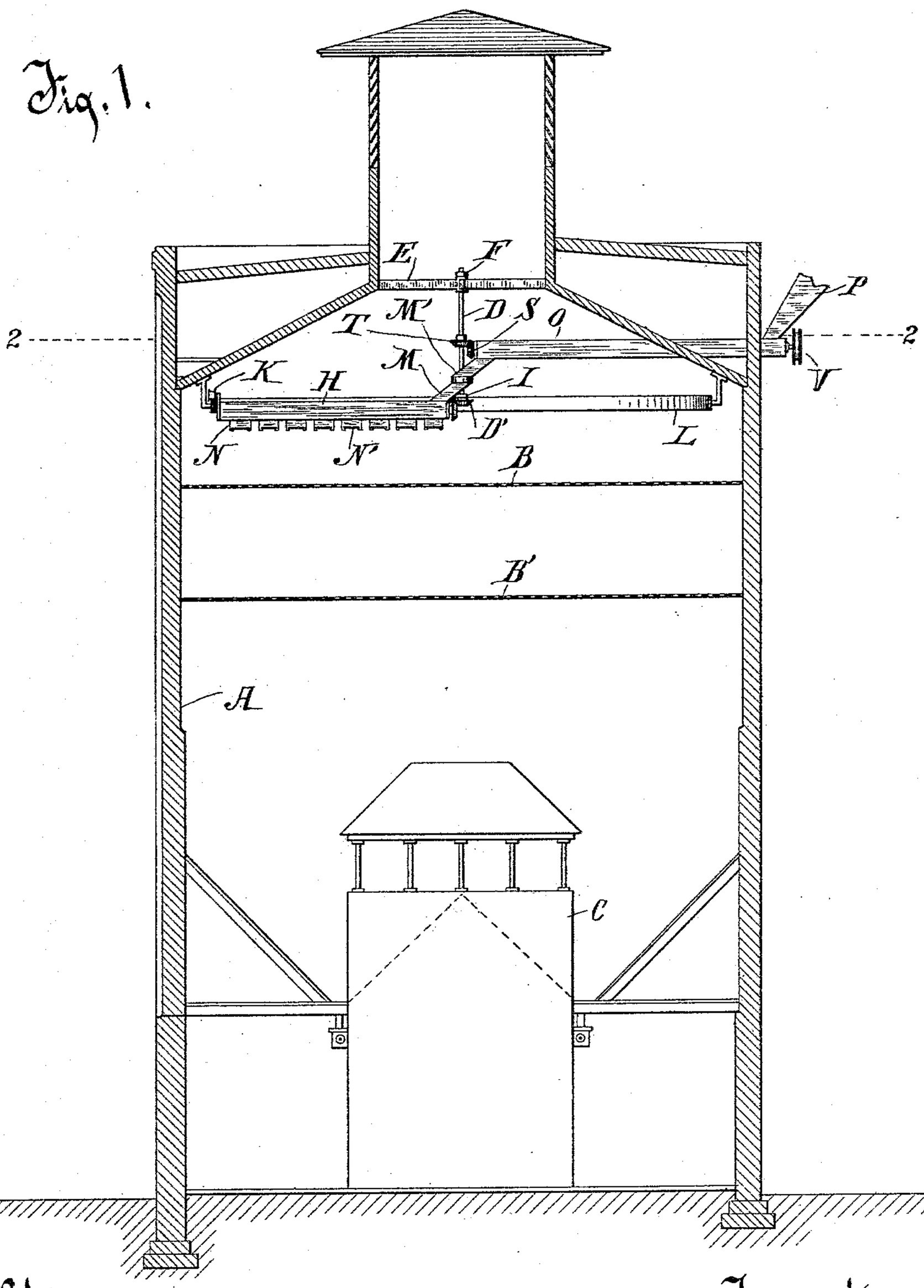
(No Model.) 2 Sheets—Sheet 1.

J. F. DORNFELD.

CONVEYER AND DISTRIBUTER.

No. 565,068. Patented Aug. 4, 1896.

Fig. 1.



Witnesses:

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Anna C. Faust.

Inventor:

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(No Model.) 2 Sheets—Sheet 2.

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No. 565,068. Patented Aug. 4, 1896.

Fig. 2.

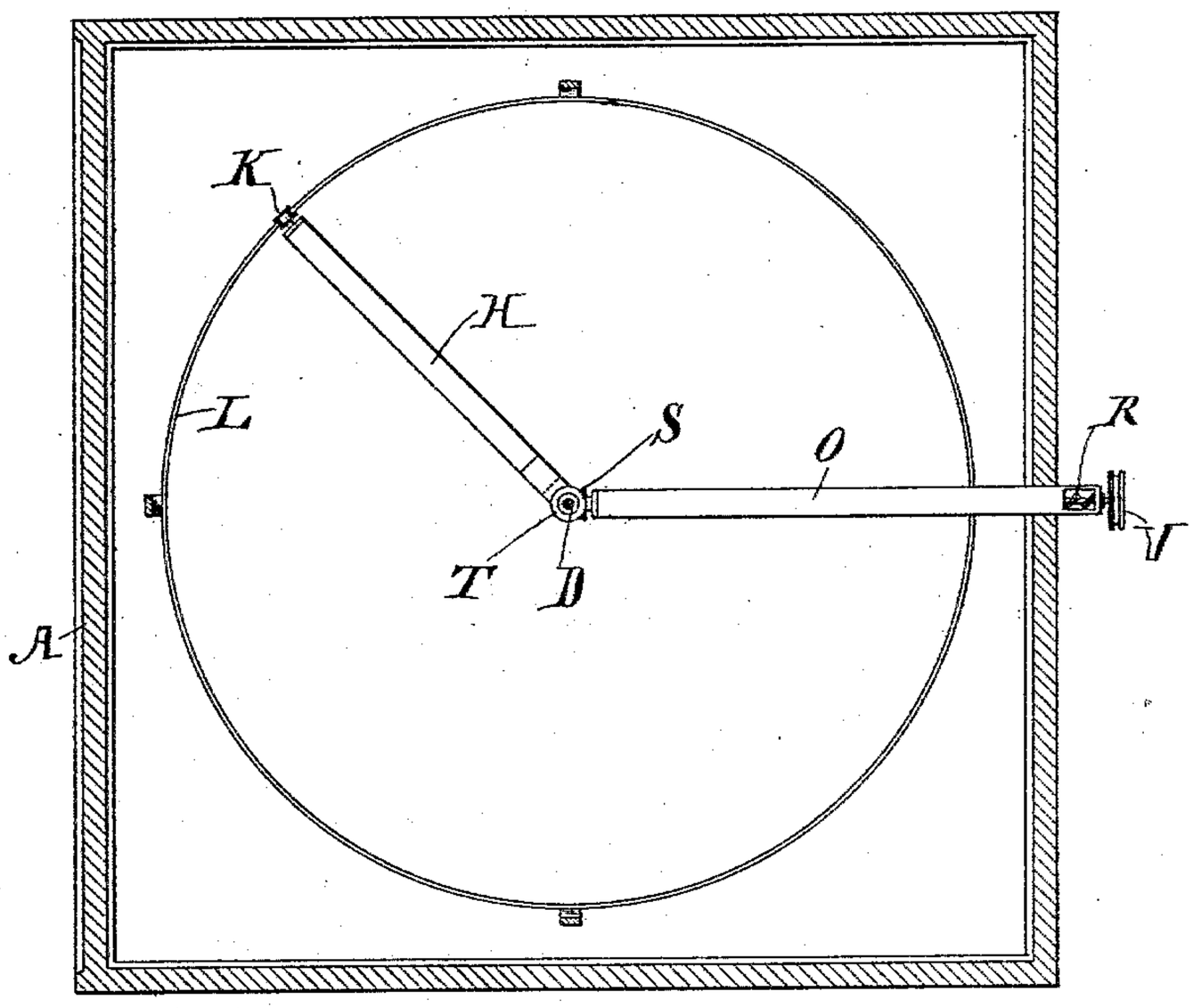

Fig. 3.

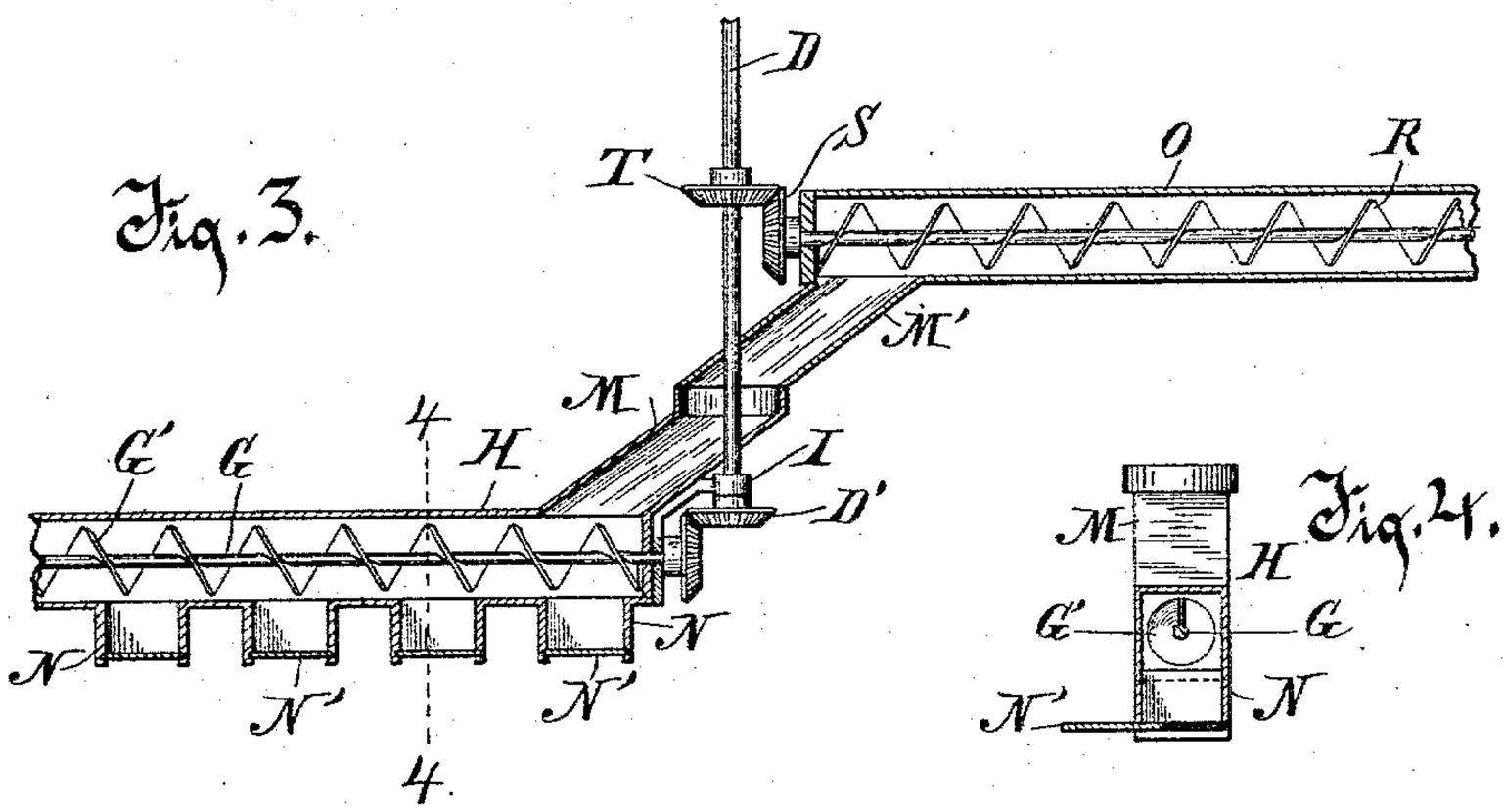

Fig. 4.

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UNITED STATES PATENT OFFICE

JOHN F. DORNFELD, OF CHICAGO, ILLINOIS.

CONVEYER AND DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 565,068, dated August 4, 1896.

Application filed October 5, 1894. Serial No. 524,983. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. DORNFELD, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Conveyers and Distributers, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

The object of this invention is to provide means for conveying for a distance and distributing over a considerable space grain, malt, sugar, salt, or other material, especially such as, being small in individual existence or comminuted, is to be handled in mass or bulk.

The apparatus or mechanism is especially well adapted for conveying and distributing malt in a malt house or kiln, and is shown in connection with a malt-kiln. (Illustrated in section.)

The invention consists of the mechanism and its parts and combinations, as herein described and claimed, or their equivalents.

Figure 1 is a vertical section or diagram of a malt-kiln with my improved mechanism therein. Fig. 2 is a plan view on line 2 2 of Fig. 1 of the malt-kiln and my improved mechanism. Fig. 3 is a central longitudinal section and elevation of a considerable portion of my improved mechanism. Fig. 4 is a vertical section on line 4 4 of Fig. 3, looking toward the right.

In the drawings, A is the vertical section or diagram of a malt-kiln provided with malting-floors B B′ and a furnace or heater C. Any other suitable building or framework would be equally well adapted for supporting my improved mechanism.

My improved mechanism is grouped and arranged about a central driven shaft D, which is journaled in and suspended from a beam E of the malt-kiln. For suspending the shaft revolubly on the beam a collar F is secured permanently to the shaft, and this collar rests and rides on the end of the journal-box in the beam E. At its lower extremity the shaft D is provided with a beveled pinion D′, which meshes with a beveled pinion on the conveyer-shaft G. The conveyer-shaft G is provided with a screw or flight G′ and is mounted revolubly in the closed ends of the conveyer-tube H, which tube incloses the conveyer-shaft and flight. The conveyer-shaft is in the drawings disposed at a right angle to the shaft D, and the conveyer-tube H is provided with an arm I, which is pivoted on the shaft D, so that the conveyer-tube is adapted to swing or revolve about the shaft D as a pivot. At its outer extremity the tube H is provided with an idle-wheel K, preferably grooved peripherally, which wheel travels on the annular rail or track L. The circular track L is secured to and supported rigidly on the frame of the malt-kiln. An inclined chute M, the mouth of which opens upwardly and is concentric with the shaft D, extends obliquely to and discharges into the conveyer-tube H at its inner end. The tube H is provided on its under side with a number of ports N at varying distances from the inner end of the tube. These ports are severally closed by a sliding gate N′.

It will be understood that malt or grain or other material delivered to the conveyer-tube H through the chute M will by the proper rotation of the shaft G be moved along the conveyer and can be discharged therefrom through any one or more of the ports N, and also that by swinging the tube around its pivot D on the track L the contents of the tube can be discharged at any point in the space inclosed by the circular track L. This will enable the operator to distribute malt or grain readily over the entire floor B.

For bringing the malt, grain, or other material from a distance, or particularly from a supply outside of the building, I provide an auxiliary conveyer, consisting of the tube O, arranged to receive material from the outside and conveniently from the spout or hopper P, and to discharge its contents at the other extremity through the chute M′, arranged to discharge into the chute M. The tube O is provided with a spiral conveyer R, the shaft of which is mounted in the ends of the tube O and is provided at its inner extremity with a pinion S, meshing with a pinion T, fixed on the shaft D. When thus arranged, I preferably drive the shaft D by means of the shaft of the conveyer R, which latter shaft is provided with a fast pulley V, which is adapted to be driven by a belt from a power supply. In those situations where

the auxiliary conveyer is not required and the grain or material to be distributed is delivered by gravity directly into the chute M, the shaft D may be driven directly from a power supply by such means as would be readily supplied by any mechanic.

While in the drawings the conveyer-tube H and shaft G therein are arranged horizontally or at a right angle to the shaft D, still it would be no departure from the spirit of the invention that this conveyer should be oblique to the shaft D, though the device is more especially desirable where this conveyer must be disposed horizontally or nearly so.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a conveyer and distributer, the combination, of a malt-kiln, a malting-floor therein, a driven shaft provided with beveled pinions, a conveyer-tube extending at an angle from the driven shaft, and provided with one or more ports, and having a connection with said driven shaft so as to swing around the same, a conveyer within the tube, said conveyer provided with a pinion meshing with a pinion of the driven shaft, an auxiliary tube adapted to discharge into the first-named tube, and a conveyer within said auxiliary tube, said conveyer provided on its inner end with a pinion meshing with the other pinion of the driven shaft, and provided on its outer end with a pulley, or other driving-wheel, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN F. DORNFELD.

Witnesses:
C. T. BENEDICT,
ANNA V. FAUST.