

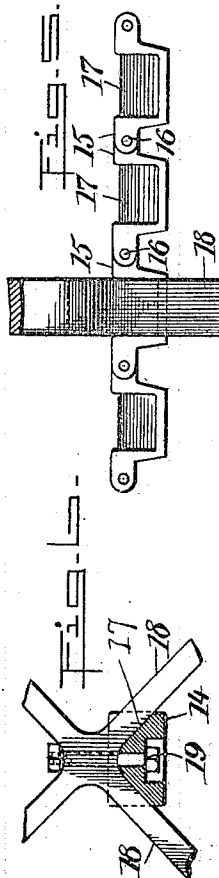
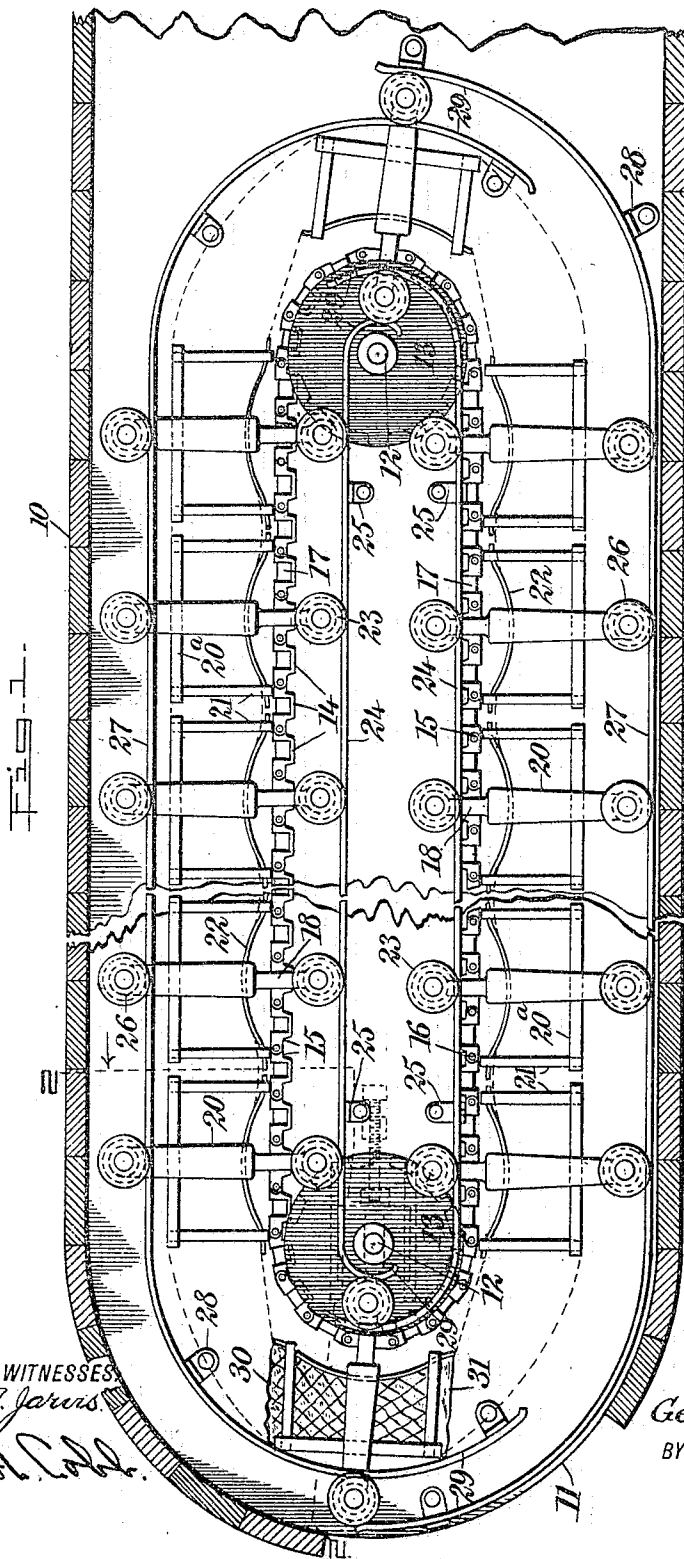
No. 809,827.

PATENTED JAN. 9, 1906.

G. LUCAS.
CONVEYER.

APPLICATION FILED DEC. 7, 1904.

2 SHEETS—SHEET 1.



WITNESSES
C. A. Jones

J. H. Cobb

INVENTOR
George Lucas

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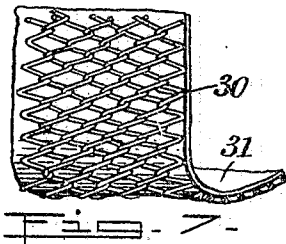
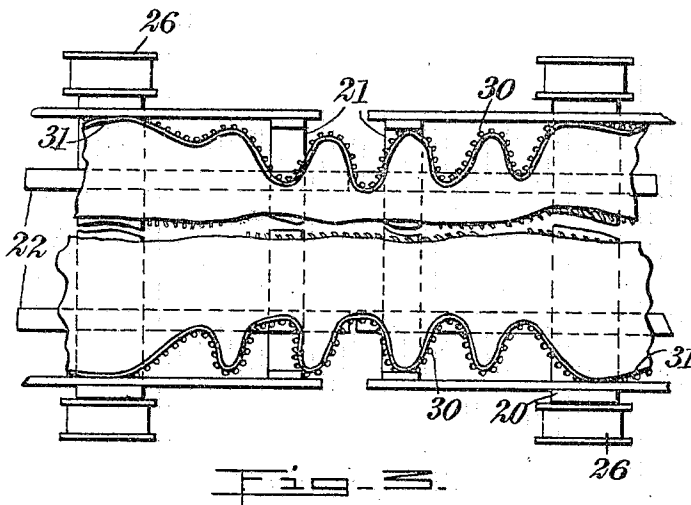
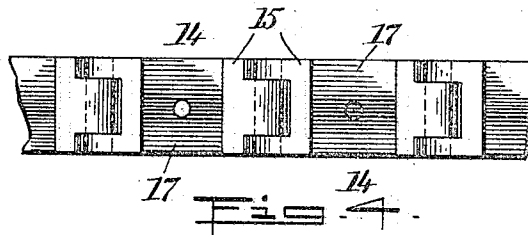
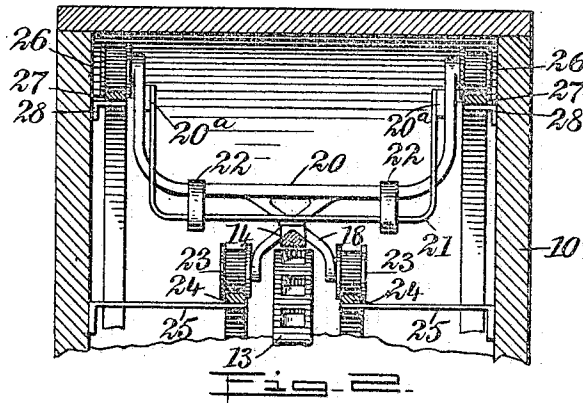
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2 SHEETS—SHEET 2.



WITNESSES:
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UNITED STATES PATENT OFFICE.

GEORGE LUCAS, OF PASSAIC, NEW JERSEY.

CONVEYER.

No. 809,827.

Specification of Letters Patent.

Patented Jan. 9, 1906.

Application filed December 7, 1904. Serial No. 235,811.

To all whom it may concern:

Be it known that I, GEORGE LUCAS, a citizen of the United States, and a resident of Passaic, in the county of Passaic and State of New Jersey, have invented a new and Improved Conveyer, of which the following is a full, clear, and exact description.

My invention relates to conveyers, it having for its principal object the provision of a simple and durable apparatus which will effectively transport material.

It consists in the various features and combinations hereinafter described and claimed.

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

Figure 1 is a longitudinal section through one embodiment of my invention, taken just inside the casing-wall. Fig. 2 is a transverse section therethrough on the line 2 2 of Fig. 1. Fig. 3 is a broken top plan view of a portion of the conveyer. Fig. 4 is a detail in top plan of the chain. Fig. 5 is a side elevation of said chain with a portion of one of the carriers connected thereto. Fig. 6 is a transverse section through the chain looking toward the carrier, and Fig. 7 shows in perspective a section of the flexible trough.

10 designates an inclosing casing which may be of any desired length and be provided with suitable openings, one of which is indicated at 11, for the introduction and discharge of the contents of the conveyer. Journaled in the side walls of this casing near its opposite ends are shafts 12 12, to one of which power may be applied from any suitable source to advance the conveyer. Fixed to each of these shafts near its center is a sprocket-wheel 13, the teeth of which engage with the links 14 of a conveyer-chain. Each link has at its outer side end projections 15 15, which are pivoted to those of the next adjacent link at 16, there being spaces left between the links to receive the sprocket-teeth. At the outer side of each link is a recess having inclined side walls 17 17, diverging inwardly. Seated in these recesses at intervals along the chain are outwardly - converging arms 18, which are securely held against both lateral and longitudinal movement by the contacting recess-walls, they being maintained in co-action therewith by bolts 19 passing through the junctures of the arms and through the links. Mounted upon these arms are generally U-shaped supporting members 20, each

having longitudinal side bars 20^a, which have fixed at their outer extremities secondary supporting members 21 of the same general form as the main members, but with their bottom portions lying in a plane nearer the axis of the apparatus. The supporting members are connected to form baskets or carriers by outwardly-curved bars 22, the inner ends of which lie closely adjacent to one another and which while forming a substantially continuous support over the straight run of the conveyer are separated by a minimum amount upon the turns. Journaled upon the outer ends of the arms 18 are rolls 23, running upon inner tracks 24, extending longitudinally of the casing and being supported upon long brackets 25, projecting from the side walls thereof. At the outer ends of the members 20 are rolls 26, which cooperate with outer tracks 27, similarly supported upon short brackets 28. The relation of the tracks to the chain is such that the rolls of the upper run of the conveyer are situated above said tracks, so that they support the entire weight of the carriers and their contents, while the lower tracks are situated farther from the axis, so that they also lie below the wheels and support the empty carriers. The upper and lower sections of each pair of tracks have overlapping curved ends 29, separated by distances equal to the diameter of the rolls to enable this transfer of action to be effectively accomplished. Within the carriers secured to their inner sides is a continuous trough-shaped strip of flexible material. This, as illustrated, consists of woven wire 30, having interlocked spirals, the expansion of which allows the trough to adjust itself to the curvature of the ends of the conveyer without leaving undue fullness along the sides of the straight portion. If desired to facilitate the carrying of finely-divided material, this wire fabric may be faced or lined at 31 with some such closely-woven material as canvas.

It will be seen that my improved conveyer furnishes an unbroken conduit of considerable depth, by which many kinds of material may be moved from one point to another, and that the flexible fabric which constitutes the conveyer proper is so supported that it may carry great weights without sagging and yet readily adapts itself to changes of direction.

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

1. A conveyer comprising inner and outer

tracks, carriers coacting with both tracks, and flexible material connecting and extending through the carriers.

2. In a conveyer, the combination with a series of traveling carriers, each comprising a main generally U-shaped supporting member and secondary supporting members mounted at each side thereof, of a strip of flexible material attached to and supported by the carrier members.

3. In a conveyer, the combination with a series of traveling carriers, each comprising a main generally U-shaped supporting member, secondary supporting members mounted at each side thereof and inwardly-curved bottom bars connecting the supporting members, of a strip of flexible material attached to and supported by the carrier members.

4. In a conveyer, the combination with a series of traveling carriers, each comprising a generally U-shaped member, of a strip of flexible material attached to and supported by the carrier members, rolls journaled upon the

carriers, and tracks with which the rolls contact.

5. A conveyer comprising a chain consisting of links, each having a recess with oppositely-inclined walls, carriers provided with outwardly-converging arms lying within the recesses and contacting with the inclined walls, and means for securing the carriers to the links.

6. A conveyer comprising toothed wheels, a chain consisting of pivoted links operating upon the wheels and having spaces formed between adjacent links to receive the teeth, and carriers fixed to the links between their pivotal points.

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

GEORGE LUCAS. [L. s.]

Witnesses:

GEO. DE W. BROWN, [L. s.]

ROBERT H. ALDOUS. [L. s.]