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(54) Title: APPARATUS FOR INJECTING FLUIDS INTO THE WALLS OF BLOOD VESSELS, BODY CAVITIES, AND THE LIKE

(57) Abstract

Apparatus (10) for injecting fluids into the walls of blood vessels, body cavities, and the like, includes a plurality of laterally flexible needles (18) disposed in a catheter for exit either out the distal end of the catheter or the catheter or through corresponding side openings on the catheter. In the latter case, the terminal ends of the needles would be curved laterally, with each terminal end being positioned in a respective side opening so that when the needles were moved forwardly in the catheter, the terminal ends of the needles would move laterally out the respective openings to pierce a vessel or cavity wall (14) adjacent to which the catheter was positioned. Hilts (22) positioned near the terminal ends of the needles serve to control the depth of penetration of the needles.

