June 19, 1923. 1,459,607

M. WAGNER

WASHING MACHINE

Filed Feb. 14, 1922 3 Sheets-Sheet 1

Fig. 1.

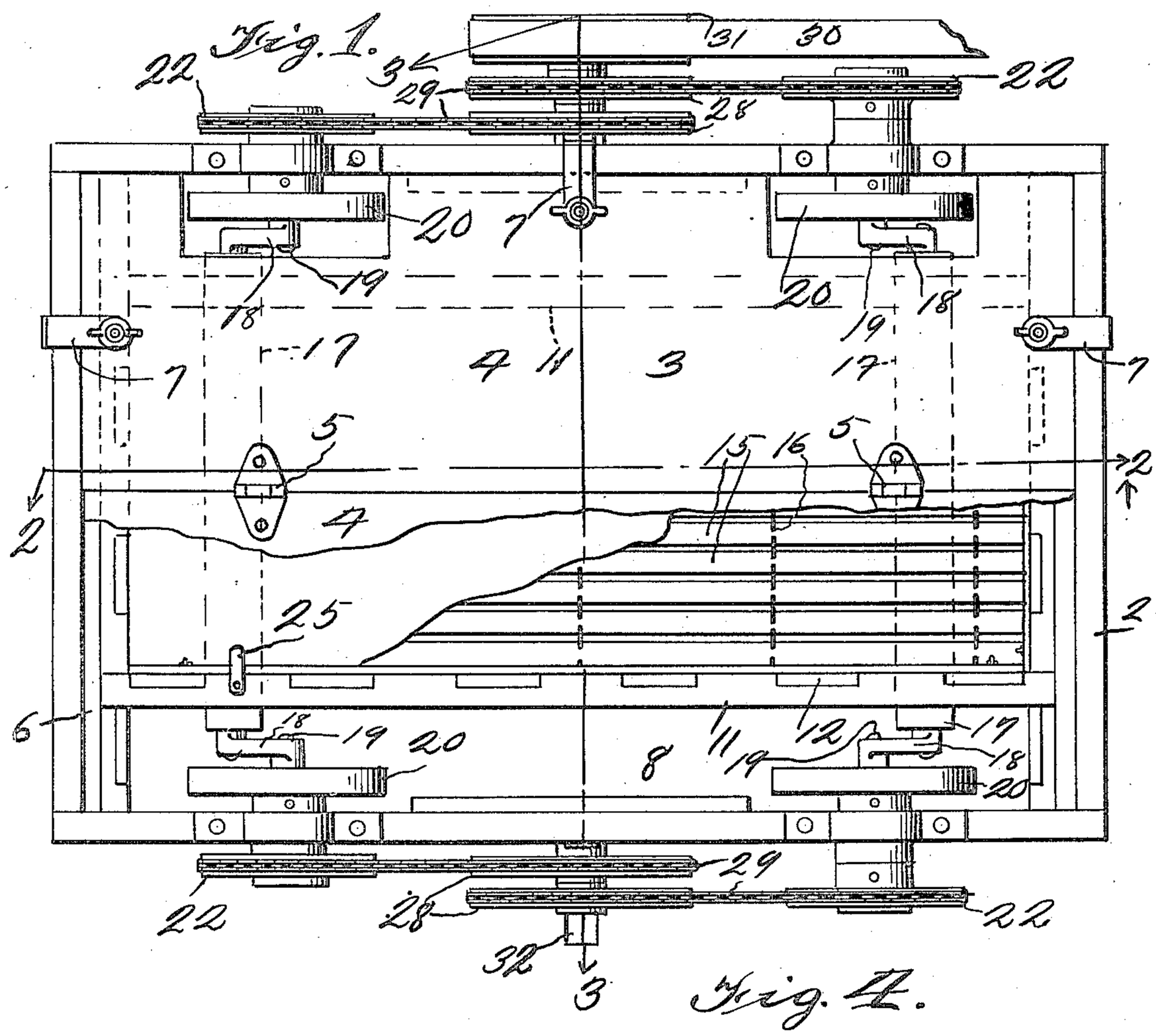

Fig. 4.

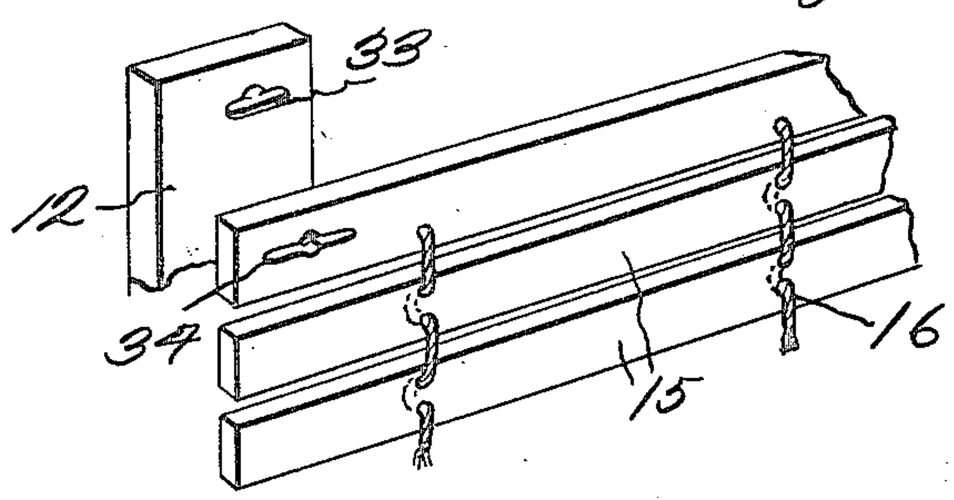

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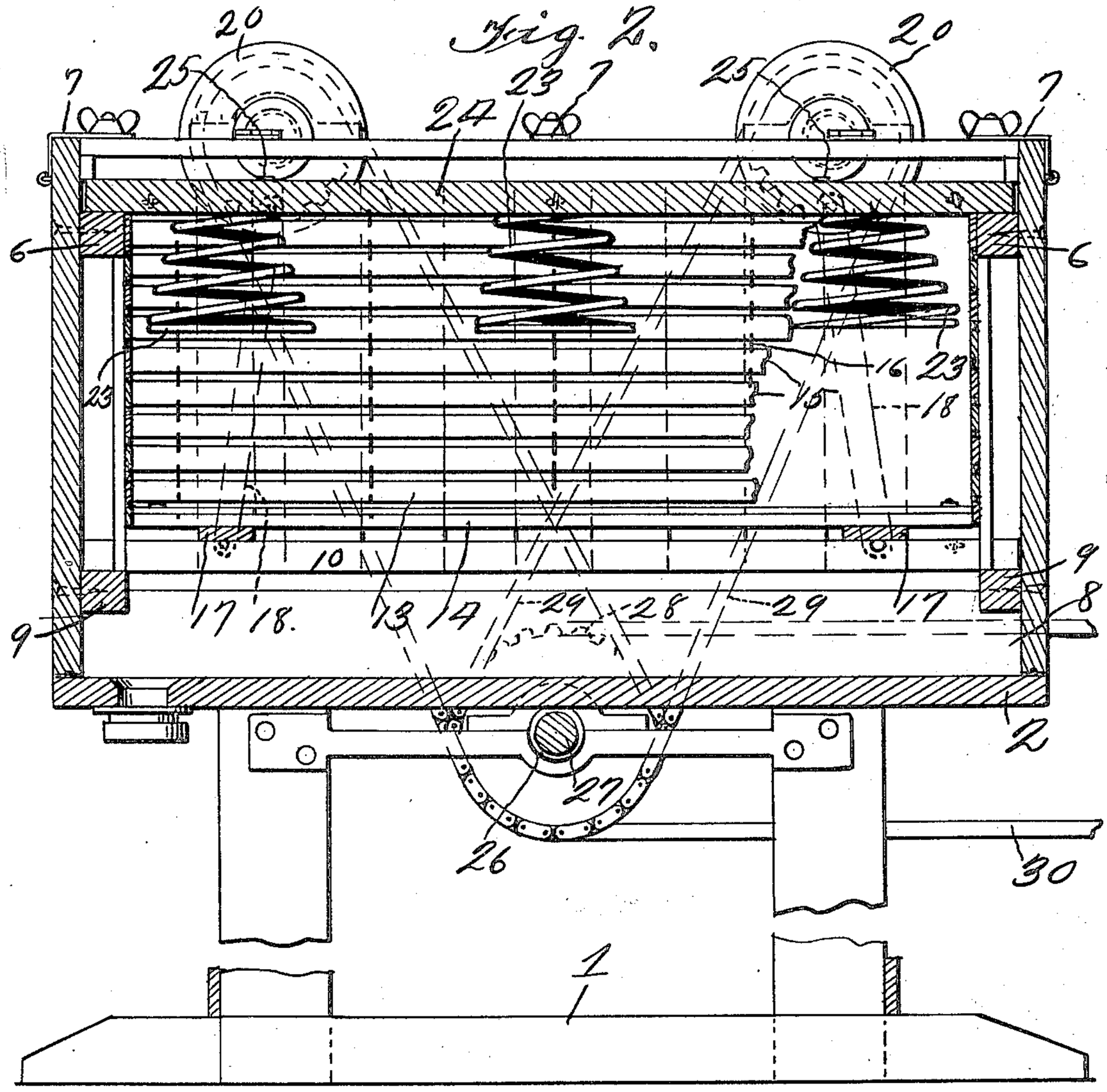
Fig. 2.



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WASHING MACHINE

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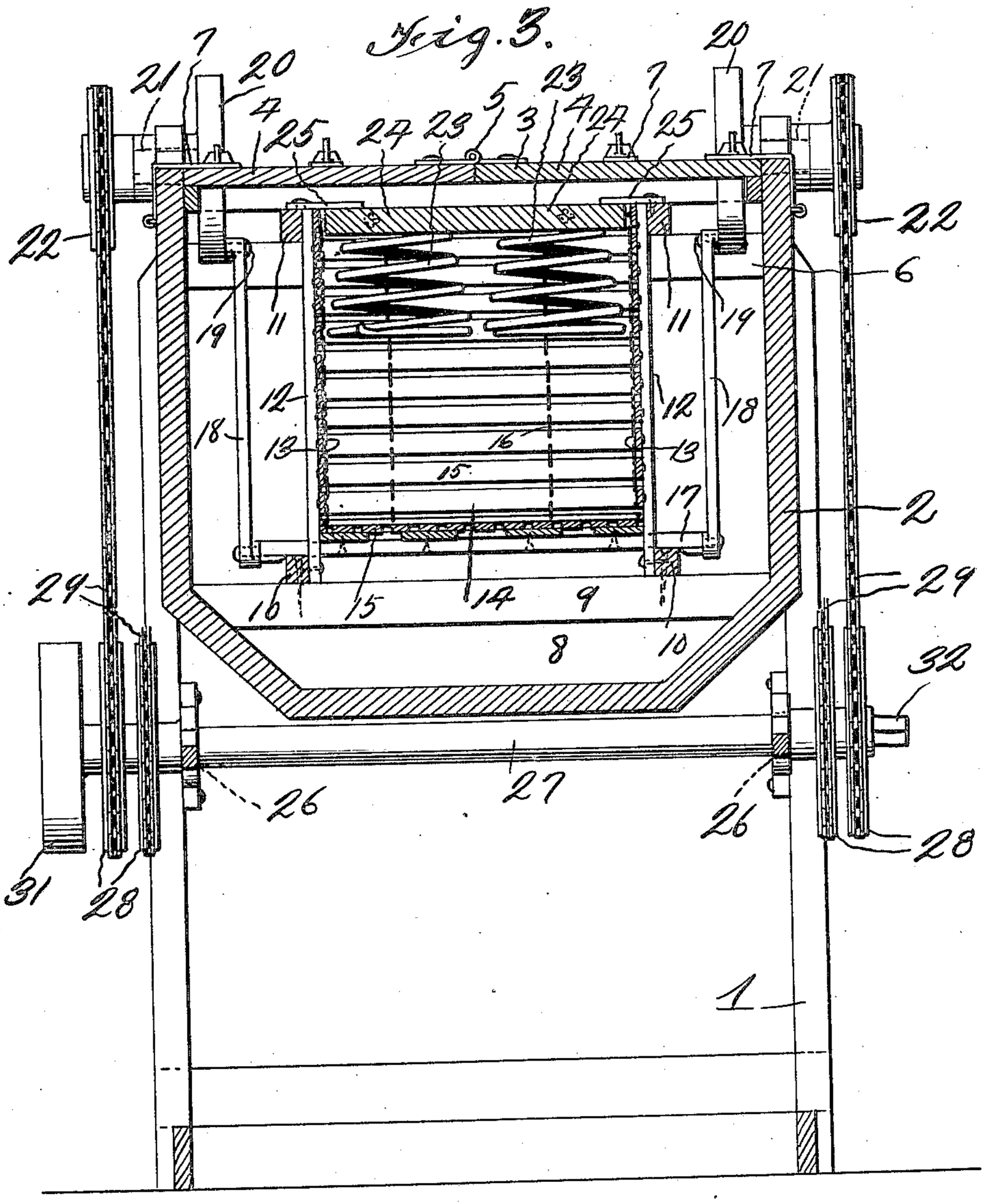
Fig. 3.



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Patented June 19, 1923. 1,459,607

UNITED STATES PATENT OFFICE.

MARTIN WAGNER, OF ARGUSVILLE, NORTH DAKOTA.

WASHING MACHINE.

Application filed February 14, 1922. Serial No. 536,476.

To all whom it may concern:

Be it known that I, MARTIN WAGNER, a citizen of the United States, residing at Argusville, in the county of Cass, State of North Dakota, have invented a new and useful Washing Machine; 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.

The invention relates to washing machines and has for its object to provide a device of this character comprising a water receiving receptacle, said receptacle having disposed therein a collapsible clothes receiving receptacle, and to provide crank and connecting rod means whereby said collapsible receptacle may be intermittently collapsed for imparting a squeezing action upon the goods within the receptacle. Also to provide a rigid cover for the collapsible receptacle, said rigid cover being provided with a plurality of downwardly extending helical springs, against which springs the clothing is forced during a collapsible operation of the collapsible receptacle.

A further object is to provide a collapsible receptacle for the reception of clothes, said receptacle being formed from a plurality of slats held together by pliable members thereby allowing the slats to be collapsed and to provide vertically disposed guide members for guiding the slats in their upward and downward movement during a collapsing operation.

A further object is to provide operating means for collapsing the collapsible receptacle, said means comprising connecting rods pivoted to the lower end of the receptacle at opposite sides thereof, said connecting rods having their upper ends pivotally connected to wrist pins and carried by rotatable shafts. The outer end of the rotatable shafts is provided with sprockets. said sprockets having extending around them and around the sprockets carried by a main drive shaft sprocket chains. The main drive shaft is adapted to be rotated manually or through the medium of power belted thereto.

With the above and other objects in view the invention resides in the combination and arrangement of parts as hereinafter set forth, shown in the drawings, described and claimed, it being understood that changes in the precise embodiment of the invention may be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings:—

Figure 1 is a top plan view of the washing machine, part being broken away to show the interior structure.

Figure 2 is a vertical longitudinal sectional view taken on line 2—2 of Figure 1.

Figure 3 is a vertical transverse sectional view taken on line 3—3 of Figure 1.

Figure 4 is a detail perspective view of portions of the adjacent slats of the collapsible receptacle, showing the method of supporting the upper end of the receptacle.

Referring to the drawings, the numeral 1 designates a base for supporting the main washing machine receptacle 2, which receptacle may be of any shape, round, square or oblong, however for purposes of illustration the same is shown oblong shaped. The receptacle 2 is provided with a cover 3 formed from hinged sections 4, which are hingedly connected together at 5. Cover 3 rests on cleats 6 and is held in place by means of hinged members 7 whereby access may be had to the interior of the receptacle 2 for placing clothing in the machine.

Disposed within the chamber 8 of the receptacle 2 are transversely disposed cleats 9, which cleats are in the same horizontal plane and have disposed thereon longitudinally disposed bars 10, said bars having their ends secured to cleats 9, and secured to said bars 10 and to transversely disposed bars 11 and connecting the bars 10 and 11 together are vertically disposed guide bars. The guide bars 12 prevent outward bulging of the sides 13 of the collapsible receptacle 14 during a clothes squeezing operation, at which time the receptacle 4 is collapsed. Receptacle 14 is formed from a plurality of slats 15 which are connected together by flexible members 16. Flexible members 16 allow the collapsible receptacle to be collapsed when the transversely disposed bars 17 are forced upwardly by upward pulls imparted on the connecting rods 18. The upper ends of the connecting rods 18 are pivotally connected at 19 to wrist pins carried by discs 20. Discs 20 are carried by shafts 21 on the outer ends of which sprockets 22 are secured. It will be seen that when the collapsible receptacle is full of clothing and the discs 20 are rotated that there will be an intermit-

tent collapsing and extending of the collapsible receptacle 14 thereby squeezing the clothing and expelling the water and dirt therefrom. During this operation it is essential to have resilient means against which the clothing is forced or otherwise the collapsible receptacle if too full of clothing would not collapse sufficiently to allow rotation of the discs 20. To overcome this difficulty helical springs 23 are provided, which helical springs are carried by the removable cover 24, which normally closes the upper end of the collapsible receptacle and is held closed by pivoted members 25.

Rotatably mounted in bearings 26 of the base 1 is a centrally and transversely disposed drive shaft 27, the ends of which are provided with sprockets 28, and around said sprockets and around the sprockets 22, upwardly extending sprocket chains 29 pass. It will be seen that when the drive shaft 27 is rotated that the disc 20 will be simultaneously rotated in such a manner that the collapsible receptacle 14 will be collapsed upwardly and that as the discs 20 continue to rotate the collapsible receptacle will be allowed to expand under the influence of the clothing and also under the influence of the downward movement of the bar 17. Shaft 27 may be driven from an electric motor or any other source of power through the medium of a belt 30, which belt extends around a pulley 31. If so desired a handle member may be placed on the rectangular shaped portion 32 of the shaft 27, thereby allowing the shaft to be rotated manually if so desired.

From the above it will be seen that a washing machine is provided wherein a collapsible receptacle is utilized and the parts reduced to a minimum thereby allowing the machine to be cheaply manufactured.

The upper end of the collapsible receptacle 14 may be secured in any suitable manner to the upper ends of the guide bars 12, however for purposes of illustration the upper ends of the guide bars 12 are provided with pivoted T-shaped members 33 which pass through elongated apertures in the upper slats 15, said apertures being designated by the numeral 34.

The invention having been set forth what is claimed as new and useful is:—

1. A washing machine comprising a main receptacle and an auxiliary receptacle for the reception of articles to be washed, said auxiliary receptacle being formed from a plurality of members, said plurality of members being connected together by pliable members, means for intermittently collapsing and extending said collapsible receptacle, a removable cover carried by the auxiliary receptacle and spiral springs carried by said auxiliary receptacle cover and extending down into the upper end of the auxiliary receptacle.

2. A washing machine comprising a main receptacle and an auxiliary receptacle for the reception of articles to be washed, said auxiliary receptacle being formed from a plurality of members, said plurality of members being connected together by pliable members thereby allowing the receptacle to be collapsed, shafts on the main receptacle, a crank on each shaft, connecting rods connected to the lower end of said auxiliary receptacle, the upper ends of said connecting rods being pivotally connected to said cranks, sprockets carried by said shafts, a main drive shaft disposed below the main receptacle, said drive shaft being provided with sprockets, sprocket chains extending around said last named sprockets and around the first named sprockets carried by the crank shafts, and means whereby the main drive shaft may be rotated.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MARTIN WAGNER.

Witnesses:
C. B. Vogen,
Geo. G. Kent.