

12 **EUROPEAN PATENT APPLICATION**

21 Application number: 85102750.8

51 Int. Cl.⁴: **F 24 H 1/18**
F 28 F 9/18

22 Date of filing: 11.03.85

30 Priority: 30.03.84 US 595388

43 Date of publication of application:
02.10.85 Bulletin 85/40

88 Date of deferred publication of search report: 11.06.86

84 Designated Contracting States:
AT BE CH DE FR GB IT LI LU NL SE

71 Applicant: **STATE INDUSTRIES, INC.**

Ashland, TN 37015(US)

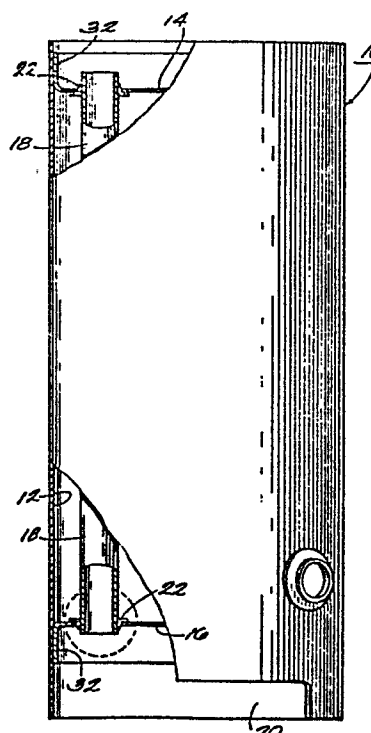
72 Inventor: **Vago, Otto Z.**
Rt. 1, Box 443
Burns Tennessee 37029(US)

72 Inventor: **Wenczl, Ernest**
6707 DuQuaine Ct.
Nashville Tennessee 37205(US)

74 Representative: **Patentanwälte Grünecker, Dr.**
Kinkeldey, Dr. Stockmair, Dr. Schumann, Jakob, Dr.
Bezold, Meister, Hilgers, Dr. Meyer-Plath
Maximilianstrasse 58
D-8000 München 22(DE)

54 **Water heater construction and method of manufacture.**

57 A water heater tank assembly (10) having a shell (12) with top (14) and bottom (16) heads welded in opposite ends thereof. The heads have aligned flue tube mounting openings therein in which metal collar members (12) are welded. Flue tubes (18) are mounted in and welded to the collar members (22). The collar members serve as a heat sink to prevent damage to the glass lining (29) on the shell, head members and flue tubes during the various welding operations.





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
A	US-A-2 363 980 (LAUCK) * Whole document *	1-3, 5, 6, 8	F 24 H 1/18 F 24 H 1/20 F 28 F 9/18
A	--- AU-B- 64 136 (RHEEM AUSTRALIA PTY.) (1965) * Figures *	1, 8	
A	--- FR-A-1 310 484 (COMP. DES ATELIERS ET FROGES DE LA LOIRE) * Whole document *	1, 8	
A	--- US-A-4 157 077 (LINDAHL)		
A	--- US-A-2 322 488 (UECKER) * Whole document *	1-3, 5, 6, 8	TECHNICAL FIELDS SEARCHED (Int. Cl. 4) F 24 H F 28 F
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 27-02-1986	Examiner VAN GESTEL H.M.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			