Feb. 9, 1926.

1,572,774

J. S. CROXFORD

CLUTCH PEDAL

Filed May 22, 1925

2 Sheets-Sheet 1

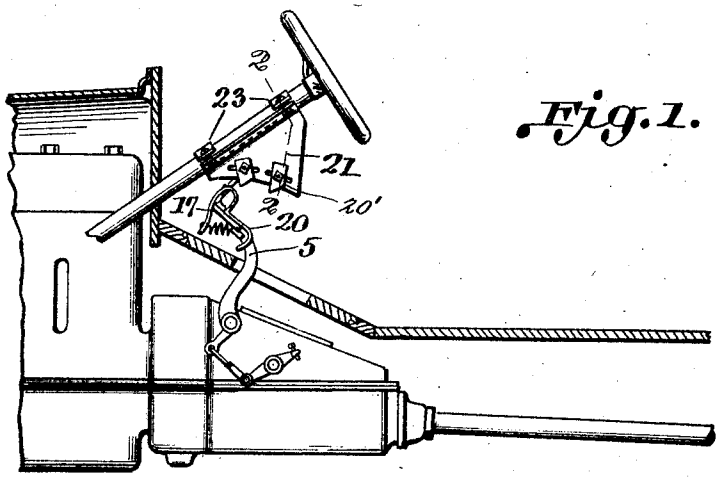


Fig. 1.

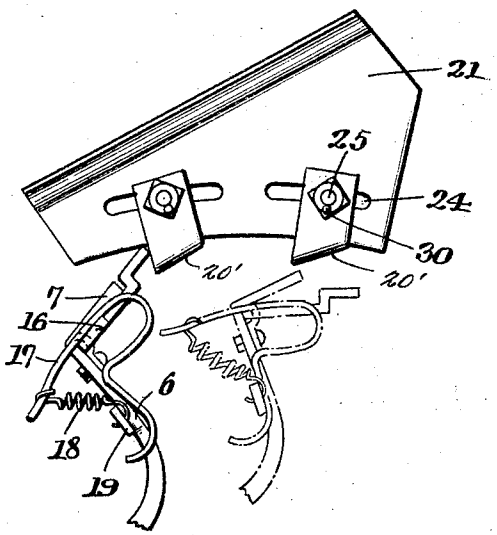


Fig. 3.

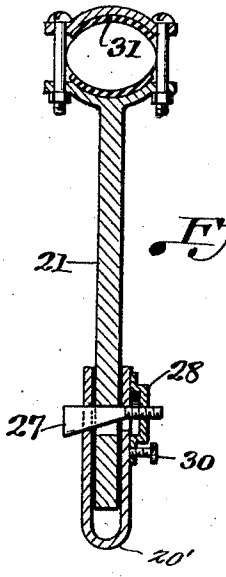


Fig. 2.

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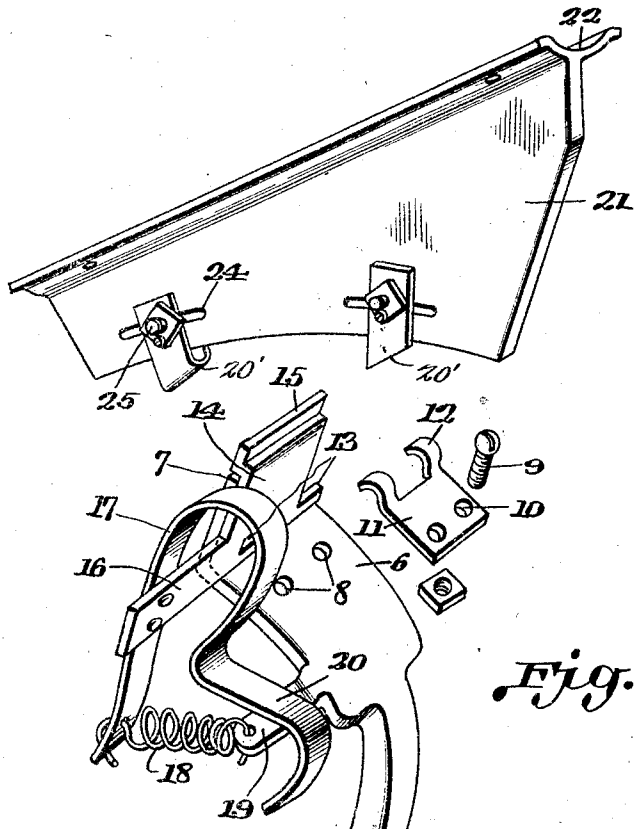
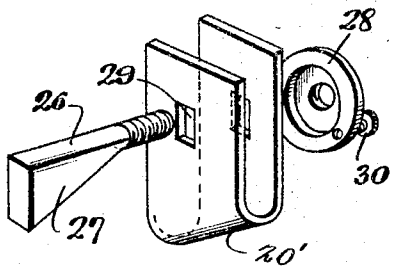


Fig. 4.

Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN S. CROXFORD, OF WINTHROP, MASSACHUSETTS, ASSIGNOR TO BITBETTER MANUFACTURING COMPANY, OF WINTHROP, MASSACHUSETTS.

CLUTCH PEDAL.

Application filed May 22, 1925. Serial No. 32,145.

To all whom it may concern:

Be it known that I, JOHN S. CROXFORD, a citizen of the United States, residing at Winthrop, in the county of Suffolk and State of Massachusetts, have invented a new and useful Clutch Pedal, of which the following is a specification.

This invention relates to an attachment designed for use in connection with the clutch pedal of a well known type of motor vehicle, the primary object of the invention being to provide means to be carried by the clutch pedal to automatically lock the clutch pedal in either its neutral position or low gear position.

An important object of the invention is to provide a device of this character which will be readily and easily positioned on the usual motor vehicle construction, eliminating the necessity of making alterations in the construction of the vehicle to install the device.

A still further object of the invention is to provide means whereby the attachment may be adjusted adapting the device for use in connection with vehicles wherein the gears have become worn.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawing:

Figure 1 is an elevational view illustrating the attachment as positioned for use.

Figure 2 is a sectional view taken on line 2—2 of Figure 1.

Figure 3 is an enlarged detail view illustrating the attachment.

Figure 4 is a perspective view of the device, the member used for pivotally supporting the latch being shown as disconnected.

Figure 5 is a perspective view of one of the adjustable keepers.

Referring to the drawings in detail, the reference character 5 indicates the clutch pedal of a well known type of motor vehicle formed with a relatively broad foot engaging section 6 and an upstanding flange 7, formed at the ends thereof.

Openings 8 are formed in the portion 6 which openings accommodate the screws 9 that pass through openings 10 formed in the hinge member 11 to secure the hinge member in position on the pedal.

The member 11 is provided with spaced curved fingers 12 that are fitted in suitable cut out portions 13 formed on the latch member 14, for pivotally supporting the latch member. The flange 7 provides a stop for the latch members 14 and prevents the latch member from moving too far and to insure the latch member being held in proper relation with the pedal for contact with the keepers.

One edge of the latch member is offset, at 15 which offset portion defines a shoulder to permit the latch member to move behind the keepers and be held thereagainst, by contact with the shoulder. Extending laterally from the latch member 14 is an arm 16 to which the spring member 17 is secured, the end of the spring adjacent to the arm 16 being formed with an opening to accommodate one end of the coiled spring 18, the opposite end thereof being secured within an opening of the arm 19 extending laterally from the pedal.

As shown, the spring member 17 is curved downwardly and rearwardly providing a foot engaging section 20 that normally lies adjacent to the widened portion 6 of the pedal to be readily engaged by the foot of the operator, when it is desired to operate the latch member to throw it out of engagement with the keepers.

The keepers are supported by the bracket member 21 that is formed with a curved portion 22 adapted to fit under the steering post of the motor vehicle and clamped thereto by means of the metallic straps 23. Elongated openings 24 are provided in the bracket member 21 and accommodate the bolts 25 that pass through suitable openings in the keepers so that the keepers may be adjusted throughout the lengths of the openings to compensate for lost motion caused by wear of the transmission gears not shown.

Each latch member includes a length of metal bent intermediate its end providing a pair of arms, which arms are adapted to embrace portions of the bracket member 21

as shown by Figure 4. Openings are formed in the body portion of each keeper, which openings accommodate the bolts 26 formed with a wedge-shaped head 27 to the end that the head may be drawn through the keeper to secure the same in position.

A nut indicated at 28 is positioned on the threaded end of the bolt 26 and is adapted to draw the head of the bolt 26 into the openings 29 of the keepers, there being provided a locking screw 30 on the nut to be moved into engagement with the keeper to set up a binding action between the nut and bolt, to the end that the nut 28 will not become loosened.

It might be further stated that members 31 formed of soft material such as rubber or the like are positioned around the steering column prior to the positioning of the bracket member thereon, so that the device will not in any way mar the finish on the steering column or damage the same, in anyway.

The operation of the device is as follows: Should it be desired to move the clutch pedal to its low position, while the machine is climbing a long gradual hill, the foot pedal is depressed, whereupon the latch member will move over the keepers in a manner as indicated in dotted lines in Figure 3 of the drawings, until it falls behind the keeper nearest to the engine proper.

As foot pressure is relieved from the pedal, it is obvious that the latch member will fall behind the keeper associated therewith to lock the pedal against reverse movement. When it is desired to return the pedal to its normal or high position, it is only necessary for the operator to position his foot on the portion 20 of the spring member, causing the latch member to swing out of engagement with the keeper to permit the operation of the pedal in the usual way.

If it is only desired to move the pedal to cause it to be locked in its neutral position, the latch member is moved behind the keeper nearest to the operator's seat, with the result that movement of the pedal into high gear will be prevented until the operator by an action of his foot, moves the latch member out of engagement with the keeper.

I claim:

1. In combination with the clutch pedal of a motor vehicle, a locking device comprising a pivoted latch member mounted on the pedal, a bracket secured to the steering column of a motor vehicle, adjustable keepers on the bracket and adapted to lie in the path of travel of the latch member, and means for moving the latch member to disengage the keepers.

2. In combination with the clutch pedal of a motor vehicle, a locking mechanism comprising a pivoted latch member carried by the pedal, a spring arm connected with the latch member and adapted to be operated to move the latch member to its inactive position, coiled springs for normally urging the latch member to its inactive position, and adjustable means lying in the path of travel of the latch member to engage the latch member.

3. In combination with the clutch pedal of a motor vehicle, a locking mechanism comprising a pivoted latch member having an arm extending laterally therefrom, means for pivotally supporting the latch member on the clutch pedal, a spring arm engaging the laterally extending arm, means engaging the spring arm to normally urge the spring arms to its active position, said spring arm having a foot engaging portion to permit the spring arm to be moved to operate the latch member and means carried by the steering column of the motor vehicle, and lying in the path of travel of the latch member to lock the latch member and pedal against reverse movement.

4. In combination with the clutch pedal of a motor vehicle, a latch member having a shoulder at its free end, said latch member having cut out portions, a hinge member having curved fingers adapted to be positioned within the cut out portions of the fingers to pivotally support the latch member on the pedal, operating means carried by the latch member for throwing the latch member to its inactive position, and means in the path of travel of the latch member for engaging the latch member for holding the latch member against movement.

5. In combination with the clutch pedal of a motor vehicle, a locking mechanism comprising a pivoted latch member supported by the clutch pedal, a bracket adapted to be secured to the steering column of the vehicle, said bracket having elongated openings, keepers supported by the brackets, bolts extending through the keepers and through the elongated openings to adjustably support the keepers, and said latch member adapted to move behind the keepers to lock the pedal supporting the latch member against movement.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

JOHN S. CROXFORD.