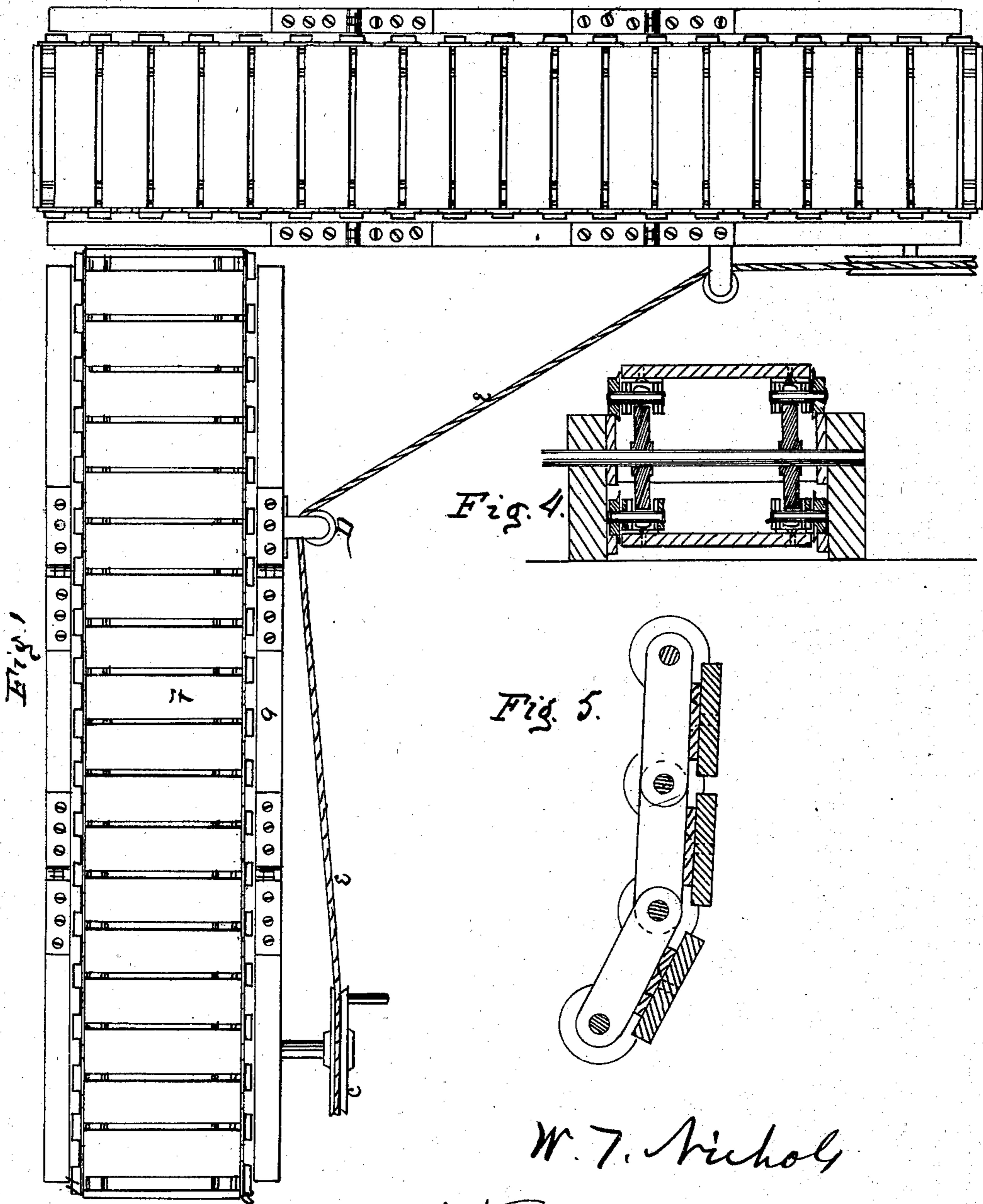


W. T. NICHOLS.
PORTABLE RAILWAY ELAVATOR.

No. 74,408.

Patented Feb. 11, 1868.



W. T. Nichols

Witness *[Signature]*
A. M. Stout

Inventor

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Fig. 2.

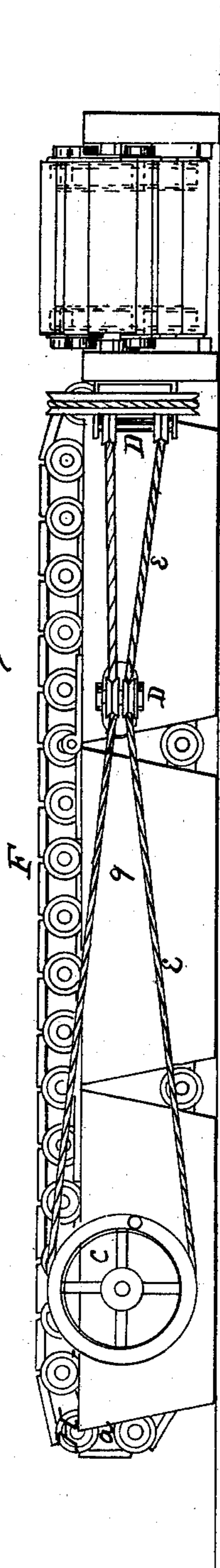
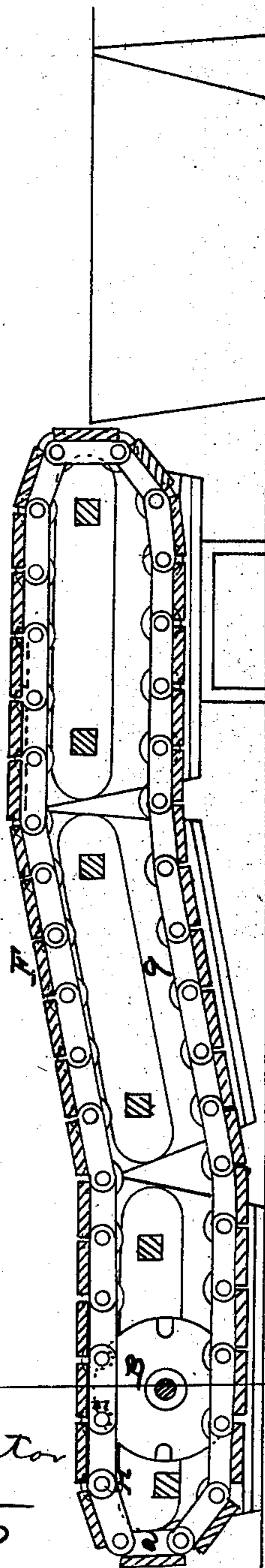


Fig. 3.



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A. M. Stout

United States Patent Office.

W. T. NICHOLS, OF RUTLAND, VERMONT.

Letters Patent No. 74,408, dated February 11, 1868.

IMPROVED PORTABLE RAILWAY-ELEVATOR.

The Schedule referred to in these Letters Patent and making part of the same.

Be it known that I, W. T. NICHOLS, of Rutland, in the county of Rutland, and State of Vermont, have invented a new and useful machine for transporting freight for short distances from points of various altitudes, as, for instance, from the decks of vessels to the wharf, or *vice versa*, which machine I designate a "Portable Railway-Elevator;" and I do hereby declare that the following is a full, clear, and concise description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a top view.

Figure 2 is a side view.

Figure 3 is a transverse section.

A is a chain-link; B is a driving-cog wheel; C is a driving-band wheel; D is a regulating-pulley; E is a driving-band or belt; F is section of the wooden platform; G is the carrying gang-plank; H is small carrying-wheel.

The design of the invention is to move freight, such as coal, stone, iron, cotton, grain, &c., &c., from the warehouse to vessels, and from vessels to the warehouse or docks, as well as many other purposes to which it can be applied.

The construction is an endless platform, operated by chains, belts, cables, or any equivalent, either in connection with wheels or rollers, or slides, carried and supported by a series of hinged and jointed sections or frames, so that the length may be regulated by the number of sections, and adjusted to any vertical position by means of the jointed arrangement of sections. This arrangement allows the application of the machine to the carrying of freight over or under intermediate obstacles between given points of different altitude, and allows placing the engine that drives it in any desired position, either under the railway or at its sides, wherever it is at the time being most desirable to place it.

The change of direction, either at right angles or any angle, is by separating the sections at the desired point, and operating the portion disconnected with the main portion, by a separate drive-wheel, which is driven by a belt from the main drive-wheel, and held to any desired position, and kept at any desired length by the regulating-pulleys. The sections are separated by simply unscrewing from links of the chain at the desired joint between sections, and then connecting the chain by the usual means to each separate portion of the railway. The construction is so simple, that the whole thing will be comprehended at once from the drawings, and without any further description.

The machine is driven by steam or any desired power, and may be of any desired length and strength, as the uses to which it may be applied shall require.

Having explained the design, construction, and operation of my invention, I claim—

1. The construction of the sections G of the frame or gang-plank with railway-tracks, and with bevelled and hinged or jointed ends, as and for the purposes set forth.
2. The construction of the endless chain a, of metallic plates, with flanges bent at right angles to the upper surface upon which the platform F is fastened, when said links are connected by transverse bolts, which bolts carry wheels upon the outside of the flanges, and gear into the driving-wheel, as shown and described.
3. A portable railway-elevator, constructed in sections as described, carrying an endless platform, when the same may be hinged or jointed together, and each section operated at a different inclination or plane, or separated, so as to carry a section of said endless platform independently.
4. The arrangement of separated sections of the elevator, by means of their driving-band wheels C C, pulleys D D, and rope E, so as to operate at an angle with each other, as shown and described, and for the purposes set forth.

W. T. NICHOLS.

Witnesses:

EDM. F. BROWN,
GODFREY MATHYS.