SMOOTH BORE LATCH FOR TIE BACK RECEPTACLE EXTENSION

ABSTRACT OF THE DISCLOSURE

A tie back receptacle extension includes a stinger having a smooth bore latch assembly carried thereon which includes a wedge device and a ramp, and the ramp outwardly displaces the wedge device to secure the stinger within a substantially smooth bore. A smooth bore latch assembly includes a spiral wound spring received in a recess, and the recess and the spring extending circumferentially relative to a stinger. A ramp outwardly displaces the spring relative to the recess in response to displacement of the spring relative to the ramp. A method of securing a stinger within a substantially smooth bore includes: providing a latch assembly on the stinger; inserting the stinger into the bore; and engaging the latch assembly with the bore, thereby securing the stinger relative to the bore, without the latch assembly engaging any recess formed in the bore.

FIGURES 2A-2C