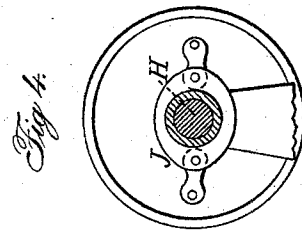
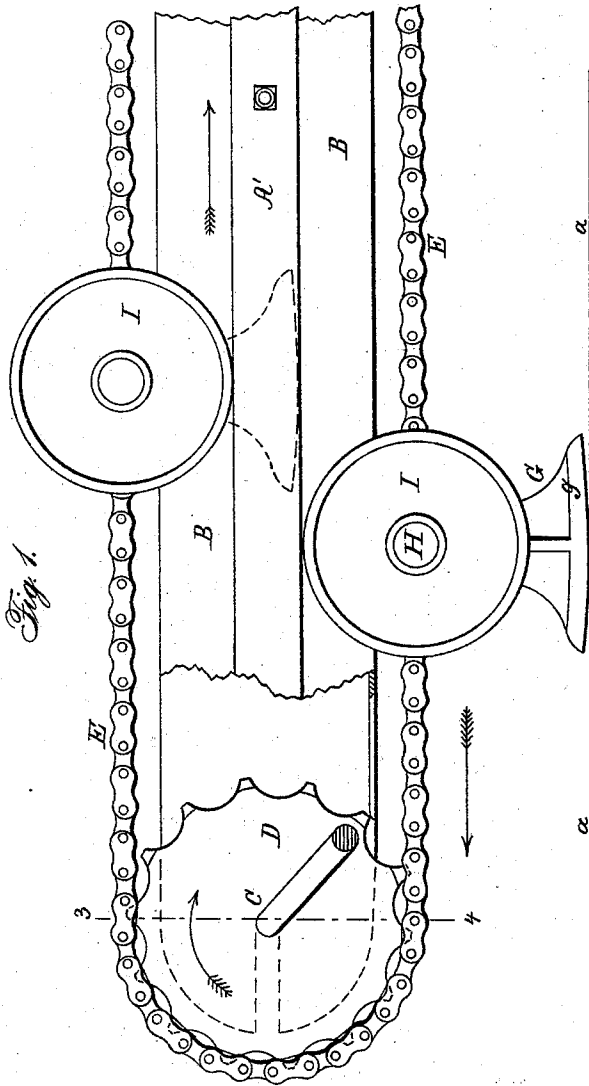


A. TAYLOR.
Car Propeller.

No. 66,264.

Patented July 2, 1867.



Witnesses:

S. H. S. Godwin
W. W. Botham

Inventor:

A. Taylor
By His Atty
J. H. Howson

A. Taylor. Sheet 2, 3 Sheets.

Car Propeller

N^o 66,264. Patented Jul. 2, 1867.

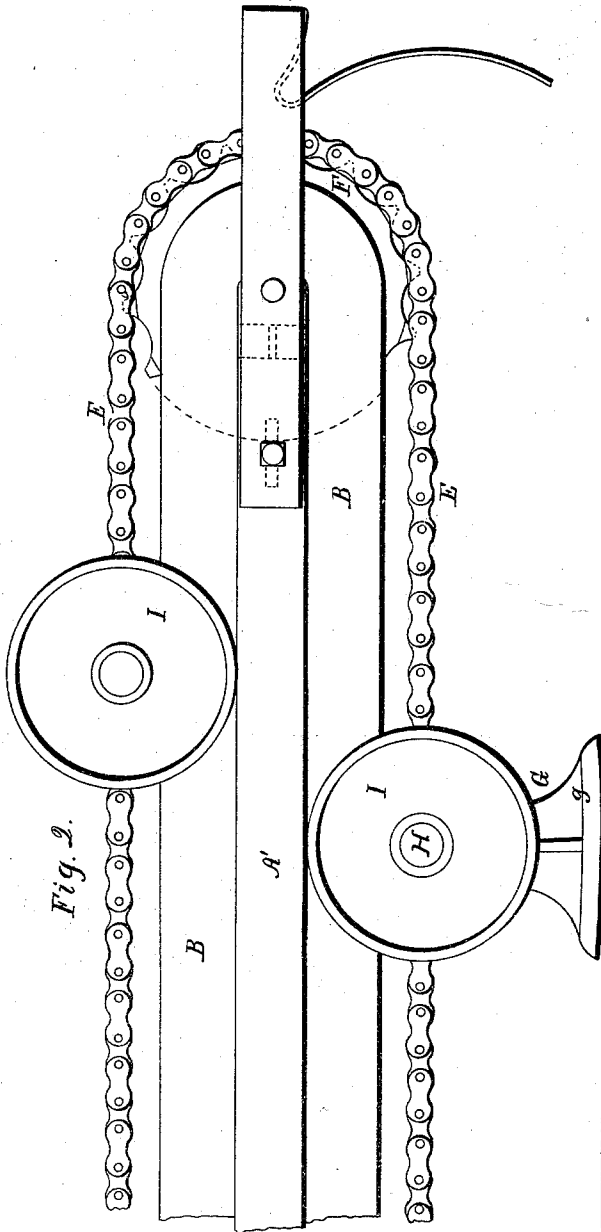


Fig. 2.

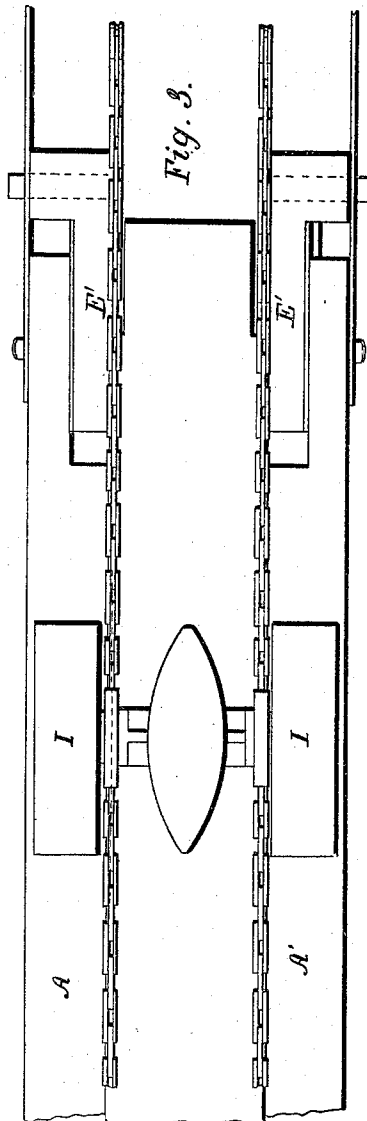


Fig. 3.

Witnesses.

S. K. St. Godwin
Woboltham

Inventor.

A. Taylor
By His Atty
H. Howson

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Fig. 5.

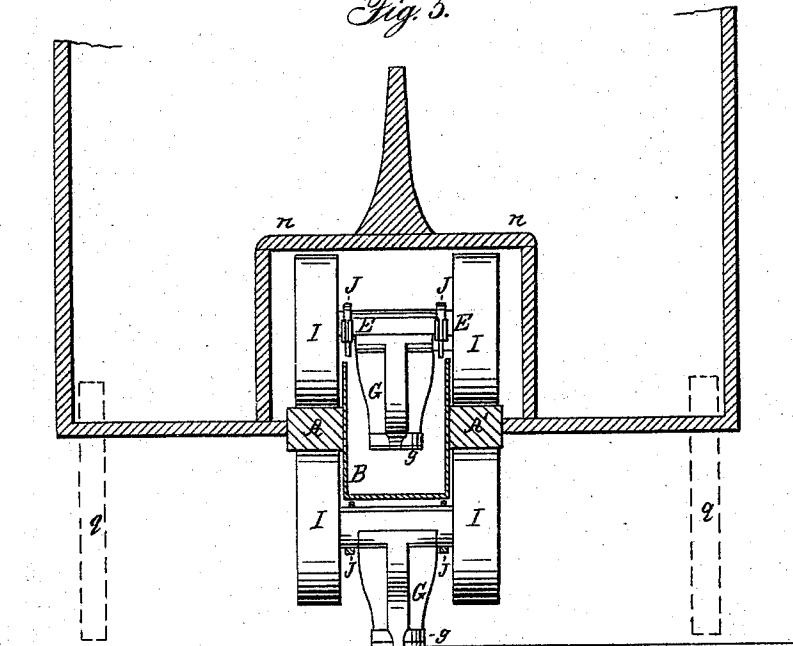
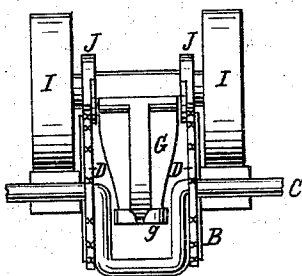


Fig. 6.



Inventor:

A. Taylor
 By his Atty
H. How

Witnesses:

S. H. Godwin.

Howbotham

United States Patent Office.

ABIJAH TAYLOR, OF INDIANAPOLIS, INDIANA.

Letters Patent No. 66,264, dated July 2, 1867.

IMPROVED METHOD IN PROPELLING VEHICLES.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ABIJAH TAYLOR, of Indianapolis, county of Marion, State of Indiana, have invented certain mechanism for Propelling Vehicles; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention consists of certain mechanism, fully described hereafter, to be applied to vehicles for propelling the same without the aid of the usual wheels and axles.

In order to enable others familiar with machinery of this class to make and apply to practice my invention, I will now proceed to describe its construction and operation, reference being had to the accompanying drawing which forms a part of this specification, and in which, in drawing No. 1—

Figures 1 and 2 are side views of the opposite end of my improved mechanism for propelling vehicles.

Figure 3, an inverted plan view.

Figure 4, a vertical section on the line 1-2, fig. 3; and

Figure 5, drawing No. 2, a transverse section of the mechanism, showing its application to a street car; and

Figure 6 a transverse vertical section on the line 3-4, fig. 1.

Similar letters refer to similar parts throughout the several views.

The permanent portion of the device consists of a long beam, composed of two ways or rails, A and A', secured one to each side of a central hollow girder, B, of metal, open at the top, as best observed on reference to fig. 5, drawing No. 2. At one end of this long beam, and in the opposite rails A and A' of the same, turns a shaft, C, which is cranked in the peculiar manner illustrated in figs. 1 and 6, for the purpose described hereafter. On this shaft are secured two wheels D D, at a suitable distance apart from each other, each wheel having teeth adapted to the links of an endless chain, E, the two chains passing beneath the beam, partly round the two wheels and above the beam, and round two wheels F F, situated at the opposite end of the beam, fig. 2, each of the latter wheels being secured to a separate spindle, and the two spindles turning in adjustable pieces E', secured to the rails A. At suitable intervals, pendulous legs G, having feet g, are connected to the endless chains in the following manner: Each leg is hung loosely to a spindle, H, between two pulleys I I, on the said spindle, which pulleys coincide with and bear against the rails A and A', figs. 1, 4, and 5. The tubular portion of the leg G, through which the spindle H passes, is embraced by yokes J J, each yoke being connected to and forming a part of each endless chain E, as shown in fig. 4. Power is applied to the shaft C, so as to turn the wheels D D, which we will suppose to be revolving in the direction of the arrows, fig. 1. The foot of the leg G is resting on the ground, and serving with other feet to support the entire beam and its appurtenances, the beam resting on and gliding over the pulleys I, the spindle of which is supported by the leg. As the chains traverse the course indicated, the entire mechanism will of course traverse in the direction of the arrow 2, fig. 1, and when the portion of the chains to which the leg is connected passes round the wheels D D, the foot will be elevated from the ground, carried round with the chain, the cranking of the shaft c permitting the leg to pass freely between the wheels, and will finally occupy the pendulous position shown in fig. 5, and by dotted lines in fig. 1, within the channel formed by the hollow girder B, the wheels I I bearing on the upper surface of the rails A A'. Along this channel the leg traverses until it reaches the opposite end of the beam, where, by the passage of the chains round the pulleys F F, the leg is lowered until its foot is in contact with the ground, and is in a position as before to support, in combination with other legs, the main beam and its attachments. It will be understood that the feet are arranged at such intervals that there are never less than two feet at one time beneath the beam.

One application of my invention is illustrated in fig. 5, where the red lines represent a section of the lower portion of a street car, to which the rails A and A' are secured, the seats n n of the car serving to cover the mechanism described above. When the propelling apparatus is thus situated midway between the opposite sides of the car the latter may be steadied by wheels q q, shown by red lines, or propelling mechanism similar to that described may be situated near each side of the car, in which case no steadying wheels will be required. It will be evident that the propelling device may be applied in different ways; the endless chain, for instance, with its pendulous legs, may pass entirely over the car or other vehicle, to which the rails are secured. An endless wire rope or steel band may be substituted for the chain. No matter how or to what vehicles the

mechanism may be applied, it will be evident that as there is no dragging of the legs on the ground, and as the pulleys I I serve as anti-friction wheels the propelling mechanism is free from that wear and tear and undue friction to which ordinary wheels and axles are subjected. The rails A A' may be so curved that there may be a place and time where and when the entire machine may have but one bearing for the purpose of easily guiding and turning the car.

It will be evident that the mechanism described above may be altered and modified without departing from the main features of my invention; for instance, a single chain, with legs secured directly to instead of hanging loosely on the same, may be used in place of two chains. Without confining myself, therefore, to the precise construction and arrangement of parts herein described, I claim as my invention, and desire to secure by Letters Patent—

Propelling mechanism, consisting of an endless chain or chains, bands or ropes E, ways or rails A A', anti-friction pulleys I I, and legs G with feet; the said legs being carried by the chains, bands, or ropes, and the whole being arranged and operating substantially as and for the purpose herein set forth forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ABIJAH TAYLOR.

Witnesses:

HENRY HOWSON,
W. J. R. DELANY.