

N. A. Patterson.

Clute.

N^o 57,825.

Patented Sept. 4, 1866.

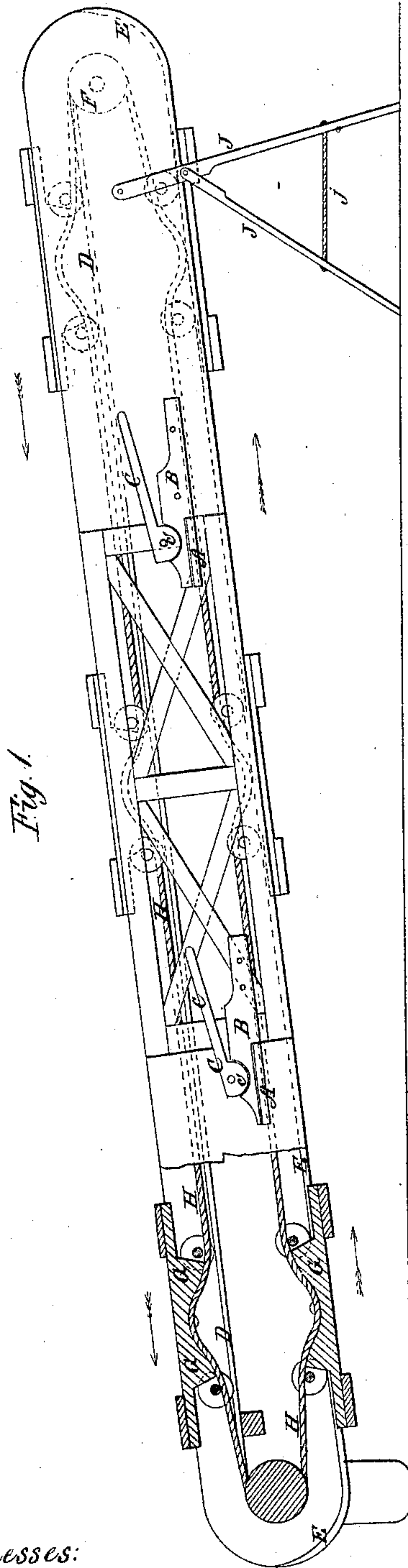


Fig. 1.

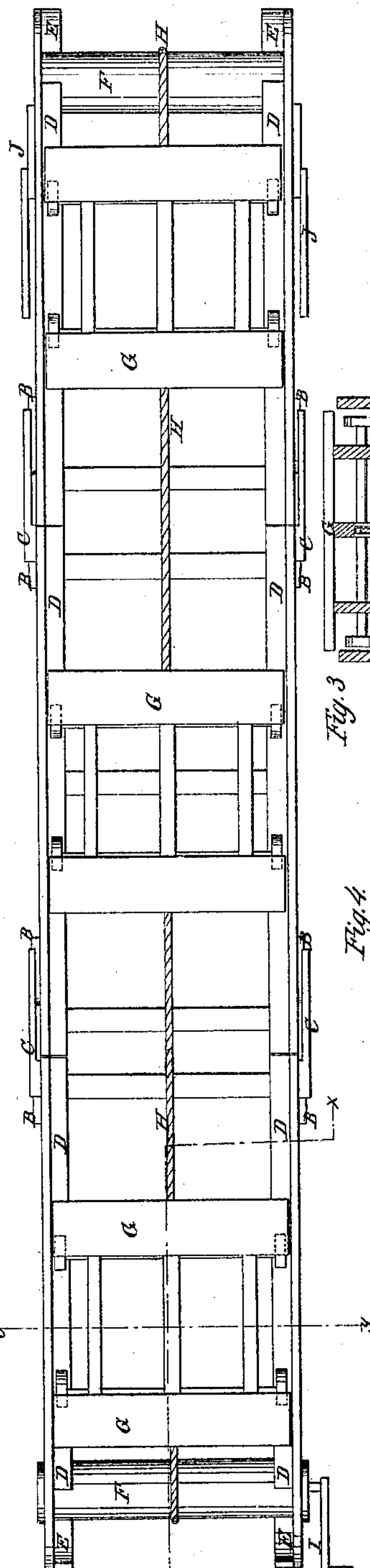


Fig. 2.

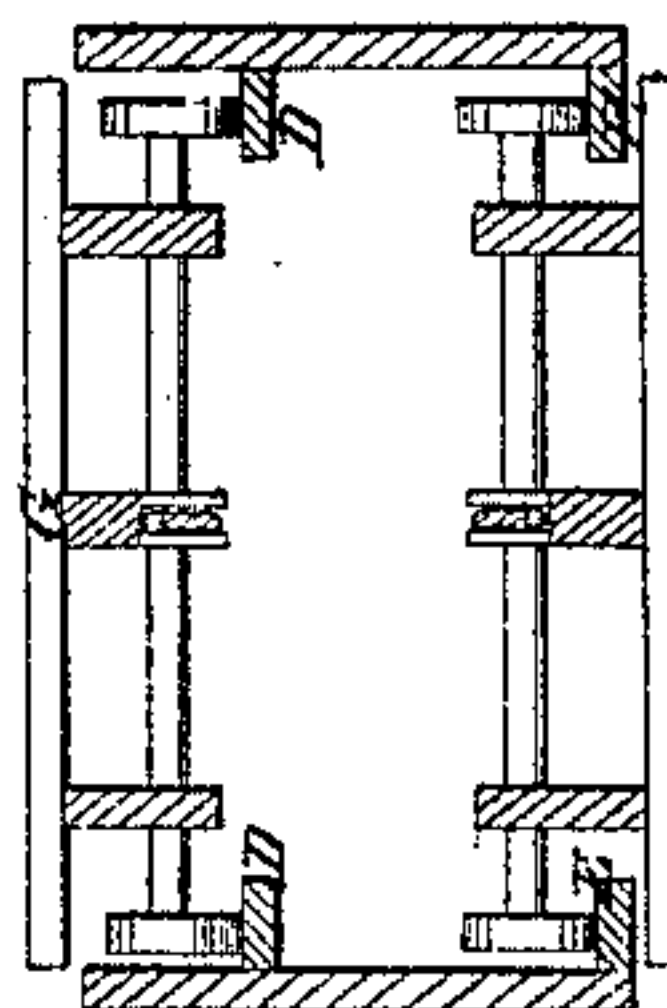


Fig. 3.



Fig. 4.

Witnesses:
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UNITED STATES PATENT OFFICE

NEWTON A. PATTERSON, OF KINGSTON, ASSIGNOR TO HIMSELF AND R. K. BYRD, OF SAME PLACE, AND M. L. PATTERSON, OF KNOXVILLE, TENN.

IMPROVED METHOD OF RECEIVING AND DISCHARGING FREIGHT.

Specification forming part of Letters Patent No. 57,825, dated September 4, 1866.

To all whom it may concern:

Be it known that I, NEWTON A. PATTERSON, of Kingston, in the county of Roane and State of Tennessee, have invented a new and useful Improvement in Apparatus for Receiving, Discharging, and Transferring Freight, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of my improved apparatus, partly in section, through the line *x x*, Fig. 2. Fig. 2 is a top or plan view of the same. Fig. 3 is a cross-section taken through the line *y y*, Fig. 2. Fig. 4 represents a modification of the chain or cable that connects the cars.

Similar letters of reference indicate like parts.

My invention has for its object to furnish an improved apparatus for receiving and discharging freight from railroad-cars and vessels, and for transferring it from one place to another, whether it be about the depot, about the wharf, or in any other place; and it consists, first, in a frame bridgeway made in sections and provided with an upper and lower track, as hereinafter more fully described; second, in the combination of revolving cylinders, or equivalent, with the end sections of the bridgeway; third, in the combination of cars constructed as described with the bridgeway and with the revolving cylinders, the whole being constructed and arranged as hereinafter more fully described.

The number of sections of which the bridgeway is composed will depend upon the circumstances of each case. They should, however, be of such a size, length, and weight as to be readily carried from one place to another. These sections are attached or connected to each other as follows: Upon the sides of each section, near its end, is secured a projecting flange or slide, A, and upon the end of the adjacent section are attached projecting arms or catches B, having a circular notch formed in their upper edges, as shown.

C are levers, pivoted to the sides of the sections in such a way that when the sections are

placed in proper position the half-round heads *c'* of the levers can be turned into the half-round notches in the arms B, clamping the said catches firmly and securely between the said levers and the flanges A, as shown in Fig. 1; or the sections may be connected with each other in any convenient manner, provided the connection be strong, secure, and quickly adjusted. Upon the inner surfaces of the sides of these sections are formed flanges or tracks D and E, upon which the friction-wheels of the cars run. The upper track, D, is placed near the upper edges of the sides of the sections, and is so arranged that when any number of sections are connected the track may be continuous from one end of the bridgeway to the other. At the outer ends of the two end sections the ends of the track D connect with the surface of the revolving cylinders F, as shown in the drawings.

The lower flange or track, E, is placed at the lower edges of the sides of the sections, and at the ends of the bridgeway is curved, so as to receive the friction-wheels of the cars as they come over the cylinders F, so as to furnish a continuous track for the cars in going and returning.

The cars G run upon the tracks D and E, and their frames are so made, as shown in Fig. 1, that they can run around the cylinders F in passing from one track to the other. They are connected to each other by an endless chain, H, and may be drawn by the friction of this endless chain upon the grooves in the cylinders F, around which it passes; or the cars may be hinged to each other, if desired; but I prefer the manner of connecting them first described.

When the freight is to be moved upon a down grade its own weight will furnish a sufficient motive power; but when the freight is to be moved upon a level, or upon an inclined plane, power may be attached to the apparatus by means of a crank, I, or pulley attached to the axle of one of the cylinders and driven by any desired power. In this case it may be desirable to replace the simple chain by another having cogged or toothed links working into cogs formed upon the cylinders F. A convenient form for such a chain is represented in Fig. 4.

If desired, the cylinders F may be replaced by

pulleys; but in this case the ends of the tracks D must be curved, so as to support and guide the friction-wheels of the cars G until they come in contact with the tracks E.

To one or the other of the cylinders F should be attached a friction lock or brake for regulating the velocity of the cars, or for stopping them when necessary.

When used wholly upon the land the different sections may be supported by legs J, pivoted to the sides of the different sections in such a way that they may be turned up out of the way in moving the sections from one place to another, and also in such a way that their length may be quickly varied, which, in the form of leg represented in the drawings, may be done by lengthening or shortening the connecting-cord j.

When the apparatus is used in situations where part of the bridgeway must pass over water, as in receiving and discharging freight from vessels, the sections may be supported by ropes attached to the higher parts of the vessels, or to higher parts of the shore, or to stationary or floating derricks, as may be most

convenient. In the case of vessels the entire apparatus may be carried on board the vessel and connected with the shore at each landing; or part of it may be carried on board the vessels, the other parts to be connected with it being constructed and kept at each landing; or an entire apparatus may be kept at each landing and connected with the vessel on her arrival at the wharf, all these things depending upon the circumstances of each case.

What I claim as new, and desire to secure by Letters Patent, is—

1. A frame bridgeway made in sections and provided with upper and lower tracks, D E, substantially as described, and for the purpose set forth.

2. The combination of the cars G, constructed as described, with the sectional bridgeway and with the revolving cylinders F, substantially as and for the purpose set forth.

NEWTON A. PATTERSON.

Witnesses:

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