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# United States Patent [19]

Galle [45] Date of Pa

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[54]	ALIGNMENT SYSTEM FOR HUB CONNECTOR
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	Int. Cl. <sup>6</sup>
[58]	Field of Search

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### [57] ABSTRACT

A connector for connecting two pipes into abutment with each other uses mateable hub members with external flanges. One of the hub members has a concentric recess with a gross tapered surface and a fine tapered surface. The gross tapered surface is inclined at a greater angle relative to the axis than the fine tapered surface. The other hub member has a protruding guide member which will contact the gross and fine tapered surfaces when the hub members are brought together. First the gross tapered surface will decrease misalignment, then the fine tapered surface will complete the alignment of the hub members. A seal is located on seal seats in the hub members. The seal is metal and is carried in a position prior to connection so as to avoid damaging contact of the other hub member when the hub members are brought together.

## 18 Claims, 4 Drawing Sheets

