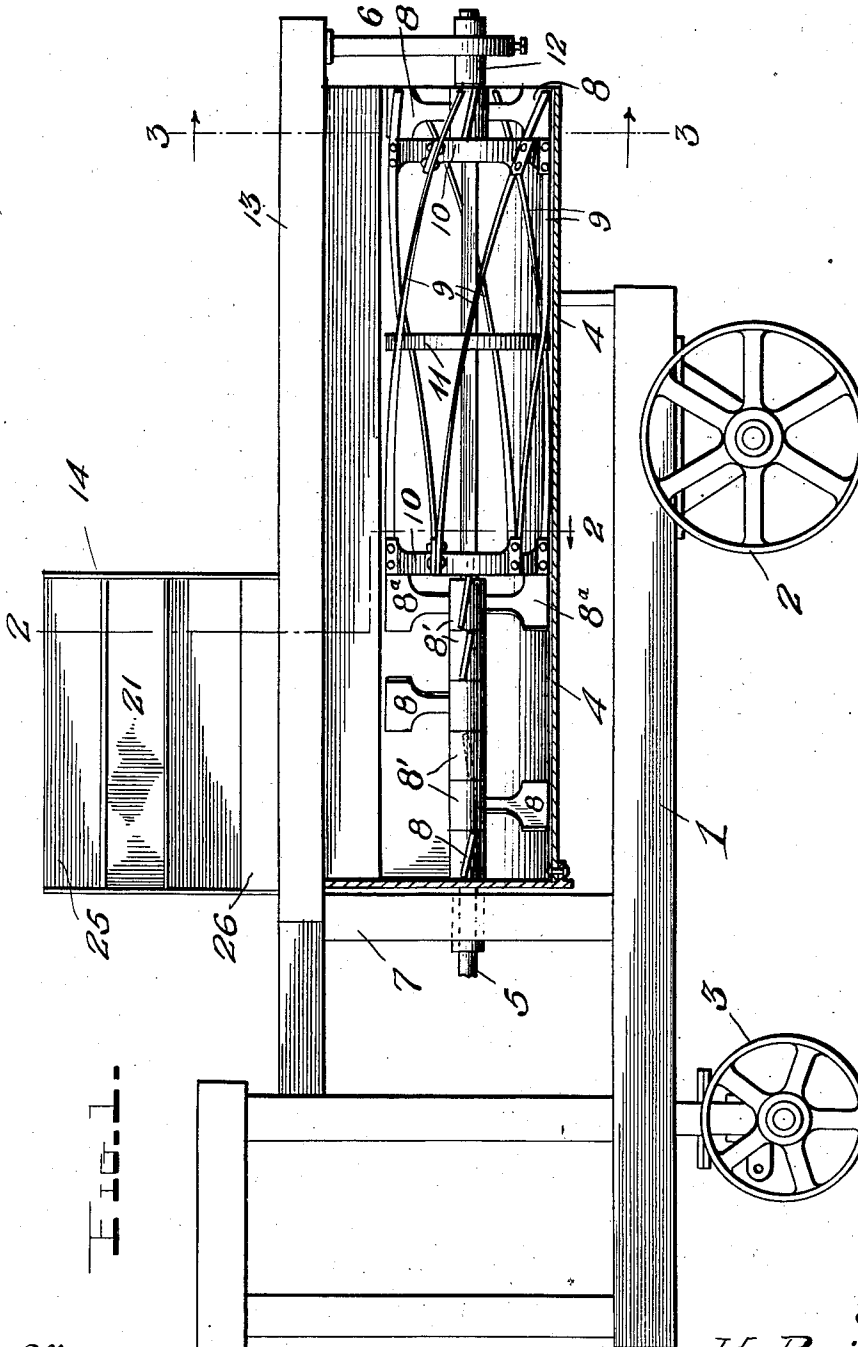


H. BEISWENGER.
 FEEDING MECHANISM FOR CEMENT MIXERS.
 APPLICATION FILED MAR. 25, 1909.

946,817.

Patented Jan. 18, 1910.

3 SHEETS—SHEET 1.



Witnesses

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 C. H. Griesbauer.

Attorneys

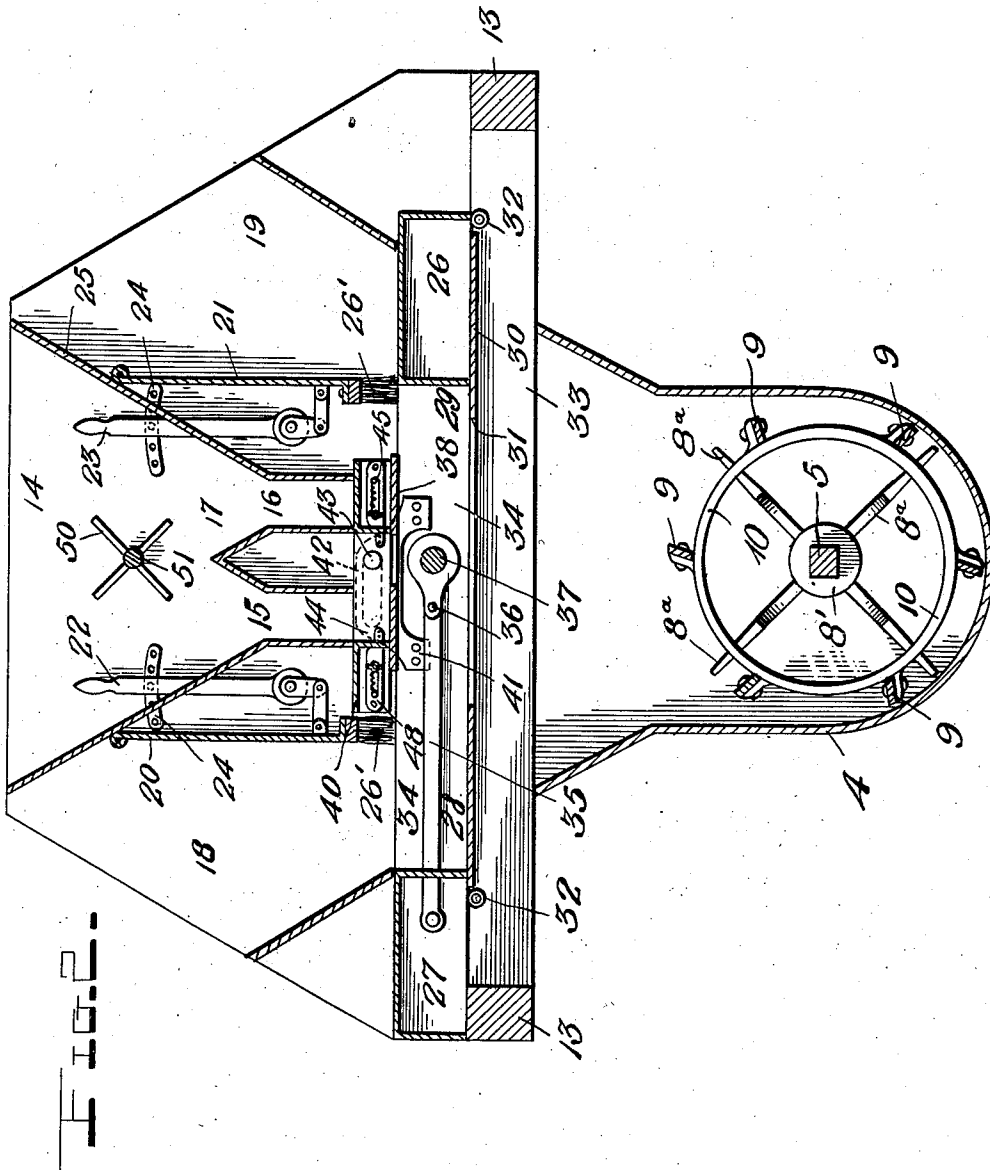
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Witnesses

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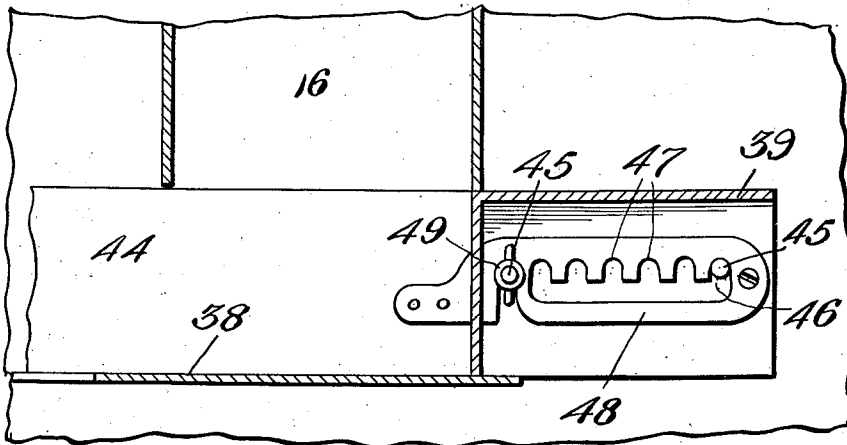
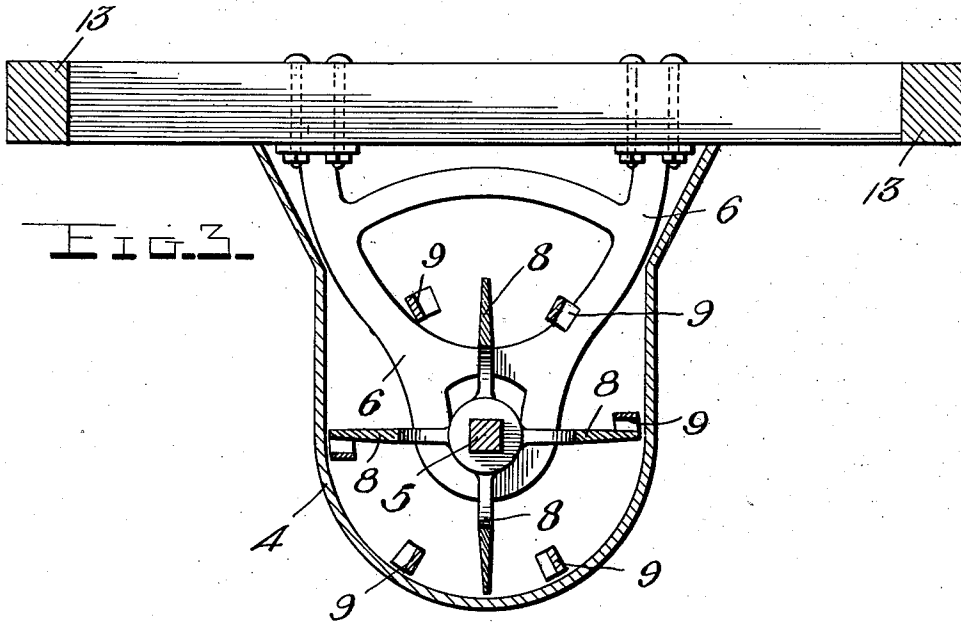
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

HENRY BEISWENGER, OF JACKSON, MICHIGAN.

FEEDING MECHANISM FOR CEMENT-MIXERS.

946,817.

Specification of Letters Patent.

Patented Jan. 18, 1910.

Application filed March 25, 1909. Serial No. 485,727.

To all whom it may concern:

Be it known that I, HENRY BEISWENGER, a citizen of the United States, residing at Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Feeding Mechanism for Cement-Mixers; and I 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.

My invention relates to feeding mechanism for cement mixing machines.

The object of the invention is to provide a machine which will supply predetermined quantities of cement and crushed stone and gravel.

A further object of the invention is to provide means for adjusting the feed of the cement and of the crushed stone and gravel so that the proper proportions may be obtained for the quality of cement desired.

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

In the drawings: Figure 1 is a side elevation partly in longitudinal section; Fig. 2 is a vertical section on the line 2—2 of Fig. 1; Fig. 3 is a section on the line 3—3 of Fig. 1; Fig. 4 is a detail sectional view of the adjustment used for regulating the cement discharge.

Referring more especially to the drawings, 1 represents a truck which is carried upon the supporting or traction wheels 2 and 3 and which carries the mixing mechanism, to be hereinafter described. Immediately above the truck, I provide a mixing cylinder 4, in which is journaled a central shaft 5, driven in any suitable manner and whose ends are supported in bracket bearings 6 and 7.

The forward end of this mixing shaft is provided with paddles 8, secured at diametrically opposite sides of individual hubs 8', keyed to the shaft and which have their outer ends turned at an angle as shown, so as to thoroughly mix the cement and at the same time feed it toward the discharge spirals 9. These spirals are connected at their forward and rear ends to rings 10, secured to the paddles 8', which extend from

their hubs at the four quarters, and are preferably six in number, connected together at their intermediate points by a ring 11.

The rear end of the shaft 5, is mounted in a bushing, 12, which is pivotally connected to the bearing bracket 6. The sides 13, which support the bearing brackets 6 and 7 are separated sufficiently to allow the cement to pass from the measuring mechanism mounted thereon, at the forward end of the machine immediately over the mixing paddles 8 and 8'. This measuring mechanism comprises a central cement hopper 14, which is divided into separate chutes 15 and 16 by a V-shaped partition 17. On opposite sides of the cement hopper 14, I provide receptacles 18 and 19, for crushed stone and gravel. These receptacles have their discharge ends alternately closed and opened by a mechanism which will be hereinafter described.

Each of the receptacles or compartments 18 and 19 is provided with swinging partitions 20 and 21, which are controlled respectively by levers 22 and 23, which are pivoted to the sides of the casing and have adjusting segments 24. These partitions are hinged at their upper ends to the side wall of the compartment 14 and carry at their lower ends brushes 26', which wipe over the sliding gates 26 and 27, as they are moved forward to dump the contents of the pockets, 28 and 29. These pockets have their size determined by the position of the partitions 20 and 21, and the contents thereof are supported by the bottom plate 30 which is centrally apertured, as at 31 to permit the passage of the cement and the sand and gravel into the mixing chamber of the cylinder 4. The gates 26 and 27 ride over the bottom plate and over the friction rollers 32, connected to the supporting pieces 33, which extend across the machine from girder to girder.

The pockets are connected together by side pieces 34, and both of them are connected by a pitman rod 35, (only one of which is shown) to a crank arm 36 keyed to the driven shaft 37 which runs parallel to the shaft 5.

Extending across the machine, above the side plates, 34 is a shelf or bottom 38 which is adapted to support the sliding gates 39 and 40 which close the exits to the chutes 15 and 16. This plate is apertured so as to per-

mit the passage of the cement from either chute.

Extending up from the side plates 34 on either side of the machine are yoke members 41, which are slotted at 42 to receive the studs 43 connected to the side plates 44, to which the gates 39 and 40 are adjustably secured. These lock members move with the side plates 34 and when the studs 43 reach the ends of the slots 42 the side plates 44 are constrained to move to carry with them the gates 39 and 40, and to uncover one or the other of the chutes to the aperture in the plate 38.

As shown in Figs. 2 and 4, the sides of the pockets have studs 45, projecting outwardly from the sides thereof, which extend through slots 46 in the side plates and are adapted to engage one of the series of notches 47, in the upper side of the adjusting plates 48. These adjusting plates are pivoted to the outside of the side plates 44, and are secured in their engaging position with the studs 45 by set screw 49.

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

In order that the cement may be kept from packing, I provide an agitator 50, which is journaled upon a shaft, 51 extending across the hopper 14, and which may be driven in any suitable manner.

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 advan-

tages of this invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by Letters-Patent is:—

1. In a device of the class described, a stationary cement hopper and a pair of stationary gravel hoppers arranged on opposite sides thereof, means for supporting the material in said gravel hoppers, means for discharging alternately a predetermined quantity of material from the gravel hoppers, adjustable swinging partitions for determining the quantity of material discharged from the gravel hoppers, and discharging means for the cement hopper having adjusting devices carried by the gravel hopper discharging means for regulating the amount of material discharged from the cement hopper.

2. In a cement mixing machine, a plurality of stationary gravel hoppers, a stationary cement hopper arranged intermediate the gravel hoppers, a pair of reciprocating gates for discharging alternately a predetermined quantity from the gravel hoppers, a pair of separated reciprocating gates operating simultaneously with the gravel discharging means for discharging a predetermined quantity of cement, means to regulate the amount of gravel discharged, and means to regulate the amount of cement discharged.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HENRY BEISWENGER.

Witnesses:

C. R. WENDT,
JOHN L. FREITAG.