

M. FOSHEE.  
CONVEYER.

APPLICATION FILED DEC. 1, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. I.

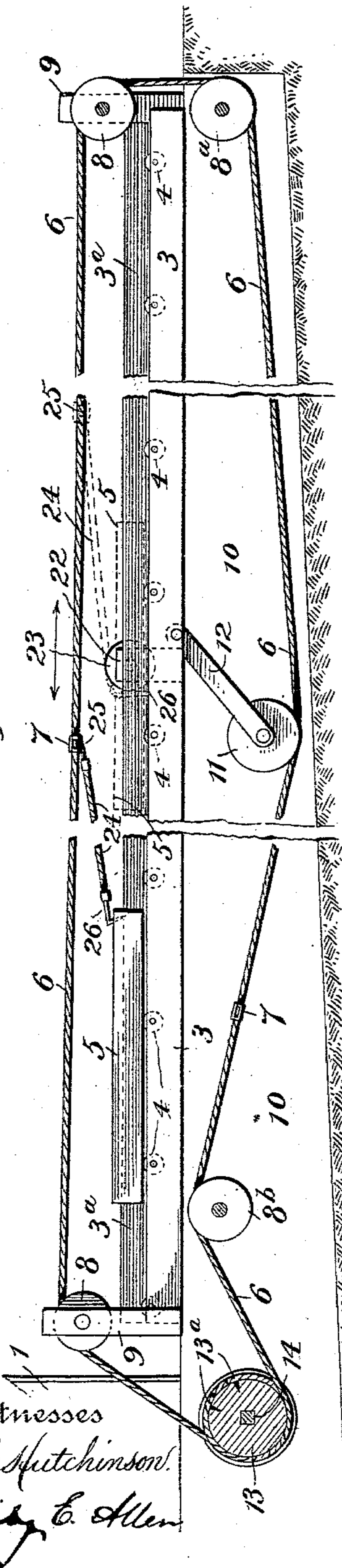


Fig. II.

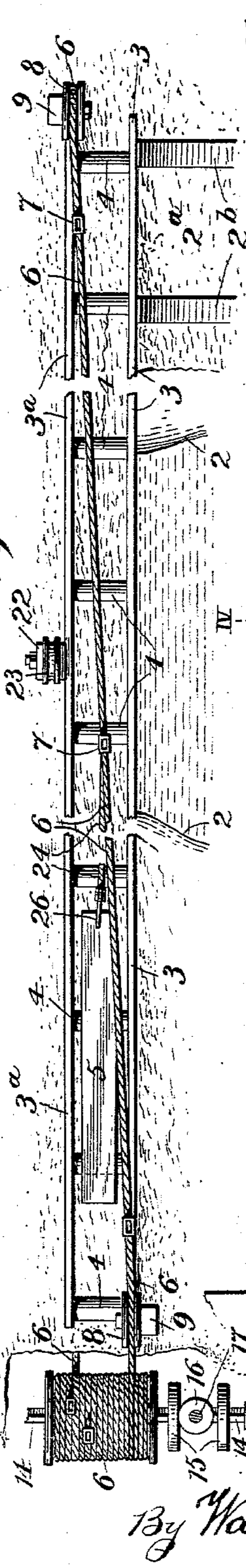


Fig. III.

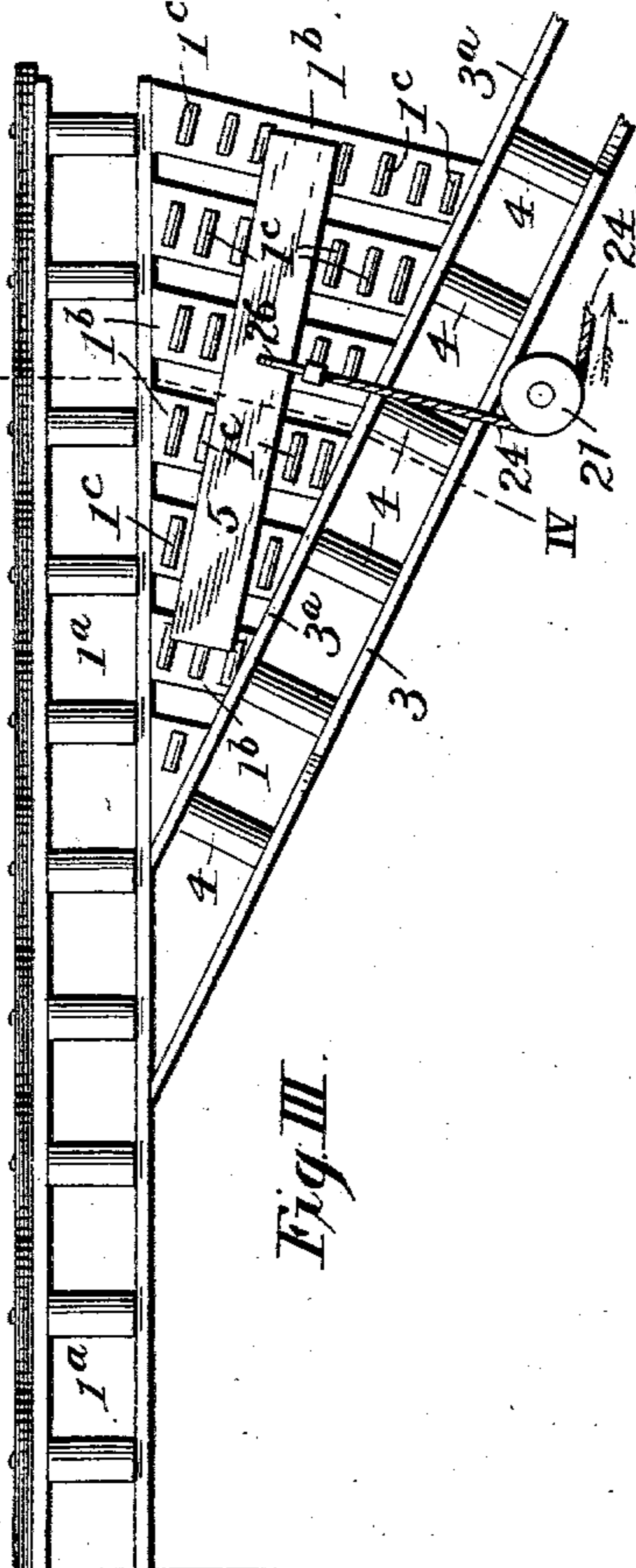
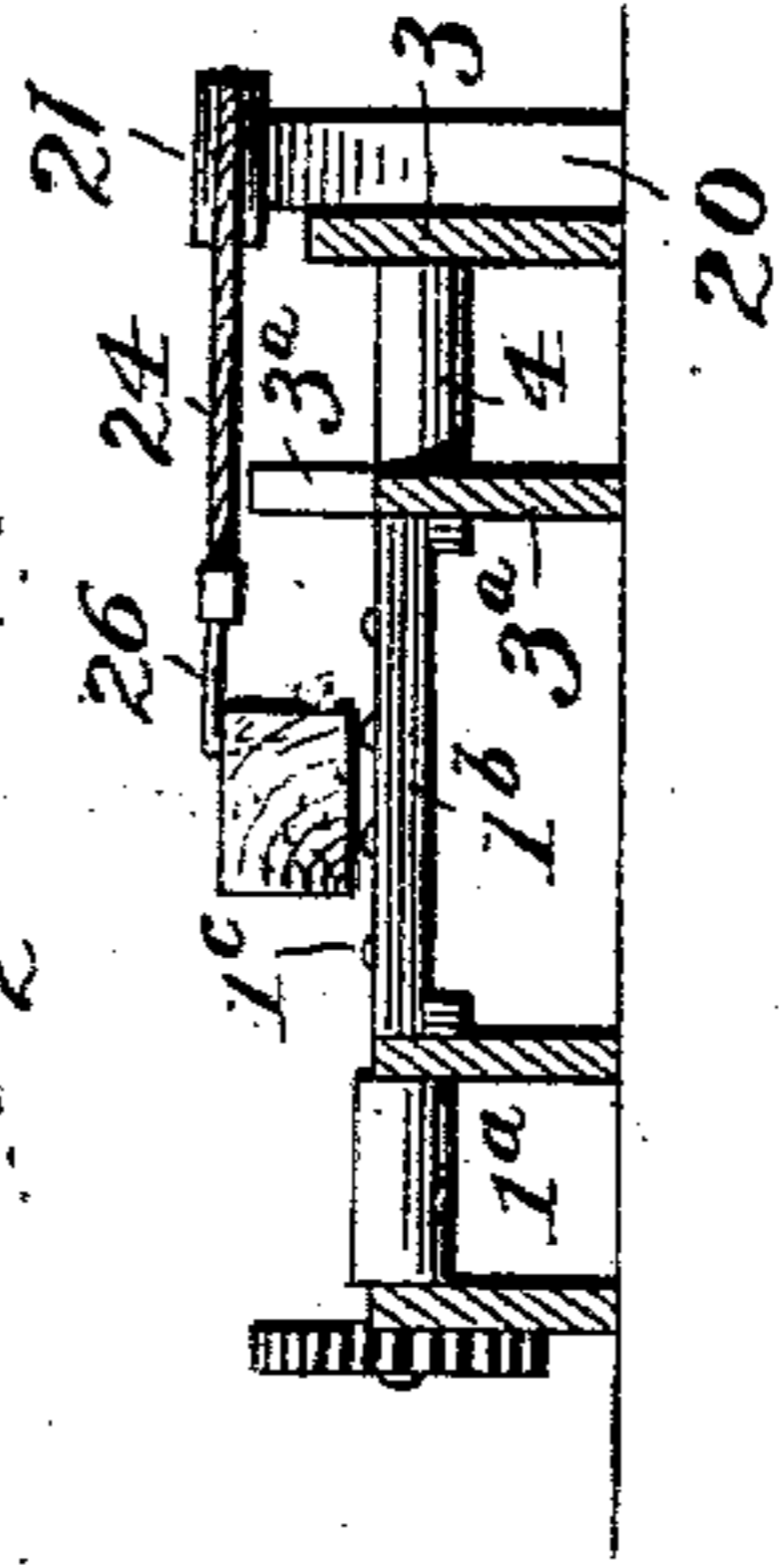


Fig. IV.



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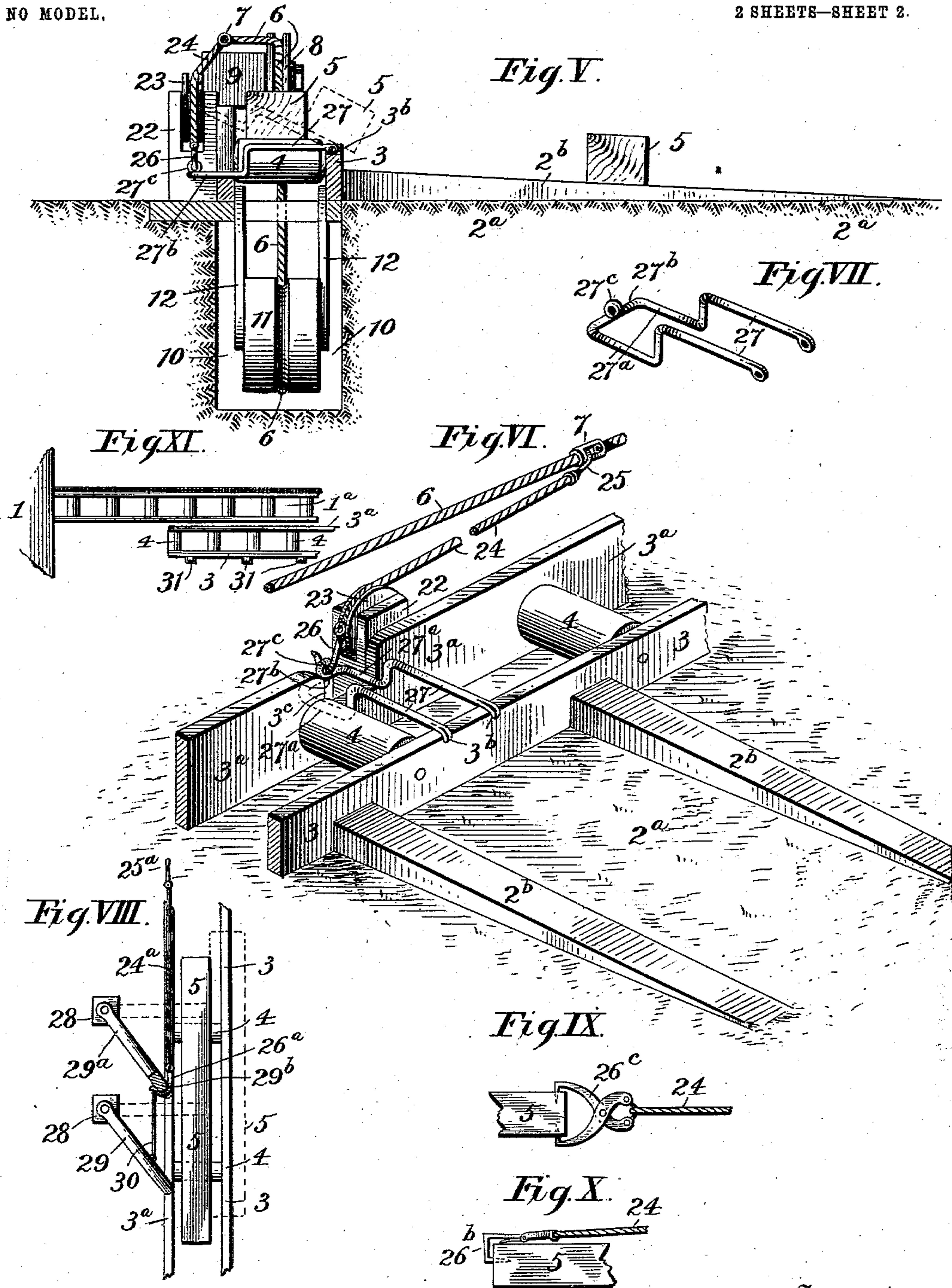
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By Walter Allen Attorney.

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2 SHEETS—SHEET 2.



Witnesses  
Jas. Hutchinson.  
Emily C. Allen

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# UNITED STATES PATENT OFFICE.

MASON FOSHEE, OF CHAPMAN, ALABAMA.

## CONVEYER.

SPECIFICATION forming part of Letters Patent No. 753,482, dated March 1, 1904.

Application filed December 1, 1903. Serial No. 183,380. (No model.)

*To all whom it may concern:*

Be it known that I, MASON FOSHEE, a citizen of the United States of America, and a resident of Chapman, in the county of Butler and State of Alabama, have invented certain new and useful Improvements in Conveyers, of which the following is a specification.

My invention is an improvement on those conveyers which are employed for transferring and placing heavy loads, such as timbers or logs, and which comprise a bed and an endless flexible transmitter for hauling the loads along the bed.

The object of my invention is to furnish a conveyer of inexpensive construction which requires less power to operate it than those usually employed for the transferring and placing of timbers or logs.

The invention consists in novel features in the construction of such conveyers, as herein-after described and claimed.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure I is a side elevation of my improved conveyer for transferring timbers or logs, in the present instance from a sawmill-building to a bank or ramp, a timber in position for dumping being shown in dotted lines. Fig. II is a top plan view of the same. Fig. III is a top plan view of my improved conveyer extending diagonally from a "live" and "dead" roller-bed leading from a sawmill-building. Fig. IV is a vertical transverse section thereof, taken on the line IV IV of Fig. III. Fig. V is a detail elevation showing the conveyer in vertical transverse section having a double-armed trip or dumping-frame, the operative position of the latter being shown in dotted lines. Fig. VI is a perspective view thereof. Fig. VII is a perspective view of a double-armed trip or dumping device. Fig. VIII is a detail plan view showing another form of dumping device. Fig. IX is a detail view showing a flexible connection having grappling-hooks for grasping the forward end of a timber or log. Fig. X is a detail view showing a flexible connection having a trip-hook engaged with the rear end of a timber or log.

Fig. XI is a plan view showing the live roller-bed from the sawmill-building extending alongside the roller-bed of my conveyer, where the flexible transmitter is arranged centrally over the conveyer.

In carrying out my invention I provide a roller-bed of any desired length, which may extend from the rear end of a sawmill-building 1, as shown in Fig. I, or from a live roller-bed 1<sup>a</sup>, as shown in Figs. III and IV, connected therewith by skids 1<sup>b</sup>, having little iron rolls 1<sup>c</sup> embedded in them.

2 represents the bank of a stream, ditch, or pond of water, and 2<sup>a</sup> a ramp or dumping-ground having slideways 2<sup>b</sup>. The roller-bed has an outer wall 3 on the dumping side of the conveyer and an inner wall 3<sup>a</sup>, which may be a little higher than the outer wall. In these walls at suitable distances apart are journaled wood or metal dead rollers 4, upon which the timber or log 5, which it is desired to transfer from one place to another place, is caused to travel by manual and mechanical force or power. As a means for advancing the timbers or logs to the bank 2 or ramp or dumping-ground 2<sup>a</sup> I provide an endless flexible transmitter 6, which is caused to travel either forward or backward to carry a timber or log to or from the place of dumping. This flexible transmitter may be in the form of steel or wire cable or rope or chain, having links 7 at suitable intervals apart and traveling around upper grooved sheaves 8 and lower grooved sheaves 8<sup>a</sup> 8<sup>b</sup> or sprocket-wheels; according as the transmitter 6 is a steel or wire cable or rope or chain. The upper grooved sheaves 8 are journaled to standards 9, located at a suitable distance apart, while the lower grooved sheaves 8<sup>a</sup> 8<sup>b</sup> are journaled in the sides of a conduit 10, in which they are located, the transmitter passing under the outer grooved sheave 8<sup>a</sup> and over the inner grooved sheave 8<sup>b</sup>. In connection with the transmitter I employ a belt-tightener, which consists of a grooved idler 11, resting on the transmitter 6 between the outer grooved sheave 8<sup>a</sup> and the inner grooved sheave 8<sup>b</sup>, for keeping the transmitter taut. The grooved idler 11 is held suspended by hangers 12, which are pivoted to the sides of the conduit 10.

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13 is a drum around which the transmitter 6 is lapped and has its ends 13<sup>a</sup> fastened or stapled thereto, a sufficient length of the transmitter 6 being lapped around the drum as will reach from the rear end of the mill-building or live roller-bed to the farther end of the dead roller-bed. This drum 13 is mounted on a square driven shaft 14, journaled at its ends in bearings at the sides of the conduit 10. The driven shaft also carries friction-disks 15, between which a friction driving-pulley 16, mounted on a vertical driving-shaft 17, is adapted to rotate either disk 15 when the disks are brought into frictional contact therewith, and thus drive the driven shaft and drum in either direction and move the transmitter either forward or backward, the driven shaft 14 being moved longitudinally to bring either disk 15 into contact with the driving-pulley 16 by means of a lever 18 engaging with a grooved collar 19, fixed to the driven shaft.

To give sufficient clearance for the timbers or logs and prevent them from coming in contact with the transmitter 6 when the timbers or logs are discharged from the sawmill-building, I arrange the inner upper grooved sheave 8<sup>b</sup>, on which the transmitter travels, at the outer wall 3 of the roller-bed, so that the transmitter 6 travels diagonally over the roller-bed to the inner wall 3<sup>a</sup> at the distant end, or the upper grooved sheaves may be arranged so as to carry the transmitter 6 over the inner wall 3<sup>a</sup> of the roller-bed, as shown in Figs. III and IV, where I show an upright post 20, carrying a grooved sheave 21, horizontally mounted thereon. In this case the outer wall 3 of the roller-bed is made a little higher than the rolls for a short distance and then the inner wall 3<sup>a</sup> is made higher for the remainder of the roller-bed.

Located at each dumping-place at the inner wall of the roller-bed are located posts 22, extending a little higher than the roller-bed. In the upper end of each post 22 is mounted a grooved pulley 23 to receive a flexible connection 24, which may be a section of steel or wire cable or rope or chain, having a hook 25 at its inner end, which is adapted to be placed in engagement with the link 7 of the transmitter 6, and provided at its outer end with a hook 26, which is engaged with the forward end of a timber or log, whereby the latter is coupled to the transmitter 6 for hauling the timber or log on the dead rollers 4 to its dumping-place or to the end of the roller-bed. When it is desired to throw or roll off a timber or log at a dumping-place, the timber or log is brought to the desired position by means of the transmitter 6, when the latter is stopped and the outer hook 26 is removed from the timber or log and the flexible connection 24 hung from the transmitter 6 over the grooved pulley 23 of the adjacent post 22. The outer hook 26 is then engaged with the under side of the timber or log trans-

versely thereof, and when the transmitter 6 is again started the flexible connection 24 will be pulled on the grooved pulley 23 and lift the timber or log from its inner side and roll it off the outer wall of the roller-bed at the dumping-place.

To facilitate the throwing or rolling off of a timber or log, I employ a double-armed trip or dumping frame, as shown in Figs. V, VI, and VII, where 27 represents a pair of arms hinged at their inner ends in recesses 3<sup>b</sup> in the upper edge of the outer wall 3 of the roller-bed and constructed with depressed or offset parts 27<sup>a</sup>, occupying a recess 3<sup>c</sup> in the inner wall 3<sup>a</sup> of the roller-bed when the trip or dumping frame is in normal position, and provided beyond the inner wall 3<sup>a</sup> with a cross-bar 27<sup>b</sup>, having an eye 27<sup>c</sup>, with which the outer hook 26 of the flexible connection 24 is engaged.

To throw or dump a timber or log with this device, the timber or log is first brought to a central position across the trip or dumping frame by means of the transmitter 6 and flexible connection 24, the transmitter 6 stopped, and the outer hook 26 detached from the timber or log. The flexible connection 24 is next hung over the grooved pulley 23 of the adjacent post 22 and the outer hook 26 engaged with the eye 27<sup>c</sup> of the trip or dumping frame, when the transmitter 6 being again started the flexible connection will be drawn over the grooved pulley 23 and the trip or dumping frame tilted toward the outer wall 3 of the roller-bed until the timber or log is thrown or rolled off the roller-bed, as shown in dotted lines in Fig. V.

In Fig. VIII, I show another means which I have provided for dumping a timber or log in connection with the transmitter 6. This is a pushing device, which consists of two posts 28, located at the inner wall 3<sup>a</sup> of the roller-bed at the dumping-place, to which are pivoted two parallel bars 29 29<sup>a</sup>, connected together at their free ends by means of a rod or flexible connection 30, the forward bar 29<sup>a</sup> being constructed with a reduced end 29<sup>b</sup>, with which an outer hook 26<sup>a</sup> of a rod 24<sup>a</sup>, having an inner hook 25<sup>a</sup>, is engaged, the inner hook 25<sup>a</sup> being engaged with the link 7 of the transmitter, so as to pull the free ends of the bars 29 29<sup>a</sup> against the inner side of the timber or log and push it off the roller-bed at the dumping-place, the bars 29 29<sup>a</sup> being moved from the position shown in full lines to the position shown in dotted lines.

Instead of the outer hook 26 on the flexible connection 24 I may employ a trip-hook 26<sup>b</sup>, which is engaged with the rear end of a timber or log, as shown in Fig. IX, or I may employ a grappling-hook 26<sup>c</sup>, engaging with the forward end of a timber or log, as shown in Fig. X.

Where the flexible transmitter extends centrally over the roller-bed, the live roller-bed 1<sup>a</sup> from the sawmill-building may extend

parallel with my conveyer, as shown in Fig. XI, so that the timbers or logs are transferred from one roller-bed to the other, stanchions 31 being provided at the outer wall of the conveyer to prevent the timbers or logs from rolling over the outer wall of the roller-bed. The stanchions are removed at the place where it is desired to dump the timbers or logs. As the inner wall of the roller-bed is higher than the rollers 4, the hook 26 can be so attached to the timber or log as to have the greater part of the force of draft applied in the direction of the higher inner wall 3<sup>a</sup>, so that the danger of the premature dumping of the timber or log is avoided.

While my conveyer is more applicable to the hauling of timbers than to anything else, it may be used to advantage with a log-haul up or in any place where heavy loads are to be moved over dead roller-beds.

It is much less expensive and requires much less power to operate my conveyer, as the power need not be continuously applied, as in other conveyers.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. A conveyer comprising a roller-bed, standards, upper sheaves mounted on the standards, a conduit located beneath the roller-bed, lower sheaves journaled in the conduit, a flexible transmitter carried by the upper and lower sheaves, a drum with which the ends of the flexible transmitter are connected, means for rotating the drum, and a connection having means at one end for engaging the flexible transmitter and means at the other end for engaging the object to be conveyed.

2. A conveyer comprising a roller-bed, standards, upper sheaves mounted in the standards, a conduit located beneath the bed, lower sheaves journaled in the conduit, a flexible transmitter carried by the upper and lower sheaves, a drum with which the flexible transmitter is connected, means for rotating the drum, a connection having means at one end for engaging the flexible transmitter and means at the other end for engaging the object to be conveyed, and a tightener for the transmitter consisting of a grooved pulley resting thereon within the conduit and arms, in which the grooved pulley is journaled, pivoted to the sides of the conduit.

3. A conveyer comprising a roller-bed, standards, upper sheaves mounted on the standards, a conduit located beneath the roller-bed, lower sheaves journaled in the conduit, a flexible transmitter having links at intervals and carried by the upper and lower sheaves, a drum with which the flexible transmitter is connected, means for rotating the drum, and a connection having means at one end for engaging the flexible transmitter and means at the other end for engaging the object to be conveyed.

4. A conveyer comprising a roller-bed, standards, upper sheaves mounted on the standards, a conduit located beneath the roller-bed, lower sheaves journaled in the conduit, a flexible transmitter having links at intervals and carried by the upper and lower sheaves, a drum with which the flexible transmitter is connected, means for rotating the drum, and a connection having a hook at one end for engaging a link of the flexible transmitter and a hook at the other end for engaging the object to be conveyed.

5. A conveyer comprising a roller-bed, standards, upper sheaves mounted on the standards, a conduit located beneath the roller-bed, lower sheaves journaled in the conduit, a flexible transmitter carried by the upper and lower sheaves, a drum with which the flexible transmitter is connected and a flexible connection having means at one end for engaging the flexible transmitter and means at the other end for engaging the object to be conveyed.

6. A conveyer comprising a roller-bed, a flexible transmitter, means for carrying and operating the transmitter, a connection having means at one end for engaging the flexible transmitter, and means at the other end for engaging the object to be conveyed and a dumping device having means with which the outer end of the connection may be coupled to throw the object to one side of the conveyer.

7. A conveyer comprising a roller-bed, a flexible transmitter, means for carrying and operating the transmitter, a flexible connection having means at one end for engaging the flexible transmitter, and means at the other end for engaging the object to be conveyed, a post located opposite the dumping-place, a grooved pulley mounted on the post for receiving the flexible connection and a dumping device having means with which the outer end of the connection may be coupled to throw the object to one side of the conveyer.

8. A conveyer comprising a roller-bed, standards, upper sheaves mounted on the standards, a conduit located beneath the roller-bed, lower sheaves journaled in the conduit, a flexible transmitter carried by the upper and lower sheaves, a drum with which the flexible transmitter is connected, means for rotating the drum, a flexible connection having means at one end for engaging the flexible transmitter, and means at the other end for engaging the object to be conveyed, a post located opposite the dumping-place and a grooved pulley mounted on the post for receiving the flexible connection.

9. A conveyer comprising a roller-bed, a flexible transmitter, means for carrying and operating the flexible transmitter, a dumping device, a connection having means at one end for engaging the flexible transmitter, and means at the other end for engaging the dumping device.

10. A conveyer comprising a roller-bed, a

flexible transmitter, means for carrying and  
operating the flexible transmitter, a dumping  
device, a flexible connection having means at  
one end for engaging the flexible transmitter,  
5 and means at the other end for engaging the  
dumping device, a post located opposite the  
dumping-place and a grooved pulley mounted  
on the post for receiving the flexible connec-  
tion.

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