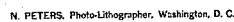


J. B. WOOD.  
GATE FOR RAILWAY CARS.

Patented Dec. 31, 1889.



# UNITED STATES PATENT OFFICE.

JOHN B. WOOD, OF PROVIDENCE, RHODE ISLAND.

## GATE FOR RAILWAY-CARS.

**SPECIFICATION** forming part of Letters Patent No. 418,362, dated December 31, 1889.

Application filed November 22, 1889. Serial No. 331,237. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN B. WOOD, a citizen of the United States, residing at Providence, in the State of Rhode Island, have invented a new and useful Improvement in Gates for Railway-Cars and other Purposes, of which the following is a specification.

My invention consists in a gate jointed to a swinging support and to a pivoted brace, whereby in operating the gate either to open or close the same one edge of the gate will be moved in a direction opposite to that of the other, so that when the gate is thrown back to its open position it will rest between the door and the corner of the car and when closed will be near the top of the platform-steps, thus forming a perfect guard and protection.

Figure 1 represents a side elevation of the gate in its closed position. Fig. 2 is an edge elevation of the same from the front. Fig. 3 represents a top view of the gate when closed, and Fig. 4 is a top view of the gate when in its opened position. Figs. 5, 6, and 7 are detail views illustrating the mechanism of the locking-catch.

In the accompanying drawings, A represents the end of the car; B, the steps; C, the platform; D, the hand-rail at the forward end of the platform, and E the hand-rail at the corner of the car. The gate-supporting bar G is loosely held in the bearings *a a*, attached to the end of the car, and is provided with the projecting arms *b b'*, to the ends of which the gate F is pivoted, the said gate, as shown in the drawings, being made to extend each way from the pivoting-points *c c*. The brace H is pivoted to the gate at the point *d* and extends obliquely to the bracket *e*, which is attached to the end of the car, and may be pivoted to the said bracket; or the end of the brace H may be extended downward and passed through suitable bearings in the brackets *e* and *e'*, so as to form a suitable hand-rail E at the corner of the car. The arm *b* of the swinging support G (shown enlarged in Fig. 7) is provided with an upwardly-projecting pin *f*, which is cut away at one side to form a notch *g*, and within a recess *h* at the upper side of the arm *b* is placed the upwardly-projecting spring *i*, which is adapted to enter the

hole *j* in the under side of the catch I. The catch I is placed upon the pin *f*, so that the said pin will enter the socket-opening K with the upper end of the spring *i* in the hole *j*, and the catch I is retained upon the pin *f* by means of the screw *m*, the point of which enters the notch *g* in the side of the pin, and the turning movement of the catch I in one direction upon the pin *f* will be resisted by the resilience of the spring *i*. The catch I is also provided with the opposite notches *n n'*, the notch *n* serving to engage with the pin *o'*, which extends downward from the arm *t'* at the rear edge of the gate, as shown in Fig. 1, and the notch *n'* to engage with a pin *o* upon the under side of the top rail *p* of the gate, as shown in Fig. 4, and the resilience of the spring *i* serves to hold the notches *n* and *n'* in engagement with the gate, the catch I being also provided with a short arm *q*, by means of which the catch can be thrown back to release the gate, the inclined face *r* of the catch serving to allow the same to be automatically thrown into engagement. The arm *b* is also provided with the stop *s*, which serves by engagement with the side of the top rail *p* to stop the closing movement of the gate.

Whenever it is desired to open the gate from its closed position, (shown in Figs. 1, 2, and 3,) the catch I is to be thrown back from the pin *o'* by means of the arm *q* and the released rear edge *t* of the gate thrown outward by the outward turning of the pivoted support G, which will cause the inward movement of the front edge *u* of the gate by the resulting swinging movement of the pivoted brace H until the gate is brought to the position shown in Fig. 4, with the catch I in locked engagement with the pin D. In closing the gate F from the position shown in Fig. 4 the catch I is to be thrown back to release the pin *o* from the notch *n'*. Then, by swinging the support G inward the front edge *u* of the gate will be carried outward, while the rear edge of the same will be carried inward until the pin *o'* at the rear edge *t* of the gate comes into locking engagement with the notch *n* of the catch I, as shown in Fig. 3.

It is to be understood that I do not limit my invention to a gate which extends rear-

ward from the pivoting-points *c c*, as the front portion of the gate can be made to have a rear edge at or near the pivoting-points, as shown by the dotted lines *V*, and in this case the space between the horizontal arms *b b'* of the swinging support *G* can be provided with a wire-netting, if desired, as is shown in the pivoted front portion of the gate, or can be otherwise filled in in any suitable manner.

I claim as my invention—

1. A gate for railway-cars or other purposes, jointed to a swinging support and to a pivoted brace, whereby in operating the gate to either open or close the same one edge of the gate will be moved in a direction oppo-

site to that of the other, substantially as described.

2. A gate for railway-cars or other purposes, jointed to a swinging support and to a pivoted brace, and provided with a spring-operated catch for locking the gate in position, substantially as described.

3. A gate for railway-cars, jointed to a swinging support and to a pivoted brace, which turns downward at the corner of the car and forms the hand-rail, substantially as described.

JOHN B. WOOD.

Witnesses:

JOHN F. MURRAY,  
SOCRATES SCHOLFIELD.