(Model.)

A. RASNER.

APPARATUS EMPLOYED IN SYSTEMS OF INDIRECT RADIATION.

No. 386,031. Patented July 10, 1888.

Fig. 1.

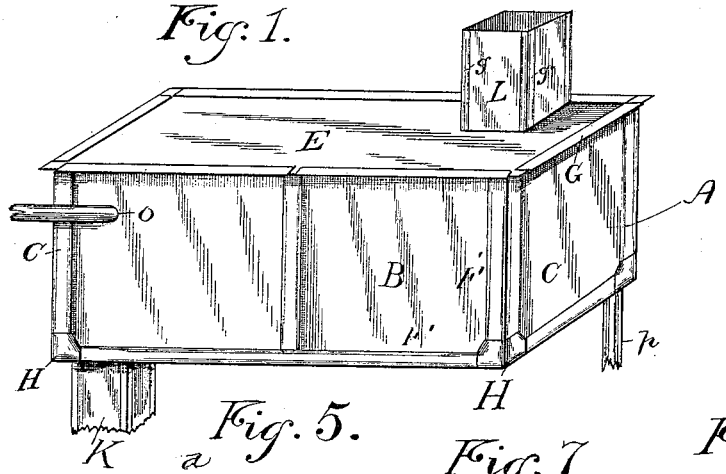


Fig. 5.

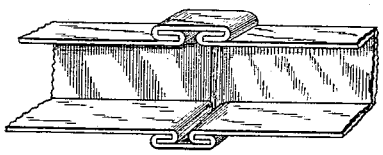


Fig. 7

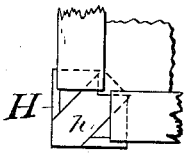


Fig. 3

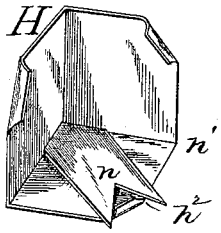


Fig. 4

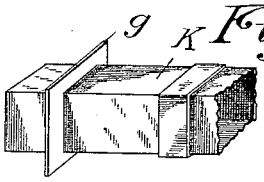
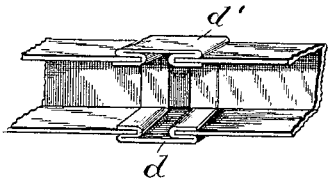


Fig. 6.



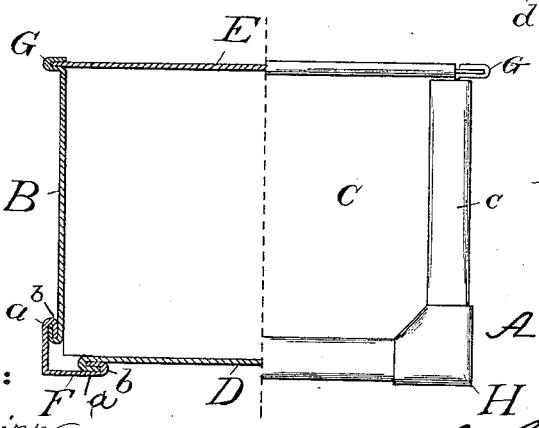


Fig. 2.

A. Rasner

Witnesses:
J. B. McGirr.
R. E. Grant

Inventor.
by Connolly Bronson Fish
attys.

UNITED STATES PATENT OFFICE.

ABRAHAM RASNER, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO HENERY F. DINGER, OF SAME PLACE.

APPARATUS EMPLOYED IN SYSTEMS OF INDIRECT RADIATION.

SPECIFICATION forming part of Letters Patent No. 386,031, dated July 10, 1888.

Application filed February 18, 1885. Serial No. 156,253. (Model.)

To all whom it may concern:

Be it known that I, ABRAHAM RASNER, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Apparatus Employed in Systems of Indirect Radiation; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention has relation to the apparatus employed in systems of indirect radiation, wherein the radiators are incased in boxes or chests communicating by ducts or flues with the apartments to be heated.

This invention has special reference to the construction of the boxes or chests wherein the radiators are incased, and has for its object the provision of certain improvements by means of which the casing may be cheaply and easily constructed and put in place, and whereby when the removal of the whole or a part of the box or chest becomes necessary the work may be done economically and expeditiously.

A further object of this invention is to provide a radiator-casing the joints of which, while admitting of ready separation for any necessary purpose, will, when fitted in place, be thoroughly air-tight, firm, and durable.

This invention accordingly consists in the combination, with the walls and bottom plates of a radiator-casing having reversely and outwardly bent flanges on their edges, of inwardly-flanged cleats interlocking with the flanges of the casing and adapted to cover and embrace the joints on the outside.

This invention also consists in the combination, with the flanged walls of a radiator-casing and the flanged cleats by which said walls are secured together, of detachable corner-caps constructed and applied as hereinafter specifically described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a radiator-casing embodying my invention; Fig. 2, an end view partly in elevation and partly in section; Fig. 3, a perspective view of one of the corner-pieces, and Figs. 4, 5, 6, and 7 detail views.

A designates the chest or casing, constructed of sheet metal and composed mainly of the side walls, B B, the end walls, C C, the bottom plate D, and the top plate, E.

As shown in Fig. 2, the vertical and lower edges of the walls B C and the edges of the bottom plate D are formed with outwardly-curved and reversely-bent flanges *a a*, which are so shaped as to leave space between their reversely-bent portions and the surface of the plate upon which they are formed for the reception of the inwardly-bent flanges *b b*, formed on the sheet-iron cleats or angle-pieces F F′, which are applied to the corners or angles produced where the edges of the walls meet each other and the bottom plate D of the casing.

In extra-heavy work I find it practicable to use the form of joint shown at G in Figs. 1 and 2 for connecting the side walls and end walls to the top and bottom plates of the casing, the flanges G being formed on the walls B C only by bending the edges outwardly and then reversely, so as to embrace said top and bottom plates. The drawings show this form of joint applied only to the top plate, E, but it is obvious that it may be applied to the bottom plate in the same way.

H designates a cap composed of three walls or sides arranged rectangularly and adapted to fit over and embrace the angles or corners at the junction of the side and end walls with the top or bottom plates. To the inside of this cap is attached a tongue, *h*, which extends diagonally across the bottom plate *h′* at a slight distance above the surface of said plate, and is cut away at its end, so as to produce an angular notch, *h²*, to receive the adjoining edges of the side and end walls, as shown in Fig. 7. The cleats F F′ terminate at a sufficient distance from each other to leave space at the corners of the casing for the reception of the caps H H, which, when in place, constitute a continuation of the cleats and complete the molding or bead which is formed by the cleats. The outer angles of the plates constituting the cap H are cut off and the oblique edges so produced are bent inwardly against the walls and bottom of the casing, so as to correspond and harmonize with the inward curvature or rounding of the cleats and produce a finished appearance.

The tongue *h* is designed for the purpose of holding the cap H in position and supporting it upon the casing, the end of the tongue fitting snugly under or behind the reversely-curved flanges of the cleats, as shown in Fig. 7.

The casing A is provided with inlet and outlet openings *o p* for the attachment of the radiator-fittings or supply and exhaust pipes, and it is also furnished with the inlet and outlet air-ducts K L, which are rectangular pipes formed of sheet metal, having outwardly and reversely bent flanges, to which are applied angularly-shaped cleats *g g*, having inwardly-bent flanges, which interlock with the flanges of the plates.

Sections of the ducts are coupled together by being similarly flanged and provided with cleats or bands, as shown at *d* in Fig. 5, or the edges of the ducts may be plain and the sections coupled together by means of double-flanged bands *d'*, as shown in Fig. 6, the flanges being S-shaped and applied to the unflanged ends of the duct-sections.

What I claim as my invention is—

In a casing for radiators, the combination, with the walls thereof having flanged edges and the flanged cleats applied thereto and interlocking with the flanged edges of the walls, of the corner-caps consisting of the three-sided box H, having the notched tongue *h* fitting under or interlocking with the flanges of the bottom wall or plate of the casing, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ABRAHAM RASNER.

Witnesses:

A. A. MOORE,

C. L. STRAUB.