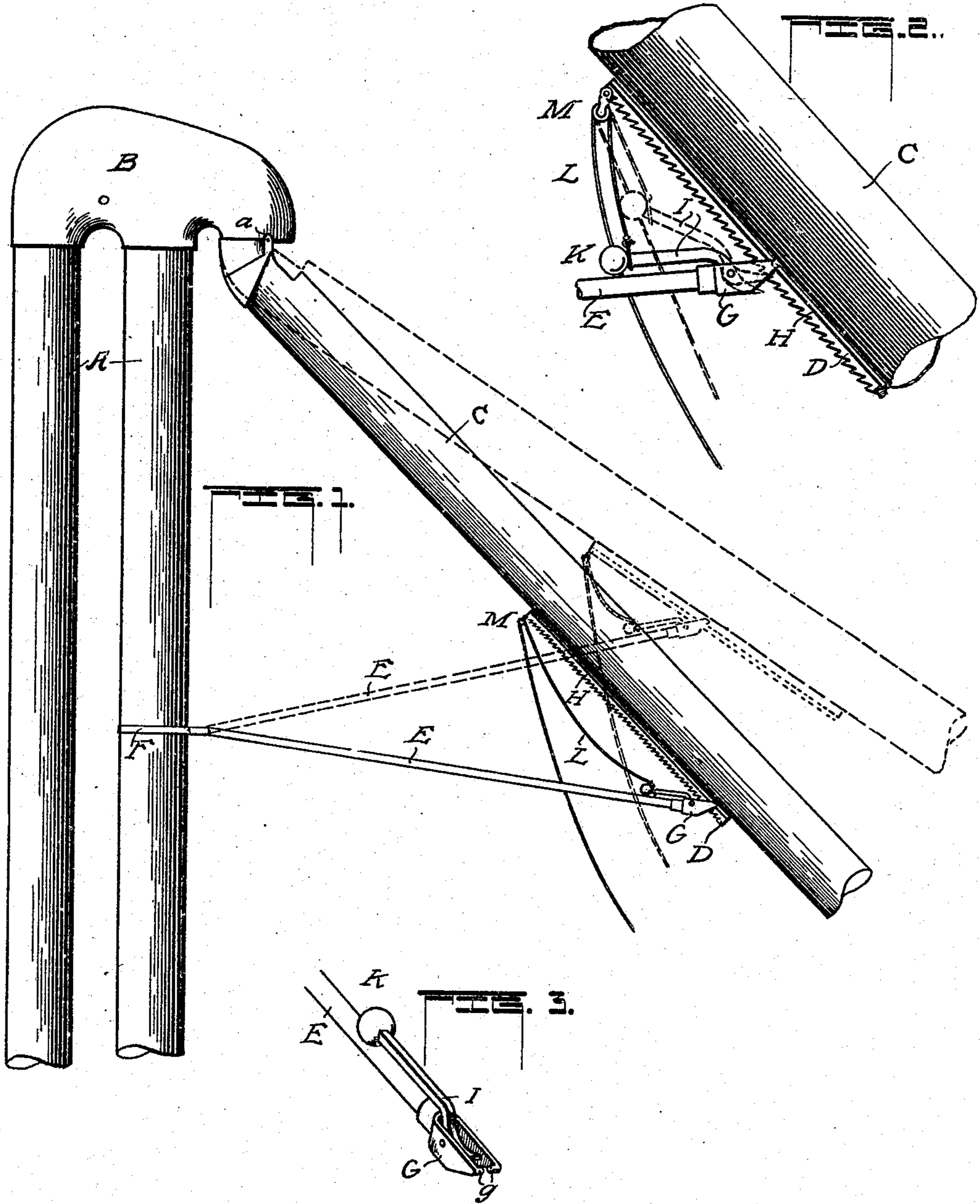


C. L. GARDNER.
GRAIN SPOUT.
APPLICATION FILED NOV. 9, 1908.

936,772.

Patented Oct. 12, 1909.



Witnesses
Miss Fuller
Mary E. Conroy

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UNITED STATES PATENT OFFICE.

CHARLES L. GARDNER, OF PEORIA, ILLINOIS.

GRAIN-SPOUT.

936,772.

Specification of Letters Patent.

Patented Oct. 12, 1909.

Application filed November 9, 1908. Serial No. 461,619.

To all whom it may concern:

Be it known that I, CHARLES L. GARDNER, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Grain-Spouts, of which the following is a specification.

My invention relates to certain new and useful improvements in grain spouts and is adapted to be used in connection with grain elevators.

More particularly, my invention has relation to that class of spouts which are adapted to be adjustable with relation to the elevator to accommodate the delivery of grain to different points and also has special reference to means for accommodating the vertical adjustment of the same to carry the end of the spout at different heights.

That my invention may be more fully understood, reference is had to the accompanying drawings, in which—

Figure 1 is a side elevation of my improved spout showing its connection with an elevator head; Fig. 2 is a sectional view of the spout showing particularly the adjusting means; and, Fig. 3 is a perspective view showing a detailed part.

Referring to these figures, A are sections of elevator tubes to which elevator flights or buckets are attached which are adapted to be operated to carry the grain upwardly.

B is an elevator head surmounting the tubes and from which head the grain is adapted to be delivered into the elevator spout C. The elevator spout is pivoted to the head as at *a*. The spout may be connected with the head if desired in any suitable manner to accommodate its lateral adjustment from side to side.

To accommodate the vertical adjustment of the spout, which is the direct object of my present invention, I have provided the rack bar D secured upon the under side of the spout and at a point intermediate its length, which said rack bar is provided with serrations or teeth as shown; a reach E is provided, the rear end of the same being secured in a pivotal manner to the band F upon one of the elevator tubes as shown, this band being properly clamped thereon at any point desired. The forward end of the reach E is provided with the head G which

is furcated at its forward end and provided with the small inwardly projecting lugs *g*, these lugs being adapted to engage a pair of flanges as H on the rack bar D, there being one provided on each side of said rack bar. The connection of the reach E with the rack bar D, as explained above, enables the lugs *g* of the head G to slide up and down upon the bar as the spout is raised or lowered.

To accommodate the engagement of the reach with the rack bar, I have provided the pivoted pawl I which is tapered at its forward end in such a manner as to properly engage the serrations of the rack bar D and the rear end of the pawl is provided with the weight K. I have provided the rope L adapted to be connected with the pawl I and to bear over a suitable pulley as M supported in the manner shown in the drawings upon the upper end of the rack bar or at some other suitable point, and the free end of the same is adapted to be handled by the operator at or near the forward end of the spout.

In operation, when it is desired that the spout shall be raised or lowered, the operator by pulling upon the rope will disengage the pawl I from the rack bar D and will hold the same out of such engagement while the spout is raised or lowered, which is accomplished manually by the operator and may be so raised or lowered within the scope permitted by the length of the rack bar.

What I claim is:—

1. In a device of the class described, the combination with an elevator, of a spout suitably sustained in an adjustable relation therewith, of means for maintaining the spout in adjusted positions, same comprising a rack bar upon the spout provided with bearing flanges upon either side thereof, a reach, the forward end thereof having a slidable relation with said rack bar and having a pawl pivotally supported therein, its rear end supported in connection with the elevator, and means connected with said pawl to facilitate the moving of said pawl to cause engagement or disengagement of the same with the rack bar.

2. In a device of the class described, the combination with an elevator head, of a spout having an adjustable relation therewith, means for vertically adjusting the said

spout, comprising a reach having each end thereof pivotally supported in a suitable manner in connection with the elevator, a furcated head on the outer end thereof provided with inwardly extending lugs, a pawl pivoted within said furcated part and means connected with said pawl for adjusting the same, a rack bar upon said spout provided

with flanges on each side adapted to support the forward end of the reach. 10

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

CHARLES L. GARDNER.

Witnesses:

ROBERT N. McCORMICK,

MARY E. CORNEGYS.