

Aug. 25, 1925

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1,551,490

RADIATOR REPAIRING DEVICE

Filed Jan. 31, 1925

2 Sheets-Sheet 1

Fig. 1.

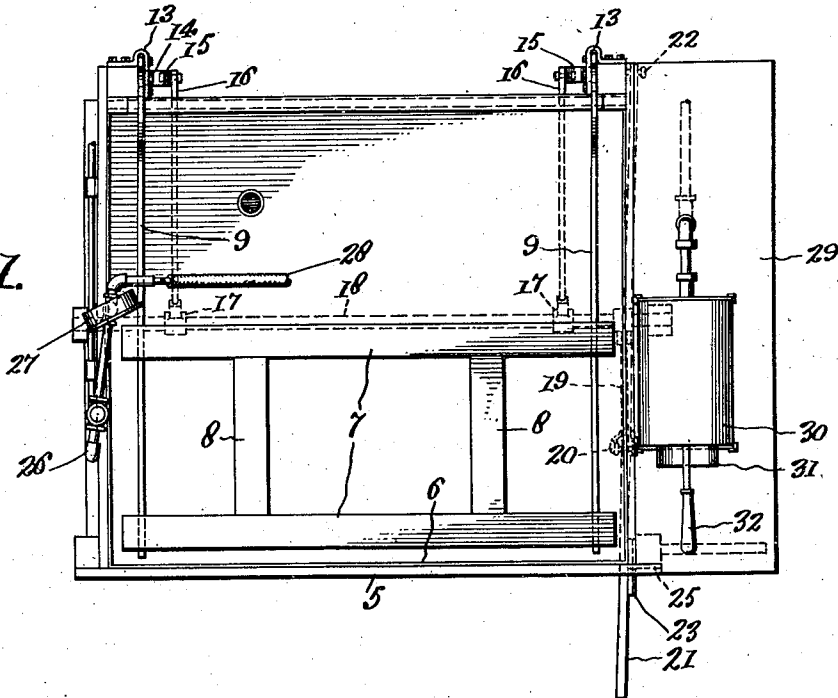
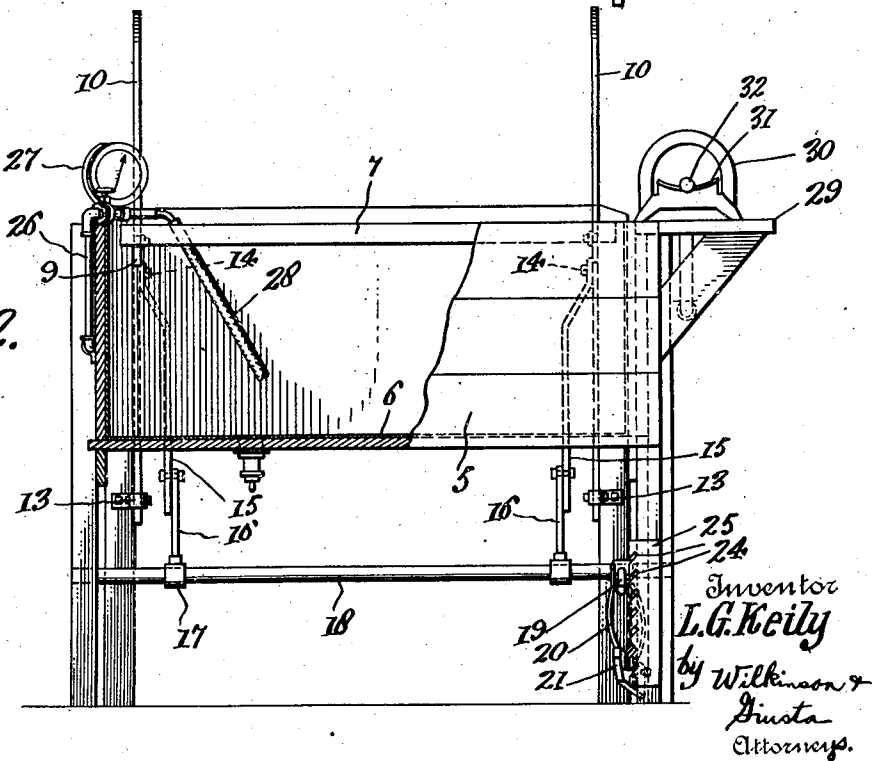


Fig. 2.



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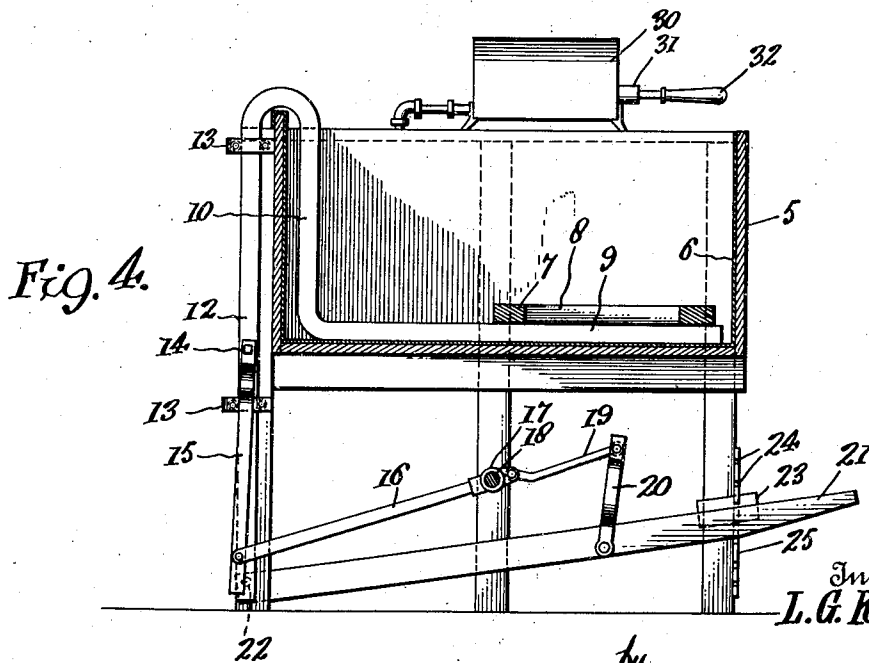
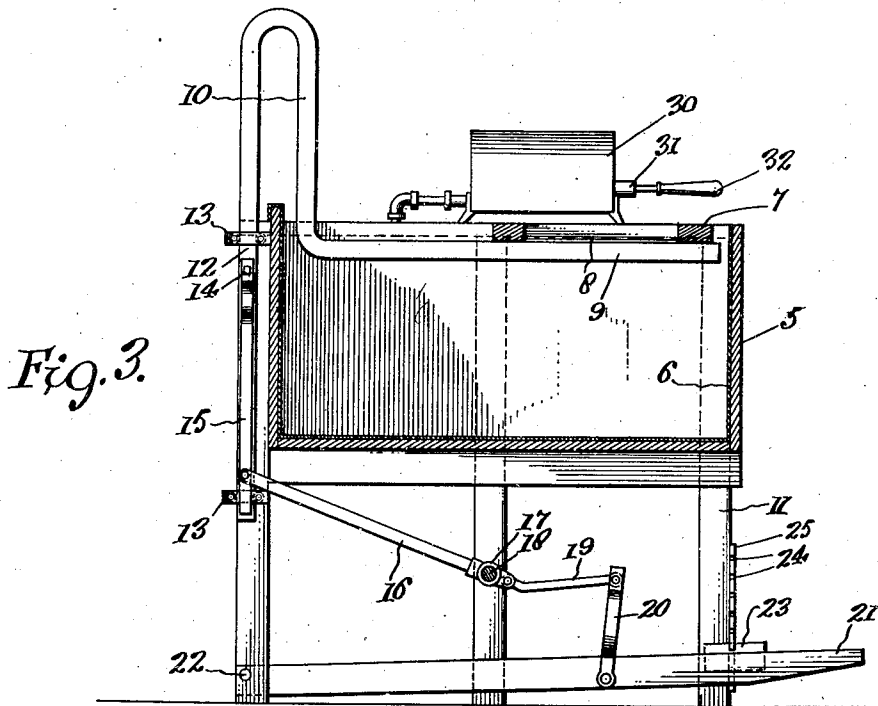
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Patented Aug. 25, 1925.

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UNITED STATES PATENT OFFICE.

LAWRENCE G. KELLY, OF EL PASO, TEXAS.

RADIATOR-REPAIRING DEVICE.

Application filed January 31, 1925. Serial No. 6,119.

To all whom it may concern:

Be it known that I, LAWRENCE G. KELLY, a citizen of the United States, residing at El Paso, in the county of El Paso and State of Texas, have invented certain new and useful Improvements in Radiator-Repairing Devices; 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.

The present invention relates to improvements in radiator repairing devices and more particularly refers to a radiator bench and test tub.

An object of the invention is to provide a device having a movable table adapted to support the radiator at the top portion of the tub where the workman is free to test and work upon the same without interference from the supporting parts of the table or the portions of the tub; while at the same time mechanism is provided whereby the table may be lowered with the radiator below the surface of the water in the tub for testing purposes.

Another object of the invention is to provide a device of this character in which an air supply and gage is arranged at one side of the tub for ready connection to the radiator and a soldering apparatus carried at the opposite side of the tub where the soldering tools may be kept constantly heated and in readiness for the repair of the leaky parts.

With the foregoing and other objects in view, the invention will be more fully described hereinafter, and will be more particularly pointed out in the claims appended hereto.

In the drawings, wherein like symbols refer to like or corresponding parts throughout the several views,

Figure 1 is a top plan view of the device constructed according to the present invention.

Figure 2 is a front view with parts broken away.

Figure 3 is a vertical section taken transversely through the device with the table in the elevated position, and

Figure 4 is a similar view with the table and associated parts in the lower position.

Referring more particularly to the drawings 55 designates the tub which is of rectangular constructure and provided with a

galvanized metallic or other lining 6 to hold a supply of water up to the desired level. The level of water will be such as to permit of totally immersing a radiator carried upon the table 7 when the table is in the lower position indicated in Figure 4.

The longitudinal bars 7 of the table are connected by transverse bars 8 thus making a skeleton formation from which the water may readily drain when the table is lifted and which admits the hands of the workman to under parts of the radiator. The table is supported upon the two or more arms 9 which extend substantially the transverse length of the tub and fit within the tub for vertically sliding movement, the arms 9 support at their forward portion the table near opposite ends of such table and said arms are provided at their rear ends with the goose neck or inverted U-shaped supports 10 made to permit of lowering and elevating the table and arms without interference from the rear wall of the tub, and at the same time to enable the raising and lowering apparatus to be mounted beneath the tub, said tub being supported at an elevation by means of the legs 11. The purpose of this is to have the radiator at a suitable elevation for convenience in working upon the same.

The rear members 12 of the supports 10 are slidably fitted through guides 13 carried by the back frame work of the apparatus. There is pivoted, as indicated at 14 to the part 12 a link 15 also pivoted at its lower end to an arm 16 on the rocking sleeve 17. This rocking sleeve fits about the shaft 18 by which it is supported. The rocking sleeve is rotated by a link 19 connected by the link 20 to the treadle lever 21. This treadle lever is pivoted at 22 upon one of the legs or appropriate fixed part at the back of the apparatus and extends forwardly and beyond the front legs to a position convenient to the right foot of the operator.

The weight of the parts and the radiator will carry the table down to the position shown in Figure 4 which causes elevation of the treadle 21; and by depressing the treadle with the foot the parts are raised to the position shown in Figure 3. These parts are held by the detent 23 upon the lever which fits in the inclined notches 24 in the latch bar 25 secured to the right front leg. The treadle lever 21 will have a side-wise movement to permit the detent to free itself from the notches of the bar and to

permit the lever to be raised without interference from the detent and latch bar.

At the left side of the table is the air induction pipe 26 having the gage 27 for showing the air pressure and the flexible tube 28 for connection to the radiator. This induction pipe 26 can be coupled to any source of air supply under pressure.

At the right side of the tub is the shelf 29 for supporting the soldering apparatus including the heater 30 and the tool support 31. At 32 is shown one of the tools disposed in the heater. This may be an electric or other heater with connection to a source of current or to a source of fuel supply.

In the use of the apparatus, a defective radiator is placed upon the table 7 with the parts in the position shown in Figure 3 and the air hose 28 is connected thereto, the radiator being thus filled with air under pressure. Immediately the detent of the lever is disengaged from the latch bar and the parts are permitted to descend to the position shown in Figure 4, where the radiator will be immersed in the water within the tub. The air will escape from any defective part of the radiator and this condition will be shown by the formation of bubbles in the water. The parts are again lifted and the leak so detected is repaired by the use of the soldering apparatus which is convenient at the right side of the tub. When the parts are in the elevated position, the table 7 is flush with the top of the tub and the radiator is held in a convenient position for the performance of the necessary work. It is to be noted that the device employs no overhead apparatus but the supporting and raising and lowering apparatus for the table is entirely at the rear and under part of the tub. Automobile radiators are large cumbersome devices and it is very difficult with existing devices to place these radiators upon the tables and to turn them from one position to another thereon on account of the overhead parts now thought necessary to support the table. According to the present invention the entire front and top part of the table is left clear as is also the left side except for the gage and the air connection which is a convenience and is out of the way at this point. The right side is provided with the soldering apparatus which is another convenience and the shelf 29 not only holds these parts but any other necessary tools useful in connection with radiator repair work.

It is obvious that various changes and modifications may be made in the details of construction and design of the above specifically described embodiment of this invention without departing from the spirit thereof, such changes and modifications be-

ing restricted only by the scope of the following claims:—

What is claimed is:—

1. A radiator repair apparatus comprising a tub, means for supporting said tub at an elevation, a movable table in said tub, arms for supporting the table extending wholly beneath said table and to approximately the back wall of the tub, substantially U-shaped supporting members connected to the rear parts of said arms, guides at the rear part of the apparatus for said U-shaped supporting members, and means below said tub and connected to said U-shaped supporting means for raising said arms and table.

2. A radiator repair apparatus comprising a tub, means for supporting said tub at an elevation, a movable table in said tub, arms for supporting the table extending wholly beneath said table and to approximately the back wall of the tub, substantially U-shaped supporting members connected to the rear parts of said arms, guides at the rear part of the apparatus for said U-shaped supporting members, means below said tub and connected to said U-shaped supporting means for raising said arms and table, and a shelf at one side of said tub for holding implements useful in radiator repair work.

3. A radiator repair apparatus comprising a tub, means for supporting said tub at an elevation, a movable table in said tub, arms for supporting the table extending wholly beneath said table and to approximately the back wall of the tub, substantially U-shaped supporting members connected to the rear parts of said arms, guides at the rear part of the apparatus for said U-shaped supporting members, means below said tub and connected to said U-shaped supporting means for raising said arms and table, latch means for holding said table in elevated position substantially flush with the top of said tub, and an air supply at one side of said tub.

4. A radiator repair apparatus comprising a tub, means for supporting said tub at an elevation, a movable table in said tub, means for supporting the table extending wholly beneath said table and to approximately the back wall of the tub, substantially U-shaped supporting members connected to the rear parts of said arms, guides at the rear part of the apparatus for said U-shaped supporting members, links connected to said supporting members, a rock shaft coupled to said link, a treadle adjacent the operator's foot, connections between said treadle and rock shaft, and latch means associated with said treadle for holding the table in upper position.

LAWRENCE G. KEILY.