Sept. 12, 1950 K. B. WEBER 2,522,150

CHAIN TENSIONING DEVICE

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Fig. 1.

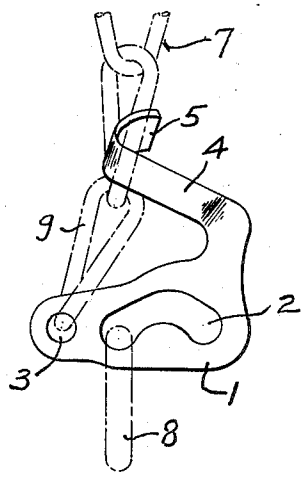


Fig. 2.

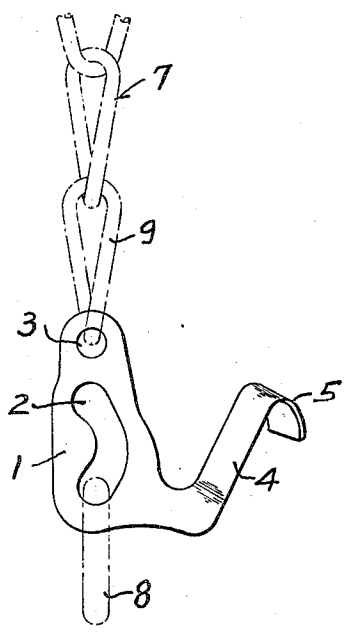
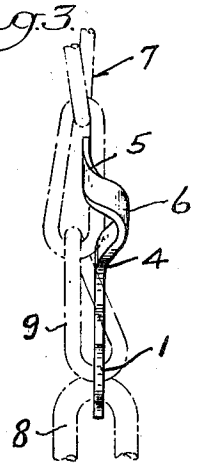


Fig. 3.



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CHAIN TENSIONING DEVICE

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1 Claim. (Cl. 24—69)

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This invention relates to a chain tensioning device, and important objects and advantages thereof are to provide a device of the character described, which is constructed of an integral piece of spring sheet metal, which may be conveniently and successfuly employed for tensioning a chain, which will facilitate and expedite chain tensioning operations, which embodies novel means for securing the device in the tensioning position and for releasing same from the tensioning position, which is simple in its construction and arrangement, durable and efficient in its use, compact, and comparatively economical in its manufacture and installation.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the novel construction, combination and arrangement of parts herein specifically described and illustrated in the accompanying drawing, but it is to be understood that changes in the form, proportions and details of construction may be resorted to that come within the scope of the claim hereunto appended.

In the drawing wherein like numerals of reference designate corresponding parts throughout the several views:

Figure 1 is a front elevational view of a chain tensioning device constructed in accordance with the invention, and illustrating its connection in a chain and being in the securing tensioning position.

Figure 2 is a similar view with the tensioning device being disposed in the releasing position.

Figure 3 is an edgewise view of the device secured in the tensioning position in a chain.

Referring in detail to the drawing, the improved chain tensioning device is constructed of an integral piece of spring steel sheet material of substantial thickness.

The chain tensioning device comprises a flat, elongated body 1, which is normally disposed in the horizontal edgewise position when the device is secured in the tensioning position, as shown in Figures 1 and 3. The body is provided with an arcuately-shaped, upwardly curved slot 2, which extends longitudinally in the outer end portion of the body. The body is further provided with an aperture 3 which is disposed adjacent to the inner end of the body in approximately longitudinal alignment with the slot 2.

A lever arm 4 is formed integral with the outer upper end of the body 1, and has the free end portion thereof formed to provide a securing hook 5. The lever arm inclines inwardly at an angle from the horizontal, and is laterally offset with

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respect to the edgewise disposition of the body, as indicated at 6, whereby the edgewise disposition of the body is disposed in vertical alignment with the center of the hook 5. The hook is disposed rearwardly of the lever arm, and the free end portion thereof projects outwardly on an inclination at an angle from the horizontal.

The tensioning device is joined with a chain 7 by connecting one terminal link 8 of the chain in the slot 2, and by connecting the other terminal link 9 in the aperture 3 of the body.

When the tensioning device is in the released position, the body 1 is suspended from the link 9 and will depend vertically from the latter, with the other engaged link 8 being in engagement in the outer end of the slot 2, as shown in Figure 2.

To tension the chain, the body 1 is swung upwardly by means of the lever arm 4, on the pivot provided by the connection of the link 9 in the aperture 3, to the horizontal position, as shown in Figure 1, and is secured in such horizontal position by engaging the hook 5 on the adjacent link of the chain. The length of the slot 2 determines the distance of elevation or contraction that is effected when the device is shifted from the vertically disposed releasing position to the horizontally disposed tensioning position.

When the device is shifted from the released to the tensioning position, in the manner stated, the terminal link 8, engaged in the slot 2, will shift from the outer end of the slot to the inner end of the latter, as shown in Figure 1, whereby the tensioning pull or strain on the device is reduced to a minimum, as such pull is approximately in direct alignment with the chain in connection with which the device is employed. Due to the arcuate shape of the slot, the link 8 engaged at the inner end of the slot will be retained at the said inner end while the device is in the tensioning position.

Due to the relative disposition of the lever arm 4 and of the hook 5 with respect to each other and to the body 1, and owing to the curvilinear formation of the hook and of the lever arm offset 6, the hook may be readily engaged in the adjacent link of the chain to secure the device in the tensioned position.

While the improved tensioning device is primarily designed and intended for use in connection with anti-skid chains for motor vehicle wheels, it will be obvious that the device may be used in connection with any other types of chains wherein it is found to be applicable.

The present invention provides a most durable

and efficient device of its kind, which may be economically constructed and conveniently and successfully employed for the purposes and in the manner herein set forth.

What I claim is:

A chain tensioning device of the class described, comprising a flat horizontally extending body, said body being provided with an upwardly curved arcuately-shaped slot extending horizontally in said body, a lever arm formed integral with one end portion of the top edge of said body and inclining at an angle from the horizontal above and over said body, and a securing hook formed at the free end of said lever arm, said body being provided with an aperture at the end remote from the attachment of the lever arm

therewith, said lever arm being laterally offset with respect to the edgewise disposition of said body to dispose the center of said hook in vertical alignment with the edgewise disposition of said body.

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