April 15, 1924. 1,490,144

E. B. TAYLOR

ACCELERATOR PEDAL CONTROL MEANS FOR USE ON AUTOMOBILES

Filed Sept. 4, 1923

Fig. 1.

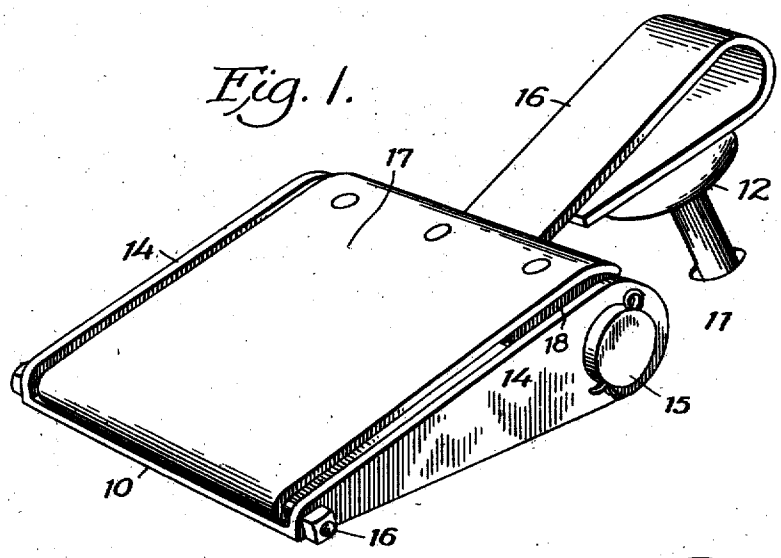


Fig. 2.

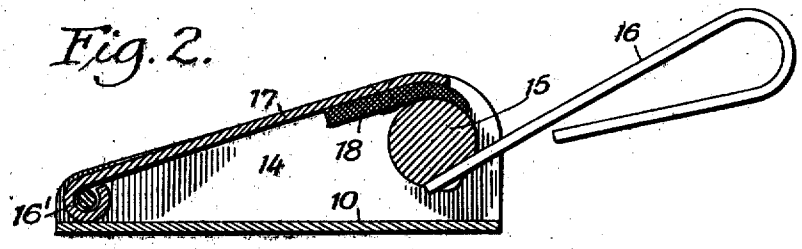
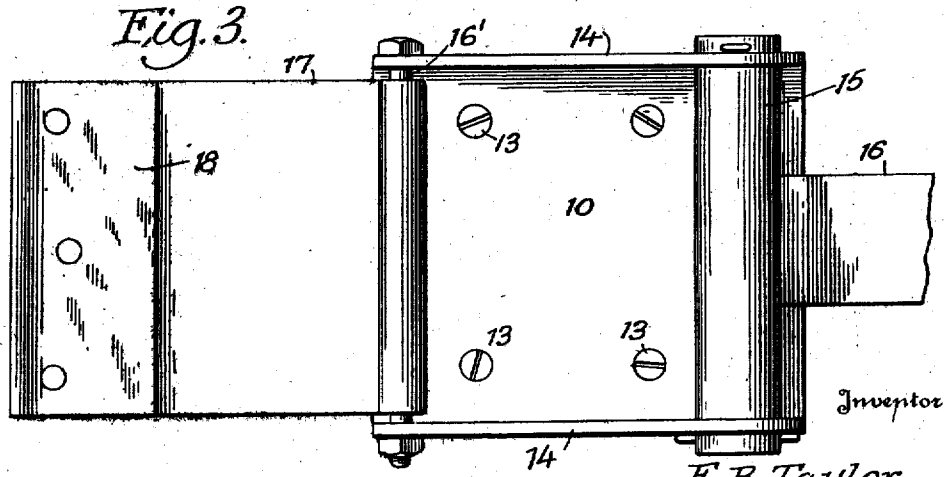


Fig. 3.



Inventor

E. B. Taylor

By Thomas R. Harney

Attorney

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UNITED STATES PATENT OFFICE.

EDWARD BRIGGS TAYLOR, OF OAKLAND, CALIFORNIA.

ACCELERATOR-PEDAL-CONTROL MEANS FOR USE ON AUTOMOBILES.

Application filed September 4, 1923. Serial No. 660,889.

To all whom it may concern:

Be it known that I, EDWARD B. TAYLOR, a citizen of the United States of America, residing at (E) Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Accelerator-Pedal-Control Means for Use on Automobiles, of which the following is a specification.

My present invention relates generally to throttle control means for automobiles and more particularly to a device permitting of more effective and uniform control of foot throttles, or what are commonly known as accelerators, than is possible at the present time where direct pressure of the foot upon the accelerator pedal is relied upon.

It is a well known fact that at the present time the great majority of automobiles are equipped with foot throttles in the form of accelerator pedals depressible to open the throttle, some of which are in the nature of hinged arms and others in the nature of stems with upper heads usually located adjacent to stationary foot rests upon which the foot is partially supported so that it may also extend into engagement with the accelerator pedal. It is also a well known fact that in most instances the drivers of automobiles depend upon the foot accelerator for the control of the speed of the automobile, owing to the greater convenience in the operation of the machine permitted thereby, although it is well recognized as extremely difficult to obtain and maintain a uniform pressure when proceeding over rough roadways and the like, inasmuch as the jolting and jarring tends to slightly raise and lower the foot on the pedal and hence raise and lower the pedal itself.

According to my invention I propose a device which may be easily installed in connection with accelerator pedals of substantially all types in common use, which will not only take the place of the ordinary stationary foot rest but will also provide means whereby the operator may without inconvenience not only depress the accelerator pedal to the desired point, but thereafter easily and uniformly maintain the same at the desired point by foot pressure alone, and will be substantially unaffected by jolting and jarring of the machine over rough roadways and the like. In other words, my invention proposes a device utilizable in connection with a foot accelerator, whereby the accelerator pedal may be depressed as usual and held in various depressed positions without depending upon direct pressure of the foot against the pedal.

In the accompanying drawing illustrating my present invention and forming a part of the specification:—

Figure 1 is a perspective view illustrating the practical application of my invention;

Figure 2 is a longitudinal sectional view taken substantially through the center of my improved device, and,

Figure 3 is a top plan view of the device with the pressure plate or brake member turned back in inactive position.

Referring now to these figures, my invention proposes a holder consisting of a flat plate 10 attachable to the floor boards 11 of an automobile adjacent to and in line with the accelerator pedal indicated at 12 in Figure 1, as by means of screws 13 through apertures of the plate. This plate 10 has upstanding side flanges 14 having adjacent to one end enlarged openings for the reception of the ends of a transverse shaft 15 to the lower portion of which at a point centrally between the side flanges 14 of the holder is secured one end of the pressure member 16, the opposite end of which is arranged to overlie and engage the accelerator pedal 12 as best seen in Fig. 1.

At the opposite ends thereof the side flanges 14 of the holder have apertures for the reception of a cross bolt 16 forming a hinge for one end of a pressure plate 17 which extends between the upper edges of the side flanges 14 for practically the full length of the latter and has along the undersurface of its free edge a friction strip 18 overlying and in engagement with the rotatable cross shaft 15 before mentioned.

Thus the pressure plate 17 mounted as described within the holder and between the upper edges of the side flanges of the latter, is adapted to form a rest for the foot and in this respect take the place of the usual stationary foot rest, receiving in this instance the heel portion of the foot the toe of which may extend forwardly onto the vertically swingable pressure strip 16, so that through the latter the toe portion of the foot may affect depression of the accelerator pedal 12 upon which the pressure strip or member 16 extends.

In ordinary action with moderate pres-

sure of the heel portion of the foot upon the pressure plate 17 it is quite apparently an easy matter to depress the foot accelerator with the toe portion of the foot, it being obvious that to depress the pressure strip 16 requires slight rotative movement of the cross shaft 15. When the accelerator pedal has been depressed to the desired point slight increase of pressure of the heel portion of the foot upon the pressure plate 17 serves to force the friction strip 18 of the latter into sufficiently tight engagement with the cross shaft 15 to prevent rotative movement of the latter, and in this way hold the accelerator pedal at the depressed point and prevent its upward movement. Thus the friction strip acts as a brake against the cross shaft to hold the foot pedal depressed although but slight lifting movement of the foot is necessary to release its holding action and permit the accelerator pedal to move upwardly and close the throttle through the usual connections.

It is obvious from the foregoing that my invention thus provides for the holding of the accelerator pedal in adjustably depressed position without relying upon direct pressure of the foot against the accelerator pedal for this purpose, so that it becomes an easy matter to hold the accelerator pedal uniformly in an adjustably depressed position irrespective of the jolting and jarring of an automobile passing over rough spots in a roadway surface, and it is also obvious that my invention proposes for this purpose a simple inexpensive device which may be readily installed and is adapted for use with all of the well known types of foot throttles as at present.

I claim:—

1. Accelerator pedal control means including a support, a cross shaft rotatably mounted in the support, a pedal engaging member extending from and secured at one end to the said shaft, and a pressure plate hingedly connected at one end within the opposite end of the support and having at its free end a lower friction member adapted to be pressed against the surface of said shaft.

2. Accelerator pedal control means including a foot rest having a depressible brake member, and a movable foot actuated pedal depressing member extending over the accelerator pedal and with which the brake member is operatively engageable to hold the same and the accelerator pedal in adjustably depressed position.

3. Accelerator pedal control means including a foot actuated pedal depressing member, and a foot actuated member shiftable into and out of clamping engagement with said pedal depressing member to hold the latter in adjusted position.

4. Accelerator pedal control means including a foot actuated pedal depressing member, and a foot actuated member depressible into clamping engagement with said pedal depressing member and arranged in approximately the same plane therewith.

In testimony whereof I have affixed my signature.

EDWARD BRIGGS TAYLOR.