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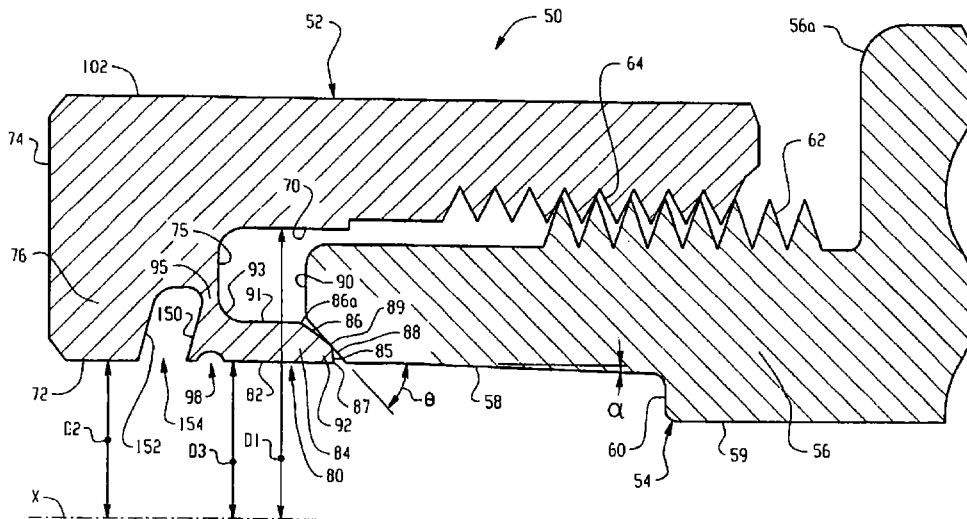
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(54) Title: TUBE FITTING WITH SEPARABLE TUBE GRIPPING RING



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(57) Abstract: A tube fitting (50) for a tube end has a female threaded member (52) that cooperated with a male threaded member (54). The female member (52) includes a tube gripping device (80) in the form of a gripping ring or ferrule that is attached to the female member by a frangible web (95). Upon a partial pull-up the ferrule engages a camming surface (88) on the male threaded member (54) and breaks off or separates from the female threaded member (52) to become a separate piece so that the fitting then functions as a single ferrule tube fitting. Additional features include a steep camming angle on the camming surface (88) to cause the ferrule (80) to grip the tube end with a bite-type action and to form a primary seal between the camming surface (88) and a front end of the separated ferrule. The ferrule front end, and optionally the entire female threaded member (52) including the initially integral tube gripping device (80), are hardened to be at least about 3.3 times harder than the material of the tube end.

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