W. N. VAN FLEET.

SECTIONAL HEATER BASE.

APPLICATION FILED FEB. 24, 1911.

1,040,469.

Patented Oct. 8, 1912.

2 SHEETS—SHEET 1.

Fig. 1.

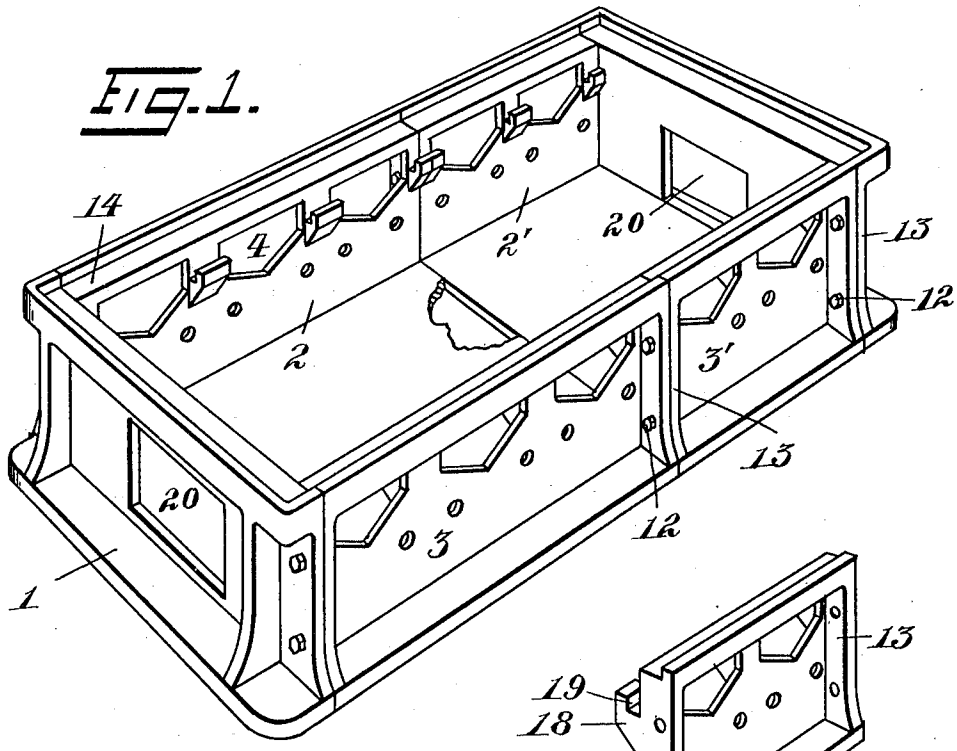
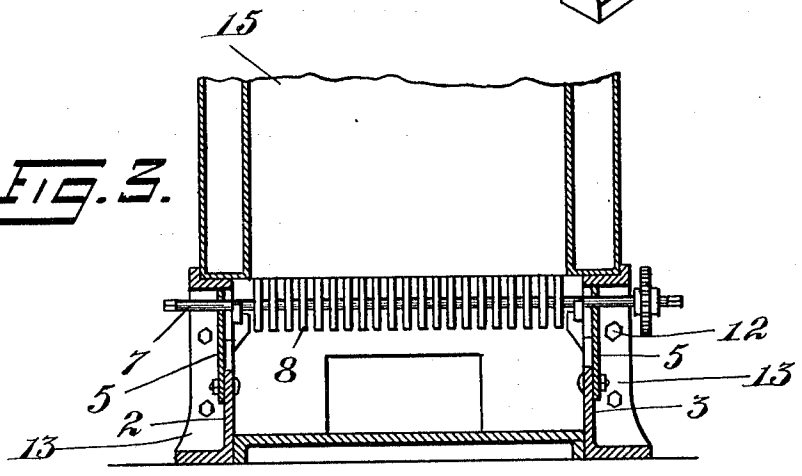


Fig. 2.

Fig. 3.



Witnesses:

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2 SHEETS—SHEET 2.

Fig. 4.

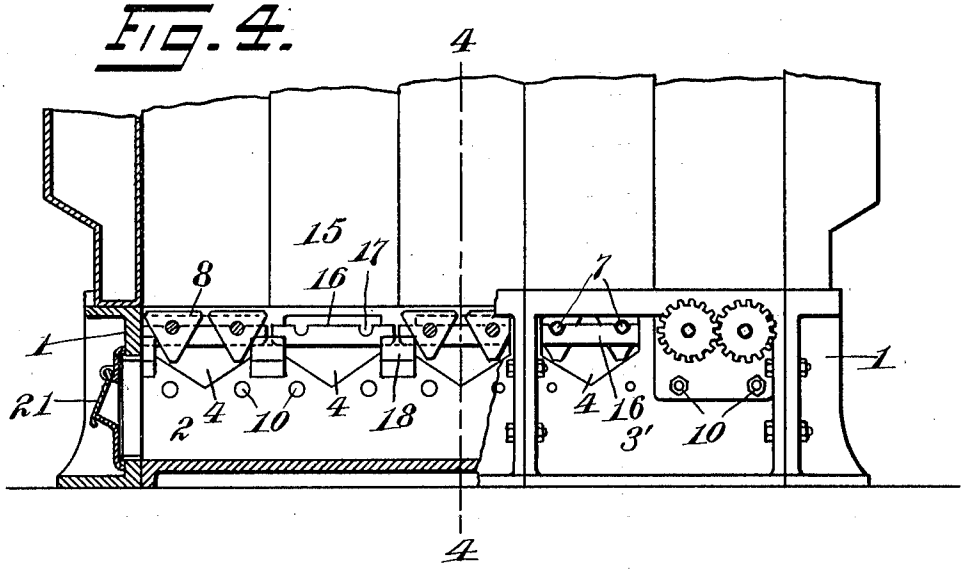


Fig. 5.

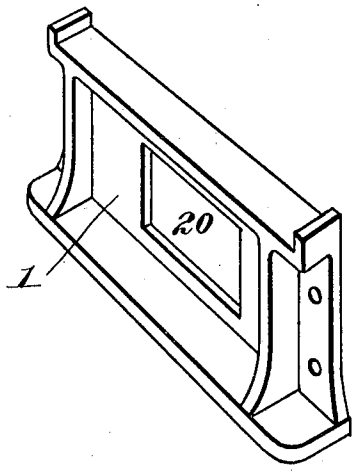


Fig. 6.

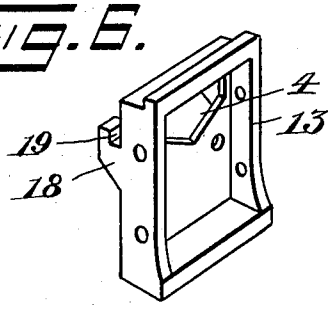


Fig. 8.

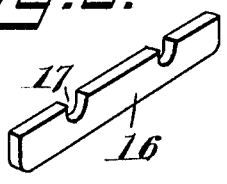
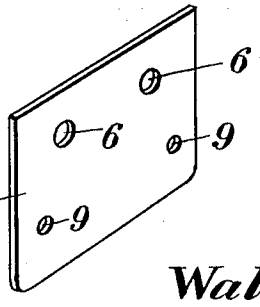


Fig 7



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UNITED STATES PATENT OFFICE.

WALTER N. VAN FLEET, OF BOONTON, NEW JERSEY.

SECTIONAL HEATER-BASE.

1,040,469. Specification of Letters Patent. Patented Oct. 8, 1912.

Application filed February 24, 1911. Serial No. 610,488.

To all whom it may concern:

Be it known that I, WALTER N. VAN FLEET, a citizen of the United States, residing in Boonton, in the county of Morris and State of New Jersey, have invented certain new and useful Improvements in Sectional Heater-Bases, of which the following is a specification.

My present improvement relates to bases for water heaters of built up construction where the heater members are separate units.

It has always been the custom, as far as I am aware, to make water heater base supports cast in one piece, this piece forming a support for the heater members and grate bars. This form of construction did not permit manufacturers of water heaters to take full advantage of the unit type construction, because the base being in one piece permitted of no addition or reduction of the number of the heater units, but meant in most cases the replacing of an entirely new heater fitted to meet any changed conditions.

In my improved construction the increasing or decreasing of the number of intermediate heater units to meet the requirements is comparatively simple, for instance, if any one of my improved form of heaters is installed with the necessary number of units to properly heat the house, and additional rooms are added thereto at a later period it is only necessary to place in extra intermediate units and to add longer base or side pieces to maintain the proper heater requirements, thus increasing the capacity as required. This operation may also be reversed and units taken away and smaller side pieces substituted in the base should circumstances require it.

A further advantage in my construction is that heater parts, such as fronts, sides, rear and bottoms, and grates can be kept in stock by dealers or repair men, enabling them to meet any requirements without having to carry a great number of completely assembled heaters with the added expense and loss of room.

Another advantage in my heater base is the method of mounting the grate bars; this method allowing the bars to be removed from the ash pit bases at will, for renewal without disturbing the other couples. By this method a repair man can install new grates at any time while the furnace is in use without disturbing the fire, except at the point of renewal.

The accompanying drawings are numbered alike for like parts and conform with the specification.

Figure 1 is a perspective view of my heater base, with the grates and their supporting means removed. Fig. 2 shows a perspective view of one of the side members. Fig. 3 shows a sectional view of the base taken on line 4—4, Fig. 4. Fig. 4 is a side view of the base with a portion broken away and showing portions of the heater members mounted thereon, similar to those shown and claimed in my pending application, filed Feb. 3, 1911, Serial No. 606,302. Fig. 5 shows a perspective view of one of the end members, which are duplicates. Fig. 6 is a perspective view of another one of the side members somewhat smaller than the one shown in Fig. 2. Fig. 7 is a perspective view of one of the plates for supporting the grates and covering the openings in the side members. Fig. 8 is a bar support for the grates.

In Fig. 1 is shown my base assembled, without the grates or supporting means, and is made up of two end members 1 which are duplicates and are bolted to connecting side members 2 and 2′, and 3 and 3′. It will be noted that 2 and 2′ are duplicates as are also 3 and 3′, this construction permitting the use of only three patterns where cast iron bases are required, or a like number of dies, when the article is to be stamped or drawn of sheet metal. The base members may be fastened to each other by means of bolts 12—12 passing through the flanges 13—13. The triangular openings 4 are for removing and replacing the grate-bars through the side members 2 and 2′, and 3 and 3′. The grate-bars are held in couples in position in the base by side plates 5, Fig. 7, which have two holes 6—6 to receive the shafts 7, Fig. 3, of the grate-bars 8. There are also two bolt holes 9—9 to permit these plates to be attached to the side members 2—2′ and 3—3′ by bolts 10. The end members 1 have openings 20—20 to permit either opening to be used as a clean out opening, and are normally closed by doors 21. The rabbeted edge 14 shown all around the top edge of the base Fig. 1, forms a seat upon

which the heater units 15, partially shown in Fig. 3, rest. The grate members 8 are supported and spaced by a series of short metal bars 16, which have notches 17 on their upper edges into which the shafts 7 of the grate-bars rest. These bars 16 are supported in lugs 18 which are made integral with the side members of the base, and have receiving portions 19 formed therein.

It is obvious from the construction here shown that if longer or shorter side members be substituted for the members 2—2′ and 3—3′, on both sides, that the length is increased or decreased, permitting the use of greater or less number of the heater members 15. The grate members 8 with their supporting means 5 and 16 are added or removed with the changes of base length.

Having thus described my invention, I claim:

In a heater base, a member having openings in the side, a lug carried by the member on each side of the opening and projecting upward to form a rest, a cross-bar supported at its ends in said lugs, the bar having notches in the upper edge to receive the shaft ends of grate bars, and a plate secured on the base member on the opposite side from said lugs to close the said openings in the member, the plate having apertures registering with said notches to receive the grate shafts.

WALTER N. VAN FLEET.

Witnesses:
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