No. 779,530. PATENTED JAN. 10, 1905.

H. D. CONWAY.

CONVEYER OR CARRIER.

APPLICATION FILED MAY 18, 1904.

4 SHEETS—SHEET 1.

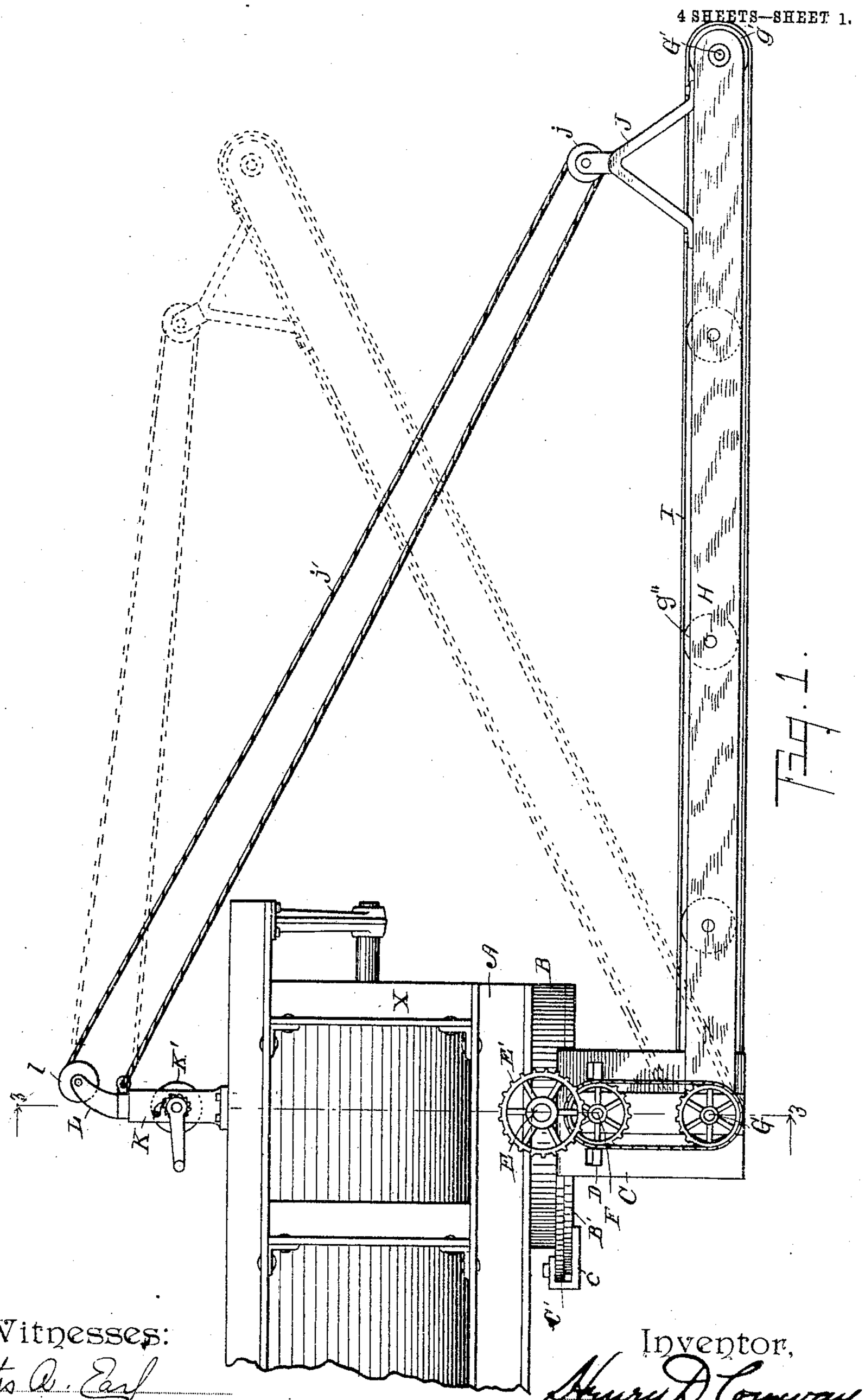

Fig. 1.

Witnesses:

Otis A. Earl

Ethel A. Sellers

Inventor,

Henry D. Conway

By Fred L. Chappell

Att'y.

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4 SHEETS—SHEET 2.

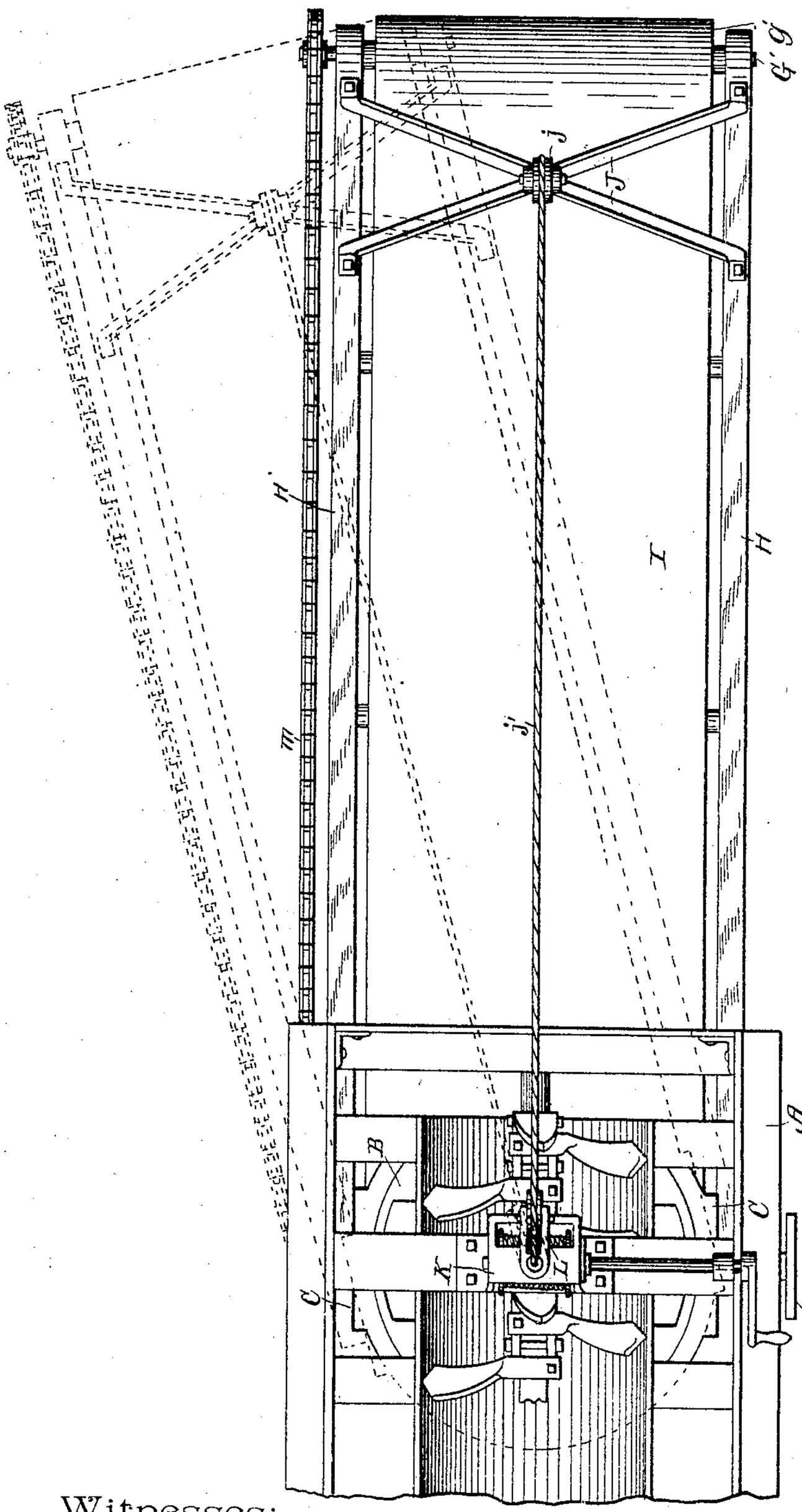

FIG. 2.

Witnesses:

Otto A Earl

Ethel A. Selden

Inventor,

Henry D Conway

By Fred L Chappell

Att'y.

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4 SHEETS—SHEET 3.

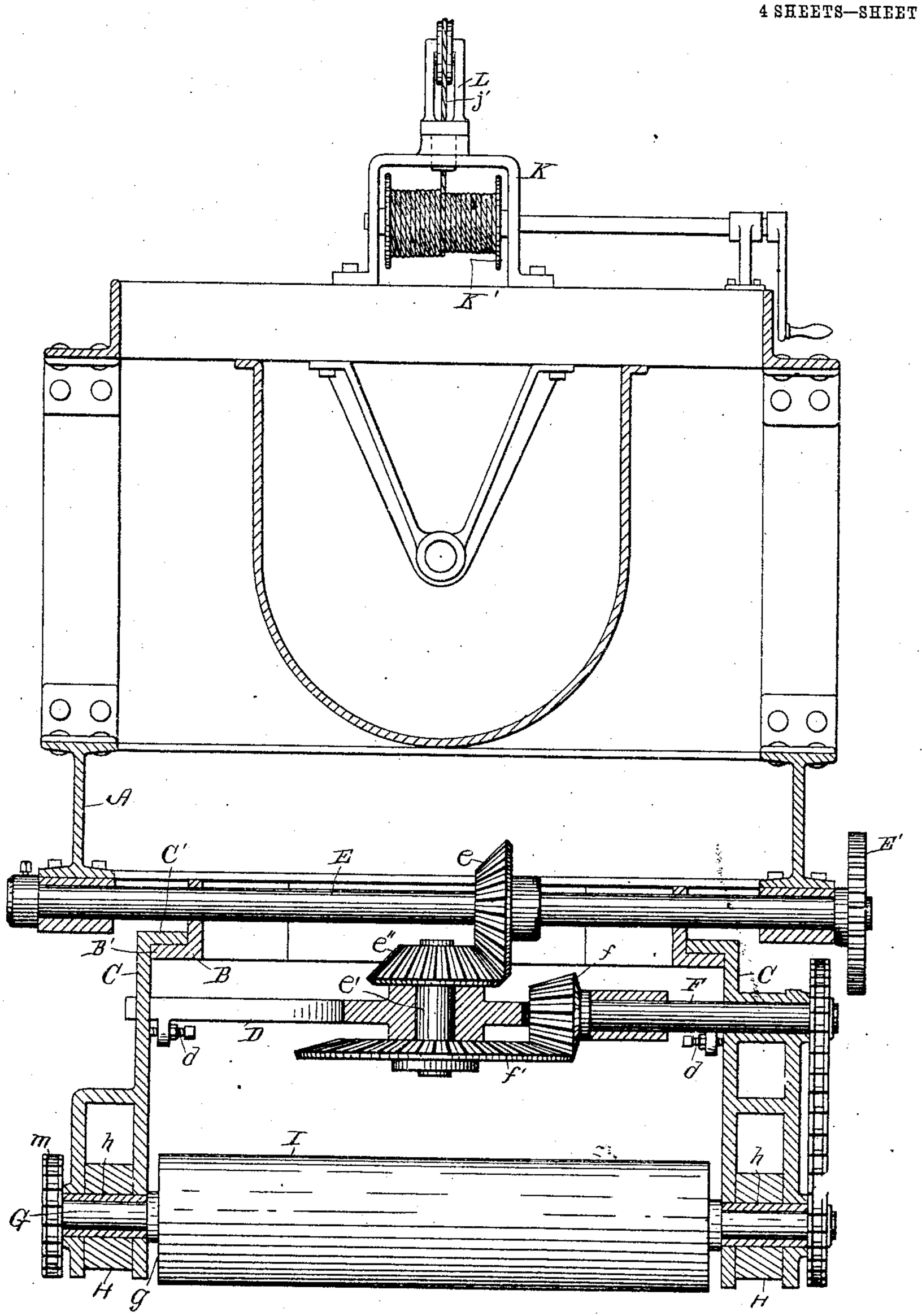

Fig. 3.

Witnesses:
Otis A Earl.
Ethel R. Teller

Inventor,
Henry D Conway
By Fred L Campbell
Att'y.

No. 779,530. PATENTED JAN. 10, 1905.

H. D. CONWAY.

CONVEYER OR CARRIER.

APPLICATION FILED MAY 18, 1904.

4 SHEETS—SHEET 4.

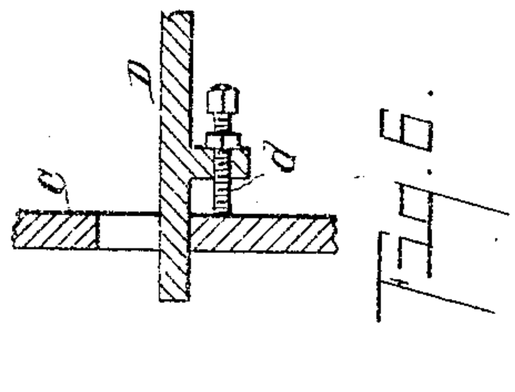

FIG. 6.

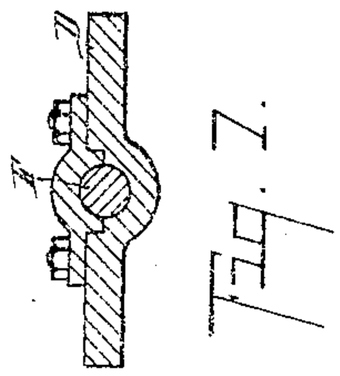

FIG. 7.

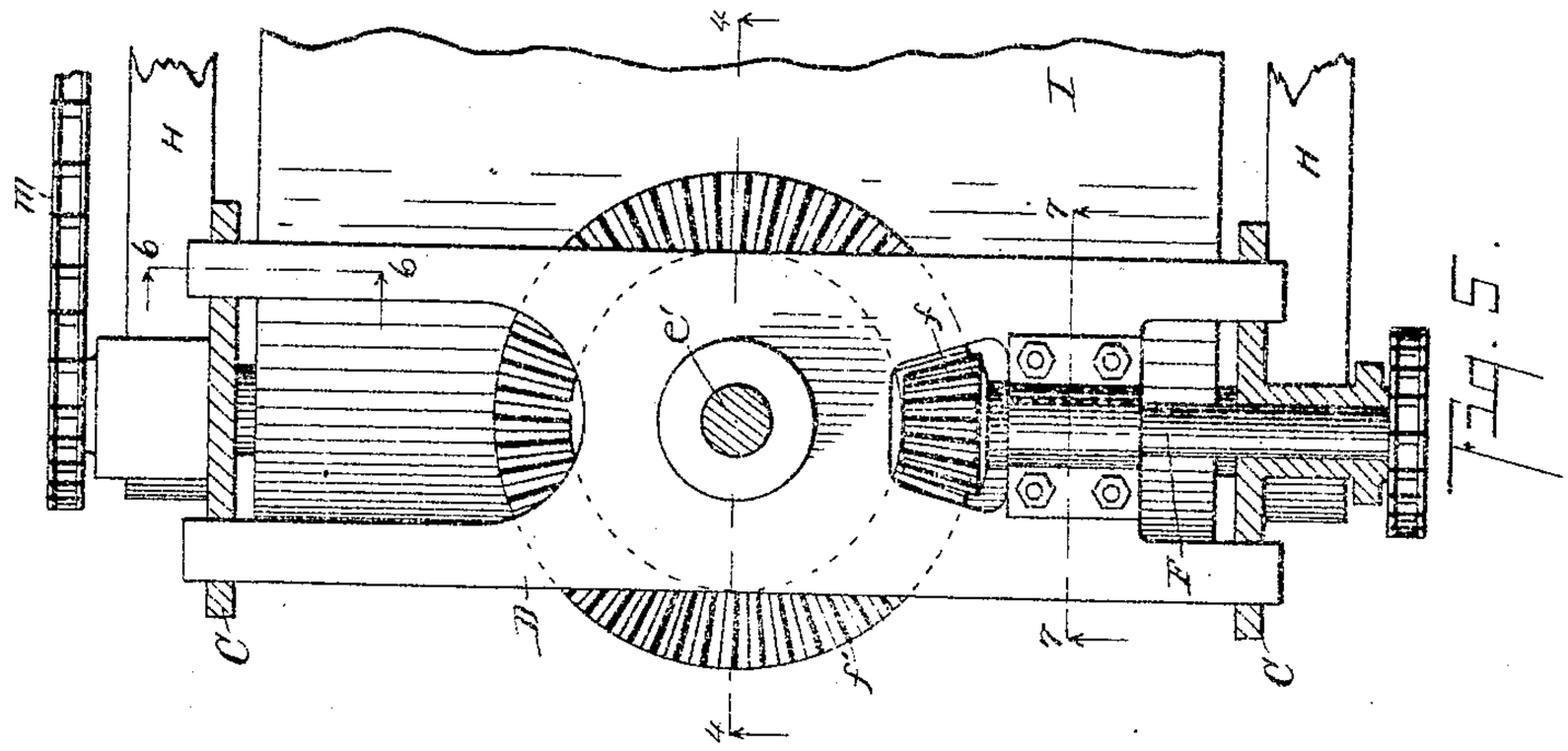

FIG. 5.

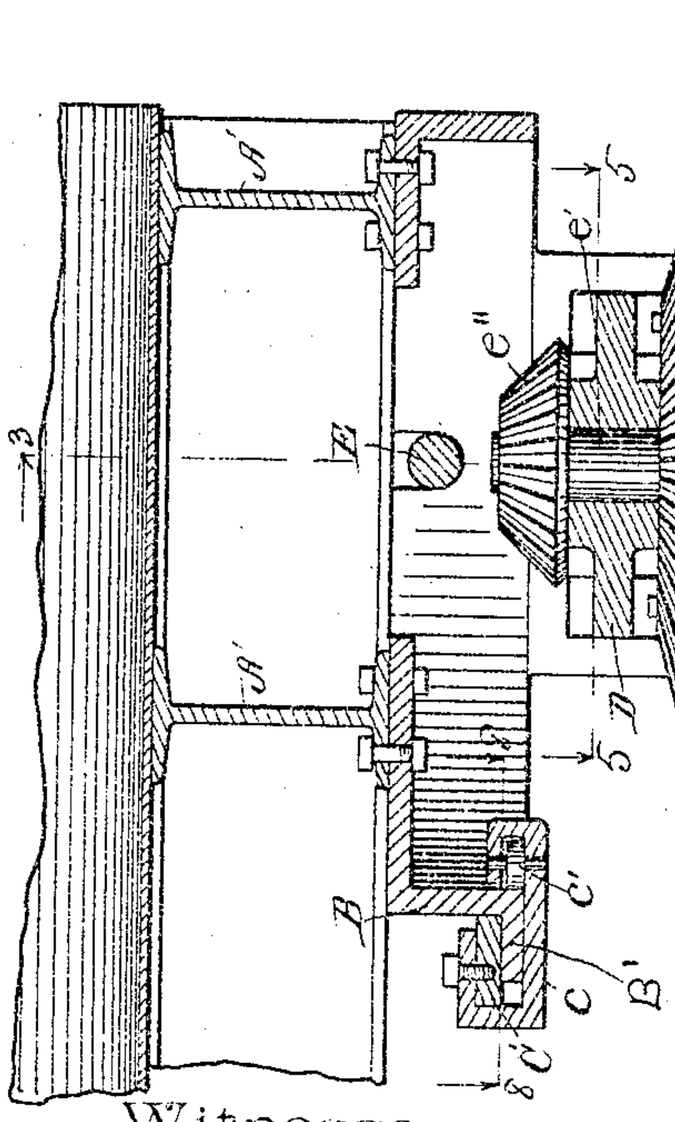

FIG. 4.

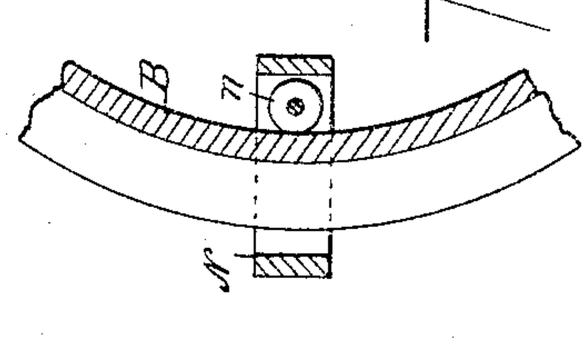

FIG. 8.

Witnesses:

Otto A Earl

Ethel A Seller

Inventor,

Henry D Conway

By Fred L Chappell

Att'y.

No. 779,530. Patented January 10, 1905.

UNITED STATES PATENT OFFICE.

HENRY D. CONWAY, OF JACKSON, MICHIGAN.

CONVEYER OR CARRIER.

SPECIFICATION forming part of Letters Patent No. 779,530, dated January 10, 1905.

Application filed May 18, 1904. Serial No. 208,567.

To all whom it may concern:

Be it known that I, HENRY D. CONWAY, a citizen of the United States, residing at the city of Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Conveyers or Carriers, of which the following is a specification.

This invention relates to improvements in conveyers or carriers.

My improved conveyer or carrier is particularly adapted for use in connection with my improved mixing-machine for concrete or like materials, for which I made application for Letters Patent on the 30th day of April, 1903, Serial No. 154,949, and I have illustrated the same applied thereto, although it is desirable for use in other relations.

The main object of this invention is to provide an improved conveyer or carrier which is simple, compact, and economical in structure, strong and durable, and easy to operate. Further objects and objects relating to structural details will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification. The invention is clearly defined and pointed out in the claims.

A structure embodying the features of my invention is clearly illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a detail side elevation view of a structure embodying the features of my invention, its vertical adjustment being indicated by dotted lines. Fig. 2 is a detail plan view of the structure appearing in Fig. 1, its lateral adjustment being indicated by dotted lines. Fig. 3 is an enlarged transverse vertical sectional view taken on a line corresponding to line 3 3 of Figs. 1 and 4, the shafts and gear being shown in full lines. Fig. 4 is a detail vertical sectional view taken on line 4 4 of Fig. 5, the shaft *e'* and the gear thereon being shown in full lines. Fig. 5 is a detail horizontal sectional view taken on a line corresponding to line 5 5 of Fig. 4. Fig. 6 is a detail sectional view taken on line 6 6 of Fig. 5, showing the means for supporting and adjusting the cross-plate D. Fig. 7 is a detail sectional view taken on line 7 7 of Fig. 5, showing the arrangement of the bearing for the shaft F. Fig. 8 is an enlarged detail view showing the means for retaining the turn-table on the way or track.

In the drawings similar letters of reference refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section-lines.

Referring to the drawings, the base of the mixer-frame X is made up of longitudinal **I**-beams A and cross-beams A'. (See Figs. 1 and 3.) Secured to the under side of the cross-pieces A' is a circular turn-table hanger B. This hanger is provided with an outwardly-projecting flange-like way B'. This way B' extends only partially around the hanger B. The side pieces C of the turn-table are provided with an inwardly-projecting annular segment-bearing C', adapted to rest upon the way of the hanger. This bearing C' is held upon the way B' by a retainer *c*, which is secured thereto, and is provided with a roller *c'*, adapted to travel on the inner face of the hanger. (See Fig. 4.) This retainer is shaped somewhat like a letter **C**, one end of which rests upon and is secured to the bearing C', and the other end projects up within the hanger, so that the roller *c'* travels on the inner face thereof, as stated. The retainer *c* is preferably detachably secured in position, so that it can be detached to release the bearing-ring. A plate-like cross-piece D is arranged in suitable slots in the side pieces C. This plate or cross-piece is adjustably secured in position by the set-screws *d*, which are arranged through downwardly-depending lugs on the cross-piece D. (See Fig. 3.) A horizontal shaft E is supported in suitable bearings secured to the **I**-beams A. This shaft is provided with a sprocket-wheel E', which is connected by a suitable sprocket-chain (not here illustrated) to the driving mechanism. The shaft E is centrally arranged through the hanger B. A beveled gear *e* is carried by this shaft E. A shaft *e'* is arranged in a suitable vertical bearing on the cross-piece D. On the upper end of this

shaft *e* is a beveled gear *e''*, adapted to mesh with the gear *e* on the shaft E. Arranged beneath the cross-piece D on the lower end of the shaft *e'* is an upwardly-facing beveled gear *f'*. This gear *f'* is adapted to mesh with the beveled gear *f* on the inner end of the horizontally-arranged shaft F. (See Fig. 3.) The shaft F is supported in a suitable bearing on one of the side pieces C, and its inner end is provided with a bearing which is carried by the cross-plate D. (See Figs. 3 and 7.) A shaft G is mounted in suitable bearings in the lower ends of the side pieces C. On this shaft G is a driving-roller *g* for the carrier-apron I. The shafts F and G are provided with suitable sprocket-wheels and a connecting-chain, so that the shaft G is driven from the shaft F. Thus arranged the turn-table may be swung from side to side, and at the same time the gears are kept in proper mesh and the carrier-apron driven no matter what the position may be.

The side pieces C are forked at their lower ends to receive the ends of the side rails H of the carrier-frame. These side rails are pivoted on the bearings *h* of the shaft G, so that the outer end of the carrier may be adjusted vertically. Journaled in suitable bearings at the outer ends of the rails H is a shaft G', having a carrying and driving roller *g'* for the carrying-apron. These shafts G and G' are connected by a suitable sprocket-chain, as *m*. I also provide idler-rollers *g''* for the carrier-apron. These are arranged in suitable bearings in the side rails H.

Secured toward the outer ends of the side rails H is a bracket J, having a sheave or pulley *j* thereon. The supporting and adjusting cable *j''* is passed over this pulley. The windlass K is mounted on the top of the mixer-frame X. A guide-pulley *l* for the cable *j''* is provided. This guide-pulley is mounted on the vertically-journaled stem or arm L. One end of the cable *j''* is secured to the journaled support of the guide-pulley, and the other is passed over the guide-pulley *j* to the windlass. The support L for the guide-pulley is arranged in line with the axis of the turn-table. Thus arranged the carrier has no tendency to return to its initial position when adjusted laterally. It is apparent that the carrier may be swung in either direction or adjusted vertically.

The structure is very compact and is so arranged and supported that the mixer delivers to the carrier-apron without the use of any special means for delivery thereto.

The parts of my improved carrier or conveyer are economical to produce and are readily assembled and adjusted or disassembled. The structure is very compact and simple and is very easy to operate and durable in use.

I have illustrated and described my improved conveyer or carrier in the form preferred by me on account of its structural simplicity and economy and durability, although I am aware that it is capable of considerable structural variation without departing from my invention.

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

1. The combination of a suitable frame; a circular hanger having an outwardly-projecting flange-like way thereon; side pieces, forked at their lower ends, having an inwardly-projecting flange-like bearing-segment resting upon said way; a retainer for said bearing-segment secured thereto, projecting upwardly inside of said hanger; a roller thereon adapted to engage the inner face of said hanger; a horizontally-arranged shaft E, having a beveled gear *e* thereon; connections for driving said shaft E; a cross piece or plate arranged in suitable slots in said side pieces; set-screws for adjusting said cross-piece; a vertical shaft *e'* arranged in a centrally-located bearing on said cross-piece; a beveled gear *e''* on the upper end of said shaft *e'* adapted to mesh with said gear *e;* a beveled gear *f'* on the lower end of said shaft *e';* a horizontally-arranged shaft F having a beveled gear *f* on its inner end adapted to mesh with said gear *f';* a shaft G supported in suitable bearings *h* in the lower ends of said side pieces C; driving connections for said shafts F and G; an apron; an apron carrying and driving roller on said shaft G; carrier side rails H pivoted on said bearings *h* between the forked ends of said side pieces; a shaft G' journaled in suitable bearings at the outer ends of said side rails; an apron carrying and driving roller on said shaft; driving connections for said shafts G G'; an upwardly-projecting bracket toward the outer ends of said side rails; a pulley suitably journaled on said bracket; a supporting and adjusting cable arranged over said pulley; a windlass; a guide-pulley for said supporting-cable; and a vertically-journaled support therefor, all coacting for the purpose specified.

2. The combination of a suitable frame; a circular hanger having an outwardly-projecting flange-like way thereon; side pieces, forked at their lower ends, having an inwardly-projecting flange-like bearing resting upon said way; a horizontally-arranged shaft E, having a beveled gear *e* thereon; connections for driving said shaft E; a cross piece or plate arranged in suitable slots in said side pieces; set-screws for adjusting said cross-piece; a vertical shaft *e'* arranged in a centrally-located bearing on said cross-piece; a beveled gear *e''* on the upper end of said shaft *e'* adapted to mesh with said gear *e;* a beveled gear *f'* on the lower end of said shaft *e';* a horizontally-arranged shaft F having a beveled gear *f* on its inner end adapted to mesh with said gear *f';* a shaft G supported in suitable bearings *h* in the lower ends of said side pieces C; driving connections for said shafts F and G;

an apron; an apron carrying and driving roller on said shaft G; carrier side rails H pivoted on said bearings *h* between the forked ends of said side pieces; a shaft G′ journaled in suitable bearings at the outer ends of said side rails; an apron carrying and driving roller on said shaft; driving connections for said shafts G G′; an upwardly-projecting bracket toward the outer ends of said side rails; a pulley suitably journaled on said bracket; a supporting and adjusting cable arranged over said pulley; a windlass; a guide-pulley for said supporting-cable; and a vertically-journaled support therefor, all coacting for the purpose specified.

3. The combination of a suitable frame; a circular hanger having an outwardly-projecting flange-like way thereon; side pieces, forked at their lower ends, having an inwardly-projecting flange-like bearing-segment resting upon said way; a retainer for said bearing-segment secured thereto, projecting upwardly inside of said hanger; a roller thereon adapted to engage the inner face of said hanger; a horizontally-arranged shaft E, having a beveled gear *e* thereon; connections for driving said shaft E; a cross piece or plate arranged in suitable slots in said side pieces; a vertical shaft *e′* arranged in a centrally-located bearing on said cross-piece; a beveled gear *e″* on the upper end of said shaft *e′* adapted to mesh with said gear *e;* a beveled gear *f′* on the lower end of said shaft *e′;* a horizontally-arranged shaft F having a beveled gear *f* on its inner end adapted to mesh with said gear *f′;* a shaft G supported in suitable bearings *h* in the lower ends of said side pieces C; driving connections for said shafts F and G; an apron; an apron carrying and driving roller on said shaft G; carrier side rails H pivoted on said bearings *h* between the forked ends of said side pieces; a shaft G′ journaled in suitable bearings at the outer ends of said side rails; an apron carrying and driving roller on said shaft; driving connections for said shafts G G′; an upwardly-projecting bracket toward the outer ends of said side rails; a pulley suitably journaled on said bracket; a supporting and adjusting cable arranged over said pulley; a windlass; a guide-pulley for said supporting-cable; and a vertically-journaled support therefor, all coacting for the purpose specified.

4. The combination of a suitable frame; a circular hanger having an outwardly-projecting flange-like way thereon; side pieces, forked at their lower ends, having an inwardly-projecting flange-like bearing resting upon said way; a horizontally-arranged shaft E, having a beveled gear *e* thereon; connections for driving said shaft E; a cross piece or plate arranged in suitable slots in said side pieces; a vertical shaft *e′* arranged in a centrally-located bearing on said cross-piece; a beveled gear *e″* on the upper end of said shaft *e′* adapted to mesh with said gear *e;* a beveled gear *f′* on the lower end of said shaft *e′;* a horizontally-arranged shaft F having a beveled gear *f* on its inner end adapted to mesh with said gear *f′;* a shaft G supported in suitable bearings *h* in the lower ends of said side pieces C; driving connections for said shafts F and G; an apron; an apron carrying and driving roller on said shaft G; carrier side rails H pivoted on said bearings *h* between the forked ends of said side pieces; a shaft G′ journaled in suitable bearings at the outer ends of said side rails; an apron carrying and driving roller on said shaft; driving connections for said shafts G G′; an upwardly-projecting bracket toward the outer ends of said rails; a pulley suitably journaled on said bracket; a supporting and adjusting cable arranged over said pulley; a windlass; a guide-pulley for said supporting-cable; and a vertically-journaled support therefor, all coacting for the purpose specified.

5. The combination of a suitable frame; a circular hanger having an outwardly-projecting flange-like way thereon; side pieces, forked at their lower ends, having an inwardly-projecting flange-like bearing-segment resting upon said way; a retainer for said bearing-segment secured thereto, projecting upwardly inside of said hanger; a roller thereon adapted to engage the inner face of said hanger; a horizontally-arranged shaft E, having a beveled gear *e* thereon; connections for driving said shaft E; a cross piece or plate arranged in suitable slots in said side pieces; set-screws for adjusting said cross-piece; a vertical shaft *e′* arranged in a centrally-located bearing on said cross-piece; a beveled gear *e″* on the upper end of said shaft *e′* adapted to mesh with said gear *e;* a beveled gear *f′* on the lower end of said shaft *e′;* a horizontally-arranged shaft F having a beveled gear *f* on its inner end adapted to mesh with said gear *f′;* a shaft G supported in suitable bearings *h* in the lower ends of said side pieces C; driving connections for said shafts F and G; an apron; an apron carrying and driving roller on said shaft G; carrier side rails H pivoted on said bearings *h* between the forked ends of said side pieces; a shaft G′ journaled in suitable bearings toward the outer ends of said side rails; an apron carrying and driving roller on said shaft; and driving connections for said shafts G G′, all coacting for the purpose specified.

6. The combination of a suitable frame; a circular hanger having an outwardly-projecting flange-like way thereon; side pieces, forked at their lower ends, having an inwardly-projecting flange-like bearing resting upon said way; a horizontally-arranged shaft E, having a beveled gear *e* thereon; connections for driving said shaft E; a cross piece or plate arranged in suitable slots in said side pieces; set-screws for adjusting said cross-piece; a vertical shaft *e′* arranged in a centrally-located bearing on said cross-piece; a beveled

gear e'' on the upper end of said shaft e' adapted to mesh with said gear e; a beveled gear f' on the lower end of said shaft e'; a horizontally-arranged shaft F having a beveled gear f on its inner end adapted to mesh with said gear f'; a shaft G supported in suitable bearings h in the lower ends of said side pieces C; driving connections for said shafts F and G; an apron; an apron carrying and driving roller on said shaft G; carrier side rails H pivoted on said bearings h between the forked ends of said side pieces; a shaft G′ journaled in suitable bearings at the outer ends of said side rails; an apron carrying and driving roller on said shaft; and driving connections for said shafts G G′, all coacting for the purpose specified.

7. The combination of a suitable frame; a circular hanger having an outwardly-projecting flange-like way thereon; side pieces, forked at their lower ends, having an inwardly-projecting flange-like bearing resting upon said way; a horizontally-arranged shaft E, having a beveled gear e thereon; connections for driving said shaft E; a cross piece or plate arranged in suitable slots in said side pieces; a vertical shaft e' arranged in a centrally-located bearing on said cross-piece; a beveled gear e'' on the upper end of said shaft e' adapted to mesh with said gear e; a beveled gear f' on the lower end of said shaft e'; a horizontally-arranged shaft F having a beveled gear f on its inner end adapted to mesh with said gear f'; a shaft G supported in suitable bearings h in the lower ends of said side pieces C; driving connections for said shafts F and G; an apron; an apron carrying and driving roller on said shaft G; carrier side rails H pivoted on said bearings h between the forked ends of said side pieces; a shaft G′ journaled in suitable bearings at the outer ends of said side rails; an apron carrying and driving roller on said shaft; and driving connections for said shafts G G′, all coacting for the purpose specified.

8. The combination of a suitable frame; a circular hanger having an outwardly-projecting flange-like way thereon; side pieces; a bearing-segment therefor resting on said way; a retainer for said bearing-segment secured thereto, projecting upwardly inside of said hanger; a roller thereon adapted to engage the inner face of said hanger; a horizontally-arranged shaft E having a beveled gear e thereon; connections for driving said shaft E; a cross piece or plate arranged in suitable slots in said side pieces; set-screws for adjusting said cross-piece; a vertical shaft e' arranged in a centrally-located bearing on said cross-piece; a beveled gear e'' on the upper end of said shaft e' adapted to mesh with said gear e; a beveled gear f' on the lower end of said shaft e'; a horizontally-arranged shaft F having a beveled gear f on its inner end adapted to mesh with said gear f'; a carrier-frame pivoted on said side pieces; an apron carrying and driving roller; driving connections from said roller to said shaft F; an upwardly-projecting bracket toward the outer ends of said carrier-frame; a pulley suitably journaled on said bracket; a supporting and adjusting cable arranged over said pulley; a windlass; a guide-pulley for said supporting-cable; and a vertically-journaled support therefor, all coacting for the purpose specified.

9. The combination of a suitable frame; a circular hanger having an outwardly-projecting flange-like way thereon; side pieces; a bearing therefor resting on said way; a horizontally-arranged shaft E having a beveled gear e thereon; connections for driving said shaft E; a cross piece or plate arranged in suitable slots in said side pieces; set-screws for adjusting said cross-piece; a vertical shaft e' arranged in a centrally-located bearing on said cross-piece; a beveled gear e'' on the upper end of said shaft e' adapted to mesh with said gear e; a beveled gear f' on the lower end of said shaft e'; a horizontally-arranged shaft F having a beveled gear f on its inner end adapted to mesh with said gear f'; a carrier-frame pivoted on said side pieces; an apron; an apron carrying and driving roller; driving connections from said roller to said shaft F; an upwardly-projecting bracket toward the outer ends of said carrier-frame; a pulley suitably journaled on said bracket; a supporting and adjusting cable arranged over said pulley; a windlass; a guide-pulley for said supporting-cable; and a vertically-journaled support therefor, all coacting for the purpose specified.

10. The combination of a suitable frame; a circular hanger having an outwardly-projecting flange-like way thereon; side pieces; a bearing-segment therefor resting upon said way; a retainer for said bearing-segment secured thereto, projecting upwardly inside of said hanger; a roller thereon adapted to engage the inner face of said hanger; a horizontally-arranged shaft E, having a beveled gear e thereon; connections for driving said shaft E; a cross piece or plate arranged in suitable slots in said side pieces; a vertical shaft e' arranged in a centrally-located bearing on said cross-piece; a beveled gear e'' on the upper end of said shaft e' adapted to mesh with said gear e; a beveled gear f' on the lower end of said shaft e'; a horizontally-arranged shaft F having a beveled gear f on its inner end adapted to mesh with said gear f'; a carrier-frame pivoted on said side pieces; an apron; an apron carrying and driving roller; driving connections from said roller to said shaft F; an upwardly-projecting bracket toward the outer end of said carrier-frame; a pulley suitably journaled on said bracket; a supporting and adjusting cable arranged over said pulley; a windlass; a guide-pulley for supporting said cable; and a vertically-journaled

support therefor, all coacting for the purpose specified.

11. The combination of a suitable frame; a circular hanger having an outwardly-projecting flange-like way thereon; side pieces; a bearing therefor resting upon said way; a horizontally-arranged shaft E, having a beveled gear *e* thereon; connections for driving said shaft E; a cross piece or plate arranged in suitable slots in said side pieces; a vertical shaft *e'* arranged in a centrally-located bearing on said cross-piece; a beveled gear *e''* on the upper end of said shaft *e'* adapted to mesh with said gear *e;* a beveled gear *f'* on the lower end of said shaft *e';* a horizontally-arranged shaft F having a beveled gear *f* on its inner end adapted to mesh with said gear *f';* a carrier-frame pivoted in said side pieces; an apron; an apron carrying and driving roller; driving connections from said roller to said shaft F; an upwardly-projecting bracket toward the outer ends of said carrier-frame; a pulley suitably journaled on said bracket; a supporting and adjusting cable arranged over said pulley; a windlass; a guide-pulley for said supporting-cable; and a vertically-journaled support therefor, all coacting for the purpose specified.

12. The combination of a suitable frame; a circular hanger having an outwardly-projecting flange-like way thereon; side pieces; a bearing-segment therefor resting upon said way; a retainer for said bearing-segment secured thereto, projecting upwardly inside of said hanger; a roller thereon, adapted to engage the inner face of said hanger; a horizontally-arranged shaft E, having a beveled gear *e* thereon; connections for driving said shaft E; a cross piece or plate arranged in suitable slots in said side pieces; set-screws for adjusting said cross-piece; a vertical shaft *e'* arranged in a centrally-located bearing on said cross-piece; a beveled gear *e''* on the upper end of said shaft *e'* adapted to mesh with said gear *e;* a beveled gear *f'* on the lower end of said shaft *e';* a horizontally-arranged shaft F having a beveled gear *f* on its inner end adapted to mesh with said gear *f';* a carrier-frame pivoted on said side pieces; an apron; an apron carrying and driving roller; and driving connections from said roller to said shaft F, all coacting for the purpose specified.

13. The combination of a suitable frame; a circular hanger having an outwardly-projecting flange-like way thereon; side pieces; a bearing therefor resting on said way; a horizontally-arranged shaft E, having a beveled gear *e* thereon; connections for driving said shaft E; a cross piece or plate arranged in suitable slots in said side pieces; set-screws for adjusting said cross-piece; a vertical shaft *e'* arranged in a centrally-located bearing on said cross-piece; a beveled gear *e''* on the upper end of said shaft *e'* adapted to mesh with said gear *e;* a beveled gear *f'* on the lower end of said shaft *e';* a horizontally-arranged shaft F having a beveled gear *f* on its inner end, adapted to mesh with said gear *f';* a carrier-frame pivoted on said side pieces; an apron; an apron carrying and driving roller; and driving connections from said roller to said shaft F, all coacting for the purpose specified.

14. The combination of a suitable frame; a circular hanger having an outwardly-projecting flange-like way thereon; side pieces; a bearing-segment therefor resting on said way; a retainer for said bearing-segment secured thereto, projecting upwardly inside of said hanger; a roller thereon adapted to engage the inner face of said hanger; a horizontally-arranged shaft E, having a beveled gear *e* thereon; connections for driving said shaft E; a cross piece or plate arranged in suitable slots in said side pieces; a vertical shaft *e'* arranged in a centrally-located bearing on said cross-piece; a beveled gear *e''* on the upper end of said shaft *e'* adapted to mesh with said gear *e;* a beveled gear *f'* on the lower end of said shaft *e';* a horizontally-arranged shaft F having a beveled gear *f* on its inner end adapted to mesh with said gear *f';* a carrier-frame pivoted on said side pieces; an apron; an apron carrying and driving roller; and driving connections from said roller to said shaft F, all coacting for the purpose specified.

15. The combination of a suitable frame; a circular hanger having an outwardly-projecting flange-like way thereon; side pieces; a bearing therefor resting on said way; a horizontally-arranged shaft E, having a beveled gear *e* thereon; connections for driving said shaft E; a cross piece or plate arranged in suitable slots in said side pieces; a vertical shaft *e'* arranged in a centrally-located bearing on said cross-piece; a beveled gear *e''* on the upper end of said shaft *e'* adapted to mesh with said gear *e;* a beveled gear *f'* on the lower end of said shaft *e';* a horizontally-arranged shaft F having a beveled gear *f* on its inner end adapted to mesh with said gear *f';* a carrier-frame pivoted on said side pieces; an apron; an apron carrying and driving roller; and driving connections from said roller to said shaft F, all coacting for the purpose specified.

16. The combination of a suitable carrying-frame; a way; a turn-table frame; a bearing therefor, resting on said way; a horizontally-arranged shaft E; a beveled gear *e* thereon; connections for driving said shaft E; a cross piece or plate; means for adjusting said cross piece or plate; a vertical shaft *e'* arranged in a suitable bearing on said cross-piece; a beveled gear *e''* on the upper end of said shaft, adapted to mesh with the gear on the shaft E; a beveled gear *f'* on the lower end of said shaft *e';* a horizontal shaft F having a beveled gear *f* on its inner end, adapted to mesh with said gear *f';* an apron-driving roller; driving connections for said roller to said shaft F; a pivotally-supported carrier-frame;

an apron; a supporting and adjusting cable for said carrier-frame, connected thereto at the outer end thereof; a windlass; a guide-pulley for said cable; and a vertically-journaled support therefor, for the purpose specified.

17. The combination of a suitable carrying-frame; a way; a turn-table frame; a bearing therefor, resting on said way; a horizontally-arranged shaft E; a beveled gear *e* thereon; connections for driving said shaft E; a cross piece or plate; a vertical shaft *e'* arranged in a suitable bearing on said cross-piece; a beveled gear *e''* on the upper end of said shaft, adapted to mesh with the gear on the shaft E; a beveled gear *f''* on the lower end of said shaft *e'*; a horizontal shaft F having a beveled gear *f* on its inner end, adapted to mesh with said gear *f''*; an apron-driving roller; driving connections for said roller to said shaft F; a pivotally-supported carrier-frame; an apron; a supporting and adjusting cable for said carrier-frame, connected thereto at the outer end thereof; a windlass; a guide-pulley for said cable; and a vertically-journaled support therefor, for the purpose specified.

18. The combination of a suitable carrying-frame; a way; a turn-table frame; a bearing therefor, resting on said way; a horizontally-arranged shaft E; a beveled gear *e* thereon; connections for driving said shaft E; a cross piece or plate; means for adjusting said cross piece or plate; a vertical shaft *e'* arranged in a suitable bearing on said cross-piece; a beveled gear *e''* on the upper end of said shaft, adapted to mesh with the gear on the shaft E; a beveled gear *f''* on the lower end of said shaft *e'*; a horizontal shaft F having a beveled gear *f* on its inner end, adapted to mesh with said gear *f''*; an apron-driving roller; driving connections for said roller to said shaft F; a pivotally-supported carrier-frame; and an apron, coacting for the purpose specified.

19. The combination of a suitable carrying-frame; a way; a turn-table frame; a bearing therefor, resting on said way; a horizontally-arranged shaft E; a beveled gear *e* thereon; connections for driving said shaft E; a cross piece or plate; a vertical shaft *e'* arranged in a suitable bearing on said cross-piece; a beveled gear *e''* on the upper end of said shaft, adapted to mesh with the gear on the shaft E; a beveled gear *f''* on the lower end of said shaft *e'*; a horizontal shaft F having a beveled gear *f* on its inner end, adapted to mesh with said gear *f''*; an apron-driving roller; driving connections for said roller to said shaft F; a pivotally-supported carrier-frame; and an apron, coacting for the purpose specified.

20. In a concrete-mixer, the combination of a suitable frame; a mixing-trough; a turn-table hanger having an annular way thereon, secured to said frame below the delivery end of said mixing-trough; a turn-table having suitable bearings resting on said way; a horizontally-arranged shaft E having a beveled gear *e* thereon, supported on said mixing-frame; connections for driving said shaft; a vertical shaft *e'* having a beveled gear *e''* on the upper end thereof, adapted to mesh with the gear on said shaft E; a beveled gear *f''* on the lower end of said vertical shaft; a horizontal shaft having a beveled gear adapted to mesh with said beveled gear *f''*; an apron-driving roller; driving connections for said roller to said shaft F; a carrier-frame pivotally supported on said turn-table; a pulley secured to said frame toward its outer end; a supporting and adjusting cable for said carrier-frame, arranged over pulley; a windlass; a guide-pulley for said cable; and a support for said guide-pulley, journaled in a line with the axis of said turn-table, for the purpose specified.

21. The combination of a suitable frame; a turn-table hanger having an annular way thereon, secured to said frame; a turn-table having suitable bearings resting on said way; a horizontally-arranged shaft E having a beveled gear *e* thereon, supported on said mixing-frame; connections for driving said shaft; a vertical shaft *e'* having a beveled gear *e''* on the upper end thereof, adapted to mesh with the gear on said shaft E; a beveled gear *f''* on the lower end of said vertical shaft; a horizontal shaft having a beveled gear adapted to mesh with said beveled gear *f''*; an apron-driving roller; driving connections for said roller to said shaft F; a carrier-frame pivotally supported on said turn-table, for the purpose specified.

22. In a concrete-mixer, the combination of a suitable frame; a mixing-trough; a turn-table hanger having an annular way thereon, secured to said frame below the delivery end of said mixing-trough; a turn-table having suitable bearings resting on said way; a horizontally-arranged shaft E having a beveled gear *e* thereon, supported on said mixing-frame; connections for driving said shaft; a vertical shaft *e'* having a beveled gear *e''* on the upper end thereof, adapted to mesh with the gear on said shaft E; a beveled gear *f''* on the lower end of said vertical shaft; a horizontal shaft having a beveled gear adapted to mesh with said beveled gear *f''*; an apron-driving roller; driving connections for said roller to said shaft F; and a carrier-frame, pivotally supported on said turn-table, for the purpose specified.

23. The combination of a suitable frame; a turn-table hanger having an annular way thereon, secured to said frame; a turn-table having suitable bearings resting on said way; a horizontally-arranged shaft E having a beveled gear *e* thereon, supported on said mixing-frame; connections for driving said shaft; a vertical shaft *e'* having a beveled gear *e''* on the upper end thereof, adapted to mesh with the gear on said shaft E; a beveled gear

f' on the lower end of said vertical shaft; a horizontal shaft having a beveled gear adapted to mesh with said beveled gear f'; an apron-driving roller; driving connections for said roller to said shaft F; and a carrier-frame pivotally supported on said turn-table, for the purpose specified.

24. In a concrete-mixer, the combination of a suitable frame; a mixing-trough; an annular way supported on said frame below the delivery end of said mixing-trough; a turn-table having a suitable bearing resting on said way; a carrier pivotally supported on said turn-table; suitable driving connections for said carrier; a windlass mounted upon said frame; a supporting and adjusting cable for the outer end of said carrier; a guide-pulley for said cable; and a pivoted support therefor, the axis of which coincides with the axis of said turn-table, for the purpose specified.

25. In a concrete-mixer, the combination of a suitable frame; a mixing-trough; an annular way supported on said frame below the delivery end of said mixing-trough; a turn-table having a suitable bearing resting on said way; a carrier pivotally supported on said turn-table; suitable driving connections for said carrier; a windlass; and a supporting-cable for the outer end of said carrier, for the purpose specified.

In witness whereof I have hereunto set my hand and seal in the presence of two witnesses.

HENRY D. CONWAY. [L. S.]

Witnesses:

ETHEL A. TELLER,

OTIS A. EARL.