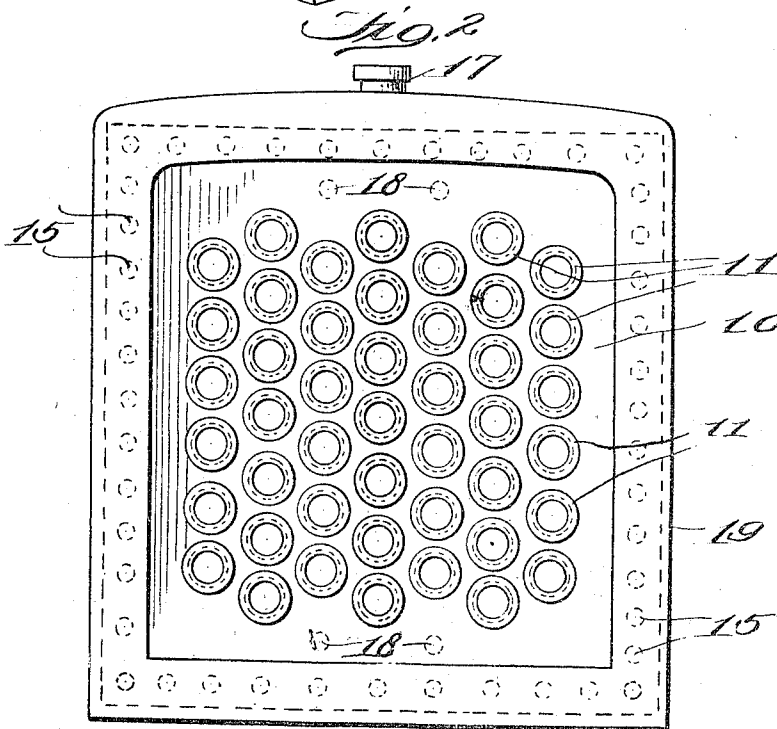
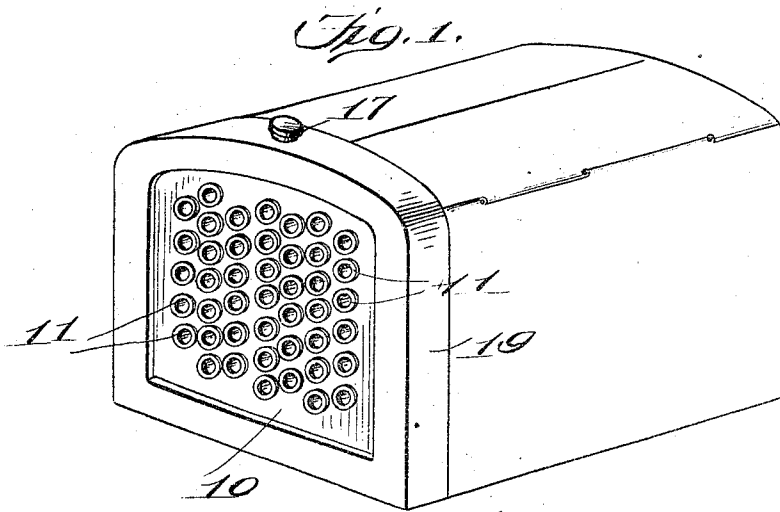


F. G. GARRISON.
 AUTOMOBILE RADIATOR.
 APPLICATION FILED NOV. 29, 1909.

971,127.

Patented Sept. 27, 1910.

2 SHEETS—SHEET 1.



Witnesses:

A. R. Walton
 J. A. Barron.

Inventor

Ferdinand G. Garrison

By

Milo B. Stevenson

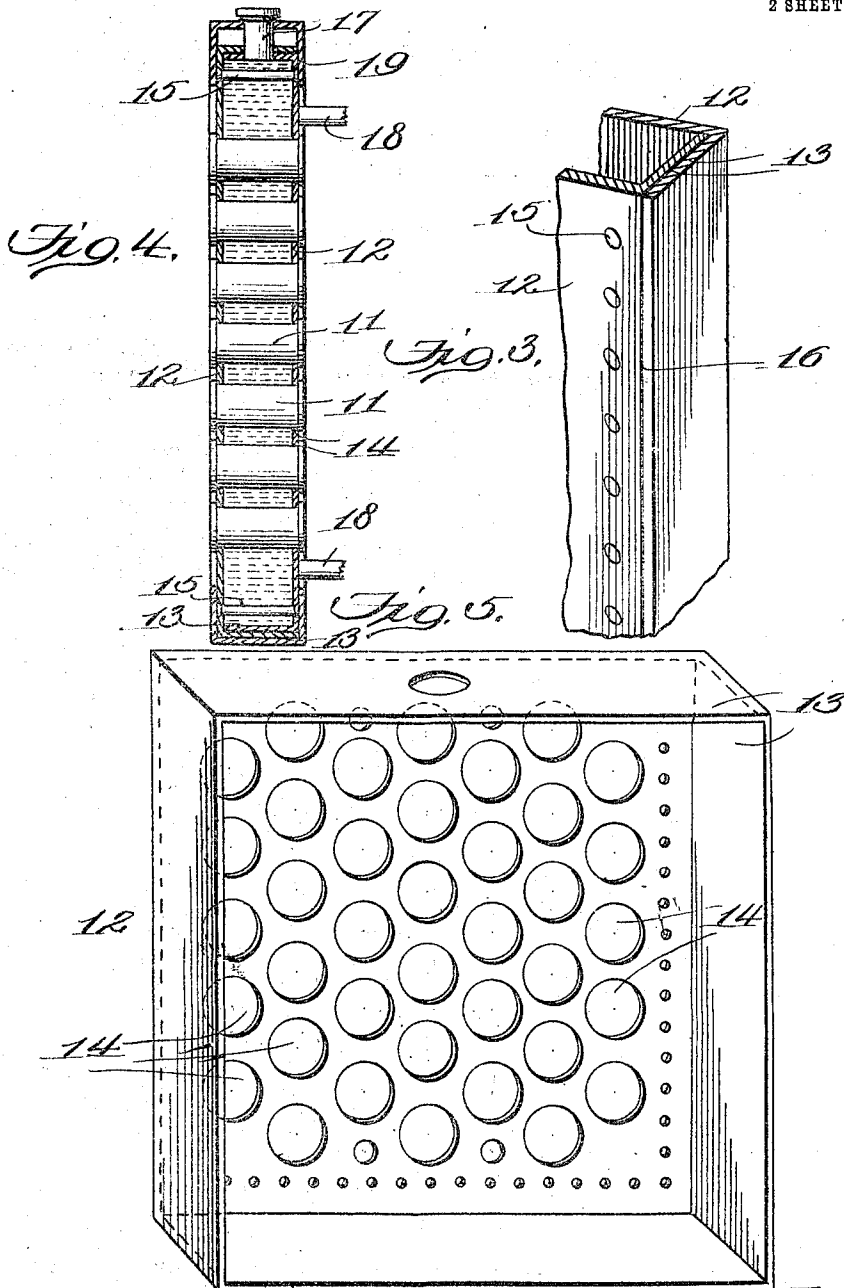
Attys

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2 SHEETS-SHEET 2.



Witnesses:

A. R. Walton.
 J. A. Barron.

Inventor

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 Attys

UNITED STATES PATENT OFFICE.

FERDNANDO G. GARRISON, OF FORT WORTH, TEXAS.

AUTOMOBILE-RADIATOR.

971,127.

Specification of Letters Patent. Patented Sept. 27, 1910.

Application filed November 29, 1909. Serial No. 530,462.

To all whom it may concern:

Be it known that I, FERDNANDO G. GARRISON, a citizen of the United States, residing at Fort Worth, in the county of Tarrant and State of Texas, have invented certain new and useful Improvements in Automobile-Radiators, of which the following is a specification.

My invention relates to surface condensers of that type known as automobile radiator which so frequently leak owing to the jarring and jolting of the vehicle.

The object of my invention is, therefore, to provide a novel construction of radiator whereby to do away with all soldered joints and otherwise prevent any leakage.

In the accompanying drawings, in which my invention is shown, Figure 1 is a perspective view of the forward portion or hood of an automobile showing the radiator in position. Fig. 2 is an enlarged front elevation of the radiator removed. Fig. 3 is an enlarged fragmentary perspective view with the jacket partly broken away. Fig. 4 is a central vertical sectional view through the radiator complete, and, Fig. 5 is a perspective view of one of the body plates detached.

In the practical embodiment of my idea, I construct the radiator body 10, through which extend the air flues 11, of a pair of body plates 12, one of which is shown in Fig. 5. As shown, and in the conventional shape of radiator, the body 10 is rectangular and receives water to circulate therethrough to and from the water-jacket of the engine. The body plates 12 are stamped or otherwise fashioned from suitable material such as iron, steel or aluminum, with integral flanges 13 extending at right-angles from all sides, and are so formed that the flanges of one thereof, overlap the flanges of the other. The plates 12 are, of course, perforated to provide flue openings 14, before being assembled, and, when assembled, are rigidly and permanently fastened by a series of countersunk rivets 15, so as to be flush with the outer surfaces of said plates, said rivets extending parallel with the edges of the

body entirely therearound. The outer overlapping flange 13 is then thoroughly calked as indicated at 16 in Figs. 3 and 4, and after the flues 11 have been secured in position through the openings 14, the inlet pipe 17 secured, and the circulating pipe openings 18 in the inner plate 12 temporarily closed, the body may be thoroughly tested and if found to be without a leak, is ready for its jacket 19. Ordinarily this jacket 19 is of brass, and in several parts which are slipped over the edge of the body and soldered in place. In accordance with my present idea, however, I cast the brass jacket directly over the edges of the body 10 and around inlet pipe 17, and thus not only do away with all soldered joints but effectively prevent displacement of the calking 16.

It will, of course, be understood that the size and number of the air flues 11, form no part of this invention.

I claim:

1. In an automobile radiator, the combination of a body comprising a pair of plates riveted adjacent their edges and having integral flanges, the flanges of one plate overlapping those of the other, calking disposed between said flanges, and a solid jacket cast directly about the edges.

2. In an automobile radiator, the combination of a pair of body plates having integral flanges, the flanges of one plate overlapping those of the other, rivets connecting the body portions of said plates and extending in a series adjacent, and parallel with, the inner longitudinal edges of said flanges whereby to provide the outer edges of the flanges free to receive calking, and a jacket cast directly about the flanged edges of said plates, the inner edges of said jacket extending inwardly and covering the rivets.

In testimony whereof I affix my signature in presence of two witnesses.

FERDNANDO G. GARRISON.

Witnesses:

J. A. GRACEY,
W. H. IRWIN.