No. 756,737. PATENTED APR. 5, 1904.

# W. THORNTON.

## GEARING.

APPLICATION FILED NOV. 2, 1901.

NO MODEL.

FIG. 3.

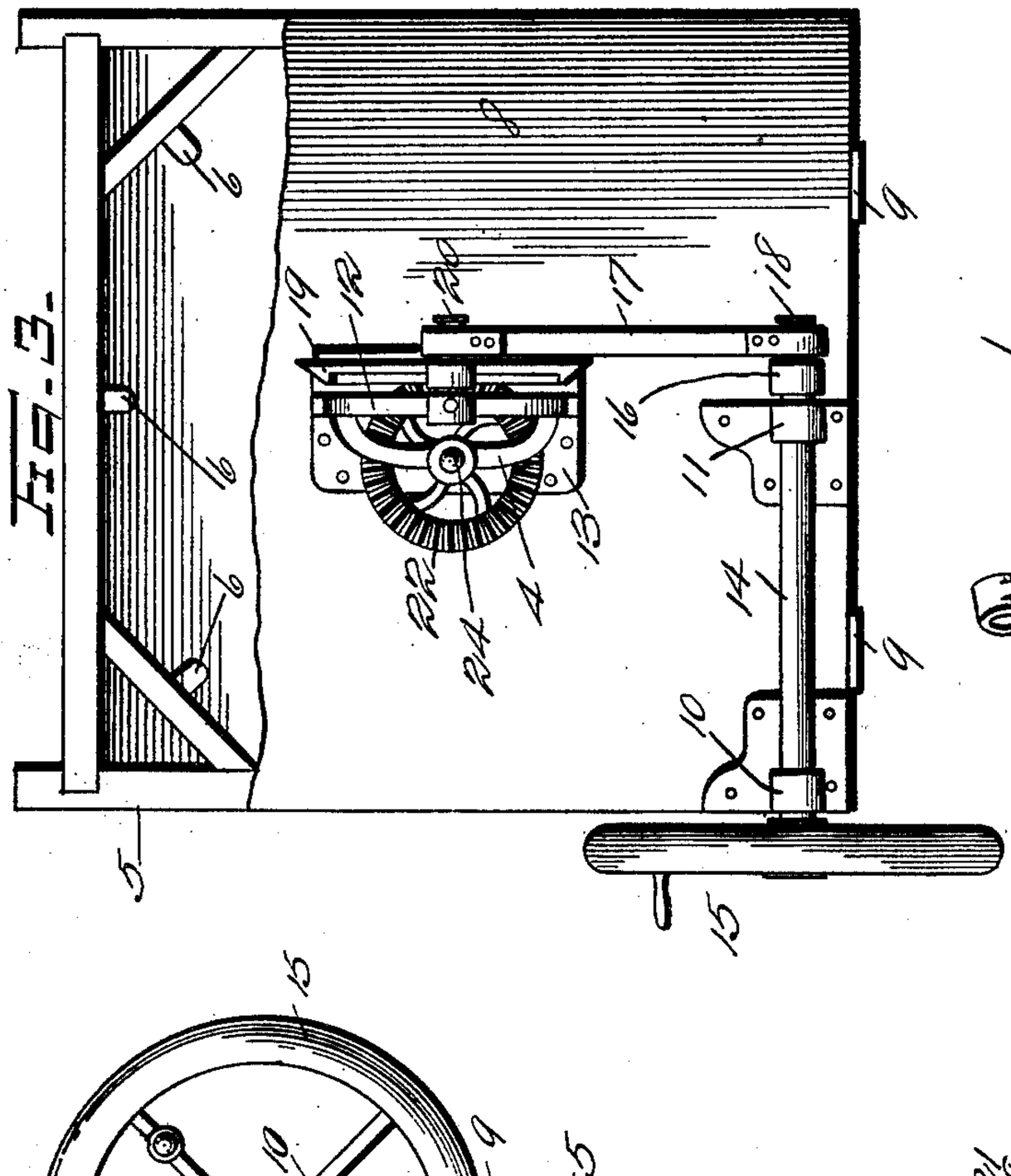


FIG. 4.

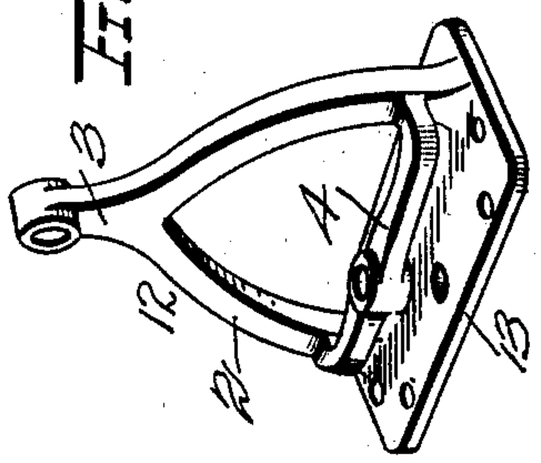


FIG. 1.

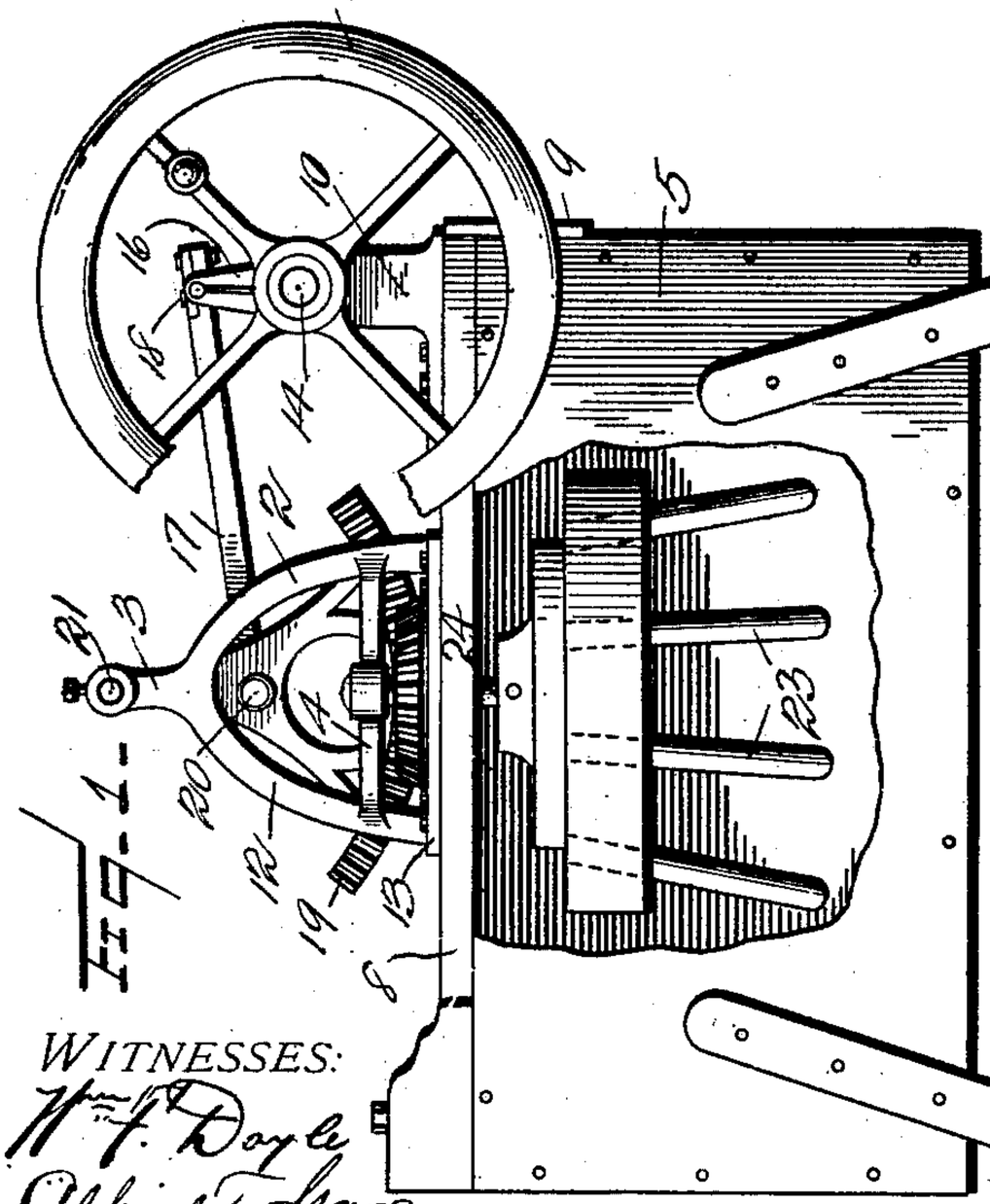
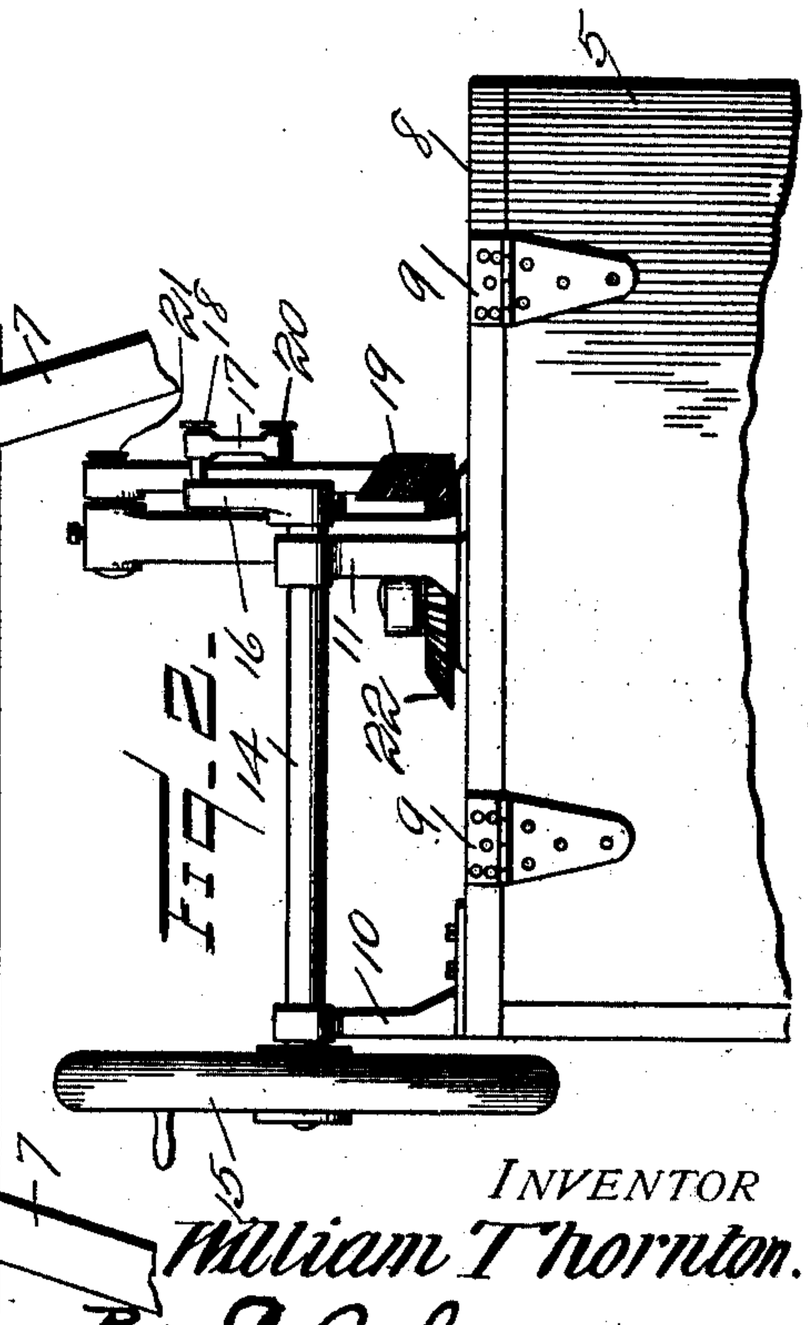


FIG. 2.



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No. 756,737. Patented April 5, 1904.

# UNITED STATES PATENT OFFICE.

WILLIAM THORNTON, OF CHATTANOOGA, TENNESSEE.

## GEARING.

SPECIFICATION forming part of Letters Patent No. 756,737, dated April 5, 1904.

Application filed November 2, 1901. Serial No. 80,875. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM THORNTON, a citizen of the United States, residing at Chattanooga, in the county of Hamilton and State of Tennessee, (post-office address No. 15 East Seventh street, Chattanooga, Tennessee,) have invented certain new and useful Improvements in Gearing; 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 a gearing, and particularly to an alternating rotary gearing adapted for use upon washing-machines.

The invention has for an object to improve the construction and arrangement of the gearing and the supporting-standard therefor, so as to retain the parts in accurate mesh in the operation of the machine and to permit the opening of the cover thereof without disarrangement of said parts.

Further objects and advantages of the invention will be hereinafter set forth and the novel features thereof defined by the appended claims.

In the drawings, Figure 1 is a side elevation of the invention applied to a washing-machine with parts broken away. Fig. 2 is a detail end elevation, and Fig. 3 is a plan with parts broken away, and Fig. 4 is a detail perspective of the standard.

Like numerals of reference refer to like parts in the several figures of the drawings.

In the present application of this invention the tub or suds-box 5 is formed of any suitable shape and may be provided with interior cleats 6 upon the several sides thereof. The tub is shown as supported by legs 7 and provided with a cover 8, extending over the entire top of the box and hinged at one side at 99. Upon this cover bearing-brackets 10 and 11 are provided to receive the crank-shaft 14, which is provided at one end with a balance-wheel 15 and at the opposite end with a crank-arm 16, secured thereto. The upright standard or support 12 is provided with a base-plate or bearing 13, from which a yoke portion 2 extends upward and is provided at its apex with an upright 3, having a bearing therein to receive the pivot-pin 21, by means of which the segmental gear 19 is mounted at the top of the standard. This gear is connected with the crank-arm by means of the pitman 17, secured to said arm at one end by a wrist-pin 18 and at the opposite end to the gear 19 by a wrist-pin 20. Extending across the yoke portion of the standard is a cross-bar 4, extended laterally from one face of the standard parallel to the base-plate and having therein a central bearing, between which and the base-plate 13 the beveled pinion 22 is disposed and pivoted thereon. This pinion is secured to the shaft 24, carrying at its lower end the agitators 23 within the tub or any other suitable device.

In the operation of the invention it will be seen that the power is transmitted from the pitman to the segmental gear between the pivot thereof and the teeth thereon, so as to secure the most desirable leverage, while the driving-shaft and bearing are mounted at the hinged side of the cover or lid, so as to dispose the weight of these parts in the most convenient position to permit the easy opening of the cover for access to the interior of the tub. It will also be apparent that the novel construction of the standard herein disclosed provides means for retaining the beveled pinion between the base-plate and the cross-bar of the standard, while the segmental gear is pivoted at the upper portion of said standard, so that all of the parts are held in a fixed relation to each other and may be placed upon the machine by an unskilled workman, while the arrangement of the standard places the axis of the pinion at one side thereof and permits the direct pivoting of the segmental gear upon the opposite face.

Having described my invention and set forth its merits, what I claim, and desire to secure by Letters Patent, is—

1. In a gearing, a standard comprising a base-plate provided with a bearing, a yoke extending vertically from said base-plate and having an integral cross-bar projected from one side of the yoke at its lower portion parallel to the base-plate and provided with a central bearing in alinement with the bearing in the base-plate, and a vertical projection from

the apex of the yoke provided with a horizontal bearing in a vertical plane parallel to the bearings in the base-plate and cross-bar.

2. In a gearing, a standard comprising a base-plate provided with a bearing, a yoke extending vertically from said base-plate and having an integral cross-bar projected from one side of the yoke at its lower portion parallel to the base-plate and provided with a central bearing in alinement with the bearing in the base-plate, a vertical projection from the apex of the yoke provided with a horizontal bearing in a vertical plane parallel to the bearings in the base-plate and cross-bar, a pinion disposed between said plate and cross-bar, a segmental gear pivoted upon the vertical projection from said yoke and meshing at its lower end with said pinion, a driving-shaft, a pitman connecting said driving-shaft to said segmental gear between its pivot and the teeth thereon.

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

WILLIAM THORNTON.

Witnesses:
D. S. ANDERSON,
J. H. ANDERSON.