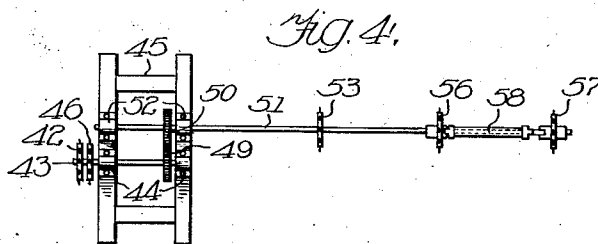
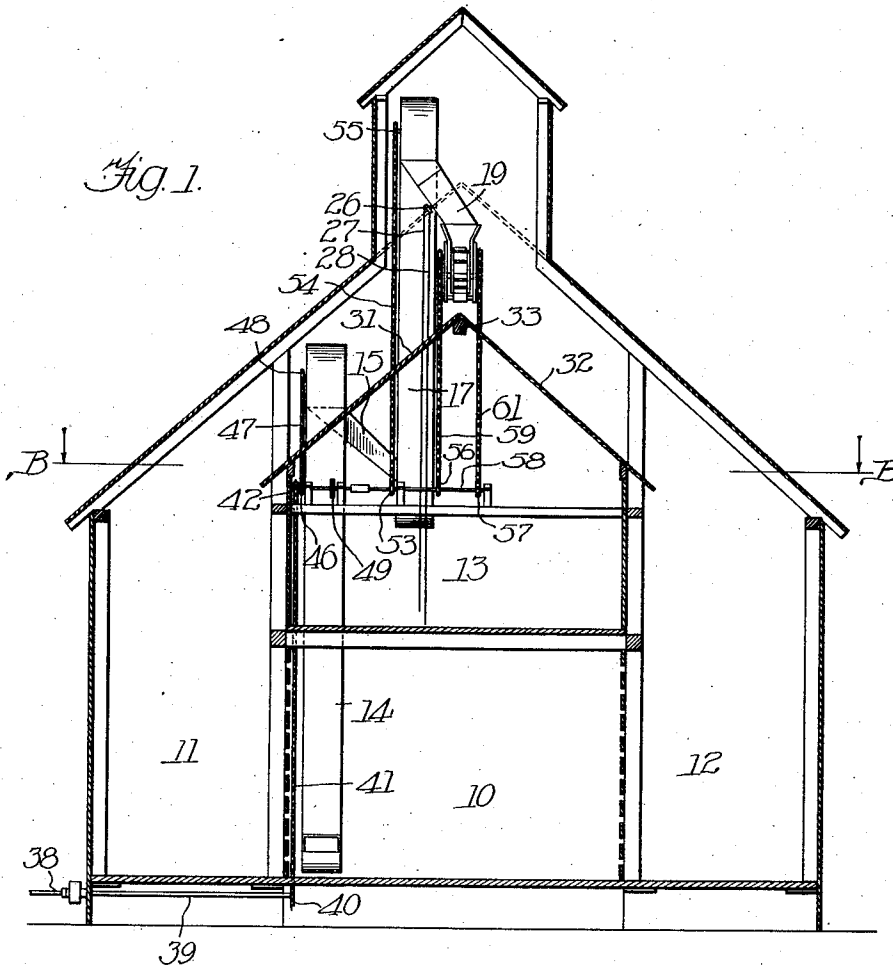


J. H. GILMAN.
CONVEYING APPARATUS.
APPLICATION FILED SEPT. 29, 1909.

1,021,866.

Patented Apr. 2, 1912.

3 SHEETS-SHEET 1.



Witnesses:
Robert H. McEir
Edwin H. McKoy

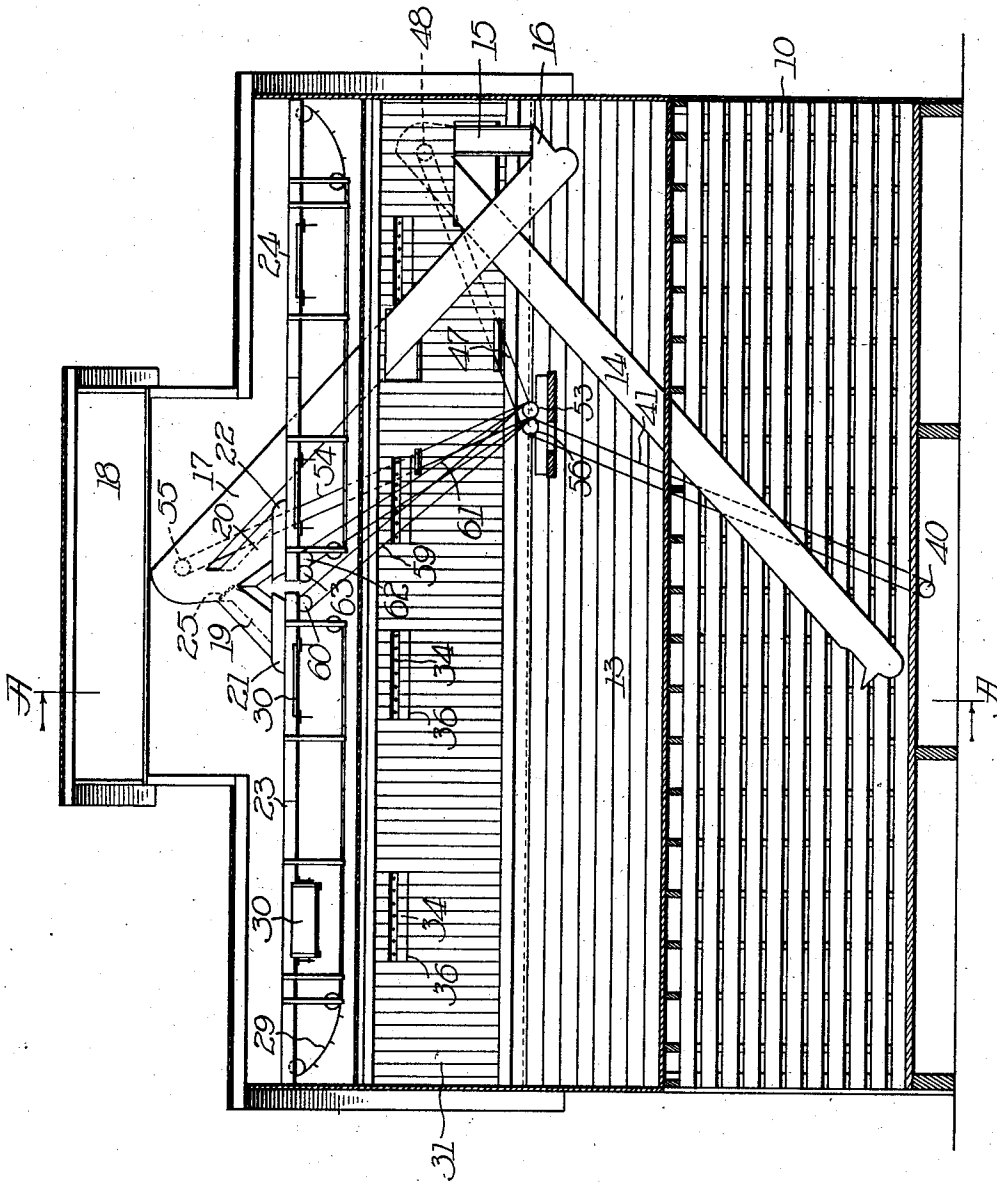
Inventor:
John H. Gilman,
by John Howard McEir
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3 SHEETS—SHEET 2.



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FIG. 2.

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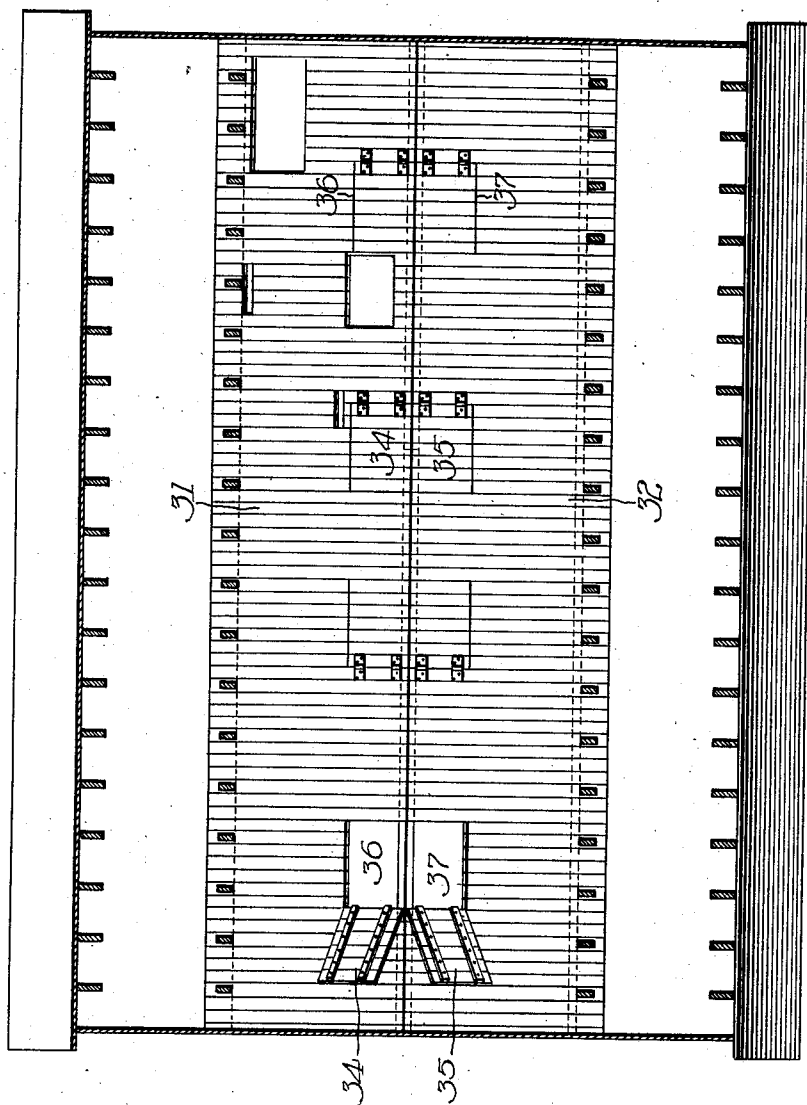
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3 SHEETS—SHEET 3.

Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN H. GILMAN, OF OTTAWA, ILLINOIS, ASSIGNOR TO KING & HAMILTON COMPANY,
OF OTTAWA, ILLINOIS, A CORPORATION OF ILLINOIS.

CONVEYING APPARATUS.

1,021,866.

Specification of Letters Patent.

Patented Apr. 2, 1912.

Application filed September 29, 1909. Serial No. 520,123.

To all whom it may concern:

Be it known that I, JOHN H. GILMAN, a citizen of the United States, and a resident of Ottawa, in the county of Lasalle and State of Illinois, have invented certain new and useful Improvements in Conveying Apparatus, of which the following is a full, clear, and exact specification.

My invention is concerned with elevating and conveying apparatus adapted primarily for use in barns, by which the grain delivered by wagon or otherwise to some one point, say in a central driveway, can be elevated and delivered into any portion of any of the cribs with which the barn may be provided.

In its general character, it is related to the structures shown in Patent No. 837,053, granted November 27, 1906, to myself and A. J. Bennett, and Patent No. 913,948, granted to me March 2, 1909, and its main feature of novelty with reference to said structures resides in the mechanism by which the grain is delivered from the highest point to which it is elevated to the particular crib into which it is to be discharged.

To illustrate my invention, I annex hereto three sheets of drawings in which the same reference characters are used to designate identical parts in all the figures of which—

Figure 1 is a vertical cross section on the line A—A of Fig. 2. Fig. 2 is a central longitudinal section. Fig. 3 is a plan view in section on the line B—B of Fig. 1; and Fig. 4 is a detail illustrating a portion of the driving gearing.

My invention is particularly adapted for use in connection with barns having a central driveway 10, with the cribs 11 and 12 for ear corn on either side thereof, and preferably extending the length of the building, and with the overhead bin 13 which is intended more especially to receive shelled grain.

The elevating mechanism consists of the lower inclined trough 14 which is provided with the customary conveyer chains, and is preferably located immediately adjacent one of the cribs 11. At its upper end it discharges into the inclined spout 15 which in turn discharges into the boot or hopper 16 of the upper inclined conveyer 17 which consists of the customary trough and conveying chains and, as seen, is located more

toward the center of the barn so that its upper end can extend into the cupola 18 where it discharges into one or the other of the twin spouts 19 and 20 which are inclined so as to discharge into the hoppers 21 and 22 of their respective horizontal conveyers 23 and 24 which extend in either direction from the center to the ends of the barn and directly over the central longitudinal line. The twin spouts 19 and 20 are provided with a valve 25, indicated in dotted lines, which can be turned into either of two positions so as to deflect the grain into either one of the two conveyers 23 and 24 as may be desired. For convenience of manipulation I preferably provide the pivot shaft of this valve 25 with an arm 26 to the outer end of which are secured a pair of cords or chains 27 and 28 which extend down to any convenient point for manipulation, say to near the bottom of the bin 13.

The conveyers 23 and 24 may be of any desired type of stationary conveyer having the trough and the chains, but I preferably provide the specific form shown in my Patent No. 833,319, granted October 16, 1906, in which the grain is carried by the chain 29 to the particular one of the inclinable bottom sections 30 which may be open, and by which it will be discharged to one side or the other, depending upon how the bottom section is inclined. To obviate the necessity of spouts leading from these bottom sections 30 to the cribs 11 and 12, and at the same time to furnish a covering for the bin 13 to keep out the dirt which otherwise is apt to fall into it, I provide the inclined roof sections 31 and 32 for the bin 13, which are supported at their upper edges on the horizontal beam 33, and have their lower sides extending over and supported upon the upper edges of the partition walls between the bin 13 and the cribs 11 and 12. With this construction it will be apparent that the grain elevated can be discharged from either one of the conveyers 23 and 24, from either one of the drop bottom sections and to either side so as to fill either one of the cribs 11 and 12 at any desired point therein.

The roof sections 31 and 32 will be provided with as many pairs of doors 34 and 35 cooperating with apertures 36 and 37 as there may be inclinable bottom sections 30, and it will be understood that when the

grain is to be delivered into the bin 13, the desired section 30 will be opened in the desired direction and the door 34 or 35, as the case may be, will be opened so that the grain may fall therethrough into the bin 13.

The elevating and conveying mechanism thus far described will be provided with any suitable driving mechanism, and, as a preferred form, I show the power shaft 38 connected to the shaft 39 which terminates in the sprocket wheel 40 which drives the sprocket chain 41, which coöperates with the sprocket wheel 42 secured on the outer end of the shaft 43 journaled in suitable bearings 44 in the frame 45 which is suitably supported from the frame work of the building. A sprocket wheel 46 also secured to the shaft 43 through the medium of the chain 47 drives the sprocket wheel 48 on the shaft located in the upper end of the conveyer section or trough 14. A spur gear wheel 49 secured on the shaft 43 meshes with a similar gear wheel 50 secured on the shaft 51 journaled at one end in the bearings 52 of the frame 45, and having at an intermediate point the sprocket wheel 53 which through the medium of the chain 54 drives the sprocket wheel 55 on the driving shaft located in the upper end of the conveyer section 17. A pair of sprocket wheels 56 and 57 are adapted to be alternately clutched to the shaft 51 by the clutch sleeve 58, and the sprocket wheel 56, when it is clutched to the shaft 51 through the medium of the chain 59, drives the sprocket wheel 60 secured on the driving shaft of the conveyer 23. The sprocket wheel 57 when it is clutched to the shaft 51, through the medium of the chain 61, drives the sprocket wheel 62 which is secured to a shaft provided with reversing gears, like the gears 49 and 50, so that the driving sprocket wheels 63 of the horizontal

conveyer 24 may be rotated in the proper direction.

Of course it will be understood that the flooring of the driveway and of the bin 13 and the roof sections 31 and 32 have the necessary apertures to permit the passage of the various driving chains and conveyer sections, which chains and sections in the bin 13 may be housed, if it is desired to thereby increase the capacity of the bin.

What I claim as new, and desire to secure by Letters Patent of the United States is:

1. In a device of the class described, the combination with a barn having cribs, of an elevator having its discharging end in the center of the top of the barn, a plurality of stationary horizontal conveyers extending from the discharging end of the elevator, drop bottom sections in said conveyers, and means to deliver the grain from said sections to the cribs consisting of the inclined roof sections extending from beneath the horizontal conveyers to the edge of the cribs.

2. In a device of the class described, the combination with a barn having a central driveway, cribs on either side of said driveway, and a bin over said driveway, of an elevator having its discharging end in the center of the top of the barn, a plurality of stationary horizontal conveyers extending from the discharging end of the elevator, drop bottom sections in said conveyers, and inclined roof sections over said bin and provided with doors therein directly beneath the drop bottom sections.

In witness whereof, I have hereunto set my hand and affixed my seal, this 22nd day of September A. D. 1909.

JOHN H. GILMAN. [L. s.]

Witnesses:

SARAH H. PADGETT,
ED. R. CLAUS.