(No Model.) 2 Sheets—Sheet 1.

E. L. TEVIS.

SAFETY GATE FOR CAR PLATFORMS.

No. 306,364. Patented Oct. 7, 1884.

FIG. 3.

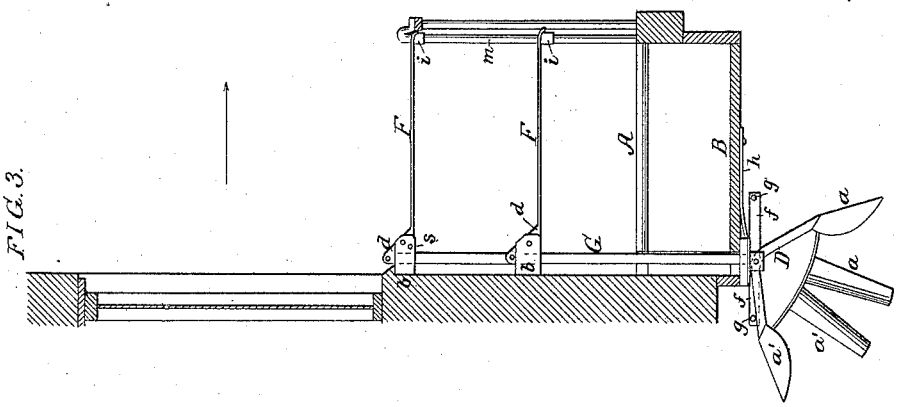


FIG. 2.

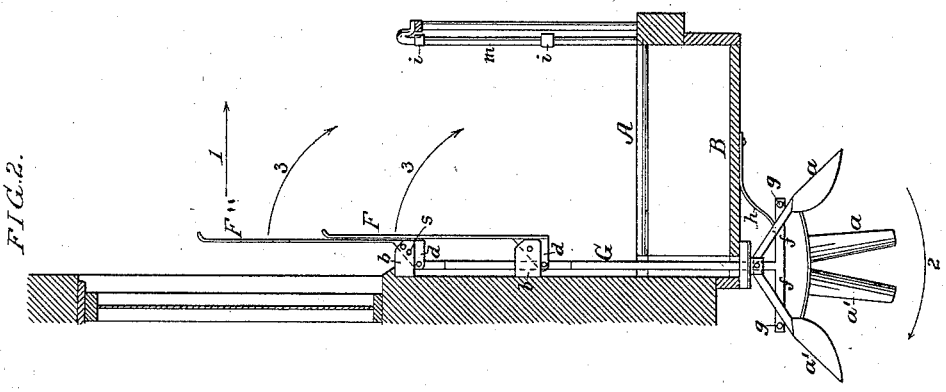
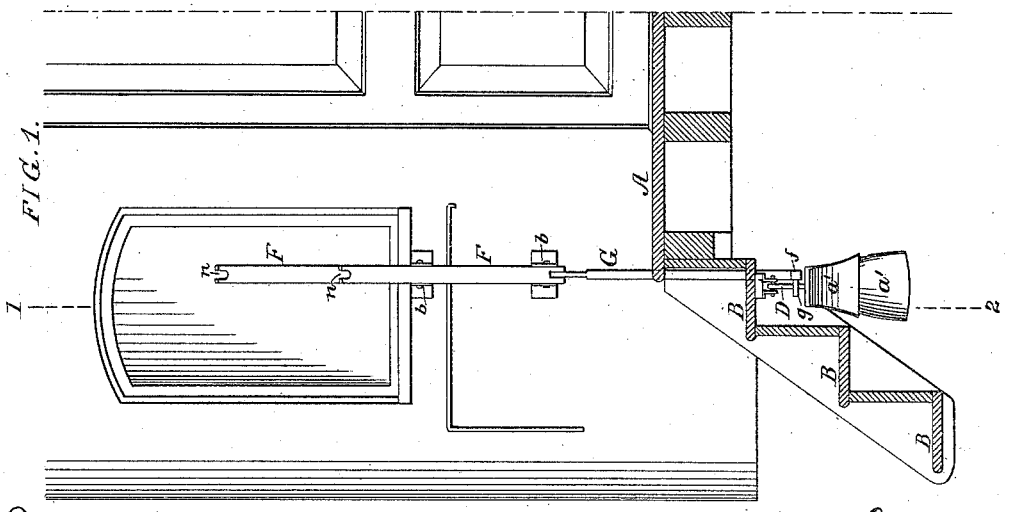


FIG. 1.



Witnesses,
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John M. Clayton

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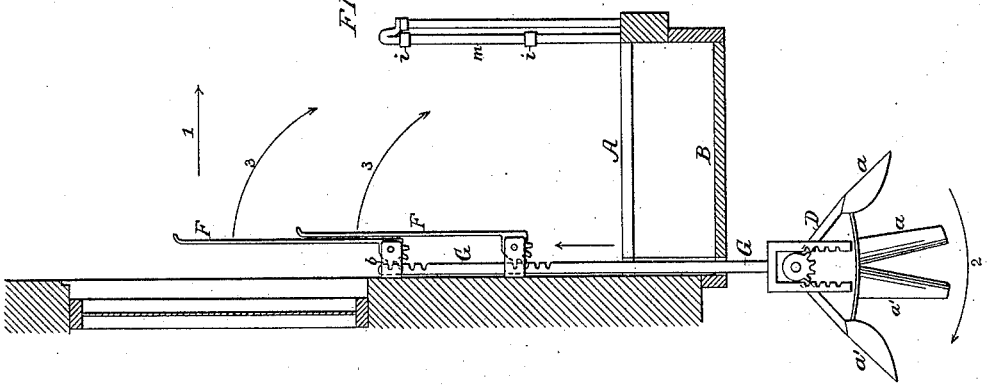
(No Model.) 2 Sheets—Sheet 2.

E. L. TEVIS.

SAFETY GATE FOR CAR PLATFORMS.

No. 306,364. Patented Oct. 7, 1884.

FIG. 5.



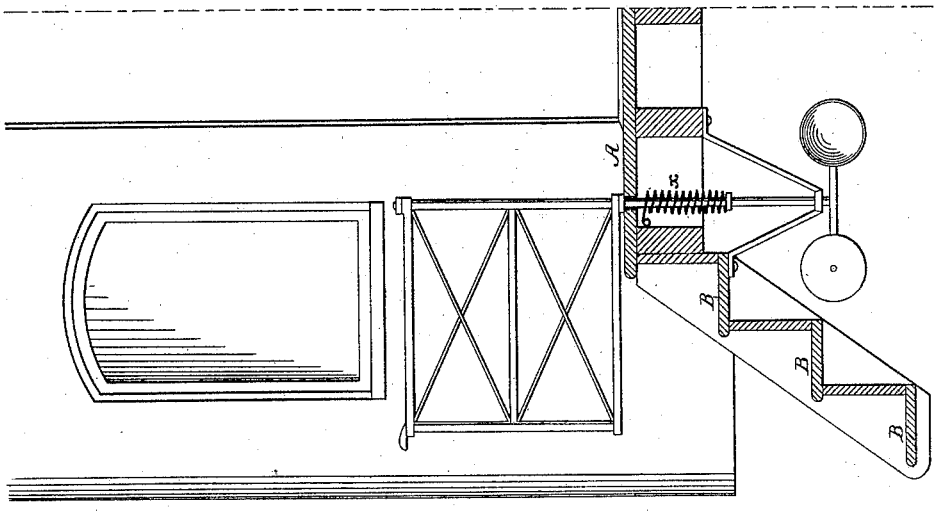


FIG. 4.

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UNITED STATES PATENT OFFICE.

EDWIN L. TEVIS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF THREE-TENTHS TO JAMES N. WHELEN, OF SAME PLACE.

SAFETY-GATE FOR CAR-PLATFORMS.

SPECIFICATION forming part of Letters Patent No. 306,364, dated October 7, 1884.

Application filed August 7, 1884. (No model.)

To all whom it may concern:

Be it known that I, EDWIN L. TEVIS, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Safety-Gates for Railroad-Car Platforms, of which the following is a specification.

The object of my invention is to provide a railway-car with gates for automatically closing the entrances to the platforms when the car is in motion, the obstructions being removed when the car stops. This object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1, Sheet 1, is an end view of part of a railroad-car with my improved gate and its operating mechanism, the platform and steps being in section and the gate being open; Fig. 2, a longitudinal section on the line 1 2, Fig. 1; Fig. 3, the same with the gate closed; and Figs. 4 and 5, Sheet 2, views of modifications of the invention.

A is part of one of the platforms of a railway-car, and B the usual steps at the end of the same. Beneath one of the steps (the highest step in the present instance) is hung a frame, D, which is provided with a number of curved or scoop-shaped wings or blades, *a a'*, the wings *a* facing in one direction and the wings *a'* in the opposite direction.

Hung to lugs *b* on the end of the car are blocks *d*, (two in the present instance,) each block having an arm, F, and being connected to a bar, G, the lower end of which has arms *f*, projecting pins *g* on the latter bearing on the frame D, one on one side and the other on the opposite side of the pivot of the same.

When the car is at rest, the parts are in the position shown in Figs. 1 and 2, the weight of the bar G, assisted, if desired, by a spring, *h*, effecting the elevation of the arms F, so that the entrance to the platform is unobstructed. When the car commences to move, however, the current of air beneath the same acts upon the wings of the frame D and causes the latter to swing, thereby elevating the bar G and effecting the gradual lowering of the arms F, so as to obstruct the platform-entrance. Thus when the car moves in the direction of the arrow 1, Fig. 2, the air acts upon the wings *a*, causing the frame D to swing in the direction of the arrows 2, and thereby raising the bar G and lowering the arms F, as indicated by the arrows 3, until the ends of said arms come into contact with stop-collars *i* on the vertical bar *m* of the platform-rail, as shown in Fig. 3, the ends of the arms F having slots *n* for the reception of said bar, which thus locks the outer ends of the arms, and prevents the straining of the same by lateral pressure thereupon. When the train slows down, the pressure of air upon the wings *a* gradually decreases with the decrease in speed, and the arms F are gradually raised until, when the train is at a standstill, the arms are again restored to the position shown in Fig. 2, and the platform-entrance is unobstructed. The same result is effected when the train is moving in the opposite direction, the air acting upon the wings *a'*, and the frame D swinging in a direction the reverse of that pointed out by the arrow 2. Openings *s* are formed in the upper lug *b*, a similar opening in the upper block *d* coinciding with these openings when the gate is closed, so that by passing a pin transversely through the openings the gate may be locked in this position. Where it is desired to increase the effect of the air on the wings, the latter may be inclosed in a funnel-mouthed casing; but under ordinary circumstances this will not be necessary.

While I have shown a special form of gate and a special form of bladed frame for operating the same, I do not limit myself thereto, as the details of my invention are capable of extensive modification without departing from the spirit of the invention, the main feature of which is the operation of the gate by the action of the current of air, due to the motion of the train, on blades or vanes controlling the movement of the gate, so that said gate will be automatically opened and closed at the proper times without any attention on the part of the brakeman.

As instances of modifications in the details of the device, may be mentioned a swinging gate with a horizontal bladed wheel secured to the lower end of the pivot-rod, as in Fig. 4, the gate having a spring, *x*, tending to open

the same; or, when a gate such as shown in Figs. 1 to 3 is used, the blades or wings may project from a rock-shaft having a toothed segment adapted to gear with one or other of two racks formed on the forked lower end of the bar G, and the latter may have a rack acting on pinions on the arms, in order to raise and lower the latter, as shown in Fig. 5.

I therefore claim as my invention—

1. The combination of a railway-car platform, a gate, and an operating device therefor having wings or blades acted upon by the current of air due to the motion of the train, whereby the gate will be automatically closed when the train starts and automatically opened when the train stops, substantially as described.

2. The combination of pivoted arms F with an operating-bar, G, therefor, wings or blades the movement of which is due to the current of air caused by the movement of the train, and devices whereby the bar G is operated on the movement of said wings or blades, as set forth.

3. The combination of the pivoted arms F, the bar G, having arms *f*, with pins *g*, and the frame D, having wings or blades, as set forth.

4. The combination of the bar *m* of the platform-rail with the pivoted arms F, having slots *n*, and with devices, substantially as described, for operating said arms.

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

EDWIN L. TEVIS.

Witnesses:
JOHN M. CLAYTON,
HARRY SMITH.