

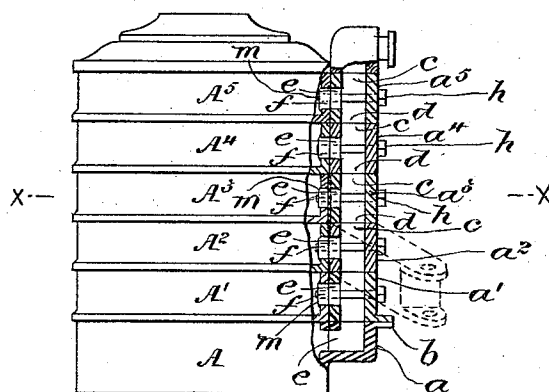
(No Model.)

J. H. WYNNE.
HOT WATER HEATER.

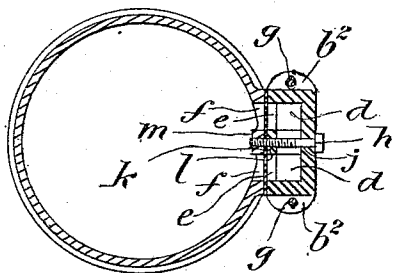
No. 532,256.

Patented Jan. 8, 1895.

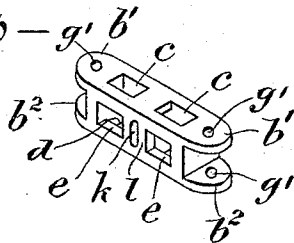
— १५५ —



— Div. 2 —



—Figs. 3—



Witnesses

Thos M. East
R. Alb. Stindler

Inventor

John H. Wyne

By his Attorney

Das Wieder Kommen

UNITED STATES PATENT OFFICE.

JOHN H. WYNNE, OF MONTREAL, ASSIGNOR TO THE GURNEY FOUNDRY COMPANY, LIMITED, OF TORONTO, CANADA.

HOT-WATER HEATER.

SPECIFICATION forming part of Letters Patent No. 532,256, dated January 8, 1895.

Application filed March 3, 1894. Serial No. 502,228. (No model.)

To all whom it may concern:

Be it known that I, JOHN HERBERT WYNNE, of the city of Montreal, in the District of Montreal and Province of Quebec, Canada, have
5 invented certain new and useful Improvements in Hot-Water Heaters; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to hot water heaters
10 built up of sections and has for its object to improve the construction of the water headers of same whereby in the event of damage to any section such section can be shut off or cut out of working connection with the remain-
15 ing sections and so avoid any necessity for immediately removing this particular inoperative section.

The invention may be said to consist in a water header composed of a number of inde-
20 pendently removable sections arranged so that the water header section of any main section can be removed without disturbing any of the others and allow any suitable diaphragm or cut off plate to be placed over the
25 opening leading into the main section, and the header section replaced, thus preventing any water entering that particular main section while still completing the water header and allowing the remaining sections to con-
30 tinue in use.

For full comprehension however of the invention, reference must be had to the annexed drawings forming a part of this specification, in which like symbols indicate corresponding
35 parts, and wherein—

Figure 1 is a side elevation partly in section of a sectional heater provided with my improved water header; Fig. 2, a sectional view taken on line *xx*, Fig. 1; and Fig. 3 a
40 detail view of one of the removable sections of the water header.

A is the fire pot section of the usual form of heater built of this section and others $A^1 A^2 A^3 A^4 A^5$ above it.

45 The first of fire pot section A is the only one having a part of the water header integral therewith, such part being shown at *a* as forming the lowermost section of the water header, being oblong in horizontal section and provided with flanges *b b* situated at its ends and
50 flush with its top surface. Superimposed

upon this integral section *a* are the individual separate and removable sections $a^1 a^2 a^3 a^4 a^5$ preferably having four inclosing sides and of similar form to the section *a*, but each having
55 two, upper and lower flanges $b^1 b^2 b^3 b^4$, &c., at each end and flush with the top and bottom surfaces. These removable sections $a^1 a^2 a^3 a^4 a^5$ correspond in depth to the main sections $A^1 A^2 A^3 A^4 A^5$ and each has openings *c c*
60 formed in its upper side, openings *d d* in its bottom side and openings *e e* in its inner side, the latter to communicate with openings *f* in the main sections and those *c d* to allow of communication with every other removable
65 section and so secure an unobstructed vertical water passage from the bottom to the top of the water header.

The several removable sections $a^1 a^2 a^3 a^4 a^5$ are held together by any suitable means
70 such as the bolts *g g* passing through corresponding perforations *g'* in the respective flanges of the sections and are further secured to the main sections by other suitable means such as the screw bolts *h* passing hori-
75 zontally through apertures *j* in the back sides and perforations *k* in the central portions *l* of the inner sides of the sections $a^1 a^2 a^3 a^4 a^5$, preferably into screw threaded eyes *m* in similar central portions of the sections proper
80 $A^1 A^2 A^3 A^4 A^5$, the perforations *k* being preferably oval or oblong in form to allow of adjustment for fitting purposes where required.

The top, bottom and inner sides of the removable sections and the back side of the
85 main sections where the removable sections come in contact with them are of course properly faced and if desired any suitable washers can be interposed to effect perfect joints.

It will after the foregoing be readily appar-
90 ent that in the event of either of the main sections becoming inoperative from any cause, the removable water header section belonging to such main section can be removed as indicated by dotted lines in Fig. 1, by undo-
95 ing the necessary bolts *g* holding it to the other sections and the screw bolt *h* securing it to the main section, after which any suitable device such as an impervious plate or washer can be set in place so as to close the
100 openings communicating with the inoperative main section, and the removable section re-

placed thus cutting out such main section and allowing the water header to resume its functions in connection with the remaining main sections.

5 What I claim is as follows:

1. In a water heater having a number of heating sections superimposed and supported one upon the other, a water header comprising a number of sections corresponding in
10 depth with said heating sections, formed separate from said heating sections and from each other, having openings in their inner faces to communicate with similar openings in said heating sections and being removably
15 secured against the face of said heating sections containing said openings, for the purpose set forth.

2. In a water heater having a number of heating sections, superimposed and supported
20 one upon the other, a water header comprising a number of superimposed sections corresponding in depth with said heating sections and independently removable from same and from each other, having communicating
25 openings and adapted to be removably secured against the face of such heating sections also having communicating openings, for the purpose set forth.

3. In a water heater having a number of superimposed heating sections, a water header
30 constructed of a number of superimposed sections independently removable from said heating sections and having an unobstructed vertical water passage, for the purpose set
35 forth.

4. In a water heater having a number of superimposed heating sections, a water header constructed of a number of superimposed
40 separate removable sections communicating with the main sections of the heater and with each other and adapted to allow the removal of one of such sections to allow of the closing of the passage to said main sections and replaced in position without disturbing the remainder of the header sections for the purpose
45 set forth.

5. In a water heater having a number of superimposed heating sections, the combination
50 with such sections having openings forming water inlets in their rear sides, of an individual and independently removable water header section for each main section superimposed one upon the other and communicating with each other and with the inlet in

the rear side of said heating sections for the
55 purposes set forth.

6. In a water heater having a number of superimposed heating sections, the combination
60 with such sections having openings forming water inlets in their rear sides, of the superimposed independently removable water header sections formed separately from said heating sections and having openings in their
65 top, bottom and inner sides with means for supporting and independently securing them all together and to the main sections for the purposes set forth.

7. In a water heater, the combination with the main fire pot section A having integral
70 water header section *a* communicating therewith and presenting an opening in its upper side, and the main sections *A'* *A*² *A*³ *A*⁴ *A*⁵ arranged above said fire pot section and having openings forming water inlets in their rear
75 sides,—of the independently removable water back sections *a'* *a*² *a*³ *a*⁴ *a*⁵ arranged above and supported by said water header section *a* and having openings in their bottom, top and
80 inner sides to effect an unobstructed water way between all the water header sections and communication thereof with each main section; and means for independently securing
85 said header sections to each other and to said main sections for the purposes set forth.

8. In a water heater, the combination of
85 the main fire pot section A having integral water header section *a* communicating therewith and presenting an opening in its upper side; the main sections *A'* *A*² *A*³ *A*⁴ *A*⁵ arranged above said section A and having open-
90 ings in their rear sides; the water header sections *a'* *a*² *a*³ *a*⁴ *a*⁵ having openings *c*, *d* and *e* respectively in their upper, bottom and inner sides, the latter opening *e*, communi-
95 cating with the openings in the rear sides of the main sections, and those *c*, *d*, with each other, and each water header section having corresponding perforated flanges as *b*; vertical bolts passing through such flanges to hold
100 said water-header sections together and bolts passing horizontally through said header sections to secure them to the main sections as set forth.

Montreal, January 29, 1894.

JOHN H. WYNNE.

In presence of—

WILL P. McFEAT,
FRED. J. SEARS.