

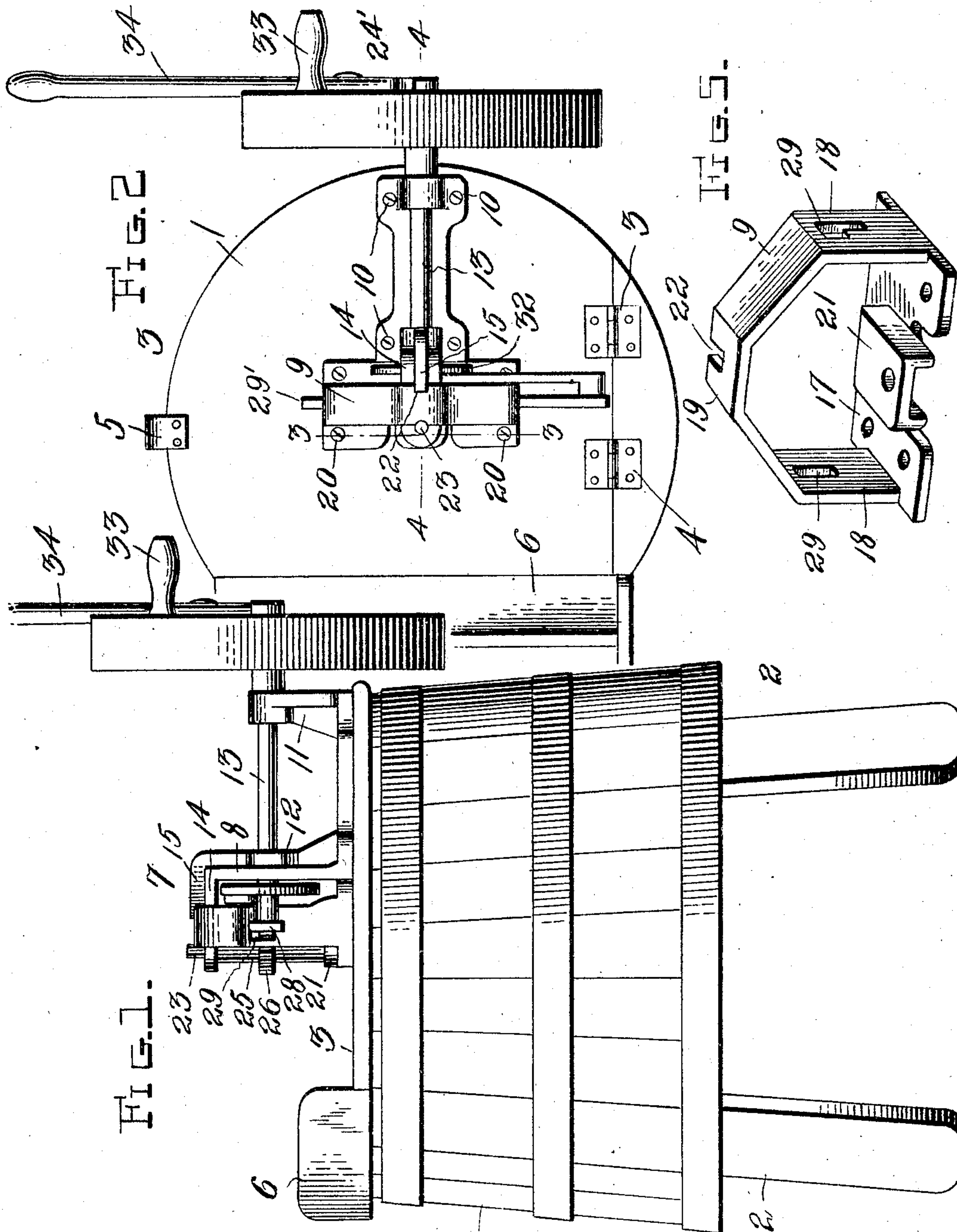
No. 795,975.

PATENTED AUG. 1, 1905.

W. A. HELL, H. E. MEISTER & H. SASS.
GEARING.

APPLICATION FILED MAR. 9, 1905.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

FIG. 3.

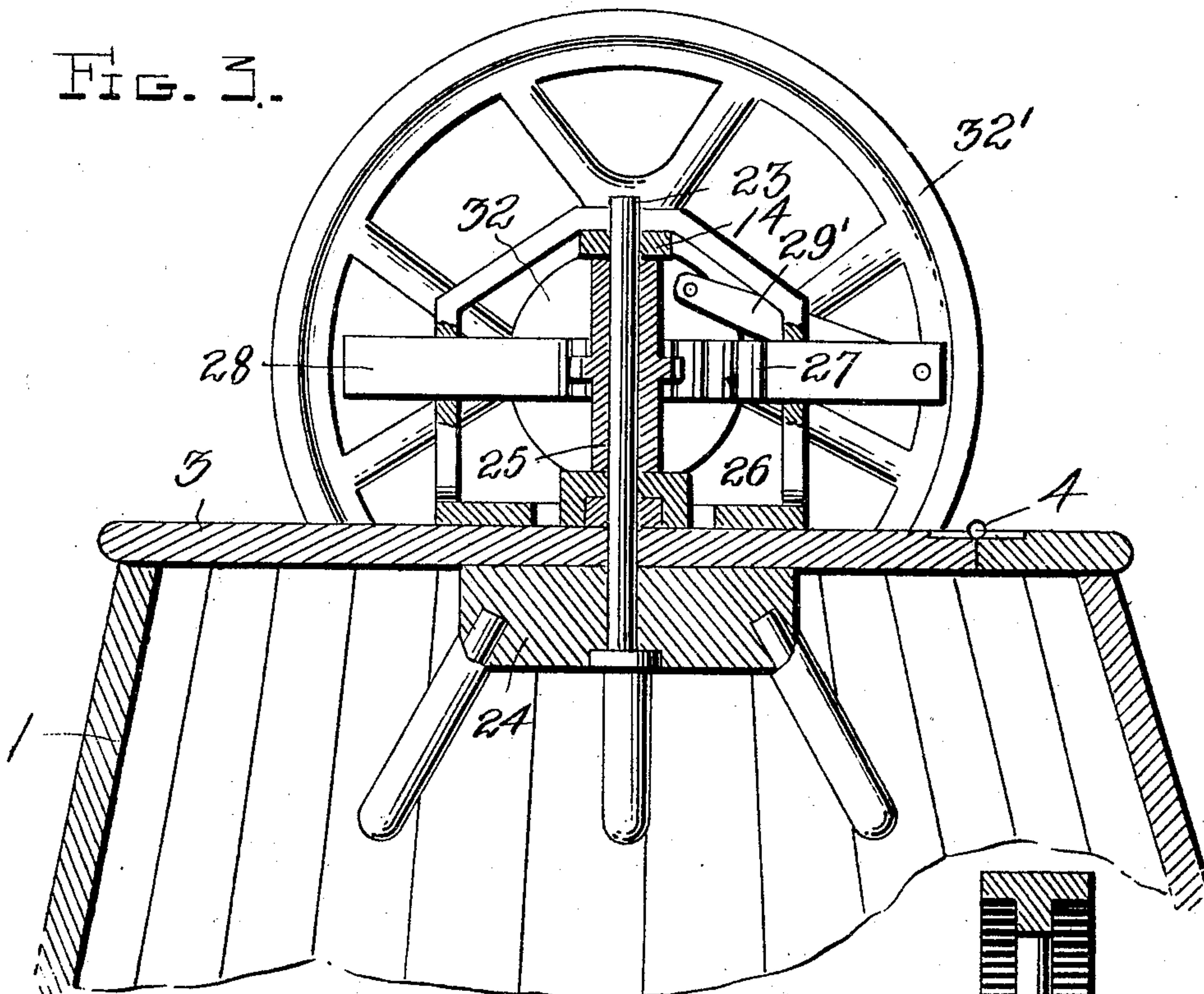


FIG. 4.

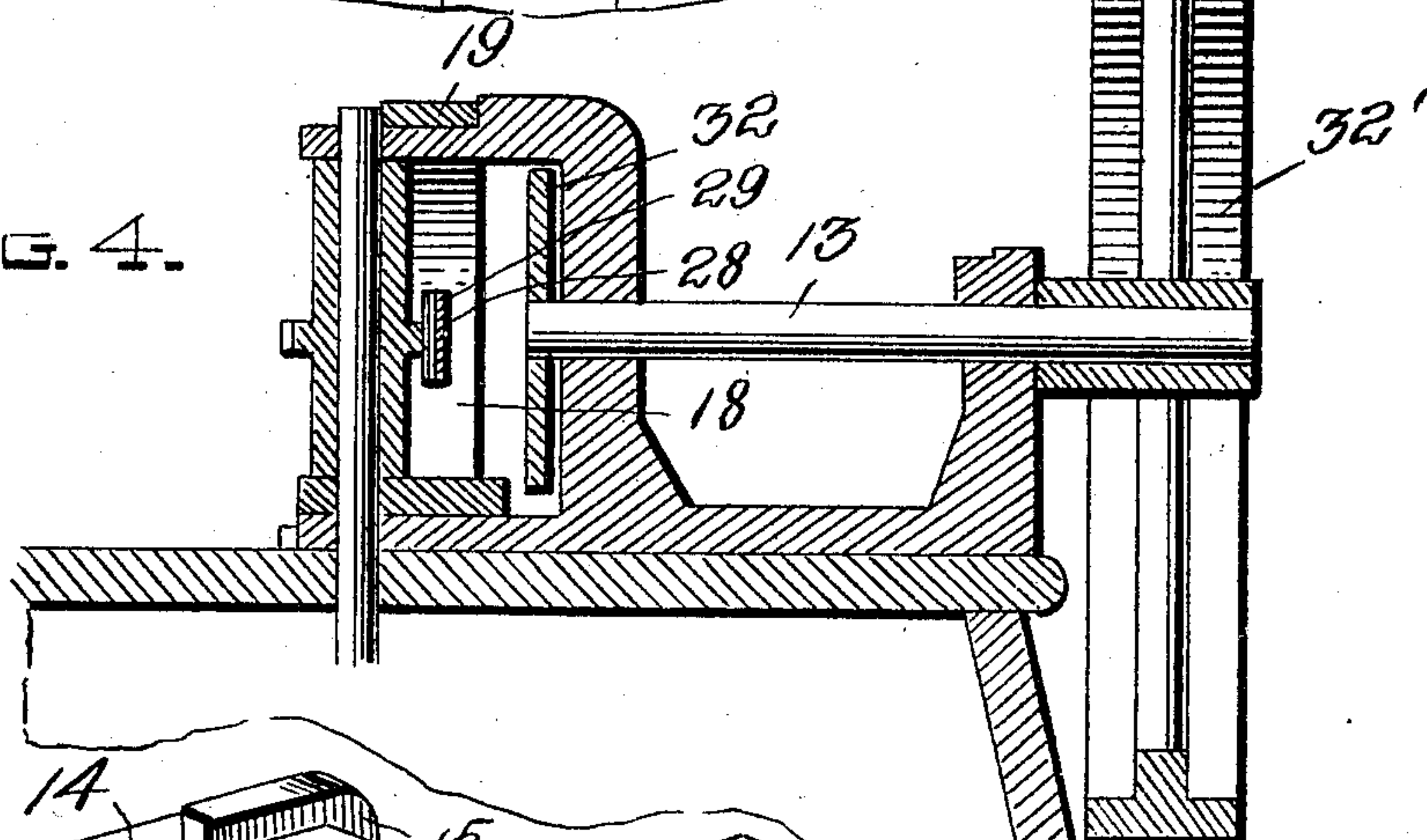
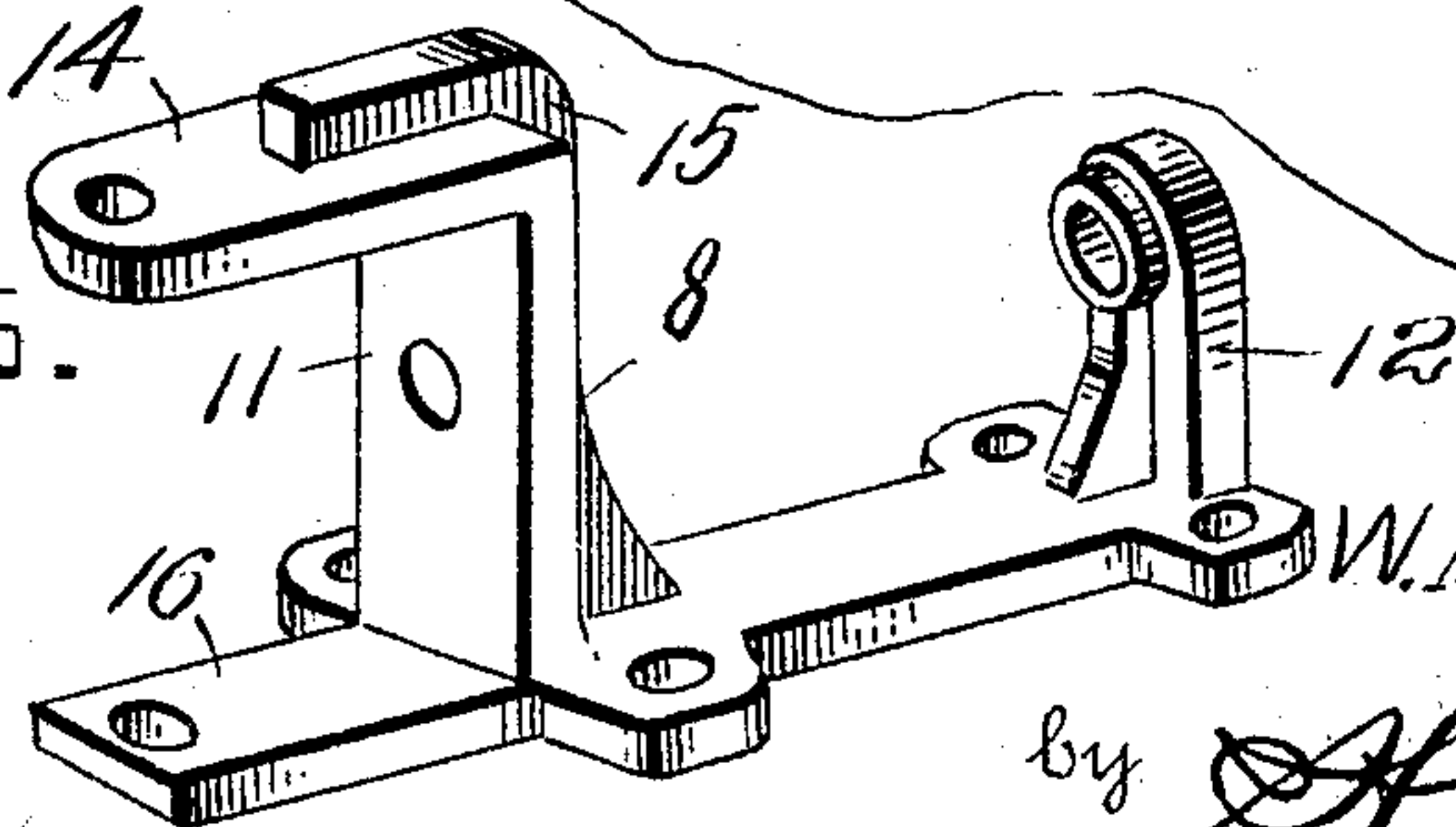


FIG. 5.



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UNITED STATES PATENT OFFICE.

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DAVENPORT, IOWA.

GEARING.

No. 795,975.

Specification of Letters Patent.

Patented Aug. 1, 1905.

Application filed March 9, 1905. Serial No. 249,229.

To all whom it may concern:

Be it known that we, WILLIAM A. HELL, HOWARD E. MEISTER, and HENRY SASS, citizens of the United States, residing at Davenport, in the county of Scott and State of Iowa, have invented certain new and useful Improvements in Gearing; and we do 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 operating mechanisms for washing-machines of that type in which a rotary rubber or agitator is employed.

The object of the invention is to improve and simplify the construction and operation of devices of this character, and thereby render the same more efficient and durable in use and less expensive to manufacture.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a side elevation of a washing-machine with our improved operating mechanism mounted thereon. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical sectional view taken on the line 3 3 of Fig. 2. Fig. 4 is a detail vertical sectional view taken on the line 4 4 of Fig. 2, and Figs. 5 and 6 are detail views of the bearing-brackets of the operating mechanism.

Referring to the drawings by numeral, 1 denotes a washtub, which may be of any suitable form and construction and is preferably supported upon legs 2 and provided with a cover 3, hinged at 4 upon one side of the tub. The cover 3 is provided with a suitable catch or fastener 5, and upon one side of the tub is provided the usual ledge 6 for the purpose of attaching a clothes-wringer.

Our improved mechanism 7 is mounted upon the cover 3 and comprises two castings or bearing-brackets 8 and 9. The casting 8 consists of a horizontal body portion, which is secured by screws 10 or the like upon the cover 3, and two upright arms 11 and 12, in which are provided bearings to receive a drive-shaft 13. The inner upright arm 12 has a horizontally-extending portion or tongue 14,

which is strengthened by a rib 15 and which is disposed above and in alinement with a tongue or projecting portion 16, formed upon the horizontal base of the bracket 8. The casting 9 is of open rectangular form, comprising a base or bottom portion 17 and two vertical side portions 18, connected by a top portion or piece 19. The base portion 17 is adapted to be secured by screws or the like 20 upon the cover 3 and is formed at its center with an upwardly-extending offset portion 21, adapted to receive or fit over the tongue 16 of the casting 8. The top portion 19 of the casting 9 is adapted to engage and bear upon the upper side tongue 14 of the casting 8 and is formed with a notch or recess 22, into which projects the rib 15 upon the tongue 14. The vertical shaft 23 of the rotary rubber or agitator 24, which operates within the tub, extends vertically through the said cover and through bearing-openings formed in the tongues 14 and 16 and in the offset portion 21 of the base of the casting 9. Upon this shaft, intermediate the tongue 14 and portion 21, is secured a sleeve 25, upon which is formed a pinion 26. This pinion meshes with and is operated by a rack 27, formed upon a bar 28, which slides horizontally in bearing-openings 29, formed in the vertical portions 18 of the casting 9. The rack-bar 28 is reciprocated by means of a pitman 29, which has one of its ends pivoted to the said bar and its other end pivoted upon a crank-disk 32, secured upon the inner end of the drive-shaft 13. The latter may be rotated or oscillated by hand or power, and to permit this we provide upon its outer end a combined fly-wheel and band-wheel 32'. When power is used, the driving belt or band may be passed around the periphery of this wheel. To permit the wheel to be rotated or oscillated by hand, we provide a crank-handle 33 and a radially-projecting lever 34, either of which may be used, the crank-handle being used to rotate the wheel and the lever to oscillate it. The lever 34 is preferably detachably connected to the wheel, as shown at 24', so that it may be readily removed when desired.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention may be readily understood without requiring a more extended explanation.

Various changes in the form, proportion,

and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. An operating mechanism for washing-machines or the like, comprising a two-part frame having an interlocking tongue-and-groove connection, a rack-bar slidably mounted in one of said parts, a drive-shaft mounted in the other of said parts, a crank upon said shaft, a pitman connecting said crank and said rack-bar, an agitator-shaft mounted in the interlocked portions of said frame, and a pinion upon said agitator-shaft and in mesh with said rack-bar, substantially as described.

2. An operating mechanism for washing-machines or the like, comprising the casting 8 having tongues 14 and 16 and the rib 15 upon said tongue 14, the casting 9 having its

base formed with the offset 21 to receive said tongue 16 and its top formed with the notch 22 to receive said rib 15, a drive-shaft journaled in said casting 8, an operating device upon the outer end of said shaft, a crank-disk upon the inner end of said shaft, a reciprocatory rack-bar mounted in said casting 9, a pitman connecting said rack-bar and said crank-disk, a rubber or agitator shaft journaled in said tongues 14 and 16, and a pinion upon said rubber or agitator shaft and in mesh with said rack-bar, substantially as described.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

WILLIAM A. HELL.
HOWARD E. MEISTER.
HENRY SASS.

Witnesses:

GEORGE W. OWENS,
JOHN LEESE.