Aug. 7, 1951 J. C. AHEARN 2,563,669

CONCRETE MIXER

Filed Feb. 28, 1948

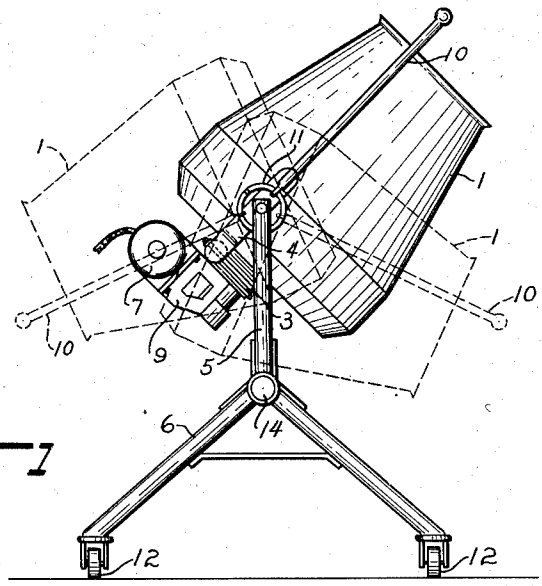

Fig. 1

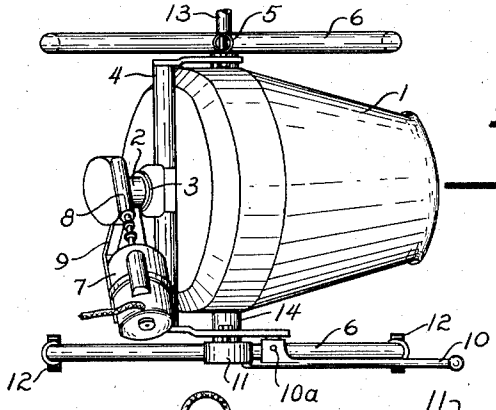

Fig. 2

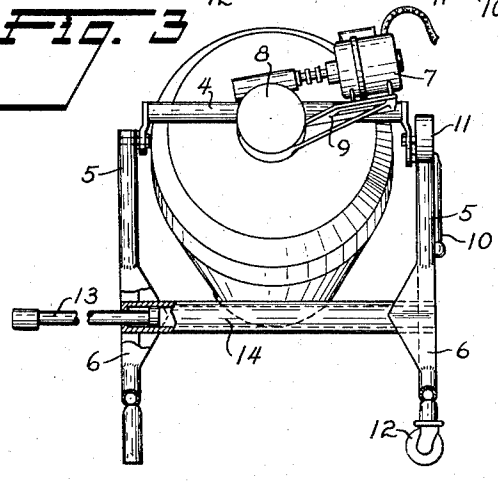

Fig. 3

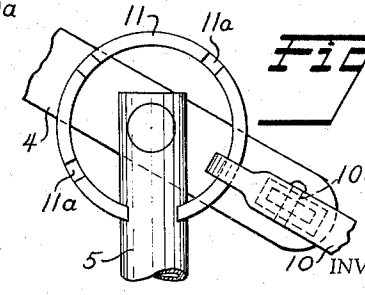

Fig. 4

INVENTOR

JOHN CARRINGTON AHEARN

BY Hutchinson & Hutchinson

ATTORNEYS

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CONCRETE MIXER

John Carrington Ahearn, Wellington, New Zealand

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4 Claims. (Cl. 259—177)

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The invention relates to concrete mixers, and has for its object the provision of a compact and convenient form of mixer capable of being produced at comparatively little cost, and of being operated and handled with a minimum of trouble and expense.

According to the invention the improved mixer comprises a drum rotatably mounted in a bracket pivoted between supports, so that it can be charged and its contents discharged therefrom, at either side of said supports, the drum being mounted in said bracket, so that the charging and discharging levels at one side of said supports are higher than the charging and discharging levels respectively at the other side thereof, and means for rotating said drum, adapted to be tipped therewith.

In the accompanying drawing in conjunction with which the invention will be more particularly described:

Figure 1 is a side elevation of the improved mixer with the drum in one position for charging, alternative discharging positions being indicated by dotted lines,

Figure 2 is a plan view of Figure 1, but with the drum in one discharging position,

Figure 3 is a rear elevation, partly in section, according to Figure 2, while

Figure 4 is a detail view in elevation illustrating means for setting the drum in desired charging and discharging positions.

Referring to the drawing, 1 is the drum provided with a spindle 2, which is mounted in a bearing 3 on a bracket 4 pivoted between supports 5, rising from a stand 6.

The drum 1 is capable of being rotated, while in any position between the supports 5, preferably by applying a drive to the spindle 2, from an electric motor 7 through worm gearing 8, the housing for the latter and a bracket 9 for supporting the motor 7, being formed integral with or fitted to the bracket 4, so as to swing with the latter and the drum 1, between the supports 5.

In Figure 1 the drum 1 is shown in a position to receive material to be mixed, the dotted lines indicating positions, one at either side of the supports 5, for discharging the contents from the drum 1, and it will be observed that the discharge position at one side of the supports 5 is at a lower level than the discharge position at the other side of the supports 5.

This difference in levels is provided to allow of the mixer being conveniently used with wheelbarrows or other receptacles for the concrete, of varying heights, said difference being obtained

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by fitting the bearing 3 to the bracket 4 so that it is below the latter when same is swung to one side of the supports 5, and so that when the bracket 4 is swung to the opposite side of said supports 5, said bearing 3 is above the bracket 4. The variation in height of the bearing 3 according to whether it is above or below the bracket 4 is also responsible for variation in the height of the charging levels of the drum 1, at opposite sides of the supports 5.

The drum 1 is enabled to be tipped or tilted between the supports 5, to present its mouth upwards or downwards as desired, at either side of said supports 5, by means of a handle 10 on one of the arms of the bracket 4 and hingedly connected thereto as at 10*a* so as to be capable of being engaged in one of the notches or recesses 11*a* in a rack 11 on the adjacent support 5 for the purpose of retaining the drum 1 in the position desired, either to receive material to be mixed, or to cause mixed material to be discharged from same.

In order to facilitate transport, or moving the mixer about, the stand 6 can be provided with wheels 12 preferably two at one end only thereof, an extensible handle 13, being provided to draw out from the opposite end of the mixer, to enable the latter to be raised and moved about on the wheels 12.

The handle 13 when not in use can conveniently be housed in the cross bar 14 of the stand 6.

The mixer as herein described and illustrated has all working parts enclosed against the entrance of cement, sand, gravel and water, and the gearing employed and mounted as shown besides being quiet and smooth running in operation, enables a big reduction in speed to be obtained in a small space, and the mixer to be operated economically as regards the consumption of electric power.

Provision is made for lubricating working parts by conventional means.

Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is:

1. A concrete mixer, comprising a frame including upright supporting members, a bracket pivotally supported between said members, a bearing carried by said bracket and positioned at one side thereof, a rotary mixing drum mounted for rotation at its closed end on said bearing, said bearing and bracket constituting the sole support for said drum, and means for rotating said drum, said elements being so ar-

ranged as to permit the drum to be tipped to either side of said supporting members for charging and discharging with the charging and discharging level at one side being higher than the charging and discharging level at the other side.

2. A concrete mixer, according to claim 1, wherein the means for rotating the drum is mounted on the bracket and adapted to be movable with said bracket and drum when the drum is tipped to any position.

3. A concrete mixer, according to claim 1 wherein a handle for tipping the drum is hinged to an arm of said bracket and carries a portion adapted to selectively fit into cooperating notches in a plate mounted on one of the upright supporting members, whereby said drum and bracket may be locked in any one of a plurality of selected positions.

4. A concrete mixer as claimed in claim 1, wherein the means for rotating the drum includes a motor mounted on the bracket for movement therewith, and wherein a handle for tipping the drum is hinged to an arm of the bracket and carries a portion adapted to selectively fit into cooperating notches in a plate mounted on one of the upright supporting members, whereby said drum, motor and bracket may be locked in any one of a plurality of selected positions.

JOHN CARRINGTON AHEARN.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,369,870	Wynn	Mar. 1, 1921
2,453,323	Palmeter	May 1, 1923
1,926,624	Hoffman	Sept. 12, 1923
2,207,011	Hopkins	July 9, 1940

FOREIGN PATENTS

Number	Country	Date
1,198	Australia	Mar. 16, 1931