

No. 850,107.

PATENTED APR. 9, 1907.

F. H. WOLEVER.
CONVEYING APPARATUS.
APPLICATION FILED MAY 13, 1906.

2 SHEETS—SHEET 1.

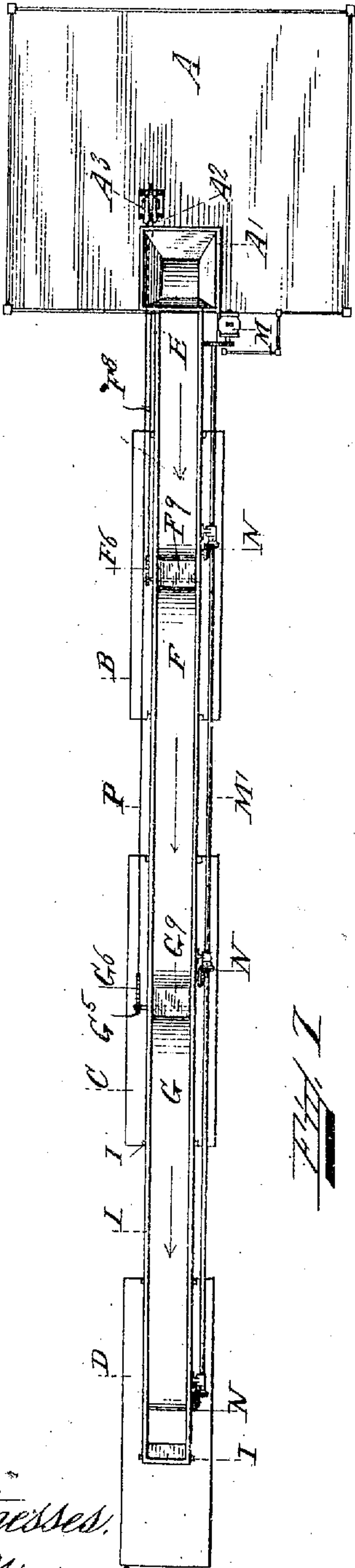


Fig. 1

Witnesses:
A. L. Russell
L. G. Bartlett

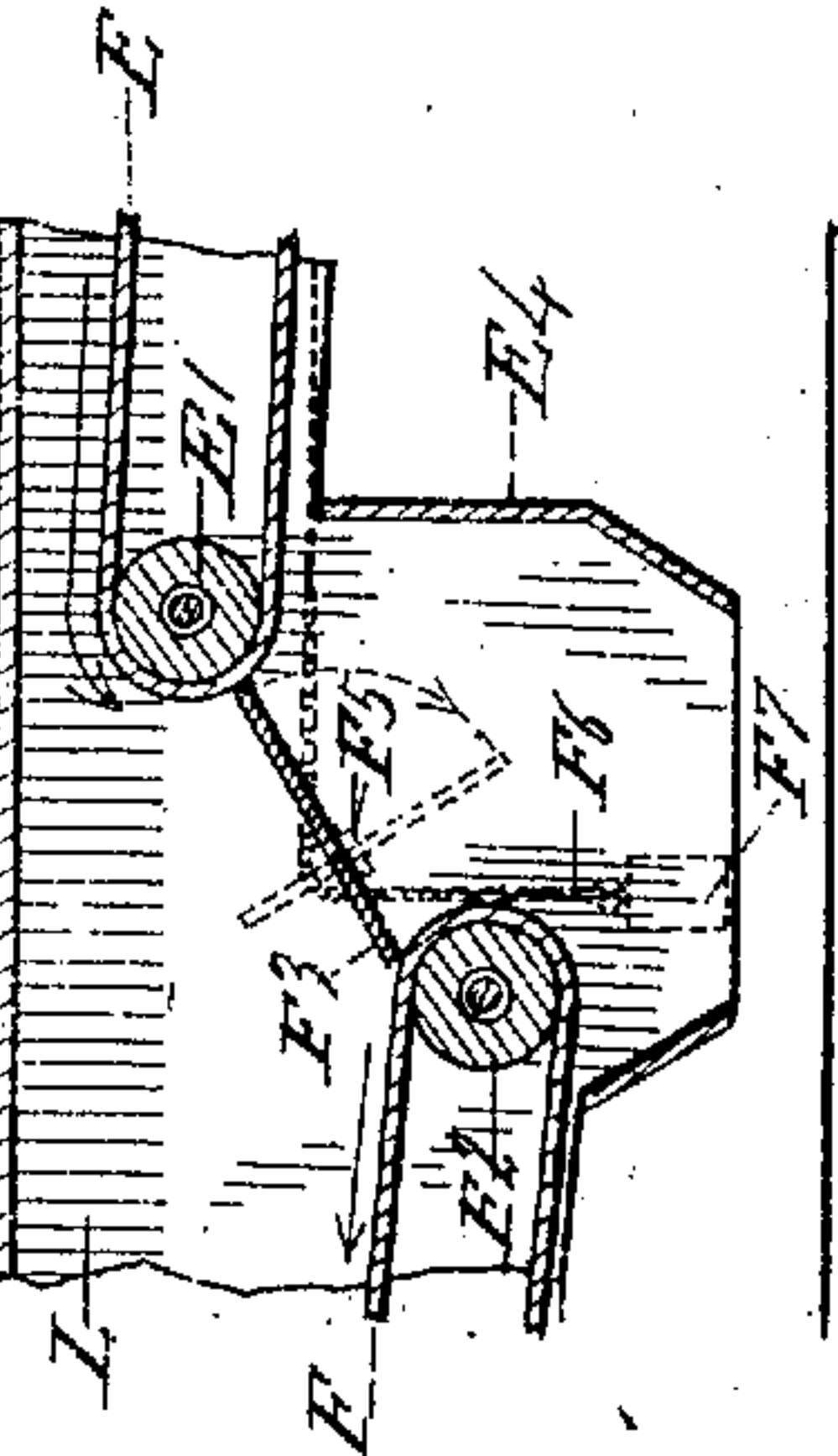
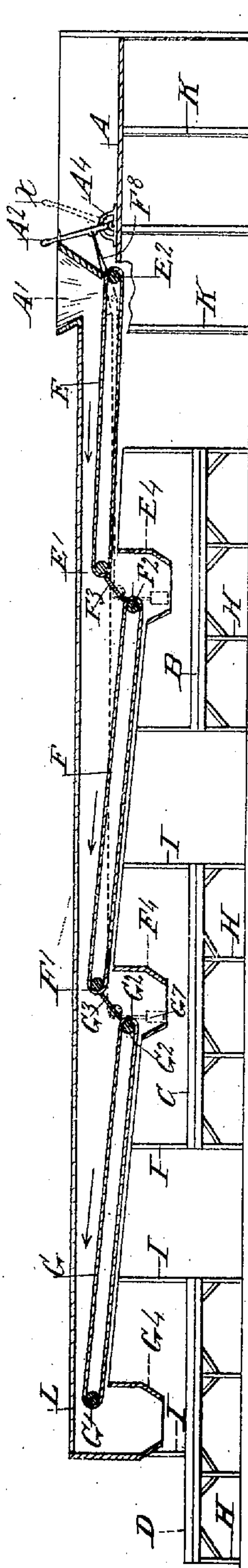


Fig. 2

Fig. 3

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2 SHEETS—SHEET 2.

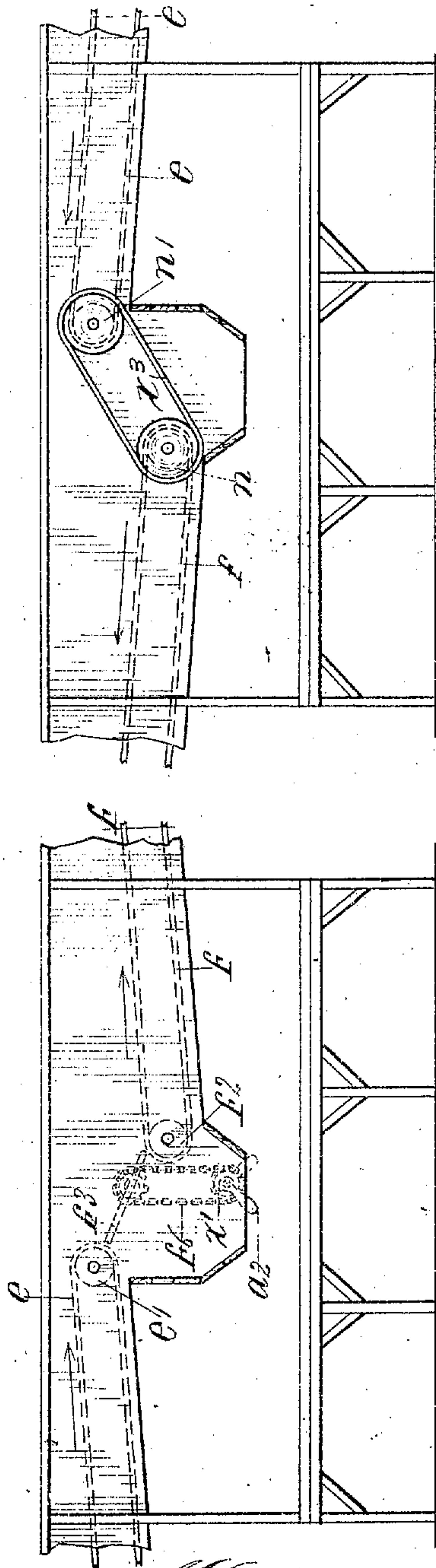


Fig. 4.

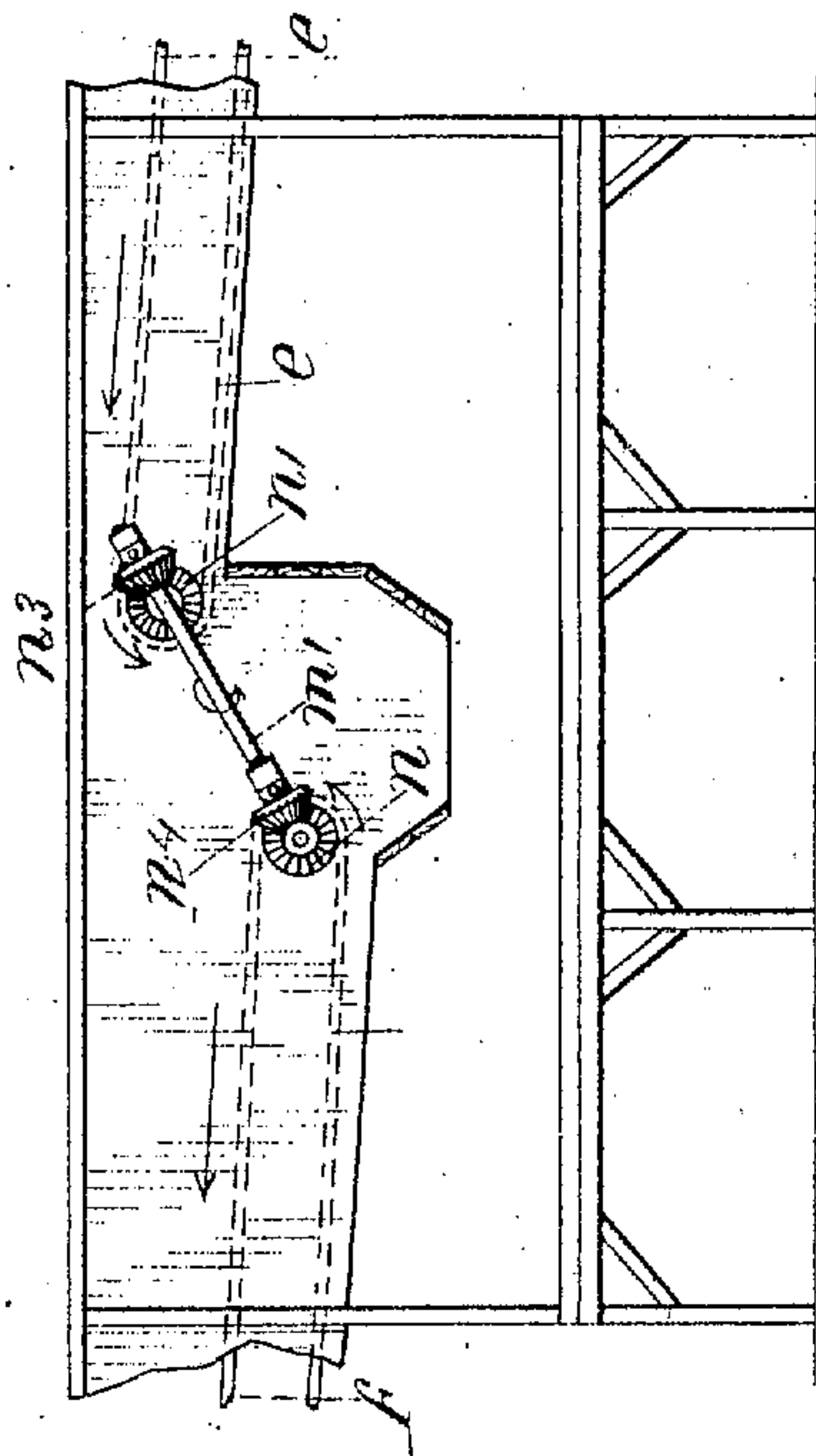


Fig. 5.

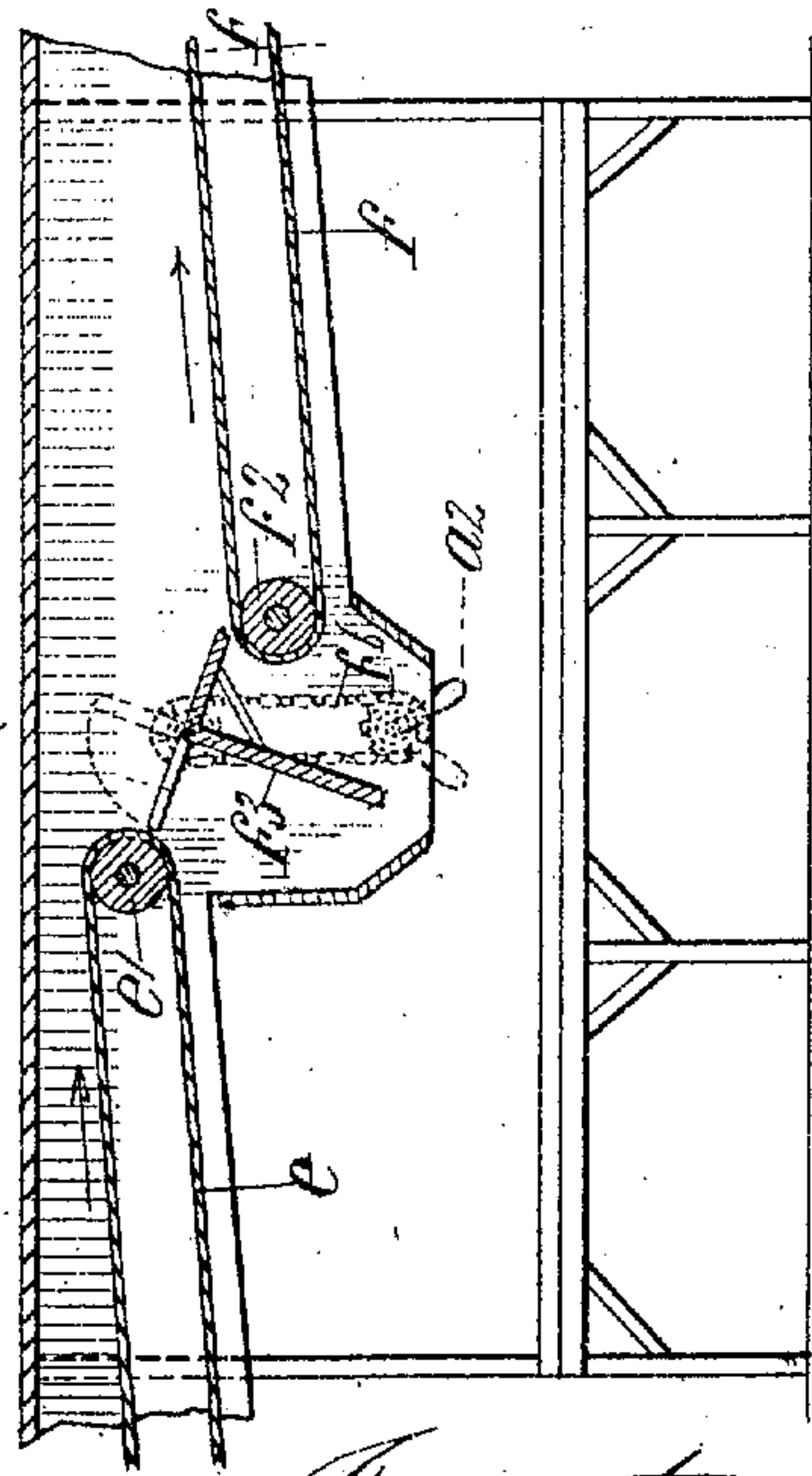


Fig. 6.

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UNITED STATES PATENT OFFICE.

FRANKLIN H. WOLEVER, OF CHICAGO, ILLINOIS, ASSIGNOR TO LAMSON CONSOLIDATED STORE SERVICE COMPANY, OF NEWARK, NEW JERSEY, A CORPORATION OF NEW JERSEY.

CONVEYING APPARATUS.

No. 850,107.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed May 13, 1906. Serial No. 260,206.

To all whom it may concern:

Be it known that I, FRANKLIN H. WOLEVER, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Conveying Apparatus, of which the following is a specification.

This my invention relates to that class of traveling belt conveyers for supporting and conveying loose articles, such as letters, parcels, or general merchandise; and it consists of a series of revolving endless sections so arranged, combined, and constructed as to convey the said articles from a main or sending station and discharge or drop the same from any section through a hopper upon a receiving shelf or table located under the said section at the will of the operator. This is accomplished by providing an adjustable swinging gate located between each section and which may be operated by a device located at either the main or sending station or at each receiving-station.

Numerous other important features of my invention will be hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, which illustrate a construction embodying my invention, Figure 1 is a plan view of the device. Fig. 2 is a longitudinal section through the center of Fig. 1. Fig. 3 is an enlarged section showing the discharging-gate and hopper. Fig. 4 shows a modification of the parts shown in Fig. 3, showing a method of operating the gate. Fig. 5 shows a modification of the parts shown in Fig. 4. Fig. 6 shows a modification of the means for driving the belt. Fig. 7 shows a modification of driving the belts by gearing.

Like letters of reference refer to like parts throughout the several views.

The receiving-tables B, C, and D are supported from the floor by the standards H, Fig. 2, and the main table or sending-station A is supported by the standards K and at a higher elevation than the receiving-tables. The conveyor-frame L is supported above the tables by the standards I. The pulleys G' and G², carrying the endless belt G, are journaled in the frame L, the belt G being in running contact with the sides of the frame L. The pulleys F¹ and F², carrying the endless

belt F, and the pulleys E' and E², carrying the endless belt E, are similarly journaled in the said frame L. The pulleys G', F', and E' being mounted higher than the pulleys G², F², and E² cause the belts G, F, and E to run on an incline, and the spaces between the belts are occupied by the swinging gates G³ and F³. At the end of each belt and below the same are the hoppers G⁴, F⁴, and E⁴, opening over the receiving-tables D, C, and B, respectively.

The hopper A' on the table A communicates with the belt E and feeds the articles upon said belt.

The motor M is geared to and drives the longitudinal shaft M', which shaft is geared to the pulleys G', F', and E' by the bevel-gears N and drives the belts G, F, and E in the direction indicated by the arrows. The adjustable swinging gate F³ (see Fig. 3) is mounted on a spindle F⁵, mounted in the frame L and between the pulleys F² and E'.

A sprocket-wheel F⁵ is fixed to the spindle F⁴, and the chain F⁶ fits over the teeth of said sprocket-wheel, and from the lower end of said chain F⁶ is suspended the weight F⁷. The other end of the chain F⁶ is connected by a wire F⁸ to the lever A², which is pivoted in the bed-plate A⁴, fixed to the table A. The weight F⁷, acting on the gate F³, holds the said gate F³ in an oblique position, completely filling the space between the belts E and F and at the same time holds the lever A² in the position shown in Fig. 2.

The gate G³ is mounted on the spindle G⁵, which spindle is mounted in the frame L between the pulleys G² and F'. The sprocket-wheel G⁵ is fixed to the end of the spindle G⁵ outside the frame L, and the chain G⁶ fits over the sprocket-wheel G⁵, from the lower end of which chain is suspended the weight G⁷. The wire P connects the other end of the chain G⁶ with the operating-lever A³.

A modification of the device for operating the gate is shown in Fig. 4, in which the chain f⁶, mounted on the sprocket-wheel f³, is controlled by the lever a², fixed to the sprocket-wheel x'. The belt x³, Fig. 6, connects the pulleys n and n', which are located outside the frame L. The pulleys E' actuate the pulleys F² by means of said connection.

In the modification shown in Fig. 7 the

pulley E', carrying the bevel-gear n' , drives the pulley F², carrying the bevel-gear n , by means of the shaft m' , carrying the bevel-gears n^3 and n^4 , which intermesh with the gears n and n' , respectively.

In the operation of the device the loose matter is taken from the table A and deposited in the hopper A', whence it drops upon the belt E and immediately commences to travel on the said belt in the direction indicated by the arrow. If the matter is consigned to the receiving-station B, the lever A² is pulled, which swings the gate F³ into the position indicated by the dotted lines in Fig. 3, and the matter runs off the belt E and thence through the opening left by the gate F³, thence through the hopper E⁴ and out upon the table B. The lever A² is then released and the weight F⁷ drops, throwing the gate F³ back into its initial position. If the matter is consigned to the receiving-station C, the lever A³ is pulled, swinging the gate G³ into a similar position, as shown in dotted lines, Fig. 3, and the matter falls from the belt E, slides down the closed gate F³ onto the belt F, and thence through the opening made by the gate G³ through the hopper F⁴ and out upon the table C. The lever is then released and the gate G³ assumes its initial position, as heretofore described, closing the opening between the belts F and G. If neither of the levers are operated, the loose matter runs off the belt G through the hopper G⁴ and out upon the table D.

Having thus described the nature of my invention and set forth a construction embodying the same, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a conveyer, a framework, pulleys mounted in said framework, an endless belt supported by said pulleys, means for driving said belt, means for feeding articles to said belt, and swinging means for diverting said

articles discharged from said belt into a receiver located thereunder.

2. In a conveyer, a framework, pulleys mounted in said framework, a plurality of endless belts supported by said pulleys, means for driving said belts, means for feeding articles to said belts, and means located between and contiguous to said belts for feeding said articles from one belt to another, said swinging means adjustable to divert said articles from any one of said belts into a receiver located thereunder.

3. In a conveyer, a framework, pulleys mounted in said framework, a plurality of endless belts supported by said pulleys, means for driving said belts—said belts running contiguous with the side of said framework, means for feeding articles to said belts, and swinging means located between and contiguous to said belts for feeding said articles from one belt to another, said means adjustable to divert said articles from any one of said belts into a receiver located thereunder.

4. In a conveyer, a framework, pulleys mounted in said framework, a plurality of endless belts supported by said pulleys, means for driving said belts—said belts running contiguous with the side of said framework, means for feeding articles to said belts, and pivoted means located between and contiguous to said belts for feeding said articles from one belt to another, said means adjustable to divert said articles from any one of said belts into a receiver located thereunder.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 6th day of May, A. D. 1905.

FRANKLIN H. WOLEVER.

Witnesses:

CLEMENT E. THOMPSON,
LORENZ P. WOLF.