(No Model.)

J. L. BAKER.

TRANSOM LIFTER.

No. 447,174. Patented Feb. 24, 1891.

Fig. 1.

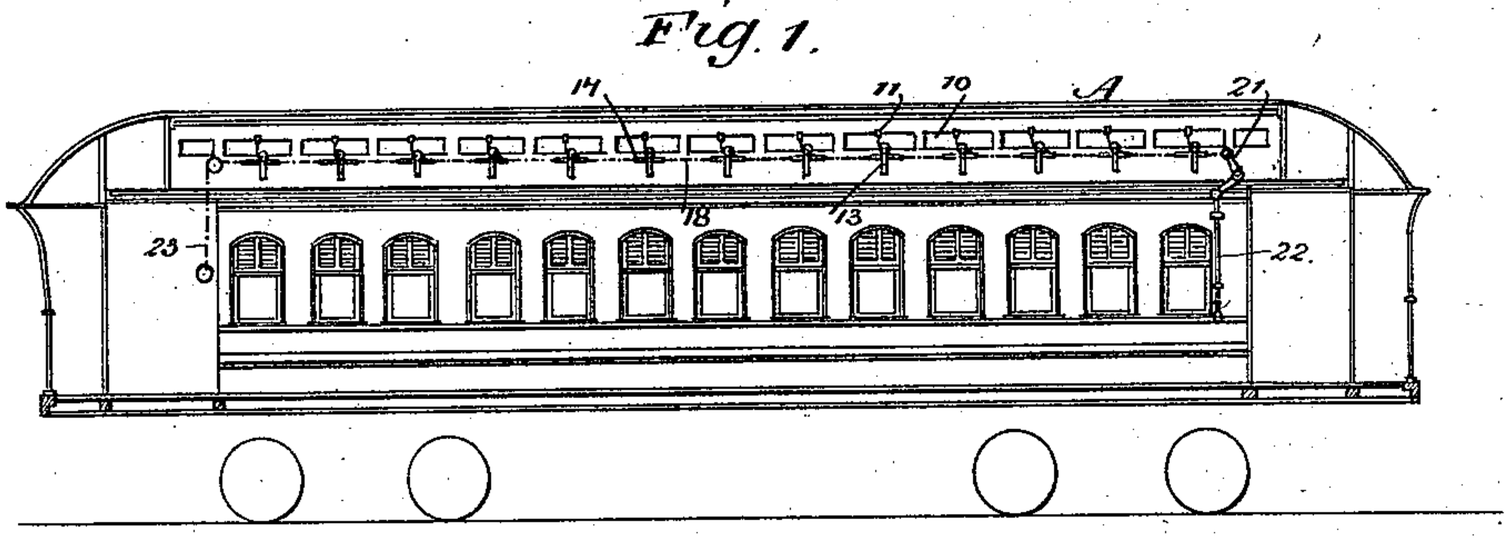


Fig. 2.

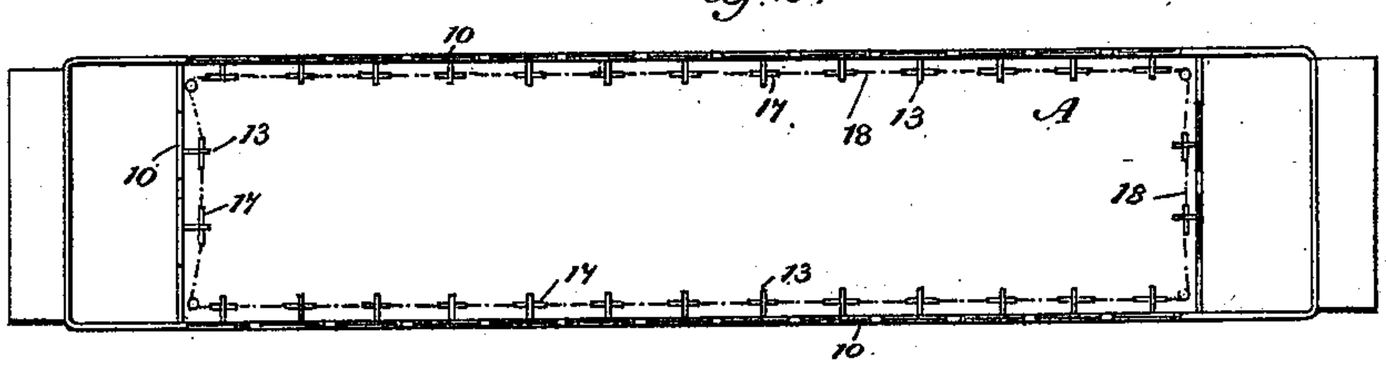


Fig. 3.

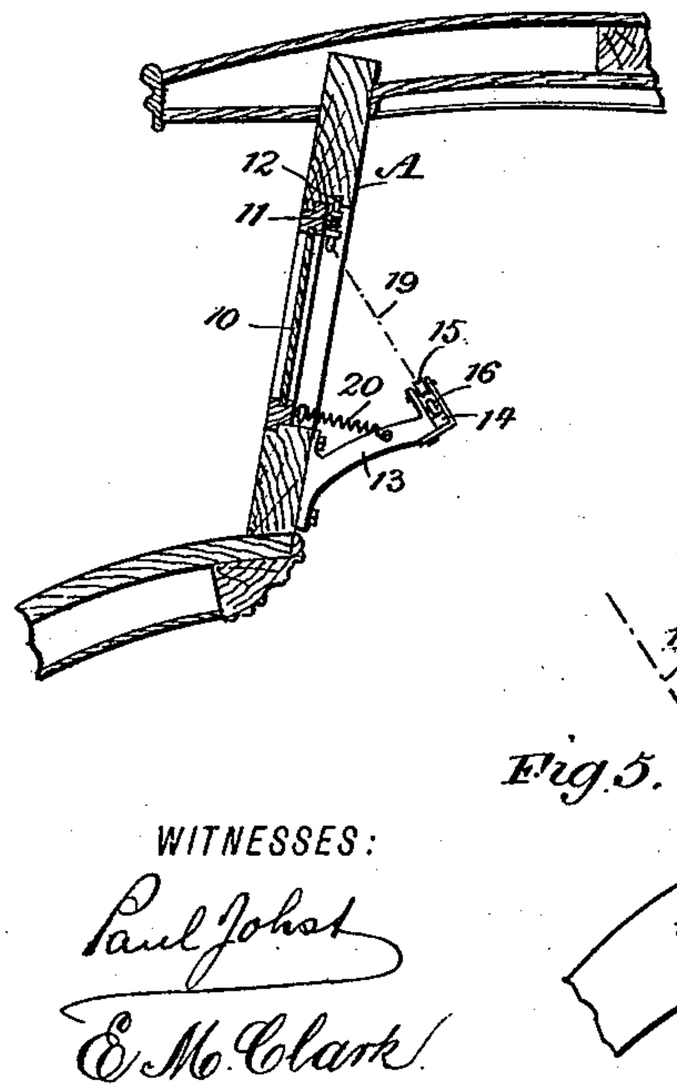


Fig. 4.

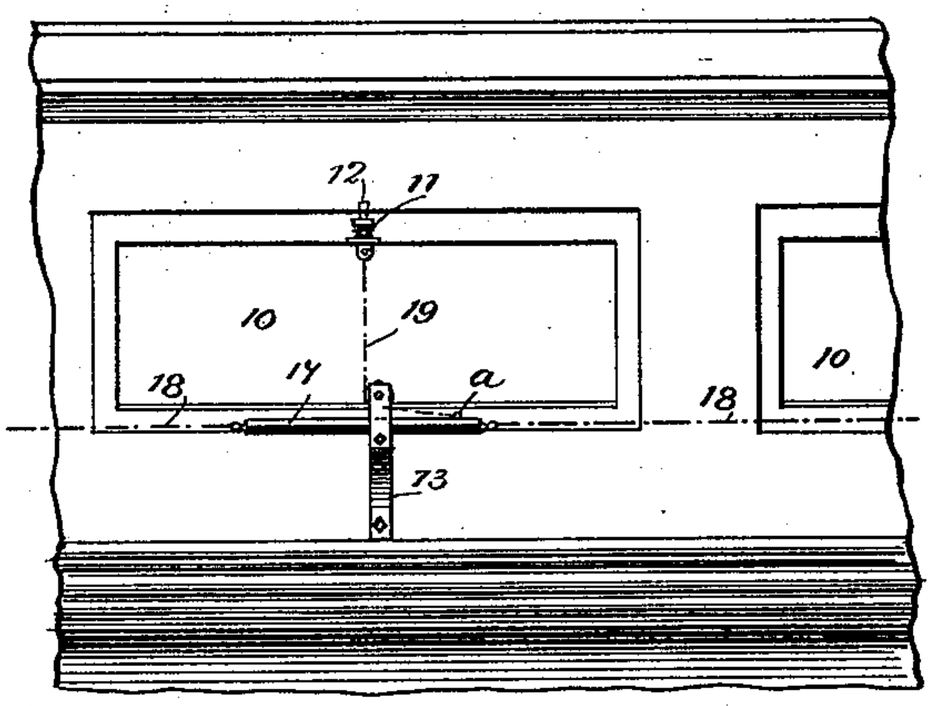
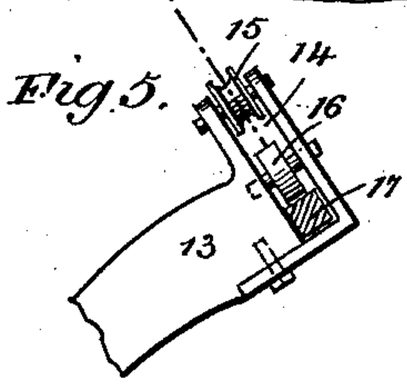


Fig. 5.



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TRANSOM-LIFTER.

SPECIFICATION forming part of Letters Patent No. 447,174, dated February 24, 1891.

Application filed July 29, 1890. Serial No. 360,259. (No model.)

To all whom it may concern:

Be it known that I, JOHN LAWRENCE BAKER, of Greensborough, in the county of Guilford and State of North Carolina, have invented a new and useful Improvement in Transom-Sash Lifts, of which the following is a full, clear, and exact description.

My invention relates to an improvement in transom-sash lifts, and has for its object to provide a means whereby all the ventilating-windows upon both sides of the clear story of a railway-coach, for instance, may be opened or closed simultaneously; and the invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a central vertical section through a railway-coach, illustrating the application of the device. Fig. 2 is a horizontal section through the clear story of a coach having the device applied. Fig. 3 is an enlarged partial vertical section through the clear story. Fig. 4 is a partial interior view of one side of the clear story, and Fig. 5 is a detail view of a bracket employed in connection with each ventilating-window.

The clear-story windows are pivoted in the usual manner, and the upper edge of each window is provided with an attached spring-bolt 11 or equivalent device adapted for engagement with a suitable keeper or to enter an aperture 12 in the upper wall of the opening in which the window is pivoted.

Beneath each window, preferably at about the center of the opening in which the window is pivoted, a bracket 13 is secured to the inner face of the clear story A, as is best illustrated in Figs. 3 and 4. The brackets are preferably given an upward inclination and their upper ends are provided with vertical recesses 14.

In the upper portion of the recess of each bracket a peripherally-grooved pulley 15 is pivoted, and below the pulley a friction-wheel 16 is likewise pivoted.

Between the base-wall of each bracket-recess 14 and the friction-roller 16 above it a bar 17 is held to slide, which bar is preferably rectangular or polygonal in cross-section, as shown in Fig. 5, and of sufficient thickness to admit of one side resting upon the base-wall of the recess and the upper face engaging with the friction-pulley above it. The bars 17 are of sufficient length only to extend a slight distance beyond each side of the bracket, and all the bars are connected by links, chains, or cords 18, as best illustrated in Fig. 2.

A chain or cord 19 is attached to each of the bolts 11, and each cord is led downward under and in contact with the grooved pulley of the bracket 13, and the lower end of the cord or chain is secured in any suitable or approved manner to one of the bars 17, preferably near one extremity thereof, as is best illustrated at *a* in Fig. 4.

Each bracket has attached thereto a spring 20 of any approved form, the said springs being also connected with the window-sashes, preferably at the lower rail thereof, as is best shown in Fig. 3.

At one end of the clear story one of the links, ropes, or chains 18 is connected with one member of an elbow or bell-crank lever 21, which lever may be pivoted to one side of the clear story, as illustrated in Fig. 1, and to the other end of the lever the upper end of a rod 22 is pivoted, which rod is held to slide in suitable guides at the side of the body of the car, and a similar device may be connected with the links, ropes, or chains at the opposite end of the clear story, or the lever may be substituted by a pull cord, rope, or chain 23, adapted to pass over a suitable friction or guide pulley pivoted in the clear story, as shown at the left in Fig. 1, the lower end of the pull cord, rope, or chain having attached thereto a ring or other form of handle.

In operation, if the rod 22, connected with the bell-crank lever 21, is pushed upward, the chains, links, or cords will be drawn upon in such manner as to slide the bars 17 laterally in the direction of the said lever, whereupon the movement of the bars will, through the medium of the chains or cords 19, unlock the bolts 11, and cause the windows to open

against the tension of the springs 20—that is to say, the windows will be drawn inward from the top upon their pivots. The windows may be held in this open position by any suitable clamp applied to the rod 22. At the opposite end of the car the same result is effected by drawing downward upon the cord or chain 23, which when the windows are opened is secured to a hook or equivalent device. The moment that either of the devices employed to open the windows is released the springs 20 act and automatically draw the windows closed and retain them in this position.

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

1. The combination, with a series of pivoted ventilating-windows, each window provided with a latch adapted for engagement with a keeper, of horizontal shifting bars held to slide laterally beneath the windows, chains, ropes, or cords connecting the bars and the window-bolts, a chain or rope connection between the shifting bars, and a shifting lever attached to the connecting chains or ropes of the bars, as and for the purpose specified.

2. The combination, with a series of pivoted windows provided with spring-latches adapted for engagement with keepers, brackets secured beneath the windows, and a shifting bar held to slide in each bracket, of a chain or rope connecting each shifting bar with one of the window-bolts, chains connecting all of the shifting bars, and a shifting lever attached to the connecting-chains of the bars, as and for the purpose set forth.

3. The combination, with a series of pivoted window-sashes provided with spring-latches adapted for engagement with keepers, and a bracket located beneath the opening in which each sash is pivoted, the said brackets being each provided with a grooved pulley and a friction-wheel beneath the pulley, and a spring secured at one end to each bracket and at its opposite end to the sash in front of the bracket, of a bar held to slide in each bracket in engagement with the friction-roller thereof, a chain or cord connected at one end with each of the bolts passed over the grooved pulley of a bracket and secured at its opposite end to a shifting bar, chains connecting the various shifting bars, and a shifting lever connected with the said chains of the shifting bars, substantially as and for the purpose set forth.

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Witnesses:
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