March 23 , 1926. 1,577,635

N. ESSICK

POWER DUMP STRUCTURE

Filed Oct. 20, 1925

Fig. 1

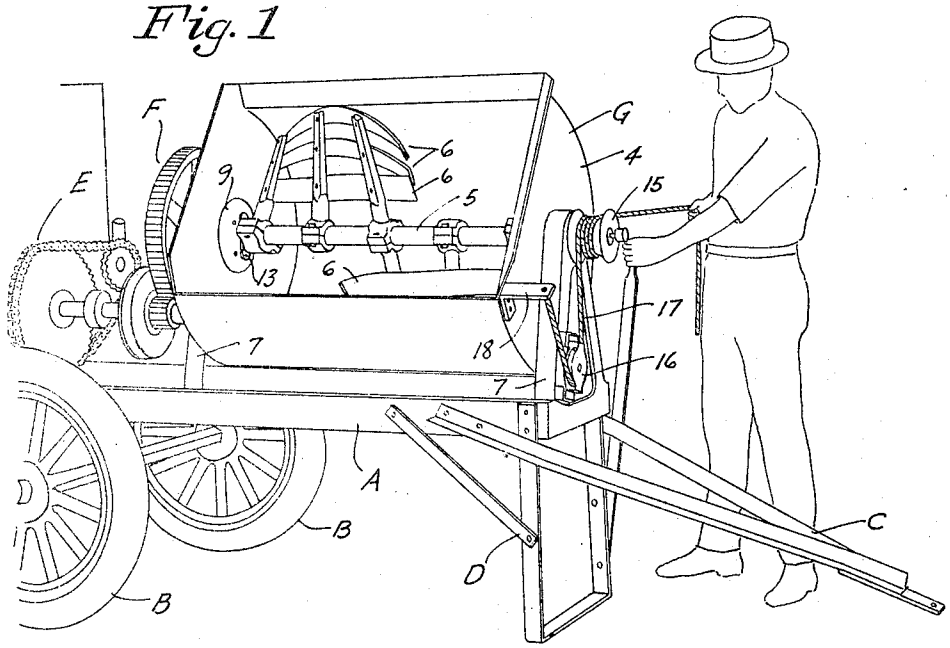


Fig. 3

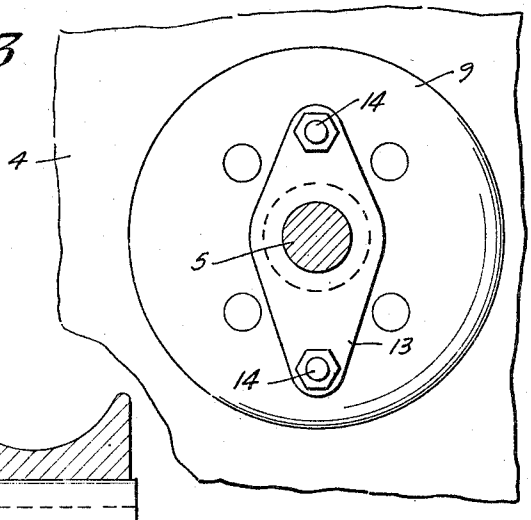
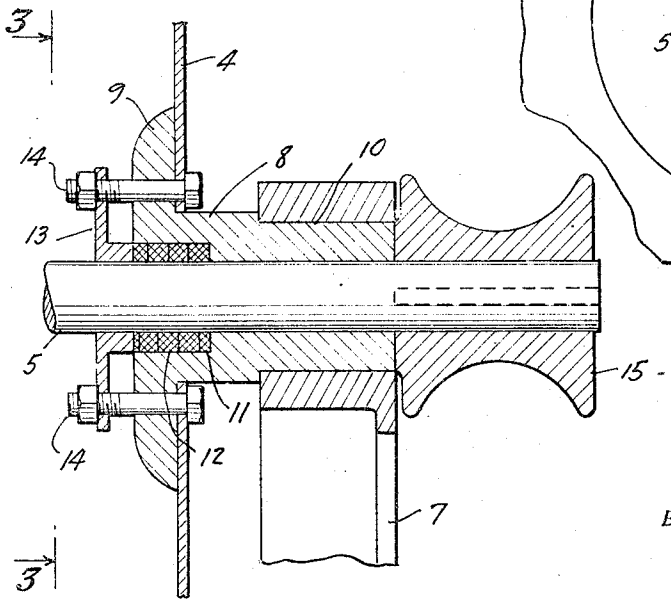


Fig. 2



INVENTOR.
Newman Essick
BY Westall and Wallace
ATTORNEYS.

Patented Mar. 23, 1926. 1,577,635

UNITED STATES PATENT OFFICE.

NEWMAN ESSICK, OF LOS ANGELES, CALIFORNIA.

POWER DUMP STRUCTURE.

Application filed October 20, 1925. Serial No. 63,691.

To all whom it may concern:

Be it known that I, NEWMAN ESSICK, a citizen of the United States, and resident of Los Angeles, in the county of Los Angeles, State of California, have invented new and useful Improvements in a Power Dump Structure, of which the following is a specification.

This invention relates to a device adapted to mix plaster and like material, and pertains more especially to a mixer wherein an open drum is supported between standards and a rotary beater is mounted therein. The ingredients are mixed in such a drum, then the latter is turned to one side to dump the mixed batch.

One of the difficulties experienced with devices of this character is that of wearing of the bearings due to the grit working into them. An object of this invention is to provide a bearing structure for the drum which is packed against grit and foreign matter so that the latter is prevented from entering between the bearing surfaces. Another difficulty experienced especially with large mixers is the energy and power required for dumping the mixer. With small mixers, dumping is performed manually without difficulty. However, with larger sizes considerable power is required. Another object of this invention is to provide a power head whereby dumping of the drum may be accomplished from the source of power for operating the mixer and performing the mixing action. More specifically, the invention also contemplates the provision of a winch head on the beater shaft whereby a line from the drum may be wrapped thereon and the drum turned by means of the structure.

These objects together with other objects and corresponding accomplishments are obtained by means of the embodiment of my invention illustrated in the accompanying drawing, in which:

Fig. 1 is a perspective view of a complete mixer equipped with my improved bearing and power head dump; Fig. 2 is an axial section through the drum and bearing structure at one end on an enlarged scale, the dump head being shown and fragments of the bearing standard and drum head; and Fig. 3 is a view looking in the direction of the arrow 3—3 of Fig. 2.

Referring more particularly to Fig. 1, the mixer is of the portable type, wherein there is a frame A supported upon ground wheels B for transporting the mixer from place to place. A draw-bar structure C provides for connection to a tractor or other vehicle so that the mixer may be trailed, and a foot D for supporting and stabilizing the structure when in use is mounted upon the frame. A power plant is indicated generally by E and through suitable gearing supplies power to a gear F mounted upon the beater shaft of the mixer proper indicated generally by G.

The mixer comprises an open drum 4 having flat heads at the opposite ends. Extending through the drum is a beater shaft 5, upon which is mounted the beater blades 6, whereby the batch may be hoed. The invention resides particularly in the mounting of the drum and shaft upon the bearing standards 7.

Referring more particularly to Figs. 2 and 3, a trunnion 8 has a tubular body and a flange 9 at one end thereof. The flange 9 is adapted to be welded or otherwise fastened to the drum head securing the trunnion in position. The external bearing surface of the trunnion may be reduced in diameter as indicated by 10 to hold the trunnion against endwise movement. The bore of the trunnion is enlarged in diameter at one end as indicated by 11 to provide a recess for receiving packing 12. A gland 13 is disposed over the shaft 5 so as to engage the packing 12 and compress the latter. Suitable bolts 14 provide for adjustably tightening the glands. A stuffing box is thus provided which securely packs the beater shaft in the trunnion, and the drum is supported by the trunnions in the standards 7. The trunnions at opposite ends are similar.

At the outer end of shaft 5 is a winch head 15. This head is secured to the shaft against rotation. Journalled on the frame A is an idler pulley 16 over which a line or rope 17 may be passed. Extending from a head of the drum is an arm 18 to which one end of the rope 17 is attached. The construction is such that when it is desired to dump the drum, the rope 17 is wound about the winch head, the free end thereof then being held taut by the operator as the beater shaft is permitted to rotate. This winds the rope upon the drum and causes the latter to be turned so as to be dumped.

What I claim is:

1. In a mixer, the combination of bear-

ing supports, a tiltable member, tubular trunnions secured to the ends of said members and journalled in said supports so as to rotatably support said member thereon, a shaft journalled in said trunnions so as to be rotatable in said member, a winch head secured to said shaft, and a line for winding on said head, said line being secured to said member at one end.

2. In a mixer, the combination of a frame having bearing standards, a drum to be tilted, tubular trunnions secured to the heads of said drum and journalled in said standards so as to rotatably support the drum thereon, a beater shaft journalled in said trunnions, a winch head secured to said beater shaft at one of said trunnions, a guide for a line mounted on said frame off center from said shaft, and a line secured to said drum for turning the latter, said line extending about said guide and adapted to be wrapped about said winch head.

3. In a mixer, the combination of a frame having bearing standards, a drum to be tilted, tubular trunnions secured to the heads of said drum and journalled in said standards so as to rotatably support the drum thereon, a beater shaft journalled in said trunnions, stuffing boxes mounted on said trunnions for packing said shaft, a winch head secured to said shaft at one of said trunnions, a guide for a line mounted on said frame off center from said shaft, and a line secured to said drum for turning the latter, said line extending about said pulley and adapted to be wrapped about said winch head.

4. In a mixer, the combination of a frame having bearing standards, a drum to be tilted, tubular trunnions having flanges on their inner ends, said flanges being mounted on the heads of said drum and secured thereto, a beater shaft journalled in said trunnions and extending therethrough, and a winch head secured to said beater shaft at one of said trunnions.

In witness that I claim the foregoing I have hereunto subscribed my name this 13th day of October, 1925.

NEWMAN ESSICK.