At right is an Aqualizer, a cartridge for a water conditioning system being marketed by C-Text, Inc., Chambersburg, Pennsylvania. Developed by inventor Luis Gomez of Miami, Florida, it is based on NASA silver ionization technology used to purify drinking water aboard the Apollo spacecraft (see page 86).

The Aqualizer is designed to cleanse water with minimal use of chemicals by stabilizing the ions in the water. In recreational applications, such as swimming pools and spas, it kills bacteria and algae with reduced use of the chemical substances otherwise employed for that job. In industrial applications, such as cooling towers, steam boilers or heat exchangers, it inhibits the buildup of scale deposits and removes deposits previously accumulated.

The Aqualizer operates on the principal of catalytic water conditioning. It is a non-electrical passive device consisting of a stainless steel pipe length (upper item at right) with a helical core (lower item) made of iron, copper, zinc, tin, silver and nickel. The cartridge pictured is two inches in diameter and one foot long, but the manufacturer offers the device in a variety of sizes — from a half-inch to 48 inches in diameter with varying lengths — depending on the quantity of water to be treated.

When water passes through the electro-chemical chamber, the presence of dissimilar metals triggers an ionization effect that stabilizes the water, or alters its molecular structure. The ionization reaction causes salt, rust and scale to be suspended in the water and to clump together so they are easily removed by the pool's filter. This process, says the company, inhibits the growth of bacteria and algae and uses as little as 10 percent of the chemicals normally used.

In addition to industrial water conditioning and pool/spa recreational applications, Aqualizer customers are using the product in dishwashers, drinking fountains, dry cleaning equipment, filter systems, jacuzzis, heat exchangers, ice machines, ornamental fountains, irrigation systems and water heaters. At right, the Aqualizer cartridge (foreground) is fitted into the filtration unit of a home pool.