May 13, 1924. 1,493,760

V. LINK

LEVER FOR AUTOMOBILES

Filed April 4, 1921

Fig-4

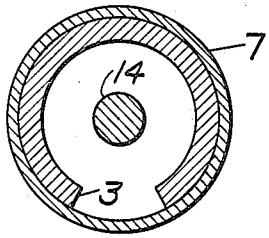


Fig-3



Fig-1

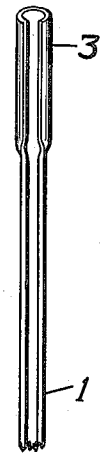
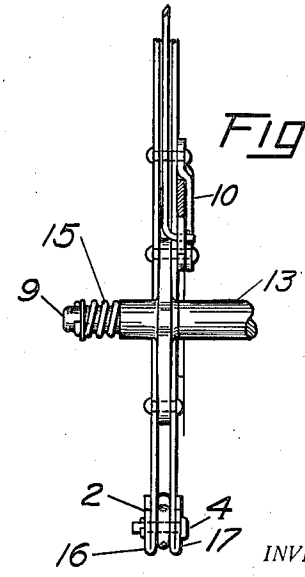


Fig-2



INVENTOR

VINCENT LINK

BY William MacGlashan

ATTORNEY.

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UNITED STATES PATENT OFFICE.

VINCENT LINK, OF DETROIT, MICHIGAN, ASSIGNOR TO STUDEBAKER CORPORATION, A CORPORATION OF NEW JERSEY.

LEVER FOR AUTOMOBILES.

Application filed April 4, 1921. Serial No. 458,448.

To all whom it may concern:

Be it known that I, VINCENT LINK, a citizen of the United States of America, and resident of Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Levers for Automobiles, of which the following is a specification.

My invention relates to improvements in levers for motor driven vehicles and the object of my improvements in this construction as compared with the usual drop forging is to eliminate weight and to produce an article of manufacture which will be lighter in weight, which will require no subsequent finishing or trimming, which will take the enamel better, and which will cost less to manufacture.

Levers of this class were first made of brass or malleable iron castings, but as the cost of casting, heat-treating, trimming, and finishing was excessive, a cheaper and better method was sought. The result was drop-forged levers, but even these were relatively heavy, necessitated trimming and finishing before the surfaces were in a satisfactory condition for enameling, and were still relatively expensive to produce. To improve upon the lever still further, the invention embodied herein has for its object the elimination of the objectional features of the types of levers mentioned above; also to provide a lever that is lighter in weight, and which requires no subsequent finishing or trimming, takes the enamel better and costs less to produce.

A lever embodying my invention is illustrated in the accompanying drawings in which;

Fig. 1 is a partly broken side elevation of a lever embodying the present invention.

Fig. 2 is a front elevation of the same.

Fig. 3 is a section taken on the line "A—A" of Fig. 1.

Fig. 4 is an enlarged section taken on the line "B—B" of Fig. 1.

Referring to the numbered parts of the drawing in which like numerals refer to similar parts throughout the several views, the lever "1" is formed out of a sheet metal blank which has previously been sheared out to the required shape by methods well known in the art. The body of the lever "1" with the exception of the ends "2" and "3" is formed into a U shaped section as is shown in Fig. 3. The end "2" consists of two extensions "16" and "17", forming a clevis or jaw, the extensions being bent back on themselves to furnish sufficient bearing surface for the cross pin "4" and also for the purpose of gaining additional strength. The end "3" is pressed into a nearly cylindrical shape as shown in enlarged section in Fig. 4 to form a handle and a guiding means for the spring "5" and pawl actuating button "6". A cylindrical sleeve "7", shown in Fig. 1 and in section in Fig. 4 is pressed over the end "3" to form a suitable hand grip and to reinforce the handle. The drop forged metal part "8", is fastened to the body of the lever "1" by means of two rivets as shown in Figs. 1 and 2 and serves as a means of pivotally connecting the lever to the anchorage "13", by means of the shaft "9", and is so formed as to provide sufficient bearing surface on the said shaft. The spring "15" on the shaft "9" serves to prevent lateral motion of the lever and thus prevent its rattling against the anchorage "13". The pressed metal strap "10", fastened to the body of the lever "1" as shown in Figs. 1 and 2 serves as a guide for the ratchet "11". The pawl "12", commonly and pivotally connected to the body of the lever "1", along with the parts "8" and "10" by a rivet as shown, engages with the ratchet "11", and is actuated by the button "6", which is slidably retained in the handle "3". Pressure applied to the button "6" is transmitted thru the rod "14" to the pawl "12". The rod is bent to such a shape as to normally contact against the body of the lever "1", so as to receive support therefrom, thus preventing rattling and also further bending of the rod on the application of downward pressure to the pawl actuating button "6".

What I claim is:—

1. A pressed metal lever substantially U shaped in cross section for the greater part of its length, and having an integral fulcrum member disposed within said section other than at the ends thereof; a pawl pivotally mounted on said lever; means for operating said pawl; and means for preventing said pawl operating means from rattling against said lever.

2. A pressed metal lever substantially U shaped in cross section for part of its length, having one end formed into a cylindrical

shape to receive a sleeve, a fulcrum member secured to said lever, a pawl, and means within said lever for operating said pawl.

3. A pressed metal lever in combination with an integral fulcrum member; one end of the lever formed into a clevis or jaw, the other end of the lever formed into a nearly cylindrical shape; a cylindrical sleeve incasing one end of the lever; a pawl fulcrumed on the lever and means inside the lever for actuating the pawl.

4. A lever formed of sheet metal bent in U-shaped cross section for part of its length, a cooperating metal fulcrum member, one edge of which is introduced between the walls of the U-shaped member in appropriate position and secured between said walls, said fulcrum member adapted to engage a suitable fulcrum point.

5. A lever formed of sheet metal bent in the form of a U-shaped section for part of its length to give strength and rigidity thereto, a fulcrum member, one edge of which is introduced between the walls of the U-shaped member and secured therebetween, and being suitably mounted to oscillate on a suitable pivotal point or pin, a ratchet suitably mounted and formed in an arc corresponding to the oscillation of the lever on its pivot and a suitable pawl pivoted to the lever and adapted to cooperate with said ratchet, and means for manually controlling the position of the pawl.

6. A lever formed of sheet metal bent in U-shaped cross section, a cooperating metal fulcrum member, one edge of which is introduced and secured between the walls of said U-shaped form, an arcuate ratchet suitably mounted and a pawl mounted on the lever to cooperate therewith, one end of the lever being formed as a cylindrical sleeve to receive a spring and push button, a rod connected with the push button and said pawl by means of which the same is engaged or disengaged from the ratchet, the other end of the lever being formed as a clevis or jaw and means for preventing said rod from rattling against said lever.

Signed by me at Detroit, Michigan, U. S. A., this 2nd day of April, 1921.

VINCENT LINK.

Witnesses:
ELMER L. MCINTYRE,
HODGSON S. PIERCE.