Sept. 13, 1949. A. B. BELL 2,481,970

HORIZONTALLY ADJUSTABLE FOOT RAIL

Filed Oct. 29, 1945 2 Sheets-Sheet 1

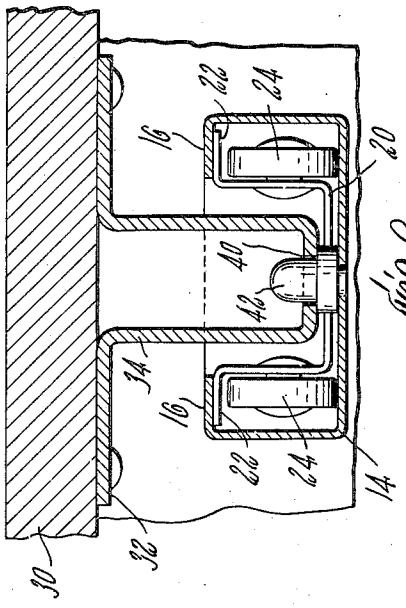


Fig. 2.

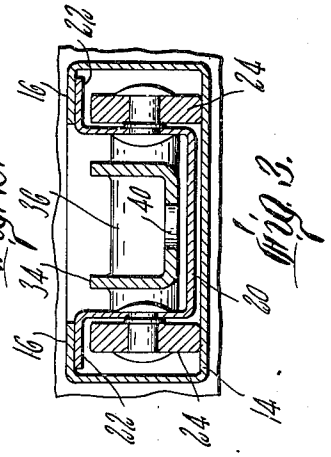


Fig. 3.

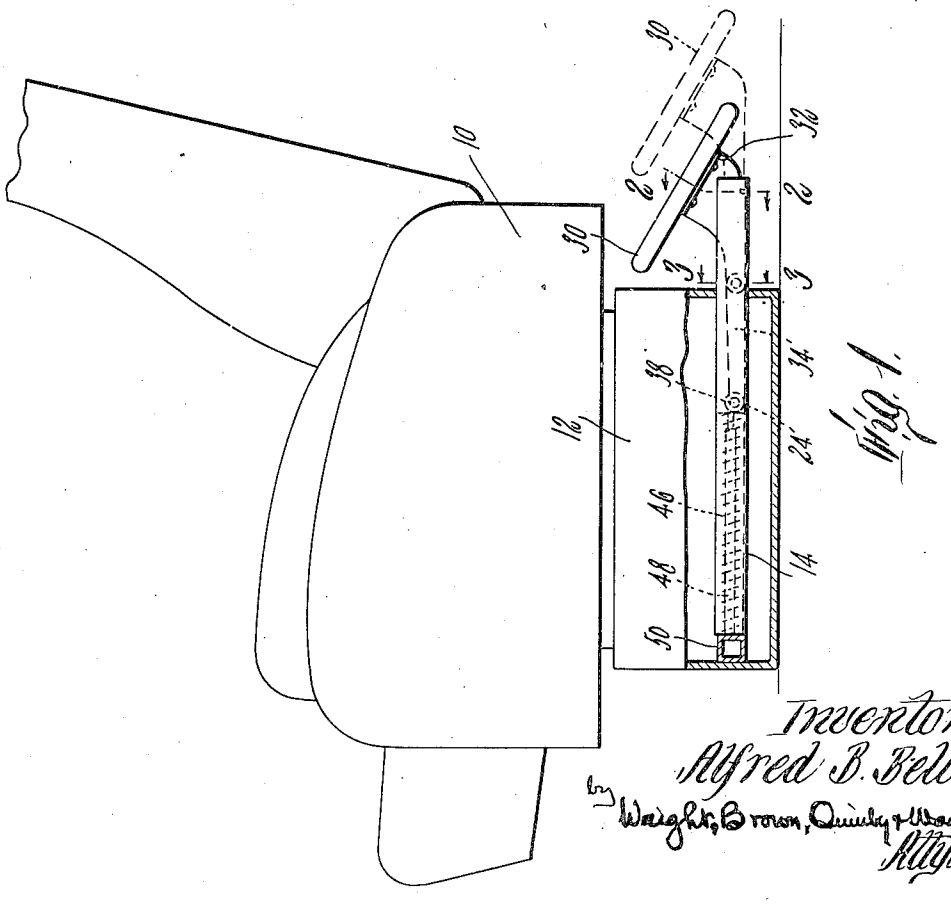


Fig. 1.

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HORIZONTALLY ADJUSTABLE FOOT RAIL

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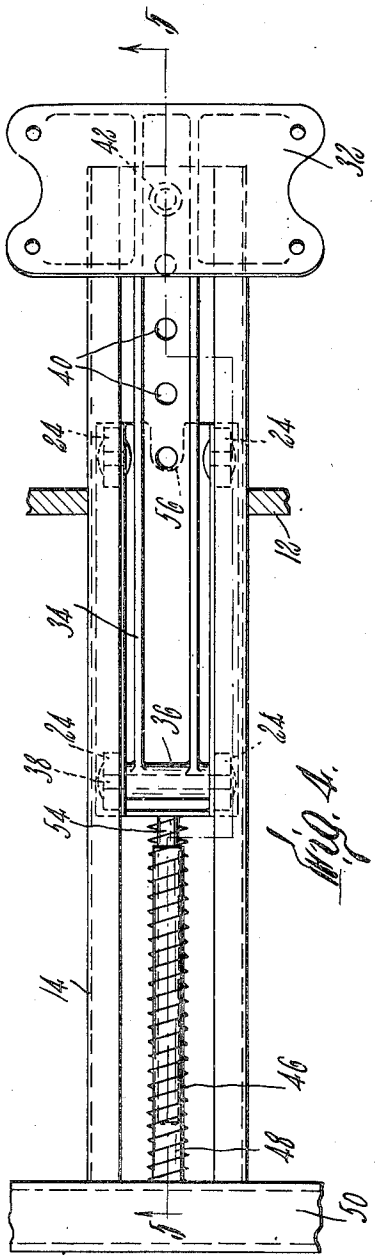


Fig. 4.

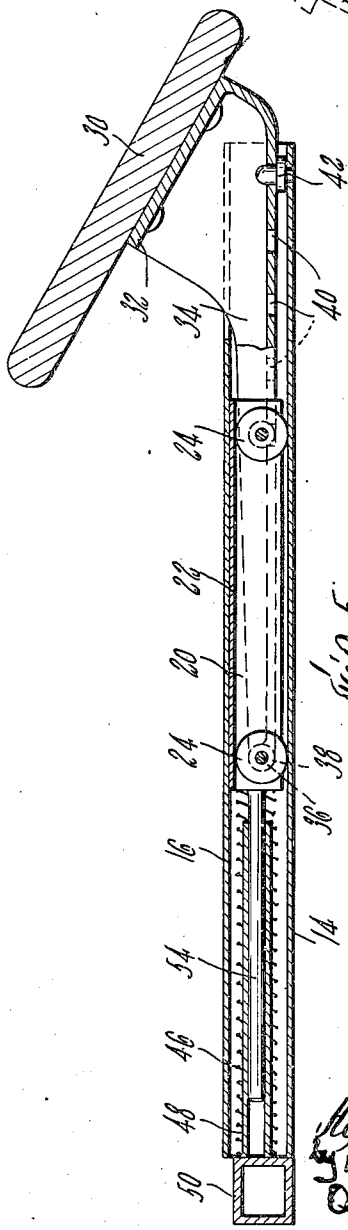


Fig. 5.

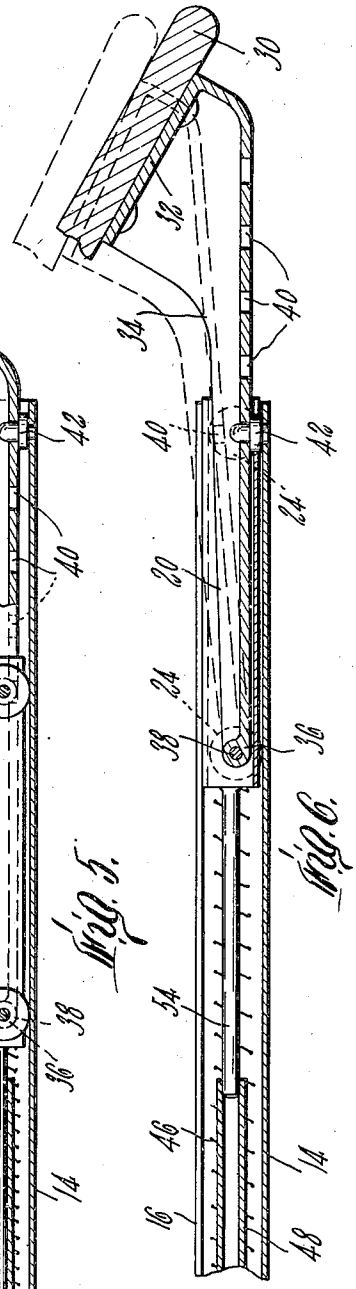


Fig. 6.

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UNITED STATES PATENT OFFICE

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HORIZONTALLY ADJUSTABLE FOOTRAIL

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Application October 29, 1945, Serial No. 625,132

6 Claims. (Cl. 155—170)

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This invention relates to a foot rail mounted in the base or pedestal of a vehicle seat, the rail being adjustable in a horizontal direction toward the front or toward the rear.

It is an object of the invention to provide a foot rail for the use of the occupants of the seats behind the pedestal which carries the rail, the foot rail being simple in structure and easily adjusted to any one of a series of positions so as to accommodate passengers of different sizes. According to the invention, the foot rail is mounted on a bracket which can be swung slightly upward to release it for purposes of adjustment. This can be done by hooking the toe or heel of the user under the lower edge of the foot rail. When the rail is thus elevated, it can be pushed forward against a spring to any position within its range of adjustment or can be moved toward the rear by the spring.

For a more complete understanding of the invention, reference may be had to the description thereof which follows and the drawings, of which:

Figure 1 is a side elevation of a conventional vehicle seat such as is in common use in railway cars and the like, the base of the seat having a foot rail mechanism mounted therein embodying the invention;

Figure 2 is a section on the line 2'—2 of Figure 1;

Figure 3 is a section on the line 3—3 of Figure 1;

Figure 4 is a plan view of the foot rail mechanism without the rail itself;

Figure 5 is a section on the line 5—5 of Figure 4, including the rail which is not shown in Figure 4;

Figure 6 is a fragmentary section, similar to Figure 5 but showing the parts in a different position of adjustment.

Figure 1 illustrates a conventional railway seat generally indicated at 10 having a pedestal 12 in which is installed a foot rail mechanism embodying the invention. This may comprise a track 14 consisting of a channel member having inturned flanges 16 along the upper edges thereof, as indicated in Figures 2 and 3. Within the track is mounted a carriage 20 which may also be in the form of a channel member having out-turned flanges 22 engaging under the flanges 16 so as to retain the carriage within the channel 14. On this carriage are mounted four wheels 24 which run on the bottom of the track 14 so that the foot rail and its bracket travel with little friction. The foot rail 30 may consist of an elongated board or

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other flat member mounted on a suitable bracket 32 having a channeled arm 34 extending forward to a hub member 36 which is rockably mounted on a shaft 38. On the shaft 38 may also be mounted the forward pair of wheels 24. The arm 34 is provided with a series of holes 40 in its bottom arranged to fit over a fixed pin 42 which is mounted in the bottom of the track 14 near its rear end. When the foot rail and its bracket are swung upward to the position shown in dotted lines in Figure 6, the holes in the bracket are clear of the pin 42. The foot rail and its bracket are then free to travel with the carriage 20 to which the bracket is hinged. These members can be pushed forward until the foot rail is in the desired position of adjustment whereupon it is allowed to descend by gravity so that the pin 42 will enter the nearest hole 40. A spring 46 is mounted on a telescoping guide consisting of a tube 48 fixed to a transverse member 50 on the wall of the pedestal, and rod 54 fixed to the carriage 20 slides within the tube 48. This spring presses the carriage 20 toward the rear to facilitate rearward adjustment of the foot rail when the latter is raised to release its bracket from the pin 42. The rear end of the carriage 20 is preferably notched as at 56 so as to avoid interference with the pin 42 when the foot rail is moved to its rearmost position of adjustment.

Various modifications and changes may be made in the particular embodiment of the invention herein shown and described without departing from the scope thereof as defined by the following claims.

I claim:

1. An adjustable foot rail for the pedestals of vehicle seats and the like, comprising a horizontal track mounted on a pedestal in a front to rear direction, a carriage adapted to travel a limited distance on said track, spring means pressing said carriage toward the rear, a bracket hinged to said carriage and projecting rearwardly therefrom, said bracket having a series of holes longitudinally spaced in the bottom thereof, an upstanding pin mounted on said track near the rear end thereof and adapted to enter any of said holes to lock the carriage against movement, and a foot rail secured to the rear end of said bracket, said bracket being rockable about its hinge axis to release itself from said pin.

2. An adjustable foot rail for the pedestals of vehicle seats and the like, comprising a channel member with inturned flanges mounted on a pedestal and extending from front to rear, a carriage within said channel members, said carriage com-

prising a channel member having out-turned flanges engaging under said in-turned flanges and wheels bearing on the bottom of the first said channel members, a bracket hinged at its forward end to the forward end of the carriage and projecting to the rear of said carriage, said bracket having a series of longitudinally spaced holes therein, an upstanding pin fixed on the first said channel members and adapted to enter any of said holes to lock said carriage against movement, and spring means pressing said carriage toward the rear.

3. An adjustable foot rail for the pedestals of vehicle seats and the like, comprising a substantially horizontal track secured to a pedestal and extending in a front to rear direction, a carriage movable on and along the track, a bracket disposed substantially parallel with the track and hinged at its forward end to the carrage for pivotal movement upwardly about a horizontal axis extending transversely of the track, a foot rail mounted on the rear end of the bracket, and interengaging means operatively associated with to the bracket and track rearwardly of the hinge axis for locking the bracket and carriage against movement along the track when the bracket is in its lowermost position but releasing the bracket and carriage for such movement when the bracket is elevated about said axis.

4. The combination defined in claim 3 plus guide means for the carriage including two telescoping members disposed parallel with the track and fixed respectively to the carriage and track.

5. The combination defined in claim 3 plus guide means for the carriage including two telescoping members disposed parallel with the track and fixed respectively to the carriage and track, and a compression spring on the guide means for moving the carriage rearwardly.

6. An adjustable foot rail for the pedestals of vehicle seats and the like, comprising a substantially horizontal track secured to a pedestal and extending in a front to rear direction, a carriage movable on and along the track, a bracket superposed above and paralleling the carriage and hinged at its forward end to the carriage for pivotal movement upwardly about a horizontal axis extending transversely of the track, a foot rail mounted on the rear end of the bracket, and means locking the bracket and carriage against movement along the track including a pair of upstanding lugs one mounted on each of the tracks rearwardly of the hinge axis, and walls forming a plurality of apertures in the bracket arranged in spaced relationship along the bracket to interengage the said lugs when the bracket is in its lowermost position but releasing the bracket and carriage for such movement when the bracket is elevated about said axis.

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