

No. 774,363.

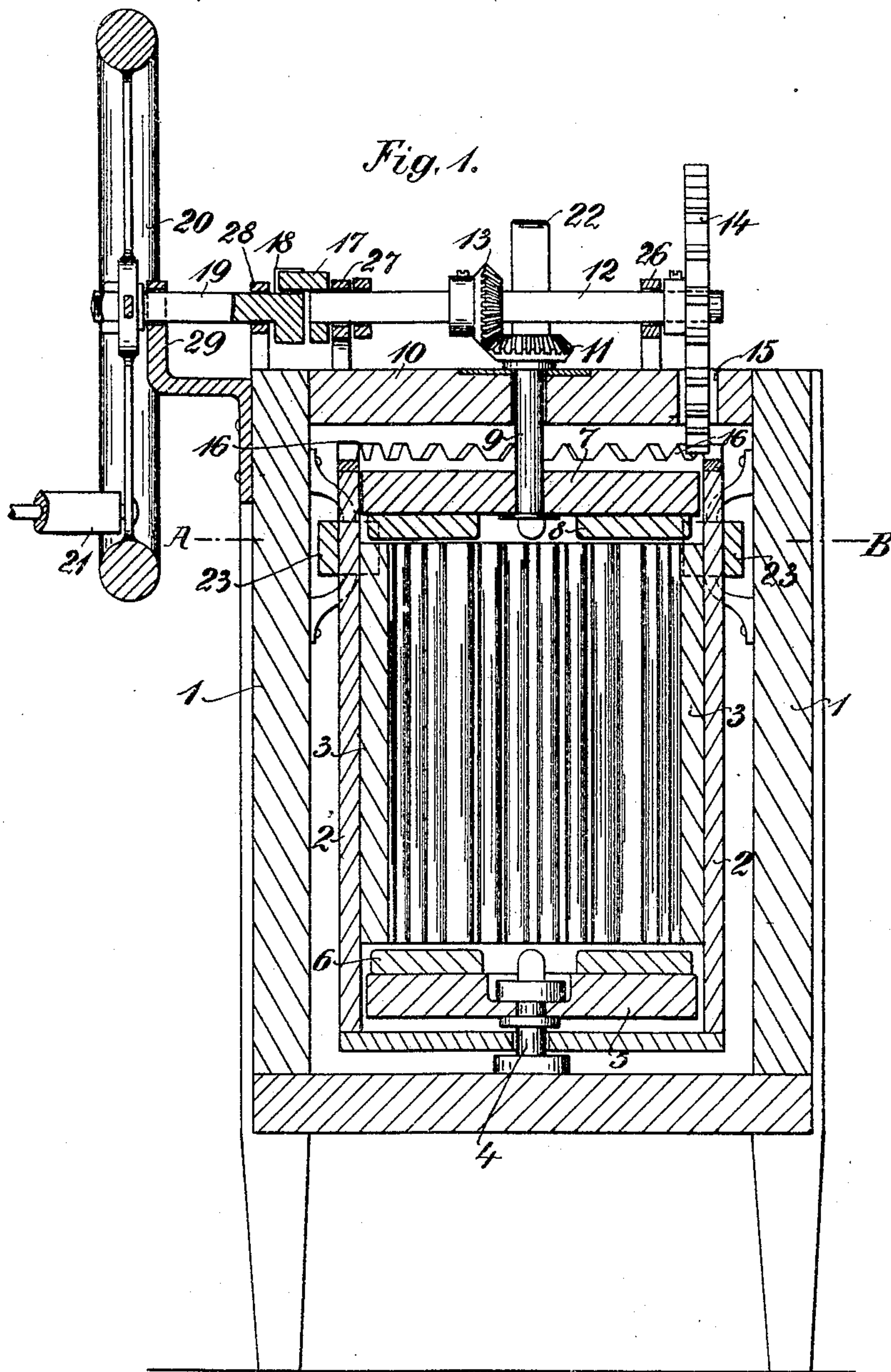
PATENTED NOV. 8, 1904.

R. NEUGEBOREN.  
WASHING MACHINE.

APPLICATION FILED SEPT. 21, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses  
Wily Bünke  
Konrad Müller

Inventor  
Rudolf Neugeboren.

No. 774,363.

PATENTED NOV. 8, 1904.

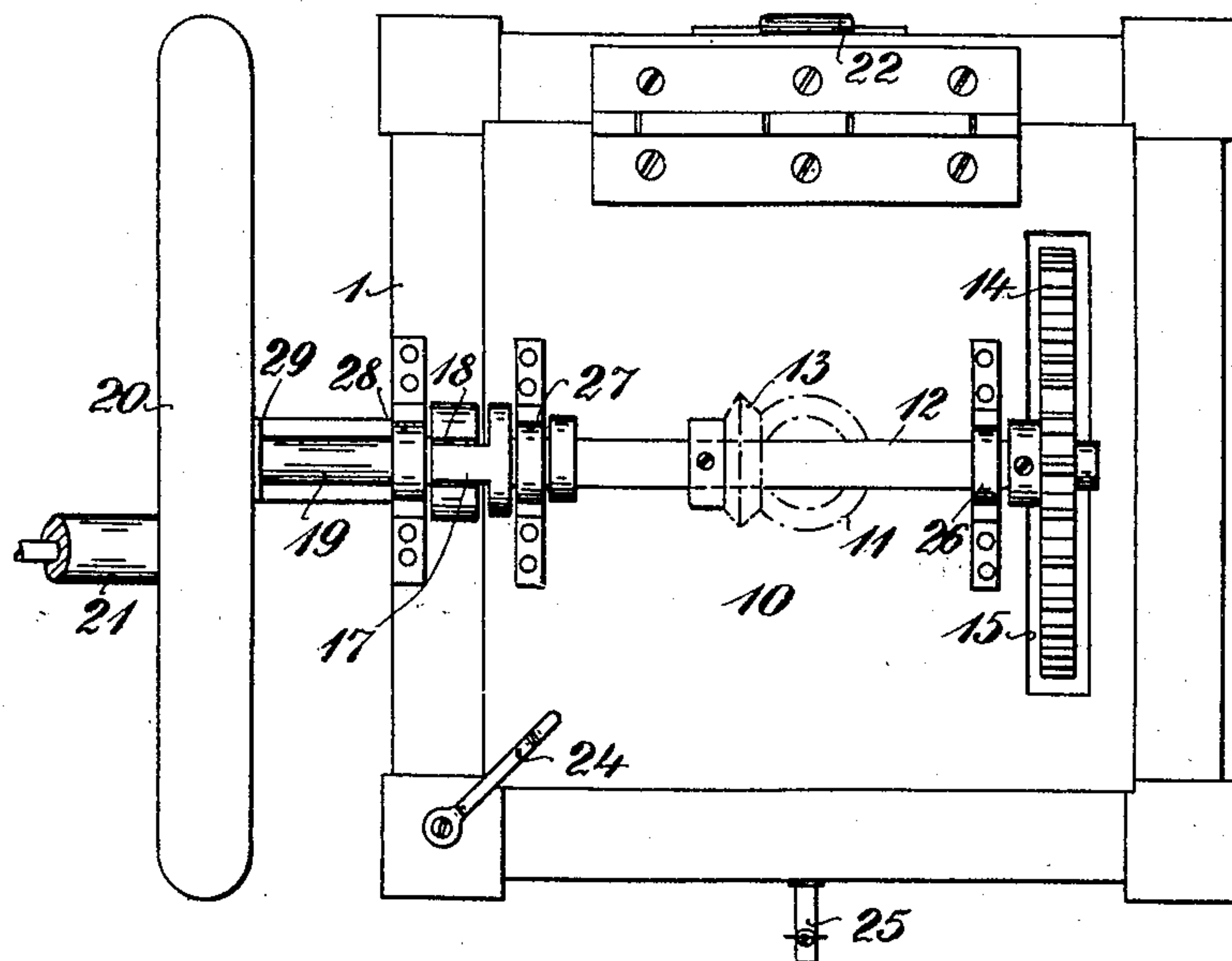
R. NEUGEBOREN.  
WASHING MACHINE.

APPLICATION FILED SEPT. 21, 1903.

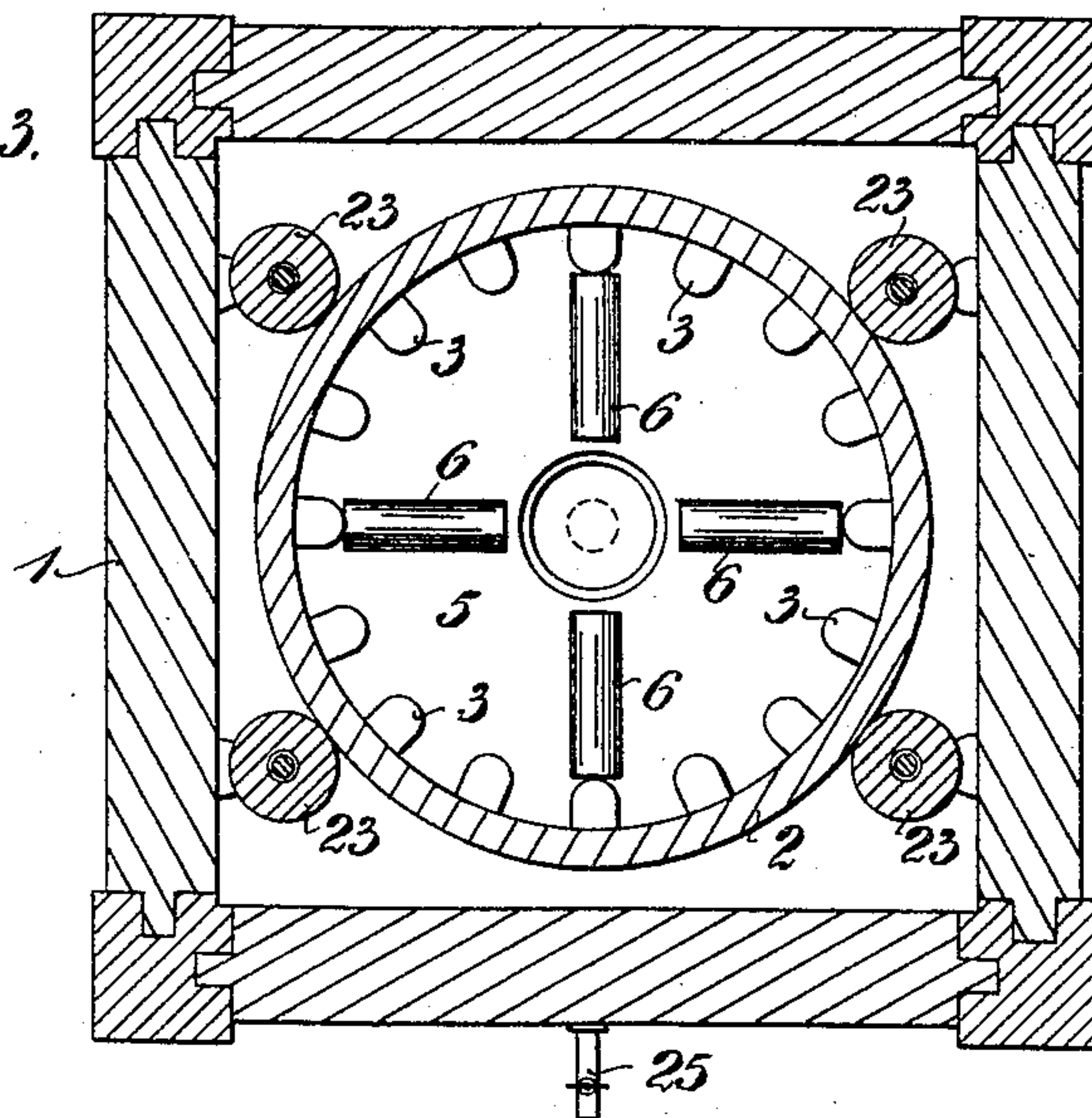
NO MODEL.

2 SHEETS—SHEET 2.

*Fig. 2.*



*Fig. 3.*



Witnesses

*Kelly Gierke*  
*Konrad Müller*

Inventor

*Rudolf Neugeboren.*



# UNITED STATES PATENT OFFICE.

RUDOLF NEUGEBORN, OF ANNABURG, GERMANY.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 774,363, dated November 8, 1904.

Application filed September 21, 1903. Serial No. 174,073. (No model.)

*To all whom it may concern:*

Be it known that I, RUDOLF NEUGEBORN, royal engine-shop foreman, a subject of the German Emperor, residing at 218 Torgauerstrasse, in the town of Annaburg, district of Halle-on-the-Saale, Kingdom of Prussia, German Empire, have invented a certain new and useful Washing-Machine with Rotatable Washing-Drum, of which the following is a specification.

This invention has reference to a washing-machine.

In the drawings, Figure 1 is a vertical section. Fig. 2 is a top view. Fig. 3 is a section on the line A B of Fig. 1.

1 is the water-tub of the machine, which is preferably made of wood and is provided with a water-tight inner lining of zinc.

2 is the washing-drum, which is provided with wooden ribs 3 in its interior and is free to rotate on the pivot 4, which is rigidly attached to the bottom of the tub 1. In the lower part of the washing-drum is a stationary rubber 5, which is rigidly secured to the pivot 4, the said rubber 5 being also lined with ribs, as at 6. The said rubber 5 is secured to the pivot 4 at a certain distance from the bottom of the washing-drum 2, which is also kept at a distance from the bottom of the tub 1 by a suitable washer secured to the lower end of the pivot 4. The opening in the bottom of the drum 2 is of larger diameter than the pivot 4, so as to form an annular slot around the said pivot, thus establishing communication between the contents of the tub 1 and of the washing-drum. The rubber 5 is so arranged and constructed as to leave a space between its outer rim and the inner wall of the drum 2, so as to allow free circulation of the water into and throughout the interior of the said drum. At the open end of the washing-drum a rubber 7 is provided with ribs 8 and is secured to the pivot 9, which enters in a hole of the cover 10 of the machine, so as to be freely rotatable therein. At the upper end of the pivot 9 is secured the gear-wheel 11, which engages with the gear-wheel 13, secured to the shaft 12, upon which is also mounted the pinion 14, which projects through

the cut-out portion 15 of the cover 10 and engages with the circular rack 16 of the washing-drum 2. Upon the shaft 12 is also secured the lug 17, which in the operative position of the machine engages with the groove 18 of the driving-shaft 19 of the machine to which the crank-wheel 20 is secured, the crank portion 21 of which is preferably made of sufficient weight to cause the part 21 to be always directed downward. To this position of the part 21 corresponds the position of the groove 18, which is shown in *g*, Fig. 2 of the drawings, so that in this position the opening and closing of the cover 10 can be effected without difficulty. 22 is a stop-piece which in the open position of the cover prevents it from dropping over to the rear.

23 represents rollers which are preferably arranged in the four corners of the tub 1, so as to serve for securely guiding the upper end of the washing-drum during its rotation.

24 is a latch which prevents accidental opening of the cover 10, Fig. 2.

25 is a faucet for allowing the water to escape from the tub 1.

26, 27, 28, and 29 are supports for the shafts 12 and 19.

The machine operates as follows: The tub 1 is first filled with water up to within about two-thirds of its capacity, the water also entering into the interior of the washing-drum 2 through the annular slot between the parts 2 and 5 and through the opening in the bottom of the drum 2. Then the cover 10 of the machine is closed, so as to make the lug 17 of the shaft 12 engage with the groove 18 of the shaft 19, the shafts 12 and 19 being thereby coupled together. If the crank 21 is rotated, the bevel gear-wheels 11 and 13 will cause the rotation of the upper rubber 7 of the washing-drum in one direction, while at the same time the washing-drum 2 itself is rotated in the opposite direction by means of the toothed wheels 14 and 16, so that the linen contained in the drum is washed in the most efficient manner and does not need to be finished by a subsequent washing operation.

I do not claim in this specification specifically the combination, with a stationary rub-

ber beneath the clothes, of a rotary rubber at the top of the clothes, as such devices are known; but

What I claim, and desire to secure by Letters Patent of the United States, is—

1. A washing-machine, comprising a tub, and a rotatable washing-drum in the interior of said tub, a stationary rubber in the bottom thereof, an upper rubber and means to rotate the washing-drum in one direction and means to rotate the upper rubber simultaneously in the opposite direction.

2. In a washing-machine the combination with a washing-tub and a revoluble rubber in the upper part and a stationary rubber in the lower part of the said washing-tub, of an intermediate open-headed, rotatable washing-drum incasing said rubbers, a pivot in the bottom of the said tub and upon which the said washing-drum turns, the bottom of the said drum being slotted near the pivot and being arranged below the lower rubber, and means arranged on the cover of the washing-

tub, for rotating the rotary drum and the rotary rubber in opposite directions.

3. A washing-machine, comprising in combination, a tub, a rotatable washing-drum at the interior of the tub, operating means for said drum, a driving-shaft 19 and a crank at the end of said shaft, a secondary driving-shaft 12, for said drum a lug 17 on said secondary driving-shaft 12, a grooved part 18 on said driving-shaft 19, the weight of the crank being distributed in such a manner that, when the machine is in the inoperative position, the said grooved part is always upwardly directed, so as to allow of the cover 10 of the machine being opened and closed without difficulty when the machine is not working.

In witness whereof I have hereunto set my hand in presence of witnesses.

RUDOLF NEUGEBOREN.

Witnesses:

WILLY RENKE,  
KONRAD MÜLLER,  
B. H. WARNER, Jr.