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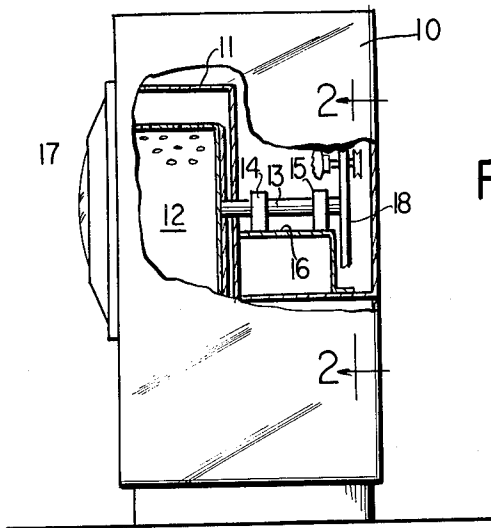


Fig. 1

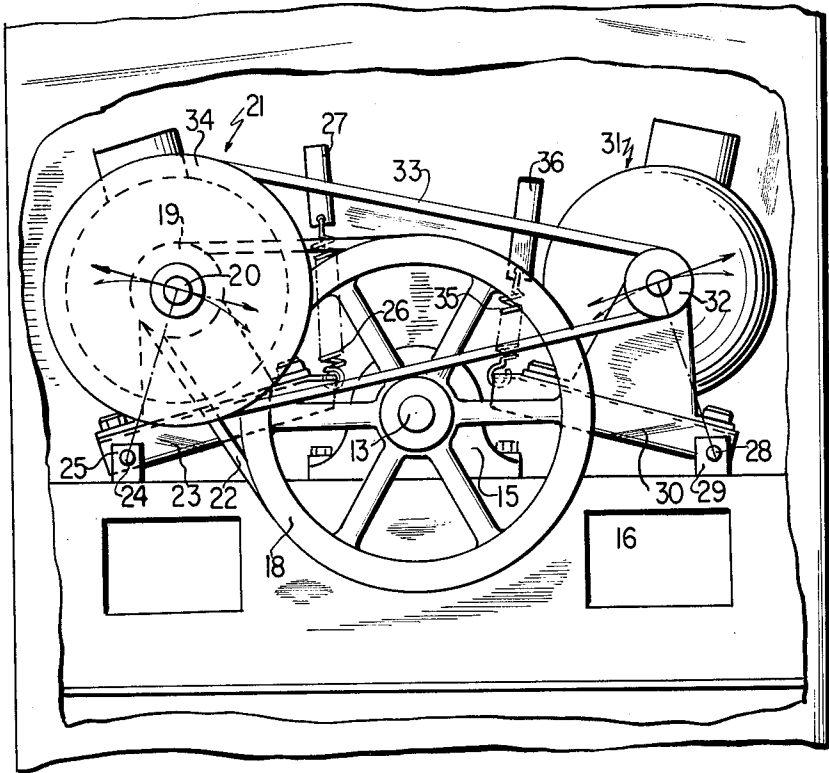


Fig. 2

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The present invention relates to washer-extractors and particularly to an improved multi-motor mounting for said extractors.

Washer-extractors often require the rotation of the article holding basket at two different speeds, e.g., a low washing speed and a fast extracting speed. An economical manner of accomplishing this is to provide a low speed motor in combination with a high speed motor so arranged that the low speed motor is belted to the high speed motor and drives the basket through the de-energized high speed motor as an idler.

Arrangements of this type often present problems in maintaining the proper tension in the belts between the motors and the pulley on the basket shaft. That is, if one is tightened, the other tends to become loose and vice versa.

The principal object of the present invention is to provide a washer-extractor of the above-referred-to type in which the belts for both motors can be tightened without loosening the other.

Another object of the invention is to provide such a washer-extractor in which the lines of force generated by the adjustment of one motor do not affect the belting of the other.

Still another object of the invention is to provide such a washer-extractor in which the tightening of one of the belt drives overpowers the tightening means for the other motor.

In one aspect of the invention, a washer-extractor may comprise a perforated basket mounted on a horizontally disposed shaft within a housing, the front of which has a door providing access to the basket. The shaft supporting the basket may extend out of the back of said housing, may be journaled in bearings on a support attached to said housing, and may support a pulley thereon.

In another aspect of the invention, separate motor support means may be mounted on the support for said bearings and located on opposite sides of said shaft. The motor supports may be pivotally mounted and resiliently urged in a manner such that one is resiliently biased in a clockwise direction while the other is resiliently biased in a counterclockwise direction.

In still another aspect of the invention, the low speed motor may be belted to a pulley fixed to the output shaft of the high speed motor, and the high speed motor may be belted to the pulley on the shaft supporting the article holding basket.

In a still further aspect of the invention, the resilient means biasing the high speed motor may be heavier than that biasing the low speed motor, so that the former tends to overpower the latter. In this way, the stronger spring maintains the belt between the high speed motor tight, and any pivotal movement of its support in a counterclockwise direction to accomplish this tightening effect causes the support for the low speed motor to turn counterclockwise against the action of the water resilient means which, in itself, maintains the belt between the low speed and high speed motors tight.

The above, other objects and novel features of the invention will become apparent from the following specification and accompanying drawing which are merely exemplary.

In the drawing:

FIG. 1 is an elevational view partly in section, showing

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a washer-extractor to which the principles of the invention have been applied; and

FIG. 2 is an enlarged view taken substantially along line 2—2 of FIG. 1.

Referring to the drawing, the principles of the invention are shown as applied to a washer-extractor including a casing 10 surrounding a housing 11 in which a perforated drum 12 is mounted on the end of a shaft 13. Shaft 13 extends through the back wall of the housing 11 through a seal and is journaled in bearings 14 and 15 mounted on a support or platform 16 fixed to the outside back panel of housing 11 and all encased by casing 10. The casing 10 may include a door 17 on its front wall, closing an opening therein that provides access to the interior of drum 12.

A pulley 18 is fixed to the end of shaft 13 opposite that connected to drum 12. Referring to FIG. 2, the pulley 18 is connected to a pulley 19 on the output shaft 20 of a high speed motor 21 by a belt 22. Motor 21 is fixed to a support 23 that is mounted on a pivot pin or shaft 24 journaled in bearings 25 on support 16. One end of a spring 26 is connected to the end of support 23 opposite that mounted on pivot pin 24, and the opposite end of spring 26 is fixed to a stationary support 27. The spring 26 normally urges support 23 in a counterclockwise direction about its pivot pin 24.

Another pivot pin 28 is journaled in bearings 29 on support 16 on the opposite side of shaft 13 from that on which bearings 25 are located. The pivot pin 28 supports another motor base 30 on which a low speed motor 31 is fixed. A pulley 32 fixed to the output shaft of motor 31 is connected by belt 33 to a pulley 34 that is fixed to shaft 20 of motor 21. In this way, the motor 31 is adapted to rotate pulley 18 at a speed which is reduced through the arrangement of pulleys 32, 34, 19 and 18. A spring 35 has its one end connected to a stationary mounting 36 and its opposite end connected to the end of support 30 opposite that on pin 28.

The spring 35 is of less strength than the strength of spring 26 so that the latter overpowers the former. In this way, the spring 35 is adequate to maintain belt 33 tight while the overpowering spring 26 maintains belt 22 tight, and counterclockwise movement of support 23 in keeping belt 22 tight simply moves support 30 counterclockwise against the action of spring 35, which itself keeps belt 33 tight.

Although the various features of the improved multiple motor mounting have been shown and described in detail to fully disclose one embodiment of the invention, it will be evident that changes may be made in such details and certain features may be used without others without departing from the principles of the invention.

What is claimed is:

1. In a washer-extractor, a housing; a perforated hollow drum located within said housing; a horizontally disposed shaft connected to said drum, said shaft extending outwardly through the rear of said housing; a platform located exteriorly of said housing and supporting bearing means within which said shaft is journaled; a pulley connected to the end of said shaft opposite that connected to said drum; pivotal mountings on said platform on each side of said bearing means; supports mounted on said pivotal mountings; separate resilient means urging one of said supports in a clockwise direction about its pivotal mounting, and the other support in a counterclockwise direction about its pivotal mounting; motors mounted on each of said pivotal supports; belt means connecting one of said motors to the pulley on the drum shaft; and belt means connecting the other motor to a pulley fixed to the output shaft of said one motor.

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2. In a washer-extractor, a housing; a perforated hollow drum located within said housing; a horizontally disposed shaft connected to said drum, said shaft extending outwardly through the rear of said housing; a platform located exteriorly of said housing and supporting bearing means within which said shaft is journaled; a pulley connected to the end of said shaft opposite that connected to said drum; pivotal mountings on said platform on each side of said bearing means; supports mounted on said pivotal mountings; separate resilient means urging one of said supports in a clockwise direction about its pivotal mounting, and the other support in a counterclockwise direction about its pivotal mounting, one of said resilient means being constructed in a manner to overpower the other; motors mounted on each of said pivotal supports; belt means connecting one of said motors to the pulley on the drum shaft; and belt means connecting the other motor to a pulley fixed to the output shaft of said one motor.

3. In a washer-extractor, a housing; a perforated hollow drum located within said housing; a horizontally disposed shaft connected to said drum, said shaft extending outwardly through the rear of said housing; a platform located exteriorly of said housing and supporting bearing means within which said shaft is journaled; a pulley connected to the end of said shaft opposite that connected to said drum; pivotal mountings on said platform on each side of said bearing means; supports mounted on said pivotal mountings; separate resilient means urging one of said supports in a clockwise direction about its pivotal mounting, and the other support in a counterclockwise direction about its pivotal mounting; a high speed motor mounted on the pivotal support that is resiliently urged in a counterclockwise direction; belt means connecting the output shaft of said high speed motor to

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the pulley on said drum shaft; a low speed motor mounted on the pivotal support resiliently urged in a clockwise direction; and belt means connecting said low speed motor to the output shaft of said high speed motor.

4. In a washer-extractor, a housing; a perforated hollow drum located within said housing; a horizontally disposed shaft connected to said drum, said shaft extending outwardly through the rear of said housing; a platform located exteriorly of said housing and supporting bearing means within which said shaft is journaled; a pulley connected to the end of said shaft opposite that connected to said drum; pivotal mountings on said platform on each side of said bearing means; supports mounted on said pivotal mountings; separate resilient means urging one of said supports in a clockwise direction about its pivotal mounting, and the other support in a counterclockwise direction about its pivotal mounting, one of said resilient means being constructed in a manner to overpower the other; a high speed motor mounted on the pivotal support that is resiliently urged in a counterclockwise direction; belt means connecting the output shaft of said high speed motor to the pulley on said drum shaft; a low speed motor mounted on the pivotal support resiliently urged in a clockwise direction; and belt means connecting said low speed motor to the output shaft of said high speed motor.

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