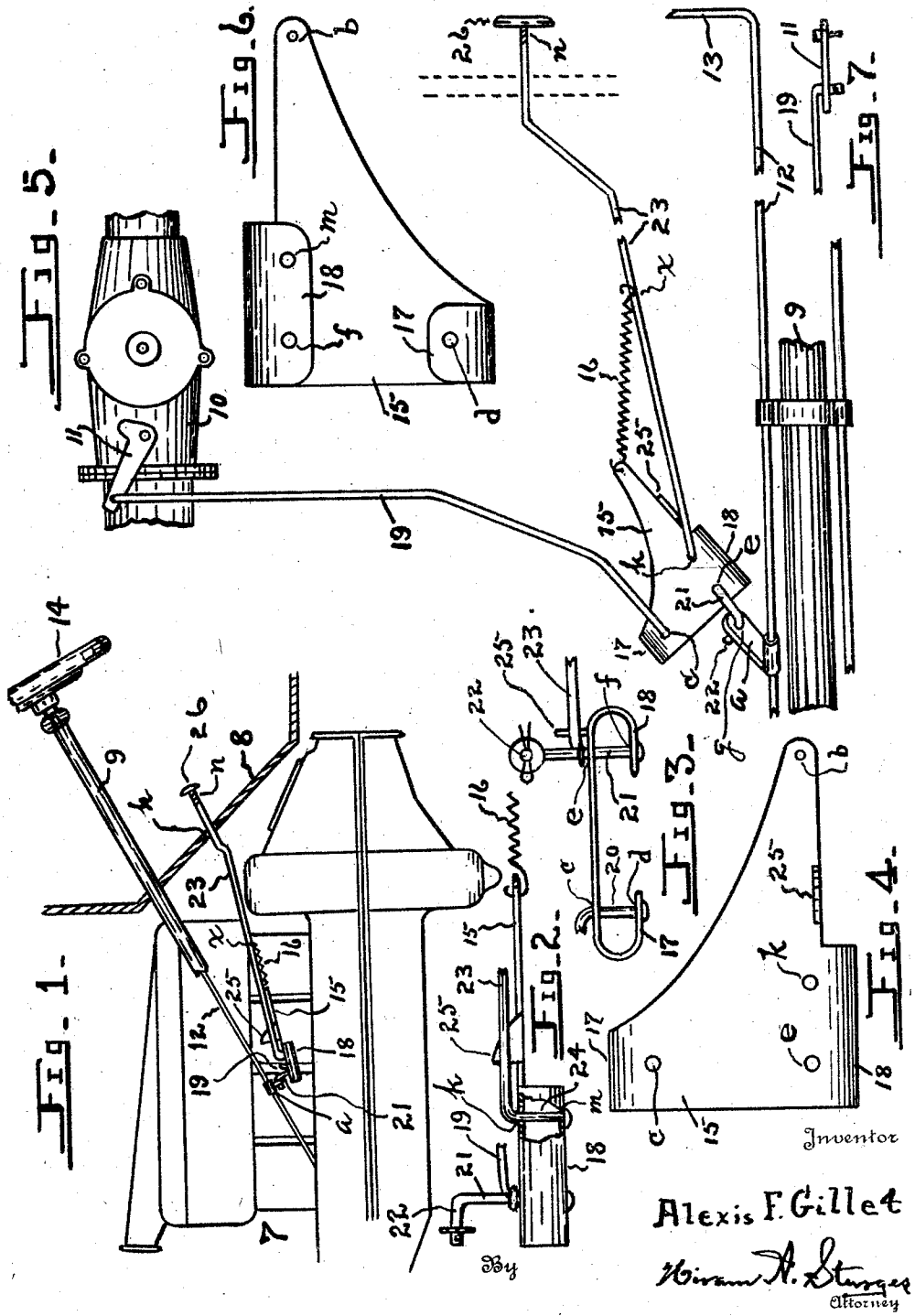
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A. F. GILLET

FOOT ACCELERATOR

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FOOT ACCELERATOR.

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To all whom it may concern:

Be it known that I, ALEXIS F. GILLET, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in a Foot Accelerator, of which the following is a specification.

This invention relates to a foot-control for the carbureter-throttle of internal combustion engines, and has for one of its objects to provide an oscillatory plate or frame which may be attached to the rotatable operating-rod and throttle-rod used generally upon the engines of the Ford type of automobiles, and to provide a foot-control for said plate, said plate or frame and its connected parts to be of such construction that brackets or other stationary parts generally employed may be dispensed with. Another object is to provide a device which will consist of few and simple parts so that it may be manufactured at a limited expense. Still another object is to provide a device for the purpose mentioned which may be conveniently mounted upon an engine and which will permit a complete foot-control for the carbureter throttle without causing a movement of the conventional, rotatable operating-rod, but will permit the operating-rod to be manually rotated, whenever desired, for its control of the throttle-rod.

The invention will be described and claimed, and other objects mentioned in connection with accompanying drawings in which,—

Fig. 1 is a side view showing parts of an engine and the foot-control for the carbureter throttle. Fig. 2 is a side view, partly in section, of the oscillatory plate or frame and parts carried thereby. Fig. 3 is an end view of parts shown in Fig. 2. Fig. 4 is a top plan view of the oscillatory plate or frame. Fig. 5 is a diagrammatic plan view showing the parts for a complete control of the throttle. Fig. 6 is a bottom plan view of the oscillatory plate or frame. Fig. 7 is a detail showing the connection of the throttle-rod with the throttle-lever.

Referring now particularly to the drawing, the invention is described in connection with the engine 7 and foot-board 8 of an automobile, the steering-shaft 9, carbureter 10 and its throttle-lever 11 being of conventional form. Also the invention is described in connection with the rotatable operating-rod 12 and its fixed lever-arm *a* and handle 13, all of the parts thus mentioned being generally used upon the type of automobiles first mentioned, and the handle being disposed adjacent to the steering wheel 14 for use of a driver who may manually impart a rotary movement to said rod for a control of the throttle.

In order that the objects first mentioned may be attained I provide an oscillatory plate or frame 15 which may be constructed to advantage of sheet metal, its bottom plan view, as shown in Fig. 6, being approximately of L-shape, one of its ends being provided with an aperture *b* for receiving one end of a spring 16, its sides at its opposite end being curved downwardly to provide opposed flanges 17 and 18.

I provide a throttle-rod 19 which is pivotally mounted at one of its ends in the throttle-lever 11, its opposite end-portion being bent angularly and forming a projection 20 for engaging in apertures *c* and *d* formed respectively in the body of the plate or frame 15 and in the flange 17, the proportion of parts being such that the frame of plate 15 may have swinging movements on said projection 20.

It should be stated that the rod 19 thus mentioned is somewhat similar to the throttle-rod generally used on automobiles of the type mentioned for connecting the throttle-lever 11 with the lever-arm *a* of the operating-rod 12. However said rod 19 in the present instance is moved by the movement of the plate or frame 15, and preferably is bent to, approximately, the form shown in the drawing, so that it may be substituted for the throttle-rod generally used.

I provide a swivel-post 21 adapted to have rotatable movements in the apertures *e* and *f* formed respectively in the body of the plate or frame 15 and in the flange 18, said post being bent angularly and forming a projection 22 adapted to have a pivotal mounting in the aperture *g* of the lever-arm *a* of rod 12.

Numeral 23 indicates a pull-and-push bar or foot-control rod to which the spring 16 is attached as indicated at *x*, said rod being adapted to be disposed in an aperture *h* of the foot-board 8 and having an end-portion bent angularly as indicated at 24 (Fig. 2) for engaging pivotally in aper-

tures *k* and *m* formed respectively in the body of the plate or frame 15 and in its flange 18, and at 25 is indicated an upright projection or stop-member which is provided for the plate 15.

It will be understood that a driver by pressing the foot-piece 26 and rod 23 forwardly, may move the lever-arm 11 of the carbureter to open position for providing a supply of gas to the engine without causing any movement of the operating-rod 12 or handle 13, said movement of the rod 23 being against the force of the spring 16, and by operation of spring 16 the lever-arm 11 will swing to closed position when the pressure upon the foot-piece 26 is discontinued, and this feature is of great advantage since both hands of the driver are often required for grasping the wheel 14 to effectively and safely steer a vehicle.

On account of the construction as described the movements of the plate 15 are oscillatory. Since it is not connected with any stationary part this plate or frame is free to swing under control of the rod 23 and spring 16, and also is free to swing under control or by the rotatable movements of the rod 12. If a driver desires to use the rod 12 for providing a supply of gas to the engine he may, by use of the handle 13, cause a rotatable movement of said rod, the lever-arm *a* moving in a circle's arc to cause a swinging movement of the plate or frame 15 for moving the throttle-rod 19 and lever-arm 11 against the force of the spring 16, the rod 23 not preventing this operation.

The operation of the invention depends, in part, upon the fact that the plate or frame 15 has approximately the form, in plan, of a bell-crank fulcrumed upon the swivel-post 21, the mounting of the rod 23 upon said frame or plate being between the mounting of the spring thereon and said post 21, operation also depending on the fact that the stop-member 25, which by action of the spring 16 normally engages the rod 23, maintains said rod 23 in non-alignment with the spring, whereby said member 15 is at all times disposed in such a position that it may be readily swung in one direction by a forward movement of the rod 23, and will automatically swing in a reverse direction by action of the spring 16. It will thus be seen that the arrangement for the spring and the stop-member 25, as described, is important to dependable operation.

While I do not wish to be understood as limiting myself to the use of sheet metal in the construction of the oscillating-plate 15, it is obvious that correct movements of said plate and rods 19 and 23 require that the post 21 and projections 21 and 24 shall be maintained relatively parallel. Sheet metal is preferred, and if used will be found to be, comparatively, of light weight and inexpensive, and the flanges 17 and 18 and stop-member 25 may be conveniently formed by incising and bending, and it will be appreciated that the flanges mentioned are useful, in conjunction with the body of member 15 for maintaining said projections and the post 21 parallel, as compared with each other.

The foot-piece 26 has a threaded connection with the rod 23 as indicated at *n*, and to place the device in operative position after said part 26 has been removed, all that is necessary is to insert the rod 23 in the aperture *h* of the foot-board, and after the projection 22 has been mounted in the aperture of the lever-arm *a* the throttle-rod 19 may then be connected with the lever-arm 11; and after the part 26 has been replaced on the end of rod 23, the device will be ready for use. It will thus be seen that installation of the device may be readily and conveniently accomplished, and for this purpose a mechanic or person skilled in the art of handling tools will not be required, for all parts of the device are attached to the plate or frame 15 ready for installation, no additions or changes of an automobile being needed when placing the device in operative position, it being understood, of course, that the conventional throttle-rod used on the type of automobiles first mentioned must be removed, the present throttle-rod 19 being its complete substitute.

I claim as my invention,—

1. In a foot control for the valve-lever of a carbureter throttle, the combination with a manually rotatable operating-rod having a fixed arm, of a swivel-post pivotally connected with said arm, a bell-crank pivotally connected with the swivel-post and provided with a stop-member, a throttle-rod pivotally connected at its respective ends with the bell-crank and said valve-lever, a foot-control-rod pivotally connected with the bell-crank, and a resilient element connecting the bell-crank with the foot-control-rod normally maintaining said foot-control-rod in engagement with said stop-member, said foot-control-rod being movable against the force of said resilient element into disengaged relation with the stop-member for moving said throttle-rod.

2. In a foot control for the valve-lever of a carbureter throttle, an operating-rod having a fixed arm, a bell-crank provided with a stop-member and mounted to permit swinging movements from said arm, a throttle-rod pivotally connected at its respective ends with the bell-crank and valve-lever, a resilient element connected with the bell-crank, a foot-control-rod pivotally connected with the bell-crank and the resilient element and normally maintained in engagement with the stop-member by action of said resilient element, said foot-control-

rod being movable into disengaged relation with said stop-member for moving the bell-crank, the throttle-rod and said valve-lever.

3. In a foot control for the valve-lever of a carbureter throttle, an operating-rod having a fixed arm, a sheet-metal plate having a form in plan of a bell-crank said plate being provided with a stop-member and bent to provide a flange and a second flange, a swivel-post having a pivotal mounting in said plate and first named flange and pivotally connected with said fixed arm, a throttle-rod having a projection at one of its ends pivotally mounted in said plate and second flange of said plate, its opposite end having a pivotal connection with said valve-lever, a resilient element connected with said plate, a foot-control-rod connected with said resilient element and having a terminal projection pivotally mounted in said plate and first named flange of said plate and normally maintained in engagement with the stop-member by action of said resilient element, said foot-control-rod being movable into disengaged relation with the stop-member for moving said plate, said throttle-rod and said valve-lever.

4. In a foot control for the valve-lever of a carbureter throttle, an operating-rod having a fixed arm, a swivel-post pivotally connected with said arm, a bell-crank pivotally connected with the swivel-post and provided with a stop-member, a throttle-rod pivotally connected at its respective ends with the bell-crank and said valve-lever, a foot-control-rod pivotally connected with the bell-crank, a spring connecting the bell-crank with the foot-control-rod normally pressing said last named rod into engagement with said stop-member, said bell-crank, said throttle-rod and said valve-lever being movable by the foot-control-rod against the force of said spring, the foot-control-rod being disengaged from said stop-member.

5. In a foot control for the valve-lever of a carbureter throttle, an operating-rod having a fixed arm, a slidably mounted foot-control-rod, a bell-crank provided with a stop-member and mounted to permit swinging movements from said arm and having a pivotal connection with said valve-lever and said foot-control-rod, a spring on the foot-control-rod connected with the bell-crank and normally maintaining said foot-control-rod in engagement with the stop-member, said last named rod being movable into disengaged relation with said stop-member against the force of said spring for moving the bell-crank and said valve-lever.

In testimony whereof, I have affixed my signature in presence of two witnesses.

ALEXIS F. GILLET.

Witnesses:
HIRAM A. STURGES,
ARTHUR H. STURGES.