J. POLLAK.

FOOT REST FOR AUTOMOBILES.

APPLICATION FILED FEB. 13, 1919.

1,303,956. Patented May 20, 1919.

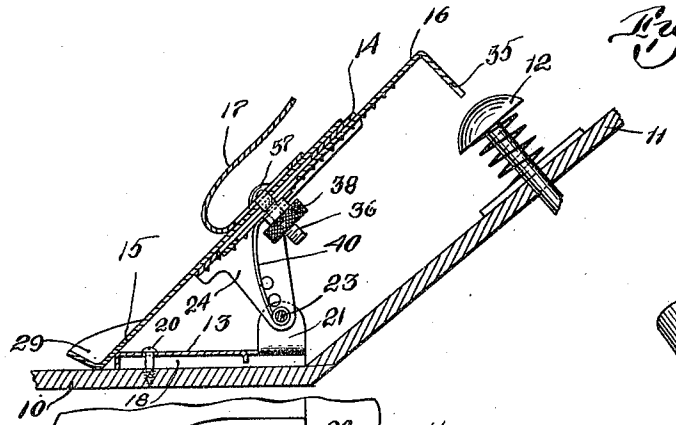


Fig. 1.

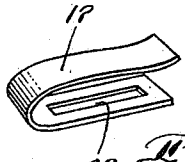


Fig. 10.

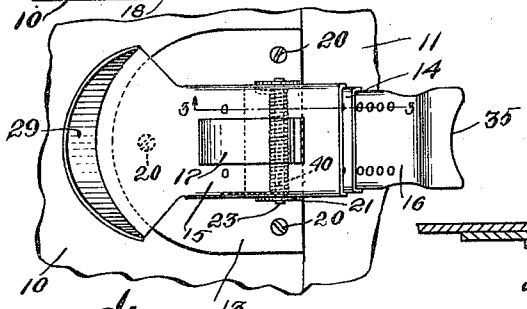


Fig. 2.

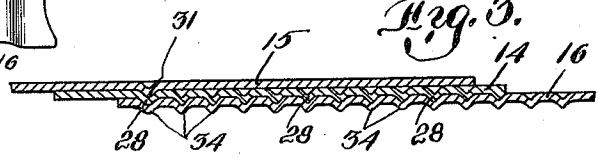


Fig. 3.

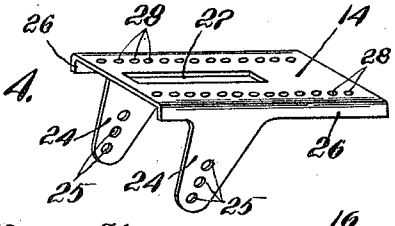


Fig. 4.

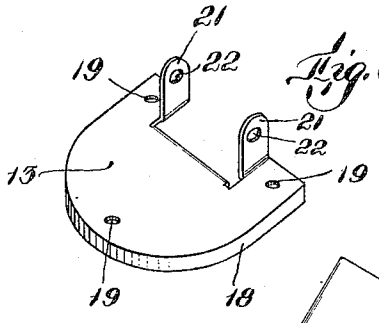


Fig. 6.

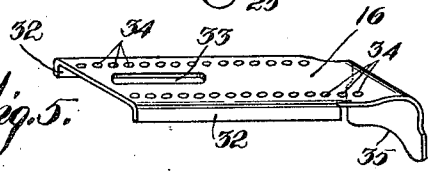


Fig. 5.

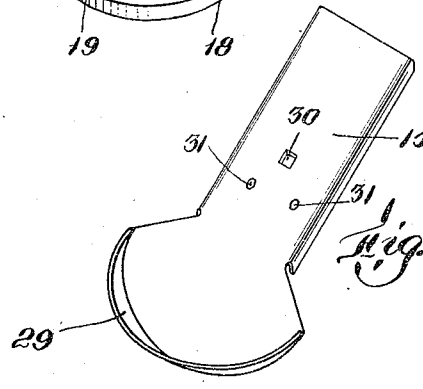


Fig. 7.



Fig. 9.

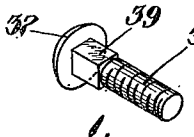


Fig. 8.

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UNITED STATES PATENT OFFICE.

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FOOT-REST FOR AUTOMOBILES.

1,303,956. Specification of Letters Patent. Patented May 20, 1919.

Application filed February 13, 1919. Serial No. 276,735.

To all whom it may concern:

Be it known that I, JOSEPH POLLAK, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Foot-Rests for Automobiles, of which the following is a specification.

This invention has reference to a foot rest adapted to be applied on the floor of an automobile body in a position to bear upon the accelerator and to transmit pressure from the latter from the foot of the driver. The thing here referred to as the "accelerator" is a contrivance with which most motor cars having internal combustion motors are equipped for controlling the throttle of the motor by pressure of the foot. It is cause of fatigue and discomfort to the driver, particularly in making long trips, if he is obliged to operate the accelerator by pressure of the unsupported sole of his foot, and the foot rest in which the present invention is embodied is provided in order to relieve the driver of this cause of fatigue and discomfort, by furnishing as an accessory to the car a permanent rest or holder for the foot having means through which pressure may be transmitted to the accelerator, such means being sufficiently rigid to transmit such pressure without applying a concentrated resistance against the sole of the operator's shoe.

A further object is to provide in a foot rest of the character indicated provisions for adjustment to fit feet of different lengths, adjustments to adapt the same foot rest to cars having different characters of accelerators differently positioned, to provide upon the rest a yielding support for the instep of the driver's foot, and in general to provide a simple device of this character having the characteristics above named and capable of being manufactured in large quantities at low cost.

In the drawings, Figure 1 is a sectional view of that part of an automobile floor upon which the foot rest is mounted and in which the motor accelerator is located, my approved foot rest being represented as applied thereto and shown in section.

Fig. 2 is a plan view of the foot rest so shown.

Fig. 3 is a longitudinal section of a part of the foot rest showing in detail the means employed for maintaining the adjustment of the adjustable parts.

Figs. 4, 5, and 6 are perspective views of some of the main parts of the foot rest separated from one another.

Fig. 7 is a similar view of the heel support.

Figs. 8 and 9 are perspective views respectively of the bolt and the thumb nut associated therewith for securing the adjustable parts in their adjusted positions.

Fig. 10 is a perspective view of the instep support.

The same reference characters indicate the same parts in all the figures.

In Fig. 1, 10 represents the floor of the automobile, 11 the upwardly inclined forward part of such floor, with which practically all motor cars are provided, which extends to the dash board. 12 represents the accelerator which is here conventionally shown and the showing of which may be taken as typical of any sort of a device which may be applied to any car for operation by the foot of the driver to control the speed of the motor either through the throttle or otherwise.

The foot rest is mounted upon the floor 10 and is composed of a base 13 which is secured to the floor, a rock frame 14 which is pivoted upon the base, and a heel rest 15 and presser 16 which are adjustably secured to the rock frame. There is also an instep support 17 which is a useful although not an essential part of the device. I claim it as a part of the invention but its use is optional and it may be omitted without departure from the essence of the invention or from the shelter of the protection which is given by certain of the following claims.

All of these parts are here shown as made of sheet metal, being so designed that they may be cut and stamped from sheet stock by punch and die work in a small number of operations and at a low cost for material and labor.

The base 13, which is shown in perspective in Fig. 3, is made from a single blank having such dimensions and area as will give the needed stable mounting, and its edges are turned down to form a lip or

flange 18 which bears against the automobile floor. It is provided with holds 19 to admit attaching screws 20. Near its forward end tongues are struck out from the material of the base between its sides and are perforated and bent up, forming lugs 21 having eyes 22 in which are mounted the ends of pivot pin 23 by which the rock frame is connected to it.

The rock frame 14, shown in perspective in Fig. 4, has wings projecting from its opposite edges in the blank, which wings are bent down to form supporting arms 24, each having a series of holes 25 through any one of which the pivot pin 23 may be passed whereby to permit of its being adjusted to different heights. The edges of the blank are likewise bent down throughout their entire length to form stiffening flanges 26. In this rock frame is a longitudinal slot 27 having substantially straight and parallel sides; and adjacent to its opposite edges are two lines of offset spots 28 which provide sockets in one surface of the piece and projections or spurs from the opposite surface. These offset spurs and sockets are provided in order to secure the adjustments of the heel support and presser as presently described; and, instead of being provided at isolated points, they may be formed as offset lines extending across the top of the rock frame, or as lips or tongues cut from the stock and bent either up or down.

The heel rest or support is formed at its rear edge with an upturned flange 29 to hold the heel of the driver's foot from slipping back, and it is there of sufficient width to conform approximately to the outline of the rear side of the heel. Its forward part is of substantially equal width with the top of the rock frame 14 and is adapted to lie over the same, having stiffening flanges at its edges spaced to embrace such rock frame top. This part is provided with a square hole 30 registering with the slot 27 in the rock frame, and it is also provided with offsets 31 forming projections or spurs adapted to enter the sockets 28 in the upper face of the rock frame.

The presser, or forward extension, 16 is a strip preferably stiffened by downturned lips 32 at its edges and of a width enough less than the space between the arms 24 of the rock frame to pass between the latter under the top of such frame. In its central part there is a longitudinal slot 33 registering with the slot 27 in the rock frame, and in lines adjacent to its edges are sockets or recesses 34 complemental to the offset studs of the rock frame and preferably formed in the same manner as are the latter. When the latter are made otherwise than by offsetting isolated spots of the metal, the sockets 34 are correspondingly modified. Its forward end extends beyond the rock frame and has a concave front edge 35 adapting it to register with a convex accelerator. The stiffening ribs terminate short of this forward edge, and, between such ribs and the end, the edges of the presser are cut away to form a narrow neck to facilitate bending the extreme end down so as to bring it close to the accelerator.

All of these parts are held together by a clamp consisting of a bolt 36 having a head 37 and a shank which passes through the hole 30 of the slots 27 and 33, and a thumb nut 38 which is screwed upon such shank. The shank of the bolt has a square part 39 adjacent to the head which is substantially as wide as the hole 30 and the slot 27, being thus adapted to engage the sides of said hole and slot to hold the heel support in line with the rock frame. The length of this square part is less than the combined thickness of the overlapping heel piece, rock frame and presser, and the threaded part of the shank extends far enough to permit the nut to be screwed tight up against the under surface of the presser. The square part 39 is simply a means coöperating with the edges of the hole 30 and slot 27 for lining the heel piece and rock frame; and, as like functions may be secured by other specific forms of bolt, I do not restrict my claim in all respects to that specific detail.

I have shown in Figs. 1 and 2 a spring 40 coiled helically around the pivot pin 23 with one end bearing against the base and the other against the rock frame, this spring being provided and arranged to hold the foot rest normally in the position shown in Fig. 1; but this spring may be omitted and the center of gravity of the foot rest may be placed to accomplish this result, or the accelerator alone relied upon under the urge of a spring with which it is equipped to push back the foot rest when the pressure of the driver's foot affecting the accelerator is released.

The instep support 17 is a bent strip of sheet metal, one part of which lies against the heel support and has a slot 42 to receive the clamping bolt, and the opposite part of which is held by the conformation of the piece away from the heel support. This instep support may be adjusted forward or back until placed in the most convenient position, and it may be bent until it comfortably conforms to instep part of the driver's shoe. The material of which it is made has sufficient resilience to give a spring support, but at the same time its elastic limit is low enough to enable it to be given a permanent set by bending, whereby to conform to the foot as above described.

Preferably the sheet metal employed in this foot rest is steel, but I do not restrict my protection thereto.

From the foregoing, it will be apparent

that the foot rest gives an extended support to the entire length of the driver's foot from the heel to the ball thereof, and that it transmits downward pressure applied from the foot to the accelerator without concentrating such pressure upon any narrow area of the shoe sole. Thereby the driver is relieved of the fatigue and the discomfort incident to operating the accelerator by the unsupported foot. The value of the device is particularly marked in cases where the driver wears shoes having flexible soles.

The foot rest may likewise be adjusted up or down by means of the holes 25 in the rock frame, and in or out at either end, whereby to be accommodated to different installations and to feet of different lengths.

What I claim and desire to secure by Letters Patent is:

1. A foot rest comprising a base, a frame pivoted upon said base, a heel support, and a forward extension or presser on said frame, both the heel support and the forward extension or presser being pieces separate from the frame and being independently adjustable forward and back.

2. A foot rest comprising a base, a rocking member pivoted upon said base having parts arranged to support the heel and forepart of a person's foot, and a springy instep support mounted on said rocking member in position to be pressed upon by the instep of such foot.

3. A foot rest comprising a base, a frame pivoted upon said base, a heel support, and a forward extension or presser on said frame, the forward extension or presser being a separate piece from the frame and being adjustable forward and back, said rock frame and heel support having on one of them a projection or spur and on the other a series of recesses adapted to receive said spur and thereby maintain relative adjustments of said parts.

4. A foot rest comprising a base, a frame pivoted upon said base, a heel support, and a forward extension or presser on said frame, both the heel support and the forward extension or presser being pieces separate from the frame and being independently adjustable forward and back, said extension and rock frame having on one of them a projection or spur and on the other a series of sockets each adapted to receive said projection, whereby to maintain the adjustments of said parts.

5. A foot rest composed of a frame portion, a heel support, a forward extension, and a clamp, said frame, heel support and extension having overlapping parts, and the clamp being arranged to grip said overlapping parts together, permitting adjustment of one relatively to another when relaxed, and securing adjustments thereof when tightened.

6. A foot rest composed of a frame portion, a heel support, a forward extension, and a clamp, said frame, heel support and extension having overlapping parts, and the clamp being arranged to grip said overlapping parts together, permitting adjustment of one relatively to another when relaxed, and securing adjustments thereof when tightened, said overlapping parts being of sheet metal and the one which is intermediate the other two being offset to produce in one surface a series of sockets, and in the opposite surface outstanding spurs, that part which overlies the last named part having a spur adapted to enter individual ones of the sockets, and the part which underlies the same having recesses adapted to receive said spurs, the entrance of said spurs in the recesses serving to secure the parts in adjusted position when they are clamped together.

7. A foot rest composed of a frame portion, a heel support, a forward extension, and a clamp, said frame, heel support and extension having overlapping parts, and the clamp being arranged to grip said overlapping parts together, permitting adjustment of one relatively to another when relaxed, and securing adjustments thereof when tightened, said clamp being comprised by a bolt passing through the said overlapping parts, and a nut threaded upon said bolt and serving to grip the overlapping parts between itself and the head of the bolt.

8. A foot rest composed of a frame portion, a heel support, a forward extension, and a clamp, said frame, heel support and extension having overlapping parts, and the clamp being arranged to grip said overlapping parts together, permitting adjustment of one relatively to another when relaxed, and securing adjustments thereof when tightened, said clamp being comprised by a bolt passing through the said overlapping parts, and a nut threaded upon said bolt and serving to grip the overlapping parts between itself and the head of the bolt, one of the aforesaid parts having a non-circular hole and the bolt shank having parallel sides in that portion which occupies the said overlapping parts, whereby to maintain them in line during adjustment.

9. A foot rest comprising parts arranged to support the heel and ball of a foot, a base upon which said rest is mounted, and an instep support comprising a spring strip, one end of which is secured to said rest and the balance of which is bent upward away from and over the same to form a resilient member adapted to support the instep part of the user's foot.

10. A foot rest comprising parts arranged to support the heel and ball of a foot, a base upon which said rest is mounted, and an instep support comprising a spring strip,

one end of which is secured to said rest and the balance of which is bent upward away from and over the same to form a resilient member adapted to support the instep part of the user's foot, that part of the instep support which bears against the foot rest being longitudinally slotted and a clamping bolt passing through said slot permitting adjustment of the instep support and holding it in its adjusted positions.

In testimony whereof I have affixed my signature.

JOSEPH POLLAK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."