

J. S. WILLIAMS.
FAN-ATTACHMENT TO CARS.

No. 173,383.

Patented Feb. 8, 1876.

Fig. 1.

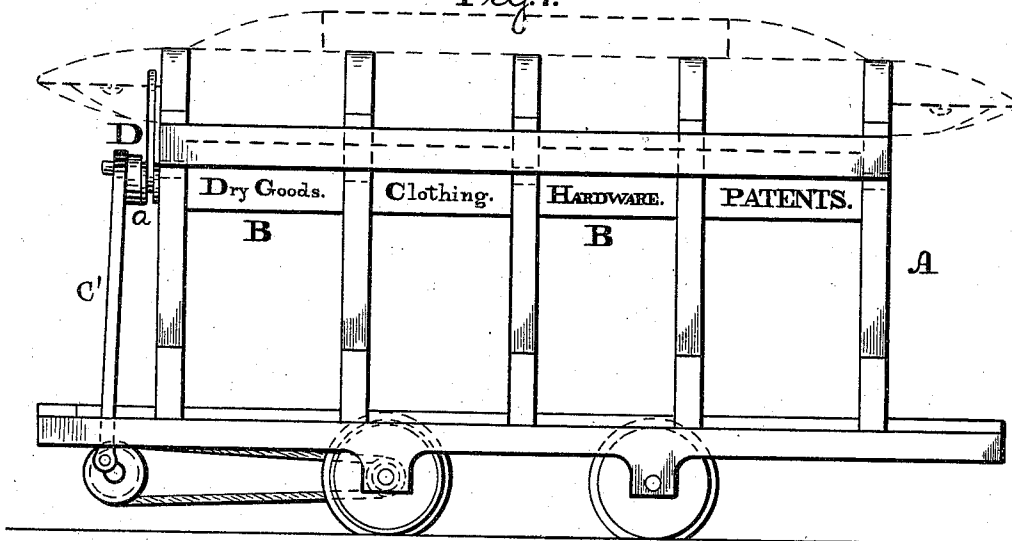


Fig. 2.

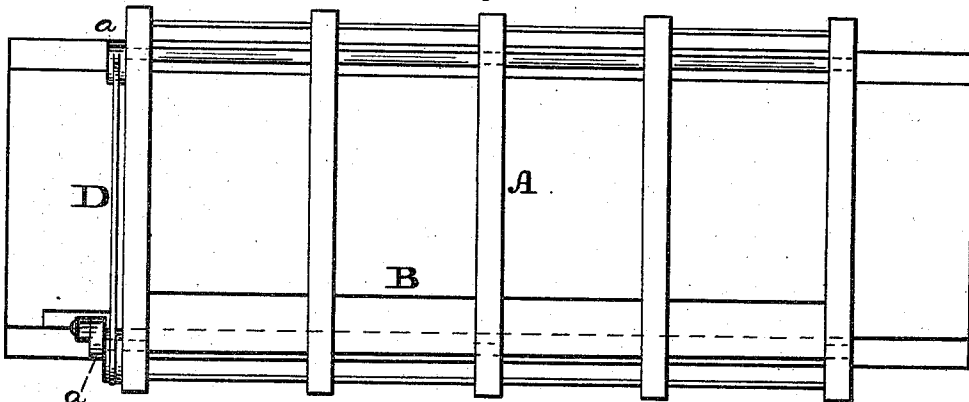
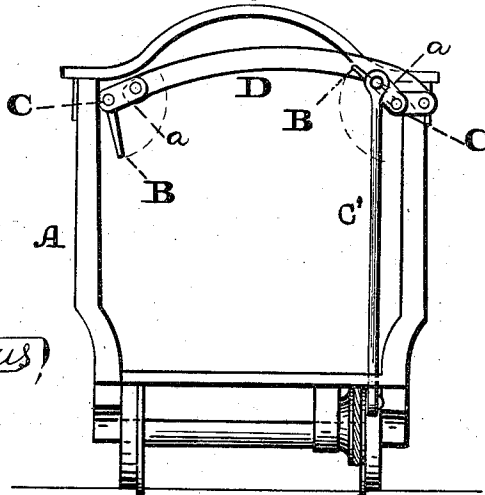


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOSEPH S. WILLIAMS, OF RIVERTON, NEW JERSEY.

IMPROVEMENT IN FAN ATTACHMENTS TO CARS.

Specification forming part of Letters Patent No. **173,383**, dated February 8, 1876; application filed December 1, 1875.

To all whom it may concern :

Be it known that I, JOSEPH S. WILLIAMS, of Riverton, in the county of Burlington and State of New Jersey, have invented a new and useful Improvement in Fan Attachments to Cars; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is a side view of a car having my invention applied thereto. Fig. 2 is a top or plan view thereof. Fig. 3 is an end view thereof.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of fans attached to a car, and constructed to reciprocate and alternately rise and fall, so that there will be a continuous fanning operation, alternately, from center to side and side to center, and the faces of the fans present themselves for viewing advertisements affixed thereto.

Referring to the drawings, A represents the body of a car, which may be of well-known form and construction. B represents fan-blades, which are mounted at or near the upper part of the car, and are connected to rock-shafts C, so as to have swinging motions. Power is communicated to a pitman, C', attached to said shafts, and consequently the blades, by arms, levers, shafting, or otherwise connected to the wheels or axles of the car, or

by means of steam or compressed air, operated from the engine or motion of the car.

The blades extend longitudinally or transversely, and their faces present surfaces for printing, marking, or otherwise affixing thereon advertisements which may be conveniently viewed and read.

It will be seen that the fan-blades receive rising and falling motions, and operate similarly, regardless of the direction in which the car is running. The blades are arranged in pairs parallel to each other, and alternately rise and fall, and in order to accomplish the latter motions the blades may be set at different angles, and they are connected by crank-arms or wrist-pins *a* to a rod, D, so that when power is communicated to one shaft the rod D will impart motion to the other shaft, and as one blade rises the other falls, whereby the air will be continuously agitated or driven downward toward the passengers.

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

1. The car-fans B, reciprocating and alternately rising and falling, substantially as and for the purpose set forth.

2. The reciprocating fans B, in combination with the connecting-rod D, arms *a*, and pitman or operating shaft C', substantially as and for the purpose set forth.

JOS. S. WILLIAMS.

Witnesses:

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