

No. 664.303.

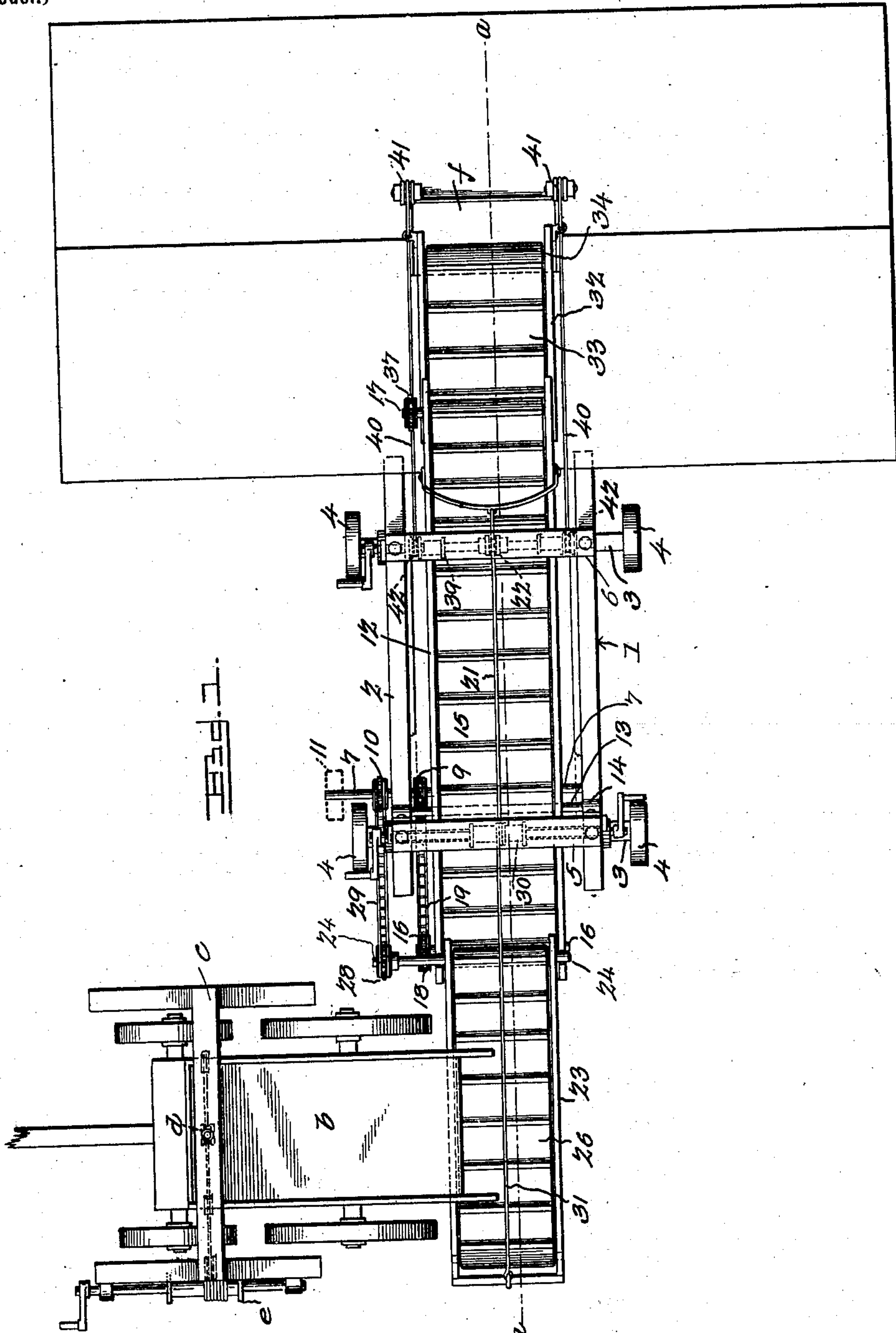
Patented Dec. 18, 1900.

H. H. WEBER.
PORTABLE GRAIN ELEVATOR.

(Application filed Oct. 25, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
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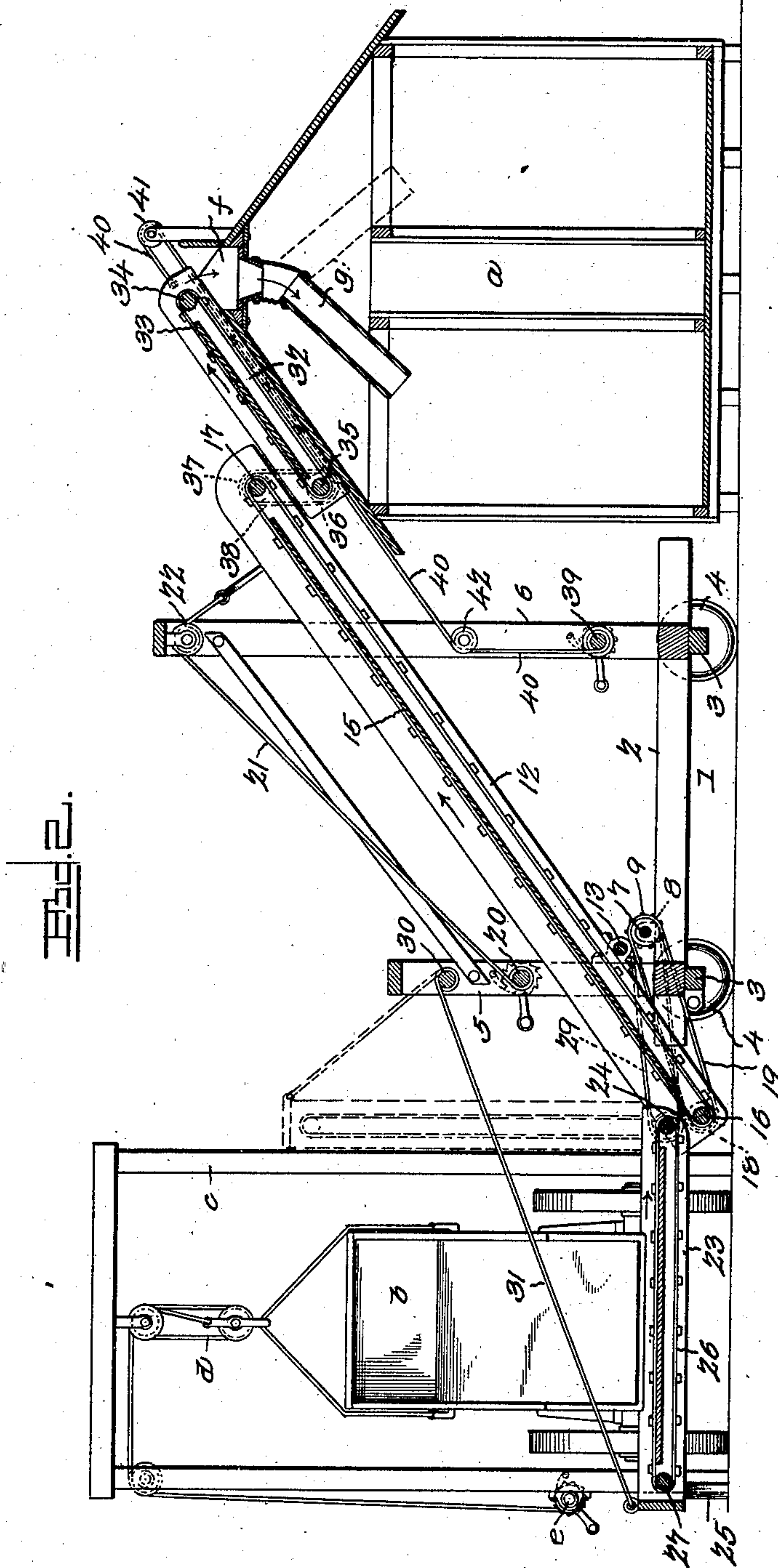
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UNITED STATES PATENT OFFICE.

HENRY H. WEBER, OF LORETTO, ILLINOIS.

PORTABLE GRAIN-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 664,303, dated December 18, 1900.

Application filed October 25, 1900. Serial No. 34,332. (No model.)

To all whom it may concern:

Be it known that I, HENRY H. WEBER, a citizen of the United States, residing at Loretto, in the county of Livingston and State of Illinois, have invented a new and useful Portable Grain-Elevator, of which the following is a specification.

My invention is an improved portable grain-elevator designed for use in unloading-grain from a wagon and conveying the same to a granary or crib and also designed for use in loading a wagon from a granary or crib; and it consists in the peculiar construction and combination of devices hereinafter fully set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a top plan view of my improved grain-elevator, showing the same arranged for use in unloading a wagon and conveying the grain therefrom to a crib. Fig. 2 is a sectional view of the same, taken on a plane indicated by the line *a a* of Fig. 1.

In the embodiment of my invention I provide a truck 1, which comprises a rectangular frame 2, axles 3, and wheels 4. At the front end of frame 2 is a vertical frame 5 and at the rear end thereof is a vertical frame 6, the latter being higher than the former. A power-shaft 7 is journaled in bearings 8 on the frame 2, near the front end thereof, said power-shaft being disposed transversely on said frame and provided with sprocket-wheels 9 10 and with a suitable pulley, (indicated at 11 in dotted lines,) by means of which power may be communicated to the power-shaft by a belt from any suitable engine, horse-power, or the like. A conveyer-trough 12 is disposed longitudinally on the frame 2 between the vertical sides of frames 5 6. Said conveyer-trough is mounted near its front end on a pivotal shaft 13, the ends of which are in bearings 14 on the rear side of frame 5. An endless traveling conveyer belt or apron 15 is disposed in the conveyer-trough 12 and is operated by rollers 16 17, which are respectively at the front and rear ends of said conveyer-trough. The roller 16 has at one end of its shaft a sprocket-wheel 18, which is connected to the sprocket-wheel 9 by an endless sprocket-chain 19. Thereby power will be conveyed from the shaft 7 to the endless con-

veyer apron or belt, as will be understood, and the latter caused to operate in the direction indicated by the arrow in Fig. 2. It will be understood that the conveyer-trough 12 may be disposed at any desired inclination, and in order to raise and lower the rear end of the said conveyer-trough I provide a winch 20, which is mounted in the frame 5 and is connected to the rear end of conveyer-trough 12 by a rope 21, which passes over a direction-sheave 22 at the upper side of frame 6.

To the front end of the conveyer-trough 12 is pivotally connected a conveyer-trough 23. The shaft of a roller 24 forms the pivotal connection between the said conveyer-troughs. Said conveyer-trough 23 has supporting-legs 25 at its outer end which when the same is extended from the front end of the conveyer-trough 12 and lowered to a horizontal position support the said front end of conveyer-trough 23. In the latter is an endless traveling conveyer apron or belt 26, which is supported by the roller 24 and a roller 27 at the front end of said trough 23. The shaft or roller 24 has a sprocket-wheel 28, which is connected to the sprocket-wheel 10 on shaft 7 by an endless sprocket-chain 29. Thereby, as will be understood, power is communicated from the shaft 7 to the conveyer belt or apron 26 and the latter driven in the direction indicated by the arrow in Fig. 2. A winch 30 is mounted in the frame 5 and connected to the outer end of the conveyer-trough 23 by a rope 31. Thereby said conveyer-trough may be raised and lowered, as indicated in Fig. 2.

Under the outer end of conveyer-trough 12 is a conveyer-trough 32, which may be extended from or run under the conveyer-trough 12. An endless traveling conveyer belt or apron 33 in the trough 32 is supported and guided by the rollers 34 35. The latter has at one end of its shaft a sprocket-wheel 36, which is connected to a sprocket-wheel 37 on the shaft of roller 17 by an endless sprocket-chain 38. Hence power is communicated to the endless belt or apron 33 from the endless belt or apron 15.

When my improved elevator is used for unloading a wagon and conveying the grain therefrom to a granary or crib, the trough 33 is extended from the outer elevated end of

the trough 12 by a winch 39, which is mounted in the frame 6, and ropes 40, which connect the outer end of trough 32 to said winch and pass over direction-sheaves 41 42, which are
 5 respectively on the roof of the crib or granary *a* and in the frame 6. The wagon (indicated at *b*) which is to be unloaded is driven slightly past the lower end of the trough 12, the trough 23 being elevated to the position indicated in
 10 dotted lines in Fig. 2 to clear the wagon and lowered to the position indicated in full lines in the said figure, immediately behind the wagon. The latter is stopped with its front end under a suitable hoisting-frame, such as
 15 is indicated at *c*, and which is provided with a suitable tackle *d* and winch *e*, by means of which the front end of the wagon-bed may be raised, so as to tilt or incline the wagon-bed and cause the grain to be discharged there-
 20 from into the trough 23, and the elevator being in operation grain is conveyed through the successive troughs from the wagon-bed and discharged into the crib or granary through an opening *f* in the roof thereof. Where the
 25 crib or granary is in two sections provided with an intermediate alley, as here shown, the same is provided with a spout *g*, which may be turned to either side thereof and in any required direction in order to cause the grain
 30 to be discharged properly therein.

It will be understood that when my improved grain-elevator is not in use it may be compactly disposed on the supporting-truck 1, so as to occupy comparatively little space.

35 It will be further understood that my improved elevator may be used for unloading any variety of grain and also other materials.

While I have herein shown and described my grain-elevator as used to convey grain
 40 from a wagon to a crib or granary, it will be understood that it is equally well adapted for loading the wagon from a granary or crib.

Having thus described my invention, I claim—

1. A grain-elevator comprising a truck, a
 45 power-shaft mounted thereon, a conveyer-trough 12 pivotally mounted on the said truck, means to raise and lower one end of said conveyer-trough, a conveyer-trough 23 pivotally connected to the front end of trough 12, means
 50 to raise and lower the outer end of said trough 23, a conveyer-trough extensible from the inner end of trough 12 and adapted to be run or disposed under the same, endless traveling conveyers in said troughs, and means to ac-
 55 tuate said endless traveling conveyers, substantially as described.

2. In a grain-elevator, the combination of a truck, a power-shaft mounted thereon, a conveyer-trough 12 pivotally mounted on the said
 60 truck, means to raise and lower one end of said conveyer-trough, an endless traveling belt or apron in said conveyer-trough having one of its rollers connected to and driven from the power-shaft, a conveyer-trough 23 having
 65 an endless traveling conveyer belt or apron, one of the supporting-rollers of which forms a pivot to connect the inner end of said trough 23 to the outer end of trough 12, said roller being connected to and driven from the power-
 70 shaft, and an extensible conveyer-trough under the inner end of trough 12 and having an endless traveling conveyer belt or apron, the latter being connected to and driven from a roller in the inner end of trough 12, substan-
 75 tially as described.

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

HENRY H. WEBER.

Witnesses:

ALFRED GUTEL,
 JOSEPH PERNCH.