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(54) **WELL ASSEMBLY HAVING A CASING HANGER SUPPORTED BY A LOAD MEMBER ACTUATED BY A RETRACTABLE MEMBER DISPOSED IN THE WELLHEAD**

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See application file for complete search history.

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(57) **ABSTRACT**

A wellhead system comprising a high pressure housing having a retractable ring and a casing hanger having an activation ring configured to be engaged by the retractable ring when the casing hanger is lowered into the high pressure housing. An expandable load member is carried by the casing hanger into the high pressure housing. When the activation ring is engaged by the retractable ring, the activation ring is blocked from further downward motion. The activation ring and the body of the casing hanger cooperate with the load member to expand the load member outward into engagement with the high pressure housing as the casing hanger is lowered further into the high pressure housing. The outer surface of the load member and the inner surface of the high pressure housing are configured so that the high pressure housing supports the casing hanger when the load member is expanded into engagement with the high pressure housing.

19 Claims, 9 Drawing Sheets

