May 16, 1933. E. O. HAMREN 1,908,704

TWO-WHEELED MIXER FRAME

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Fig. 1.

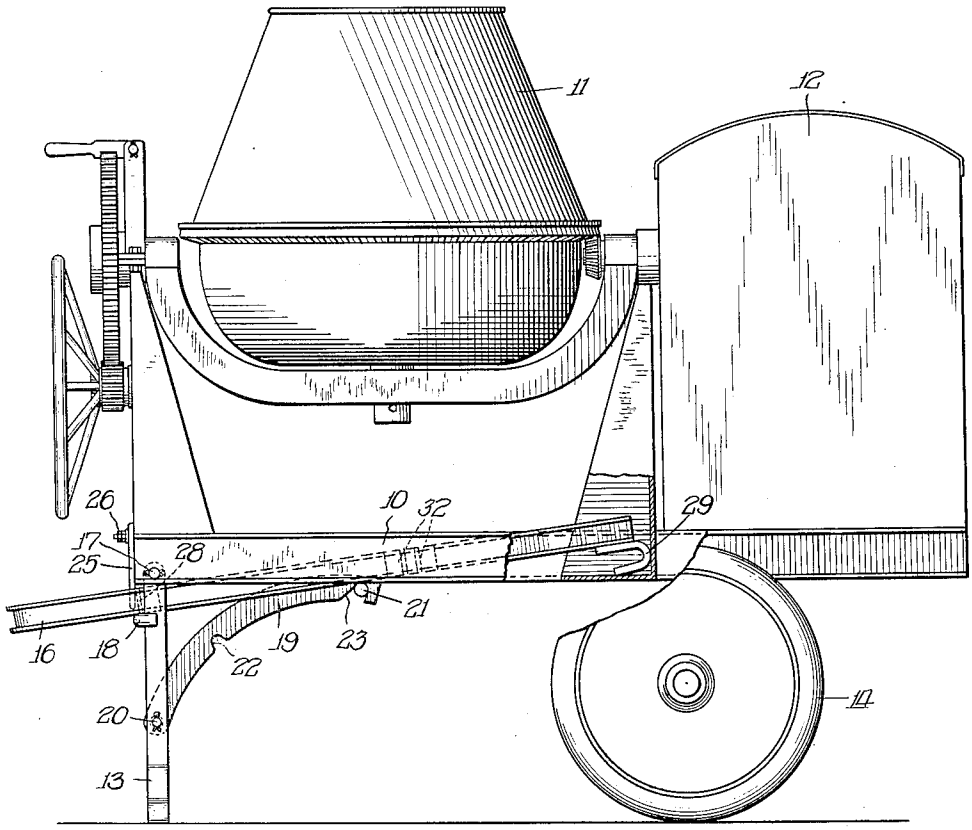

Fig. 2.

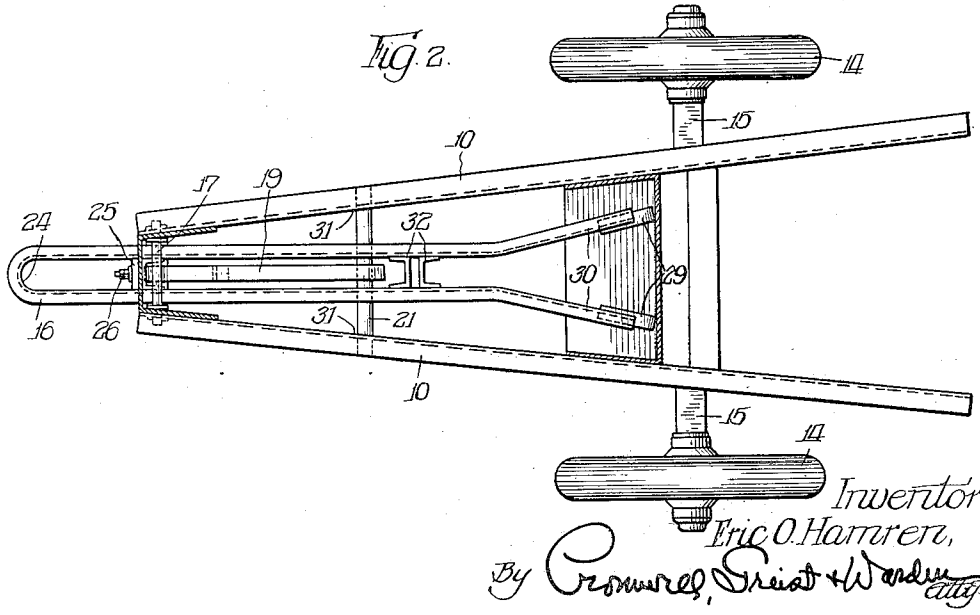

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Fig. 3.

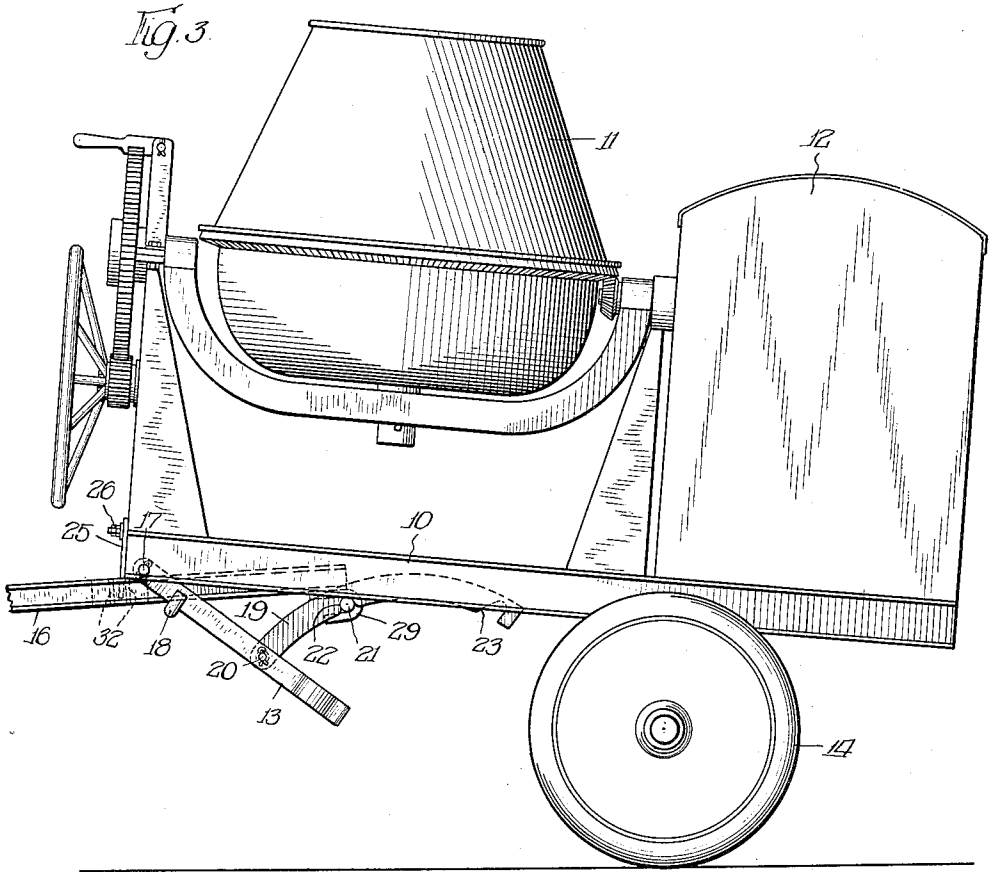

Fig. 4.

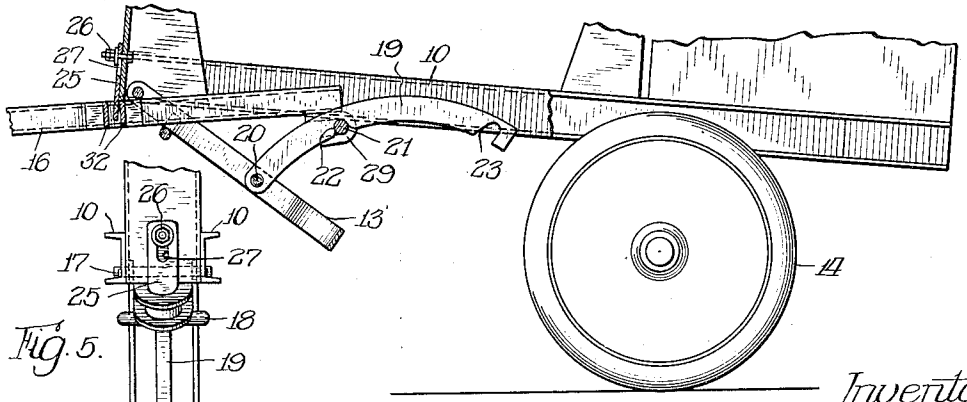

Fig. 5.

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Patented May 16, 1933 1,908,704

UNITED STATES PATENT OFFICE

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TWO-WHEELED MIXER FRAME

Application filed May 7, 1930. Serial No. 450,361.

This invention has to do with the two-wheeled trailer frames on which mixers of certain types are mounted.

One of the primary objects of the invention is to provide an improved leg on which the front end of the frame is adapted to rest when the mixer is in operation, which leg may be swung backwardly and secured in an out-of-way position when the mixer is in transit.

Another object of the invention is to provide an improved tongue by which the mixer may be pulled in transit, which tongue may be extended forwardly and held rigidly when in use or may be telescoped back into an out-of-the-way position within the frame of the mixer and held there when the mixer is in operation.

Both the supporting leg and the draft tongue are simple, compact, and rugged in construction, are inexpensive to manufacture, and will stand up under the most severe usage.

Other objects and advantages of the invention will be apparent to those skilled in the art upon a full understanding of the construction, arrangement and operation of the improvements above referred to.

One form of the invention is presented herein for the purpose of exemplification, but it will of course be appreciated that the invention is susceptible of embodiment in other structurally modified forms coming equally within the scope of the appended claims.

In the accompanying drawings:

Fig. 1 is a partly sectioned side view of a tilting type concrete mixer equipped with the improvements of the invention, showing the leg and tongue in the positions in which they are placed when the mixer is in operation;

Fig. 2 is a top view of the mixer frame, with the tongue and leg in the positions shown in Fig. 1;

Fig. 3 is a side view of the mixer, showing the leg and tongue in the positions in which they are placed when the mixer is in transit;

Fig. 4 is a corresponding fragmentary side view, with portions of the frame broken away; and

Fig. 5 is a fragmentary front view, showing the supporting leg.

The frame shown in the drawings includes a pair of forwardly converging sill members 10 on which a mixing receptacle 11 and a motor 12 are mounted for operation. The front end of the frame is supported, when not in transit, on a centrally arranged leg 13, while the rear end of the frame is supported on a pair of wheels 14 which are journaled on the ends of an axle 15. The mixer, when in transit, is drawn by a tongue 16, which tongue telescopes back between the sill members of the frame, as shown in Figs. 1 and 2, when the mixer is in operation.

The leg 13 is U-shaped, and the upper ends of the sides of the same are pivotally attached to the front ends of the sill members 10 by a pin 17. A cross rod 18 is rigidly attached to the sides of the leg near the top of the latter and constitutes a support for the tongue. The bottom of the leg is flat and is outspread to a greater width than the top, as shown in Fig. 5. A curved bracing link 19 is pivotally attached to the leg 13 by a pin 20 and rests upon a cross rod 21 which is carried by the frame. The link 19 is provided with two spaced notches 22 and 23 which are adapted to hook over the rod 21, whereby to lock the leg rigidly in either the vertical supporting position shown in Fig. 1 or the raised out-of-the-way position shown in Fig. 3.

The tongue 16 is a channel bar which is bent upon itself and is arranged with the bend at the front to form a coupling loop 24. When the tongue is in the retracted position shown in Fig. 1, it rests upon the cross rods 18 and 21 and is held against forward movement by a vertically shiftable latching plate 25. The plate 25, which is loosely attached to the front end of the frame by a bolt 26 which extends through a vertically elongated slot 27 in the plate, extends downwardly in front of a small cross web 28 in the tongue and prevents the latter from sliding forwardly. When the tongue is to be used, the plate 25 is raised and the tongue is slid forwardly into the position shown in Fig. 3, in which position two hooks 29 on the rear ends of the spaced sides of the tongue engage about the cross rod 21. The sides 30 of the tongue at the locations of the hooks are spread apart sufficiently to engage with the

inside faces 31 of the side members 10 of the frame, as shown in Fig. 2, whereby to prevent the tongue from swinging horizontally with respect to the frame when in its forwardly shifted position. After the hooks 29 have moved into engagement with the cross rod 21, the latching plate 25 is lowered into a position between two closely spaced cross webs 32 in the tongue, whereby to prevent the tongue from shifting rearwardly.

It will be noted that the arrangement of the hooks 29 and the cross rod 21 with respect to the lower edge of the front end of the frame and the cross rod 18 is such as to cause the tongue 16 to extend downwardly and forwardly at an inclination to the frame 10. As a result of this, when the front looped end 24 of the tongue is raised and attached in a substantially horizontal position to the vehicle to be used in pulling the mixer, the frame 10 of the latter will be tilted rearwardly into a position similar to that shown in Fig. 3 and the weight of the load on the frame will be substantially counterbalanced, thereby relieving the tongue 16 from any appreciable weight. After the tongue has been attached to the front vehicle, the leg 13, which is then clear of the ground, is of course hooked back into the position shown in Fig. 3.

I claim:

1. In a vehicle, a wheeled frame, a draft tongue slidably mounted within the frame for movement longitudinally thereof into either a forwardly projected position or a rearwardly retracted position, and readily releasable means for locking the tongue against longitudinal movement in either its projected or retracted position, said means consisting of longitudinally spaced abutments on the tongue and a vertically shiftable latching member on the frame for coaction with either of said abutments.

2. In a vehicle, a frame having wheels supporting one end thereof, a supporting leg pivotally mounted on the frame adjacent the other end thereof, a tongue slidably mounted within said frame, a cross member on said frame supporting said tongue, hook means on said leg for cooperation with said cross member, and hook means on said tongue for cooperation with said cross member.

In witness whereof I have hereunto subscribed my name.

ERIC O. HAMREN.