

H. H. COVERT.

Car Starter.

No. 57,624.

Patented Aug. 28, 1866.

Fig. 1.

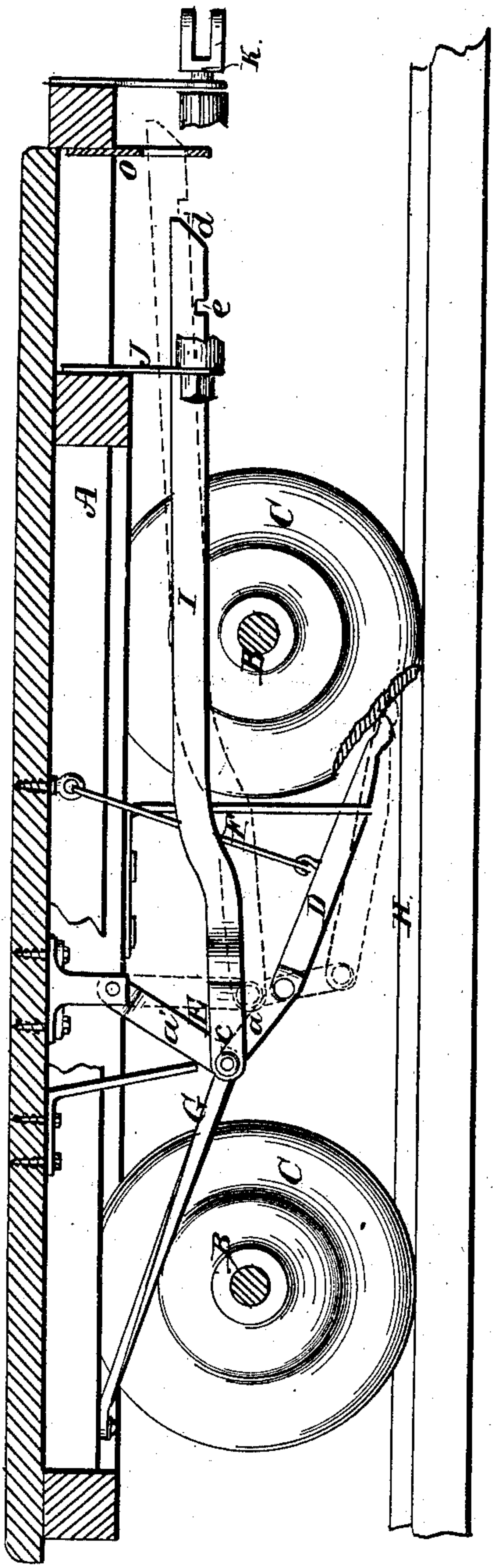
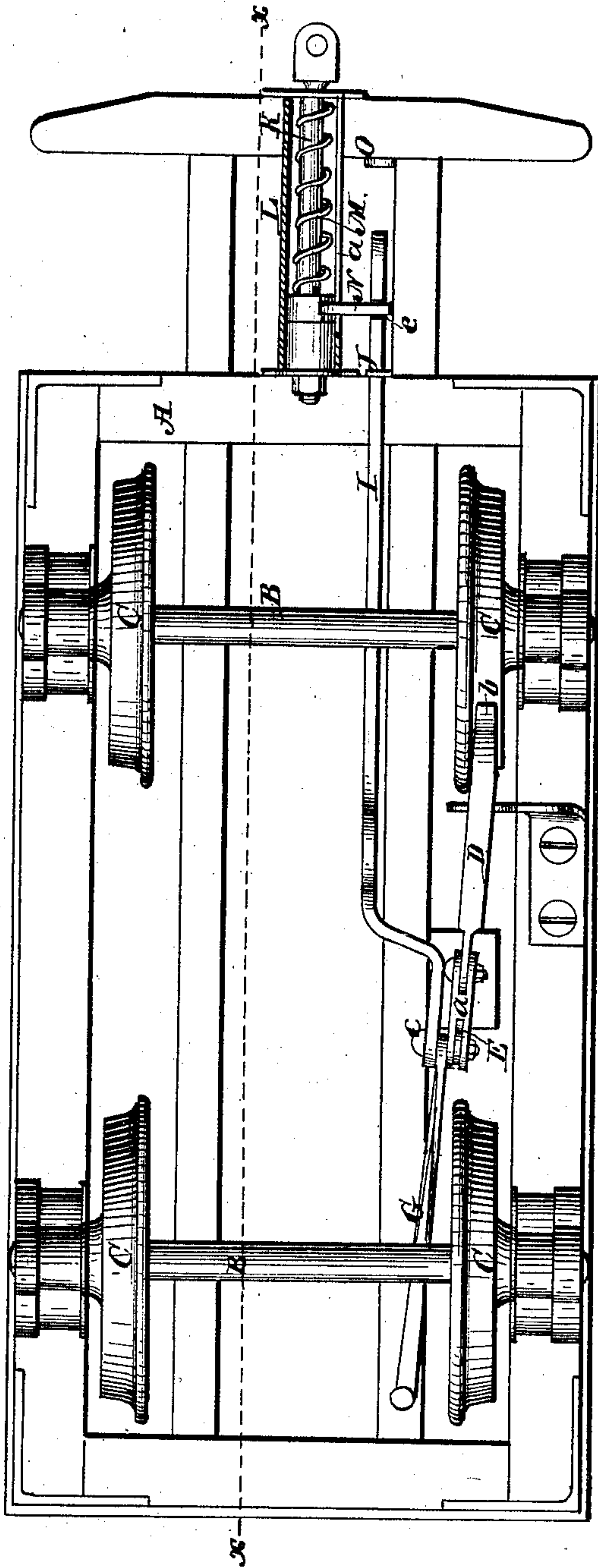


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

HENRY H. COVERT, OF DETROIT, MICHIGAN, ASSIGNOR TO HIMSELF AND
SMITH R. WOOLLEY, OF SAME PLACE.

IMPROVEMENT IN STARTING CARS.

Specification forming part of Letters Patent No. 57,624, dated August 28, 1866.

To all whom it may concern:

Be it known that I, HENRY H. COVERT, of Detroit, Wayne county, State of Michigan, have invented a new and Improved Device for Starting Cars; 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 the lower part of a car having my invention applied to it; Fig. 2, an inverted plan of the same.

Similar letters of reference indicate like parts.

This invention consists in applying a pinch bar or lever (one or more) to a railroad-car in such a manner that when the draft-animals or other propelling or draft power is applied to the car the pinch bars or levers will be first actuated under said power, and made to operate directly upon the wheels, so that the car will be started with the greatest ease.

A represents the lower part of a railroad-car, B, the axles, and C the wheels. These parts are of usual construction, and therefore do not require a minute description.

D represents what I term a "pinch" bar or lever, the upper end of which is pivoted to the lower arm, *a*, of a toggle, E, the upper arm, *a'*, of said toggle being pivoted to the under side of the car-bed.

The lower end of the pinch bar or lever D is bent or curved to form a lip, *b*, and said pinch bar or lever is supported by a spring, F, from the bottom of the car.

G is a spring, which is attached to the bottom of the car and to the pivot or joint *c* of the toggle. This spring has a tendency to keep the pinch bar or lever drawn back and up from the rail H.

I is a bar, the rear end of which is attached to the joint of the toggle E. This bar I extends forward underneath the car-body, and passes through a pendent guide, J, attached thereto.

The front end of the bar I is beveled, as shown at *d*, and a notch, *e*, is made in the under side of the bar I, a short distance back of its front end.

K is a draw-bar, which is fitted in a case or box, L, secured to the under side of the car-body. This draw-bar has a spiral spring, M, around it, which has a tendency to keep the

bar K forced back within the case or box to its fullest extent.

A rod, N, projects at right angles from the draw-bar through a slot, *a*^x, in tube L, to catch into the notch *e* when the draw-bar K is back within the case or box L.

O is a pendent guide attached to the under side of the car-body, near its end, said guide O being in line with guide J, but a trifle higher.

When the car is at rest and the draft power applied the pinch bar or lever is up from the rail, and the rod N of the draw-bar is within the notch *e* of the bar I. When the team is started or the propelling power applied the bar I is drawn outward, and the pinch bar or lever D is, under the action of the toggle E, forced under the tread of the wheel and then downward, the under convex side of the lip *b* bearing upon the rail, and the extreme end of the lip pressing up against the wheel and starting the car.

It will be seen by this arrangement a great leverage power is obtained and brought to bear upon the wheel, so that the car may be started with ease.

When the bar I is drawn forward sufficiently to start the car it passes into the elevated guide O, and the bar I is thrown up, so that the rod N will be free from notch *e*, and the spring G draws the pinch bar or lever back to its original position, and the spring M throws the draw-bar K back when it is relieved from the pull of the team or propelling power.

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

1. The pinch bar or lever D, (one or more,) applied to a railroad-car, arranged in connection with a toggle, E, and bar I, or their equivalents, for the purpose of acting upon the wheel or wheels, for the purpose of starting a car under the action of the team or other motor, substantially as described.

2. The draw-bar K, having a spring, M, upon it, and provided with the projecting rod N, passing through a slot in the box or case L, in connection with the notch *e* in bar I, substantially as and for the purpose set forth.

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Witnesses:

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