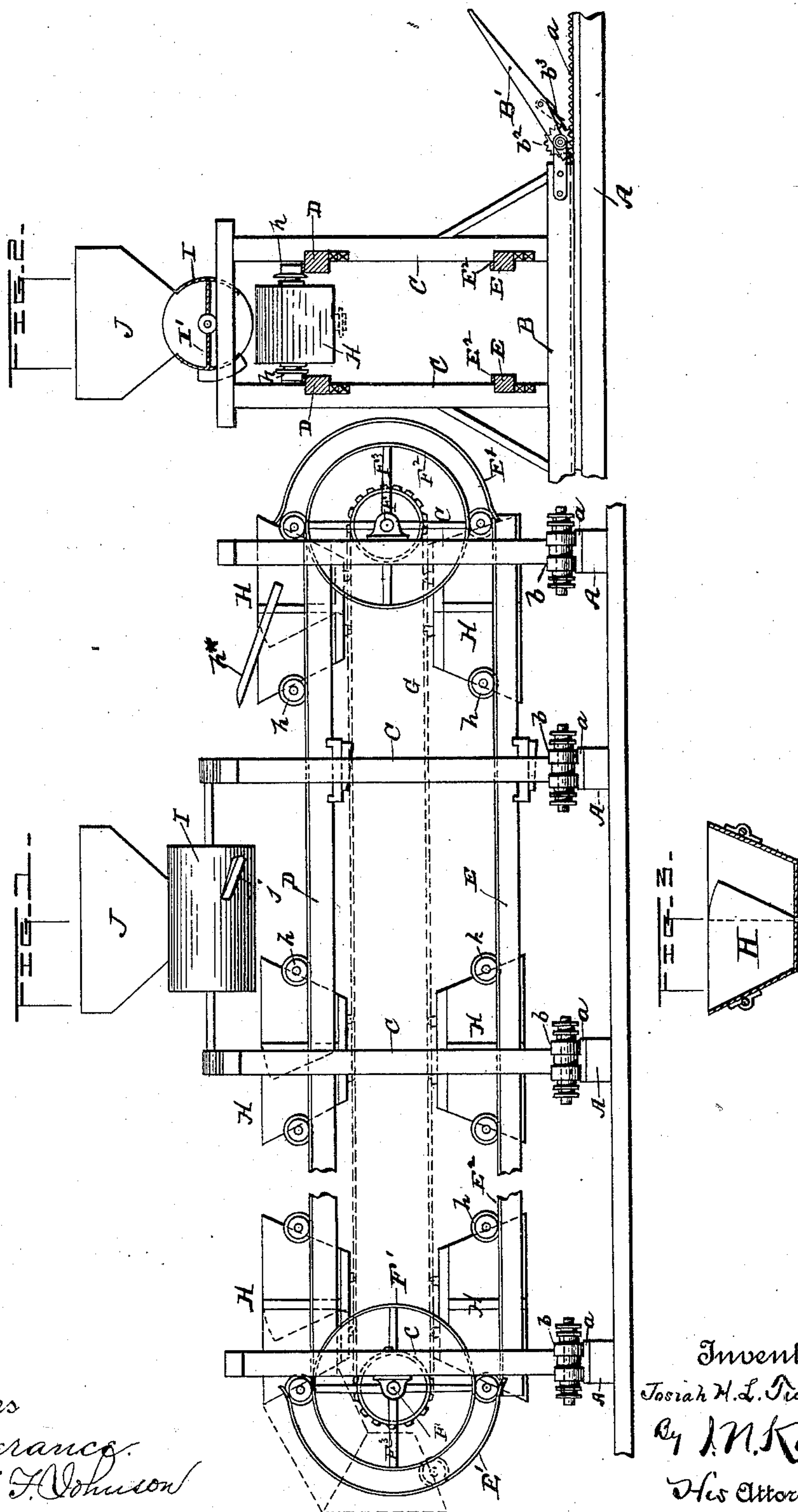


(No Model.)

J. H. L. TUCK.
CONVEYER.

No. 474,786.

Patented May 10, 1892.



Witnesses

Everance.
F. J. Johnson

Inventor
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UNITED STATES PATENT OFFICE.

JOSIAH H. L. TUCK, OF SAN FRANCISCO, ASSIGNOR OF ONE-HALF TO E. E. TUCKER, OF STOCKTON, CALIFORNIA.

CONVEYER.

SPECIFICATION forming part of Letters Patent No. 474,786, dated May 10, 1892.

Application filed September 22, 1891. Serial No. 406,473. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH H. L. TUCK, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Conveyers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to conveyers, and has for its object the provision of a horizontal railway-conveyer for carrying material of any sort long or short distances, as may be required.

The invention includes railway-tracks supported upon transversely-movable standards, on which tracks the conveyer cars or buckets ride, said cars or buckets being provided with wheels about mid-height, which will allow the bucket to ride either in a upright or inverted position. The cars or buckets are supported upon these rails and are carried forward and returned to position for receiving a load by means of sprocket-chains, cables, or other devices. The lower rails, which serve to support the cars or buckets on their return, are turned up at the ends and serve as guards for the car or bucket wheels in turning over the end pulleys. The buckets or cars are constructed in two parts hinged together in the middle, the sides telescoping to allow them to turn over the end pulleys readily. The cars or buckets may carry an arm for automatically dumping a loading-cylinder, which is placed under a hopper and hold on either side a load for a car or bucket. The upright standards on which the rails are placed, are set in transversely-movable timbers, which are equipped with rollers and rest upon portable beams. At one end the movable timbers are provided with a lever equipped with a ratchet and pawl, which meshes with a rack on the portable beam, by which means the tracks are moved sidewise. The length of track and the number of buckets used may be varied as desired, it being apparent that the tracks prevent all

sagging of the endless carrier, so that a mile or more can be covered by the conveyer, if desired.

The accompanying drawings illustrate what I consider the best means for carrying my invention into practice.

Figure 1 is a side elevation of the device, and Fig. 2 a transverse sectional view. Fig. 3 is a longitudinal section of a bucket.

Similar letters of reference indicate corresponding parts in all the figures where they occur.

A A are portable beams, on which are placed racks *a*.

B B are transversely-movable timbers, which carry rollers *b*, which travel on flanges *b'*, which form the sides of the rack-plate. Connected to one end of the movable timbers is a pivoted lever *B'*, which carries a ratchet *b²* and a pawl *b³* to hold the ratchet-wheel from turning backward, by means of which lever the transversely-movable timbers are shifted from side to side, as may be desired.

C C are uprights or standards, which are secured to the transversely-movable timbers B and in which are supported the tracks D and E. These uprights are set at suitable distances apart to accommodate the width of the car or bucket, to allow their wheels to ride upon the tracks D and E. These tracks are preferably flat rails keyed or otherwise secured in mortises in the uprights. The upper track-rails D extend from end to end of the device, terminating with the terminal uprights. The lower track-rails E² are carried past these terminal uprights and are bowed around the end pulleys to form guards, as shown at E', whose purpose will presently appear.

The conveyer-rails may be of any desired length, according to the distance it is intended to carry the material.

At each end of the device a shaft F is mounted, which carries a central sprocket-wheel or grip-pulley F³ and two end pulleys F' and F². Over the sprocket-wheels or grip-pulleys a chain or belt or cable G is carried, to which are connected cars or bucket H H at suitable distances apart. The sides and bottoms of these buckets or cars are divided, the sides being made to overlap, and are hinged

together, so that they can turn readily over the sprocket-wheels and pulleys at the ends. Each half of the car or bucket is provided with an axle, on the ends of which the wheels
 5 h are mounted. These wheels ride upon the track D until they come to the end of it, when they are carried around the pulleys F' F^2 and held thereto by the guards E' . From the pulleys and guards they are taken upon the lower
 10 track and carried backward in an inverted position to the opposite end of the device, where they are carried around duplicate pulleys and guards and turned into their proper position for receiving a load.

15 The construction of the cars in two parts, which are hinged together, permits them to move readily around the end pulleys, as will be seen.

The uprights C C are tied together at the
 20 top by suitable timbers, and at a convenient point these timbers support a trip-cylinder, which has a central longitudinal division, forming a compartment or cell on each side thereof. The cylinder is marked I and the
 25 central division I' . Above the cylinder is mounted a hopper J, which is kept filled with material to be conveyed and from which the cylinder-cells are replenished. On the sides the cylinder is provided with the exterior cam
 30 projections or inclines j , which lie in the path of a trip-arm h^* , carried by the cars, which turn the cylinder and dump its load into the car as it passes beneath it. The cylinder may

be supported in any other suitable way, or any other convenient or desired means may
 35 be employed for loading the cars.

Having thus described my invention, I claim—

1. In a conveyer, the combination of up-
 rights or standards on which the cars are sup- 40
 ported, transversely-movable timbers to which the bottoms of said uprights are secured, a portable beam on which said timbers rest, rollers which are carried by said timbers, a
 rack supported upon the beams, and a lever 45
 pivoted to the timbers, carrying a ratchet and pawl for engagement with the rack, substantially as and for the purpose set forth.

2. In a conveyer, the combination of up-
 rights or supports, an upper track secured 50
 therein, wheels or pulleys projecting beyond the ends of the frame or supports and having their peripheries coinciding with the upper track, and a lower track held in said supports
 below said pulleys and having extensions or 55
 guards surrounding the projecting portions of said pulleys, with a space between said pulleys and guards, and a series of hinged traveling buckets or cars having wheels thereon,
 as and for the purpose set forth. 60

In testimony whereof I affix my signature in presence of two witnesses.

JOSIAH H. L. TUCK.

Witnesses:

E. E. TUCKER,

LEWIS B. HARRIS.