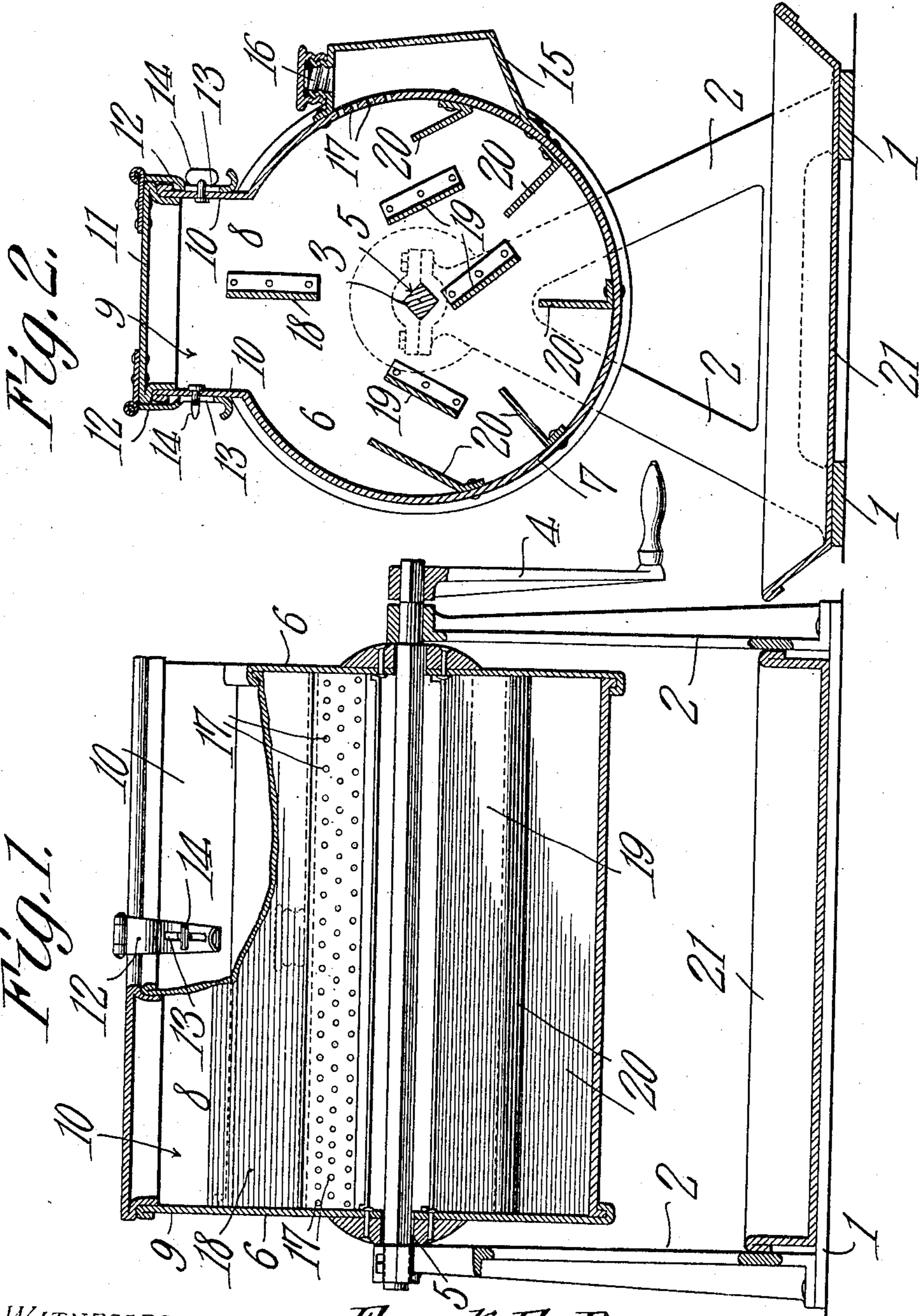


No. 872,084.

PATENTED NOV. 26, 1907.

F. E. ROONEY.
MIXING APPARATUS.
APPLICATION FILED MAY 31, 1907.



WITNESSES:
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UNITED STATES PATENT OFFICE.

FRANK E. ROONEY, OF ALTOONA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO JOSEPH C. HOLLIDAY, OF ALTOONA, PENNSYLVANIA.

MIXING APPARATUS.

No. 872,084.

Specification of Letters Patent.

Patented Nov. 26, 1907.

Application filed May 31, 1907. Serial No. 376,551

To all whom it may concern:

Be it known that I, FRANK E. ROONEY, a citizen of the United States, residing at Altoona, in the county of Blair and State of Pennsylvania, have invented a new and useful Mixing Apparatus, of which the following is a specification.

This invention relates to mixing apparatus and is more particularly designed for mixing ingredients of artificial fuel or fuel designed to be enriched by the addition of an ingredient.

The object of the invention is to provide a simple and efficient construction whereby the contents thereof can be thoroughly mixed and subsequently discharged into a receptacle provided therefor.

A still further object is to provide a novel arrangement of baffle plates disposed to agitate the contents of the apparatus.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a vertical longitudinal section through the apparatus, a portion of the receptacle being shown in elevation; Fig. 2 is a transverse section.

Referring to the figures by characters of reference, 1 designates a base having upstanding side supports 2 in the upper portions of which is journaled a shaft 3 provided at one end with a crank 4 or other suitable means whereby the shaft can be rotated. That portion of the shaft located between the supports is angular in cross section and extends through corresponding openings 5 in the heads 6 of the apparatus. These heads are substantially circular in form and are connected by a substantially cylindrical drum 7 formed of sheet metal or any other suitable material. An inlet opening 8 is formed longitudinally within the drum and extends from one head to the other of the device and the end walls of the inlet opening are formed of extensions 9 projecting from the heads 6 while the side walls of the inlet opening extend outward from the drum 7 as shown at 10. A suitable closure 11 is removably mounted upon the walls 9 and 10 and has straps 12 hinged to opposite portions thereof and formed with longitudinal

slots 13. These slots are designed to receive turn buttons 14 upon the walls 10 whereby the closure can be securely fastened in position. Secured to or formed upon the drum 7 and extending throughout the length thereof is a receptacle 15 having an inlet 16 designed to be closed in any suitable manner and the drum constitutes one wall of this receptacle. Said wall is formed with a plurality of apertures 17 through which the contents of the receptacle are free to pass into the drum.

A baffle plate 18 is secured at its ends to the heads 6 and is disposed radially within the drum and along a line intersecting the inlet 8. Additional baffle plates 19 which are similar to the plate 18 are secured to the heads 6 and are inclined toward the inlet 8. Another set of baffle plates 20 are fastened to the drum upon that portion thereof farthest removed from the opening 8 and these baffle plates are also inclined toward the opening 8. It will be noted that all of the baffle plates with the exception of the plate 18, are located within that half of the drum farthest removed from opening 8. A trough 21 is mounted upon the base 1.

In using the apparatus herein described the closure 11 is removed and the drum is filled with the proper quantity of material to be treated. Said closure is then replaced and secured in the manner described and the enriching material or the material for treating the contents of the drum is placed within the receptacle 15. After the receptacle has been closed the drum is rotated and each time the same assumes an inverted position a portion of the contents of the receptacle 15 will pass through the openings 17 and become commingled with the contents of the drum. The mixing of the ingredients will be effected by the baffle plates 18, 19 and 20 which thoroughly agitate the contents of the drum. It is designed to place within the receptacle 15 enough material for treating the contents of the drum 7. When the parts have been thoroughly mixed in the manner described the closure 11 is removed and the drum inverted. The contents of the drum will then drop into the trough 21. By inclining the baffle plates as shown and described they will not hinder the discharge of the mixture. Instead, the mixture will be free to slide therefrom toward the outlet.

It will be seen that the apparatus is very

simple, durable and efficient and can be readily operated.

While this apparatus has been described as intended primarily for mixing fuel, it can also be of considerable utility in mixing fertilizers. For example, chicken manure can be mixed with ashes and lime by reducing the manure to a liquid state and placing it in the receptacle 15 while the lime and ashes can be placed in drum 7. When the apparatus is rotated the thorough mixing of the ingredients is insured without subjecting the operator to the annoyance of the odor produced during the operation or necessitating handling of the material until thoroughly mixed.

What is claimed is:

1. In mixing apparatus the combination with a revoluble drum having an opening and a closure for said opening; of a receptacle upon and revoluble with the drum, said receptacle communicating with the drum through a plurality of apertures.

2. In mixing apparatus the combination with a revoluble drum having an opening and a closure for said opening; of a receptacle upon and revoluble with the drum, said drum constituting one wall of the receptacle, the upper portion of said wall being formed with a plurality of apertures for the passage of the contents of the receptacle into the drum.

3. In mixing apparatus the combination with a revoluble member having an opening and a closure for said opening; of a receptacle upon and revoluble with said member,

said member constituting one wall of the receptacle and having apertures opening into the upper portion of the receptacle.

4. In mixing apparatus the combination with a revoluble member having an opening and a closure for said opening; of a receptacle upon and revoluble with said member, said member constituting one wall of the receptacle and having apertures opening into the upper portion of the receptacle, and a plurality of baffle devices disposed longitudinally within the revoluble member and inclined toward the opening therein.

5. The combination with a base, supports thereon, and a trough mounted upon the base; of a shaft journaled within the support, a drum revoluble therewith and having an opening therein, a closure for the opening, baffle plates disposed longitudinally within the drum and along lines extending toward the opening, said opening extending throughout the length of the drum, a receptacle upon, and extending throughout the length of the drum, said drum constituting one wall of the receptacle and having openings extending into the upper portion of the receptacle, and means for rotating the drum and receptacle.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

FRANK E. ROONEY.

Witnesses:

CLYDE E. BROWN,
H. A. HEVERLY.