CLAIMS

1. A crown plug securement system comprising an outer member of a bore, a crown plug and securement means to secure the crown plug within the outer member wherein the securement means comprises a clamping arrangement which is activated between a first configuration and a second configuration wherein, in the first configuration, a clamping member is in an unclamped configuration and enables the crown plug to be axially moved within the outer member to an axial position which is aligned with the clamping member of the clamping arrangement and, in the second configuration, the clamping arrangement exerts sufficient radial force on the outer member to distort the outer member inwardly to grip the crown plug and secure the crown plug in the axial position within the bore, in which the crown plug comprises a unitary component which comprises a one piece component and in which in changing from an unclamped position to a clamped position the crown plug solely requires positioning at the clamping position without any manipulation of any securement elements located on the crown plug, wherein the crown plug is solely secured in position by the clamping arrangement and the crown plug is solely secured in position by movement of elements located externally of the outer member, in which the crown plug comprises a main body which is arranged to create a barrier across the outer member and wherein the main body comprises a solid body and the solid body provides a bung which fills the outer member within a sealing zone and wherein the sealing zone extends along an axial length of the outer member.

2. The crown plug securement system according to Claim 1 in which the crown plug and the outer member create a metal to metal seal in the second configuration.

3. The crown plug securement system according to Claim 2 in which the crown plug and the outer member create a full circumferential metal to metal seal in the second configuration.

4. The crown plug securement system according to any preceding claim in

which the crown plug comprises an outer sealing surface comprising a metal sealing surface and an elastomeric seal.

5. The crown plug securement system according to any preceding claim in which the crown plug comprises an outer sealing surface comprising a profiled sealing surface wherein the profiled sealing surface comprises a series of full circumferential rounded ridges extending around the outer sealing surface and wherein adjacent rounded ridges are separated by full circumferential recesses.

6. The crown plug securement system according to Claim 5 in which the outer sealing surface comprise an upper array of rounded ridges and a lower array of rounded ridges and wherein the upper array of rounded ridges locate on an upper portion of the crown plug and above a sealing member and the lower array of rounded ridges locate on a lower portion of the crown plug and below the sealing member.

7. The crown plug securement system according to Claim 5 or Claim 6 in which the profiled sealing surface comprises a second series of axially spaced apart ridges comprising a series of full circumferential angled ridges extending around the outer sealing surface and wherein adjacent angled ridges are separated by full circumferential recesses.

8. The crown plug securement system according to any preceding claim in which the outer member comprises an index shoulder which is arranged, in use to cooperate with an index surface on the crown plug in order to align the crown plug relative to the clamping arrangement.

9. The crown plug securement system according to Claim 8 in which the index surface of the crown plug is provided by a lower annular surface which is provided around a lower outer edge of the crown plug.

10. The crown plug securement system according to any preceding claim in

which an outer sealing surface of the crown plug is tapered and, wherein, the tapered outer sealing surface of the crown plug is arranged to cooperate with a respective tapered portion of the outer member.

11. The crown plug securement system according to any preceding claim in which the crown plug comprises a tool attachment member.

12. The crown plug securement system according to Claim 11 in which the tool attachment member is located on an upper surface of the crown plug.

13. The crown plug securement system according Claim 12 in which the tool attachment member comprises a lug extending upwardly away from an upper surface of a main body of the crown plug.

14. The crown plug securement system according to Claim 12 in which the tool attachment member comprises a recess extending inwardly into the crown plug.

15. The crown plug securement system according to any preceding claim in which, in the first position, an outer sealing surface of the crown plug is arranged to locate at a longitudinal position in which an outer sealing surface is movable relative to an inner surface provided in the outer member in order to enable the crown plug to move within the outer member.

16. The crown plug securement system according to any preceding claim in which the clamping arrangement comprises a collar having an externally tapered surface, the arrangement may also include an annular component with an internally tapered surface and wherein the collar and the annular component are relatively axially moveable between a first position in which the tapered surface of the annular component exerts no radial force on the collar and a second position which the tapered surface of the annular component exerts sufficient radial force to distort the collar inwardly to grip the crown plug.

17. A wellhead including a securement system for securing a crown plug within the wellhead, the securement system being in accordance with any one of Claim 1 to Claim 16.

18. A method of securing a crown plug within a wellhead comprising activating securement means to secure the crown plug within an outer member of a bore wherein the securement means comprises a clamping arrangement, the method comprising activating the clamping arrangement between a first configuration and a second configuration wherein, in the first configuration, a clamping member is in an unclamped configuration and enables the crown plug to be axially moved within the outer member to an axial position which is aligned with the clamping member of the clamping arrangement and, in the second configuration, the clamping arrangement exerts sufficient radial force on the outer member to distort the outer member inwardly to grip the crown plug and secure the crown plug in the axial position within the bore, and

in which the crown plug comprises a unitary component which comprises a one piece component and in which in changing from an unclamped position to a clamped position the crown plug solely requires positioning at the clamping position without any manipulation of any securement elements located on the crown plug, wherein the crown plug is solely secured in position by the clamping arrangement and the crown plug is solely secured in position by movement of elements located externally of the outer member, in which the crown plug comprises a main body which is arranged to create a barrier across the outer member and wherein the main body comprises a solid body and the solid body provides a bung which fills the outer member within a sealing zone and wherein the sealing zone extends along an axial length of the outer member.