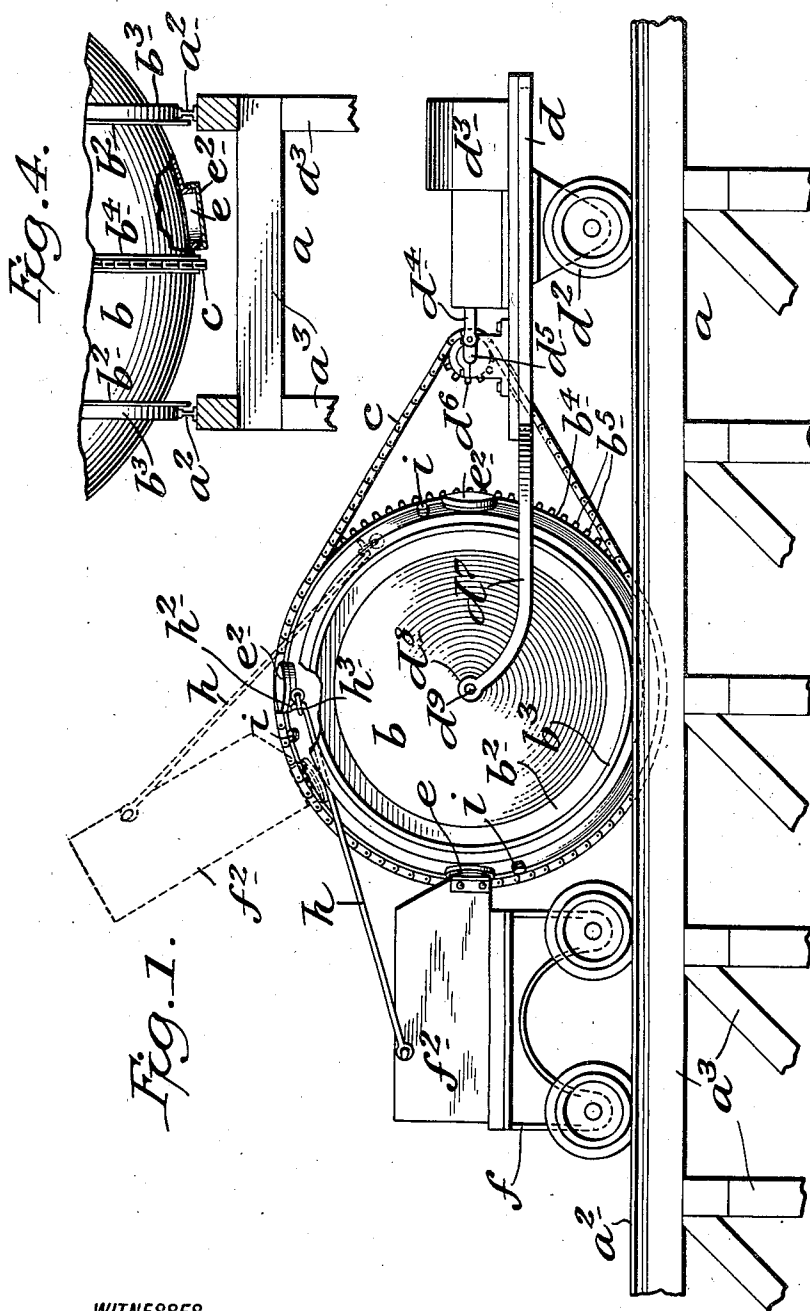


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CONCRETE MIXER AND CONVEYER.
APPLICATION FILED OCT. 23, 1911.

1,065,607.

Patented June 24, 1913.

2 SHEETS—SHEET 1.



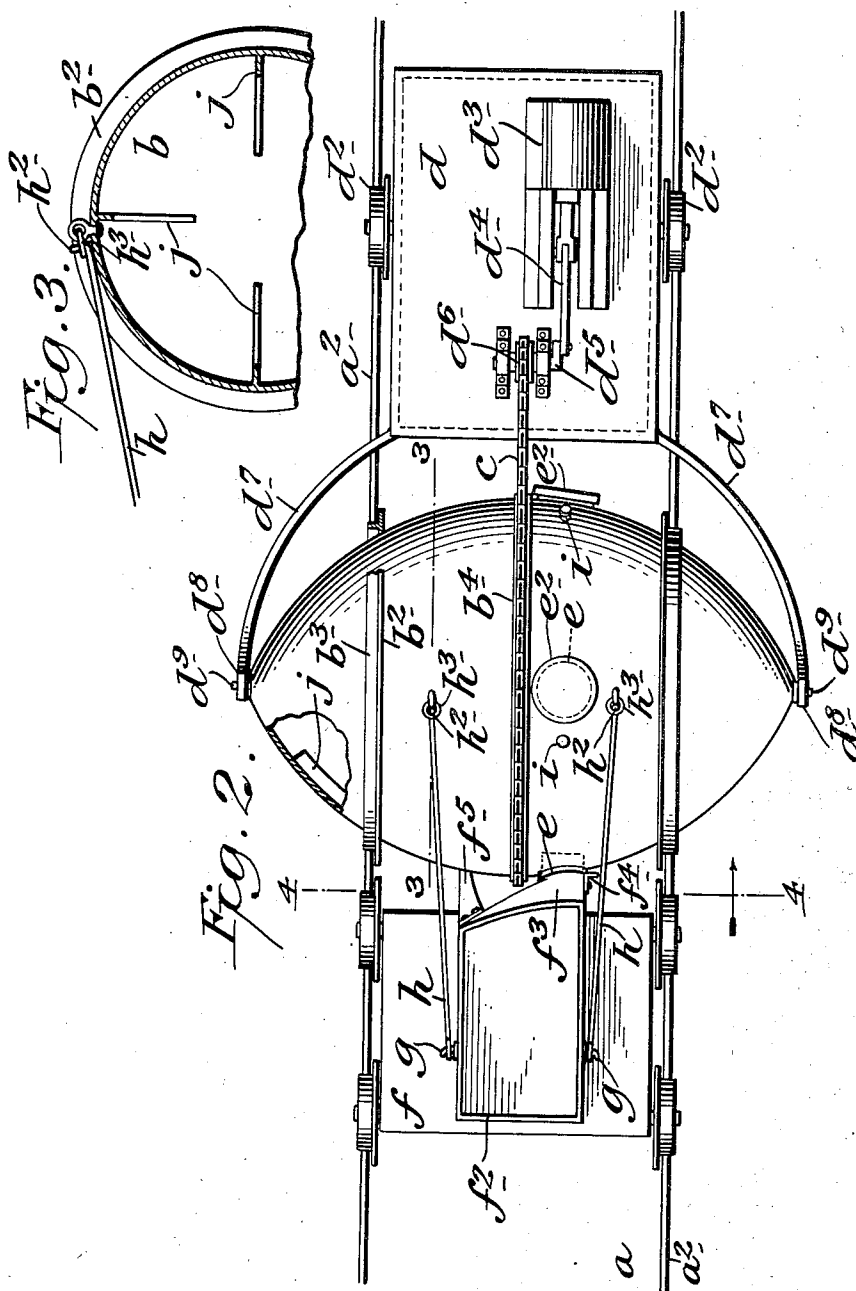
WITNESSES
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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CONCRETE MIXER AND CONVEYER.

1,065,607.

Specification of Letters Patent.

Patented June 24, 1913.

Application filed October 23, 1911. Serial No. 656,234.

To all whom it may concern:

Be it known that I, PATRICK A. HENNESSY, a citizen of the United States, and residing at Belvidere, in the county of Warren and State of New Jersey, have invented certain new and useful Improvements in Concrete Mixers and Conveyers, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to means for mixing concrete used for building or other purposes, and for conveying the same from one point to another; and the object thereof is to provide an improved apparatus of this class which is simple in construction and operation, and by means of which concrete may be thoroughly mixed while being conveyed from one point to another; and with this and other objects in view the invention consists in an apparatus of the class specified, constructed and operating as hereinafter described and claimed.

The invention is fully disclosed in the following specification of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:—

Figure 1 is a side view of my improved apparatus with part of the construction broken away and indicating the method of its operation; Fig. 2 a plan view thereof with part of the construction broken away; Fig. 3 a partial section of the concrete container and mixer on the line 3—3 of Fig. 2, and; Fig. 4 a partial section on the line 4—4 of Fig. 2 and showing the bottom part of the mixer and container with part of the construction broken away.

In the practice of my invention I provide a track or way a composed of parallel rails a^2 which, in the form of construction shown, are elevated on supports a^3 , but said rails may be placed on the ground or may be supported in any desired manner. I also provide a concrete container, mixer and conveyer consisting of a receptacle b preferably composed of sheet metal and preferably cylindrical in cross section and substantially elliptical in central longitudinal section. The receptacle b is adapted to rest on and move on the rails a^2 , and for this purpose is provided on the opposite sides of the transverse center thereof with circular webs b^2 having on their outer sides circular

flanges b^3 adapted to rest on the rails a^2 , and the webs b with their flanges, form, in effect, wheels which rest on said rails. The receptacle b is also provided centrally thereof with a web b^4 having sprocket teeth b^5 and said web and teeth form a gear around which is passed a drive chain c . I also provide a power truck d having wheels d^2 adapted to travel on the rails a^2 and said truck is provided with a motor d^3 of any suitable construction and geared in connection as shown at d^4 with a crank shaft d^5 provided with a sprocket wheel d^6 around which the chain c passes.

The power truck d is provided at its free end with a yoke-shaped device comprising side arms d^7 having at their free ends heads d^8 , and the opposite ends of the receptacle b are provided with trunnions d^9 which pass through said heads, and by means of this construction the motor d^3 when in operation will move the truck d and receptacle b in either direction, as will be readily understood. The receptacle b is also provided at one side of the central web b^4 with a plurality of spaced filling and discharge openings e closed, in the form of construction shown, by threaded caps e^2 , but it will be understood that these openings may be closed in any desired manner or by any preferred means. I also mount on the rails a^2 a filler truck f on which is placed a filler box f^2 having a tapered discharge nozzle f^3 which is adapted to be inserted into either of the filling and discharge openings e when the cap thereof is removed, and the outer side of the nozzle f^3 is provided with a stop f^4 , and the opposite side of the filler box is provided with a forwardly directed stop f^5 , and in the operation as hereinafter described, the stop f^4 bears on the rim of the filler opening and the stop f^5 on the receptacle b as clearly shown in Fig. 2. The opposite sides of the filler box are provided with hooks g with which are detachably connected rods h provided at their free ends with hooks h^2 , and secured to the receptacle b at different points corresponding with and between the filling and discharge openings e are rings h^3 which are adapted to engage the hooks h^2 , and in the operation of these parts the ends of the rods h having the hooks h^2 rest on said receptacle and the rings h^3 are dropped onto said hooks, and this prevents the accidental disengagement of said parts. The receptacle b is also pro-

vided with vents or air outlets *i* arranged in a circle adjacent to the web *b*⁴ and between the filling and discharge openings *e*, in the form of construction shown, and said
5 vents or air outlets are closed by threaded cans or in any suitable way.

In the operation of this apparatus the parts are moved into the position shown in Fig. 1, in which position the discharge nozzle *f*³ of the box *f*² enters one of the openings *e*, after which the concrete material is placed in said box. The receptacle *b* is then moved forwardly and this operation raises the box *f*² off of the truck *f* and into the
10 position shown in dotted lines in Fig. 1 and the concrete material therein is dumped into the receptacle *b*. The receptacle *b* is then moved back into the position shown in full lines in Fig. 1 when the box *f*² will be
15 dropped onto the truck *f*, after which the rods *h* are disconnected from the receptacle *b*, and said receptacle may be removed to any desired point where it may be desired to dump the material therein. In this operation of moving the receptacle *b*, in which
20 operation said receptacle is continually rotated, the concrete material therein is thoroughly mixed and in order to dump the said material from said receptacle all that is necessary is to open one of the filling and discharge openings *e* as will be readily understood.

The receptacle *b* is provided on its inner side with mixer blades or plates *j* which are
35 preferably arranged longitudinally thereof as shown, but said mixer blades or plates may be arranged in any desired manner, and as will be readily understood, aid, when the receptacle *b* is rotated, to thoroughly mix
40 the concrete material therein.

In the operation of raising the filler box *f*² into the position shown in dotted lines in Fig. 1, stops *f*⁴ and *f*⁵ bear respectively on the rim of the filling and discharge opening
45 into which the nozzle *f*³ of the filler box is

inserted, and on the receptacle *b*, and this steadies and holds the filler box in the required position.

My invention is not limited to the exact method of operation hereinbefore described, 50 and the filler box *f*² with the truck *f* may be moved into any desired position and the box *f*² filled, after which the receptacle *b* may be moved up to said filler box and engaged therewith as shown and described. It will 55 be seen that the power truck *d* by reason of the method of its connection with the receptacle *b* operates to guide said receptacle on the rails, tracks or ways on which it is mounted and retain it in proper position in 60 addition to its function of moving said receptacle on said tracks or ways.

My invention is also not limited to the exact construction, combination and arrangement of the parts herein shown and 65 described, and various changes therein and modifications thereof may be made, within the scope of the appended claim, without departing from the spirit of my invention, or sacrificing its advantages. 70

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is;—

In combination, a rotative mixing receptacle with means for rolling the same, and 75 an independently supported filling device adapted to be operatively connected with said receptacle to discharge its contents thereinto, said filling device being discharged by the rolling movement of said 80 receptacle.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 21st day of October 1911.

PATRICK A. HENNESSY.

Witnesses:

C. E. MULREANY,
FRANK G. AT LEE.