

UNITED STATES PATENT OFFICE

THOMAS B. BENNETT AND CHARLES P. SMITH, OF FLANAGAN, ILLINOIS.

ELEVATOR.

No. 894,419.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, THOMAS B. BENNETT and CHARLES P. SMITH, residing at Flanagan, in the county of Livingston and State of Illinois, have invented certain new and useful Improvements in Elevators; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to elevators for raising grain and other similar material; and it consists in a revoluble discharge spout as hereinafter fully described and claimed.

In the drawings, Figure 1 is a side view, partly in section, showing the top portion of an elevator provided with a discharge spout according to this invention. Fig. 2 is a plan view of the same.

A is the upper end portion of the casing of an elevator of any approved construction.

B is the upper shaft of the elevator provided with a barrel *b*, and C is the elevator band or chain provided with buckets *c*.

The shaft B is journaled in the casing A, and a sprocket wheel D is secured on one of its projecting end portions.

E is a horizontal shaft journaled in bearings *e* which project from the upper end of the casing A. A sprocket wheel F is secured on the shaft E, and *f* is a drive-chain which passes over the sprocket wheels D and F. An adjustable pulley *e'* is provided for tightening the drive-chain *f*, and is supported on one side of the casing A.

G is an elbow-pipe secured to the casing A in a position to receive the grain or other material which is discharged from the elevator buckets. The free end portion *g* of this elbow-pipe is arranged at an acute angle with the horizontal, and H is a discharge pipe or spout which is journaled on the end portion *g* and provided with suitable means for preventing it from sliding longitudinally off it. A sprocket wheel I encircles the spout H and is secured to it.

J is an inclined shaft journaled in a bearing *j* secured to the upper side of the elbow-pipe G. A sprocket pinion *k* is secured on the shaft J, and K is a drive-chain which passes over the pinion *k* and the wheel I.

M is a vertical shaft journaled in bearings *m* secured to the casing A. A beveled toothed wheel *n* is secured on the lower end portion of the shaft M, and gears into a beveled toothed wheel *n'* secured on the shaft J. A beveled toothed wheel *p* is secured on the upper end portion of the shaft M, and gears into a beveled toothed wheel *p'* secured on the horizontal shaft E.

The revoluble spout is driven whenever the elevator is in action, and it enables the grain to be placed in bins nearly up to the level of the top of the elevator, so that the cribs or bins can be more fully filled than is possible with the steeply inclined and non-revoluble delivery spouts commonly used.

What we claim is:

1. The combination, with an elevator provided with a delivery pipe or chute, of a straight discharge pipe or spout journaled at the free end of the said delivery pipe, and driving mechanism for revolving the said discharge pipe on its own axis.

2. The combination, with an elevator provided with a downwardly and outwardly curved delivery pipe or chute, of a straight discharge pipe journaled at the free end of the said delivery pipe and arranged at a slight inclination with the horizontal, and driving mechanism for revolving the said straight discharge pipe on its own axis.

3. The combination, with an elevator provided with an elbow-pipe at its upper end for receiving the material, of a straight discharge pipe or spout arranged in an inclined position and journaled at the free end portion of the said elbow-pipe, an inclined shaft journaled in a bearing secured to the said elbow-pipe and arranged parallel with the said inclined pipe, a drive-chain and sprocket wheels operatively connecting the said shaft and pipe, and driving devices for revolving the said shaft operatively connected with the said elevator.

In testimony whereof we affix our signatures, in presence of two witnesses.

THOMAS B. BENNETT.
CHARLES P. SMITH.

Witnesses:

EDWARD LITCHFIELD,
LAVINA RICHARDSON.