No. 752,838. PATENTED FEB. 23, 1904.

J. A. HEINTZ.

CONVEYER.

APPLICATION FILED NOV. 14, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

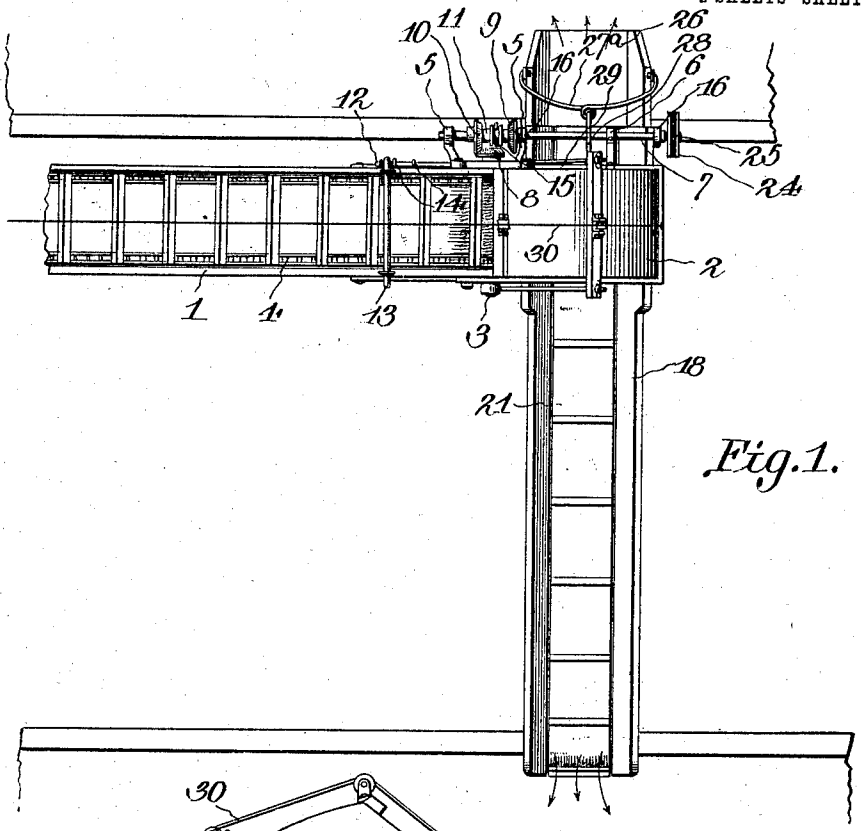


Fig. 1.

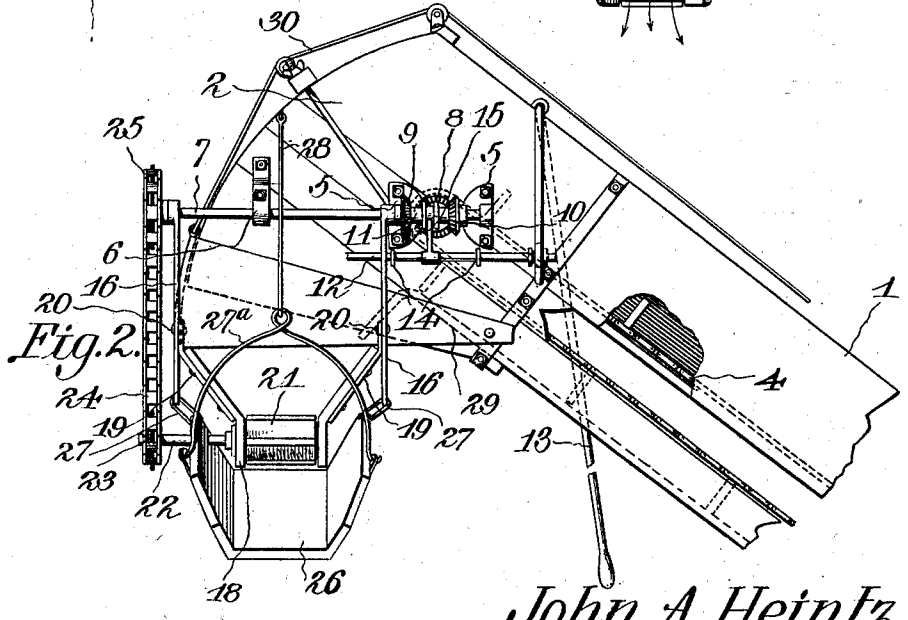


Fig. 2.

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J. A. HEINTZ.

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.

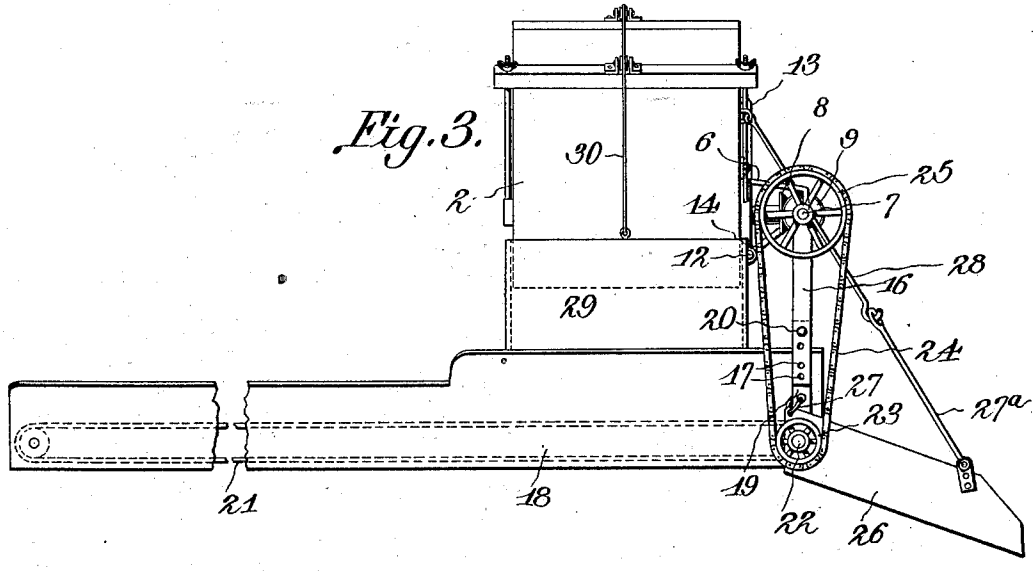
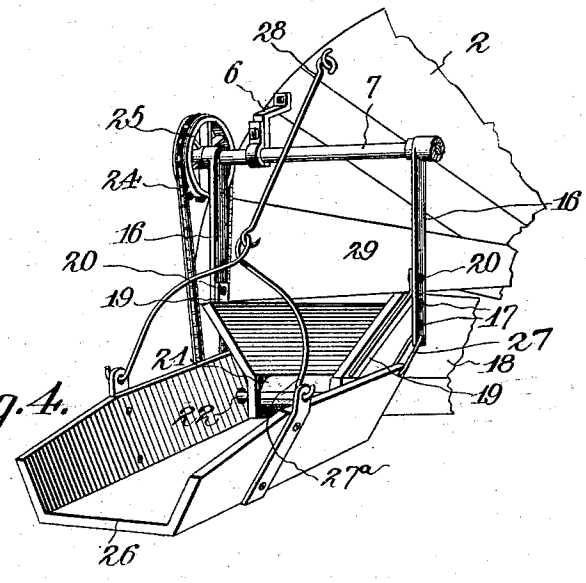


Fig. 4.



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No. 752,838. Patented February 23, 1904.

UNITED STATES PATENT OFFICE.

JOHN A. HEINTZ, OF CHENOA, ILLINOIS.

CONVEYER.

SPECIFICATION forming part of Letters Patent No. 752,838, dated February 23, 1904.

Application filed November 14, 1903. Serial No. 181,231. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. HEINTZ, a citizen of the United States, residing at Chenoa, in the county of McLean and State of Illinois, have invented a new and useful Conveyer, of which the following is a specification.

This invention relates to conveyers of that class which are especially used for the purpose of conveying corn from so-called "corn-dumps" to the cribs.

A so-called "corn-dump" usually comprises in its construction a frame having a tilting platform sufficiently elevated above the ground and which when a wagon-load of corn is driven upon said platform is tilted, the end-gate of the wagon being opened, so as to cause the contents of the wagon-box to drop or dump onto an elevator whereby it is sufficiently elevated to be dumped into the crib. The dumping-platform is usually mounted upon wheels, so as to be capable of being readily moved as the operation of filling the crib progresses. The corn-cribs are frequently of great length, and it is not unusual to build a considerable number of cribs parallel to each other with driveways between. When this is the case, it has been found necessary with the means ordinarily at hand to fill first the crib at one side of the dump and then returning to fill the crib at the opposite side. By the present invention I aim to provide means whereby two cribs adjacent to the sides of the dump may be simultaneously filled, thereby obviating the necessity of the dump passing a second time between the cribs, or, in other words, reducing the number of moves of the corn-dump by one-half, and consequently saving considerable time which has hitherto been employed in effecting such moves.

With these and other ends in view my invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described with reference to the accompanying drawings, in which has been illustrated a simple and preferred embodiment of my invention, with the understanding, however, that changes and alterations may be made with regard to the size, proportion, and exact manner of assemblage of the component parts within the scope of my invention and without detracting from the spirit or sacrificing the utility of the same.

In the drawings, Figure 1 is a top plan view showing my invention in operative position in connection with the elevator of an ordinary grain-dump. Fig. 2 is a side elevation of the upper portion of the elevator, showing one end of my improved attachment. Fig. 3 is an end view of the head of the elevator, showing my improved device in operative position. Fig. 4 is a perspective detail view showing a portion of the head of the elevator and the supporting means for my improved attachment.

Corresponding parts in the several figures are indicated by similar numerals of reference.

1 designates an ordinary elevator, the lower end of which is connected with the dump (not shown) and the upper end of which terminates in a hood 2, the sides of which have bearings having a transverse shaft 3, which supports the upper end of the endless conveyer 4 of any suitable well-known construction. This elevator is no part of my invention, it being ordinarily employed in connection with corn-dumps of the ordinary type.

Suitably secured upon one side of the hood 2 are bearings 5 5 and 6 for a shaft 7, which is disposed at right angles to the shaft 3 and in the same horizontal plane. The shaft 3 may be driven in any suitable manner from any suitable source of power, and it is provided at one end with a bevel-gear 8, adapted to mesh with either one of two bevel-gears 9 and 10, which are mounted upon a sleeve 11, disposed slidingly upon the shaft 7 between the bearings 5 5.

12 designates an operating-rod having a handle 13, said operating-rod being disposed slidingly in suitable bearings 14, whereby the rod 12 is supported below and parallel to the shaft 7. The rod 12 is provided with arms 15, which engage an annular groove in the sleeve 11, which latter may then by manipulating the rod 12 be moved in either direction, thereby placing either one of the bevel-gears 9 and 10 in engagement with the central bevel-gear 8. Thus assuming the latter to be

in operation the direction of rotation of the shaft 7, with which the sleeve 11 is revolubly connected, may be reversed by simply shifting the position of said sleeve upon the shaft 7, or the motion of said shaft 7 may be stopped by so adjusting the sleeve 11 that neither one of the bevel-gears 9 and 10 will be in engagement with the bevel-gear 8.

Suitably mounted upon the shaft 7 are a pair of hangers 16, the lower ends of which are provided with transverse perforations 17.

18 is a carrier-trough having inclined sides to which are secured straps or brackets 19, the upper ends of which are adjustably connected with the hangers 16 by means of bolts or other connecting means 20. The carrier-troughs 18 may be of any desired length, which may equal or even exceed the width of the driveway between the cribs that are to be filled. In this carrier-trough moves an endless carrier 21, which may either be an endless chain or an apron provided with transverse slats for the purpose of conveying the corn deposited upon said carrier in the desired direction. The end of the carrier 18 which is disposed below the hood 2 is supported upon a roller mounted upon a transverse shaft 22, one end of which carries a sprocket-wheel 23, connected by a chain 24 with a larger sprocket-wheel 25 upon the shaft 7. It is intended that the members of the gearing for transmitting motion shall be so proportioned that the carrier 21 shall be driven at about thrice the speed of the carrier of the elevator 1 in order that choking or stoppage shall be positively avoided.

26 designates a spout or chute which is suspended by means of hooks or links 27 from the perforations 17 at the lower ends of the hangers 16, thus supporting the receiving end of said chute directly below the carrier-trough 18. The chute 26 also has a bail 27^a, suitably connected with a supporting-rod 28, the upper end of which is attached to the hood or casing 2.

Pivotally connected with the hood 2 is a guard 29, which may be described as consisting of a hood or cap the lower edges of which normally rest upon the upper edges of the inclined sides of the trough 18. A suitably-guided rope 30 is provided whereby the guard 29 may be raised, so as to afford no obstruction to the passage of corn from the elevator-hood to the chute 26.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of my invention will be readily understood by those skilled in the art to which it appertains. By simply manipulating the reversing mechanism the endless carrier 21 may be caused to travel in either direction, thus discharging either directly into a crib at the outer end of the conveyer-trough 18 or into the chute 26, whereby it is dropped into an adjacent crib. Owing to the great speed at which the conveyer 21 is operated, the corn will be thrown forcibly from said conveyer toward the far side of the crib into which it is made to discharge. This is equally applicable to the end discharging into the chute 26, which latter in reality serves more particularly as a bridge to prevent loss of material between the discharge end of the conveyer 21 and the crib. When the conveyer 21 is operated to discharge at the end distant from the elevator 21, the guard 29 may be lowered, as will be readily understood, to assist in grinding the corn in the desired direction, while when the discharge is to be over the chute 26 the said guard may be raised so as not to interfere with the discharge.

My improved device, as will be readily understood from the foregoing description, is simple in construction, convenient in operation, and may be readily applied to the elevating devices of corn-dumps now in ordinary use.

Having thus described my invention, I claim—

1. In a device of the class described, an elevator, a conveyer-trough having one end disposed beneath the discharge of said elevator, an endless carrier in said conveyer-trough, a guard pivotally connected with the hood of the elevator, and means for manipulating said guard.

2. In a device of the class described, an elevator, a conveyer-trough having one end disposed beneath the discharge of the elevator, an endless carrier in said conveyer-trough, a shaft supporting one end of said carrier, a counter-shaft, bearings for said counter-shaft upon the elevator-hood, connecting means between the carrier-shaft and the counter-shaft, and means for transmitting motion in either direction to said counter-shaft from the shaft supporting the upper end of the elevator-carrier.

3. In a device of the class described, an elevator, a shaft at the upper end of said elevator supporting the upper end of the elevator-carrier, a bevel-gear upon said shaft, bearings disposed adjacent to opposite sides of said bevel-gear, a counter-shaft journaled in said bearings, a sleeve revoluble with and slidable upon said counter-shaft, bevel-gears upon said sleeve, adapted to be interchangeably placed in engagement with the bevel-gear upon the elevator-shaft, sleeve-adjusting means, a conveyer-trough supported beneath the discharge of the elevator, a carrier in said trough, and means for transmitting motion to said carrier from the counter-shaft at a rate of speed greatly exceeding that at which the elevator-carrier is operated.

4. In a device of the class described, an elevator, a counter-shaft supported exteriorly upon the elevator-hood, means for transmitting motion in opposite directions from a sup-

porting-shaft of the elevator-carrier to said counter-shaft, hangers supported upon the latter and provided each with a plurality of perforations at its lower end, brackets connected adjustably with said hangers, a conveyer-trough supported by said brackets, a carrier in said conveyer-trough, and means for transmitting motion to said carrier from the counter-shaft at a rate of speed greatly exceeding that of the elevator-carrier.

5. In a device of the class described, an elevator, a counter-shaft supported upon the hood of said elevator, means for transmitting motion in opposite directions from the elevator-carrier to the counter-shaft, hangers suspended from the latter, a conveyer-trough supported by said opposite hangers, a chute suspended from said hangers beneath the conveyer-trough, means for supporting the discharge end of said chute directly from the elevator-hood, an endless carrier in the conveyer-trough, and means for transmitting motion to said endless carrier from the counter-shaft at a rate of speed greatly exceeding that at which the elevator-carrier is operated.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN A. HEINTZ.

Witnesses:
L. L. SILLIMAN,
CHARLES NICKEL.