

(No Model.)

B. S. CONSTANT.
FEED MECHANISM FOR ELEVATORS.

No. 467,887.

Patented Jan. 26, 1892.

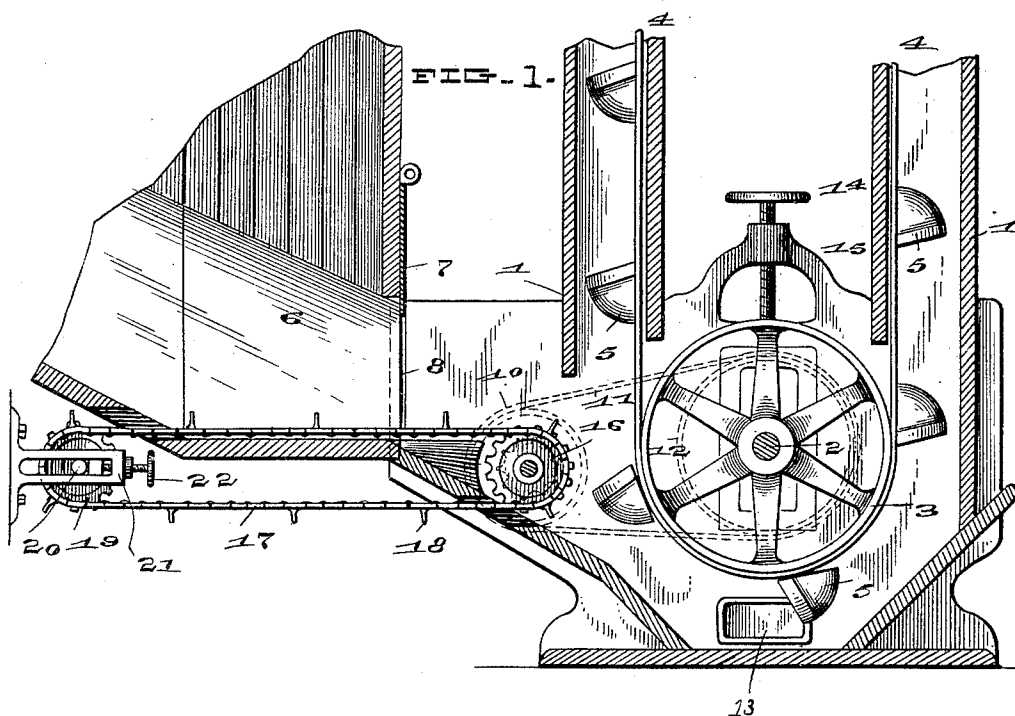
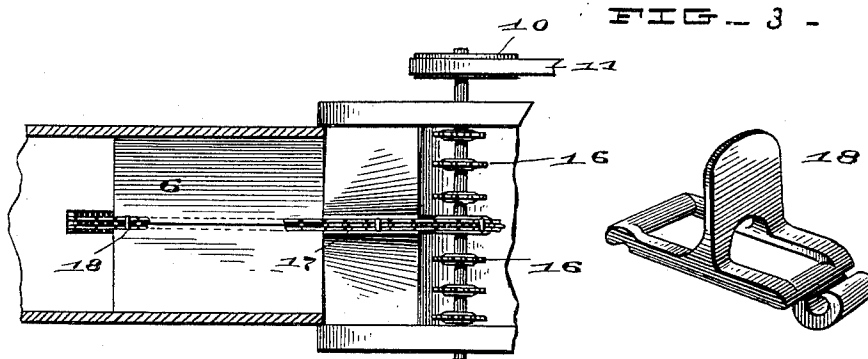


FIG. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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FEED MECHANISM FOR ELEVATORS.

SPECIFICATION forming part of Letters Patent No. 467,887, dated January 26, 1892.

Application filed December 8, 1890. Serial No. 373,978. (No model.)

To all whom it may concern:

Be it known that I, BOSTON S. CONSTANT, of Logansport, county of Cass, and State of Indiana, have invented certain new and useful Improvements in Feed Mechanism for Elevators; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like figures refer to like parts.

My invention relates to improvements in the construction of ear-corn-feed mechanism for grain-elevators, and will be understood from the following description.

In the drawings, Figure 1 is a vertical section of my device. Fig. 2 is a detail top view of the same. Fig. 3 is an enlarged perspective view of one of the links of the drag-chain.

In detail, 1 is a casing providing bearings in its sides for a shaft 2, on which is mounted the main pulley 3, about which moves the elevator-belt 4, carrying buckets 5, the other end of the belt being carried about a similar pulley at the top of the machine in the ordinary manner.

6 is a bin containing ear-corn and having a slide 7, which is adapted to close an opening 8 in front and at the bottom of the bin, the latter having inclined sides, forming a V-shaped bottom.

16 are feed-wheels mounted on a shaft located directly between the opening from the spout or bin and the elevator-buckets. On the outer end of this shaft is mounted a pulley 10, which connects by a belt 11 with a larger pulley 12, mounted on the end of the main shaft 2.

13 is an opening for getting at the interior of the machine in case it becomes necessary.

14 is a hand-wheel connected to a screw-rod working in a bracket 15, connected to the side of the frame for adjusting the height of the main shaft, so as to regulate the tension of the elevator-belt, one of these adjusting-wheels being on each side of the elevator-boot.

On the feed-wheel shaft are mounted a series of sprocket-wheels 16, which form the feed-roll, and the center one of these, which is slightly larger than the rest, is connected by a link belt 17, of the drag-chain species,

provided with drag-links 18 at suitable distances, one of the drag-links being shown in Fig. 3, directly to and with the sprocket-wheel 19, mounted on the shaft 20 in the rear and beneath the bin or spout, this being carried and having a bearing in the bracket 21, provided with an adjusting-screw 22 for regulating the tension of the drive-belt.

It will be seen in Fig. 1 that the drag-chain passes through the bin on a line just above its bottom and passes out through a slot in the rear, and as the ears of corn are fed directly down the chute, which, as before stated, is made V-shaped, upon the surface of the drag-chain, the feed-wheel revolving, the corn is drawn forward and passing over the sprockets 16 is delivered directly to the elevator-buckets in front. It will be seen, therefore, that my feed is direct and brings the ear-corn from the bin and deposits it in the elevator-buckets. At the same time the feed is regular with the elevator-buckets, it being operated direct from the main elevator-shaft 2, and there is no chance of its clogging at the mouth of the bin, as is too often the case with devices for feeding ear-corn.

Modifications may be made in my device without departing from the principle of my invention; but

What I claim as my invention, and desire to secure by Letters Patent, is the following:

1. In a grain-elevator, a feed mechanism comprising a series of sprocket-wheels mounted on a spindle having bearings in the sides of the frame and located between the mouth of the delivery-spout and the elevator-buckets, and a drag-chain connecting the central wheel with a sprocket carried in adjustable bearings at the rear and beneath the delivery-spout, such drag-chain carried in a line with the bottom of the bin, whereby the grain falls directly upon and is carried forward by the drag-chain to the feed-wheels and into the buckets, substantially as shown and described.

2. In a grain-elevator, a feed mechanism located between the elevator-buckets and the delivery-spout, comprising a series of sprocket-wheels mounted on a spindle having bearings in the sides of the frame and driven by belt mechanism from the main shaft, and a central sprocket-wheel connected

by a drag-chain to a sprocket-wheel mounted
in adjustable bearings in the rear and be-
neath the delivery-spout, whereby the revo-
lution of the main shaft operates to carry the
5 drag-chain with its load forward and deliver
the material to the feed-wheels, substantially
as shown and described.

In witness whereof I have hereunto set my
hand this 3d day of December, 1890.

BOSTON S. CONSTANT.

Witnesses:

C. P. JACOBS,
H. D. NEALY.