E. McGARY.

SILO LADDER.

APPLICATION FILED OCT. 17, 1914.

1,172,720. Patented Feb. 22, 1916.

Fig. 1

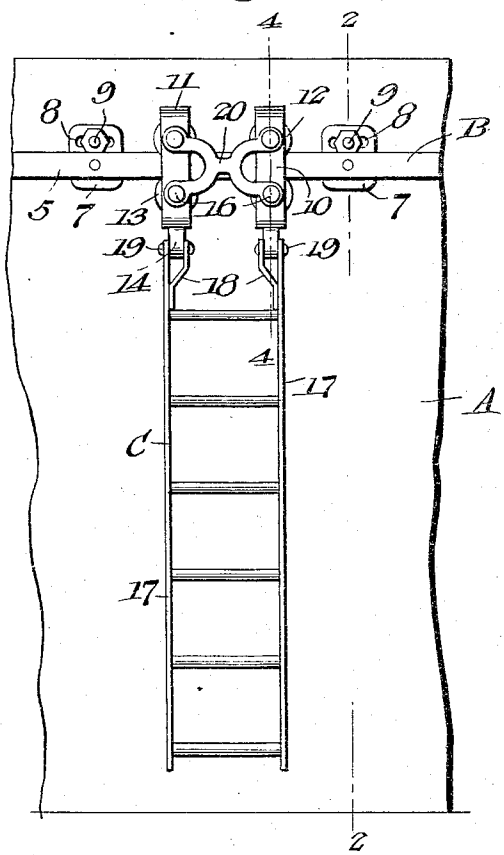


Fig. 2.

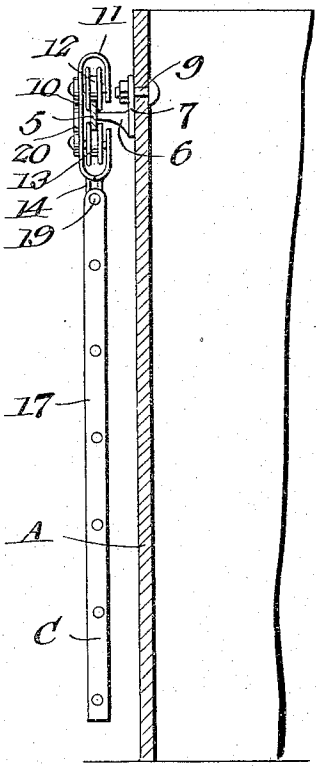


Fig. 3.

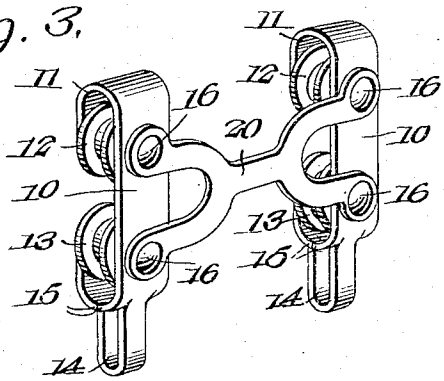
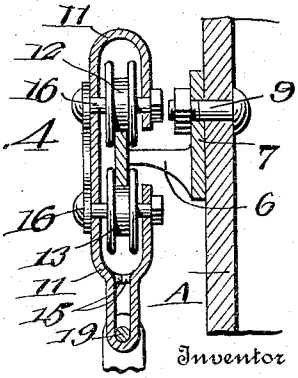


Fig. 4.



Witnesses

Hugh L. Hott

Inventor

Eugene McGary

By Victor J. Evans

Attorney

THE COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C

UNITED STATES PATENT OFFICE.

EUGENE McGARY, OF KIRK, KENTUCKY.

SILO-LADDER.

1,172,720. Specification of Letters Patent. Patented Feb. 22, 1916.

Application filed October 17, 1914. Serial No. 867,221.

To all whom it may concern:

Be it known that I, EUGENE McGARY, a citizen of the United States, residing at Kirk, in the county of Breckinridge and State of Kentucky, have invented new and useful Improvements in Silo-Ladders, of which the following is a specification.

The invention relates to ladders and more particularly to the class of suspended sliding ladders for use on silos.

The primary object of the invention is the provision of a ladder wherein the hanger therefor is of novel form so that the ladder can be suspended therefrom and is mounted for free swinging movement, the hanger being movable over a track which is fixed without the silo and this hanger is fitted with rollers which work upon the top and bottom edges of the track so that the ladder can be freely moved to any point about the said silo.

Another object of the invention is the provision of a ladder wherein the straps of the hanger are cut and bent to provide sheaves for the rollers which are adapted to travel upon the track and also to provide ears for the pivotal connection of the upper ends of the side rails of the ladder so that the same will be suspended from the hanger for use in the usual manner.

A further object of the invention is the provision of a ladder of this character which is extremely simple in construction, strong, durable, reliable and efficient in its purpose and inexpensive in manufacture.

With these and other objects in view the invention consists in the features of construction, combination and arrangement of parts, which will be hereinafter fully described, illustrated in the accompanying drawing and pointed out in the claim hereunto appended.

In the drawings:—Figure 1 is a fragmentary side elevation of a silo showing the ladder constructed in accordance with the invention applied. Fig. 2 is a vertical longitudinal sectional view on the line 2—2 of Fig. 1. Fig. 3 is a perspective view of the hanger for suspending the ladder. Fig 4 is a sectional view on the line 4—4 of Fig. 1.

Similar reference characters indicate corresponding parts throughout the several views of the drawing.

Referring to the drawings in detail A designates a portion of a silo which may be of any approved form, B the track and C the ladder suspended from and movable throughout the extent of the track without the silo. The track comprises a rail 5 which is correspondingly curved with respect to the outer wall of the silo A and is spaced therefrom the required distance, the said rail being supported upon hangers 6 which have faces 7 provided with slots 8 through which are passed bolts 9 the latter carrying the usual nuts and in this manner the said hangers 6 are adjustably fastened to the outer wall of the silo A, it being understood of course that the bolts 9 are passed through the wall of the said silo.

The ladder C is swingingly suspended from a movable hanger comprising a pair of spaced straps 10, each being bent to form hook ends 11 which are reversely disposed with respect to each other and serve as sheaves for upper and lower track rollers 12 and 13, respectively, the lowermost hook end 11 of the said strap being cut and bent to form a depending loop or eye 14 and instruck ears 15 at opposite sides of the said loop or eye 14. The ears 15 abut each other to serve as spacers for the stretches of the strap 10 so that the hook ends 11 will accommodate the rollers 12 which are journaled upon stud axles 16 mounted in the opposite stretches of the strap 10, the rollers 13 being designed to travel upon the lower edges of the rail 5 forming the track B for the ladder. Mounted at the upper end of the side rail 17 of the ladder C are brackets 18 which together with the side rail 17 of the ladder support pivots 19, which are loosely passed through the eves or loops 14 for swingingly connecting the ladder C to the hanger. Connected to the straps 10 is a substantially X-shaped frame 20 which unites the said straps of the hanger, the hook ends 11 of the straps 10 being spaced apart at the rear or inner side of the hanger so as to afford a clearance for the hangers 6 supporting the rail 5 of the track. Thus it will be seen that the hanger can move freely over the rail 5 throughout the extent of the track B and from this hanger is suspended the ladder C which is used in the ordinary well known manner.

From the foregoing it is thought that the operation and construction of the invention will be clearly understood and therefore a more extended explanation has been omitted.

What is claimed is:—

The combination with a track and a lad-

der, of a hanger comprising a pair of spaced open, substantially oval shaped straps providing reversely disposed hook ends, one hook end of each strap being cut and bent to provide an intermediate eye, and inwardly extending outer abutment ears respectively, said ears being brought into contacting relation with each other, upper and lower track rollers journaled in the hook ends of the straps and movable over the track, brackets fixed to the side rails of the ladder, and pivots passed through the side rails of the ladder and the brackets for connecting therebetween the eyes on the hanger whereby the ladder is freed for swinging movement relatively thereto.

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

EUGENE McGARY.

Witnesses:

PAUL COMPTON,

CLAUDE MERCER.

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