May 6, 1958 J. B. DICK 2,833,551

SIMPLIFIED IDLER ARM ADJUSTER

Filed March 5, 1957

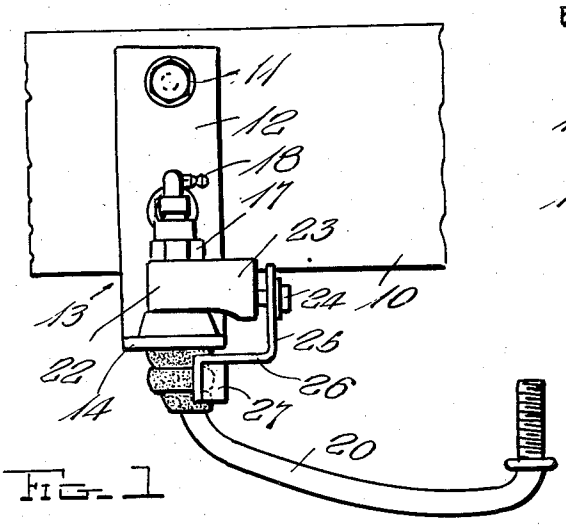


FIG. 1

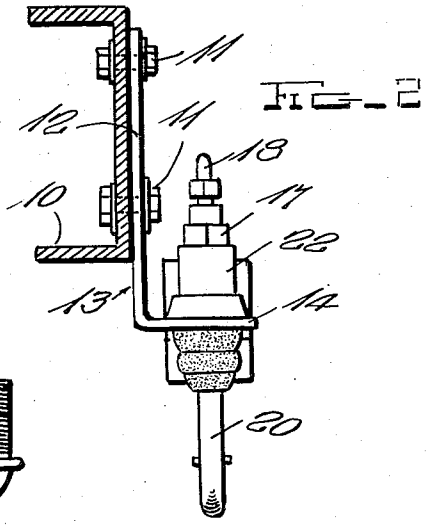


FIG. 2

FIG. 3

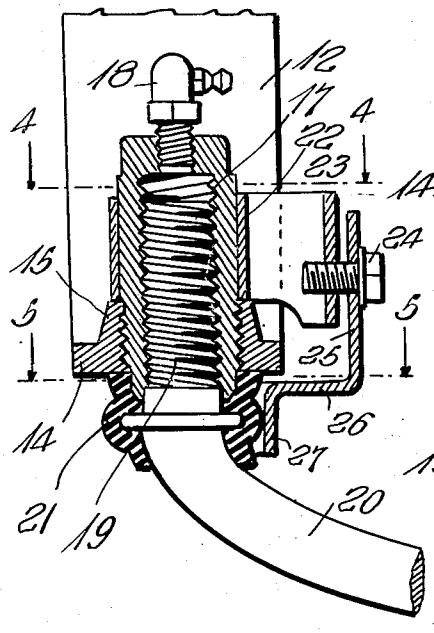


FIG. 4

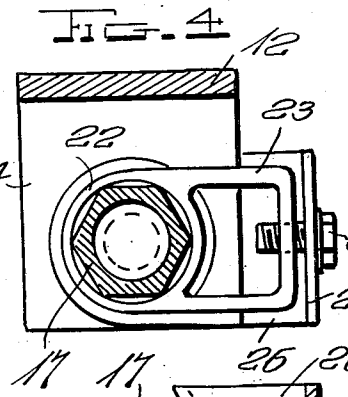
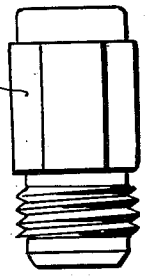


FIG. 6



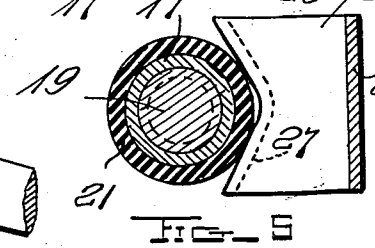


FIG. 5

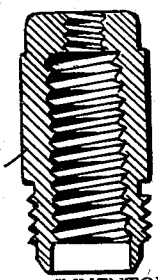


FIG. 7

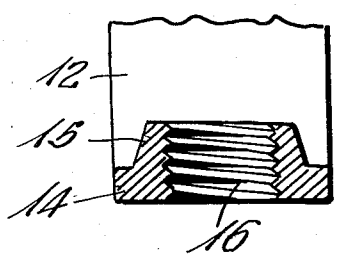


FIG. 8

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SIMPLIFIED IDLER ARM ADJUSTER

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1 Claim. (Cl. 280—95)

The present invention relates to a simplified idler arm adjuster and it consists in the combinations, constructions and arrangements of parts herein described and claimed.

Generally there is provided a device which is designed to eliminate looseness caused by wear in the idler arm assembly of automobiles while at the same time providing a stabilizing effect in the front end assembly of such automobiles against road shock and weaving. The device consists simply of a sleeve adapted to receive therein the conventional bushing and which sleeve is provided with a lateral extension to which is removably attached by means of a cap screw or the like a vertically dependent arm whose lower end is directed inwardly and terminates in a vertically dependent socket which is adapted to bear against the adjacent end of the idler arm. The device is such that it may be utilized on a great variety of present day automobiles and is one which may be installed in a minimum of time and with a minimum of effort.

It is accordingly an object of the invention to provide a device of the character set forth which is simple in construction, inexpensive to manufacture and yet effective and efficient in use.

Another object of the invention is to provide, in a device of the character set forth, novel means for mounting the same upon an idler arm assembly.

A further object of the invention is to provide, in a device of the character set forth, a positive thrust of an idler arm against its bushing thereby removing all looseness therebetween.

Still another object of the invention is to provide, in a device of the character set forth, means for producing a side thrust whereby there will be positive engagement of threads both at the bottom and at the top portion of the conventional bushing associated therewith whereby to allow the idler arm to work freely in its bushing.

Another object of the invention is to provide a device of the character set forth which provides means for the removal of looseness between an idler arm and its bushing whereby to eliminate road shock and weave and thus unnecessary wear in the associated portions of an automobile including the adjacent tires.

Other and further objects of the invention will become apparent from a reading of the following specification taken in conjunction with the drawing, in which:

Figure 1 is a side elevational view of an embodiment of the invention showing the same in operative position upon an idler arm assembly,

Figure 2 is a rear elevational view thereof,

Figure 3 is an enlarged fragmentary sectional view illustrating the component parts of the invention,

Figure 4 is a sectional view taken along line 4—4 of Figure 3,

Figure 5 is a sectional view taken along line 5—5 of Figure 3,

Figure 6 is an elevational view of a bushing forming a part of the idler arm assembly,

Figure 7 is a vertical sectional view of the device illustrated in Figure 6, and

Figure 8 is an enlarged fragmentary sectional view of a portion of a bracket forming a part of the idler arm assembly with which the device is used.

Referring more particularly to the drawing, there is shown therein a portion of an automobile frame **10** to which is affixed by bolts **11** or the like the vertical arm **12** of an L-shaped bracket **13** whose lower arm **14** extends in a horizontal direction.

The arm **14** of the bracket **3** is provided with an opening having an upstanding integrally formed seat **15**, the opening being indicated at **16** and being interiorly threaded for the reception of a vertically extending bushing **17** provided in its upper end with a grease fitting **19**, as is conventional.

The bushing **17** is interiorly threaded for the reception therein of the inner end portion **19** of an idler arm **20** and a rubber grommet **21** surrounds the idler arm **20** and bears against the under side of the bracket arm **14**, as clearly shown in Figure 3.

The device embodying the present invention comprises a cylindrical sleeve **22** having an integrally formed lateral extension **23** to which is removably connected by means of a screw **24** or the like a vertically extending tension arm **25** whose lower end is integrally formed therewith an inwardly extending web **26** dependent from the inner end of which is a socket **27**.

In use, it will be apparent that in order to install the device of the present invention, it is only necessary to place the sleeve **22** over the bushing **17** and to lower the same until it comes into contact with the seat **15** whereupon the tensioning arm **25** is attached to the extension **23** by means of the screw **24**, it being apparent that the socket **27** will now bear against the grommet **21** and that further tightening of the screw **24** will impart a thrust against the portion **19** of the idler arm in a direction to the left as viewed in Figure 3 while at the same time imparting a thrust to the right, likewise as viewed in Figure 3 against the bushing **17**. It will be apparent that a side thrust of this type will impart positive engagement of the threads to portion **19** with the threads in the bushing **17** thus leaving the bushing complete freedom of movement without the usual "pinching" of the threads at the bottom of the bushing which is usual in other devices of this character. It will likewise be apparent that the device may be installed in a very minimum of time and effort and without in any manner altering or damaging the parts with which it is associated while at the same time removing all looseness and providing the proper amount of tension to eliminate road shock and weave and producing a quiet stabilized steering condition free from annoying driving disturbances.

While but one form of the invention has been shown and described herein, it will be readily apparent to those skilled in the art that many minor modifications may be made without departing from the spirit of the invention or the scope of the appended claim.

What is claimed is:

A device of the character described comprising, in combination with an idler arm having a vertically extending threaded end portion, a bracket having an apertured horizontal arm, a bushing vertically affixed and extending through said horizontal arm and threadably receiving through its lower end said threaded end portion of said idler arm, the provision of an idler arm adjuster comprising a sleeve adapted to encompass said bushing above said horizontal arm, a lateral extension affixed to said sleeve, a vertically dependent tensioning arm having its lower end in contact with said idler arm below said horizontal arm, and a screw interconnecting said extension

with the upper end of said tensioning arm, said tensioning arm having an inwardly directed web formed integrally with the lower end thereof, and said web having a dependent socket formed at the inner end thereof, said socket adapted to bear against the idler arm below said horizontal arm of said bracket.

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