

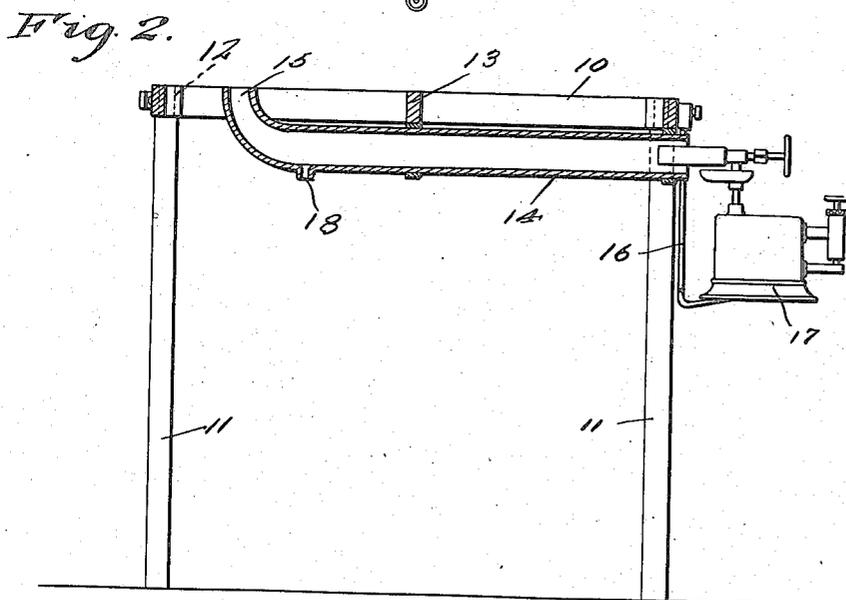
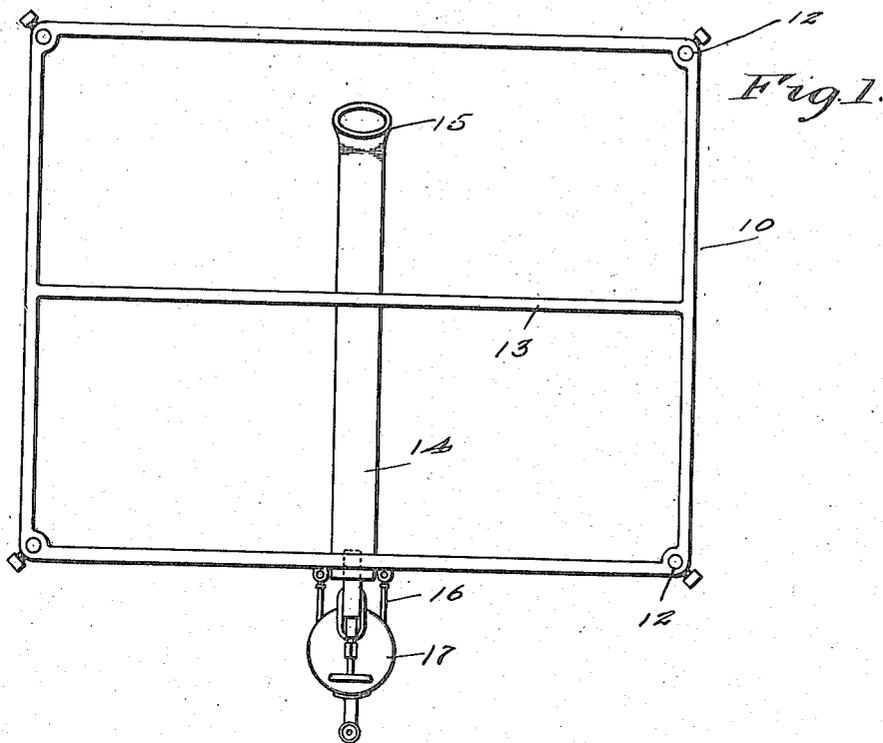
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F. C. BURT

RADIATOR SOLDERING DEVICE

Original Filed Dec. 13, 1921



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WITNESS

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# UNITED STATES PATENT OFFICE.

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## RADIATOR-SOLDERING DEVICE.

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*To all whom it may concern:*

Be it known that I, FRED C. BURT, a citizen of the United States, residing at New Hudson, in the county of Oakland and State of Michigan, have invented new and useful Improvements in Radiator-Soldering Devices, of which the following is a specification.

This invention relates to a device for soldering leaky automobile radiators and has for its object the provision of a novel device upon which a defective radiator may be laid, the device being provided with means whereby to apply intense heat but no flame, at the point where the leak occurs, whereby to heat and clean the surfaces to be repaired and also to provide the necessary temperature for melting solder which is applied to the defective portions.

An important object is the provision of a device of this character in which the heat conducting pipe which leads the heat to the radiator has associated therewith a gasoline or other blow torch, this pipe member being furthermore provided with a drain hole through which soldering acid poured onto the radiator may drain out.

An additional object is the provision of a device of this character which will be simple and inexpensive in manufacture, highly efficient in use, rapid in action, durable in service and a general improvement in the art.

With the above and other objects and advantages in view, the invention consists in the details of construction to be hereinafter more fully described and claimed, and illustrated in the accompanying drawings in which,

Figure 1 shows a plan view of the device.

Figure 2 shows a side elevation with parts broken away and in section.

Referring more particularly to the drawings I have shown my device as comprising a preferably rectangular supporting base 10 upon which the radiator to be repaired should be laid, and the numeral 11 designates a plurality of legs which are located at the corners of the base 10. As here shown the legs 11 may be rods or bars and the upper ends thereof are reduced and passed through holes 12 in the corners of the base 10. The base 10 may also be provided with a transverse reinforcement 13 if found advisable though it should be understood that this base might be constructed as a grille or grid

and also it might be formed as a solid plate if preferred.

The numeral 14 designates a conducting pipe which is suitably secured beneath the base 10 very close thereto and which has one end extended upwardly as indicated at 15 and extending through a hole in the base 10. The other end of this pipe 14 projects beyond the opposite side of the base 10 and located upon this second mentioned side of the base and suitably supported with respect thereto is a bracket 16 upon which is mounted a suitable heat device, which in the present instance is illustrated as being a gasoline blow torch 17 of any ordinary or preferred type. This torch is preferably so arranged that its jet or burner end will project somewhat into the pipe 14 as clearly disclosed. The pipe 14 is also provided adjacent the upturned end 15 with a drain hole 18 for a purpose to be described.

The operation of the device is as follows; The radiator to be repaired is laid face down or flat upon base 10 with the leak disposed immediately above the upper end of the upturned end 15 of the pipe. The torch 17 is then set in operation and the heat emanating therefrom will pass through the pipe 14 and will pass out through the upturned end 15 thereof and effectually heat the radiator at and around the leak therein. The heat is thus applied until dirt and incrustations upon the radiator tubes are burnt away whereupon soldering acid is poured onto the leaky portion in order to clean the parts ready for the application of the solder which is subsequently placed upon the radiator at the leak. The surplus soldering acid which runs down through the radiator will drop into the pipe 14 and will pass out through the drain hole 18 as will the surplus solder which is melted.

From the foregoing description and a study of the drawings it will be apparent that I have thus provided a simply constructed and consequently inexpensive device by means of which leaky radiators may be quickly and easily repaired, the device having the great advantage of furnishing the necessary heat to effect the action without endangering burning of the tin, it being well known that the radiators will not stand the flame directly.

While I have shown and described the preferred embodiment of the invention, it is

of course to be understood that I reserve the right to make such changes in the form, construction and arrangement of parts as will not depart from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention I claim:

1. A device of the character described comprising a supporting base, a heat conducting pipe arranged horizontally and located beneath the base with one end constricted, upturned and passing through the base, a bracket located at one side of the base and carried thereby adapted to support a blow torch with the nozzle thereof extending into the other end of said pipe whereby to create a blast therein.

2. A device of the character described comprising a base supported upon a plurality of legs, a heat conducting pipe located beneath the base and having one end upturned and extending therethrough, and means for producing a blast at the other end of said pipe, said means comprising a bracket member supported with respect to the base, and a blow torch mounted upon the bracket and having its burner end extending into the outer end of said pipe.

3. A heating and soldering device comprising a work supporting frame freely exposed throughout its upper surface, a blast conducting pipe disposed below the frame whereby not to obstruct the space above the said frame, and a source of heat for heating the blast through the pipe, said pipe being positioned to confine the heated blast to a restricted region adjacent the work supporting frame and to direct the same upwardly therethrough.

4. A heating and soldering device comprising a combined heat conducting and drainage tube unobstructed throughout its extent by the work being operated upon, a source of heat for producing heat within the tube disposed at one end thereof, said tube being provided with a drain opening at its lower side intermediate its ends.

5. A heating and soldering device comprising a combined heat conducting and drainage tube unobstructed throughout its extent by the work being operated upon and open at both ends, means for directing a heated blast into one end of the tube for producing heat within the tube, said tube being provided with a drain opening at its lower side intermediate its ends.

6. A heating and soldering device compris-

ing a combined heat conducting and drainage tube unobstructed throughout its extent by the work being operated upon and open at both ends, means for directing a heated blast into one end of the tube for producing heat within the tube, the extremity of the tube opposite the source of heat being bent upwardly, and the said tube being provided with a drain opening at its lower side intermediate its ends.

7. A heating and soldering device comprising a supporting stand freely exposed throughout its upper surface, a heat conducting tube having one end directed upwardly through the stand, and means for producing a heated blast through the tube.

8. The combination of a supporting frame, a heat conducting pipe disposed beneath the frame extending transversely thereto and having one end directed upwardly through the frame, and a bracket carried by said frame adapted to support and position a hot blast producing means adjacent the opposite end of the pipe.

9. The combination of a frame provided with a plurality of supporting legs, an open-ended heat conducting pipe disposed beneath the frame extending transversely thereto and having its free end upturned and directed upwardly through the frame, a bracket supported in fixed relation to the frame, and a blow torch carried by the said bracket, the burner portion of the torch being disposed in longitudinal alignment with the opposite end of the said pipe.

10. A heating and soldering device comprising a stand provided with a frame and supporting legs, a combined heat conducting and drainage tube disposed below the frame and having an upturned end directed upwardly through the frame, a blow torch directing a hot blast into the opposite end of the tube, and means for positioning said torch in fixed relation to the said tube, said tube being provided at its lower side with a drain opening.

11. The combination of a supporting frame, a heat conducting pipe disposed beneath the frame extending transversely thereto and having one end constricted and directed upwardly through the frame, supporting means positioned relatively to the pipe and a source of heat carried by the said means for producing heat within the pipe.

In testimony whereof I affix my signature.

FRED C. BURT.