W. H. MENGLE.

SILO FILLER.

APPLICATION FILED JAN. 28, 1914.

1,113,809.

Patented Oct. 13, 1914.

2 SHEETS—SHEET 1.

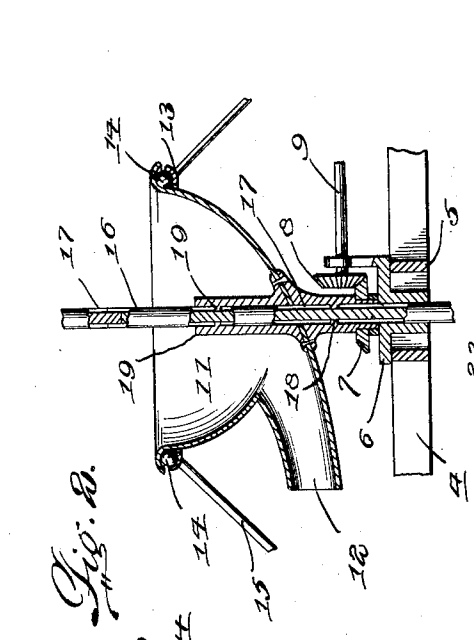


Fig. 2.

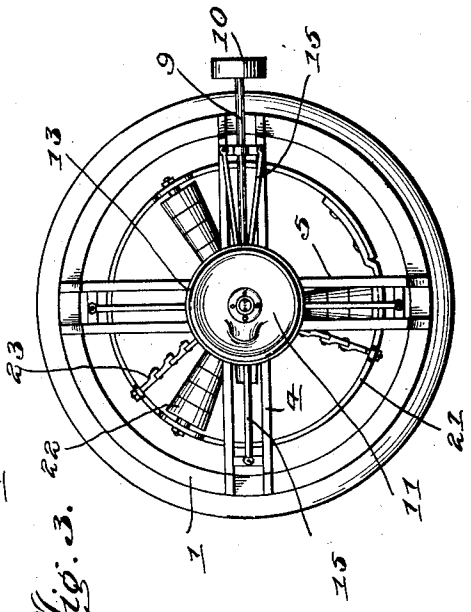


Fig. 3.

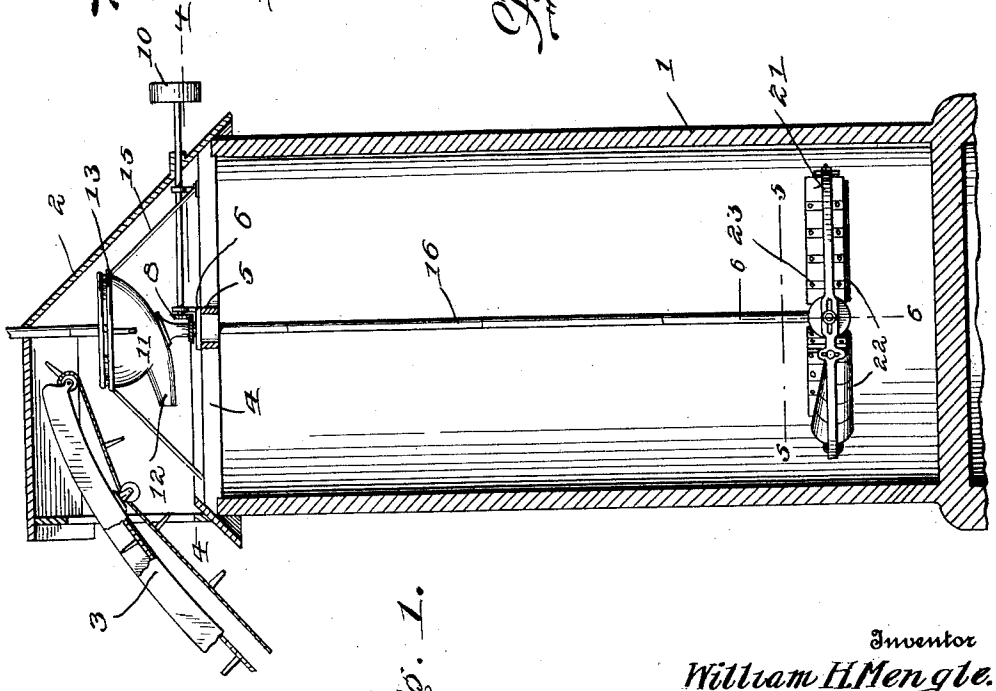


Fig. 1.

Witnesses

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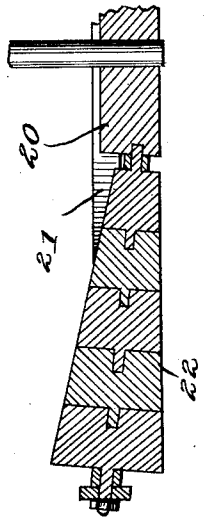
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2 SHEETS—SHEET 2.

Fig. 6.



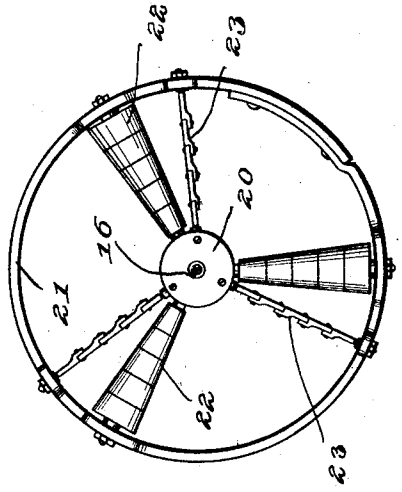


Fig. 5.

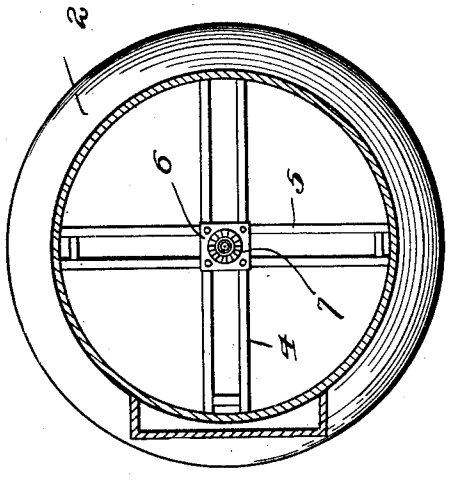


Fig. 4.

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UNITED STATES PATENT OFFICE.

WILLIAM H. MENGLE, OF DANVILLE, ILLINOIS.

SILO-FILLER.

1,113,809. Specification of Letters Patent. Patented Oct. 13, 1914.

Application filed January 28, 1914. Serial No. 815,037.

To all whom it may concern:

Be it known that I, WILLIAM H. MENGLE, a citizen of the United States, residing at Danville, in the county of Vermilion and State of Illinois, have invented new and useful Improvements in Silo-Fillers, of which the following is a specification.

This invention relates to silo fillers and packers and the principal object of the invention is to provide a novel and efficient device for distributing the ensilage and packing the same in the silo whereby a greater quantity of ensilage may be contained in the silo and also to avoid air spaces which create mold and the consequent destruction of the ensilage.

A further object of the invention is to provide a device of this character which may be conveniently placed in operation and removed from the silo and which is adjustable so as to adapt the same to different sizes of silos.

Further objects of the invention will appear as the following description is read in connection with the accompanying drawing, which forms a part of this application, and in which:—

Figure 1 is a vertical sectional view through a silo showing the device in operation therein. Fig. 2 is an enlarged detail vertical sectional view through the upper portion of the apparatus. Fig. 3 is a top plan view of the silo with the roof removed. Fig. 4 is a horizontal section taken on the line 4—4 of Fig. 1. Fig. 5 is a horizontal section taken on the line 5—5 of Fig. 1. Fig. 6 is a detail vertical section taken on the line 6—6 of Fig. 1.

Referring more particularly to the drawing, 1 represents an ordinary circular silo having a roof 2 provided in this instance with a dormer opening through which the ensilage conveyer 3 is adapted to pass. Mounted upon the upper edges of the silo walls are cross girders 4 and 5 upon which is secured a bearing head 6 having a gear 7 rotatably mounted thereon. This gear is driven by a similar gear 8 carried upon a transmission shaft 9 which passes out through the roof and is provided with a pulley 10 arranged to receive a belt from the source of power.

The gear 7 is keyed directly to the lower end of a hopper 11 which is provided with a lateral discharge spout 12 and is supported so as to rotate with the gear by means of an annular band or ring 13 which carries the anti-friction rollers 14 and is braced by the struts 15 extending from the ring to the cross girders 4 and 5, as shown. This hopper is arranged to receive the ensilage from the conveyer 3 and distribute the same evenly around the silo as will be readily understood. Slidably mounted in the gear and hopper is a shaft 16 provided with a key-way 17 arranged to receive the keys 18 and 19, the former projecting inwardly from the gear 7 and the latter projecting inwardly from the sleeve 19 extending up centrally through the hopper 11.

Keyed to the lower end of the shaft 16 is a head 20 and extending radially from the head and journaled therein and in a retaining band 21 are rollers 22 constructed in sections so as to be readily removable through the dormer opening. These rollers are caused to travel over the ensilage as it is deposited within the silo by the hopper and are preceded by scraping elements 23 secured in the head 20 and ring 21 so as to be adjustable vertically with relation to the ring and head whereby any desired degree of scraping may be obtained. These scraping elements level the ensilage, as will be readily understood, and the rollers following the same pack the ensilage firmly, thereby preventing air spaces, the shaft 16 moving freely through the gear and the hopper and rising as the silo is filled. The shaft is preferably made in sections similar to an oil well shaft so that as it rises through the hopper the inactive sections may be removed. The band 21 is shown to have overlapping ends but may be made in sections, as will be readily understood, so that it is possible to increase or decrease its size according to the length of the rollers 22. As shown, the scraping elements 23 are made in sections so that they can be lengthened or shortened in accordance with the size of the silo in which the device is used.

If desired, I may dispense with the groove or channel shaft and use a square shaft which will fit the gear and the hopper.

What is claimed is:—

1. A silo filler and packer comprising an open platform, a hopper supported thereon, means to rotate the hopper and a rotating packing device rotating with the hopper.

2. A silo filler and packer comprising an open platform, a hopper rotatably mounted

thereon, means for rotating the hopper and a freely, vertically movable packing device rotating with the hopper.

3. A silo filler and packer comprising an open platform, a hopper rotatably mounted thereon, means for rotating the hopper, a shaft freely, slidable through the hopper and actuated thereby and a packing device carried by the hopper.

4. A silo filler and packer comprising an open platform, a hopper rotatably mounted thereon, means for rotating the hopper, a sectional shaft freely slidable through the hopper and actuated thereby and a packing device carried by the hopper.

5. A silo filler and packer comprising an open platform, a hopper rotatably mounted thereon, a shaft freely slidable through the hopper, a leveling and packing device carried by the shaft and means for driving the shaft and hopper.

6. A silo filler and packer comprising a support, a hopper rotatably mounted thereon, a sectional shaft freely slidable through said hopper and keyed to rotate with the hopper, a leveling and packing device carried by the shaft and means to drive the hopper.

7. A silo filler and packer comprising a support, a hopper rotatably mounted thereon, means for driving the hopper, a shaft rotated by said driving means, radially extending rollers carried at the end of the shaft, means for bracing the rollers and leveling members arranged in advance of the rollers between the bracing means and the shaft.

8. A silo filler and packer comprising a support, a hopper rotatably mounted thereon, means to drive the hopper, a shaft connected to the driving means and rotatable with the hopper, a head on the shaft, an adjustable bracing member, sectional rollers journaled between the bracing member and the head, sectional leveling members secured between the brace and the head and means for adjusting the leveling members vertically with relation to the bracing member and head.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM H. MENGLE.

Witnesses:
GEORGE B. CHANEY,
A. J. BURKE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."