Sept. 30, 1941. A. E. BEESON 2,257,150

SWINGING FOOTREST

Filed Aug. 3, 1940 2 Sheets-Sheet 1

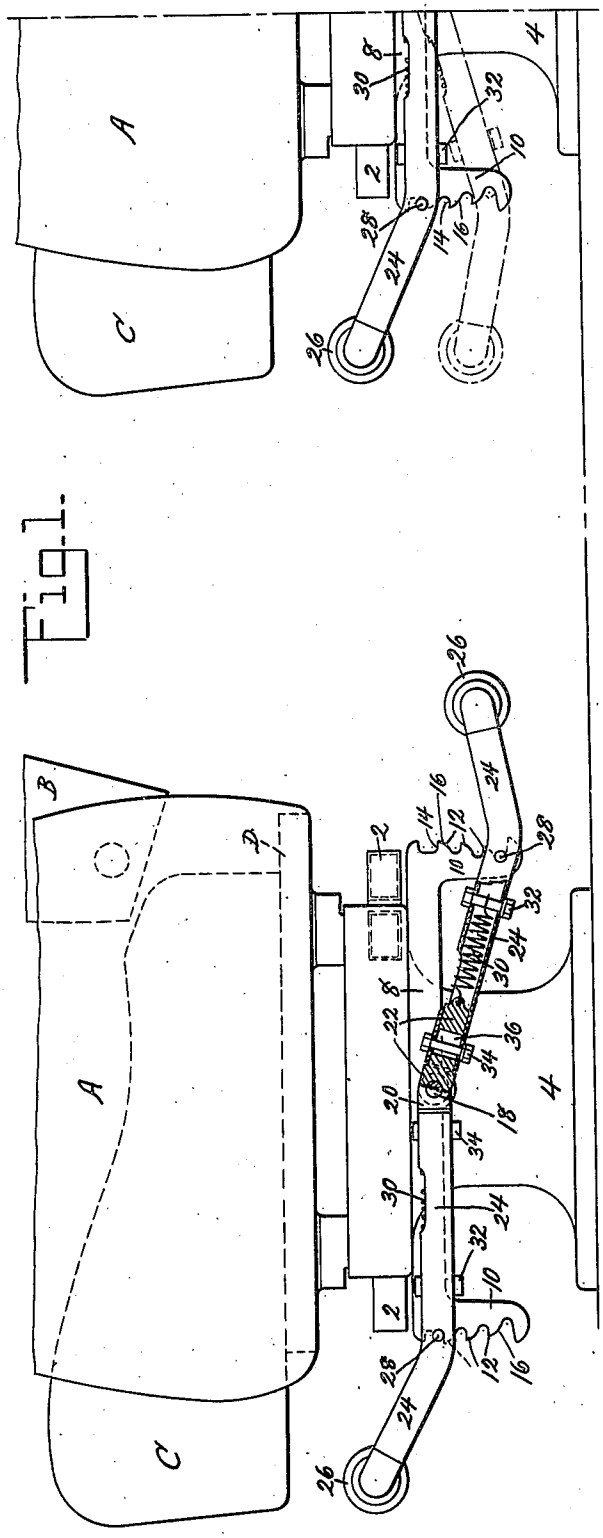


Fig. 1.

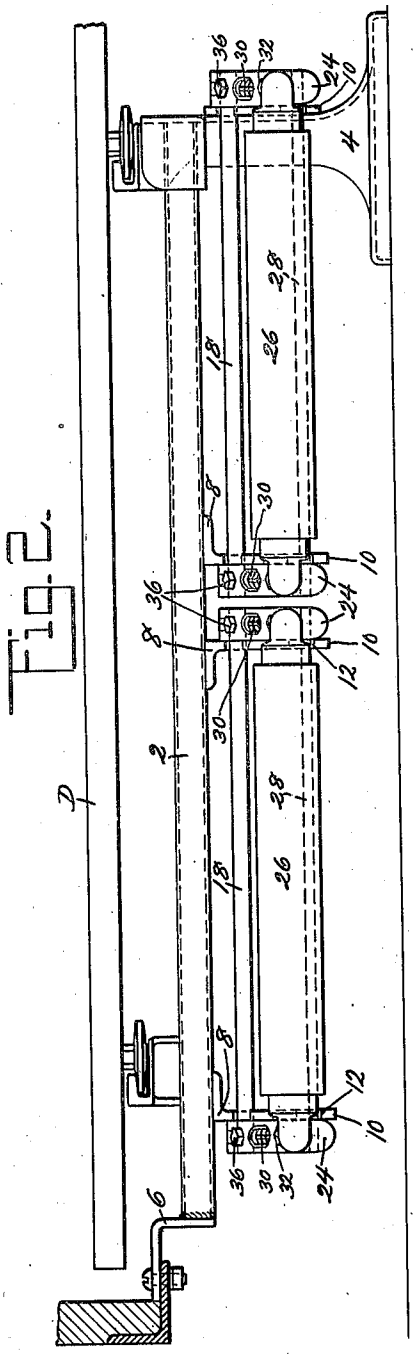


Fig. 2.

INVENTOR
Allen E. Beeson
BY
Donald U. Rich
ATTORNEY

Sept. 30, 1941. A. E. BEESON 2,257,150

SWINGING FOOTREST

Filed Aug. 3, 1940 2 Sheets-Sheet 2

Fig. 3.

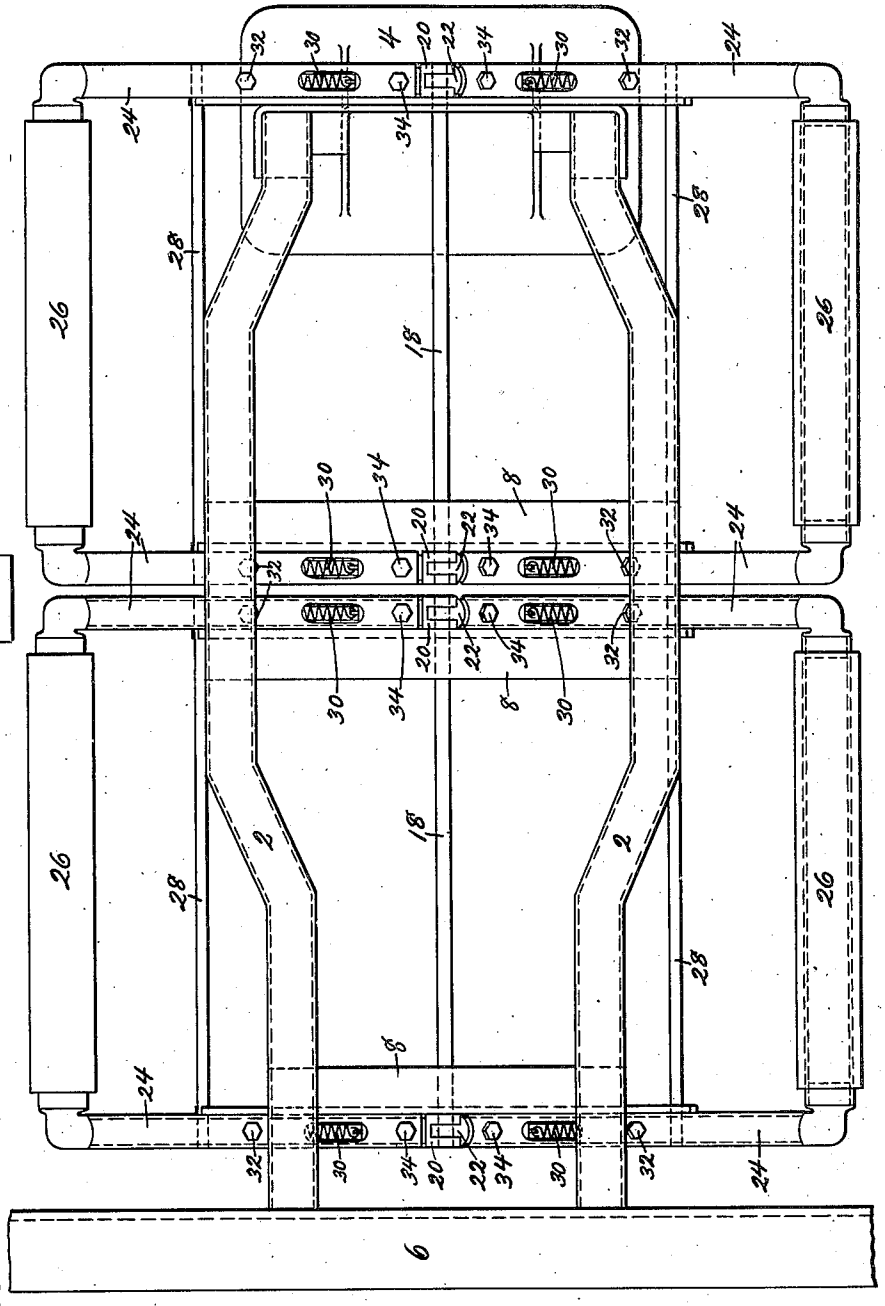
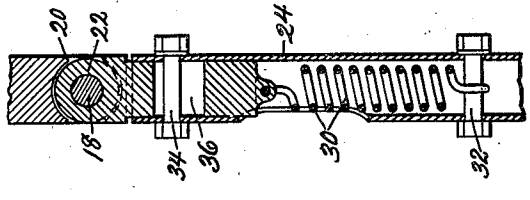


Fig. 4.



INVENTOR
Allen E. Beeson
BY
Donald U. Rich
ATTORNEY

Patented Sept. 30, 1941

2,257,150

UNITED STATES PATENT OFFICE

2,257,150

SWINGING FOOTREST

Allen E. Beeson, St. Charles, Mo., assignor to American Car and Foundry Company, New York, N. Y., a corporation of New Jersey

Application August 3, 1940, Serial No. 350,209

5 Claims. (Cl. 155—171)

This invention relates to foot rests in general and in particular to swinging foot rests for use with vehicle seats and has for one of its objects the provision of a simplified swinging foot rest adjustable in one operation to various vertical positions.

Another object of the invention is the provision of a swinging foot rest which may be adjusted by lateral sliding of the foot rest proper accompanied by a lifting or lowering thereof.

Still another object of the invention is the provision of a swinging foot rest automatically operable in at least one direction without conscious adjusting effort on the part of the operator.

These and other objects of the invention will be apparent to persons skilled in the art from a study of the following description and accompanying drawings, in which:

Figure 1 is a side view of adjacent seats with the improved foot rests applied thereto and with parts broken away to better disclose the construction;

Fig. 2 is a front view of the seat base and improved foot rests;

Fig. 3 is a plan view of the base frame with improved foot rests applied thereto, and

Fig. 4 is an enlarged detail sectional view of the automatic latching arrangement.

Referring now to the drawings in detail, it will be seen that the seat proper consists of side pieces A, swinging back B and seat cushion C, all mounted upon a platform D supported in any suitable manner upon the base frame. As indicated in the drawings, the seat proper is adapted to rotate on the seat base frame and the rotating mechanism may be of any suitable type such as that shown in Willoughby Patent 2,124,501. The seat base, as shown, is formed of side pieces **2** joined together at their outer ends by pedestal structure **4**, adapted to rest on the vehicle floor and joined at their inner ends by angle structure **6** adapted to be attached to the vehicle framing. The side pieces are also joined together by intermediate and end cross ties **8** adapted to extend outwardly beyond the side frames slightly and have their outer ends vertically elongated as at **10** to provide a plurality of teeth **12**. These teeth, as clearly shown, are formed with substantially horizontal ledges **14** approached by means of inclined back surfaces **16** to give a saw tooth effect.

The cross ties and pedestal member are provided with openings to receive a pivot rod **18** which, as shown, extends in two parts across the base frame, but it is obvious that this pivot rod may be formed in shorter or longer sections if such form is desired. Pivotally mounted on the pivot rod at spaced points are interengaging hinge elements **20** and **22** formed respectively with spaced jaws and projecting tongue engageable between the jaws and all held together and constituting pivot blocks pivoted on the pivot rod. Each of the hinge elements or pivot blocks is formed with a projection slidably engaged within a tubular arm **24**. The outer ends of adjacent tubular arms are joined together in pairs by a foot rest proper **26**, which may be of the circular padded type. The side arms are also joined together in pairs by a catch rod **28** rigidly attached to the side arms and adapted to engage the teeth on the cross members. In order to hold the side arms in tight engagement with the pivot blocks, tension springs **30** are provided having one end fastened to the adjacent pivot block and the other end fastened to a transverse bolt or pin **32** extending through the side arms of the foot rest. It will thus be seen that the tension springs constantly urge the side arms toward the pivot blocks with the result that catch rod **28** is constantly urged into engagement with the teeth **12** of the cross members, thereby retaining the foot rest in the desired position. Separation of the side arms from the pivot blocks is prevented by means of a transverse bolt or pin **34** extending through the side arms and through a slot **36** in the adjacent pivot block.

Due to the saw tooth shape of the cross member teeth, it is only necessary in moving the foot rest from a lower to a higher position to merely lift the same, in which case the catch rod **28** will work over the teeth in a ratchet pawl action until the foot rest has been moved to its desired upper position. In moving the foot rest to a lower position, it is only necessary to exert an outward pressure on the foot rest and accompany this with a downward pressure until such time as the foot rest reaches the desired position, after which release of the foot rest will cause it to assume a locked relation with respect to the teeth on the cross ties. Each of the foot rests, as clearly shown, is entirely independent of the other and may be adjusted to any desired position without affecting in any way the position of the other foot rest.

While the invention has been described more or less in detail, it will be apparent to persons skilled in the art that verious modifications and rearrangements of parts may be made and all

such modifications and rearrangements of parts are contemplated as will fall within the scope of the appended claims defining my invention.

What is claimed is:

1. A swinging foot rest assembly for a seat supported on a base frame and comprising, a pivot rod carried by said base frame, pivot blocks pivotally carried by said pivot rod, arms slidably carried by said pivot blocks and extending toward a side of said base frame, a foot rest portion joining together the ends of said arms remote from the pivot blocks, a rod connecting the intermediate portions of said arms, and toothed brackets carried by said base frame and engageable by said rod for supporting said arms in a plurality of predetermined positions.

2. A swinging foot rest assembly for a seat supported on a base frame and comprising, a pivot rod carried by said base frame, pivot blocks pivotally carried by said pivot rod, arms slidably carried by said pivot blocks and extending toward a side of said base frame, a foot rest portion joining together the ends of said arms remote from the pivot blocks, toothed brackets carried by said base frame, and means on said arms engageable with the teeth of said brackets to support the arms and foot rest in a plurality of predetermined positions.

3. A swinging foot rest assembly for a seat supported on a base frame and comprising, a pivot rod carried by said base frame, pivot blocks pivotally carried by said pivot rod, arms slidably carried by said pivot blocks and extending toward a side of said base frame, a foot rest portion joining together the ends of said arms remote from the pivot blocks, toothed brackets carried by said base frame, and means on said arms engageable with the teeth of said brackets to support the arms and foot rest in a plurality of predetermined positions, said means being engageable with and disengageable from the teeth of said brackets by movement of said arms laterally of the base frame.

4. A swinging foot rest assembly for a seat supported on a base frame and comprising, a pivot rod carried by said base frame, pivot blocks pivotally carried by said pivot rod, arms slidably carried by said pivot blocks and extending toward a side of said base frame, spring means secured to said pivot blocks and arms and urging the latter toward the blocks, a foot rest joining together the extremities of said arms remote from the pivot blocks, toothed brackets carried by said base frame, and means on said arms engageable with the teeth of said brackets to support the arms and foot rest in a plurality of predetermined positions, said means being normally held in engagement with the teeth of said bracket by said spring means.

5. A swinging foot rest assembly for a seat supported on a base frame and comprising, a pivot rod carried by said base frame, pivot blocks pivotally carried by said pivot rod, arms slidably carried by said pivot blocks and extending toward a side of said base frame, spring means secured to said pivot blocks and arms and urging the latter toward the blocks, a foot rest joining together the extremities of said arms remote from the pivot blocks, toothed brackets carried by said base frame, and means on said arms engageable with the teeth of said brackets to support the arms and foot rest in a plurality of predetermined positions, said means being normally held in engagement with the teeth of said bracket by said spring means, and said teeth being inclined on one side to cause said arms and foot rest to operate as a pawl during lifting of the foot rest.

ALLEN E. BEESON.