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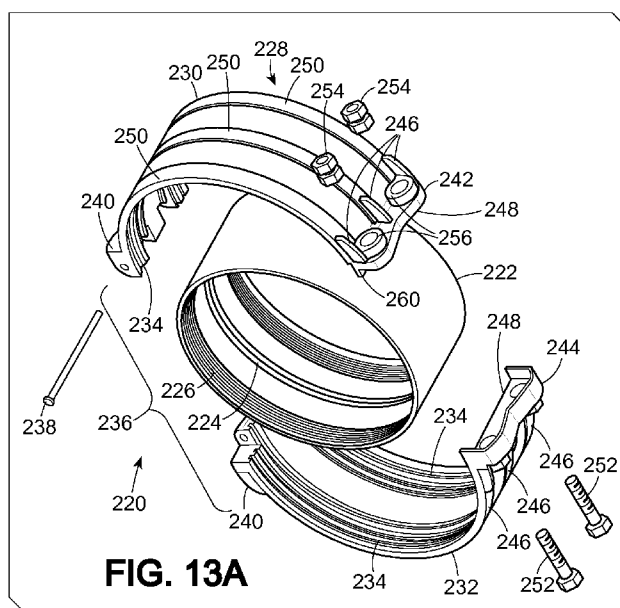
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(54) Title: PIPE COUPLING DEVICE

**FIG. 13A**

(57) **Abstract:** The present invention is embodied in a pipe coupling device for joining two pipe segments including a cylindrically shaped gasket for receiving the pipe segments and a cylindrically shaped clamp having a first and second semi-cylindrical segment attached by a hinge that extends along a length of one side each segment parallel to the axis of the cylinder. The clamp includes an inner wall having at least one groove forming a channel aligned in each of the semi-cylindrical segments and extending about the circumference of the inner wall of the clamp. A second side of the semi-cylindrical segments includes flanges that extend radially away from the segments. The flanges include complementary apertures and bolts that are received through the apertures for sealing the flanges together. The semi-cylindrical segments are movable about the hinge between an open position and a closed position, wherein the pipe segments are received in opposing ends of the gasket and the clamp is open to receive the pipe segments a gasket combination and then closed about the gasket pipes and secured about the gasket for a sealing engagement by the bolts.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2009/046491**A. CLASSIFICATION OF SUBJECT MATTER*****F16L 21/06(2006.01)i, F16L 23/08(2006.01)i, F16L 23/10(2006.01)i***

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 8 : F16L 21/00, F16L 21/06, F16L 21/08 & F16L 23/036

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Utility models and applications for Utility models since 1975

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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKIPASS(KIPO internal) & key words : "pipi", "coupling" & "groove"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P	KR 10-2009-0043645 A (MON, JAE HYUN, O, MIN SU) 07 May 2009 See abstract and figs. 3-7.	1-15
X A	KR 10-2002-0084534 A (YOON, JONG KYUNG) 09 November 2002 See abstract and figs. 5-7.	1-7, 12-15, 8-11
X A	KR 10-2004-0068699 A (SUN JIN SPC CO., LTD.) 02 August 2004 See abstract and figs. 4 and 5.	1-7, 12-15, 8-11
A	KR 20-1998-0014395 U (SONG, KAE WON) 05 June 1998 See abstract.	1-15



Further documents are listed in the continuation of Box C.



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KR 10-2009-0043645 A

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None

KR 10-2002-0084534 A

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None