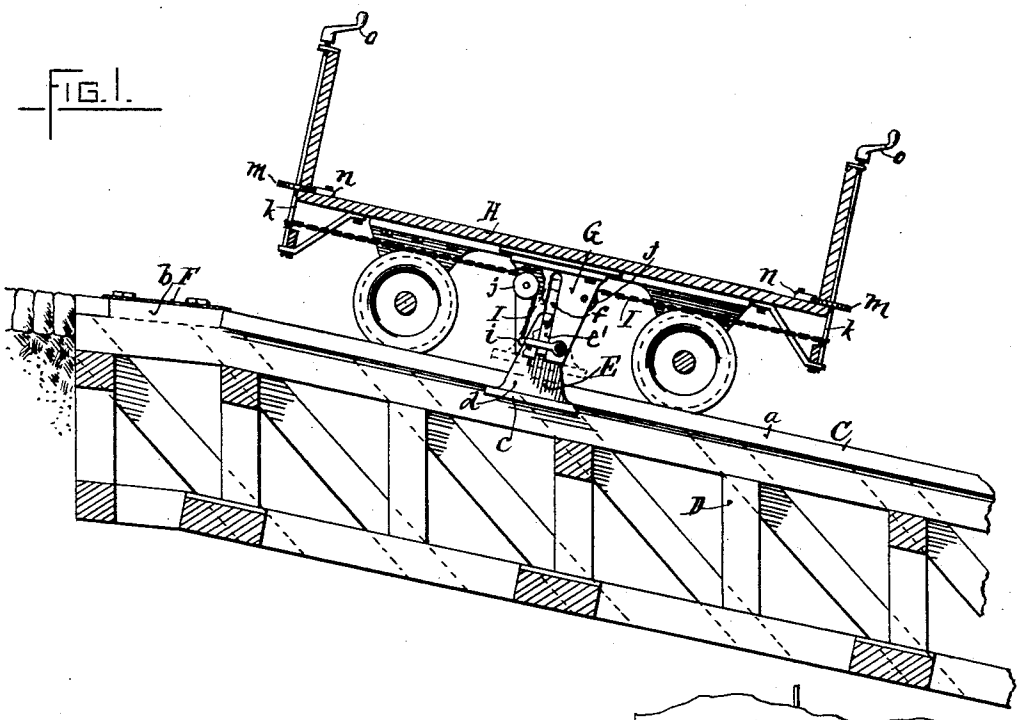
(No Model.)

G. HANCOCK.

SAFETY BRAKE FOR INCLINED RAILWAYS.

No. 590,544. Patented Sept. 21, 1897.

FIG. 1.



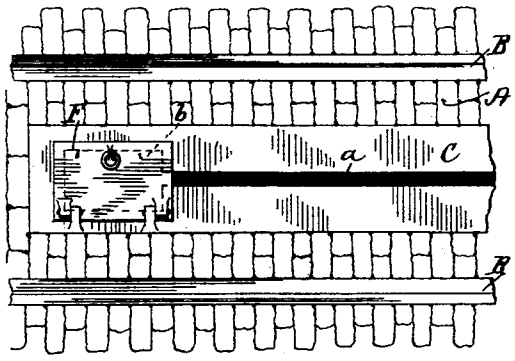


FIG. 2.

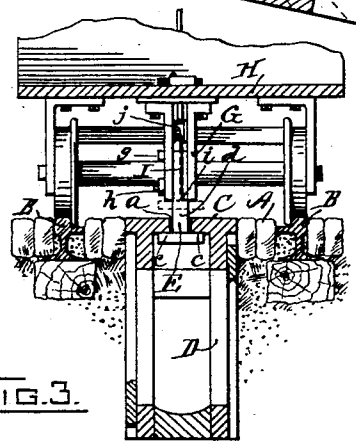


FIG. 3.

WITNESSES:

Harry J. Gaccan.

James Thomsen Jr.

FIG. 4.

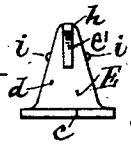
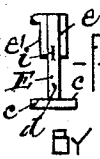


FIG. 5.



INVENTOR:

George Hancock.

BY

S. Scholfield.

ATTY

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE HANCOCK, OF PROVIDENCE, RHODE ISLAND.

SAFETY-BRAKE FOR INCLINED RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 590,544, dated September 21, 1897.

Application filed March 31, 1897. Serial No. 630,174. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HANCOCK, a citizen of the United States, residing at Providence, in the State of Rhode Island, have invented a new and useful Improvement in Safety-Brakes for Inclined Railways, of which the following is a specification.

The nature of my invention consists in the employment upon the car of a brake-shoe having lateral flanges which engage with the under side of a grooved brake-track arranged centrally of the road-bed, as hereinafter fully set forth.

In the accompanying drawings, Figure 1 represents a vertical section of the inclined road-bed and the car. Fig. 2 represents a top view of a portion of the road-bed, showing the grooved brake-track. Fig. 3 represents a transverse section of the car and the road-bed. Fig. 4 represents a side view, and Fig. 5 an edge view, of the brake-shoe separate from the brake-shoe holder of the car.

In the drawings, A represents the road-bed, B B the rails, and C the grooved brake-track arranged centrally of the road-bed between the rails, the said brake-track being formed with a groove *a* and supported and held in place by means of a framework D. At the end of the inclined brake-track C is arranged the opening *b*, through which the brake-shoe E may be inserted or withdrawn, the said opening being closed by means of the trap-door F. The brake-shoe E is provided at its lower end with the lateral flanges *c c*, which serve to engage with the brake-track C at opposite sides of the groove *a*, which groove is made slightly wider than the thickness of the plate *d* of the brake-shoe. The brake-shoe E is provided with the guides *e e'*, which are adapted to enter the guide-slots *f f* of the brake-shoe holder G, attached to the bottom of the car H, the said brake-shoe being also provided with the projecting lug *g*, which by coming in contact with the pivoted latch *h* will serve to prevent the brake-shoe from accidentally passing out of the brake-shoe holder G. To the eye *i*, at the opposite edges of the guiding-plate *d* of the brake-shoe, are attached the brake-chains I I, which pass over the rollers *j j* and thence to the upright brake-shafts *k k* at the opposite ends of the car, the said shafts *k* being provided with the ratchet-wheels *m*, which in connection with the pawls *n* serve to hold the brake-shoe E in its raised position. A trap-door F is also to be placed at the lower end of the grooved brake-track as well as at the upper end, whereby a car passing in either direction may have its brake-shoe E lowered from its position over the road-bed, as shown by the dotted lines in Figs. 1 and 3, to enter the opening *b* and pass to a position below the brake-track C for action thereon in case the brake is required for stopping the car upon the inclined railway, and when the car is being moved by suitable power up the inclined railway the brake-shoe is to be held in its disengaged lower position, in which it may either be retained by means of the ratchet-wheel *m* and pawl *n* or by means of the engagement of the lug *g* with the latch *h*, and when it is required to apply the brake then by turning in the proper direction upon the handle *o* of the brake-shaft *k* the brake-shoe will be raised to frictional contact with the under side of the brake-track C to hold the car in a fixed position on the rails.

I claim as my invention—

The combination of the grooved brake-track, with the car, and the brake-shoe provided with the lateral flanges at its lower end which engage with the brake-track at opposite sides of the groove, the slotted brake-shoe holder attached to the car, means for holding the brake-shoe in the slotted holder, and means adapted for raising the brake-shoe into contact with the under side of the grooved brake-track, and also for raising the brake-shoe to a position above the track out of the groove, substantially as described.

GEORGE HANCOCK.

Witnesses:

SOCRATES SCHOLFIELD,

JAMES THOMSON, Jr.