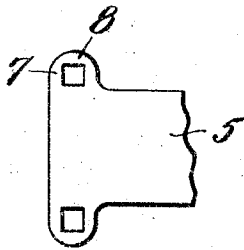
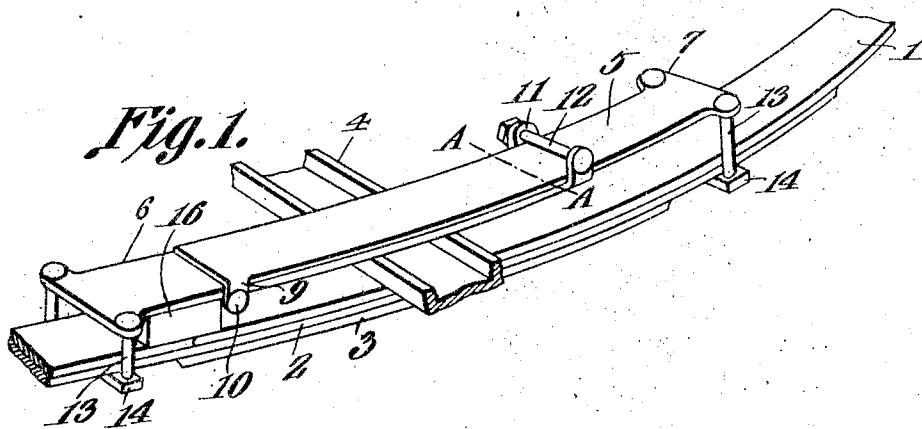


L. D. CORSER.
 SPRING SUPPORTER AND REPAIRER.
 APPLICATION FILED NOV. 21, 1912.

1,056,631.

Patented Mar. 18, 1913.



Witnesses

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UNITED STATES PATENT OFFICE.

LORENZO D. CORSER, OF BRIDGTON, MAINE.

SPRING SUPPORTER AND REPAIRER.

1,056,631.

Specification of Letters Patent.

Patented Mar. 18, 1913.

Application filed November 21, 1912. Serial No. 732,747.

To all whom it may concern:

Be it known that I, LORENZO D. CORSER, a citizen of the United States, residing at Bridgton, in the county of Cumberland and State of Maine, have invented a new and useful Spring Supporter and Repairer, of which the following is a specification.

This invention relates to a device for repairing a spring, the object being to provide a device which may be quickly and easily placed upon a spring adjacent the broken portion and tightly bound thereto and successfully take up the duties and functions of the broken portion of the spring.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the drawings accompanying this specification and forming a part thereof, the preferred form of my invention is illustrated in which—

Figure 1 is a perspective view of a spring with my improved spring repairer in position thereon. Fig. 2 is a side view of the same. Fig. 3 is a detail view of one of the auxiliary leaves, and Fig. 4 is a sectional view taken on the line A—A of Fig. 1.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 is the main or upper leaf of a semi-elliptical spring such as is usually employed in automobile and carriage constructions. The numerals 2 and 3 designate the successive spring leaves thereunder. The ends of this semi-elliptical spring have not been shown but are connected to the automobile or carriage body, the central portion of said spring being adapted to be mounted upon the axle of the vehicle and securely held thereto by a suitable eye bolt (not shown), which bolt passes through the holding member 4 and downward through the successive leaves of the spring.

In order that the springs shall possess the required resiliency it is necessary that they be made of extremely thin material which renders them extremely liable to be broken in usage and in order that a temporary re-

pair may be effected, the auxiliary leaves 5 and 6 are clamped over the broken portion of the spring and these leaves thereby take up and withstand the stress and strain imparted thereto by the supporting of the vehicle body.

The auxiliary leaf 5 is provided at one end with the outstanding projections or ears 7 as illustrated in Fig. 3, which projections are provided with suitable bolt receiving apertures 8 therein. The end remote from this construction is provided with the downwardly extending ears 9 which ears are provided with openings through which passes the bolts 10. The auxiliary leaf 6 is very much similar to the leaf 5 in outline, with the exception that it has upwardly extending ears 11 instead of downwardly extending ears 10 of the leaf 5. The ears 11 are provided with suitable openings therethrough in which is positioned the bolt 12. The auxiliary leaves 5 and 6 are substantially semi-elliptical in outline in order to conform and lie parallel to the spring proper. In order that the leaves 5 and 6 may be positioned upon the spring, suitable fastening bolts 13 are provided, which bolts extend downward and beyond the spring leaves and engage a washer or rod 14 which extends transversely of the spring and is provided with suitable bolt receiving apertures therein. The bolts 13 are provided with the suitable tightening nuts 15 thereon which are adapted to clamp and draw together the auxiliary leaves and the washer or bar 14. The auxiliary leaves rest upon the central clip 4 of the spring holder.

The leaf 5 extends between the leaf 6 and the bolt 12 of the ears 11. The leaf 6 extends below the leaf 5 above the bolt 10 and between the ears 9, it being understood in this connection that the leaves are assembled one above the other before the bolts 10 and 12 are positioned between the ears or lug supports therefor. In this manner a suitable sliding joint is obtained between the leaves 5 and 6, the advantages in construction being that the auxiliary leaves may be brought together or spread apart according to the position of the break or fracture of the spring.

Should the case arise in which the upper or main spring leaf 1 is broken, as shown by the jagged line in Fig. 1, a block of wood 16 is positioned above the just mentioned break and contacts with the auxiliary leaf

6. The device will thereby retain the main leaf in position and will more readily transmit the stress therefrom to the auxiliary leaves.

5 From the foregoing it will be readily apparent that in my improved device, the spring may be broken at one or more points and the device suitably lengthened so as to extend beyond the break. Furthermore, the
10 device as illustrated will have a central reinforced portion formed by the overlapping of the two auxiliary leaves, this being an important feature as the leaves 5 and 6 will thereby constitute an auxiliary spring construction.

15 Having thus fully disclosed the construction and operation and pointed out the advantages of my improved spring repairer, what I claim to be new and original with me is:—

20 1. The combination with a semi-elliptical vehicle spring and securing clip thereabove, of an auxiliary spring leaf with outstanding ears at one end thereof, downwardly extending ears with a bolt extending therebetween at the other end thereof, a second auxiliary spring leaf extending between said
25 bolt and said first mentioned spring leaf and provided with upstanding ears embracing said spring leaf and provided with a bolt therebetween, the remote end of said second spring leaf being provided with outstanding ears, said ears being provided with suitable apertures therein, suitable bolts extending through said apertures and adapted
30 to clamp and hold said auxiliary spring leaves to the semi-elliptical spring.

35 2. A spring repairer comprising an auxiliary spring leaf, outstanding ears with ap-

ertures therein at one end thereof, downwardly extending ears with apertures therein and a bolt extending therebetween at the other end thereof; a second auxiliary spring leaf extending beneath the first mentioned leaf and above the said bolt and provided at one end with outstanding ears with suitable bolt holes therein and at the other end with upstanding ears embracing the first mentioned leaf and provided with suitable apertures therein with a bolt extending therebetween above said first-mentioned leaf, suitable means for clamping said outstanding ears to a spring.

3. The combination with a semi-elliptical vehicle spring and securing clip thereabove therefor, of an auxiliary spring construction comprising overlapping leaves with upwardly and downwardly extending lugs formed integral therewith and suitable clamping bolts extending therebetween to thereby form a sliding joint between the said leaves of the auxiliary leaf spring construction, outstanding lugs integral with the remote ends of said auxiliary leaves provided with suitable bolt receiving apertures therein, suitable bolts within said apertures engaging suitable clamping bars beneath said spring proper, said auxiliary spring construction being adapted to engage and bear upon the said securing clip.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

LORENZO D. CORSER.

Witnesses:

AUGUSTUS H. WALKER,
RALPH M. INGALLS.