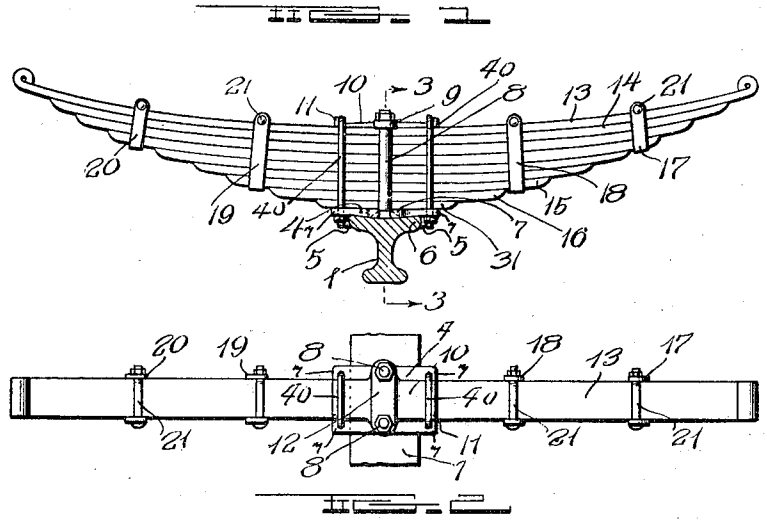
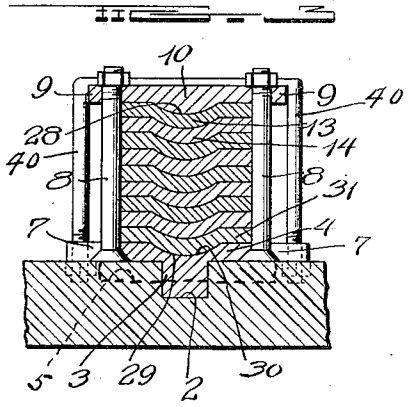
July 1, 1924. 1,499,654

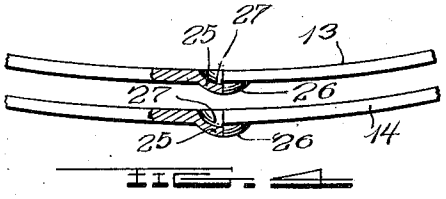
W. HASELHERST

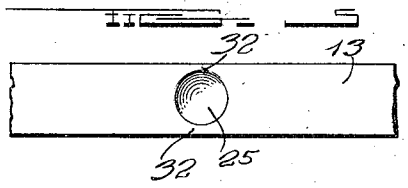
VEHICLE SPRING

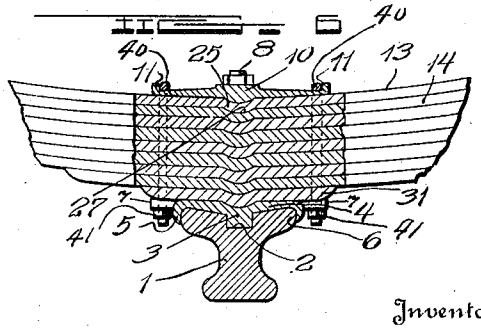
Filed June 19, 1922











Inventor

William Haselherst

By T. W. Swinburne

Attorney

Patented July 1, 1924. 1,499,654

UNITED STATES PATENT OFFICE.

WILLIAM HASELHERST, OF BALTIMORE, MARYLAND.

VEHICLE SPRING.

Application filed June 19, 1922. Serial No. 569,207.

To all whom it may concern:

Be it known that I, WILLIAM HASELHERST, a citizen of the United States, residing at Baltimore, in the city of Baltimore and State of Maryland, have invented certain new and useful Improvements in Vehicle Springs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and used the same.

This invention relates to vehicle springs of the leaf type, and has for its object to provide a means to so hold the leaves together that they cannot slip either linearly or laterally.

A further object is to avoid any diminution in the strength of the leaves, or any of them, as for example, by perforations, and a still further object of the invention is to provide a spring which will be more certain and efficient in use, less costly to manufacture, and more sightly in appearance than those heretofore proposed.

With these and other objects in view the invention consists in the novel details of construction and combinations of parts more fully hereinafter disclosed and particularly pointed out in the claim.

Referring to the accompanying drawings forming a part of this specification, in which like numerals designate like parts in all the views:—

Figure 1 is a side elevational view partly in section of a vehicle spring and support made in accordance with this invention;

Figure 2 is a plan view of the parts shown in Figure 1;

Figure 3 is a sectional view on the line 3—3 of Figure 1, looking in the direction of the arrows;

Figure 4 is a partially sectional view of the cup shaped portions of two detached leaves of the spring;

Figure 5 is a plan view of one of the parts shown in Figure 4; and

Figure 6 is a longitudinal sectional view of a portion of the parts shown in Figure 1.

1 indicates the vehicle axle provided with a recess 2 into which fits a lug 3 carried by the chair or bracket member 4 provided with the turned down flanges 5 fitting the rims 6 of the axle 1. Said chair member 4 is provided with the ears 7 through which pass the lower ends of the bolts 8 and whose upper ends pass through ears 9 of a companion chair or clamping member 10, having the turned up flanges 11, as shown. Extending across the clamping member 10 from one bolt 8 to the other is the top flat supporting surface 12 in line with the leaves 13 of the spring, and firmly clamped between said members 4 and 10 are a plurality of leaves 13, 14, 15, 16, etc., forming a compact bundle of the form well known. Encircling this bundle of spring leaves at suitable intervals are the U-shaped clamping members 17, 18, 19 and 20, each provided with a suitable fastening means 21.

As is further well known, if the individual leaves 13, 14, etc., of the spring were provided with no other fastening means than those now disclosed, said leaves would work loose, slip linearly and fail to function properly for reasons familiar to those skilled in the art. Accordingly, in carrying out this invention, I provide each leaf 13, 14, etc., with a semi-spherical projection and depression 25, the convex surface 26 of an upper projection fitting the concave surface 27 of the next lower depression all as will be clear from Figures 3, 4 and 6. And, in order to cause the bundle of leaf springs to nest snugly between the clamping members 4 and 10, I provide the upper member 10 with a solid partially spherical projection 28 which fits the concave surface 27 of the leaf 13, and I provide the lower clamping member 4 with a partially spherical depression 29 into which fits the convex surface 30 of the lowest leaf 31. It is obviously immaterial whether the projection or depressions are on top.

Each depression or cup 25 is made entirely within the edges or sides of the leaf, leaving spaces 32 between said edges and the rims of the depressions as shown in Figure 5, thus avoiding any detraction from the strength of the leaf, and when the leaves are held together rendering the projection and depression invisible. It thus results that each leaf of the bundle is entirely free to exert its resiliency and to thus afford a maximum of cushioning effect, while it is held firmly in place.

In addition to the foregoing construction, in some cases I add the U-shaped clamping members 40 which fit inside the flange members 11, pass down on each side of the spring, and through holes in the ears 7 of the

chair member 4, and are secured by the nuts 41 on the under side of the said ears 7, all as will be clear from the drawings.

It is obvious that those skilled in the art may vary the details of construction as well as the arrangement of parts without departing from the spirit of the invention, and therefore, I do not wish to be limited to the above disclosure except as may be required by the claim.

What is claimed is:—

In a vehicle spring seating means, the combination of a lower chair member provided with a lug adapted to fit a recess in the axle of the vehicle and with turned down flanges adapted to fit the opposite rims of said axle; said chair member also provided with one set of ears extending out beyond said rims and with a second set of ears extending longitudinally of said axle and also provided with a partially spherical depression in its top surface opposite said lug; a plurality of spring leaves each provided with a partially spherical projection and depression in its central portion adapted to nest with each other, the lowest projection of said leaves adapted to fit in the first mentioned depression of said chair member; an upper companion chair member having turned up flanges and a partially spherical projection adapted to fit the topmost depression of said leaves, said upper chair member also provided with ears extending beyond the edge of said leaves; U-shaped clamping members coacting with said turned up edges of said upper chair member and passing through the first mentioned set of ears of said lowermost chair member; and bolts passing through the second set of ears of said lowermost chair member and through the ears of said topmost chair member along the outer edges of said leaves.

In testimony whereof I affix my signature.

WILLIAM HASELHERST