J. BRAUTIGAM.

AUTOMOBILE ACCELERATOR.

APPLICATION FILED SEPT. 10, 1921.

1,430,003. Patented Sept. 26, 1922.

Fig 1

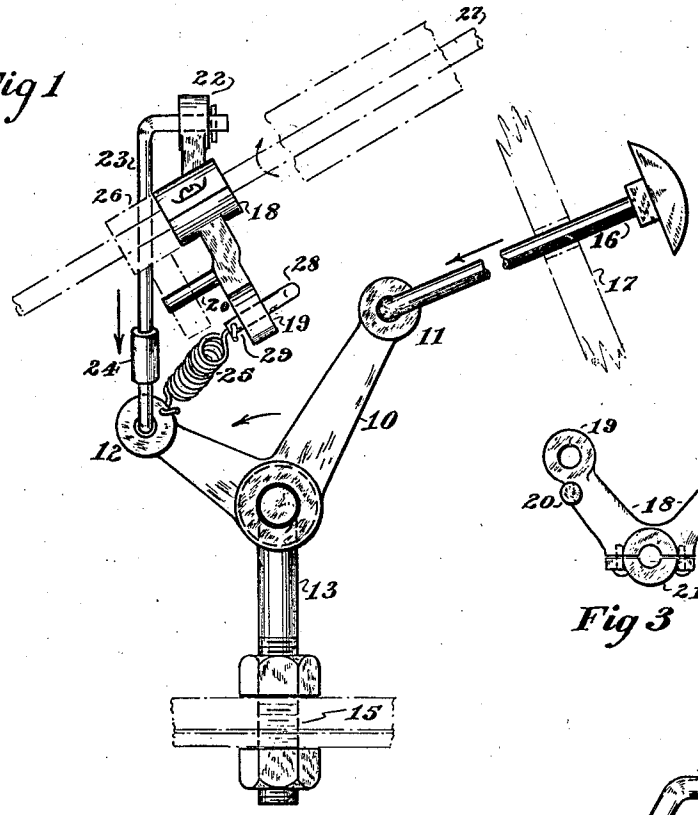


Fig 3

Fig 4

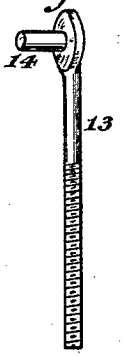
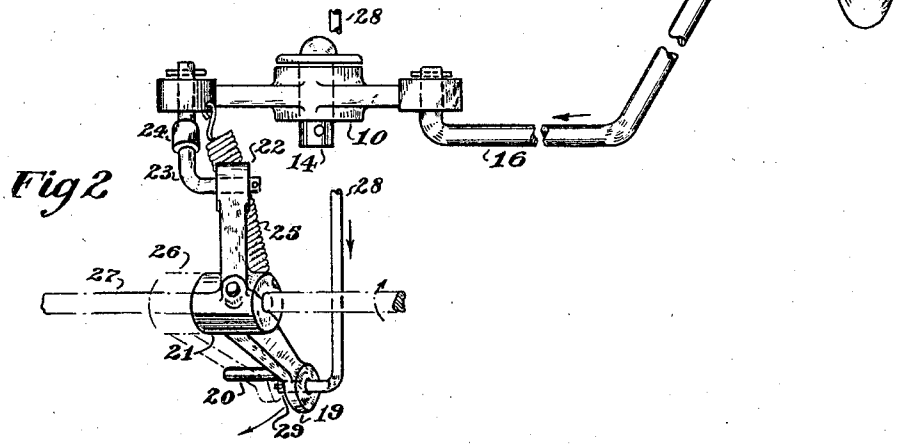


Fig 2



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UNITED STATES PATENT OFFICE.

JOSEF BRAUTIGAM, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF TO JOHN EDWARDS, OF BROOKLYN, NEW YORK.

AUTOMOBILE ACCELERATOR.

Application filed September 10, 1921. Serial No. 499,640.

To all whom it may concern:

Be it known that I, JOSEF BRAUTIGAM, a subject of Germany, and a resident of the county of Kings, borough of Brooklyn, city and State of New York (whose post-office address is 434 61st Street, Brooklyn, New York), have invented a new and useful Automobile Accelerator, of which the following is such a full, clear, and exact description as will enable anyone skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, which forms part of this application.

This invention relates to automobile accelerators and especially to that type which may be readily attached to automobiles otherwise unprovided therewith.

One of the objects of this invention is the provision of simple and efficient means readily attachable to an automobile not ordinarily adapted therefor, for pedally regulating the opening of the throttle valve of the carburetor.

A further object of this invention is the provision of an inexpensive accelerator especially applicable for use in connection with the throttle valve operating mechanism of the Ford make of automobile, which may be quickly attached without the necessity for alterations in the standard construction, and which does not interfere with the manually manipulated throttle connection.

For the accomplishment of the aforesaid and other objects as will appear from the description which follows, I employ the device shown in its preferred form in the accompanying drawings, in which—

Fig. 1 is a side view of my improved device as it appears attached to the throttle lever of a Ford car.

Fig. 2 is a plan view of the same.

Fig. 3 is a front view of one of the bell-crank levers used in connection with my device, and

Fig. 4 is a perspective view of the bolt for supporting the device.

In the illustrated embodiment of my invention, the bell-crank lever 10, having the preferably cylindrical ends 11 and 12, is mounted for oscillatory movement on the pin 14, which projects from the head of the bolt 13 substantially at right angles to the shank of said bolt. The said bolt 13 is adapted to replace one of the bolts of the crank case 15, and is suitably threaded for that purpose. For supporting a suitable push button of the usual type adapted to be operated by the foot of the driver, the rod 16, bent to spring said button into the desired position, is passed through a suitable hole in the floor board 17, one extremity of said rod being bent at substantially right angles to the body thereof in order to pass through the opening in the end 11 of the bell-crank lever 10.

A second bell-crank lever 18, having the split hub 21 thereon, has the preferably cylindrical ends 19 and 22 thereof apertured to receive the rods 28 and 23 respectively as will be more fully described hereinafter, said lever 18 being adapted to be loosely mounted on the usual throttle lever 27. In that form of my device especially adapted for use in the Ford make of automobiles, a projecting pin 20 is provided on that arm of the lever 18 which carries the end 19, the pin 20 outstanding into the path of the throttle lever crank 26 on the throttle lever 27, which crank and lever form part of the throttle valve operating mechanism of a Ford car. That end of the throttle operating rod 28 which is usually connected to the crank 26 is removed therefrom and inserted instead into the opening of the end 19 of the lever 18, a tension spring 25 serving to flexibly connect said rod 28 to the end 12 of the lever 10. The rod 23, provided with the turnbuckle 24 for the adjustment of the pressure of the pin 20 on the crank 26 and for the adjustment of the foot push button, connects the end 22 of the lever 18 with the end 12 of the lever 10.

The operation of my improved device is as follows:

Foot pressure on the accelerator button causes the bell-crank lever 10 to rotate in the direction of the arrow in Fig. 1 whereby the rod 23 is caused to move in the direction indicated by the second arrow, and operates the bell-crank lever 18. Said lever, being loosely mounted on the throttle lever 27, does not cause said throttle lever to rotate, but instead moves the rod 28 to operate the throttle valve. The usual hand operation of the throttle lever 27 is not interfered with, since rotation of said lever in the proper direction to open the carburetor throttle causes the crank 26 to engage the pin 20 and moves the bell-crank lever 18

by means of said pin in the proper direction to actuate the rod 28. Movement of the lever 27 in the direction operative to close the throttle withdraws the crank 26 from contact with the pin 20 and allows the spring 25 to rotate the bell-crank lever 18 and therethrough to operate the throttle rod 28.

It will be seen that the spring 25 tends to maintain the pin 20 in contact with the crank 26 whereby release of the accelerator button merely closes the throttle to a position determined by the angular position of the hand throttle lever 27 on the steering column of the car, and that pressure on said button to open the throttle merely removes the pin 20 from contact with the crank 26 and can cause no movement of the hand throttle lever. It will also be seen that in its adaptation to Ford cars, my device utilizes the equipment already provided for the operation of the throttle valve, and may be quickly and easily attached without disturbance of the ordinary operation of any of the parts.

I claim:

1. In combination with the hand throttle lever and the throttle lever crank of an automobile, an accelerator comprising a crank case bolt, a pin projecting from said bolt, a bell crank lever loosely mounted on said pin, a foot push button connected to one end of said bell-crank lever, a second bell-crank lever loosely mounted on said throttle lever, a pin on said second bell-crank lever interposed in the path of said throttle lever crank, means for connecting said second bell-crank lever to the throttle valve of the carburetor, and means for normally maintaining said bell-crank lever pin in contact with said throttle lever crank.

2. In combination with the hand throttle lever, the throttle lever crank and the throttle rod of an automobile, a foot operated accelerator comprising a bell-crank lever, means for supporting said bell-crank lever, a rod passing through a floor board and adapted to be operated by foot pressure connected to one end of said bell-crank lever, a second bell-crank lever loosely mounted on said hand throttle lever, a pin on said second bell-crank lever arranged in the path of said throttle lever crank, and an adjustable rod operatively connecting said bell-crank levers and means for normally maintaining said pin in contact with said throttle lever crank.

JOSEF BRAUTIGAM.