

RAILROAD-TRACK LIFTING-MACHINE.

Patented Aug. 15, 1876.

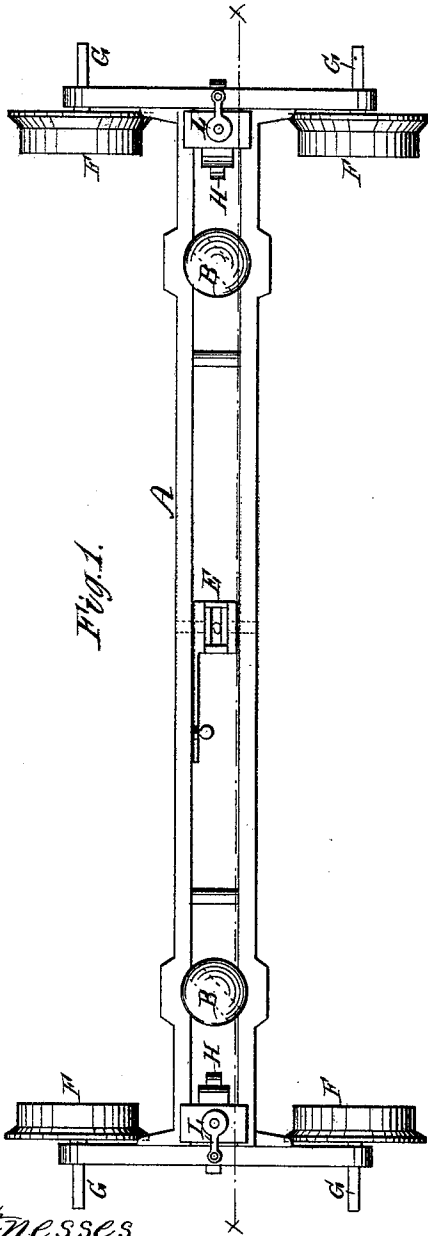


Fig. 1.

Witnesses

William Coyne
Robert, Clanchan

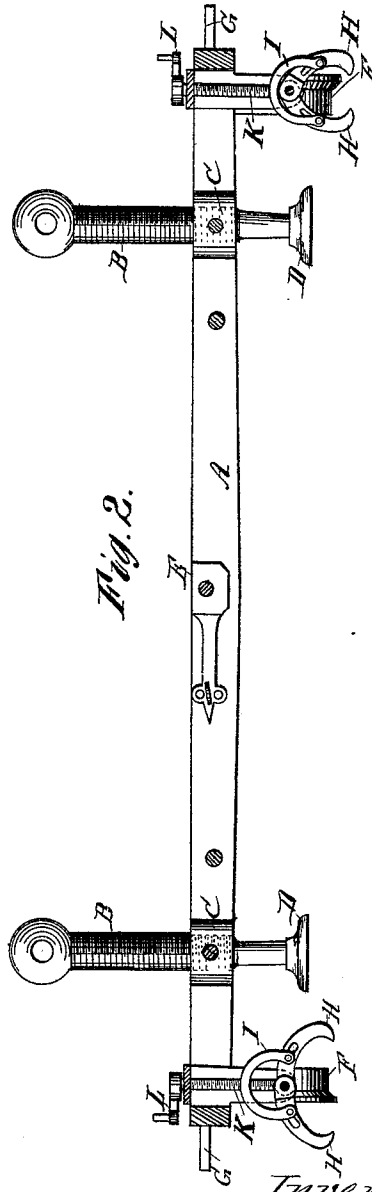


Fig. 2.

Inventor

Robert Aldred.

UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN RAILROAD-TRACK-LIFTING MACHINES.

Specification forming part of Letters Patent No. **181,123**, dated August 15, 1876; application filed July 26, 1876.

To all whom it may concern:

Be it known that I, ROBERT ALDRED, of the village of Glencoe, in the county of Middlesex, Province of Ontario, Canada, have invented a new and useful Machine for Raising or Lifting Railroad-Track on the principle of the screw, the title or name whereof is "Aldred's Railroad-Track-Lifting Machine," which machine is fully set forth in the following specification, reference being had to the accompanying drawings.

The first part of my invention relates to the principle of the said machine for the purpose of raising or lifting railroad-track, both sides at the same time, to any desired height and level.

The machine is placed on the track, as any ordinary hand-car, supported and conveyed on its own wheels, and, when desired to operate, the dogs are fastened to the rails; then, by operating the two large screws, the track can be raised, both rails and ties at the same time, to the desired height and level, and will hold in position the track so raised until the tamping or packing of the ties is completed. Then, by the dogs being loosened and the screws raised, the machine can easily be moved on the rails to the next place of operation, the machine to remain on the rails all the time during work, taking bearing on the steps placed on the ground between the ties and inside of the rails.

The level of the track can be accurately ascertained by the spirit-level placed in the center of the frame; also to be adjustable, so as to show the desired level for rounding curves on the road.

A is the frame of the machine substantially constructed of wrought-iron. B B are the two screws placed in the frame at each end of the machine supplied by two nuts hung on pivots marked C C, the nuts being placed in the frame A supported by two pins each in the sides of the frame. The object of the nuts being hung on pins is to allow the screws to swing either way, so that when one end of the machine is raised higher than the other the screws will be free from binding or friction and remain in a perpendicular position.

D D are the two flanges or steps attached to the lower end of the screws on pivots, so that when the steps are on the ground they remain stationary, while the screws can revolve in them, throwing the entire pressure on the steps placed on the ground between the ties and on the inside of the rails. E is the spirit-level, placed in the center of the frame. The object of the spirit-level is to show when the rails are on a level, and can be adjusted to show the desired level for rounding curves on the road. F F F F are the four wheels supporting the machine, which remain on the rails, retaining their position. G G G G are the four handles for lifting the machine. H H H H are the four dogs, two on each end of the machine, hung on hinges, and attached to a stirrup or clevis part of the frame by a pin. There is a mortise cut in each of the dogs about one inch and one-half long, which receives a pin fastening the ends of the bail to the dogs. The object of the mortise is to allow the pins to slide to or from the center pin. The dogs are to be worked up and down by the means of the screws K K and the bails I I, and fasten on the rails, under the ledge or concave part of the rails. I I are the two bails that operate the dogs. They are placed above the dogs, on the inside of the stirrup of the frame, in combination with two small screws, K K. By operating the screws K K the bail will be raised or lowered, thereby fastening the dogs to the rail, or unfastening them, as desired. L L are the two handles for operating the screws K K.

I claim as my invention—

The combination, in a railroad-track-lifting machine, substantially as described, of a frame marked A, two screws, B B, in combination with two nuts, C C, with spirit-level E; also, four dogs, H H H H, in combination with two bails, I I, and two screws, K K, as and for the purpose hereinbefore mentioned.

Glencoe, October 30, 1875.

ROBERT ALDRED.

Witnesses:

ROBERT CLANAHAN,
WILLIAM COYNE.