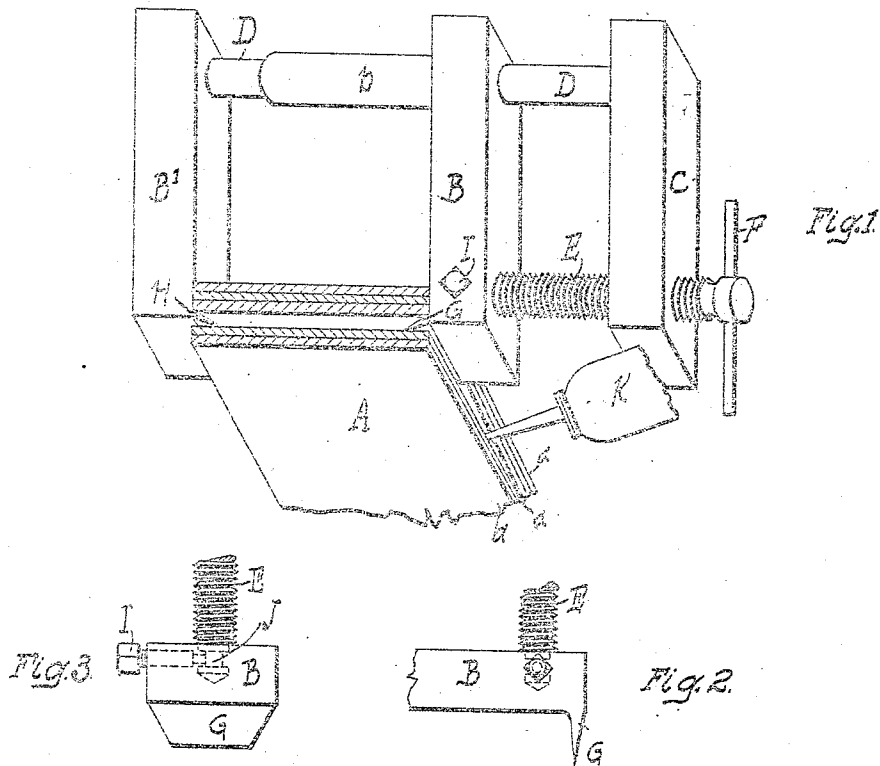


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LEAF SEPARATOR FOR SPRINGS.
APPLICATION FILED FEB. 14, 1912.

1,142,280.

Patented June 8, 1915.



WITNESSES
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JOHN H. STEVENSON AND FREDERICK KNOWLSON, OF ANN ARBOR, MICHIGAN; SAID STEVENSON ASSIGNOR TO SAID KNOWLSON.

LEAF-SEPARATOR FOR SPRINGS.

1,142,280.

Specification of Letters Patent.

Patented June 8, 1915.

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To all whom it may concern:

Be it known that we, JOHN H. STEVENSON and FREDERICK KNOWLSON, subjects of the King of Great Britain, residing at Ann Arbor, county of Washtenaw, State of Michigan, have invented a certain new and useful Improvement in a Leaf-Separator for Springs, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Our invention relates to apparatus for lubricating leaf springs, and the object of our improvements is to provide means for properly placing a lubricating material between the leaves of springs, especially those used for vehicles.

We accomplish this object by the apparatus hereinafter described.

In the accompanying drawings,—Figure 1, is a perspective view of a part of a leaf spring and an apparatus embodying our invention separating leaves of said spring so that lubricating material may be placed between them and properly distributed. Fig. 2, is a detail view of a portion of the apparatus for separating the leaves of the spring, and Fig. 3, is a view of a portion of the apparatus shown in Fig. 2, looking from the right of the latter figure.

A, is a portion of a leaf spring made up of a plurality of leaves indicated by *a, a, a*. B¹ and C are side pieces rigidly connected by the cross piece D.

B, is a sliding cross head sleeved upon the cross piece D so as to reciprocate thereon. b, is a sleeve surrounding the cross piece D and rigidly joined to the cross head B to steady the latter.

E, is a screw threaded rod, its end protruding into an aperture in the cross head B, in which it is secured so as to permit it to rotate by means of a pin I extending through the material of the cross head B and into a groove in the end of the rod E, as shown in dotted lines in Fig. 3. The rod E extends through an aperture in the side piece C, its screw threads engaging screw threads in said aperture.

F, is a handle by which the rod E may be rotated.

G, is a spur, or knife edge, supported by

the cross head B at its lower end and on the inner side thereof, the spur G is of the shape shown in Figs. 2 and 3 presenting a knife edge at its outer extremity and increasing in thickness toward its supporting cross head. H, is a spur or knife similar to the spur G extending inward from the lower end of the side piece B¹.

The method of using our improved apparatus is as follows:—The cross head B is adjusted along the cross bar D to the width of the spring that it is desired to lubricate, the spring is then placed between the spurs H, G, so that the edge comes between two of the leaves of said spring. The rod E is then turned by the handle F forcing said spurs between said leaves and separating the leaves, a lubricant may then be inserted between the separated leaves and properly distributed. We have indicated an oil can K as a means of inserting the lubricant.

What we claim is:—

1. A leaf spreader for spreading leaf springs comprising a yoke, a wedge on one arm of the yoke, a wedge on the other, and means for advancing one of the wedges and maintaining it in advanced position.

2. In an apparatus for separating the leaves of springs, the combination of a pair of side pieces, a cross piece connecting them together and spacing them, a spur on one of the side pieces, a cross head, a sleeve attached to the cross head and slidably mounted on said cross piece, a spur on the cross head opposite said first mentioned spur and in horizontal alinement therewith, and a screw fastened to the cross head and passing through a threaded aperture in the side piece without the spur.

3. A device for spreading the leaves of vehicle springs comprising supporting means adapted to bridge a spring two oppositely positioned wedge parts thereon adapted to enter between the leaves of springs from opposite sides thereof, and means for forcibly actuating the wedge parts to cause the same to spread the leaves, substantially as described.

4. A device for spreading the leaves of springs comprising two oppositely positioned wedge parts adapted to enter between the leaves of springs from opposite sides thereof, and means for forcibly actuating the wedge parts to cause the same to spread the leaves, and for retaining the wedge parts

in adjusted position, substantially as described.

5 A device for spreading the leaves of springs comprising two oppositely positioned wedge parts adapted to enter between the leaves of springs from opposite sides thereof, and means for mechanically adjusting the wedges to fixed relative positions to retain the leaves in spread relation,
10 substantially as described.

6. A device for spreading the leaves of vehicle springs comprising two oppositely positioned wedge parts adapted to enter be-

tween the leaves of springs from opposite sides thereof, and carrying means for said wedge parts adapted to bridge a spring and to maintain the wedge parts in desired spaced relation. 15

In testimony whereof, we sign this specification in the presence of two witnesses.

JOHN H. STEVENSON.
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Witnesses:

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