

No. 735,301.

PATENTED AUG. 4, 1903.

T. ROBINS, JR.
CONVEYER APPARATUS.
APPLICATION FILED MAY 1, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

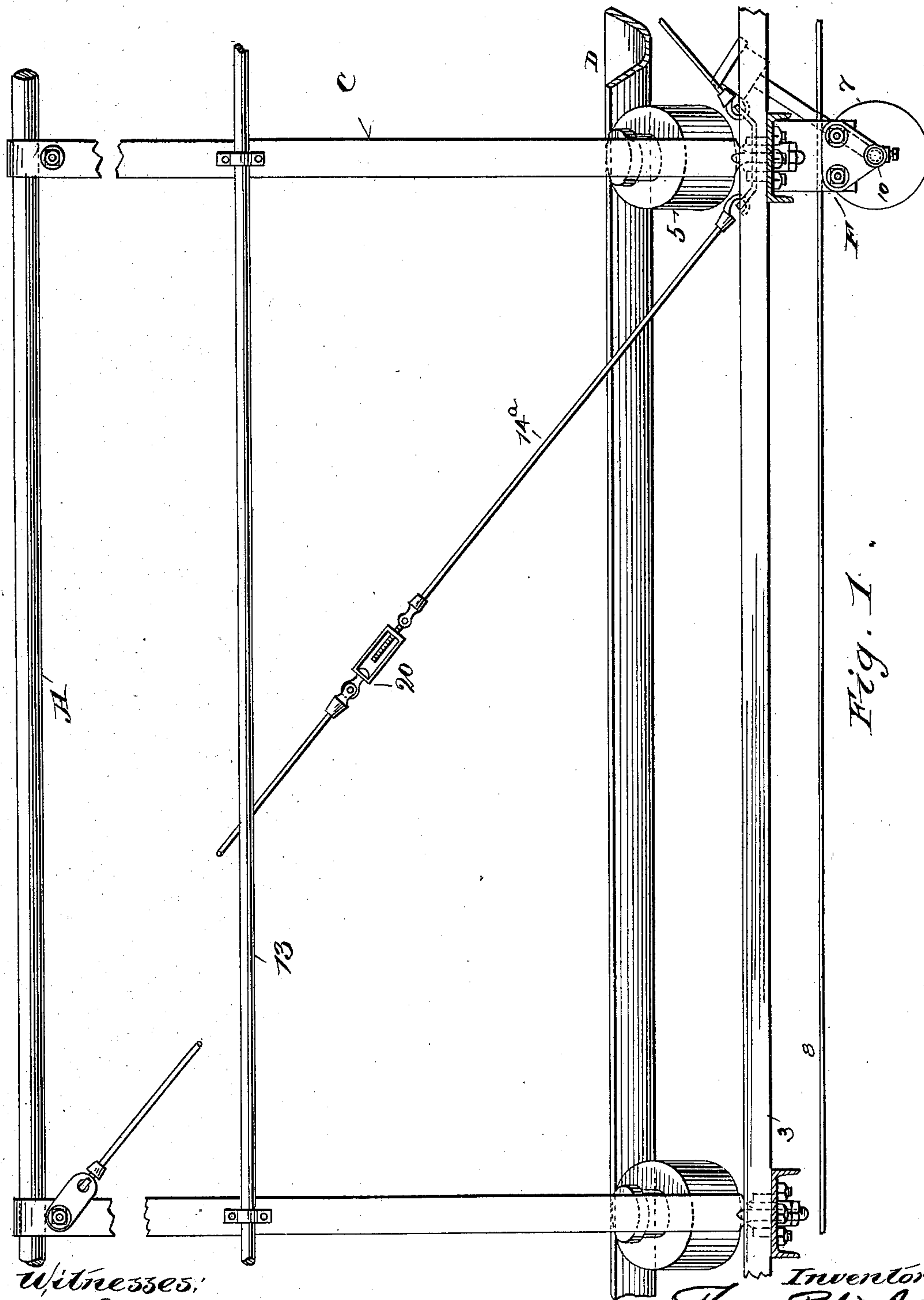


Fig. 1.

Witnesses:
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C. Van Land

Inventor
Thomas Robins Jr
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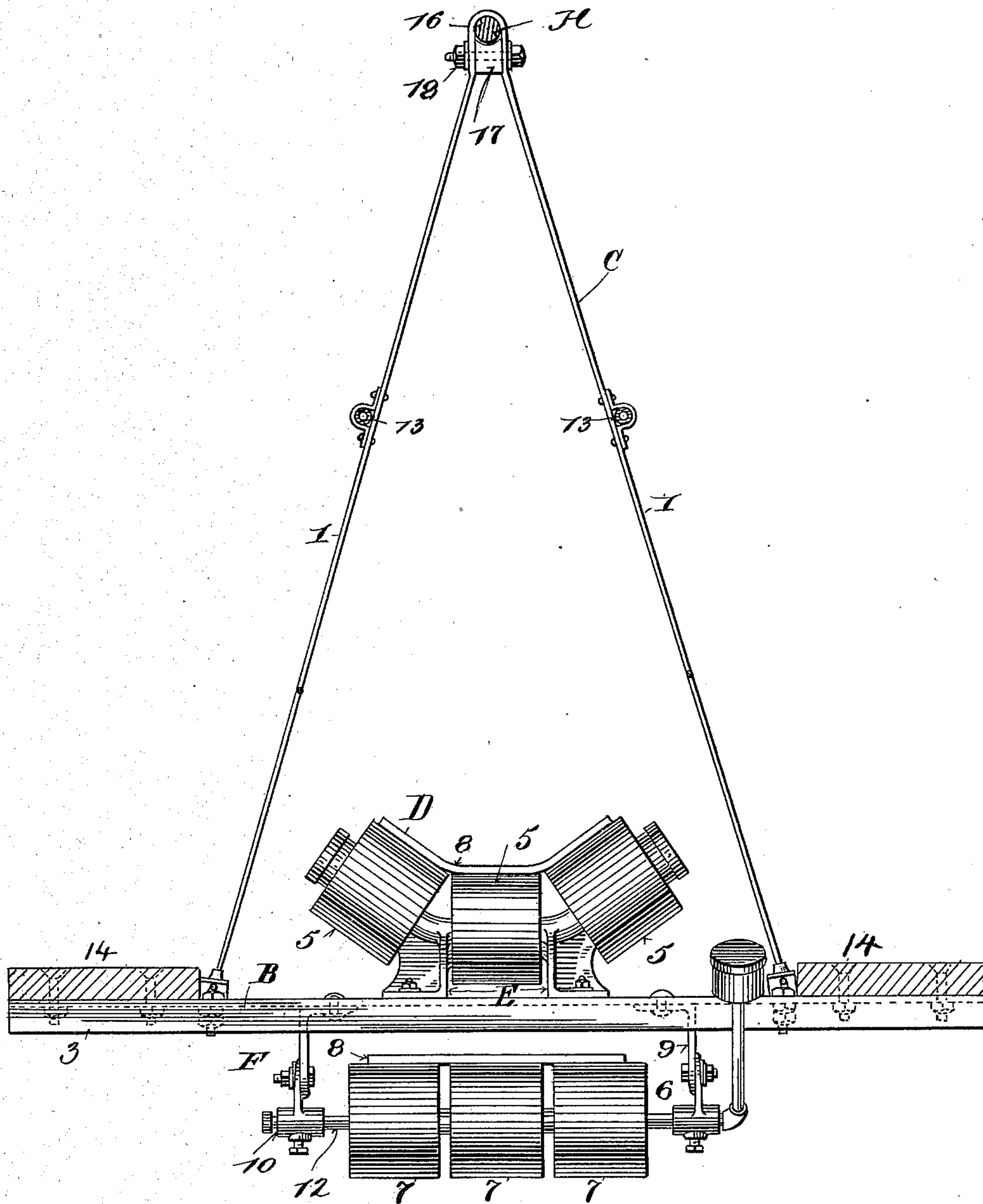


Fig. 2.

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UNITED STATES PATENT OFFICE.

THOMAS ROBINS, JR., OF NEW YORK, N. Y.

CONVEYER APPARATUS.

SPECIFICATION forming part of Letters Patent No. 735,301, dated August 4, 1903.

Application filed May 1, 1902. Serial No. 105,526. (No model.)

To all whom it may concern:

Be it known that I, THOMAS ROBINS, Jr., a citizen of the United States, and a resident of the borough of Manhattan, in the city and State of New York, (whose post-office address is Park Row Building, New York city, New York,) have invented certain new and useful Improvements in Conveyer Apparatus, of which the following is a specification, accompanied by drawings.

My invention relates to that class of conveyers consisting of a traveling belt or cable supporting receptacles; and its object is to enable material to be readily and conveniently carried at an elevation between points on opposite sides of a valley or other intermediate space.

Further objects of my invention will hereinafter appear; and to these ends my invention consists of apparatus for carrying out the above objects embodying the combinations of elements, features of construction, and arrangement of parts, substantially as fully set forth hereinafter and as illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation showing one section of a bridge for traveling conveyers embodying my invention. Fig. 2 is an end view, partly in cross-section, on the line 2 2, Fig. 1.

The bridge is constructed to be supported from a cable, wire, or rod A, which itself is stretched between separated supports in any suitable manner—as, for instance, between two fixed points, which may be shears or towers at opposite sides of a valley or intermediate space across which material has to be transported either by a traveling belt or by means of buckets or other receptacles carried by a traveling cable or band. The bridge consists of a platform B and hangers C, each hanger consisting of two rods, bars, strips, or cables 1, each bolted or otherwise connected at the lower end to the platform and the two converging to the upper end, where there is an eye 16 for receiving the cable A. As shown, each hanger consists of a strip or strap of metal folded in the center to inclose a distance-piece 17, secured by a bolt 18, passing through both sides of the strip and through the distance-piece, thus forming the eye, the lower ends of the strip being rounded

and threaded to form bolts, by means of which the hanger is secured to the platform. The platform may be constructed in any suitable manner, but, as shown, consists of cross-beams 3, each secured to the lower ends of one of the hangers, and these cross-beams are connected together in any suitable manner. As shown, each cross-beam projects at each end beyond the point of attachment to the hanger, so as to support planks bolted thereto and constituting the connecting means between the cross-beams, and thereby forming footways 14 on opposite sides of the hanger. To further brace the structure, a railing 13 may extend between and be bolted to the hangers, and diagonal braces 14^a, consisting of sections of rod or wire rope, with an intermediate tightening device, as a turnbuckle 20, may be arranged as shown.

The construction above described while light in weight and presenting but a small surface area to the wind may be made of great strength and will afford all the rigidity required in a structure of this character, while allowing it to conform to the catenary sag of the cable.

With the bridge structure thus formed are combined the proper supports for the traveling conveyer or conveyers. As shown, the conveyer is an endless belt D, which travels upon the upper idler-pulleys 5 and returns over idler-runners 7, as in the conveyer constituting the subject-matter of an application for Letters Patent, Serial No. 571,604, dated November 17, 1896. To properly support the upper runners, there are brackets E, each of which supports a fixed shaft having a central horizontal portion and inclined ends on which turn the pulleys 5 5 5, adapted to support the upper portion of the belt in a trough-like shape. The lower bracket F supports the shaft 12 for the idlers 7, which are in line with each other, and the said bracket consists of the fixed part 9 and the detachable part 10, bolted to the fixed part and supporting the shaft 12, whereby the lower runners or idlers can be removed without unbolting the main part of the bracket from the platform.

Without limiting myself to the precise construction and arrangement of parts shown I claim as my invention the following:

1. A suspension-bridge for conveyers con-

sisting of a cable, a platform, diverging hangers between the cable and platform and belt-supports above and below the platform, substantially as set forth.

5 2. The combination in a conveyer-bridge, of a platform supporting the runners for the conveyer, and hangers connected at the lower ends with the platform, converging toward the top and adapted for attachment to a supporting-cable, substantially as set forth.

10 3. The combination in a conveyer-bridge, of a platform supporting the runners for the conveyer, hangers connected at the lower ends with the platform, converging toward the top and adapted for attachment to a supporting-cable, and footwalks at opposite sides of the hangers, substantially as set forth.

15 4. The combination in a bridge for a conveyer, of connected cross-beams, a hanger connected with each cross-beam and consisting of two diverging strips, and braces between the hangers, substantially as set forth.

20 5. The combination in a bridge for a conveyer, of connected cross-beams, a hanger connected with each cross-beam and consisting of two diverging strips, footwalks supported on the ends of the beams, and braces between the hangers, substantially as set forth.

6. The combination with the platform and hangers, of brackets E supporting the runner-rollers 5, and the bracket F supporting the idlers 7, the bracket F consisting of two parts, one bolted to the platform and the other connected detachably to the first and carrying the shaft of the lower runners, substantially as set forth.

7. The combination of a supporting-cable and a supported framework for a conveyer, secured to the cable and adapted to conform to the sag of the said cable, for substantially the purposes set forth.

8. The combination with a supporting-cable stretched between separated supports, of a conveyer-belt, idler-pulleys therefor, and means for supporting said pulleys from the cable, said supporting means being adapted to conform to the catenary sag of the cable between its supports, substantially as set forth.

Signed this 25th day of April, 1902, at New York.

THOMAS ROBINS, JR.

Witnesses:

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