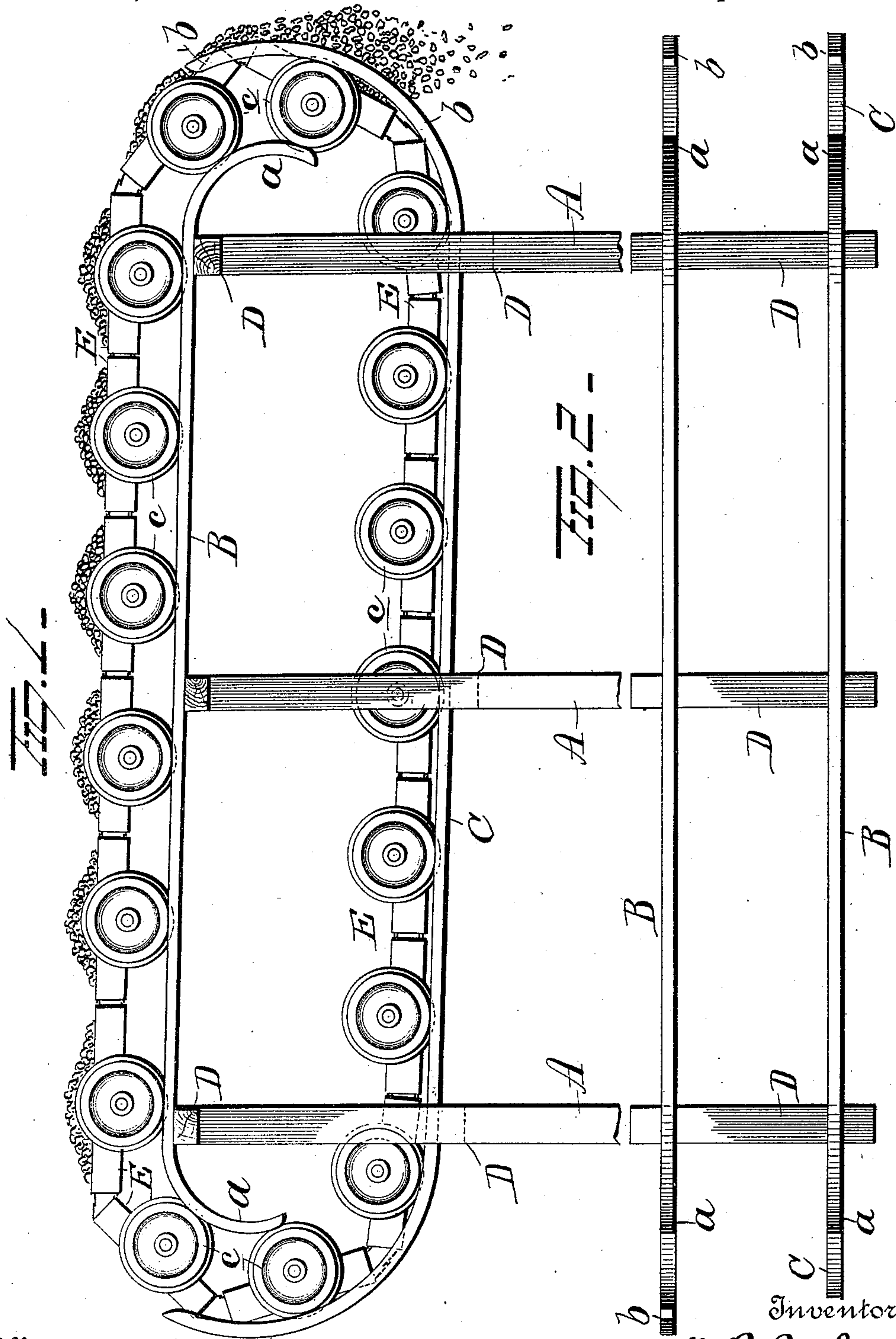


(No Model.)

W. R. RIGHTOR.
GRAVITY RAILWAY.

No. 494,595.

Patented Apr. 4, 1893.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM R. RIGHTOR, OF HELENA, ARKANSAS, ASSIGNOR OF ONE-FOURTH
TO JOHN O. BAGWELL, OF SAME PLACE.

GRAVITY-RAILWAY.

SPECIFICATION forming part of Letters Patent No. 494,595, dated April 4, 1893.

Application filed January 7, 1892. Serial No. 417,292. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. RIGHTOR, of Helena, in the county of Phillips and State of Arkansas, have invented certain new and
5 useful Improvements in Gravity-Railways; and I do hereby 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
10 use the same.

My invention relates to an improvement in gravity railroads,—the object of the invention being to produce an improved gravity railroad for conveying earth, coal or other
15 material.

A further object is to construct a gravity railway in such manner that the continued filling of the cars will operate said railway to convey material, discharge it and return the
20 empty cars.

A further object is to produce a gravity railway for conveying material from one place to another, and which will work automatically to convey, discharge and return the cars, and which shall be simple in construction,
25 easy of operation and effectual in the performance of its functions.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts as hereinafter set forth and pointed out in the claim.

In the accompanying drawings: Figure 1 is a side view of my improvements. Fig. 2 is a
35 plan view.

A represents a series of parallel lines of posts, on which two pairs of rails B, C, are located and secured by means of suitable stringers or ties D. The rails or tracks B, C,
40 are arranged on the posts A in an inclined position, and parallel with each other, said rails being inclined at the rate of about one-half inch to each foot, or less. The ends of the rails B are curved downwardly as at *a, a*, and the lower rails C are curved upwardly as at *b, b*, said curved ends *b, b*, extending above the ends of the curved ends *a, a*, of the upper rails, and the distance between said curved

ends *a, a, b, b*, being about equal to the diameter of the wheels *c* of a series of cars E, 50 which are adapted to run on said rails or tracks. The wheels used for the cars will preferably be light car wheels. Each car is preferably provided with two wheels and said cars are linked together in any suitable manner and preferably at the upper and lower edges of the cars. By making the space between the curved ends of the two pairs of rails or tracks about equal to the diameter of the wheels of the cars, said cars will readily
60 run from the upper tracks to the lower tracks without undue jar and strain upon the cars,—the said tracks forming, in effect, an endless railway.

Material, such as dirt, coal or similar material, will be fed to the cars at the upper end of the inclined railway and the weight of the loaded cars will cause them to run to the lower end of the incline, where they will run over the curved ends *a*, at the lower ends of the upper rails B. In running over the curved
70 ends *a* of the upper rails and onto the curved lower ends of the rails C, the cars will become inverted,—discharging their contents over the end of the curved ends of the lower rails C. The inverted cars, after becoming empty, will continue up the inclined lower tracks C and finally run upon the upper tracks B, ready to be again filled with material,—said empty cars being impelled up the inclined
80 tracks C by the excess of weight of the loaded cars running down the upper inclined tracks B. A gravity railroad thus constructed and arranged is very simple, easy and sure of operation without undue strain or injury upon
85 the cars and is effectual and automatic in the performance of its functions.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a gravity railway, the combination with a frame and upper and lower inclining rails secured thereto, the ends of the upper and lower rails overlapping each other and concentrically arranged and a sufficient distance
90 apart to permit the wheels of a car to pass

between them, of two wheeled cars connected
together in an endless series, each car having
its wheels located midway between its ends
whereby they form a center of oscillation for
5 the cars as they pass from the end of one pair
of rails to the other pair, substantially as set
forth.

In testimony whereof I have signed this
specification in the presence of two subscrib-
ing witnesses.

WILLIAM R. RIGHTOR.

Witnesses:

CLAYTON HAILEY,
W. C. SMITH.