No. 649,365. Patented May 8, 1900.

C. A. SCOTT.

GRAIN CONVEYER.

(Application filed Nov. 23, 1899.)

(No Model.) 2 Sheets—Sheet 1.

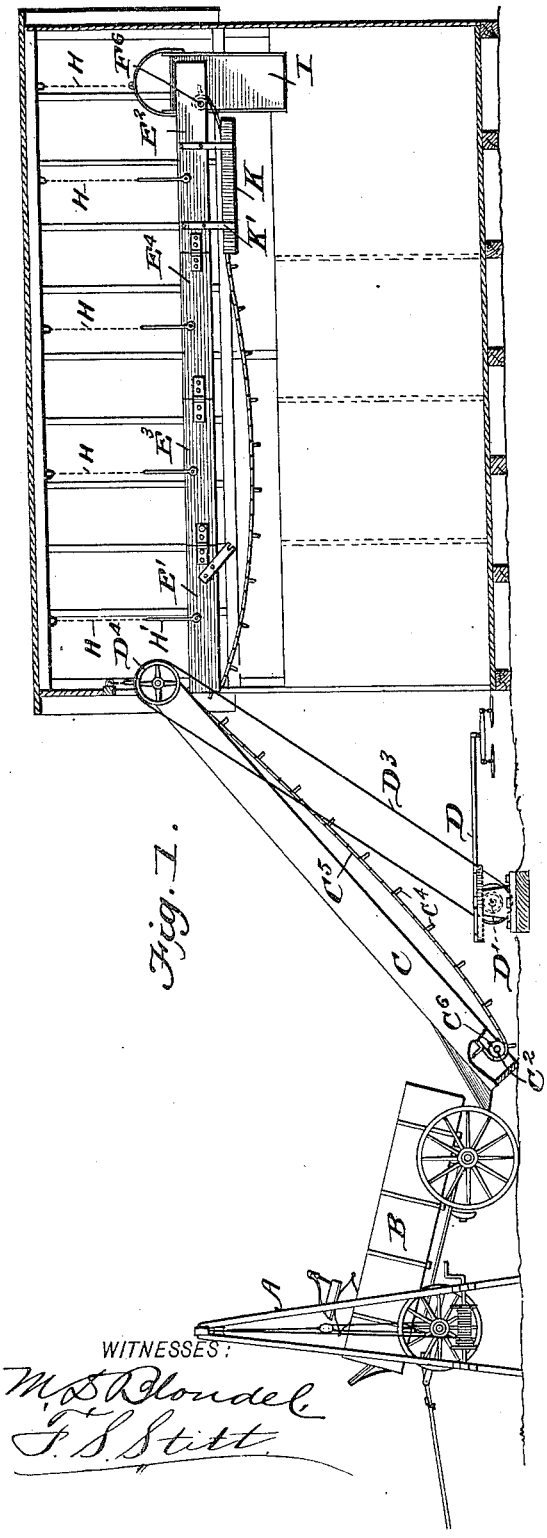

Fig. 1.

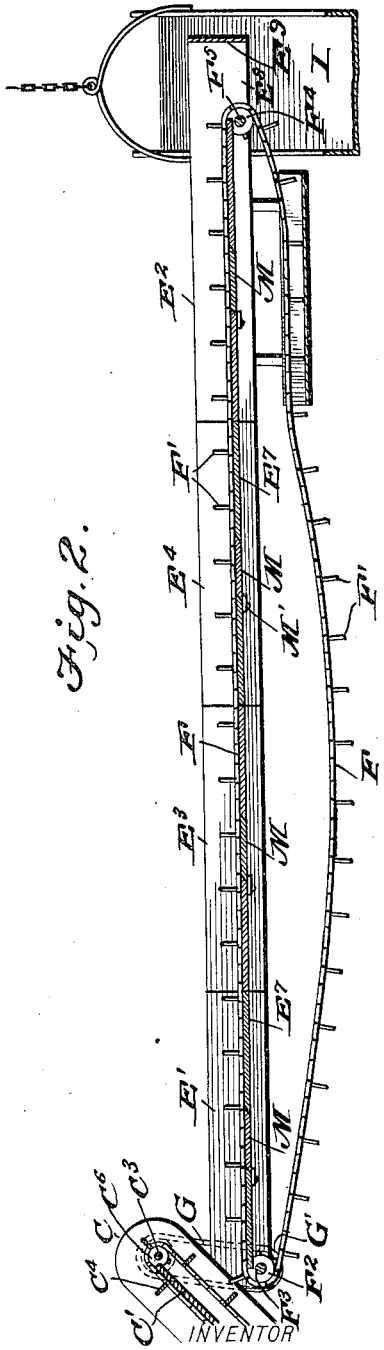

Fig. 2.

WITNESSES:

M. D. Blondel

F. S. Stitt

INVENTOR

Charles A. Scott.

BY Munn & Co.

ATTORNEYS

No. 649,365. Patented May 8, 1900.

C. A. SCOTT.

GRAIN CONVEYER.

(Application filed Nov. 23, 1899.)

(No Model.) 2 Sheets—Sheet 2.

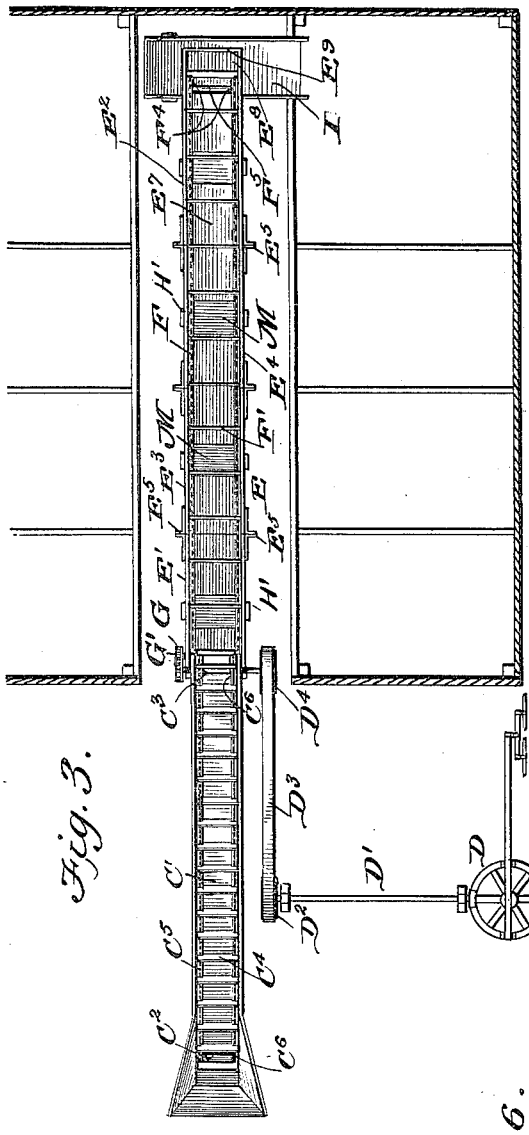

Fig. 3.

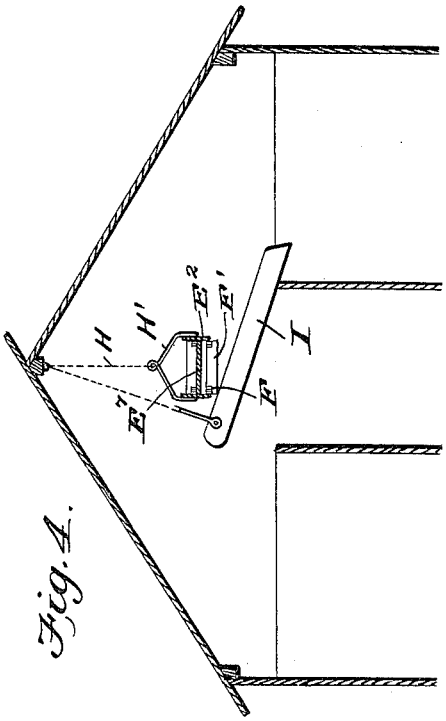

Fig. 4.

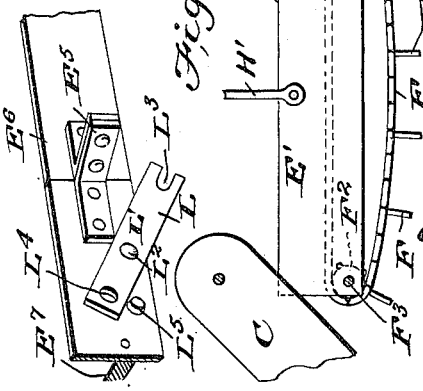

Fig. 5.

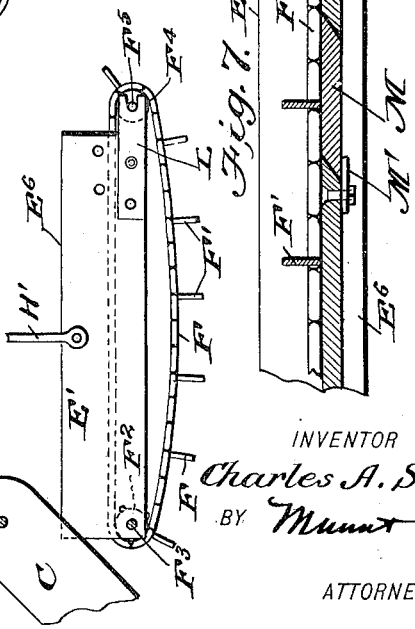

Fig. 6.

Fig. 7.

WITNESSES:

M. D. Blondel.

F. S. Stitt.

INVENTOR

Charles A. Scott.

BY Munn & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

CHARLES ADELBERT SCOTT, OF BROUGHTON, ILLINOIS.

GRAIN-CONVEYER.

SPECIFICATION forming part of Letters Patent No. 649,365, dated May 8, 1900.

Application filed November 23, 1899. Serial No. 738,027. (No model.)

To all whom it may concern:

Be it known that I, CHARLES ADELBERT SCOTT, of Broughton township, in the county of Livingston and State of Illinois, (my post-office being Kempton, in the county of Ford, in said State,) have invented a new and useful Improvement in Grain-Conveyers, of which the following is a specification.

The object of my invention is to provide an apparatus for conveying grain from one point to another, and it is especially designed for conveying grain from an elevator to cribs or bins located at different points in a building and discharging the grain into any bin as desired.

The invention consists in certain details of construction and arrangements of the parts, which I shall first describe and then particularly point out in the appended claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which like characters of reference indicate corresponding parts in all the views.

Figure 1 is a longitudinal vertical section of a building with my improved conveyer suspended therein. Fig. 2 is a longitudinal vertical section of the conveyer. Fig. 3 is a plan view of the entire apparatus, the storehouse being shown in horizontal section. Fig. 4 is a transverse section of the conveyer. Fig. 5 is a detail perspective view of the meeting ends of two sections of the conveyer-bed. Fig. 6 is a side view of the front section of the conveyer arranged to discharge the grain to a bin near the front of the storehouse, and Fig. 7 is a detail longitudinal section of a portion of the conveyer-bed.

The grain to be conveyed is delivered by means of a derrick A and dumping-car B or any other suitable apparatus into the lower end of the elevator C, which comprises a bed C′, lower and upper rollers C^2 and C^3, respectively, and buckets or slats C^4, carried by sprocket-chains C^5, passed over sprocket-wheels C^6 on the shafts of the rollers C^2 and C^3. In order to operate the elevator C, I preferably employ a horse-power D of any preferred construction, whose driving-shaft D′ is operatively connected by band-wheel D^2 and band D^3 with a similar wheel D^4 on one end of the shaft of the roller C^3.

From the upper end of the elevator C the grain is passed to my improved conveyer E, which has a bed consisting of front and rear end sections E′ and E^2, connected at their ends with any desired number of intermediate sections E^3 E^4, two of such sections being illustrated in the accompanying drawings. The connection between the ends of the sections is preferably effected by angle-braces E^5, bolted or otherwise fastened to the sections and having their abutting sides detachably connected together by bolts or the like, as shown. Each section of the conveyer-bed is formed of parallel side pieces E^6 and a bottom piece E^7, while the rear end section E^2 has its bottom terminating about midway of its length, whereby to leave a discharge-opening E^8, and at the rear end of this section is located a cross-piece E^9.

Sprocket-chains F, carrying between them slats or plates F′, are adapted to pass over the bed of the conveyer by being passed around sprocket-wheels F^2 on the shaft F^3, which is mounted at the feed end of the section E′, and around sprocket-wheels F^4 on the shaft F^5, which is detachably held in the bearings F^6 on the rear section E^2 of the conveyer-bed. The endless feeder thus formed is driven by means of a chain G, passing around a sprocket-wheel G′ on the end of the shaft of roller C^3 and over a like wheel on the shaft F^3, so that when the elevator is operated by the horse-power the conveyer is operated simultaneously.

The conveyer is hung from the rafters of the building by means of chains H, to which are attached hangers H′, secured to each section of the conveyer-bed, and a chute I is supported by any suitable means adjacent to the discharge-opening E^8, whereby when the grain is fed along the conveyer-bed and discharged through said opening it may be received by a bin located below the chute.

In order to keep the chains from sagging and vibrating, I employ a guide-box K, supported below the bed of the conveyer by hangers K′, through which box the lower lap of the endless conveyer passes.

I make my conveyer-bed in detachable sections, so that when it is desired to fill a crib or bin for which the complete conveyer-bed is too long one or more intermediate sections may be taken out and the remaining sections

connected together again, and when it is desired to fill a bin so near the front door of the storehouse that only the front section E′ of the conveyer-bed is necessary I dispense with the other sections for the time being and remove the detachable shaft F^5 from its bearings F^6, take out a sufficient number of links and their attached slats from the sprocket-chains, and place the said shaft F^5 in bearing-brackets L. As shown in Fig. 5, these bearing-brackets are in the form of plates L′, pivoted by studs L^2 to each side of the section E′, provided with recesses or bearings L^3 for the shaft and formed with apertures L^4, adapted to receive a stud L^5 on the side of the section when the shaft has been put in place and the plates turned up into horizontal position, as shown in Fig. 6.

If desired, the conveyer-bed may be left intact and the grain delivered to any bin by means of trap-doors M, of which there is one for each section, said doors fitting in the bottom of the sections and prevented from falling downward when not in use by cleats M′. Each door is beveled, as shown, at its front and rear edges in the direction of propulsion of the conveyer, so that the slats or plates and chains of the conveyer will not catch thereon.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an apparatus for conveying grain or the like, a bed formed of end sections and intermediate sections separably connected together, a driving-shaft held in the front of the front end section, a second shaft detachably held in the rear end section, an endless conveyer propelled over said bed by said shafts, and bearing-brackets secured to the rear end of the front end section and adapted to receive the detachable shaft when said section is used alone, as set forth.

2. The herein-described apparatus for conveying grain or the like, comprising a bed constructed of end and intermediate sections separably connected together, driving-shafts on said bed and one of which is detachable, an endless conveyer propelled by said shafts, a guide-box for the lower lap of said endless conveyer, and vertically-movable bearing-brackets attached to the front end section of the bed, as and for the purpose set forth.

3. The herein-described apparatus for conveying grain or the like, consisting of a conveyer-bed constructed in end sections and intermediate sections placed end to end, and having angle-braces secured permanently to adjacent ends with their abutting arms detachably secured together, the rear end section having its bottom terminating between its ends whereby to leave a discharge-opening and having a drive-shaft detachably mounted therein, the front end section being also provided with a drive-shaft, an endless conveyer operated by said shafts, and a vertically-movable bearing-bracket pivoted between its ends to each side of the front end section at the rear thereof and having an aperture at one end to receive a stud to hold it in upper position and a recess at its other end whereby to receive the detachable shaft when the intermediate sections and the rear end section are dispensed with, as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES ADELBERT SCOTT.

Witnesses:
E. COOK,
CHAS. DEMOSS.