

J. H. & J. W. ROGERS.

Wire-Ways.

No. 140,167.

Patented June 24, 1873.

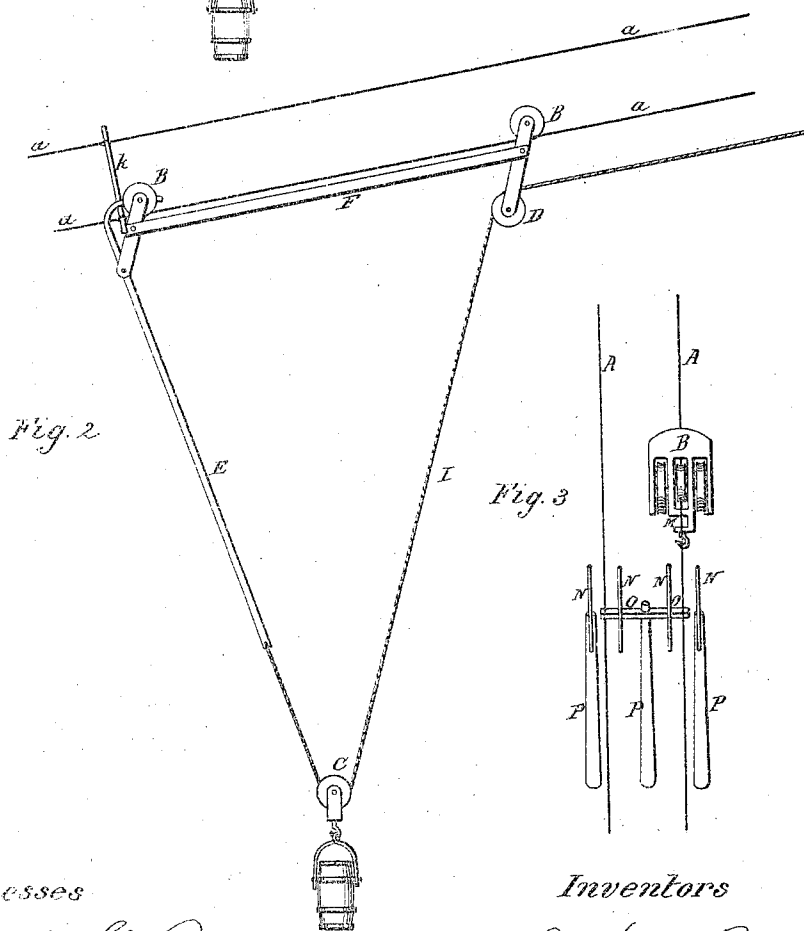
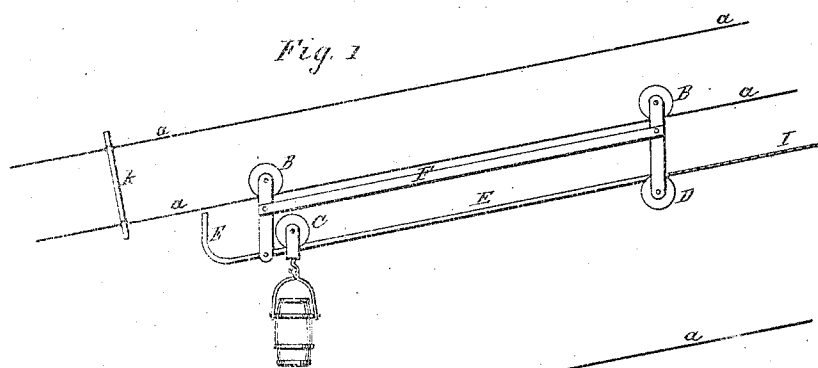
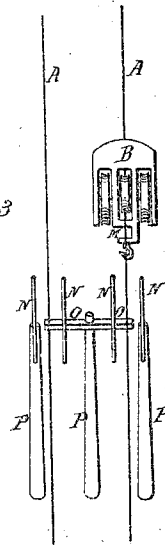


Fig. 3



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES H. ROGERS AND JOHN W. ROGERS, OF PEEKSKILL, NEW YORK.

IMPROVEMENT IN WIRE-WAYS.

Specification forming part of Letters Patent No. 140,167, dated June 24, 1873; application filed May 29, 1872.

To all whom it may concern:

Be it known that we, JAMES HARRIS ROGERS and JOHN WHITSON ROGERS, of Peekskill, in the county of Westchester and State of New York, have invented certain Improvements in Wire-Rope Railways, of which the following is a specification:

The first part of our invention relates to a combination of wheels and pulleys so arranged, in connection with rods and a wire, that buckets or cars appended to them may be lowered from an elevation at any angle with the horizon until they reach a given point, and then may be dropped perpendicularly to any required point. They may then be elevated by a motor on the elevation, first, perpendicularly to the wire, and then drawn up by the motor, to which a rope joins them. The second part of our invention relates to a combination of parts by which the buckets or cars may pass by supports for the wires, *i. e.*, to a short railway fixed at each support; and to wheels, by means of which the supports may be passed without collision with the pendent cars or buckets. Both parts of the invention are useful for transporting water, ores, merchandise, &c.

Figure 1 is the wire railway with bucket or car moving on the wire; Fig. 2, the same with bucket or car dropping to the object to be moved. Fig. 3 is a front view of wheels or blocks to be used when supports for long wires must be passed by the buckets or cars.

When the device descends, as in Fig. 1, the rod E is disengaged from the pulley D by the action of rod F as soon as the pulley B in front strikes cross-bar k, and, of course, the end thus disengaged descends with its bucket or car toward the object to be moved; and the bucket, leaving the rod, descends on the rope I to the object. The rope being now drawn by the motor, the bucket or car would naturally drag on the ground; but the hook-end of rod E having necessarily caught on cross-bar k as the opposite end descended, the hook retains its hold on cross-bar k until the bucket or car ascending shall have reached

the rod E, and then, by its gravity descending to the other end of rod E, disengages by its weight the hook from the cross-bar and ascends to the motor.

While single wheels or pulleys would be sufficient for wires having no supports, yet it is evident that they could not pass by supports; hence bar O being a support for the wire. N N is a short railway adjacent to it, on which the two outer wheels of B revolve; and these being a trifle larger than the middle wheel the wire will be relieved of the weight of the buckets while passing the supports, and the opening M permits the parts which form it to pass with their pendent burden.

The advantages claimed are that this combination (comprising the first part of our invention) permits the car to descend at any angle to a given point, and then dropping it automatically, to be filled with water, ores, merchandise, &c., raises it again to the motor without dragging, which we consider a desideratum, especially where bluffs, highways, &c., intervene between the motor and the objects to be moved.

The second part of our invention permits the buckets or cars to pass supports for the wires without clamp-pulleys or hinge-pulleys now in use with different combinations.

We do not claim the combination simply of pulleys, rope, and wire for transportation; but

We claim—

1. The combination of pulleys B C D with the rods E and F and the cross-bar K, all to be used by means of the rope I and the wires, substantially as and for the purposes herein set forth.

2. The combination of track N N with block B and opening M, substantially as and for the purposes herein described and set forth.

JAMES HARRIS ROGERS.
JOHN WHITSON ROGERS.

Attest:

CORNELIA ANN ELIZA ROGERS,
JAMES WEBB ROGERS.