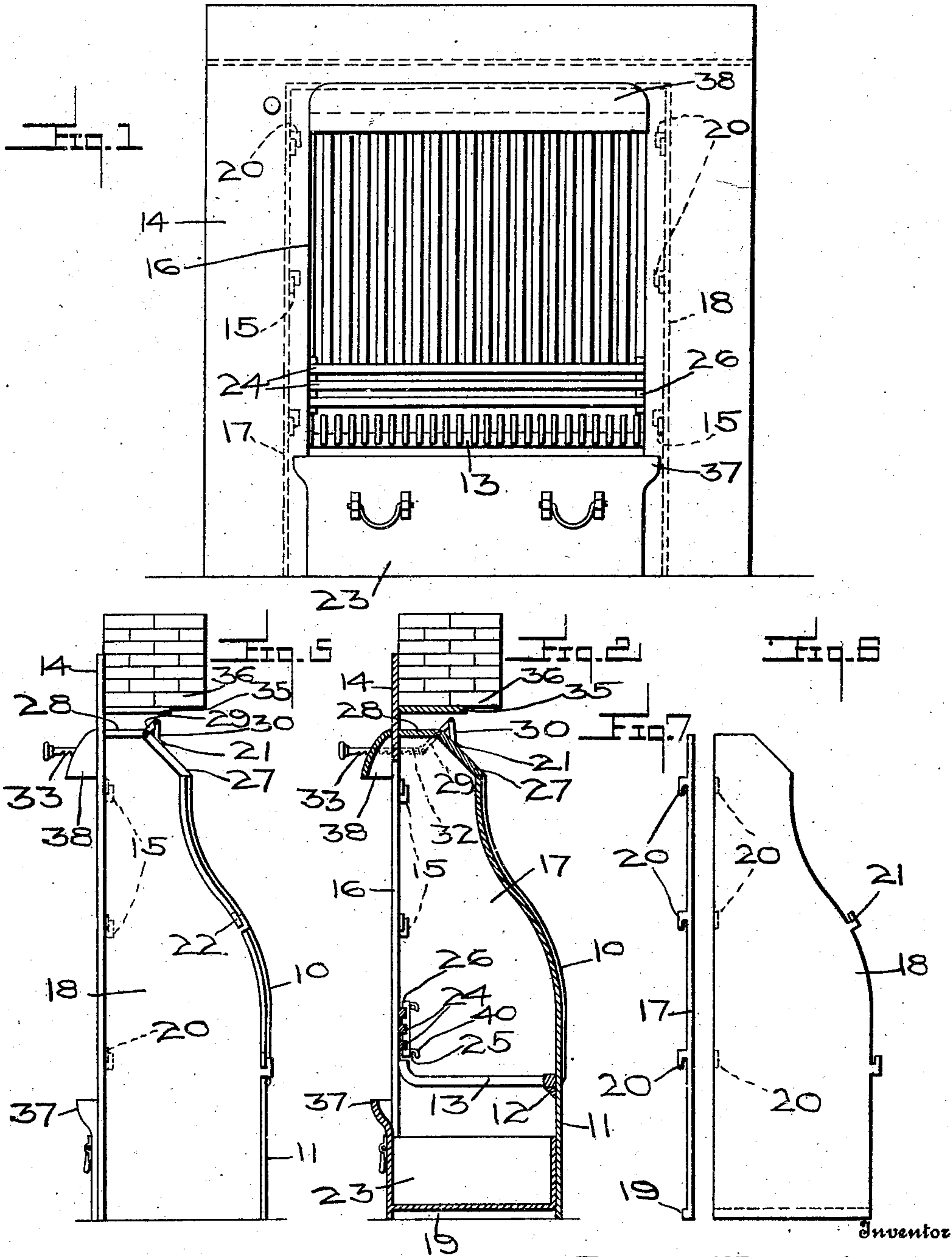


J. H. DWIGHT.
FIREPLACE GRATE.
APPLICATION FILED MAY 14, 1908.

928,593.

Patented July 20, 1909.

2 SHEETS—SHEET 1.



Witnesses
Ed. R. Luby.
E. L. Chandler

James H. Dwight.
By Woodward & Chandler
Attorney

J. H. DWIGHT.
FIREPLACE GRATE.
APPLICATION FILED MAY 14, 1908.

928,593.

Patented July 20, 1909.

2 SHEETS—SHEET 2.

FIG. 3

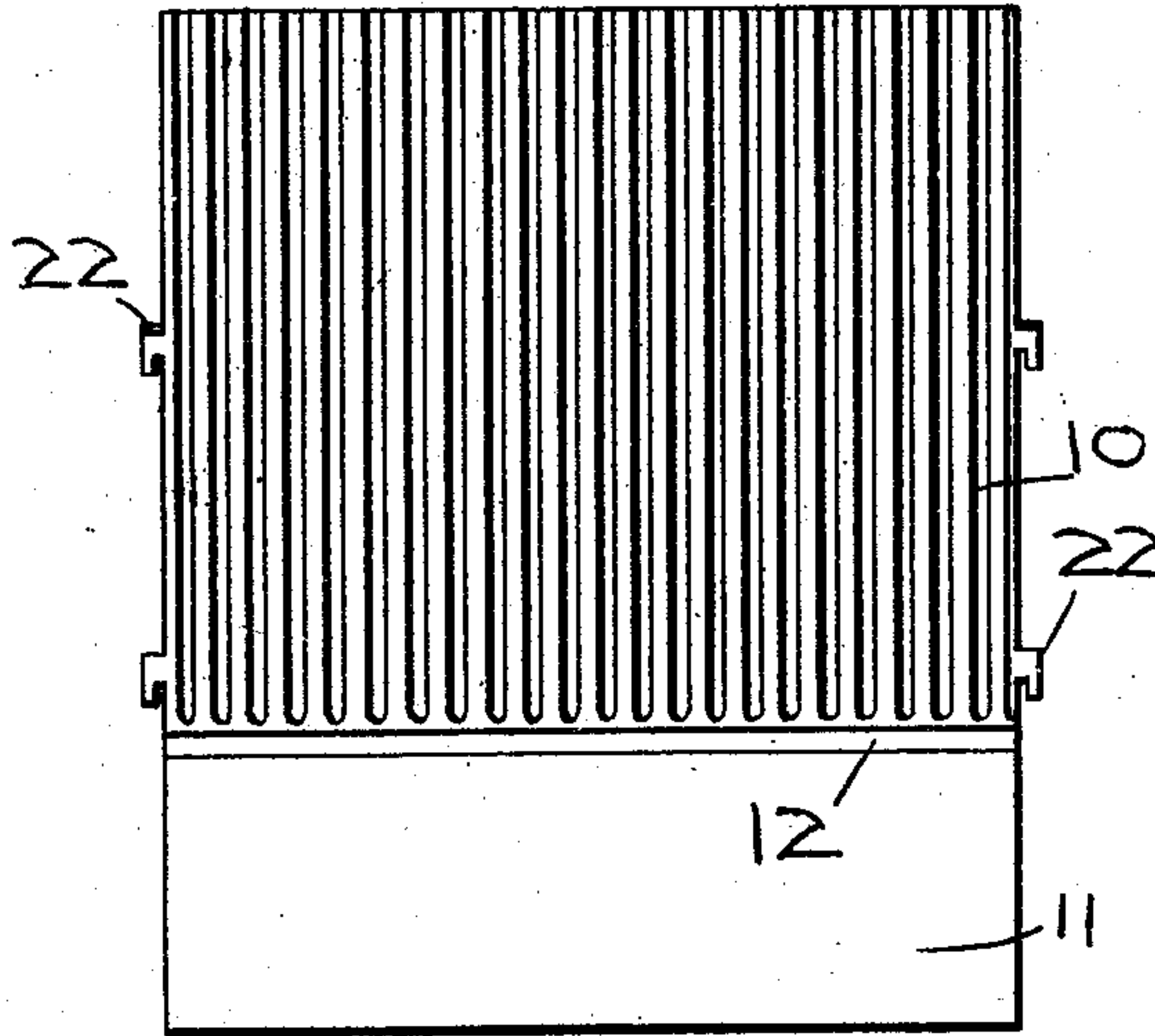
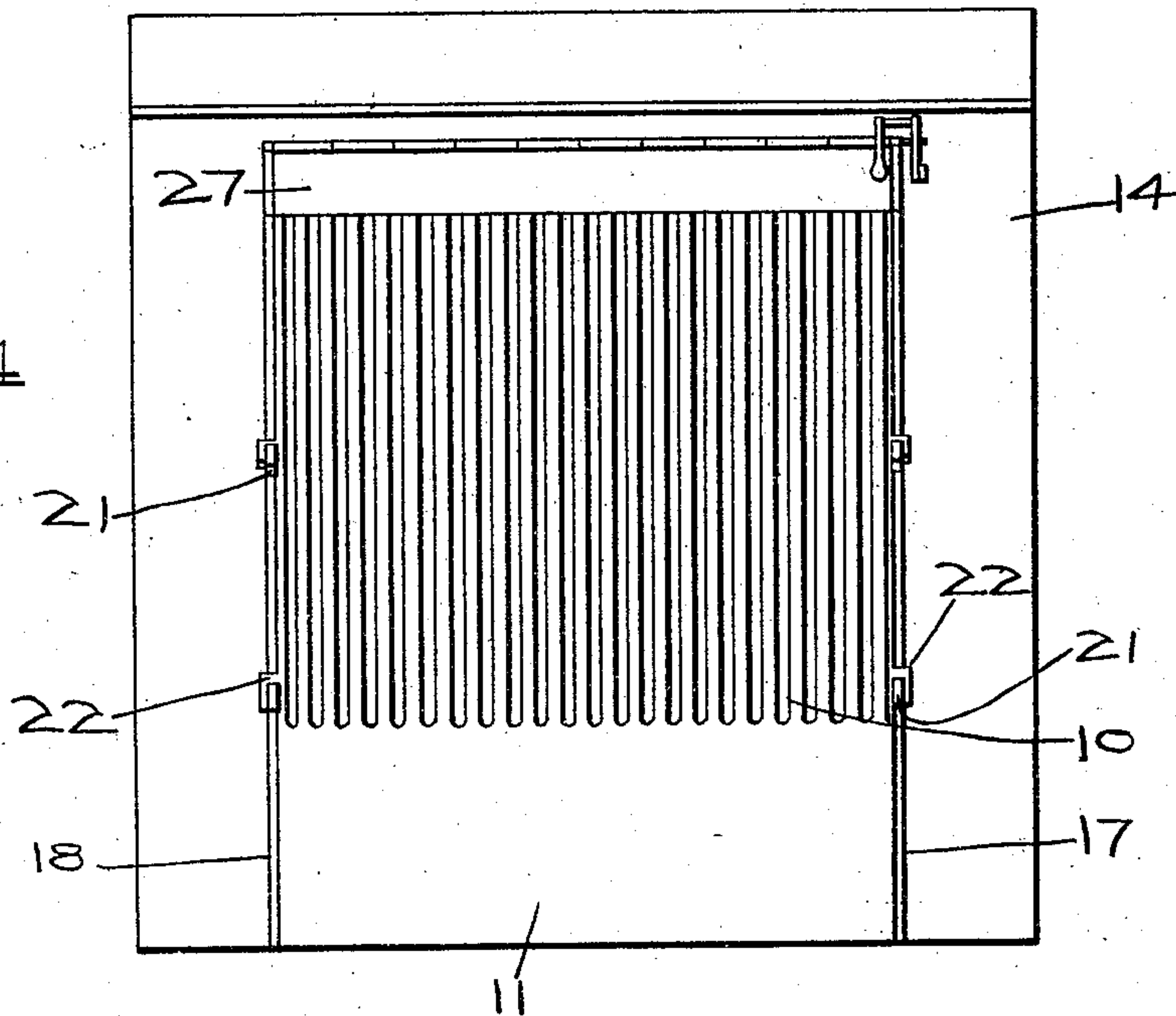


FIG. 4



Inventor

James H. Dwight.

Witnesses

Ed. R. Lusk.
C. L. Chandler

By Woodward & Looney

Attorney

UNITED STATES PATENT OFFICE.

JAMES H. DWIGHT, OF ATLANTA, GEORGIA.

FIREPLACE-GRATE.

No. 928,593.

Specification of Letters Patent.

Patented July 20, 1909.

Application filed May 14, 1908. Serial No. 432,886.

To all whom it may concern:

Be it known that I, JAMES H. DWIGHT, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Fireplace-Grates, of which the following is a specification.

This invention relates to open or fireplace grates and refers to an improved structure thereon and a damper and regulating means in connection therewith.

An object of the invention is to provide a device of this character that can be readily set up in position and that will be very simple in construction and in the assembling of its parts.

A further object is the construction and operation of a damper which is attached to the grate structure for the purpose of shutting off the draft if required.

The invention has also the object of producing a knock down fireplace that can be removed from or installed in any ordinary chimney with comparative ease and accuracy.

Other objects and advantages will be apparent from the following description, and it will be understood that changes in the specific structure shown and described may be made within the scope of the claim without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a front elevation of the device, Fig. 2 is a vertical section of the same, Fig. 3 is an elevation of the fire back, Fig. 4 is a rear elevation of the grate, Fig. 5 is an end elevation showing the manner in which the end plate interlocks with the front plate, Fig. 6 is a side elevation of one of the end plates detached, Fig. 7 is an edge view of one of the plates.

Referring now to the drawings, 10 designates a fire back which is made from sheet metal and which is longitudinally corrugated to within a short distance of the bottom where a plane surface 11 is formed. Across the line of the joining of the corrugated surface and the plane surface 11 is positioned a rib 12 which supports the back end of a grate 13. The fire back 10 has a slight longitudinal curvature, in the form of an ogee, as shown in Fig. 2, directed toward the upper end of the frame plate. The frame plate 14 is three

sided and extends over and around the fireplace, and has a plurality of upwardly projecting hook ears 15, disposed in pairs on opposite sides near the inner edge of the frame. The ends comprise the metallic plates 17 and 18 which below, end in the flanges 19, as shown in Fig. 7, these flanges being inwardly directed. These end plates are also provided with a plurality of hook ears 20, which are disposed on the inner face of said end plates, and along the front edges, and are adapted to engage in the hook ears 15, formed on the rear face of the frame plate 14.

In Fig. 6 I show an end plate disclosing the hook ears 20 arranged along the front vertical edge, and the hook ears 21 disposed along the rear vertical edge.

The fire back 10 is provided with the hook ears 22 projecting laterally therefrom, which engage the ears 21 carried by said end plates 17 and 18 for the purpose of holding said back 10 in position. Slidably disposed upon the flanges 19 is an ash pan 23 which is adapted to be drawn forward through the bottom of the cutaway portion 16 when the accumulated ashes are to be removed. The grate section 13 is supported upon the rib 12 at the back end and is held at the front end against the inner face of the frame plate 14. The upper portion of the grate, which comprises the horizontally disposed bars 24 is carried by the vertically disposed supporting bars 26 which are located at the ends of said bars 24 and adjacent to the end plates 17 and 18 respectively. The studs 25, which are formed upon the inner side of said end plates 17 and 18 engage in the undercut lugs 40 which are carried upon the rear faces of said vertical supporting bars 26.

The damper used in connection with this grate comprises a plate 27 which is hinged to a flange 28 formed upon the inner side of said frame plate 14 at the upper end. Secured to this damper plate 27, is a lug 30, from which extends a link 29, secured at its forward end to the operating lever 33. This lever 33 extends through a slot formed in the frame plate 14, the rack of said lever engaging the frame plate. The frame 14 carries a rearwardly extending horizontally disposed flange 35 which serves to support said frame plate 14 in position against the breast 36 of the chimney. The ash pan 23 is of such dimensions that it completely fills the space beneath the grate 13 and to allow for the

proper draft to maintain a fire on said grate 13 an outwardly extending lip 37 is formed upon the upper front end of the ash pan 23, for admitting the passage of air to the under
 5 side of said grate. The ordinary hood 38 is secured to the outer face near the top of the frame plate 14 to assist in the guidance of the smoke and flames from the fire on said grate up the chimney.

10 It can readily be seen that when the grate which comprises the usual front and bottom sections is to be set up in position the frame plate 14 is first secured in position to the breast 36 of the chimney by means of the
 15 flange 35. The end plates 17 and 18 are then secured to said plate by the interlocking hook ears 15 and 20. The fire back 10 is then positioned and held in such position by the laterally extending hook ears 22 in engage-
 20 ment with the ears 21 which are carried on the rear edges of the end plates 17 and 18. The lower grate section 13 is then placed upon the horizontally disposed rib 12 at the back end and is supported at the front as has
 25 been described. The remaining grate section, comprises the bars 24 and side members 26 and this grate section is held to the studs 25 which are disposed on the inner surfaces of the end plates 17 and 18. The ash pan 23
 30 is placed under the grate 13 upon the flanges 19 and can be withdrawn readily from such position beneath the grate 13 by virtue of the sliding engagement of said ash pan 23 upon said flanges 19. The upper flange 28,

it will be noted, extends at right angles from 35 the face plate 14.

What is claimed is:

A fireplace grate having in combination, a three sided frame plate having an inwardly directed horizontally disposed flange near its 40 upper edge, and hook ears near its inner vertical edges, two end plates provided with hook ears along both vertical edges, the hook ears along the front vertical edge of each end plate interlocking with the corresponding 45 hook ears of said frame plate, a fire back made of sheet metal the major portion being longitudinally corrugated, said fireback having a slight longitudinal curvature in the form of an ogee, said fire-back being of a 50 length less than said end plates and having hook ears interlocking with the hook ears of said end plates upon the rear vertical edges, said end plates being shaped to conform to the longitudinal curvature of said fire-back, 55 a damper secured to said horizontal frame flange between said end plates and resting upon the upper edge of said fire-back, and an operating lever extending from said damper and through said frame plate, as and for the 60 purpose set forth.

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

JAMES H. DWIGHT.

Witnesses:

A. J. PATE,
 JOSEPH A. PARKER.