

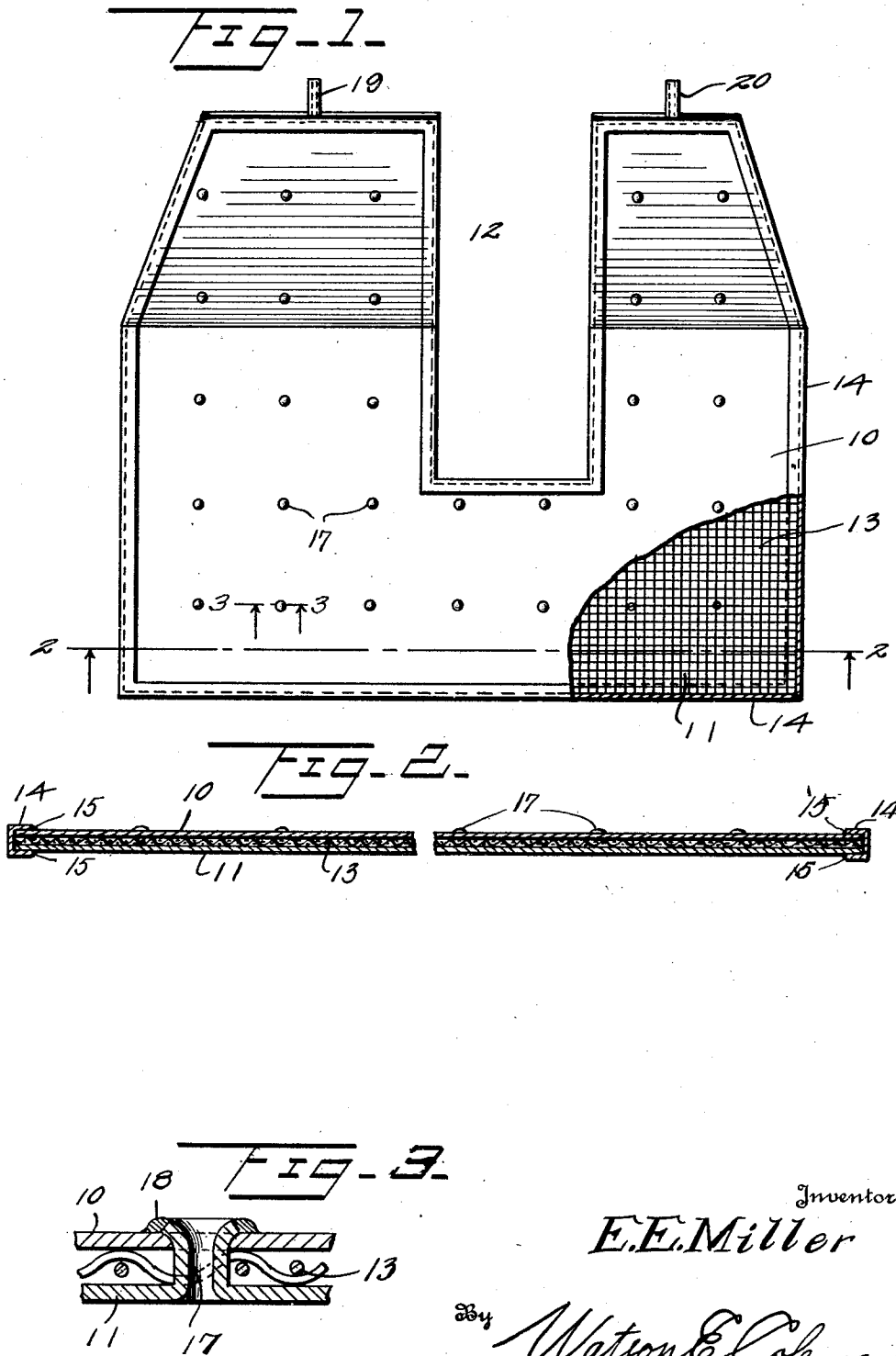
May 5, 1931.

E. E. MILLER

1,803,764

VEHICLE RADIATOR

Filed Feb. 16, 1929



UNITED STATES PATENT OFFICE

ERNEST E. MILLER, OF DAVID CITY, NEBRASKA

VEHICLE RADIATOR

Application filed February 16, 1929. Serial No. 340,565.

This invention relates to vehicle radiators, and more particularly to a radiator for use with self-propelled vehicles.

An important object of the invention is to produce a device of this character which will be extremely flat and may be readily installed and which may be employed with heated water circulation systems of the type illustrated in my prior application, No. 249,154, filed January 24, 1928, now Patent No. 1,765,933 granted June 24, 1930, for patent on vehicle heaters.

A further and more specific object of the invention is to produce in a device of this character a construction such that it may be imposed upon the upper surface of the floor or deck of the vehicle and will not interfere in any way with the operation thereof.

A still further object of the invention is to produce a construction permitting ready modification to accommodate the various controls with which such vehicles are equipped.

These and other objects I attain by the construction shown in the accompanying drawing, wherein for the purpose of illustration is shown a preferred embodiment of my invention and wherein:—

Figure 1 is a plan view partially broken away of a radiator constructed in accordance with my invention;

Figure 2 is a section on the line 2—2 of Figure 1;

Figure 3 is an enlarged detail section taken on the line 3—3 of Fig. 1.

Referring now more particularly to the drawing, the numerals 10 and 11 indicate upper and lower metallic sheets which may be of any suitable material. These sheets are shaped to correspond to the shaping of the vehicle deck upon which they are to be employed both in contour and outline, and are formed with notches 12 opening through a common edge thereof for the reception of the usual vehicle controls. Since these notches open through one edge, the plates may be applied to the deck by movement thereof in one direction with relation to the controls without disturbing these controls. Between the plates is disposed a metallic mesh 13 preferably comprising woven gal-

vanized wire of about sixteen to eighteen gauge having a mesh of one-half inch. The weave of this material serves to maintain the plates in spaced relation and provide circulation openings between the plates which are tortuous in formation and accordingly insure proper distribution of the heated water between the plates.

The mesh separator 13 is shaped to correspond to the shaping of the plates 10 and 11.

About the edges of the plates 10 and 11 is arranged a seal of any suitable character, at present disclosed as a U-shaped binding strip 14 applied thereto and soldered or welded to each of the plates, as indicated at 15. The plates are further secured to one another at intervals suitably spaced about the faces thereof. This latter securing means comprises portions 17 of one of the plates, swedged through openings formed in the other of the plates and sealed thereto by soldering or the like, as indicated at 18.

The radiator is provided with inlet and outlet connections 19 and 20. Where the radiator is employed on the forward or driver's compartment deck, the inlet 19 is preferably disposed at the control side of the radiator, so that the greatest heat will be provided at this point which is ordinarily the coldest in the vehicle and which is subject to unpleasant drafts in cold and rainy weather.

Since the construction hereinbefore set forth is capable of a certain range of change and modification without materially departing from the spirit of the invention, I do not limit myself to such specific structure except as hereinafter claimed.

I claim:—

1. A heater for vehicles comprising a flat body adapted to be placed upon the vehicle deck and corresponding in contour and outline to the shaping of the deck, said body comprising upper and lower plates sealed to one another about their edges, a member disposed between said plates and maintaining the plates in spaced relation to one another while subdividing said space into tortuous channels, and means for introducing a heating medium to and withdrawing said heating medium from the space between the plates,

one of said plates having pressed portions extending through openings formed in the other of the plates and sealed to the edges of said openings, said pressed portions being positioned at spaced intervals about the plate and between the edge portions thereof.

2. A heater for vehicles comprising a flat body adapted to be placed upon the vehicle deck and corresponding in contour and outline to the shaping of the deck, said body comprising upper and lower plates sealed to one another about their edges, a member disposed between said plates and maintaining the plates in spaced relation to one another, an inlet and an outlet for said plates, and securing means formed integrally with one of said plates and adapted to engage the opposite plate whereby to secure said plates together, said securing means being positioned at spaced intervals about the plate and between the marginal edge portions thereof.

In testimony whereof I hereunto affix my signature.

ERNEST E. MILLER.