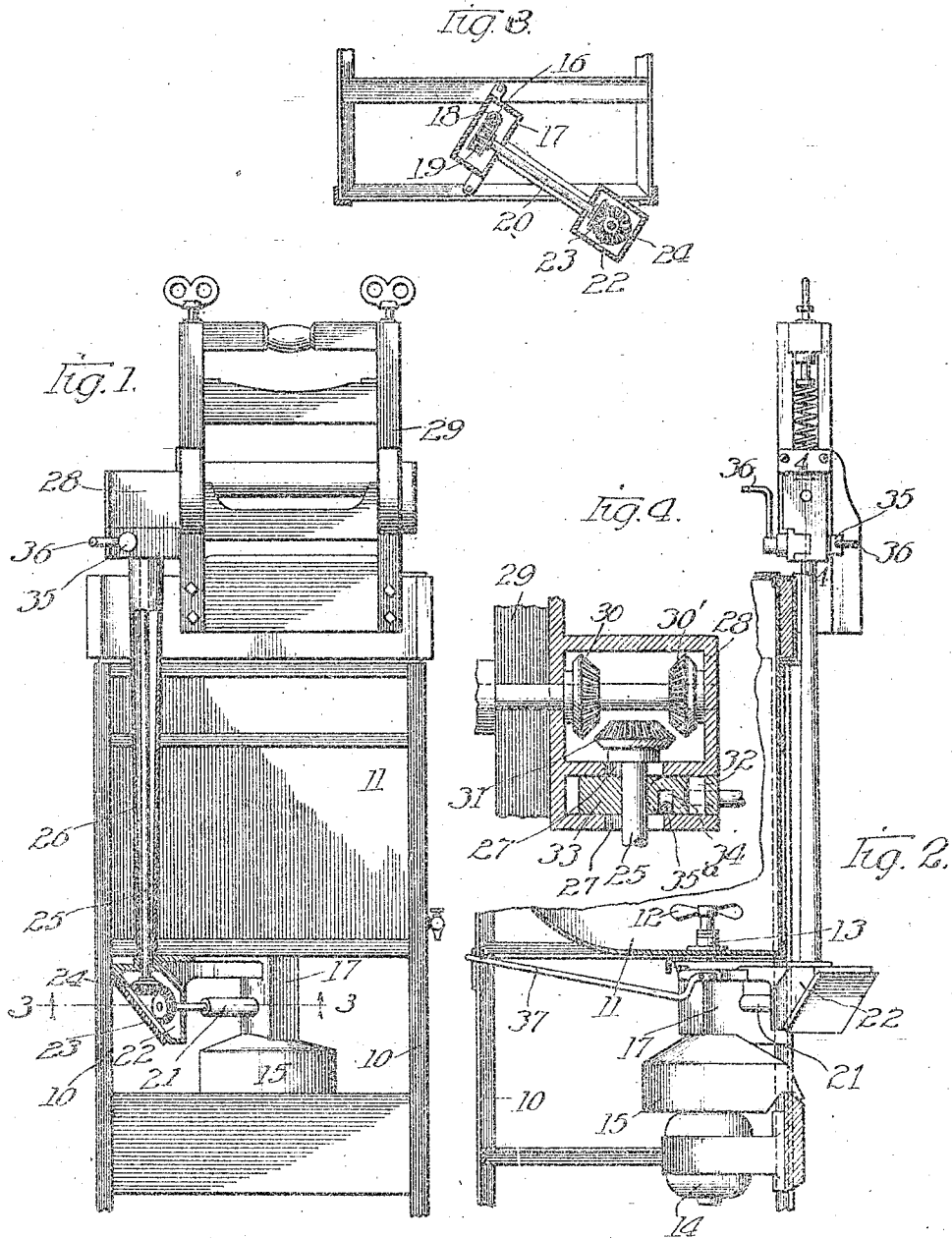


G. H. MYRICK.
DRIVING MECHANISM FOR WASHING MACHINE WRINGERS.
APPLICATION FILED MAY 8, 1916.

1,216,478.

Patented Feb. 20, 1917.



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UNITED STATES PATENT OFFICE.

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DRIVING MECHANISM FOR WASHING-MACHINE WRINGERS.

1,216,478.

Specification of Letters Patent.

Patented Feb. 20, 1917.

Original application filed January 23, 1915, Serial No. 3,971. Patent No. 1,186,025, dated June 8, 1916.
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To all whom it may concern:

Be it known that I, GEORGE H. MYRICK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Driving Mechanism for Washing-Machine Wringers, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to driving mechanism for washing machine wringers and has for its object the provision of mechanism whereby a wringer carried by the framework of a washing machine may, when desired, be connected in driven relation with a source of power, for instance an electric motor, which also serves to drive the power operated parts of the washing machine mechanism. The subject matter hereinafter described and claimed is set forth in my patent No. 1,186,025, granted June 6, 1916, and of which my present application is divisional. In my co-pending application just referred to I have elected to claim various features of the washing machine structure whereas in the claims appended to the specification I have elected to claim the wringer driving mechanism.

In the accompanying drawings illustrating my invention,

Figure 1 is a view partly in elevation and partly in section, illustrating a washing machine provided with the improvements which constitute my invention hereinafter claimed.

Fig. 2 is a fragmentary side view partly in section and partly in elevation.

Fig. 3 is a horizontal sectional view taken on the line 3—3 of Fig. 1 and looking in the direction indicated by the arrows; and

Fig. 4 is an isolated detail view of the manually controlled devices for connecting the driven roller of the wringer with the source of power.

Similar characters of reference refer to similar parts throughout the several views.

Referring first to Figs. 1 and 2, 10 represents the angle iron framework of a washing machine and 11 the tank or tub thereof. In so far as my invention as hereinafter claimed is concerned the details of the tank 11 and its contents are not material. I will

say, however, that the washing machine desirably is of the type fully described in my co-pending application aforesaid, wherein the washing machine tub 11 journals an openwork drum or fabric container, (not shown in the accompanying drawing). In the operation of the machine a stream or column of washing solution is projected against and through the drum by a propeller indicated in the present drawings by the reference character 12. The propeller 12 is mounted upon the upper end of a vertical shaft extending through a packing box 13 carried by the bottom of the washing machine tank or tub 11.

Suitably supported by the framework is an electric motor 14 that is conveniently provided with a shield 15 as illustrated in the drawings. As is most clearly illustrated in Fig. 3 the motor shaft 16 passes through a housing 17 and is provided with a worm 18 meshing with a worm wheel 19 mounted upon a shaft 20 which extends from the housing 17 through an inclosing tube 21 to another housing 22 where said shaft is provided with a bevel gear 23. The several housings may be formed integral one with the other, or otherwise, as desired. Meshing with the bevel gear 23, as most clearly illustrated in Fig. 1, is a bevel gear 24, mounted upon the lower end of a vertical shaft 25. The lower end of the shaft 25 has a relatively loose bearing in the housing 22 to permit the upper end of the shaft 25 to be shifted as hereinafter explained, the lower bearing, however, serving to keep the bevel gears 23 and 24 in mesh at all times. The shaft 25 extends upwardly from the housing 22 through a tapered tube or shaft housing 26 and through elongated slots 27—27 in the two parallel lower walls of a gear housing 28 supported by the framework of a wringer 29, which in turn is mounted upon the washing machine tank as illustrated. As is most clearly illustrated in Fig. 4 the shaft of the lowermost roller extends into the housing 28 and is there provided with bevel gears 30 and 30' fixed upon the shaft of the wringer roller and adapted to be operatively engaged by a bevel gear 31 fixed upon the upper end of the shaft 25. The bevel gear 31 normally is in a position whereby it is out of engagement with both of the gears 30 and 30',

but it may be moved into engagement with either of them.

The housing 28 is conformed to provide a chamber 32 in which is slidably mounted a block 33, which serves as a bearing for the upper end of the shaft 25. Formed in the block 33 is a channel 34 and mounted in the housing 28 is a shaft 35 provided at each end thereof with a handle 36. It will be noted that the shaft 35 is conformed to have an eccentric middle portion 35^a of reduced cross section which passes through the channel 34 of the block 33. Thus by oscillating the shaft 35 the bevel gear 31 may be moved from its neutral position into engagement with either the bevel gear 30 or the bevel gear 30' and vice versa, to drive the wringer in either direction desired.

I may as well at this point state that a suitable clutch is desirably interposed between the fan or propeller 12 and the shaft of the motor. I have not illustrated such clutch mechanism in the drawings, but it will suffice to say that the clutch mechanism is actuated and controlled by an operating rod 37 most clearly illustrated in Fig. 2.

From the foregoing description it will be seen that the wringer is driven from the same electric motor that is utilized to drive the power driven element of the washing machine and that the wringer is thus driven through simple and inexpensive mechanism readily controlled by the operator.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. A forward and reverse driving gearing of the class described comprising a driven shaft having a pair of spaced bevel gears thereon, a driving shaft loosely journaled at one end and at its other end provided with a bevel gear arranged to engage either of said spaced bevel gears, or to lie in a neutral position between them, a block journaling that end of the driving shaft adjacent said spaced bevel gears, a housing affording a chamber in which said block may reciprocate, a channel in said block, a shaft journaled in said housing having a reduced eccentric portion lying in said channel and a handle for rotating said last mentioned shaft whereby to reciprocate said block and

shift the driving shaft gear into and out of mesh with its coöperating spaced bevel gears.

2. A forward and reverse driving mechanism of the class described comprising two shafts with parallel axes, one of which is to be driven from the other, a connecting shaft disposed at right angles to the other two shafts and extending between them, a gear upon one of said parallel shafts, a pinion on said connecting shaft meshing with said gear, a loose bearing for said connecting shaft adjacent said pinion, a pair of spaced bevel gears on the other of said parallel shafts, a pinion on the connecting shaft adjacent said spaced bevel gears adapted to mesh with either of the latter or to lie in a neutral position between them, a shiftable block in which that end of the connecting shaft adjacent said spaced bevel gears is journaled, a casing affording a chamber in which said block may reciprocate, a channel in said block, a shaft journaled in said casing, said shaft having a reduced eccentric portion disposed in said channel and a handle for rotating said shaft to move the adjacent connecting shaft gear into and out of mesh with its coöperating spaced bevel gears.

3. A forward and reverse driving gearing of the class described comprising a driven shaft, a pair of spaced bevel gears on the driven shaft, a driving shaft disposed at an angle to the driven shaft, a bevel gear on the driving shaft adapted to mesh with either of said spaced bevel gears or to lie in a neutral position between them, a block in which that end of the driving shaft adjacent said bevel gears is journaled, a housing affording a chamber in which said block may reciprocate, a manually operated device for shifting said block within said chamber and a comparatively loose bearing for the other end of said driving shaft.

In witness whereof, I hereunto subscribe my name this 29th day of March, A. D. 1916.

GEORGE H. MYRICK.

Witnesses:

A. G. McCaleb,
H. A. Nerbuerger.