E. H. CLARK.

LADDER FOR SILOS.

APPLICATION FILED SEPT. 21, 1915.

1,176,652.

Patented Mar. 21, 1916.

2 SHEETS—SHEET 1.

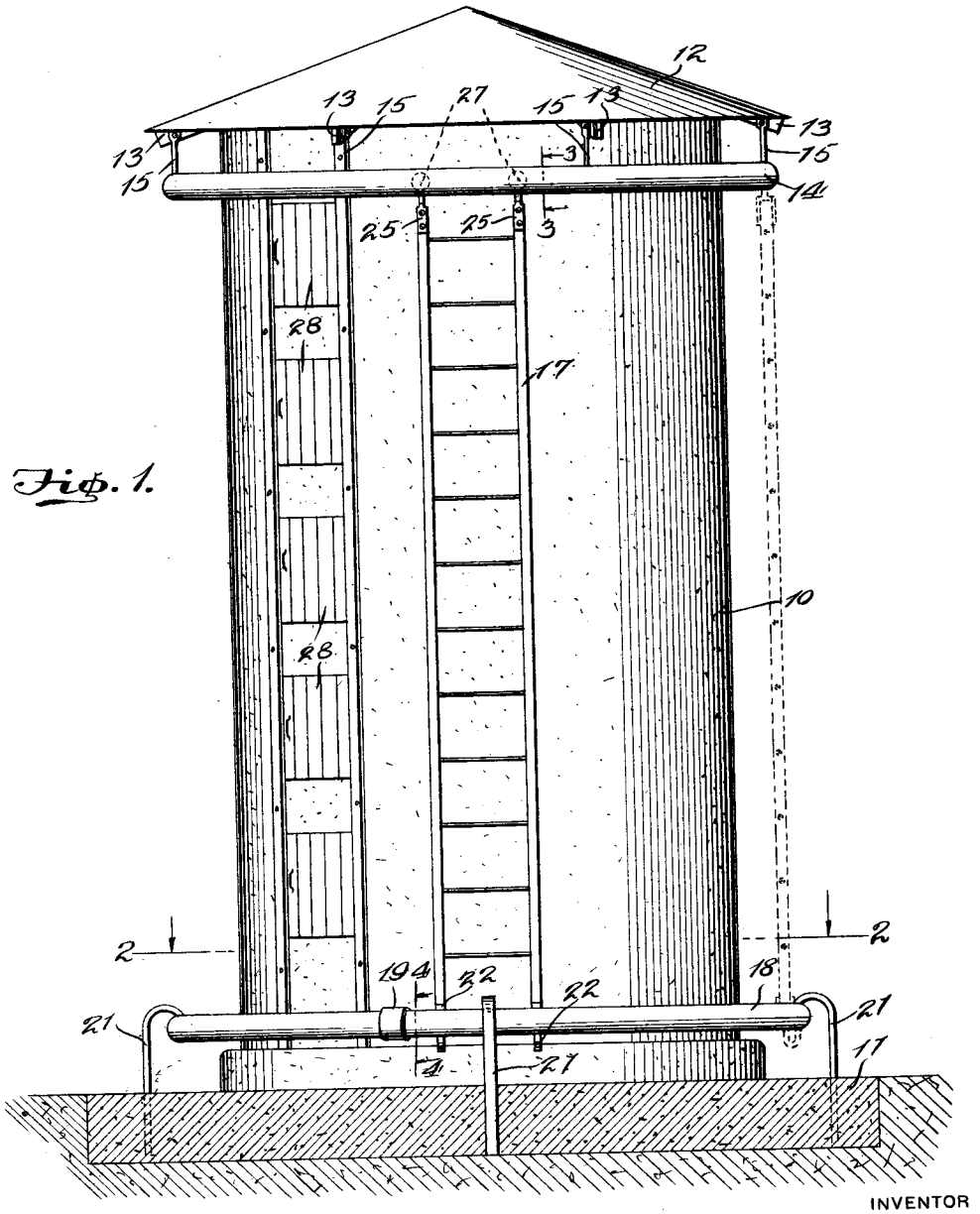


Fig. 1.

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2 SHEETS—SHEET 2.

Fig. 2.

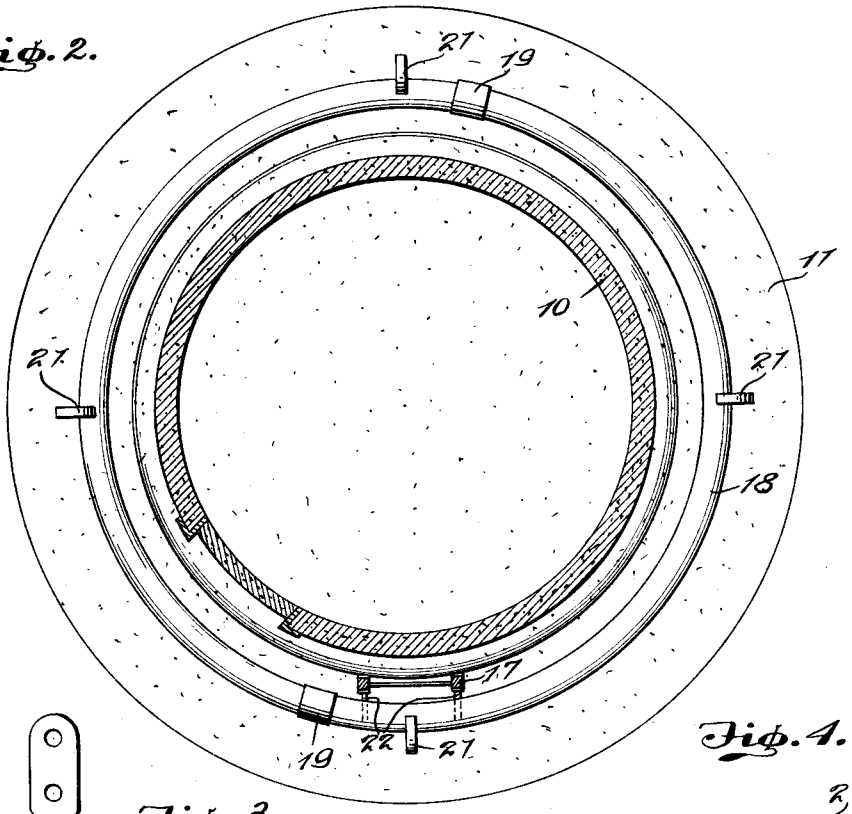


Fig. 4.

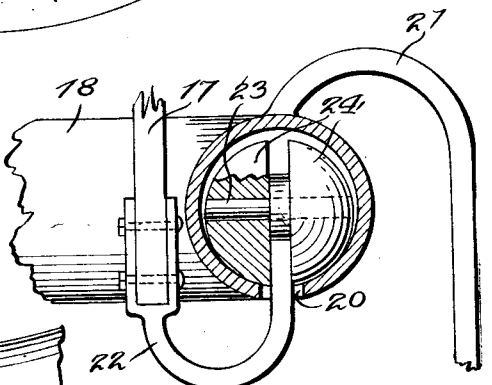


Fig. 3.

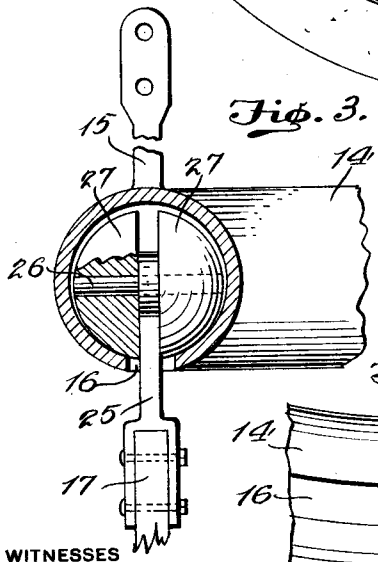
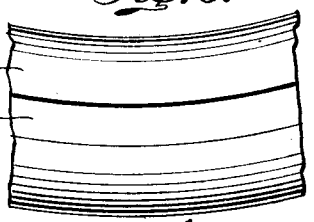


Fig. 5.



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UNITED STATES PATENT OFFICE.

EARL H. CLARK, OF COON RAPIDS, IOWA.

LADDER FOR SILOS.

1,176,652. Specification of Letters Patent. Patented Mar. 21, 1916.

Application filed September 21, 1915. Serial No. 51,870.

To all whom it may concern:

Be it known that I, EARL H. CLARK, a citizen of the United States, residing at Coon Rapids, in the county of Carroll and State of Iowa, have invented certain new and useful Improvements in Ladders for Silos, of which the following is a specification.

This invention relates to an improved ladder which is intended to be connected with a silo and the principal object of the invention is to provide improved tracks for the upper and lower ends of the ladder and to also provide improved means for connecting the ladder with the two tracks so that the ladder may move around the silo.

Another object of the invention is to so construct the tracks that water may not collect in the same and to further so construct the tracks that birds cannot build nests in the tracks and thus interfere with the free movement of the ladder around the silo.

Another object of the invention is to so construct the ladder and the tracks for the same that the ladder may be applied to silos now in use.

This device is illustrated in the accompanying drawings, wherein:—

Figure 1 is a view in elevation of a silo provided with the improved ladder and tracks for the ladder. Fig. 2 is a transverse sectional view taken along the line 2—2 of Fig. 1. Fig. 3 is a sectional view through the upper track, the view being taken along the line 3—3 of Fig. 1. Fig. 4 is a transverse sectional view through the lower track, the view being taken along the line 4—4 of Fig. 1. Fig. 5 is a plan view of a section of one of the tracks.

The silo 10 rests upon the foundation 11 and is provided with a roof 12 having supporting beams 13 which carry the upper track. This upper track 14 is connected with the roof supporting beams 13 by means of the hanger brackets 15 and is in the form of a pipe having a longitudinally extending slot 16 in its under face. It will thus be seen that any water striking the track by dripping off of the roof or by driving against the track will not pass into the pipe and that therefore the inner face of the pipe will not be rusted. It should be further noted that this slot which is the only means of obtaining access to the interior of the track is comparatively narrow and that therefore birds cannot build their nests in the track and thus interfere with the free passage of the ladder 17 around the silo.

The lower track 18 is similar in construction to the upper track and is formed of two sections as shown in Fig. 2 connected by the sleeves 19. Of course, these sleeves 19 must be provided with slots which will register with the slots 20 of the lower track as otherwise the ladder could not pass the sleeves. This lower track is supported in spaced relation to the silo and the foundation 11 by means of the standards or brackets 21 which are embedded in the foundation and have their upper end portions curved to engage the upper face of the track.

The ladder 17 is provided at its lower end with brackets 22 which are curved to extend into the lower track. These brackets 22 are each provided with a pin or axle 23 which carries the two sections 24 of the lower roller. These rollers 24 are positioned in the lower track and rest upon the bottom portion thereof as shown in Fig. 4. Therefore the ladder can move freely around the lower track. The upper ends of the side bars of ladder 17 are also provided with brackets, these brackets 25 extending into the upper track and each being connected with an axle or pivot pin 26 which carry the two sections of the rollers 27. From an inspection of the drawings in this case it will be seen that this ladder will be slidably mounted by means of the rollers 24 and 27 and that due to this construction the ladder can be very freely moved around the silo when desired. Therefore the silo can be changed or any necessary repairs made on the same without it being necessary to build a scaffold. It should be further noted that if it is desired to obtain access to the interior of the silo through one of the upper doorways 28, the ladder can be moved into the proper position.

What is claimed is:—

A silo, supporting brackets positioned adjacent the upper and lower ends of said silo, tubular tracks carried by said upper and lower supporting brackets, and having their under faces provided with longitudinally extending slots, a ladder, brackets extending from the upper end of said ladder into the slots of said upper track, curved

brackets extending from the lower end of said ladder and having their free ends extending into the slots of said lower track, and rollers rotatably connected with the inner ends of said ladder brackets and resting upon the lower portions of said track and bridging the slots formed therein.

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

EARL H. CLARK.

Witnesses:
C. B. BOWMAN,
W. E. MAYBAY.

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