April 13, 1926. 1,580,724

K. B. HARMON

ATTACHMENT FOR SECURING GRIPS TO BICYCLE HANDLEBARS

Filed May 20, 1925

Fig. 1

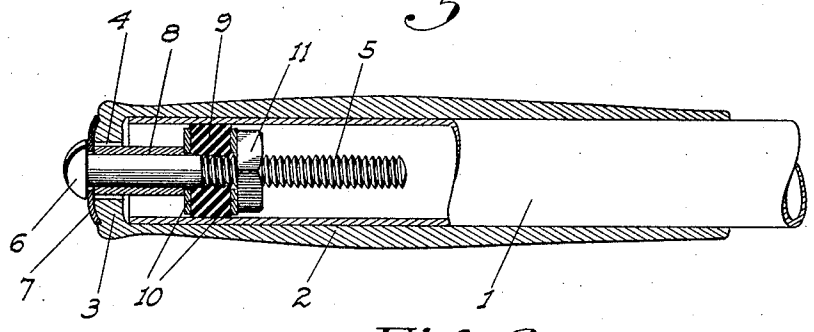



Fig. 2

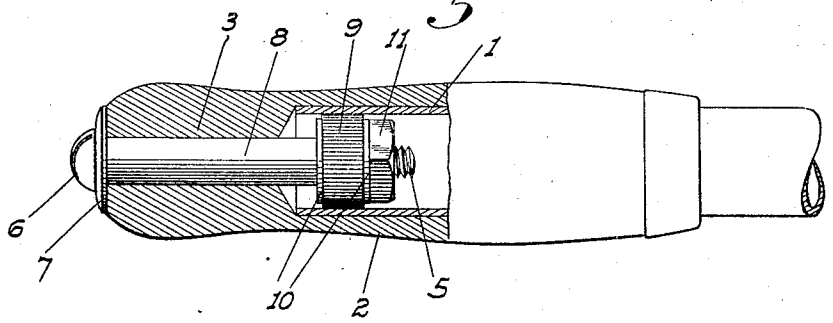
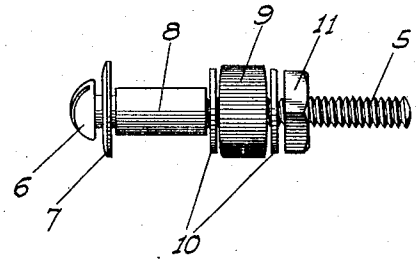



Fig. 3




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# UNITED STATES PATENT OFFICE.

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## ATTACHMENT FOR SECURING GRIPS TO BICYCLE HANDLEBARS.

Application filed May 20, 1925. Serial No. 31,529.

*To all whom it may concern:*

Be it known that I, KENNETH B. HARMON, a citizen of the United States, residing at Stockton, county of San Joaquin, State of California, have invented certain new and useful Improvements in Attachments for Securing Grips to Bicycle Handlebars; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in means for securing hand-grips to the common tubular handlebars of bicycles.

These grips are presumed to have a snug fit over the bars and at present are merely secured thereto by means of shellac or some similar adhesive material.

This proves unsatisfactory since very often the shellac fails to hold after a time, and the grips come off, especially if they do not fit snugly over the bars, as is frequently the case.

The principal object of my invention therefore is to eliminate this crude method of securing the grips by providing a mechanical fastening means between the grips and the bars, which may be applied to any type of grips and so constructed that the grips will be securely held to the bars, while at the same time said grips may be easily removed when it is necessary to renew the same.

The attachment, when applied to the grips and bars, is for the most part concealed, and the portion visible does not in any way detract from the desired neat appearance or interfere with the hands using the grips.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views:

Fig. 1 is a sectional elevation of a grip of a certain type as applied to a handlebar showing my holding attachment installed in connection therewith.

Fig. 2 is a similar view showing the attachment applied to another form of grip.

Fig. 3 is a side elevation of the attachment alone.

Referring now more particularly to the characters of reference on the drawings, the numeral 1 denotes a tubular handlebar, open at its ends as is customary. Adapted to fit onto each end of the bar is a sleeve-like grip 2, whose outer end has a transverse wall 3. The grip shown in Fig. 1 is of rubber and that in Fig. 2 of wood, both forms being standard and commonly used.

To apply my holding attachment to such grips the only change necessary is to drill a centrally located hole 4 through the wall 3.

My attachment comprises a screw 5 of sufficient length to extend through the hole 4 and into the bar 1 for some distance.

The outer end of the screw preferably has a round head 6 provided with a screw slot, a washer 7 being placed on the screw adjacent the head to fit the contour of and abut against the outer end of the grip to prevent the screw head from cutting into the same.

Freely mounted on the screw is a rigid sleeve 8 to fit the orifice 4, and of a length to extend from the washer 7 to a point some distance inwardly of the adjacent end of the bar 1.

A flexible rubber cylinder or block 9 is located on the screw beyond the sleeve 8, the normal diameter of said block being such that it will slide into the bar 1. Washers 10 are disposed on the screw on both sides of said block, the washers being somewhat smaller in diameter than the block. One of these washers is disposed between the block and the sleeve 8, and the other between the block and a nut 11 on the screw.

To install the attachment the parts are first assembled on the grip, so that said parts are close to each other without actually compressing the block. The grip is then placed over the bar in the usual manner, the block sliding into the bar. If the screw is then turned by a screw-driver applied to the head 6, the screw will be advanced through the nut, causing the latter to firmly press against the adjacent washers 10. Since the sleeve 8 is rigid, the block 9 cannot move lengthwise of the screw, and hence will be compressed between the washers 10. This compression will of course cause the expansion of the block about its

circumference, and cause the same to frictionally engage the bore of the bar.

The grip is therefore securely held against undesired removal, while a retractive movement of the screw will relieve the compression on the block and cause the same to slack away from the bar. The grip may then be removed together with the attachment by simply drawing the same outwardly from the bar.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described my invention what I claim as new and useful and desire to secure by Letters Patent is:

1. A device for securing a grip to a hollow handle bar including an expansible block adapted to be inserted into the bar, a headed screw adapted to project through the outer end of the grip and through the block, a rigid sleeve on the screw between the head of the screw and the block, and a nut on the screw beyond the block.

2. A device for securing a grip to a hollow handle bar including an expansible block adapted to be inserted into the bar, a headed screw adapted to project through the outer end of the grip and through the block, a rigid sleeve on the screw between the head of the screw and the block, a nut on the screw beyond the block, and washers of not greater diameter than the block disposed on the screw between the sleeve and block and between the latter and the nut, whereby upon the advancing of the screw through the nut the block will be compressed in a longitudinal direction and caused to expand circumferentially.

3. A device for securing a grip to a hollow handlebar including an expansible member adapted to be inserted into the bar, means for expanding said member to cause the same to frictionally engage the bar, and means associated with said expanding means independent of the grip for preventing such operation from tending to compress the grip.

4. A device for securing a grip to a hollow handle bar including a block to fit the bore of the bar, said block being expansible when compressed axially, rigid members disposed against the opposite faces of the block, and means operable from the outer end of the grip and connected thereto and to the block for moving said members toward each other to expand the block.

In testimony whereof I affix my signature.

KENNETH B. HARMON.