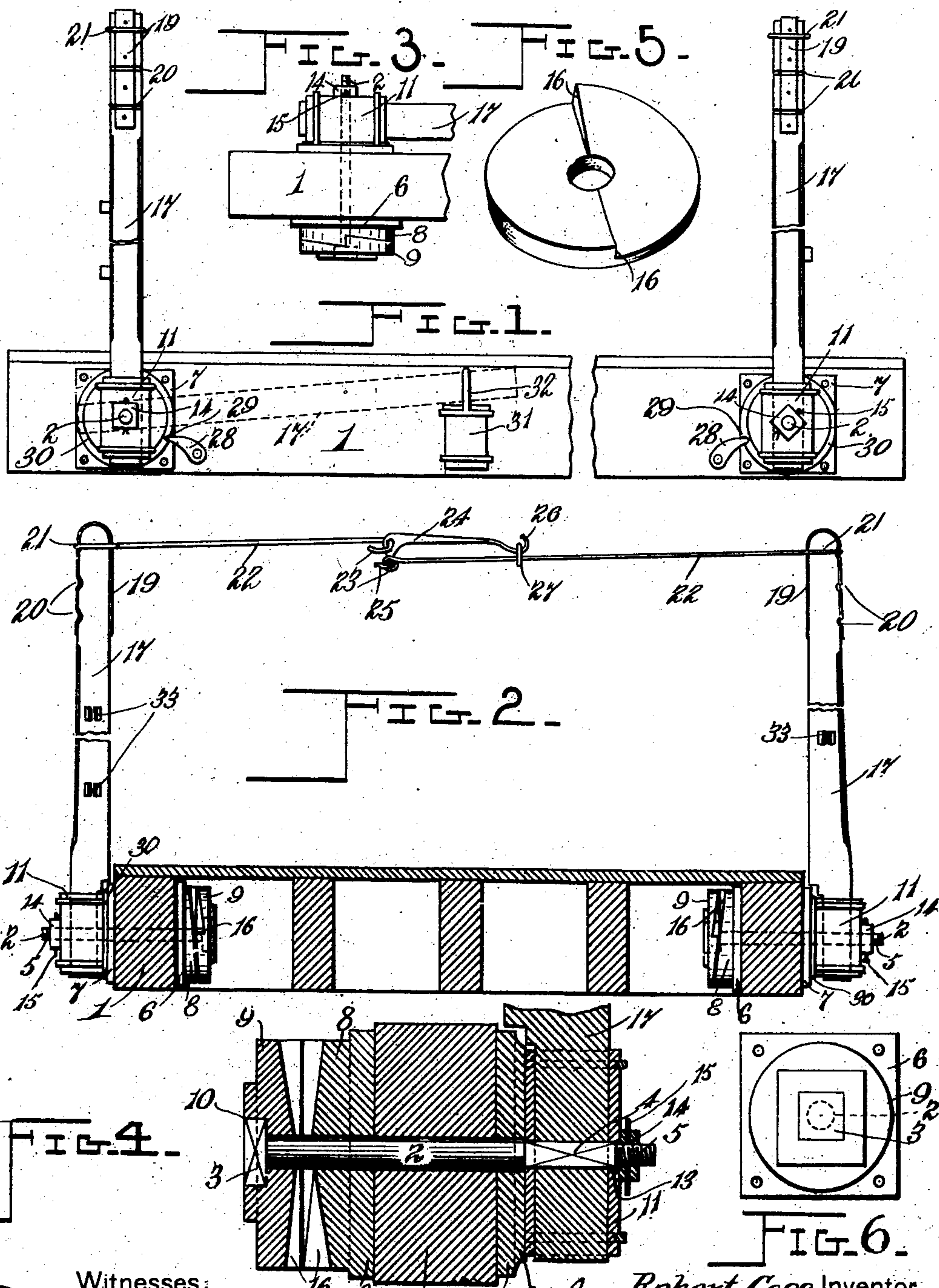


No. 814,777.

PATENTED MAR. 13, 1906.

R. GASS.  
RAILWAY CAR.

APPLICATION FILED AUG. 19, 1905.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

ROBERT GASS, OF SHUBENACADIE, CANADA.

## RAILWAY-CAR.

No. 814,777.

Specification of Letters Patent.

Patented March 13, 1906.

Application filed August 19, 1905. Serial No. 274,843.

*To all whom it may concern:*

Be it known that I, ROBERT GASS, a subject of the King of Great Britain, residing at Shubenacadie, Hants county, in the Province of Nova Scotia, Canada, have invented certain new and useful Improvements in Railway-Cars; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in stake-pockets and binding devices for railway-cars, trolley-sleds, wagons, cars, and other vehicles; and it consists in features hereinafter described.

The object of the invention is to provide a device of the character described which will serve as a movable stake-pocket, in which side stakes for flat-cars and other vehicles may be placed, which stakes will draw tightly to the car when in an elevated position and which stakes will be projected laterally from the car from the instant that they are moved out of a perpendicular position, whereby the stakes will release themselves or draw away from the load carried upon said car or other vehicle.

The invention consists in the combination and arrangement of parts which are shown in the accompanying drawings, all as hereinafter more fully described, and particularly pointed out in the claims, it being understood that said drawings illustrate the preferred construction, which may be departed from in the form, proportion, and minor details of parts therein shown within the scope of the claims without sacrificing any of the advantages of the invention.

In the accompanying drawings, in which similar characters of reference indicate corresponding parts in all the views, Figure 1 is a broken side elevational view of a car or wagon platform equipped with the present invention. Fig. 2 is a transverse sectional view of a car or vehicle equipped with the same with the stake and appurtenant connections shown in a relatively exaggerated size. Fig. 3 is a plan view showing the side sill of a car equipped with the present invention with the stake thrown to a horizontal position. Fig. 4 is an exaggerated transverse central view taken relatively on line 4-4 of Fig. 1. Fig. 5 is a perspective view of one of the cam-plates, hereinafter referred to; and Fig. 6 is a face view of the stationary cam-plate, hereinafter re-

ferred to, and which affects the position of the side stake, hereinafter referred to, which stake is shown separate from its stake-pocket, but which may be formed of wood or of metal and integral with the stake-pocket, if desired.

Referring to the parts, 1 1 indicate the side sills of a car or other vehicle to which the present invention is to be applied. These sills are perforated for the passage transversely through said sills of the bolts or pins 2, which bolts are provided with the squared heads 3, with the squared portions 4 near their opposite ends and with the round screw-threaded end portions 5.

Secured to the inner faces of the side sills 1 are cam-plates 6, (shown detached in Fig. 6,) which cam-plates are provided with perforations, through which securing bolts or screws may be passed to lock said plates rigidly in position upon said side sills. On the opposite or outer face of the side sills are secured rub-plates 7.

The cam-plate 6 is provided with a cam 8, projecting inwardly therefrom, as shown, and cooperating with the cam 8 is a rotatable cam 9, which is provided with a recess 10 in its inner face, in which recess is seated the squared-head portion 3 of the bolt 2. Carried upon the squared portion 4 of said bolt 2 is a stake-pocket 11, which may be of any desired shape. This stake-pocket is provided with squared openings 13 in the inner and outer faces thereof, which openings 13 coincide with the squared portion 4 of the bolt or pin 2, so that the stake-pocket and pin are locked against independent rotation. Beyond the squared portion 4 of the pin the screw-threaded portion 5 is perforated, and upon the screw-threaded portion there is secured a nut 14, which nut is provided with perforations for the passage of the cotter or pin 15, adapted to lock said nut 14 upon the screw-threaded portion 5 of the pin. The cams 8 and 9 are provided with shoulders 16, which are adapted to serve as stops to prevent excessive rotation of the pin 2.

Seated in the stake-pocket 11 is a mortised stake 17, which projects slightly in a direction toward the side sills, as best shown in Fig. 2, so that the inner faces of said stakes will just clear said side sills when thrown to the dotted position shown in Fig. 1. The upper portions of the stakes 17 are bound with strap-iron 19 and provided with recesses adapted to serve as stops for the yokes 21 of the binding-rods 22, which are adapted to pass



above and across the load carried upon the car or other vehicle. These wires or binding-rods are connected with the yokes 21 and are of such length that they meet above the load upon the car. Both of these rods are provided with loops 23 at their meeting ends. In one of the loops 23 there is supported a lever 24, of metal, which lever is provided with a depending hook 25, adapted to interlock with the loop 23 opposite to that upon which said lever is supported. The free end of the lever 24 is provided with a hooked portion 26, and slidable upon the rod with which said lever is adapted to interlock is a ring or loop 27, and when said lever is thrown to the position indicated in Fig. 2 said ring 27 is slipped over the hook 26, thereby binding the lever 24 in its locked position.

Supported in convenient proximity to the stake-pockets 11 are pawls 28, which are adapted to interlock with notches 29 in the rub-plates 30, which rub-plates are movable with the stake-pockets 11, so as to assist in holding the stakes in a perpendicular position.

When the stakes are thrown to the relatively horizontal position shown by dotted lines in Fig. 1, the shoulders 16 of the opposing cams will serve to support said stakes; but to prevent strain upon these cams I provide a carrier 31, formed of an ordinary stake-box with an upwardly-projecting finger 32, which serves as a guide for the stake 17 when thrown to a lowered position. This stake-pocket 31 will serve as a pocket for an ordinary stake adapted to cooperate with the stake 17 before referred to.

Connected with the stake 17 are spring-clips 33, which are adapted to serve as securing means for holding the binding-rods 22 when said rods are out of commission.

The operation of the device is as follows: The car or other vehicle being equipped with the features hereinbefore referred to and the cams 8 and 9 properly positioned, it is evident that if a stake-pocket is secured upon the square portion 4 of the bolt or pin 2 and a stake placed in said stake-pocket, if the stake is carried to a vertical position, the projecting cam-faces 8<sup>a</sup> and 9<sup>a</sup> of the cams 8 and 9 will bear against each other, thereby forcing the cam 9 inwardly and carrying with it the stake-pocket 11 in a direction toward the side sills 1 of the car, thereby binding the stakes 17 closely against the load carried by the car. When the stakes are in this vertical position, the binding-rods before referred to may be connected, and when the stakes are carried from the vertical position it is evident that the bevel of the cams will permit the stakes 17 to pass laterally outwardly from the car, so as to clear the load upon said car.

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

1. In a railway-car, a side sill, a pin projecting through said sill, a stake-pocket connected with said pin on one side of said sill, a cam rotatable with said pin, and a cooperating cam through which said pin passes.

2. In combination with a railway-car having a side sill, a plate disposed on one side of the sill and provided with cam-surfaces, a stake-pocket disposed on the opposite side of the sill, a pin projected through the sill and the plate and adapted to rotate the pocket, and means on the pin adapted to contact with and slide on said cam-surface for moving the pocket laterally.

3. In a railway-car, a rockable stake-pocket, means for supporting said pocket, and cooperating cams for projecting said pocket laterally of the car when said stake is rocked to predetermined positions.

4. In a device of the character described, a rockable pin, a stake-pocket connected with said pin, a cam near the opposite end of the pin, and a second cam adapted to be secured to a car.

5. In a railway-car, a side sill, a cam mounted on said sill, a pin projecting through said sill and cam, a cooperating cam movable with said pin, and a stake-pocket also movable with said pin.

6. In a railway-car, a side sill, a cam mounted on said sill, a pin projecting through said sill and cam, a cooperating cam movable with said pin, a rub-plate on said sill, a cooperating plate movable with said pin, and a stake-pocket also movable with said pin.

7. In a railway-car, rockable supporting members, stake-pockets connected with said supports, stakes in said pockets, cams on said car, and cooperating cams on said rockable members.

8. In a railway-car, rockable supporting members, stake-pockets connected with said supports, stakes in said pockets, cams on said car, cooperating cams on said rockable members, and means for supporting said stakes in vertical position.

9. In a railway-car, rockable supporting members, stake-pockets connected with said supports, stakes in said pockets, cams on said car, cooperating cams on said rockable members, tie-rods connected with said stakes, and a locking means.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

ROBERT GASS.

Witnesses:

N. M. MOSHER,  
R. W. MACLELLAN.