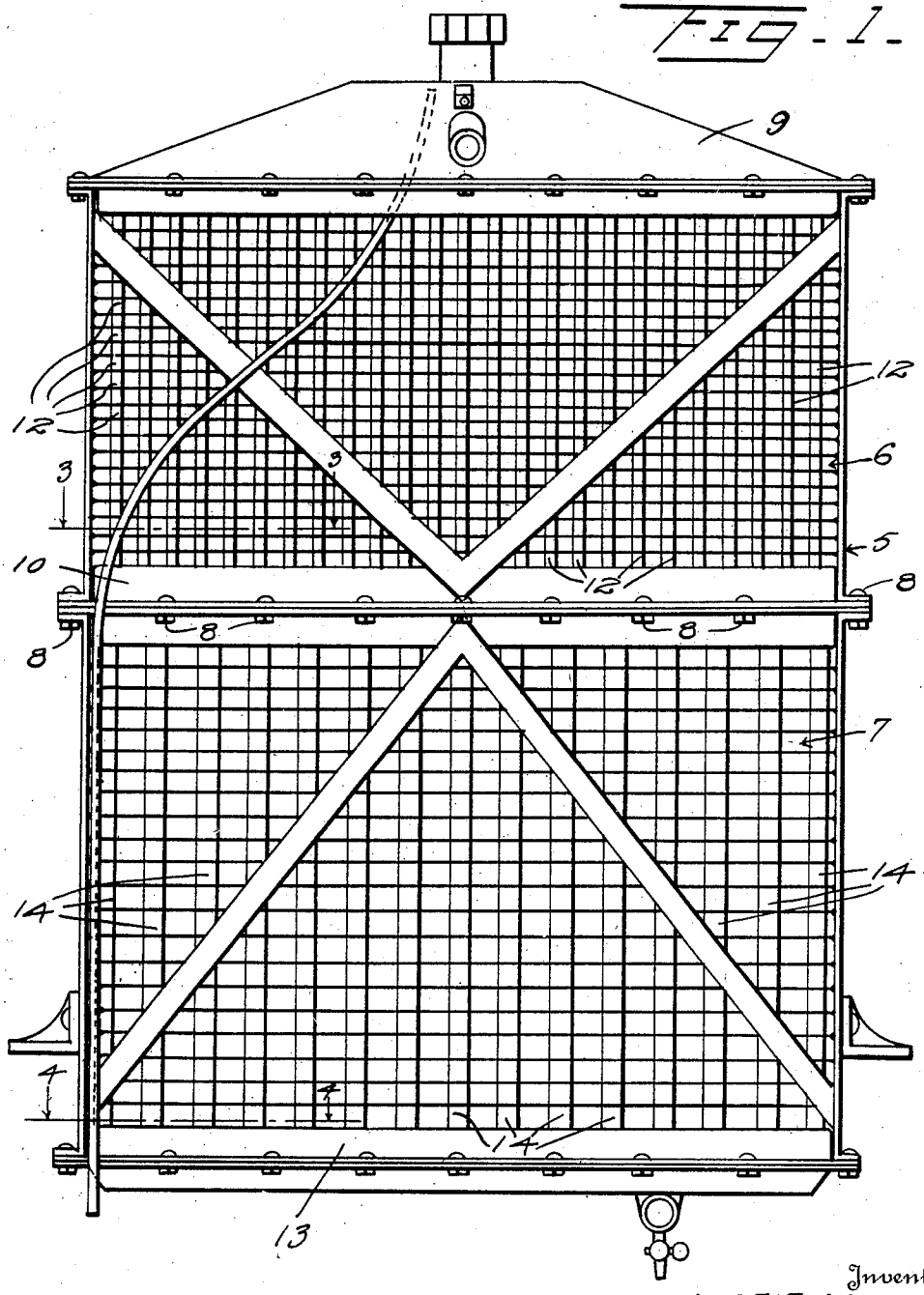
April 21, 1925. 1,534,195

G. E. WALTER

NONFREEZING RADIATOR

Filed Aug. 17, 1922 2 Sheets-Sheet 1

Fig. 1.



Inventor

G.E. Walter

By William J. Jacobi

Attorney

April 21, 1925. 1,534,195

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Fig. 2.

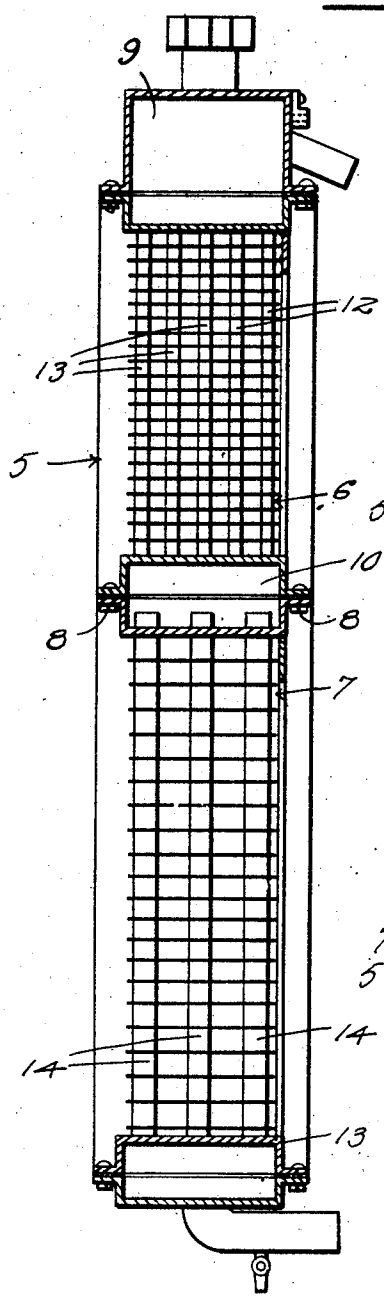


Fig. 3.

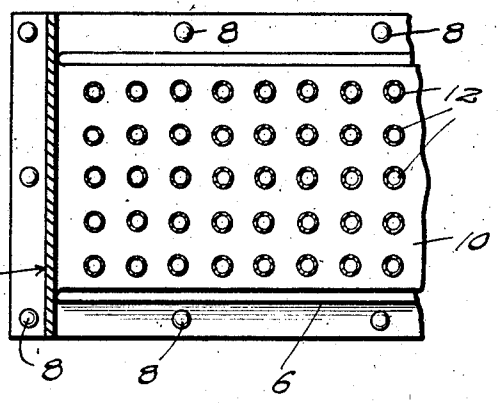
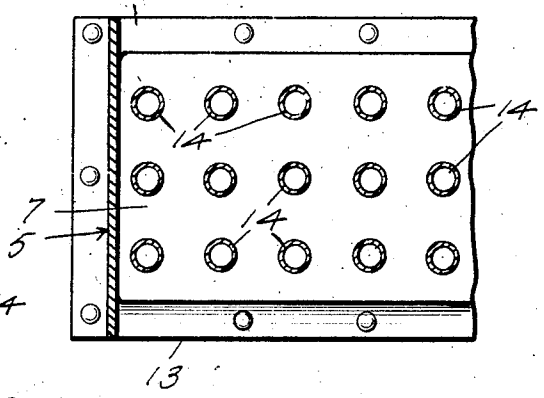


Fig. 4.



Inventor
G. E. Walter
By William J. Jacobi
Attorney

Patented Apr. 21, 1925. 1,534,195

UNITED STATES PATENT OFFICE.

GEORGE E. WALTER, OF CATES, INDIANA.

NONFREEZING RADIATOR.

Application filed August 17, 1922. Serial No. 582,398.

To all whom it may concern:

Be it known that GEORGE E. WALTER, a citizen of the United States, residing at Cates, in the county of Fountain and State of Indiana, has invented certain new and useful Improvements in Nonfreezing Radiators, of which the following is a specification.

My invention relates to automobile radiators and its principal object is to provide a radiator which will not freeze in cold weather.

A further object of the invention is to provide a radiator for automobiles embodying a number of radiator tube sections or units, one of which being of a relatively small bore for use in normal or moderate weather and the other being of a relatively large bore for use in cold weather so that a maximum circulation of hot water will circulate through the radiator and thereby obviate freezing of the latter.

It is also an object of the invention to provide an automobile radiator employing a number of units and which are so constructed as to be readily disassembled so as to connect either one of the units up with the water system.

With the preceding and other objects and advantages in mind, the invention consists in the novel combination of elements construction and arrangement of parts in operation as to be hereinafter fully enlarged upon, claimed and illustrated in the accompanying drawing, wherein—

Figure 1 is a front elevation of a radiator constructed in accordance with my invention.

Figure 2 is a vertical sectional view of the same.

Figure 3 is a horizontal sectional view taken on lines 3—3 of Fig. 1.

Figure 4 is a horizontal sectional view taken on lines 4—4 of Fig. 1.

Referring to the drawing in detail wherein like characters of reference designate like parts throughout the several views, the numeral 5 designates the radiator casing which is made in sections 6 and 7 belted together as at 8. The upper section 6 is provided with a water reservoir 9 at its upper end while a water space or reservoir 10 is provided between the adjacent ends of the radiator sections.

Removably mounted in the casing 6 is a radiator unit comprising conduits 12 of relatively small diameter adapted to be connected with the water cooling system of the automobile, not shown, in any desired manner. This radiator unit 12 is adapted to be used in moderate weather and normally cools the water supply.

Removably arranged in the casing section 7 is a radiator section 13 comprising tubes 14 of a greater diameter than the tubes 12 and when directly connected with the water cooling supply causes a maximum amount of water to circulate to maintain a higher temperature in the radiator section and thereby obviate freezing of the latter. When it is desired to use the radiator section 13 the section 12 is disconnected and this section 13 connected with the water supply in the usual manner.

The radiator sections 12 and 13 are held rigidly in the casing sections 6 and 7 by V-shaped braces which are arranged in opposed relation and have their opposite ends connected with the walls of the casing sections.

Moreover, the interior of the radiator may be readily reached by detaching the sections 6 and 7 for the purpose of repairing either one of the radiator units.

While I have shown the preferred embodiment of the invention it will be understood that the invention may be embodied in other constructions and that my limits of modifications are only governed by what is claimed.

What I claim as new and desire to secure by Letters Patent is:—

An automobile radiator comprising a casing, a pair of radiator sections disposed in said casing one above the other in vertical alignment, each of said sections being provided with water tubes, the tubes of the upper section being of smaller diameter than the tubes of the lower section, water reservoirs disposed at the top and bottom of the casing, in communication respectively with the upper and lower radiator sections, an additional water reservoir disposed in the casing intermediate of said radiator sections and communicating therewith, and water supply and exhaust pipes for said radiator sections.

In testimony whereof I affix my signature.

GEORGE E. WALTER.