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SILO.

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1,052,671.

Patented Feb. 11, 1913.

Fig. 1.

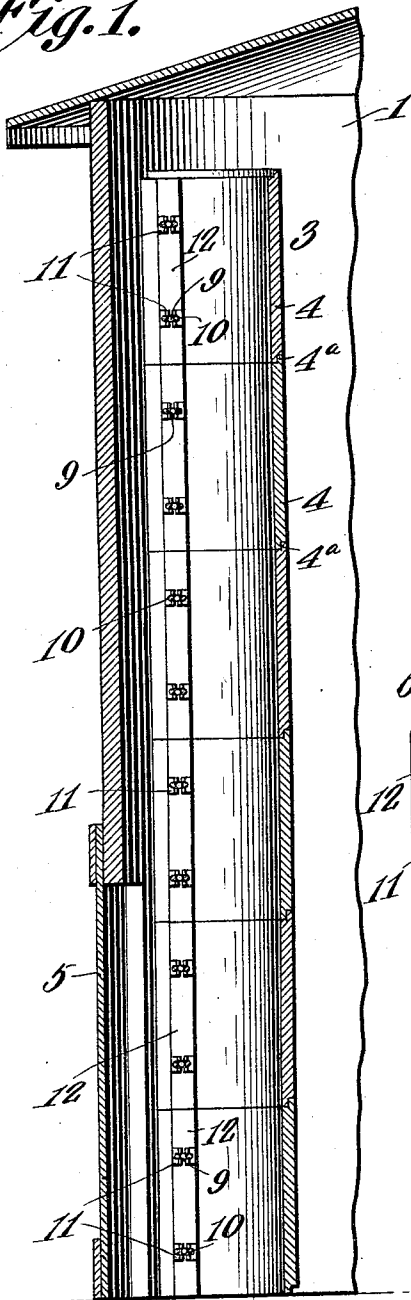


Fig. 2.

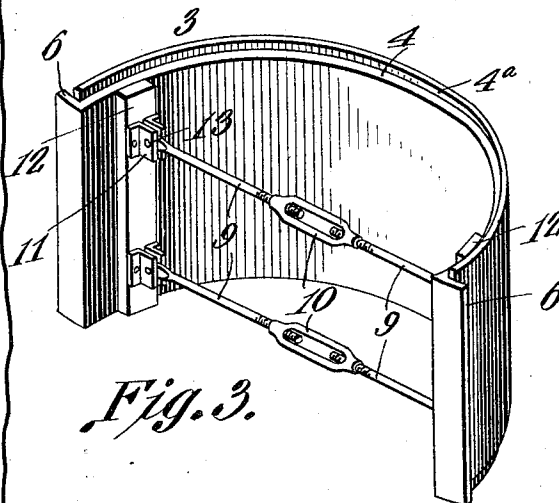
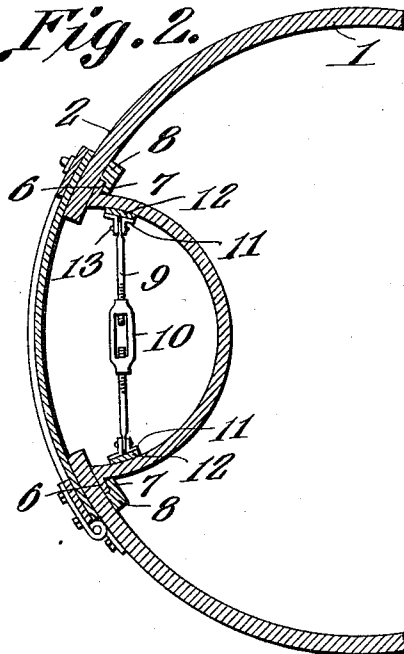


Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

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SILLO.

1,052,671.

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To all whom it may concern:

Be it known that we, GEORGE M. LE COUNT, JAMES D. McKENNEY, and ROSS W. KINYON, citizens of the United States, residing at Bradley, in the county of Clark, State of South Dakota, have invented new and useful Improvements in Silos, of which the following is a specification.

This invention relates to improvements in silos.

The invention has for its object to strengthen or reinforce the construction of silos particularly that type with continuous door-frame extending throughout the height or length of the structure.

A further object is to carry out that end in a simple, inexpensive and effective manner.

The invention includes certain instrumentalities and features substantially as hereinafter fully disclosed and defined by the appended claims.

In the accompanying drawing illustrating the preferred embodiment of our invention wherein it will be understood that various changes and modifications may be made as to the detailed construction and arrangement of the parts without departing from the spirit thereof, Figure 1 is a sectional elevation of the invention. Fig. 2 is a fragmentary horizontal or transverse section thereof. Fig. 3 is a detached perspective view of a chute section or member.

In carrying out our invention, we suitably assemble, within the casing of the silo 1, of the general construction and opposite the entrance-side 2 thereof, a chute or shaft 3 composed of numerous superposed sections or members 4, these sections or members having interlapping reductions, the resulting shoulders whereof form abutments for the terminals of said reductions in order to form air-tight joints at their upper and lower edges as at 4^a and preferably curved or arcuate in outline with their concavities facing toward said entrance-side 2 of the silo, thus uniting therewith to form the shaft or chute, above indicated and for ready access through the door-way, the door or closure being designated as 5.

Each chute-section 4 has its ends extended into lateral terminals 6 which are received under stepped or offset-portions 7 of cleats or bars 8 secured vertically to the inner wall of the silo, such means of connection

between the chute-sections and the silo providing for the insertion and retention in place of said chute sections, without rigidly attaching them to the silo, as will be readily appreciated. Each chute-section is also provided with two stressing or turn-buckle-equipped rod-members 9, each of the latter including two sections united by a turn-buckle 10, one turn-buckle member being arranged above or in vertical alinement with the other, and spanning the same, near its upper and lower edges and its ends, any suitable way of effecting connection between said rod-members and the silo being devised, as by clips or keepers 11 secured to vertical strips or bars 12 suitably secured to said chute-sections, and pintles 13 inserted through said keepers or clips and flattened terminals of said rod-members. These turn-buckle rod-members provide, it is apparent, for stressing or drawing the sides of the chute-sections, to a greater or less extent, toward each other, to accommodate them to the cross-sectional area of the interior of the silo where that becomes necessary. They also form rungs as a means of ascending the chute or shaft, within the silo, in conveniently reaching the ensilage for its ready removal.

The door 5, but one being used, is arranged in the side of the silo, at the bottom, and the structure including the chute is air-tight throughout, as is required for the preservation of the ensilage intact, as will be readily understood.

By means of the foregoing construction and arrangement of parts, it is observed that this silo, as contrasted with those of this type wherein the door-frame structure extends throughout the length or altitude thereof, is more firmly braced or strengthened from top to bottom, accordingly promoting longevity or durability in use, while it is characterized for simplicity and is relatively inexpensive of manufacture and capable of being readily erected.

What is claimed is:—

1. A device of the type described, including a silo, having two chute supporting bars, a chute composed of arcuate sections, and means for adjustably extending or contracting each section for engagement with and release from the supporting bars.

2. A device of the type described, including two chute supporting bars, a chute com-

prising superposed arcuate sections, each section of which is provided with turn-buckle-equipped rod-members for adjusting the width of each section relatively to the supporting bars.

3. A device of the type described, including two chute supporting bars, a chute comprising superposed arcuate sections, each section of which is provided with turn-buckle-equipped rod-members for their adjustment relatively to the supporting bars, said chute sections having vertical members upon the inner surfaces of the lateral walls thereof, said turn-buckle rod-members being connected to said vertical members.

4. A device of the type described, including a chute composed of sections having outstanding laterally extending terminals, a silo whose casing is provided with offset cleats, said terminals being received under the offset portions of the cleats, and means

carried by each section for locking and releasing its terminals from the cleats.

5. A device of the type described, including a silo whose casing is provided upon its inner surface with offset cleats, and arcuate shaft-forming sections having laterally extending terminals received under said cleat-offsets, said shaft-forming sections being provided with turn-buckle equipped rod-members, connected to the inner opposite surfaces thereof, near the upper and lower edges thereof, at their ends.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

GEORGE M. LE COUNT.
JAMES D. McKENNEY.
ROSS W. KINYON.

Witnesses:

J. M. JOHNSTON,
TOM SCANLAN.

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