PATENT SPECIFICATION

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151,953

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Complete Accepted: Oct. 6, 1921.

COMPLETE SPECIFICATION.

Improvements in or relating to Spring Suspensions for Vehicle Bodies.

We, LANCIA & C., 99, Via Monginevro, Turin, Italy, an Italian company, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

The present invention has for its object to provide an arrangement for improving the spring suspensions for vehicle bodies such as motor cars and it prevents any wear from taking place in the pivots by means of which the springs are connected with the frame.

In the accompanying drawing is shown by way of example an embodiment of this invention in which:

Figure 1 is a side view of the front end of the frame bar and the spring connected with it;

Figure 2 is a section on line *x*—*x* of Figure 1;

Figure 3 is a side view of the rear end of a front spring and of the portion of the frame with which it is connected by means of shackles, and

Figure 4 is a transverse section on *y*—*y*, Figure 3.

As shown in Figures 1 and 2, the eyes 1 and 2 provided on the end 1^1 of the frame bar and on the spring 2^1, respectively, instead of being connected by means of a simple pivot as usually, are connected by a cylindrical stud 3 of very hard bronze, which seats in the hollow of eyes 1 and 2 and is provided at each end with a recess in which enters the hollow stem 4 of an annular head 5 abutting against the outer surface of an eye 2.

The stud 3 and the stems 4 are pierced by a central hole in which is located a pin 6 on threaded ends of which are screwed two nuts 7 entering proper seats in the heads 5 and against each of said nuts bears a spring 8 pressing at its opposite end against the bottom of stem 4.

The stud 3 with heads 5 constitute a pivot which is held in position by the pin 6 and nuts 7; the wear which may take place between the contact surfaces is taken up by the springs 8 tightening the heads 5 on the surfaces of eyes 2.

Washers 9 are inserted between heads 5 and eyes 2 and between eyes 2 and the eye 1. The pivot is made solid with eye 1 by a pin 10 in the usual manner.

The lubrication of the pivot is provided by a wick lubricator 11 from which the oil is fed through one or more passages 12 to the interstices between the stud 3 and the inner surface of eyes 1 and 2.

A similar device may be used in the double pivot connections of the kind shown by Figures 3 and 4, with the difference that the eye 1 is carried by a part 1^{11} solid with the frame and carrying a pivot and the spring 2^1 has a single eye provided with another pivot, two shackles 13 being located with their eyes in register with the eyes of said parts. Said pivots are made in the above described manner and the lubrication is obtained by means of a wick lubricator 11 from which the oil flows, through a passage 12, on the upper pivot whose surface has a top central recess 14 leading to two side recesses 15. The oil is fed to the eyes of shackles 13 through ducts 16 directing it on the surface of the lower pivot.

By this mounting of the springs in motor cars a strong and well-lubricated connection is obtained in which no wear may take place between the heads of the pivots and the side surfaces of the parts,

[*Price* 1/-]

the shocks produced by such wear during the running of the car being avoided.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. In a spring suspension for vehicle bodies, an arrangement for pivoting the suspension springs in which the eyes which are to be pivoted together are provided with a stud which has at both ends recesses entered by the stems of two heads which are held in position by a central pin having two nuts screwed at its ends, said heads being forced against the sides of the eyes by springs enclosed between the bottom of the stems of said heads and the nuts of the central pin.

2. A spring suspension according to Claim 1 in which the contacting surfaces are lubricated by a wick lubricator from which the oil is fed through a passage or passages to the cylindrical surface of the stud constituting the pivot.

3. A spring suspension according to Claim 2 applied to a double shackle connection, characterised by the oil being fed from the upper pivot to the lower one through passages provided in the shackles.

4. The spring suspension for vehicle bodies substantially as described or substantially as illustrated in the accompanying drawing.

Dated this 2nd day of October, 1920.

BOULT, WADE & TENNANT,
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E.C. 1,
Chartered Patent Agents.

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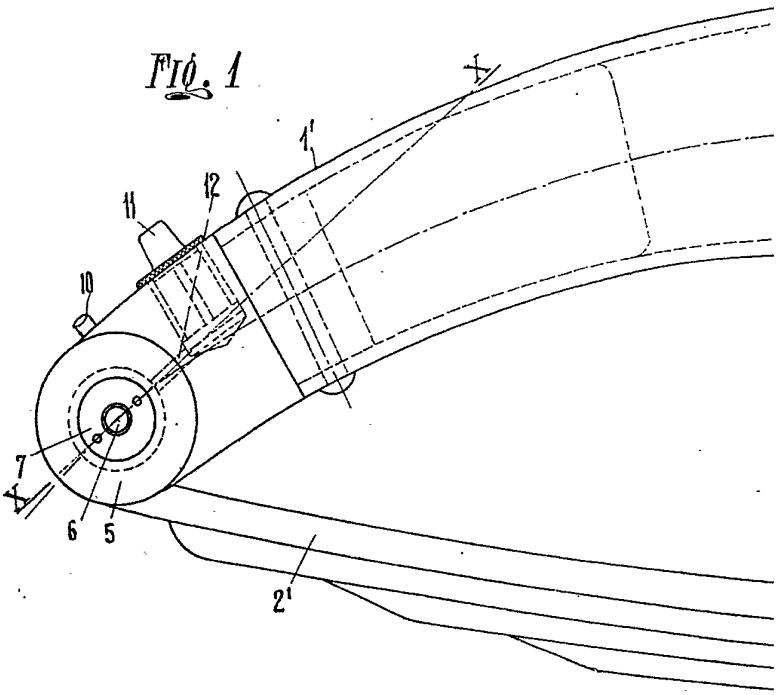
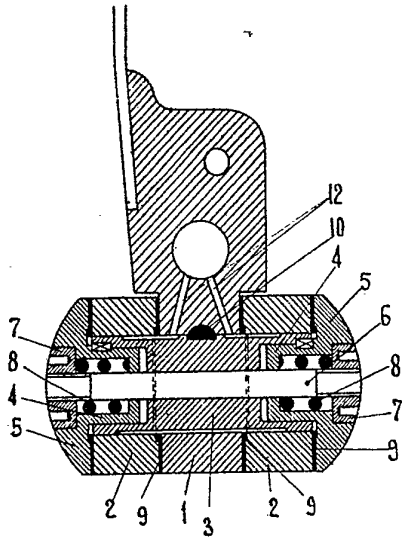
[This Drawing is a reproduction of the Original on a reduced scale.]

FIG. 1





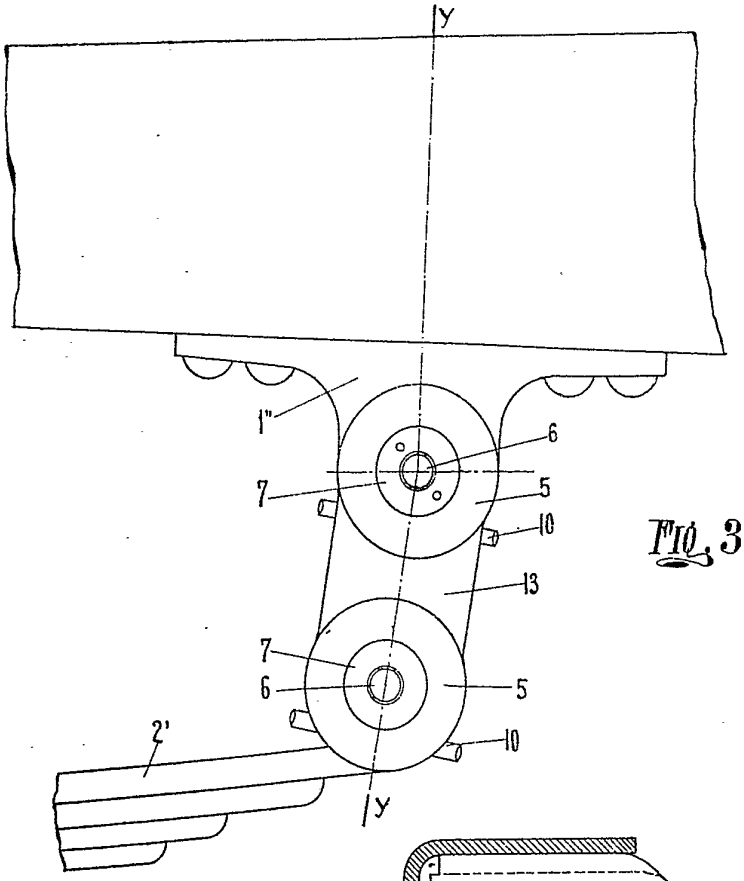


FIG. 3

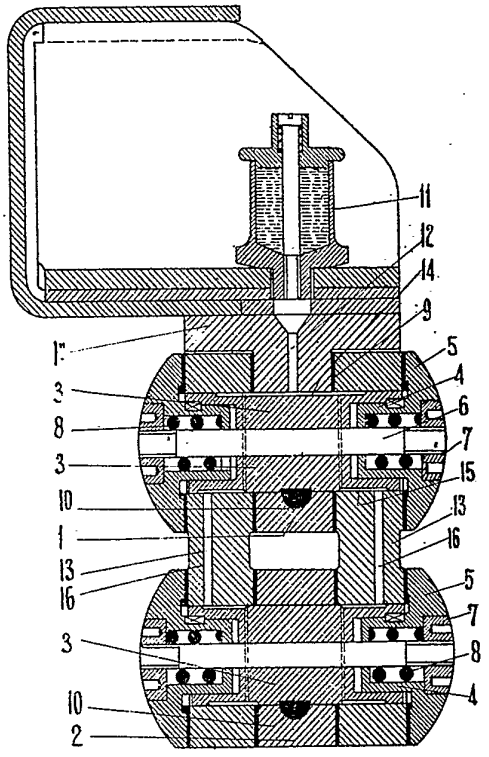


FIG. 4

Malby&Sons, Photo-Litho.

FIG. 1

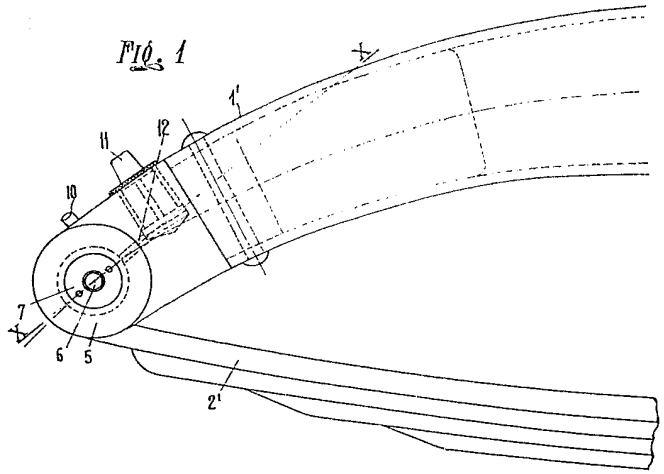


FIG. 3

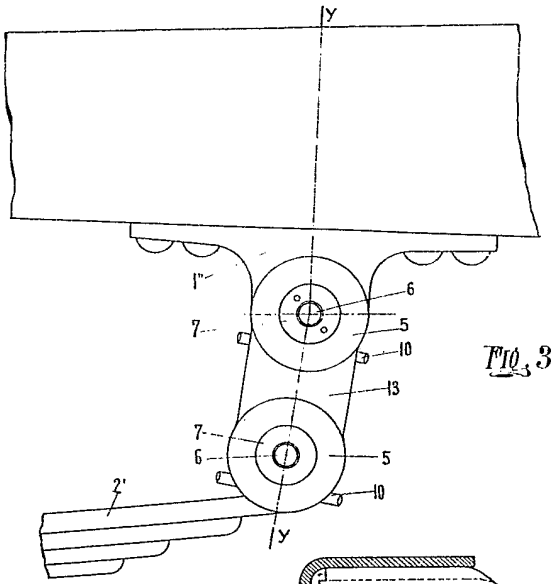


FIG. 2

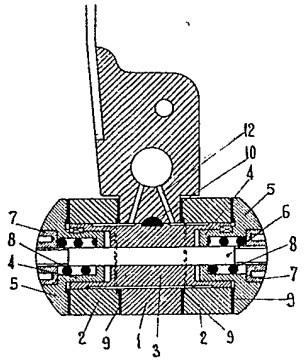
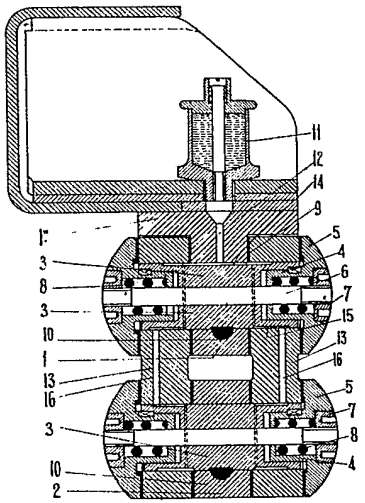


FIG. 4



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