H. S. CASS.

DETACHABLE GEAR SHIFTING LEVER.

APPLICATION FILED FEB. 11, 1915.

1,156,272. Patented Oct. 12, 1915.

Fig. 1

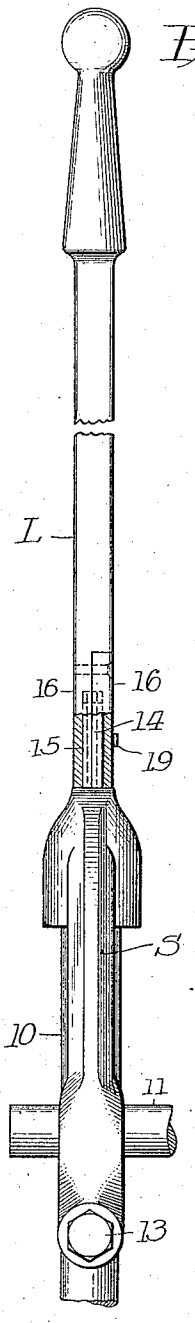


Fig. 3

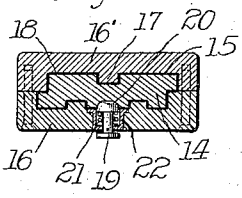
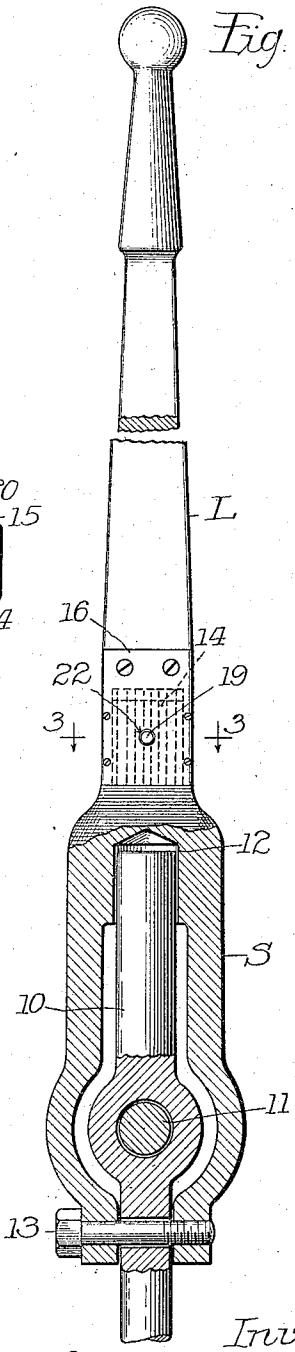


Fig. 2



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HARRY S. CASS, OF CHICAGO, ILLINOIS, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO LEVER-LOCK COMPANY, A CORPORATION OF ILLINOIS.

DETACHABLE GEAR-SHIFTING LEVER.

1,156,272. Specification of Letters Patent. Patented Oct. 12, 1915.

Application filed February 11, 1915. Serial No. 7,500.

To all whom it may concern:

Be it known that I, HARRY S. CASS, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Detachable Gear-Shifting Levers, of which the following is a specification.

My invention covers a detachable gear shifting lever for automobiles. In the present arrangement in automobiles the gear shifting lever is permanently secured in place so that it may be operated by anyone who has access to the automobile. If such levers were made detachable to be carried with the owner when he leaves the automobile, and if it were made impossible to use the levers of other automobiles, tampering with or stealing of automobiles would be discouraged and prevented.

The object of my invention is therefore to provide such detachable and non-interchangeable levers, and on the accompanying drawing which shows embodiments of my invention Figure 1 is a front elevational view of a lever with its supporting structure, with part thereof in section, Fig. 2 is a side elevational view with part thereof in section, and Fig. 3 is a sectional view on plane 3—3, Fig. 2.

Generally speaking, the invention comprises a lever and a supporting structure therefor which connects with the gearing to be shifted, the lever being detachable from its supporting structure, the connection between the two differing slightly in arrangement in different vehicles, in order that the lever of one vehicle will not fit the receiving structure of another.

Referring to Figs. 1, 2 and 3, the supporting or receiving structure S for the lever L is in the form of a fork which receives a cross-arm 10 secured to a pivot member 11, the fork having a pocket 12 in its bend receiving the upper end of the cross-arm 10, and the lower ends of the fork arms being secured by a bolt 13 to the lower end of the cross arm, the lower end of the cross arm connecting in practice with the gear shifting mechanism. Extending upwardly from the fork is a key extension 14 which fits the socket 15 in the lower end of the lever L. This socket may be formed in the solid lower end of the lever or the detachable section or plate 16 may be provided and one half of the socket cut in the plate and the other half in the section 16′ opposite the plate. The key extension 14 is preferably differently shaped for different vehicles in order that the levers of different machines cannot be interchanged. As shown, the key shown has various longitudinal tongues 17 and grooves 18 and the sides of the socket 15 are correspondingly ridged and grooved to fit the key extension. It is evident that by changing the locations or dimensions of the ridges and grooves a great number of key extension forms can be provided, only a slight change being necessary to prevent other levers from being used on the key extension designed for a particular lever, the idea being of course that when the owner leaves his machine he will detach his lever from the key extension and will take it with him.

In order to retain the lever on its support and to prevent accidental removal thereof, a detent button 19 extends through the plate 16 and the key extension is provided with a notch 20 for receiving the rounded head of the button which is urged inwardly by a spring 21 between the button and the end of a thimble or bushing 22 through which the button extends. When the lever is applied the button is readily pushed aside until the notch is reached and the button being then pressed in the notch by the spring the lever will be locked to its support.

It is evident that instead of having the key extension on the support S the lever could have a key end and the support S provided with a socket.

I thus provide a very simple and efficient detachable lever arrangement which will discourage tampering with or stealing of vehicles. By varying the number, and the direction, depth, width and other dimensions of the key ridges and grooves a great number of levers can be constructed which cannot however be interchangeably applied to the supporting structures. The application or removal of a lever can be as readily accomplished as the insertion of a key in a lock or withdrawal thereof.

I do not of course desire to be limited to the exact construction, arrangement and operation shown and described as changes are no doubt possible which would still come within the scope of my invention.

I claim as follows:

In lever mechanism, the combination of a lever member, a supporting member therefor, a rectangular key end on one of said members having grooves and ridges, and the other member having a grooved and ridged socket for receiving said key end.

In witness whereof I have hereunto set my hand this eighth day of February, A. D., 1915.

HARRY S. CASS.

Witnesses:
CHARLES A. BOSTAR,
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