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T. S. HAMILTON

ATTACHMENT FOR VEHICLE SPRINGS

Filed August 4, 1924

Fig. 1.

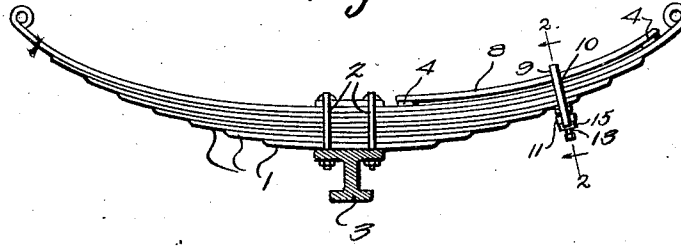


Fig. 3.

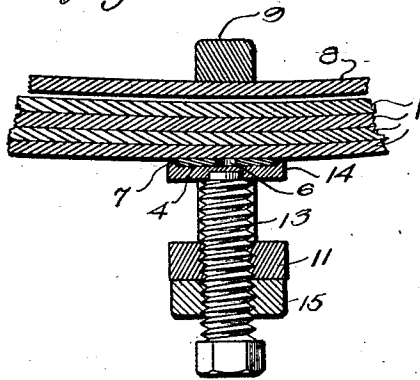


Fig. 2.

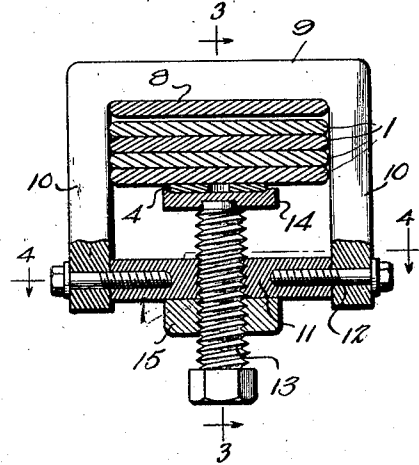


Fig. 4.

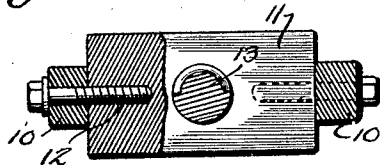


Fig. 6.

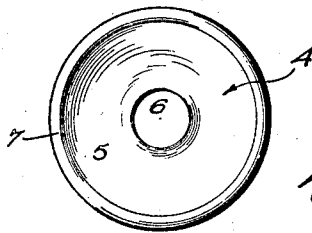
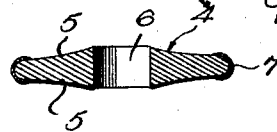


Fig. 5.

by

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ATTACHMENT FOR VEHICLE SPRINGS.

Application filed August 4, 1924. Serial No. 730,101.

This invention relates to attachments for vehicle springs.

An object of the invention is the provision of means for controlling the rebound on a flexible spring.

In a copending application filed March 26, 1924, Serial No. 702,903, I have disclosed and claimed an attachment for vehicle springs consisting of a rubber insert adapted to be arranged over the end of each spring leaf and retained in position by the next leaf above, the insert being provided with a central opening adapted to contain a body of air which is compressed during the operation of the spring.

In actual practice, I have found that on some types of vehicles, this insert renders the spring too flexible. Snubbers of the ordinary type which fit between the chassis and the spring are not satisfactory in attempting to overcome this flexibility as the upward movement of the body of the vehicle has a tendency to pull the wheels off the ground.

In the present invention, I provide an attachment consisting of an auxiliary leaf or blade of compressed steel adapted to be arranged over the upper spring leaf and a compression strip surrounding the leaves of the spring and retaining said blade in position.

In the accompanying drawings, I have shown one embodiment of the invention. In this showing:

Figure 1 is a side elevation of a leaf spring showing the invention applied,

Figure 2 is a transverse vertical sectional view on line 2—2 of Figure 1,

Figure 3 is a vertical longitudinal sectional view on line 3—3 of Figure 2,

Figure 4 is a horizontal sectional view on line 4—4 of Figure 2,

Figure 5 is a plan view of the insert, and,

Figure 6 is a vertical sectional view thereof.

Referring to the drawings, the reference numeral 1 designates the spring which consists of a plurality of leaves of the usual construction, the lower leaf being the shortest, and the leaves increasing progressively in length. The central portion of the leaves are secured to each other by clips or bolts 2, which are adapted to be received in the axle 3 in the usual manner.

In Figures 5 and 6 of the drawings, I have shown an insert 4 which is preferably

circular in shape and provided with tapered upper and lower faces 5, forming a device that is of greater thickness at the center than at its periphery. The insert is provided with a central opening 6 and the periphery may be provided with a coating 7 of suitable material to exclude moisture and oil. As stated, the insert per se forms no part of the present invention and is the subject matter of my said copending application.

In the present invention, a straight plate 8 of compressed spring steel is arranged over the upper leaf of the spring and an insert is arranged under each end of this plate. Intermediate the ends of the plate, a substantially U-shaped compression strap 9 is arranged over it to retain it in position. The strap is provided with depending legs 10 arranged on each side of the spring, and these legs are connected by a cross bar 11, which is secured to each leg by means of a screw or cap bolt 12. The cross bar is provided with a centrally threaded opening adapted to receive a compression adjusting screw 13. A cup 14 is arranged on the upper end of the adjusting screw and this cup is adapted to support an insert which is arranged between the cup and the lower leaf of the spring. A lock nut 15 is arranged on the adjusting screw.

The operation of the device will be apparent from the foregoing description. The inserts arranged above and below the spring give the vehicle the easy riding qualities desired, and the compression strap eliminates or controls the rebound, providing better traction. The device requires no lubrication and the compression can be adjusted by means of the adjusting screw 13.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

I claim:

1. An attachment for vehicle springs comprising a member adapted to be arranged over the upper leaf of the spring, cushioning members arranged between said member and said upper leaf, a substantially U-shaped compression strap engaging said member, and extending downwardly on each side of said spring, and a member carried by said

strap and engaging the under side of said spring.

2. An attachment for vehicle springs comprising a member adapted to be arranged
5 over the upper leaf of the spring, cushioning members arranged between said member and said upper leaf, a substantially U-shaped compression strap engaging said
10 member and extending downwardly on each side of said spring, a cross bar connected to the depending portions of said compression

strap, and an adjusting screw carried by said cross bar and engaging the under side of said spring.

3. A device constructed in accordance 15 with claim 2 wherein a cup is arranged on the upper end of said adjusting screw and a cushioning member is arranged between said cup and said spring.

In testimony whereof, I affix my sig- 20 nature.

THOMAS S. HAMILTON.