(No Model.)

A. DU BOIS.

SLOT BRAKE.

No. 422,923. Patented Mar. 11, 1890.

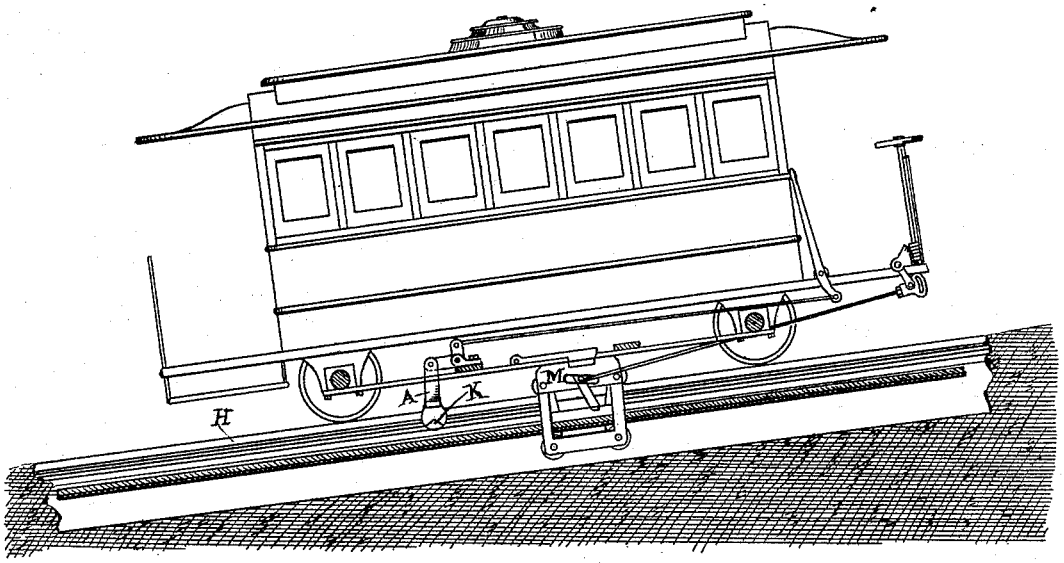

Fig. 1.

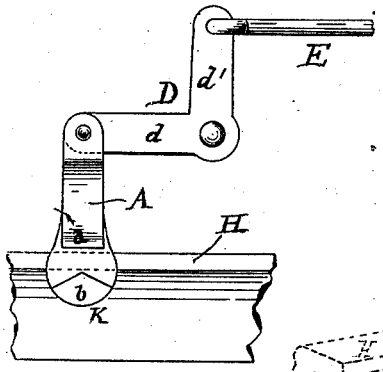

Fig. 3.

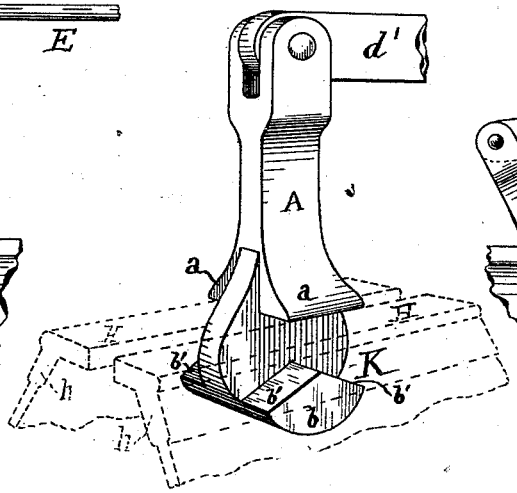

Fig. 2.

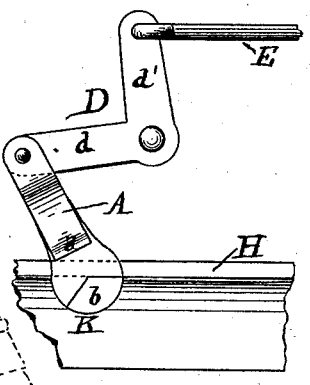

Fig. 4.

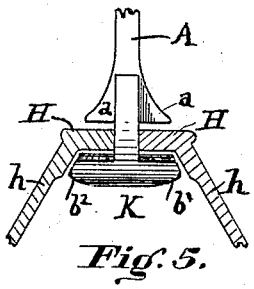

Fig. 5.

Attest.
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UNITED STATES PATENT OFFICE.

ADOLPH DU BOIS, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF TO FRANK TUCHFARBER, OF SAME PLACE.

SLOT-BRAKE.

SPECIFICATION forming part of Letters Patent No. 422,923, dated March 11, 1890.

Application filed November 28, 1887. Serial No. 256,280. (No model.)

To all whom it may concern:

Be it known that I, ADOLPH DU BOIS, a citizen of the United States, and a resident of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Slot-Brakes for Cable Railways, of which the following is a specification.

The several features of my invention and the advantages arising from their use, conjointly or otherwise, will be apparent from the following description.

In the accompanying drawings, forming part of this specification, Figure 1 is an elevation of a cable car ascending a hill, illustrating the application of my invention. Fig. 2 is a perspective view of the brake, its relation to the track being shown by dotted lines. Fig. 3 shows the brake out of operation. Fig. 4 illustrates the brake dropped and caught. Fig. 5 is an edge elevation of the brake applied to and in the slot of the cable road, the sides of said slot being shown in section, each of the lower lugs of the brake being extended out, so that when the brake is caught these lugs will engage the upper portion of the sides as well as the under surface of the top of the cable-archway.

The brake proper consists of a shaft A, having an enlarged head K. From each side of the shaft A, about the beginning of the head K, there projects a shoulder or offset *a*, whose edges are preferably square, but may be rounded off. A lug *b* projects from each side of the head K. The upper faces *b'* of these lugs *b* are so inclined to each other as to form an upwardly-projecting angle.

The brake is swung from the bottom of the car, its point of attachment being capable of being raised and lowered slightly. The preferred device for this is the bell-crank D, from whose horizontal arm *d* the brake is swung, and to whose vertical arm *d'* a rod E is attached, and which leads to operating mechanism at the front platform.

The slot in a cable road has on each side an iron plate or flange H, which is of the same thickness along the whole track. When my device is in position, the head K fits in the slot, with the plates H on each side projecting between the shoulder *a* and lug *b*. The space between the lug *b* and shoulder *a* is sufficient to allow free movement of the brake.

When it is desired to bring the brake into operation, the bell-crank is moved so that the brake is lowered slightly. This causes the shoulder *a* to drag against the iron H and to retard the end of the brake, which in this way is caused to jam, as shown in Fig. 4, the irons H being caught between the lugs *b* and shoulders *a*. After the brake has in this way grasped the irons H it holds the car steady, very little, if any, slipping occurring.

Since the brake may swing in both directions, it operates to stop the car whether it be moving forward or dropping backward down a hill.

Where the upper portion of the archway of the cable road is constructed substantially as shown in Fig. 5, with side flanges *h* near the horizontal flanges H, the lugs *b* may be provided with side extensions b^2, extended out horizontally such a distance that when the brake is caught and the lugs *b* are elevated so as to engage with the under side of the flanges H the extension or end b^2 will engage the flange *h* which is on its side of the slot in the road. In this way greater friction may be secured, and the strain upon the flanges H on each side of the slot will be diminished and the strain be more generally distributed.

The brake is preferably located nearer the longitudinal center of the car than shown in Fig. 1. In that figure it is shown as located toward the rear in order to prevent it being confused with the cable-gripping device M.

This invention is also applicable to other moving devices where a stationary slotway is provided wherein my brake can be applied, as an inclined plane for cars, elevators, and the like.

What I claim as new, and desire to secure by Letters Patent, is—

1. A slot-brake provided with laterally-projecting lugs respectively located above and below the flanges of the slotted rail or track

and vibrating forward and backward in the direction of the length of the track, substantially as and for the purposes specified.

2. The combination of the shaft A, enlarged head K, shoulders *a*, and lugs *b*, substantially as and for the purposes specified.

3. The combination of shaft A, enlarged head K, shoulders *a*, and lugs *b*, having inclined faces *b'*, substantially as and for the purposes specified.

4. The combination of vibrating shaft A, enlarged head K, shoulders *a*, and lugs *b*, bell-crank D, and rod E, and means for operating rod E, substantially as and for the purposes specified.

5. The combination of the shaft A, enlarged head K, shoulders *a*, and lugs *b*, the latter provided with the extensions b^2, substantially as and for the purposes specified.

ADOLPH DU BOIS.

Attest:
A. L. HERRLINGER,
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