May 10, 1966 W. W. COCHRAN 3,250,445

GRAIN DISTRIBUTOR WITH INDEXING AND LIFTING ROTORS

Filed Oct. 5, 1964

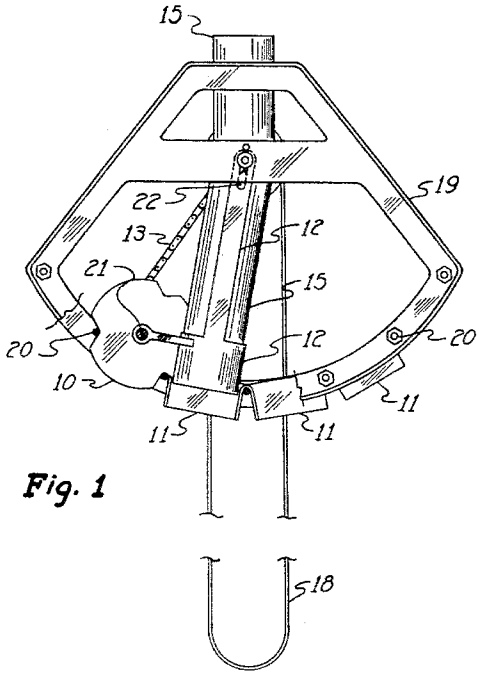


Fig. 1

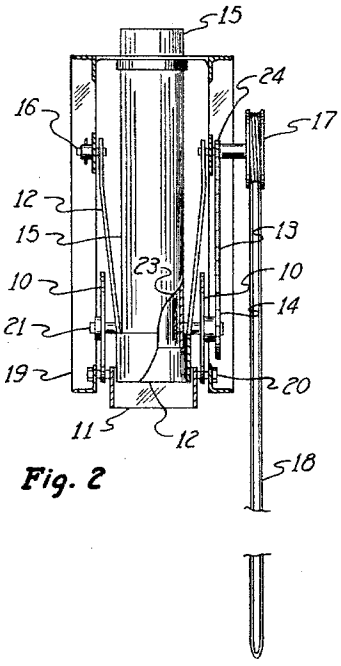


Fig. 2

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GRAIN DISTRIBUTOR WITH INDEXING AND LIFTING ROTORS

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1 Claim. (Cl. 222—478)

This invention relates to a new and useful indexing and lifting rotor for engaging and disengaging movable spouts from one position to another for use in grain distributors and other such devices.

Heretofore such spouts were raised and positioned by means not positive enough to assure proper sealing of the movable spout to the outlet spouts, thus permitting wasteful leakage of grain.

The object of my invention concerns the use of a pair of indexing and lifting rotors to provide a lifting and lowering action while accurately indexing spout over opening when same is propelled over ladderlike traction bars along the path of a series of outlet openings.

Further and fuller objects will become readily apparent when reference is made to the accompanying drawing wherein:

FIG. 1 is a side view partially in section showing a typical grain distributor using a pair of indexing and lifting rotors for the purpose of engaging and disengaging spout into a number of outlet openings.

FIG. 2 is a transverse cross section giving additional details of how this lifting motion is accomplished.

Referring to FIGURES 1 and 2 of the drawing, frames **19** are attached at the bottom by ladder type traction bars **20** which forms a traction for lifting rotors **10** carrying nozzle **12** by means of shaft **21** which is rigidly attached to sprocket **14** and is turned by means of chain **13** and sprocket **24** which is attached to sheave **17** and turned by hand rope **18**.

Nozzle **12** has a sliding fit over movable rubber spout **15**. Engagement and disengagement of nozzle **12** is allowed by a slotted hole **22** in nozzle **12** at pin **16**.

Cut away at **23** shows how movable rubber spout **15** is lapped into nozzle **12** which in turn is lapped into discharge opening **11**.

It is contemplated that other means may be used to motivate the indexing and lifting rotors, such as being powered by electric or hydraulic motors etc.

Although the present invention has been illustrated with a single embodiment, it will become immediately obvious to those skilled in the art that various other forms are possible once the present arrangement is known. Accordingly, any limitations imposed should be within the spirit and scope of the appended claim.

The invention having been described, what is claimed as new is:

A grain distributor indexing and movable spout comprising a pair of wheel shaped lifting rotors with properly shaped receiving teeth around the periphery thereof; a pair of frames; ladder type traction bars connecting the frames together and forming a traction ladder over which the rotors will traverse when caused to rotate; a shaft connected between said rotors; a sprocket connected to the said shaft, a spout also connected to the shaft capable of movement; a plurality of discharge openings beneath said bars therewith and drive means connected to the sprocket which when operated will cause the rotor to traverse the ladder traction bars and also cause the spout to move out of engagement with one discharge opening and into engagement with another discharge opening.

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LOUIS J. DEMBO, *Primary Examiner.*

CHARLES R. CARTER, *Examiner.*