Nov. 14, 1950 J. L. BACUS 2,529,756

DEVICE FOR CLEANING RADIATORS

Filed Jan. 17, 1945 3 Sheets-Sheet 1

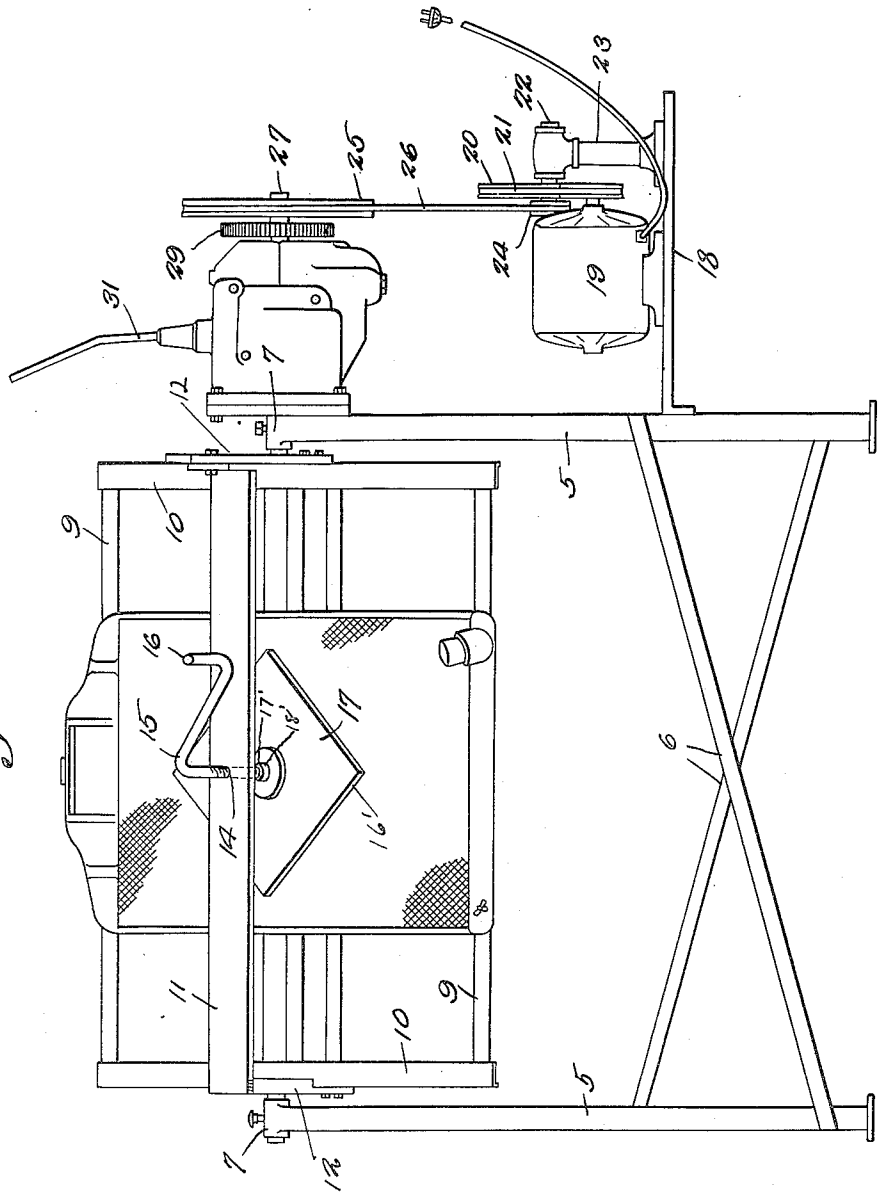


Fig. 1.

J. L. Bacus

INVENTOR.

BY Albright & Co.

ATTORNEYS.

Nov. 14, 1950 J. L. BACUS 2,529,756

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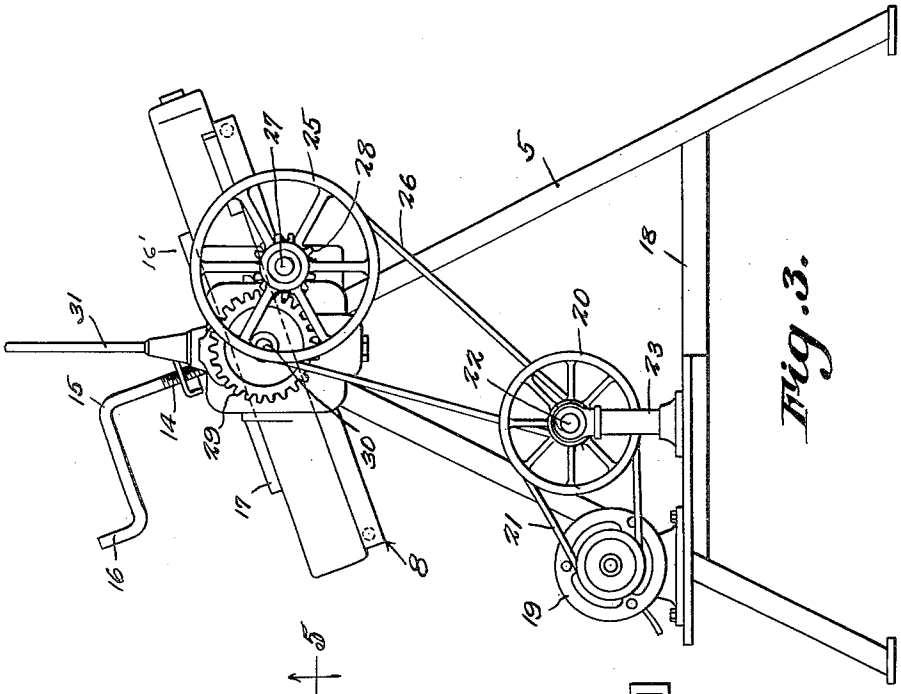


Fig. 3.

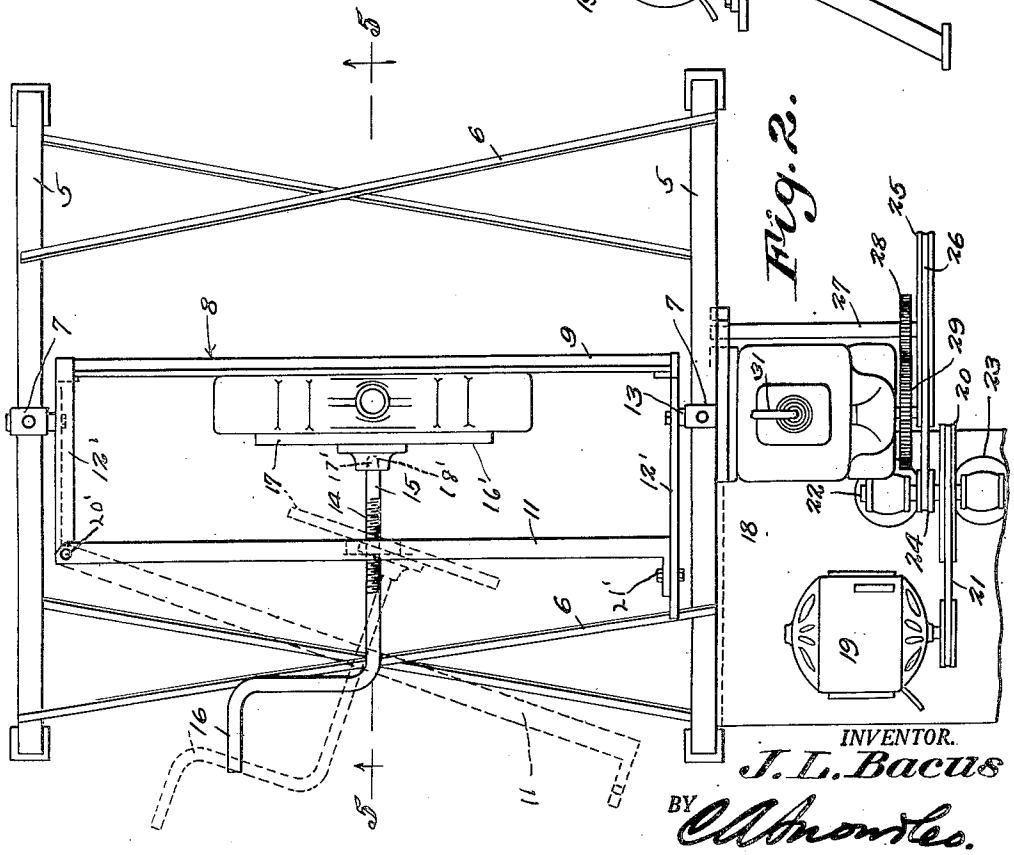


Fig. 2.

INVENTOR.
J. L. Bacus
BY
Albonsles.
ATTORNEYS.

Nov. 14, 1950 J. L. BACUS 2,529,756

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Fig. 5.

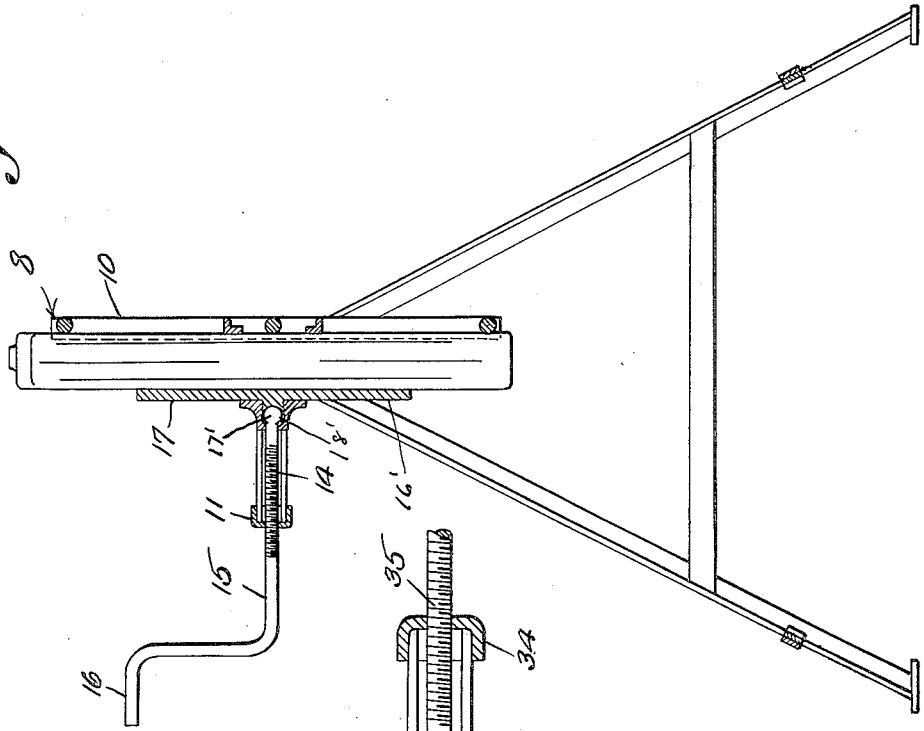
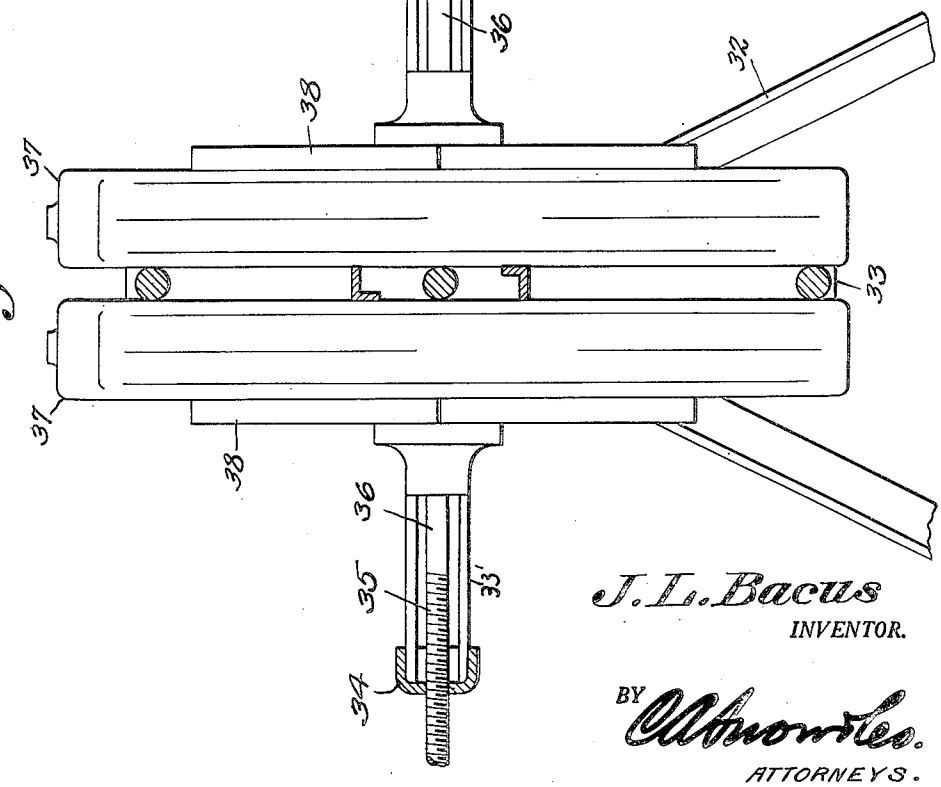


Fig. 4.



J. L. Bacus
INVENTOR.

BY Atwoodles.
ATTORNEYS.

Patented Nov. 14, 1950 2,529,756

UNITED STATES PATENT OFFICE

2,529,756

DEVICE FOR CLEANING RADIATORS

James L. Bacus, Pendleton, Oreg.

Application January 17, 1945, Serial No. 573,297

1 Claim. (Cl. 134—150)

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This invention relates to a rotary support for motor vehicle radiators so that the radiator under treatment may be filled with a cleaning solution and the support rotated to cause the cleaning liquid to be slushed from one end of the radiator to the other, dislodging the foreign matter from the tubes thereof.

An important object of this invention is to provide a device of this character including clamps which may be operated to securely clamp a radiator in position for cleaning.

Still another object of the invention is to provide means whereby the speed of rotation of the rotary support, may be varied to meet various requirements.

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:

Figure 1 is a front elevational view of a radiator support constructed in accordance with the invention, and illustrating a radiator as positioned on the support.

Figure 2 is a plan view thereof.

Figure 3 is an end elevational view of the device.

Figure 4 is an enlarged sectional view through a support, and illustrating a modification comprising a pair of clamping members for clamping radiators at opposite sides of the support.

Figure 5 is a sectional view taken on line 5—5 of Figure 2.

Referring to the drawings in detail, the device comprises a support embodying leg members 5, secured together, by means of the brace bars 6. As shown, the leg members are connected at their upper ends and are provided with bearings 7, where the leg members verge. Mounted between the leg members, is a rectangular frame 8 which includes rigid side bars 9 and end bars 10. A pivoted bar 11 is pivotally secured to the end bar 12 by means of the pivot pin 20', the bars 12 and 12' being secured to the frame 8. The lower end of the bar 11 is extended at right angles to fit against the bar 12' where it is secured in position by means of the bolt 21', thereby providing means to permit a radiator to be readily and easily removed or secured to the frame by merely removing the bolt 21 and

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swinging the bar 11 to the dotted line position as shown in Fig. 2 of the drawings. Shafts 13 are secured to the end bars 10 of the frame, and operate in the bearings 7, as clearly shown by Figure 1 of the drawings, so that the frame may rotate freely.

The pivoted bar 11 is formed with a threaded opening, through which the threaded portion 14 of the screw clamp stem 15 of the clamp 16', is mounted, there being provided a clamp handle 16 at one end of the screw clamp stem for operating the screw clamp. One end of the screw clamp stem is formed with a head 17' fitted in the socket 18' formed on the clamp 17 whereby the stem 15 may be rotated with respect to the member 18.

The reference character 17 indicates a removable member of the screw clamp, which member is adapted to rest against the radiator under treatment and force the radiator into close engagement with the rectangular frame 8. Supported at one end of the device, is a platform 18 which provides a support for the motor 19 which transmits movement to the pulley 20 through the belt 21, the pulley 20 being mounted on the shaft 22 that in turn is mounted in bearings formed at the upper end of the support 23. A substantially small pulley 24 is also mounted on the shaft 22 and transmits movement to the larger pulley 25 through the belt 26. The pulley 25 is mounted on one end of the shaft 27 which in turn is provided with the gear 28 that meshes with the gear 29 mounted on one end of the shaft 30. The shaft 30 transmits movement to the shaft 13 at one end of the rectangular frame 8, through transmission gearing that is controlled by means of the lever 31, to the end that the frame 8 may be rotated at various speeds, to meet various conditions.

In the form of the invention as illustrated by Figure 4 of the drawings, the rectangular frame which is mounted for rotary movement within the support 32, is indicated by the reference character 33. Extending from opposite sides of the frame 33 adjacent to the ends thereof, are bars 33' that are connected by the cross bars 34 disposed at opposite sides of the frame. The cross bars 34 have threaded openings to receive the threaded portions 35 of the screw clamp stems 36 which are disposed on opposite sides of the frame 33. Thus it will be seen that due to this construction, a radiator such as indicated at 37 may be positioned against each side of the frame 33 and clamped in position, by means of the clamps 38 carried at the inner

ends of the screws **36**. This structure is provided, so that two radiators may be treated simultaneously.

In use a radiator to be cleaned, is filled with cleaning solution and the outlet and inlet openings thereof are plugged to retain the solution in the radiator.

The motor **19** is then started and a rotary movement is transmitted to the rectangular rotary frame in a manner as described. During the rotation of the frame and radiator, the cleaning liquid is sloshed within the radiator causing the foreign matter closing the tubes of the radiator, to become dislodged.

What is claimed is:

A device for supporting motor vehicle radiators while being flushed, comprising a support, a rectangular frame mounted for rotary movement within the support, said frame embodying side bars against which a radiator is positioned, a screw clamp supporting bar having one of its ends pivotally connected to the frame the opposite end of the bar being removably secured to the frame, said bar having a threaded opening disposed intermediate its ends, an adjustable screw clamp including a threaded portion operating through the threaded opening of the bar, a wide radiator clamping member adjustably mounted at one end of the screw clamp, said wide clamping member adapted to clamp a radiator against the side bars of the frame, whereby the frame and radiator supported thereby may be rotated agitating flushing fluid contained within the radiator.

JAMES L. BACUS.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
653,183	Rawson	July 3, 1900
1,594,516	Derosha	Aug. 3, 1926
2,063,702	Shippy	Dec. 8, 1936
2,380,604	Melton	July 31, 1945