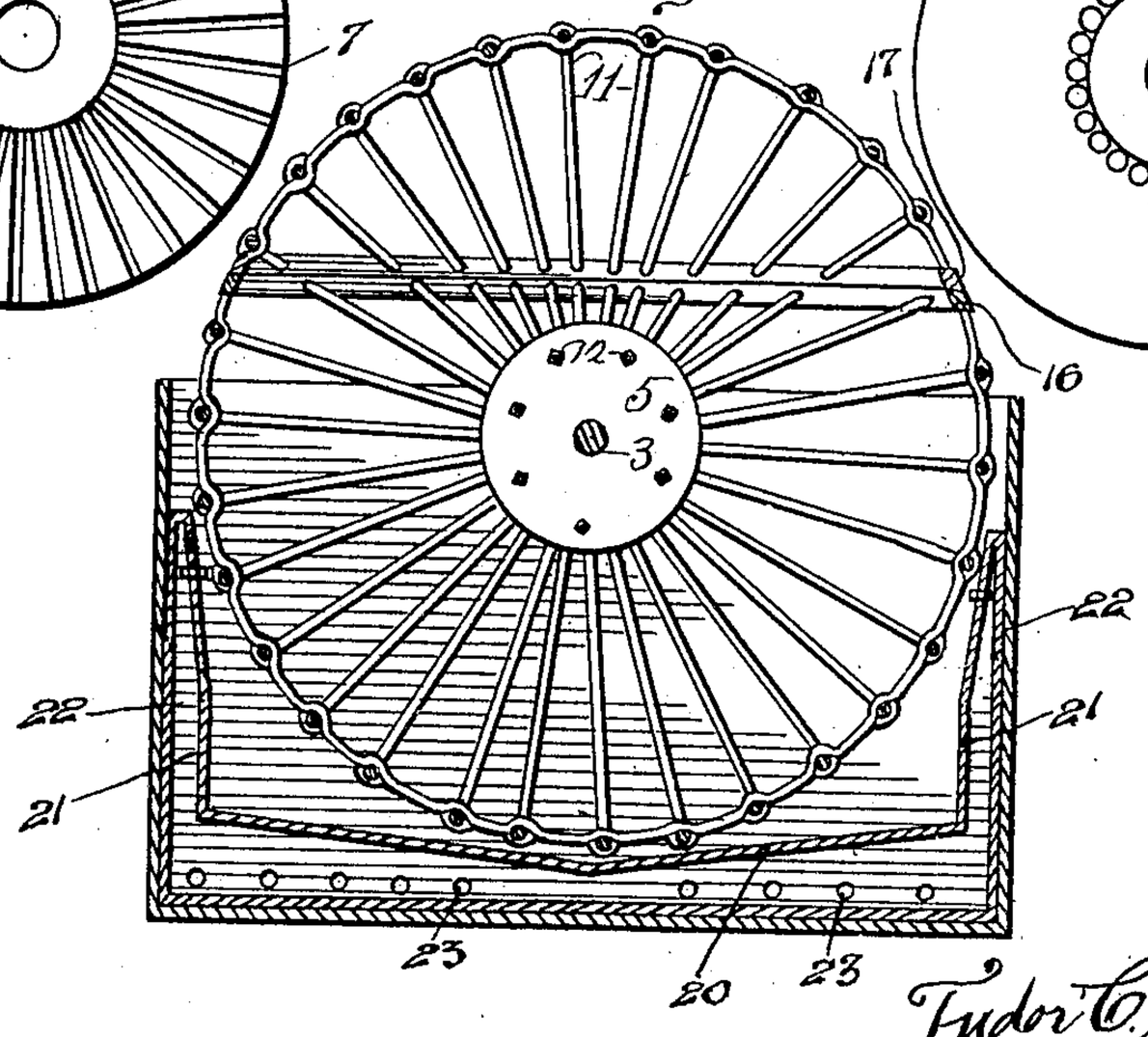



Fig. 6.

Fig. 3.

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2 SHEETS—SHEET 2.

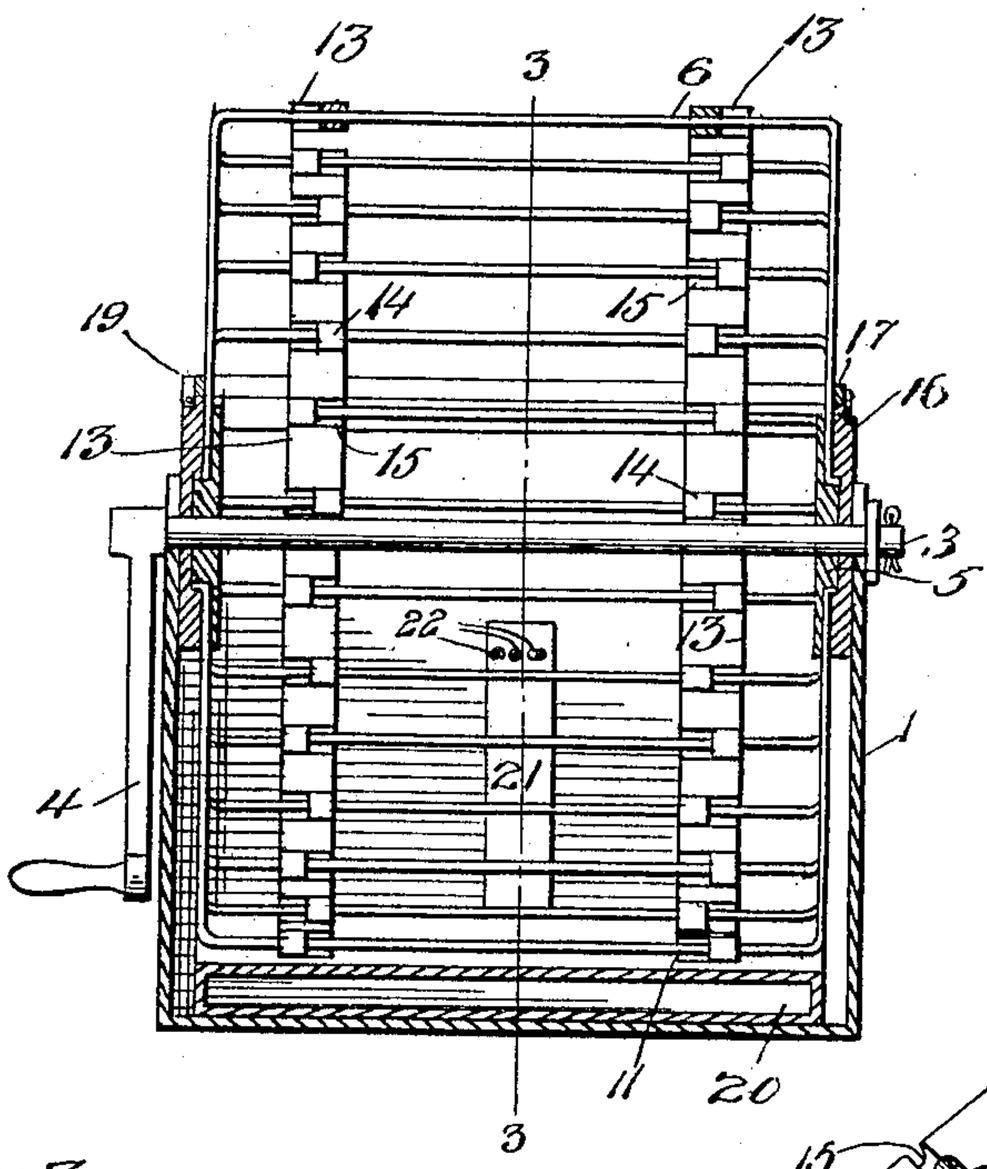



Fig. 2.

Fig. 8.

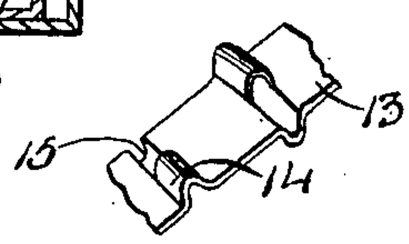



Fig. 7.

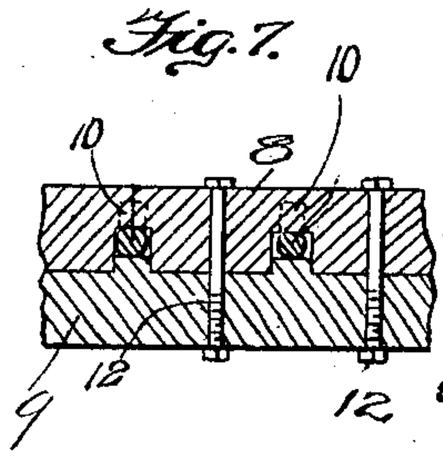



Fig. 4.

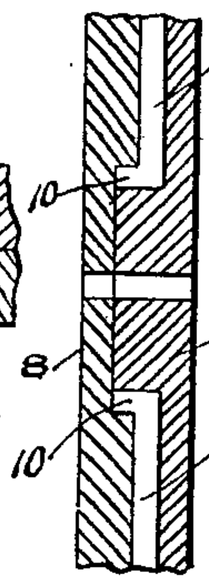
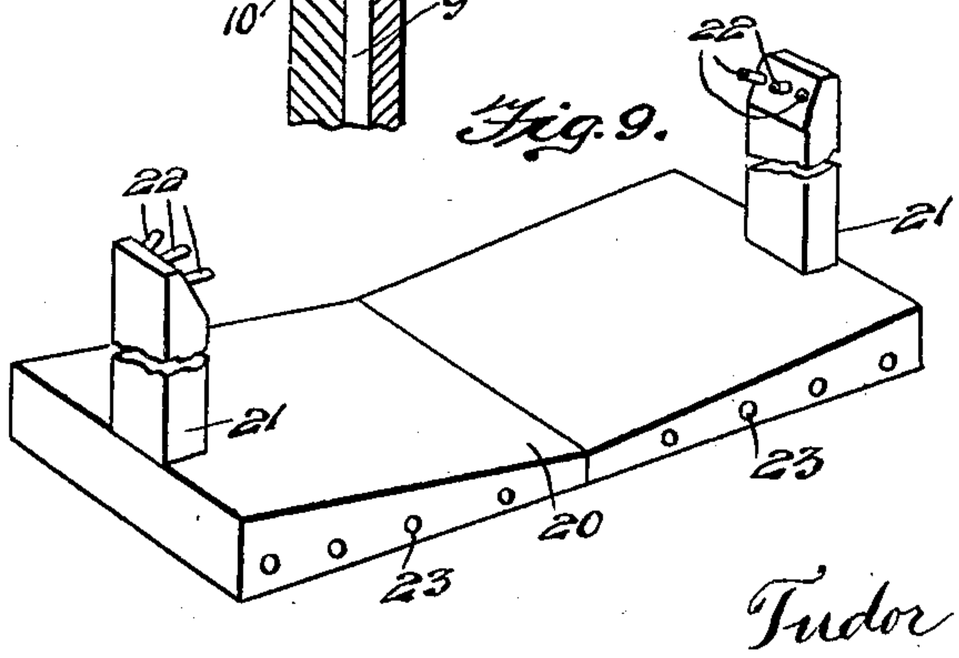



Fig. 9.

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# UNITED STATES PATENT OFFICE.

TUDOR C. JOSSELYN, OF NEW YORK, N. Y.

## WASHING-MACHINE.

No. 913,506. Specification of Letters Patent. Patented Feb. 23, 1909.

Application filed November 25, 1907. Serial No. 403,741.

*To all whom it may concern:*

Be it known that I, TUDOR C. JOSSELYN, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in washing machines and more particularly to the type embodying an inclosing boiler casing and a rotatable cylinder disposed therein.

The object in view is reduction in the expense of manufacturing, coupled with the production of a simple and durable structure.

With this and further objects in view the invention comprises certain novel constructions, combinations and arrangements of parts as will be hereinafter fully described and claimed.

In the accompanying drawings:—Figure 1 is a view in side elevation of a machine embodying the features of the present invention, the upper portion of the casing being indicated in section for disclosing interior structure. Fig. 2 is a vertical section therethrough taken on the plane indicated by line 2—2 of Fig. 1. Fig. 3 is a vertical section taken on plane indicated by line 3—3 of Fig. 2. Fig. 4 is a detail section through one of the hubs of the cylinder detached and shown on an enlarged scale. Fig. 5 is an enlarged detail elevation of one of the members of said hubs. Fig. 6 is a similar view of the other member of the hub. Fig. 7 is a sectional view showing the construction of a hub. Fig. 8 is a detail perspective view of a fragmentary section of one of the spacing and retaining stops. Fig. 9 is a detail perspective view in a modified form of the boiling chamber.

Referring to the drawings, 1 indicates a receptacle provided with a removable closure 2, which together constitutes an inclosing boiler. A shaft 3 is journaled in the casing 1 and has one of its ends extending beyond the same and provided with an operating crank 4 or other suitable operating means. To the ends of the shaft 3 within the casing 1 are fixed hubs 5—5 of cylinder 6. Each of the hubs 5 is an exact duplicate of the other except that it is reversed, and only one need therefore, be disclosed in detail. Each hub 5 consists of disks 7 and 8, disk 7 being provided with radial grooves 9—9, and disk 8 being provided with corresponding apertures 10 disposed at the inner terminus of the grooves 9 when the parts are assembled.

The cylinder 6 is made up chiefly of U shaped or yoke shaped rods or wires 11, each having its ends extending into the hubs 5. Each end of each rod 11, when the parts are assembled, lies in one of the grooves 9 and is formed at the extreme end with a bent portion projecting into the corresponding aperture 10. The two disks 7 and 8 are firmly secured together as by bolts 12—12, and thus the several yoke shaped rods or wires 11 are firmly and rigidly held in position, and, as the grooves 9 are disposed radially, the said wires will naturally assume positions spaced apart about the periphery of the cylinder 6. However, to avoid the possibility of displacement of rods or wires 11, I stiffen or strengthen the same by employing at or near each end of the cylinder 6, a retaining band or strip 13. Each band 13, as seen in Fig. 8 is formed with interlocking stamped out portions corresponding in number to the number of rods 11, each rod being adapted to be laced through its respective stamped out portions. Each of the stamped out portions consisting of an arched or curved portion 14 extending outwardly and a similarly arched or curved portion 15, extending inwardly. The two curved portions are in line transversely of the strip 13 and extend, preferably, for one-half the width of the strip, so that an opening is produced in the contiguous ends of the portions 14 and 15, said portions being stamped into approximately a semi-circle for fitting snugly the particular rod 11 which is passed through the said opening. Obviously, if a differently shaped rod from cylindrical is employed the stamped out portions 14 and 15 will be correspondingly stamped.

In Fig. 2 is shown the arrangement of stamped out portions 14 and 15 which are preferably arranged so that they appear alternately on the rods 6, thereby securely holding the strips 13 in position upon the yoke shaped rods.

The U-shaped or yoke-shaped rods may be inserted in the holding strips 13 before being

bent, and thereafter bent into position. The parts may then be assembled, the sides of the yoke-shaped rods in the radial grooves and with the transversely bent ends extending outwardly. The disk 8, being then placed against disk 7, the bent ends of the rods register with the apertures 10 and the bolts 12, being applied, the hub holds the rods securely in place.

The lid section is provided for access to the interior of the cylinder, by cutting a section (as shown at Fig. 1) off from the cylinder and attaching strips 16, and 17 to the severed portions, or in any other way that may be desired. The lid is preferably hinged as at 18, 18 to the body of the cylinder and fastened by a catch 19.

Beneath the cylinder 6 is disposed a boiler casing or chamber 20 whose upper surface is preferably inclined to a central point. Rising from the chamber 20 at the opposite ends thereof are the discharge ducts 21, each of which is formed with discharge tubes 22—22 directing the steam and hot water toward the central portion of the cylinder 6. It is to be noted that the outer discharge tubes 22 diverge with respect to each other for producing a greater distribution of the discharging fluid. The chamber 20 is of slightly less width than the width of the casing 1 so that the fluid dropping through the cylinder 6 may pass about the sides of the chamber 20 and enter the chamber through the apertures 23—23 in the sides thereof. The receptacle 20 is imperforate centrally of its top so as to avoid the usual objectionable loss of pressure by the boiling up of the water in the center. The receptacle 20 may be made integral throughout its length as indicated in Fig. 3 or may be made in two sections, fitted snugly together as indicated in Fig. 9.

In operation, the clothes to be washed are inserted in the cylinder 6 and the closure 2 is placed in position, the water and suds having already been supplied. The shaft 3 is slowly revolved while the heat of the water within the receptacle 20 causes the steam and suds to be discharged through the discharge tubes 22 and into the clothes being washed. A continuous revolving of the cylinder for exposing various portions of the clothes to the play of the discharging fluids effects the desired cleansing. As soon as the clothes are thoroughly cleansed, the closure 2 is removed, and the hinged portion of the cylinder 6 carried by the band 17 is swung back upon its hinges and the clothes removed.

I claim:—

1. In a washing machine cylinder, the combination with a pair of hubs, of yoke shaped rods carried thereby and extending radially therefrom, and a spacing band extending about the outer portions of said rods, said band comprising a strip formed with adjacent, inwardly and outwardly stamped portions between which said rods are placed.

2. In a washing machine, the combination with a pair of hubs, of yoke-shaped rods carried thereby, and extending radially therefrom, and a spacing band extending about the outer portions of the rods, said band comprising a strip formed with adjacent, inwardly and outwardly stamped portions, between which said rods are placed, and a hinged lid section removable for opening the cylinder.

3. A washing machine comprising a suds box, a shaft rotatably mounted on the said box, hubs fixed upon the shaft, and a skeleton clothes containing drum comprised of rods bent to yoke form and secured at their extremities to the hubs, and a retaining member in the form of an annular strip, formed at equi-distant points with stamped up portions through which the connecting portions of the rods are passed.

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

TUDOR C. JOSSELYN.

Witnesses:
H. C. Johnson,
Le Roy Fleck.