Sept. 17, 1929. S. W. HUPPERT 1,728,346

ATTACHMENT FOR TRACTORS AND MOTOR VEHICLES

Filed Nov. 8, 1928

Fig. 1.

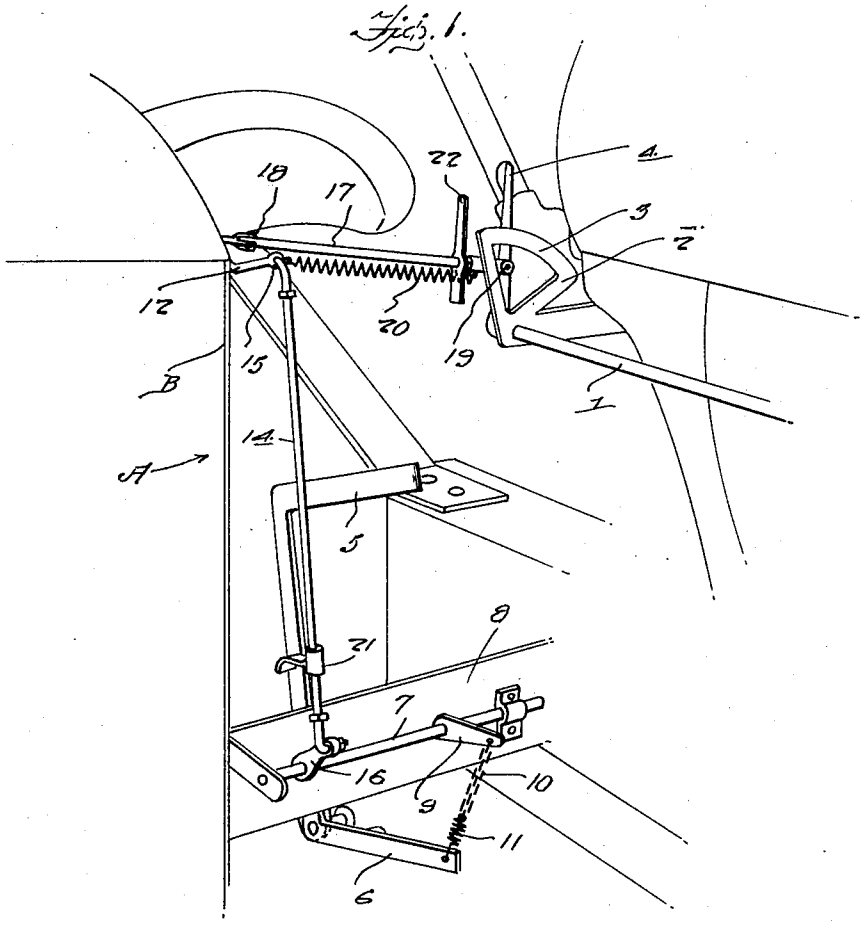
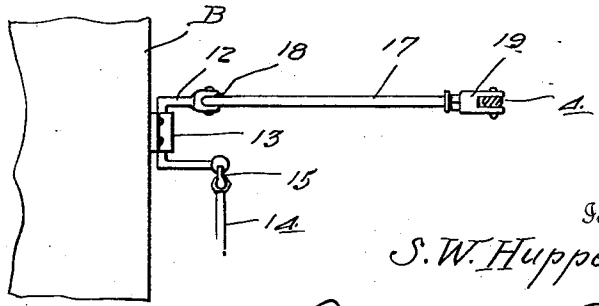


Fig. 2.



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Patented Sept. 17, 1929 1,728,346

UNITED STATES PATENT OFFICE

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ATTACHMENT FOR TRACTORS AND MOTOR VEHICLES

Application filed November 8, 1928. Serial No. 318,015.

The present invention relates to improvements in attachments for tractors and motor vehicles, and has for its primary object to provide means whereby the throttle lever is actuated simultaneously with the operation of the clutch lever.

At the present time, the tractors now generally in use are not provided with any means for shutting off and opening the gas feed simultaneously with the actuation of the clutch lever, and as a result there is a great deal of racing of the engine. It is therefore one of the principal aims of the present invention to provide an attachment that will permit of the actuation of the throttle lever so that when the clutch lever is moved to a declutching position, the throttle lever is automatically actuated to close the feed of the gasoline to the engine, thus preventing the racing of the engine, and when the clutch is released and moves back into gear, the throttle or gas feed lever automatically opens in such a manner as to insure the proper feeding of the gasoline to the engine.

A further and important object is to provide an attachment of the above mentioned character that can be readily and easily installed without necessitating any material alterations to the parts of the tractor or motor vehicle with which said invention is to be associated.

Still a further object is to provide an attachment of the above mentioned character that includes a means for facilitating the actuation of the throttle lever through the medium of a foot pedal, additional means being provided whereby the throttle lever may be locked in its gas cut off position.

A further object is to provide an attachment of the above mentioned character which is simple in construction, inexpensive, strong and durable and further well adapted to the purpose for which it is designed.

Other objects and advantages of the invention will become apparent from the following description when taken in connection with the accompanying drawings.

In the accompanying drawings wherein like reference characters indicate corresponding parts throughout the same:

Figure 1 is a perspective view of the attachment embodying my invention showing the manner in which the same is mounted on a tractor, and

Figure 2 is a top plan view of the U-shaped unit that forms a part of the attachment showing the manner in which the same is secured on the tractor.

In the drawing wherein for the purpose of illustration is shown the preferred embodiment of my invention, the numeral 1 designates a shaft that is operatively connected with the fuel feed control of the carburetor of the tractor in the conventional manner, one end of this shaft extending through a segmental bracket 2 that has its central portion cut out as indicated at 3. A throttle lever 4 is secured on this end of the shaft. The bracket 2 may be secured on the tractor A in any suitable manner. The usual foot operated clutch lever is shown at 5 and connected with this clutch lever for operation therewith is the forwardly extending arm 6. A rock shaft 7 is journaled for rotation within suitable bearings that are mounted on a cross bar 8 of the tractor A and extending forwardly from the rock shaft 7 for movement therewith is the arm 9.

A short length of chain 10 is secured at its upper end to the outer end of the forwardly extending arm 9, while the lower end of this chain is connected to the upper end of a coil spring 11, the lower end of said spring being connected to the outer end of the forwardly extending member 6 whereby an operative connection is provided between the member 6 and the arm 9 for effecting the actuation of the rock shaft 7 simultaneously with the operation of the clutch lever 5.

A substantially U-shaped fitting 12 is included in the present invention, and the crown portion of this fitting is mounted within a suitable bracket 13 attached to the side of one of the fenders B of the tractor in such a manner as to submit vertical swinging movement of this fitting.

A vertically disposed rod 14 is operatively connected at its upper end to one of the ends of the arm of the U-shaped fitting 12 as at 15, while the lower end of this rod is operatively connected to the rock shaft 7 through the medium of the link 16 so that the rock shaft and the rod 14 will move in unison.

The attachment further comprehends the provision of a horizontally disposed rod 17 that is operatively connected at one end to the other end of the U-shaped fitting as at 18, while the inner end of this horizontally disposed rod 17 is operatively connected to the pivoted throttle lever 4, as at 19. A coil spring 20 extends between the inner end of the cross rod 17, and the connection 15 in the manner as clearly shown in Figure 1.

A foot pedal 21 is attached to the lower end portion of the rod 14 whereby the attachment may be operated independently of the clutch lever 5, and secured on the cross bar or rod 17 is a manually operable latch member 22 that can be so positioned as to engage through the cut out portion 3 of the segmental bracket 2 for disposition with one of the inner side edges of the segmental bracket to maintain the throttle lever 4 in such a position as to cut off the feed of the gasoline to the engine after the clutch is released or rather after the foot has been taken off of the clutch lever.

With the parts arranged as shown in Figure 1, the clutch lever 5 is in gear and the gasoline feed line is open due to the position of the throttle lever 4 and the shaft 1 that controls the feeding of the gasoline to the motor.

When the clutch pedal or lever 5 is pushed forwardly to a declutching position, this will result in the rock shaft 7 being operated to effect the actuation of the rod 14, and the fitting 15 will transmit motion to the rod 17 whereby to actuate the throttle lever 4 and move the same to a closed position stopping the engine from racing and cutting off the supply of the fuel to the engine.

However, when the clutch pedal or lever is let back into gear, the throttle or gas feed lever automatically opens in such a manner as to insure the proper feeding of gasoline to the motor.

In this way, the feeding of the fuel to the motor is controlled by the actuation of the clutch lever.

On motor vehicles, governors would necessarily have to be employed for association with the attachment in order to assure the feeding of the gasoline to the engine in a manner that is automatically controllable.

The purpose of the coil spring 11 is to prevent injury to the throttle lever so that if the clutch is thrown in too far, such action will not strain the clutch lever. When the throttle lever is in a closed position, the pressure will be exerted upon this spring.

The provision of an attachment of the above mentioned character enables the same to be readily and easily installed on a tractor or motor vehicle without necessitating any material alterations, and furthermore the device will at all times be positive and efficient in carrying out the purposes for which it is designed.

While I have shown the preferred embodiment of my invention it is to be understood that minor changes in the size, shape and arrangement of parts may be resorted to without departing from the spirit of the invention and the scope of the appended claims.

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

1. In an attachment for tractors or the like, in combination with the foot operated clutch lever, a shaft in operative connection with the fuel feed control, a throttle lever associated with said shaft for actuating the same, a connection between the throttle lever and the clutch lever whereby the elements will operate in unison, said connection including a rock shaft supported on the vehicle, a member extending forwardly from the clutch lever and operatively connected with the rocker shaft to actuate the same, and rods connecting the rock shaft with the throttle lever.

2. In an attachment for tractors or the like, in combination with the foot operated clutch lever, a shaft in operative connection with the fuel feed control, a throttle lever associated with said shaft for actuating the same, a connection between the throttle lever and the clutch lever whereby the elements will operate in unison, said connection including a rock shaft supported on the vehicle, a member extending forwardly from the clutch lever and operatively connected with the rock shaft to actuate the same, a substantially U-shaped fitting supported on the tractor for vertical swinging movement above the rock shaft, a rod operatively connected at its lower end to the rock shaft and at its upper end to one end of the U-shaped fitting, and a cross rod connected at one end to the other end of the U-shaped fitting, and at its opposite end to the throttle lever.

3. In an attachment for tractors or the like, in combination with the foot operated clutch lever, a shaft in operative connection with the fuel feed control, a throttle lever associated with said shaft for actuating the same, a connection between the throttle lever and the clutch lever whereby the elements will operate in unison, said connection including a rock shaft supported on the vehicle, a member extending forwardly from the clutch lever and operatively connected

with the rock shaft to actuate the same, a substantially U-shaped fitting supported on the tractor for vertical swinging movement above the rock shaft, a rod operatively connected at its lower end to the rock shaft and at its upper end to one end of the U-shaped fitting, a cross rod connected at one end to the other end of the U-shaped fitting, and at its opposite end to the throttle lever, and means for securing the throttle lever in a closed position.

4. In an attachment for tractors or the like, in combination with the foot operated clutch lever, a shaft in operative connection with the fuel feed control, a throttle lever associated with said shaft for actuating the same, a connection between the throttle lever and the clutch lever whereby the elements will operate in unison, said connection including a rock shaft supported on the vehicle, a member extending forwardly from the clutch lever and operatively connected with the rock shaft to actuate the same, a substantially U-shaped fitting supported on the tractor for vertical swinging movement above the rock shaft, a rod operatively connected at its lower end to the rock shaft and at its upper end to one end of the U-shaped fitting, a cross rod connected at one end to the other end of the U-shaped fitting, and at its opposite end to the throttle lever, and a foot pedal carried by the first mentioned rod for actuating the throttle levers independently of the clutch lever.

In testimony whereof I affix my signature.

STEPHEN W. HUPPERT.