R. W. PADDEN.

GEARING.

APPLICATION FILED JULY 23, 1907.

971,633.

Patented Oct. 4, 1910.

3 SHEETS—SHEET 1.

Fig 2

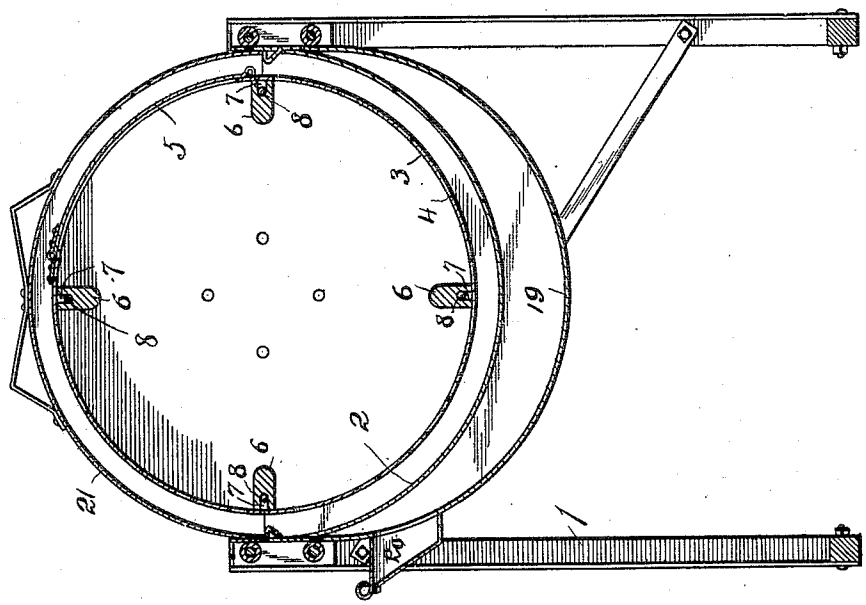
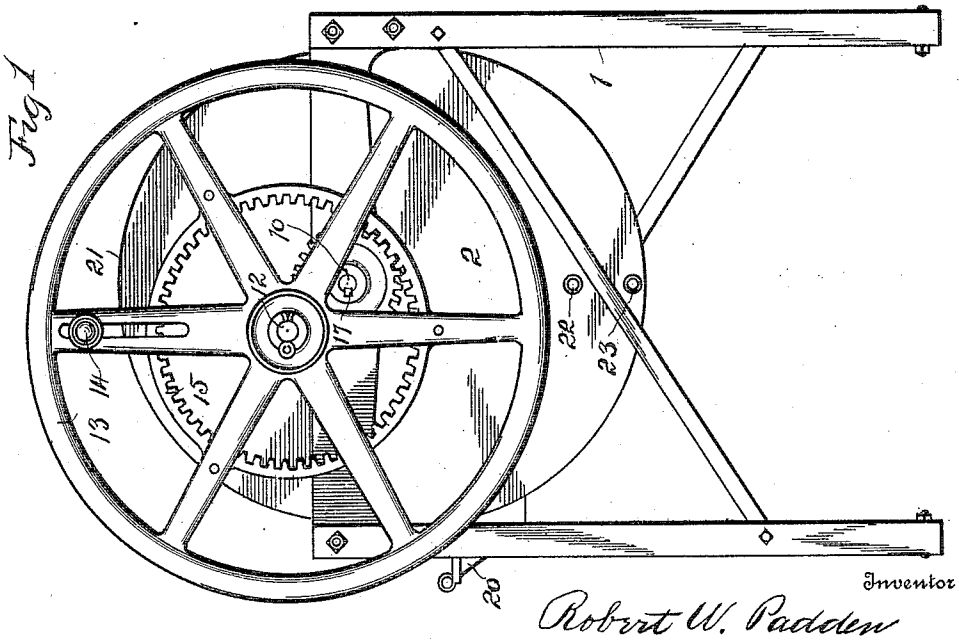


Fig 1



Witnesses

R. E. Hamilton.

W. C. Singles

Inventor

Robert W. Padden

By Warren D. House

His Attorney

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3 SHEETS—SHEET 2.

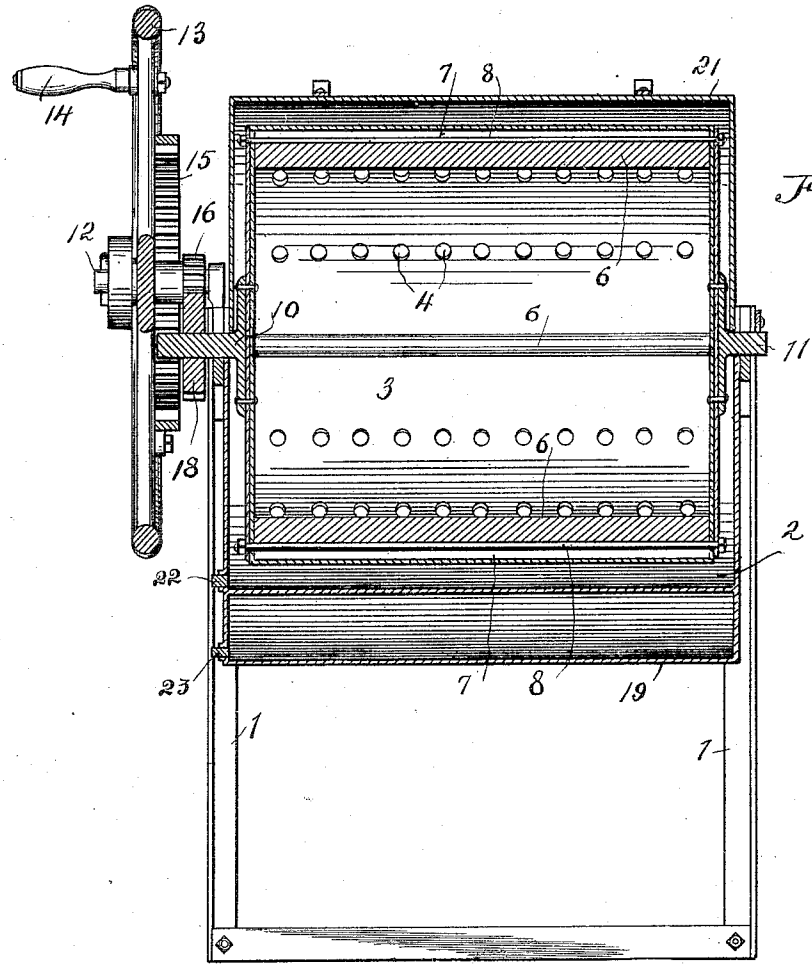

Fig 3

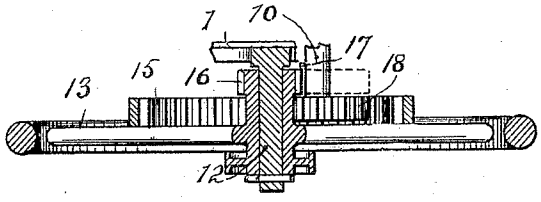

Fig 4

Witnesses

R. C. Hamilton.

W. A. Singler.

Inventor

Robert W. Padden

By Warren D. House

His Attorney

R. W. PADDEN.

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3 SHEETS—SHEET 3.

Fig 5

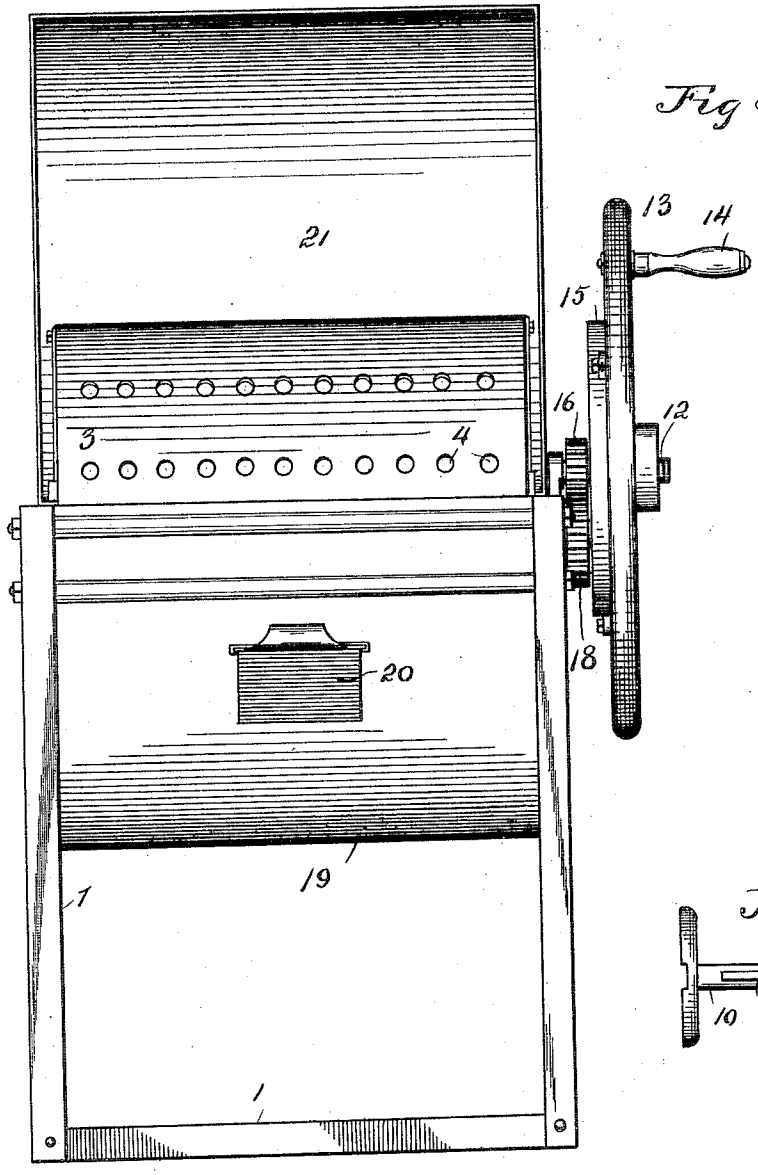

Fig 6

Witnesses
R. C. Hamilton
W. C. Singles

Inventor
Robert W. Padden
By Warren D. House
His Attorney

UNITED STATES PATENT OFFICE.

ROBERT W. PADDEN, OF KANSAS CITY, MISSOURI, ASSIGNOR TO MARION A. DE VASHER, OF KANSAS CITY, MISSOURI.

GEARING.

971,633. Specification of Letters Patent. Patented Oct. 4, 1910.

Application filed July 23, 1907. Serial No. 385,190.

To all whom it may concern:

Be it known that I, ROBERT W. PADDEN, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Gearing, of which the following is a specification.

My invention relates to improvements in a combined clothes washer and drier.

The object of my invention is to provide in a single machine means by which clothes may be quickly washed and dried.

In my invention the washing fluid employed is gasolene or some similar material.

My invention provides a vessel containing the washing fluid, a clothes receptacle rotatively mounted in the vessel and having one or more openings for the passage of the washing fluid, and means by which the receptacle may be rotated at two relatively different speeds for the purpose of first performing the washing at a comparatively slow speed and then drying the clothes in the receptacle by rotating the same at a high speed.

My invention provides means for heating the vessel containing the washing fluid, as gasolene or similar volatile fluid, in cold weather, becomes unbearable for the hands, and is less efficient as a cleaning agent.

The novel features of my invention are hereinafter fully described and claimed.

In the accompanying drawings illustrative of my invention, Figure 1 is an end elevation view. Fig. 2 is a vertical cross section view. Fig. 3 is a vertical longitudinal central sectional view. Fig. 4 is a horizontal central sectional view of the driving mechanism and connected parts. Fig. 5 is a side elevation view of the machine. Fig. 6 is a side elevation view of the trunnion having the movable gear normally mounted thereon, the gear being removed in this view.

Similar characters of reference denote similar parts.

1 denotes a support comprising a frame of any desired construction and supporting a hollow cylindrical vessel 2 adapted to contain the washing fluid such as gasolene, the vessel being horizontally disposed and having mounted in it a hollow cylindrical receptacle 3 adapted to contain the clothes and having one or more wall openings 4 for the passage of the washing fluid to and from the receptacle. The receptacle 3 is provided in its side with a door 5 for the insertion and removal of the clothing. On the inner periphery of the receptacle 3 are provided a plurality of longitudinal bars 6 each having on its outer edge a longitudinal groove 7. A plurality of horizontal longitudinal bars 8 are mounted respectively in the grooves 7, the ends of the bars 8 being secured to the respective ends of the receptacle. The bars 6 serve to lift up and drop the clothes when the receptacle 3 is rotated. Secured to the respective ends of the receptacle 3 are two axial trunnions 10 and 11 respectively, which trunnions extend through the ends of the vessel 2 and are rotatively mounted in suitable holes provided in the support 1. On the support 1 adjacent the trunnion 10 is secured a horizontal stud 12 on which is rotatively mounted a member comprising a wheel 13 having a crank handle 14 by which the wheel is turned. On the inner side of the wheel 13 is provided an internal gear wheel 15 concentric with and larger than a spur gear wheel 16 mounted on the inner end of the hub of the wheel 13. On the trunnion 10 and caused to rotate therewith by means of a key 17 is mounted a longitudinally slidable spur gear wheel 18 movable to positions for alternately meshing with the internal gear 15 and the spur gear wheel 16. By positioning the gear 18 as shown in Fig. 3 in mesh with the gear 16 a slower rate of speed may be imparted to the receptacle 3 when the wheel 13 is turned. To obtain the greater speed, the gear 18 is slid into engagement with the gear 15.

Embracing the under side of the vessel 2 is a casing 19 which forms with the vessel 2 a chamber for containing a heating fluid, such as water, which is poured into the chamber through an inlet 20. Hot water may be used only when the weather is cold, the function being to heat the gasolene in the vessel 2. The upper side of the vessel 2 is provided with a door 21 which permits access to the receptacle 3.

22 and 23 denote respectively two plugs for closing two holes provided one in the end and lower part of the vessel 2 and casing 19. By withdrawing the plugs, the gasolene and water may be withdrawn from the vessel 2 and chamber formed by the casing 19 respectively.

In operating my invention, the doors 21 and 5 are opened and the clothes inserted in the receptacle 3. A sufficient quantity of gasolene is then poured into the vessel 2,

after which the wheel 13 is turned by means of the handle 14, the gear 18 having first been moved on the trunnion to a position in which it will engage the gear 16. After the clothes have been washed, the plug 22 is withdrawn and the gasolene permitted to flow from the vessel 2. The gear 18 is then slipped into engagement with the gear 15 and the wheel 13 turned as before. The greater diameter of the gear 15 will drive the receptacle 3 at a greater speed than when the gear 18 is engaged with the gear 16. The rapid rotation of the receptacle 3 will cause the gasolene to be thrown by centrifugal force outwardly against the walls of the receptacle 3 through which it will pass by means of the openings 4 into the vessel 2, escaping from thence through the hole at the end thereof normally stopped by the plug 22.

To heat the gasolene and keep it heated, it is but required to pour hot water into the opening or inlet 20.

My invention may be modified in many ways without departing from its spirit.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:—

In a washing machine, the combination with a support, of a rotary element provided with two trunnions which are rotative in said support, a spur gear wheel rotative with and slidable lengthwise on one of said trunnions, a driving member rotative on said support, a pinion and an internal gear wheel carried by and rotative with said driving member, said pinion and internal gear wheel being of different diameters, and the first named gear wheel being slidable into positions in which it will alternately engage said pinion and said internal gear wheel.

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

ROBERT W. PADDEN.

Witnesses:
E. B. House,
R. E. Hamilton.