

Nov. 20, 1951

H. B. FECHTER

2,575,412

AUTO RADIATOR HANGER CLAMP

Filed March 22, 1948

2 SHEETS—SHEET 1

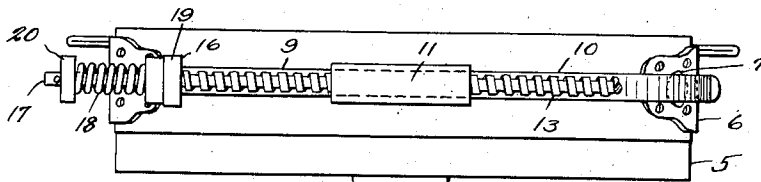
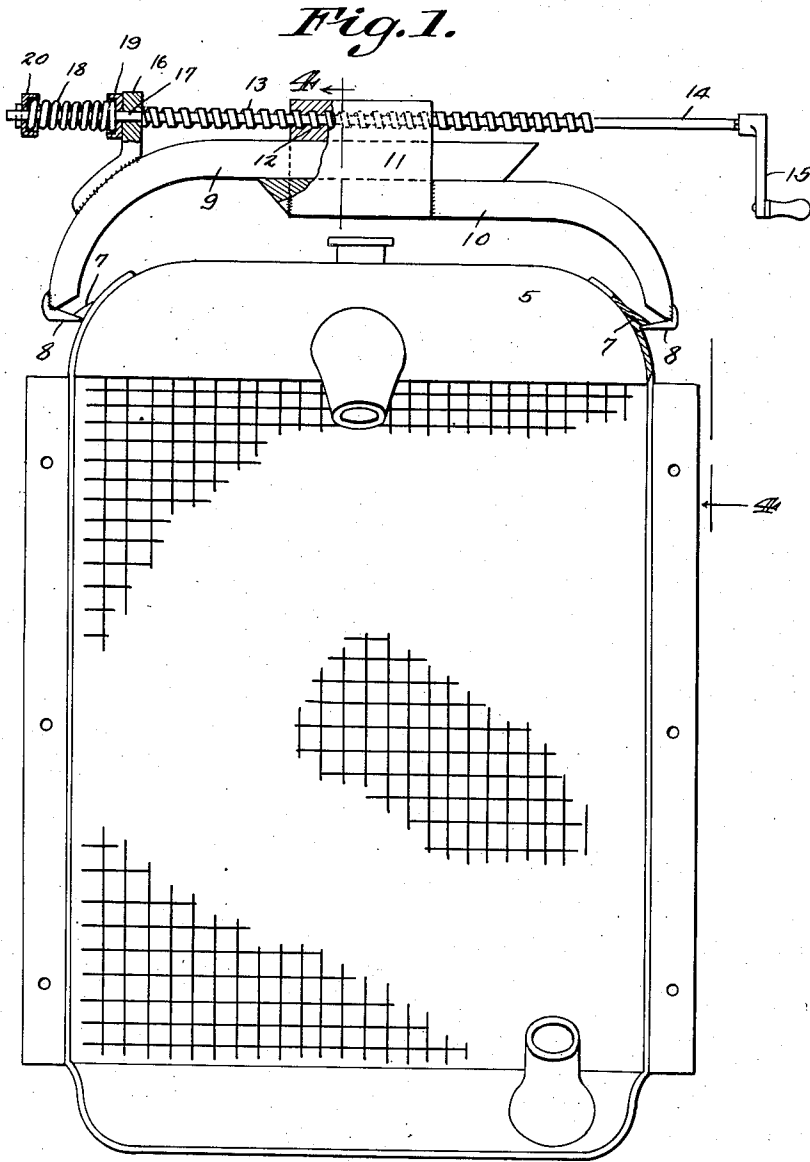


Fig. 2.

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Fig. 3.

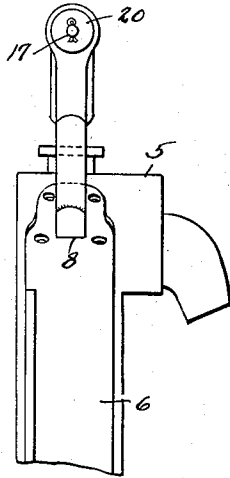


Fig. 4.

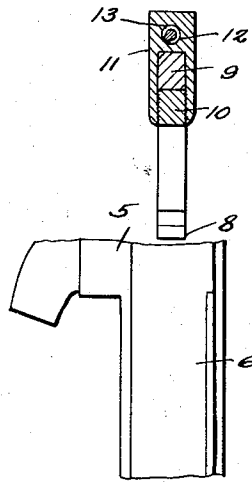
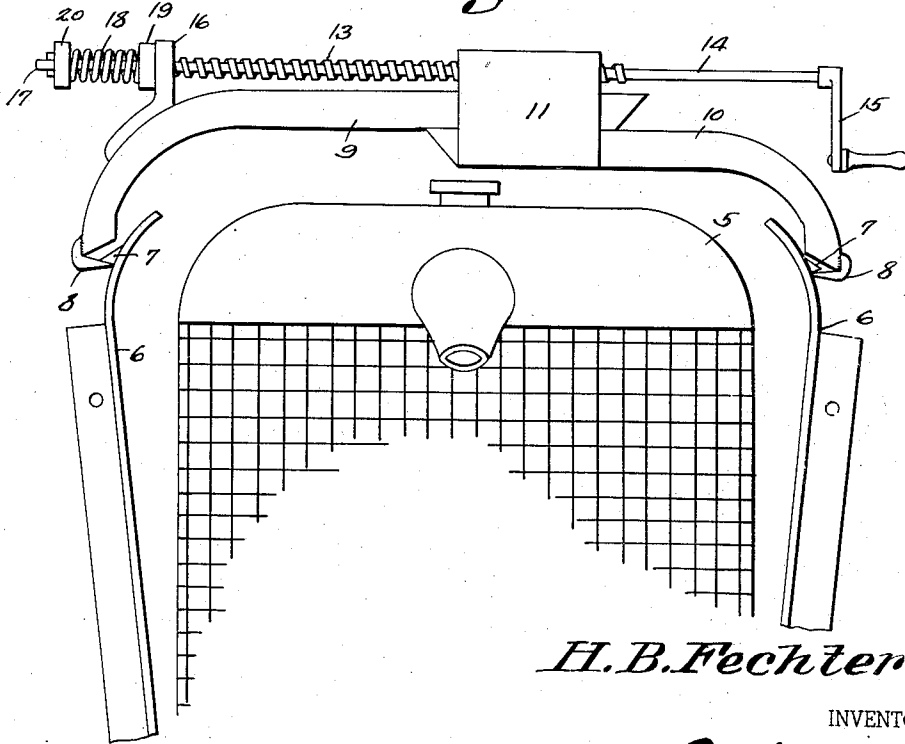


Fig. 5.



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AUTO RADIATOR HANGER CLAMP

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1 Claim. (Cl. 254-100)

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This invention relates to adjustable clamps designed primarily for use in clamping radiator hangers into close engagement with radiators of motor vehicles so that the soldering of the hanger to the radiator may be readily accomplished.

An important object of the invention is to provide a clamp including adjustable clamping arms with means for manually moving the arms towards each other in clamping a radiator hanger, yieldable means being provided for maintaining the arms in an adjusted position with respect to the hanger and radiator, when the hanger is tapped or hammered in, causing the hanger to conform to the contour of the radiator held within the hanger.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawings:

Fig. 1 is a front elevational view of a radiator illustrating a hanger as held into close engagement with the radiator by means of a clamp constructed in accordance with the invention.

Fig. 2 is a plan view thereof.

Fig. 3 is an end elevational view of the clamp.

Fig. 4 is a sectional view taken on line 4-4 of Fig. 1.

Fig. 5 is an elevational view illustrating the clamp as connected with the hanger arms prior to the operation of the clamp to tighten the hanger on the radiator.

Referring to the drawings in detail, the reference character 5 indicates a motor vehicle radiator to be supported and held within the hanger which in the present showing is indicated by the reference character 6, the hanger comprising yieldable arms formed with ears 7 adjacent to their upper ends, to which ears the jaws 8 of the clamp, are secured in positioning the clamp on the hanger. It might be stated that these hangers are usually brought into engagement with the radiator, and then soldered, permanently, securing the radiator within the hanger.

The clamp forming the essence of the invention, includes arms 9 and 10, the arm 10 operating under the arm 9.

Secured to the arm 10 is the guide block 11, which guide block extends upwardly from the arm 10 and is provided with a rectangular open-

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ing providing a guide for the arm 9, which moves therethrough. Above the rectangular opening is a threaded bore 12 which extends longitudinally through the block 11, the threaded bore being engaged by the threads 13 of the shaft 14, which also is provided with the shank 15 at one end thereof, whereby the shaft 14 may be manually operated.

Extending upwardly from the arm 9, at a point adjacent to the outer curved end thereof, is the lug 16, which is formed with an opening through which the reduced end 17 of the shaft 14 extends, the reduced end of the shaft 14 extending an appreciable distance beyond the lug surface, where it supports the coiled spring 18, the coiled spring 18 having its inner end resting in the cup 19 held against the lug 16, while the opposite end of the spring is held within the cup 20 secured to the reduced end 17 of the shaft 14.

In the use of the clamp, the jaws 8 of the arms 9 and 10 are positioned under the ears 7, formed adjacent to the upper ends of the side arms of the hanger, as shown by Fig. 5 of the drawings.

The shank 15 is now rotated to feed the arms 9 and 10 longitudinally of each other, the jaws 8 moving towards each other until the side members of the hanger 6 are brought into close engagement with the sides of the radiator 5. Further rotation of the shank 15 will cause the spring 18 to be placed under tension.

The hanger is now in a position as shown by Fig. 1 of the drawings, and may be tapped or hammered to cause it to conform accurately to the contour of the radiator, the coiled spring 18 acting to compensate for the movement of the hanger arms into close engagement with the radiator, due to the hammering, so that the clamp will not fall from its position, connected with the radiator hanger. The radiator hanger may now be soldered to the radiator and when the solder has properly set the clamp may be removed with the assurance that the hanger arms will not expand and become separated from radiator to which the hanger is soldered.

By rotating the shaft 14 in the opposite direction, the arms 9 and 10 may be moved longitudinally with respect to each other, the jaws expanding to disengage the ears 7, to the end that the clamp may be removed.

Having thus described the invention, what is claimed is:

A radiator hanger clamp comprising upper and lower arms slidable longitudinally with respect to each other; jaws at the free ends of the arms adapted to hook into ears of a radiator hanger,

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connecting the clamp to the hanger, a guide block mounted on the lower arms and having a horizontal bore extending therethrough into which the upper arm slides, said guide block having a threaded bore extending therethrough in parallel relation with said horizontal bore, a lug having an opening, rising from the upper arm, the opening of the lug aligning with said threaded bore of the guide block, a threaded shaft operating in the threaded bore of the guide block and being loosely mounted in the opening of said lug, one end of said threaded shaft extending beyond said lug, a cup secured to the end of said threaded shaft, spaced from the lug, a spring on the shaft resting in the cup with one end engaging the lug, whereby rotation of the threaded shaft in one direction tensions the spring and directs pressure on the lug, moving the arms towards each other, and said spring compensating

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for movement of the threaded shaft beyond a predetermined point.

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