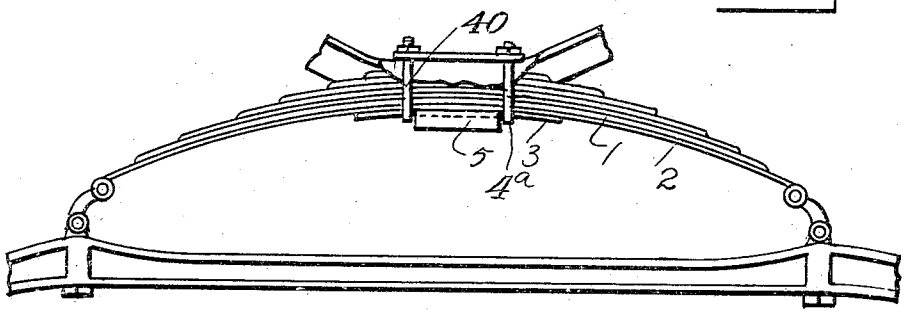
C. W. HAWKINS.

BRACE FOR LEAF SPRINGS.

APPLICATION FILED APR. 2, 1918.

1,294,338. Patented Feb. 11, 1919.

Fig. 1.



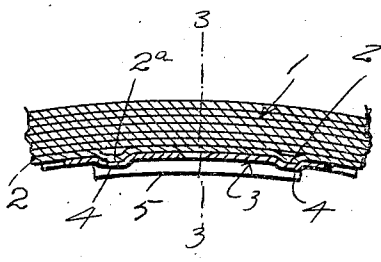


Fig. 2.

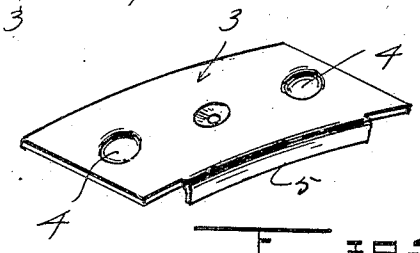


Fig. 4.

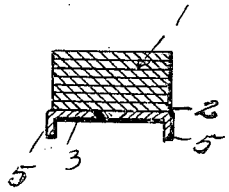


Fig. 3.

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UNITED STATES PATENT OFFICE.

CHARLES W. HAWKINS, OF ZEUS, VIRGINIA.

BRACE FOR LEAF-SPRINGS.

1,294,338. Specification of Letters Patent. Patented Feb. 11, 1919.

Application filed April 2, 1918. Serial No. 226,272.

To all whom it may concern:

Be it known that I, CHARLES W. HAWKINS, a citizen of the United States, residing at Zeus, in the county of Madison and State of Virginia, have invented certain new and useful Improvements in Braces for Leaf-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 use the same.

This invention relates to a brace particularly designed for use in connection with leaf or laminated vehicle springs and the primary object of the invention is to provide a bracing member constructed of spring steel, which is positioned beneath the lowermost leaf of the vehicle spring and which plate has downwardly extending flanges formed along its side edges for portions of the length thereof to prevent the said plate from being bent further than in a substantially straight line, and consequently prevents the bending of the leaves of the spring further than in a substantially straight line, thereby eliminating much of the liability of breaking of the spring.

With the foregoing and other objects in view this invention consists in such novel features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawings and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters designate like and corresponding parts throughout the several views and in which:

Figure 1 is a front view of a vehicle spring showing the improved brace applied thereto,

Fig. 2 is a longitudinal section through the spring and the brace,

Fig. 3 is a transverse section through the spring and brace taken on the line 3—3 of Fig. 2, and

Fig. 4 is a detail perspective view of the brace.

Referring more particularly to the drawings, 1 designates the leaf or laminated spring which is of the ordinary construction used on various types of motor vehicles and particularly on "Ford" automobiles, for which springs the invention was primarily designed for use.

The improved brace, which is generally indicated by the numeral 3, is formed of a piece of flat spring steel, and it is bowed so that its inner surface will fit snugly against the lower surface of the lowermost leaf 2 of the spring 1. The brace 3 is held beneath and in engagement with the under surface of the leaf 2 by the clip structure 40 which is the ordinary yoke or clip structure employed for connecting the spring 1 to the vehicle body. In cases where the leaf 2 of the spring is provided with downwardly extending bulged portions 2^a, the brace 3 is provided with depressions 4 which are adapted to receive the downwardly projecting bulges 2^a of the leaf 2 and the bulges 2^a fitting in the depressions 4 will have a tendency to prevent creeping movement of the plate 3 along the under surface of the leaf 2.

The plate 3 is provided with downwardly extending flanges 5 formed along its side edges and terminating short of each end of the plate as clearly shown in the drawings. The flanges 5 extend downwardly at right angles to the plate or brace 3 and their ends preferably engage the U-shaped bulge 4^a of the clip structure 40 which further prevents accidental endwise movement of the brace 3 with respect to the spring 1. The flanges 5 will permit the brace 3 to be practically moved into a straight line, and will consequently permit the leaves of the spring 1 to be moved correspondingly but these flanges acting as stout braces and resisting any tendency of being bent outwardly will prevent the plate 3 from being bent downwardly beyond a straight line and will also prevent the leaves of the spring 1 from being bent below a straight line, thereby materially eliminating the liability of breakage of the spring 1.

In reducing the invention to practice, certain minor features of construction, combination and arrangement of parts may necessitate alterations to which the applicant is entitled provided such alterations are comprehended within the scope of what is claimed.

What is claimed is:

1. A brace for leaf springs comprising a plate constructed of flat resilient spring steel of slightly arcuate shape so as to snugly fit the under surface of the lowermost leaf of the leaf spring, and possessing transverse end edges lying substantially in the plane of the plate, and substantially rectangular flanges extending longitudinally of said brace.

2. A brace for leaf springs comprising a plate constructed of flat spring steel and bowed so as to snugly fit the under surface of the lowermost leaf of the leaf spring and having transverse end edges lying substantially in the plane of the plate, and straight substantially rectangular flanges extending along the longitudinal edges and terminating at a distance from either straight end of said plate.

3. A brace as specified in claim 2 and possessing additionally depressions in said plate adapted to receive downwardly extending bulged parts of the lowermost leaf.

4. A brace for leaf springs comprising a plate constructed of flat spring steel and bowed so as to snugly fit the under surface of the lowermost leaf of the leaf spring and having transverse end edges lying substantially in the plane of the plate, straight substantially rectangular flanges, straight edged throughout and extending along the longitudinal edges of the brace and terminating at a distance from either end of said plate, and leaf spring retaining clips or staples in engagement with said flanges at the ends of the rectangular flanges.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES W. HAWKINS.

Witnesses:
H. S. THOMAS,
W. R. CLORE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."