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C. A. JOHNSON

ACCELERATOR PEDAL MEANS FOR VEHICLES

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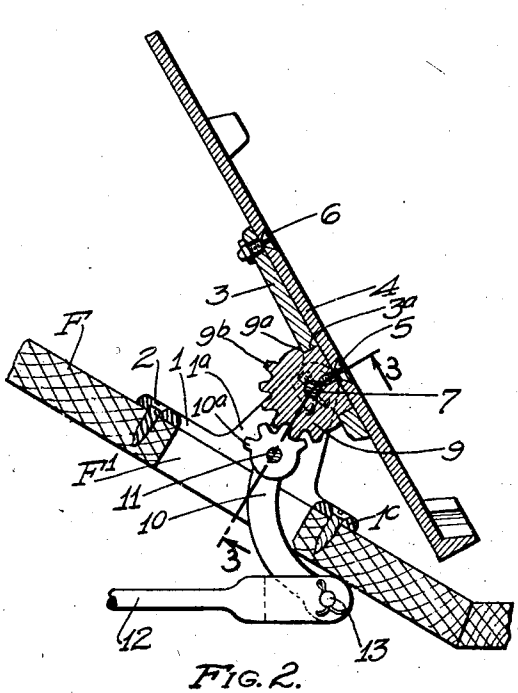



FIG. 2.

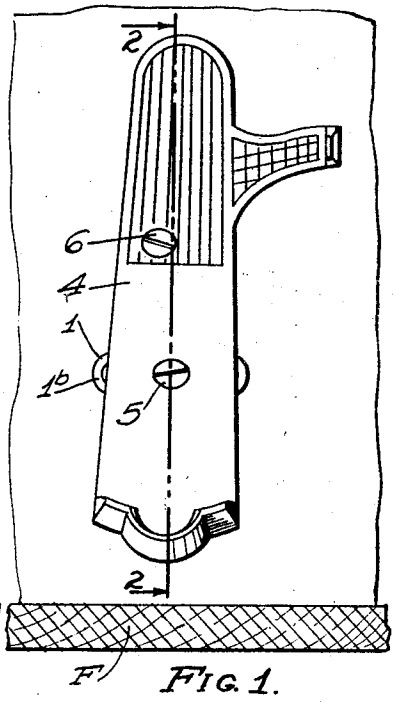



FIG. 1.

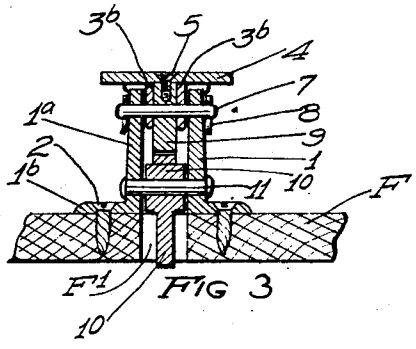



FIG 3

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# UNITED STATES PATENT OFFICE.

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## ACCELERATOR PEDAL MEANS FOR VEHICLES.

Application filed August 10, 1925. Serial No. 49,252.

My invention relates to an accelerator pedal means, particularly adapted for automobiles, for controlling the supply of fuel to the engine by means of the foot, and the objects of my invention are: first, to provide a simple and economically constructed accelerator pedal means for automobiles; second, to provide a means of this class whereby the carbureter rod, connected with means below the floor boards of the vehicle, is shifted forwardly by depressing the foot pedal of the means; third, to provide a means of this class having a large pivotally mounted foot pedal pivotally connected at its back side to the one end of a carbureter control arm pivotally mounted intermediate its ends and pivotally connected at its opposite end with the carbureter control rod; fourth, to provide a means of this class having a foot pedal pivotally mounted intermediate its ends and provided at its back side at its pivotal portion with gear means meshing with a corresponding gear portion at the one end of the carbureter control arm pivotally mounted intermediate its ends; fifth, to provide a means of this class having a carbureter control arm pivotally mounted intermediate its ends, pivotally connected at its outer end with a foot pedal and at its inner end with a carbureter control rod, the carbureter control arm being so shaped as to serve as a stop against the under side of the floor boards of the vehicle for limiting the throttling position of the valve of the carbureter and of the foot pedal; sixth, to provide as a whole a novelly constructed accelerator pedal means for automobiles, and seventh, to provide a means of this class which is durable, practical, and which will not readily deteriorate or get out of order.

With these and other objects in view, as will appear hereinafter, my invention consists of certain novel features of construction, combination and arrangement of parts and portions, as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawings and to the characters of reference thereon, which form a part of this application, in which:

Figure 1 is a front elevational view of my accelerator pedal means mounted on the floor boards of an automobile, showing the floor boards fragmentarily; Fig. 2 is a sectional elevational view thereof, taken through 2—2 of Fig. 1, showing certain parts and portions in elevation to facilitate the illustration, and Fig. 3 is a fragmentary sectional view thereof, taken through 3—3 of Fig. 2.

Like characters of reference refer to similar parts and portions throughout the several views of the drawings.

The bracket 1, screws 2, pivot member 3, foot plate 4, screw 5, bolt 6, pivot pin 7, cotter pins 8, gear member 9, carbureter control arm 10, pivot pin 11, carbureter control rod 12, and the pivot pin 13, constitute the principal parts and portions of my accelerator pedal means for automobiles.

The supporting bracket 1 consists of a frame open at its middle portion and provided at each side of said open middle portion with outwardly extending lugs $1^a$. This bracket is also provided at its sides and ends with securing lugs $1^b$ and $1^c$, respectively, which are secured, by means of screws 2, to the floor boards F of the automobile over a slotted portion $F^1$ therein. The pivot member 3 consists substantially of a long plate secured at its normally lower end by means of a screw 5 to the back side of the foot plate 4 and at its normally upper or forward end, by means of a bolt 6, to the foot plate 4, said bolt extending preferably through an arcuate slot at the upper or forward end of the pivot member 3 so as to permit of angular adjustment of the foot plate 4 relatively to the pivot member 3.

The pivot member 3 is provided with an opening $3^a$ from its front to its back side and with backwardly extending lugs $3^b$ at either side of the opening $3^a$, as shown best in Fig. 3. Into the opening $3^a$ and between the lugs $3^b$ is positioned the one end of the sectional gear member 9. The gear member 9, together with the pivot member 3, is pivotally mounted at the upper ends of the lugs $1^a$ of the bracket 1, by means of a pivot pin 7 extending through the gear member and the lugs $3^b$ of the pivot member. The pivot pin 7 is retained in position by cotter pins 8 at its opposite ends. The screw 5, previously referred to, is secured through the foot plate 4 into the end of the gear member 9 extending through the opening $3^a$ of the pivot member, as shown best in Fig. 2, the shoulders $9^a$ of the gear member holding the pivot member in position against the foot plate at its normally lower end.

The gear member 9 is provided with teeth

$9^b$ arranged concentrically about its pivotal axis. Said teeth mesh with corresponding teeth $10^a$ at the normally upper end of the carbureter control arm 10, which is pivotally mounted near its upper end, by means of the pivot pin 11, to the upwardly extending lugs $1^a$ of the bracket 1, as shown in Figs. 2 and 3. The radius of the pitch circle of the teeth $9^b$ is greater than that of the teeth $10^a$, thus relatively increasing the movement of the arm 10 about its pivotal axis to the foot plate. The longer end of the arm 10 extending through the slotted portion $F^1$ of the floor boards of the automobile is pivotally connected at its lower end, by means of a pin 13, to the normally rear end of the carbureter control rod 12 connected with a carbureter, not shown in the drawings, for controlling the same. The portion of the arm 10 extending below its pivotal axis is curved backwardly, as shown, permitting the lower end thereof to engage the back side of the floor boards of the automobile and thus serve as a stop for the same if desired.

Though I have shown and described a particular construction, combination and arrangement of parts and portions, I do not wish to be limited to this particular construction, combination and arrangement, but desire to include in the scope of my invention the construction, combination and arrangement substantially as set forth in the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In an accelerator pedal means for automobiles, a supporting bracket, a foot plate positioned over said bracket and provided at its back side and intermediate its ends with a longitudinally adjustable, backwardly extending lug pivotally mounted at the outer portion of said bracket and having gear teeth at its back edge, and a carbureter control lever having an enlarged end pivotally mounted on said bracket and provided at the outer portion of said enlarged end with gear teeth meshing with the gear teeth of the backwardly extending lug of said foot plate, the opposite end of said lever being adapted to be pivotally connected with the carbureter of the automobile.

2. In a means of the class described, a support adapted to be mounted on the floor boards of an automobile, a pedal pivotally mounted on said support, a carbureter control arm pivotally mounted on said support and pivotally connected with said pedal, said arm extending through said floor boards and bent backwardly at its lower portions, said lower portion serving as a stop against the under side of the floor boards, and means connecting the lower end of said arm with a carbureter.

In testimony whereof, I have hereunto set my hand at San Diego, California, this 1st day of August, 1925.

CLYDE A. JOHNSON.