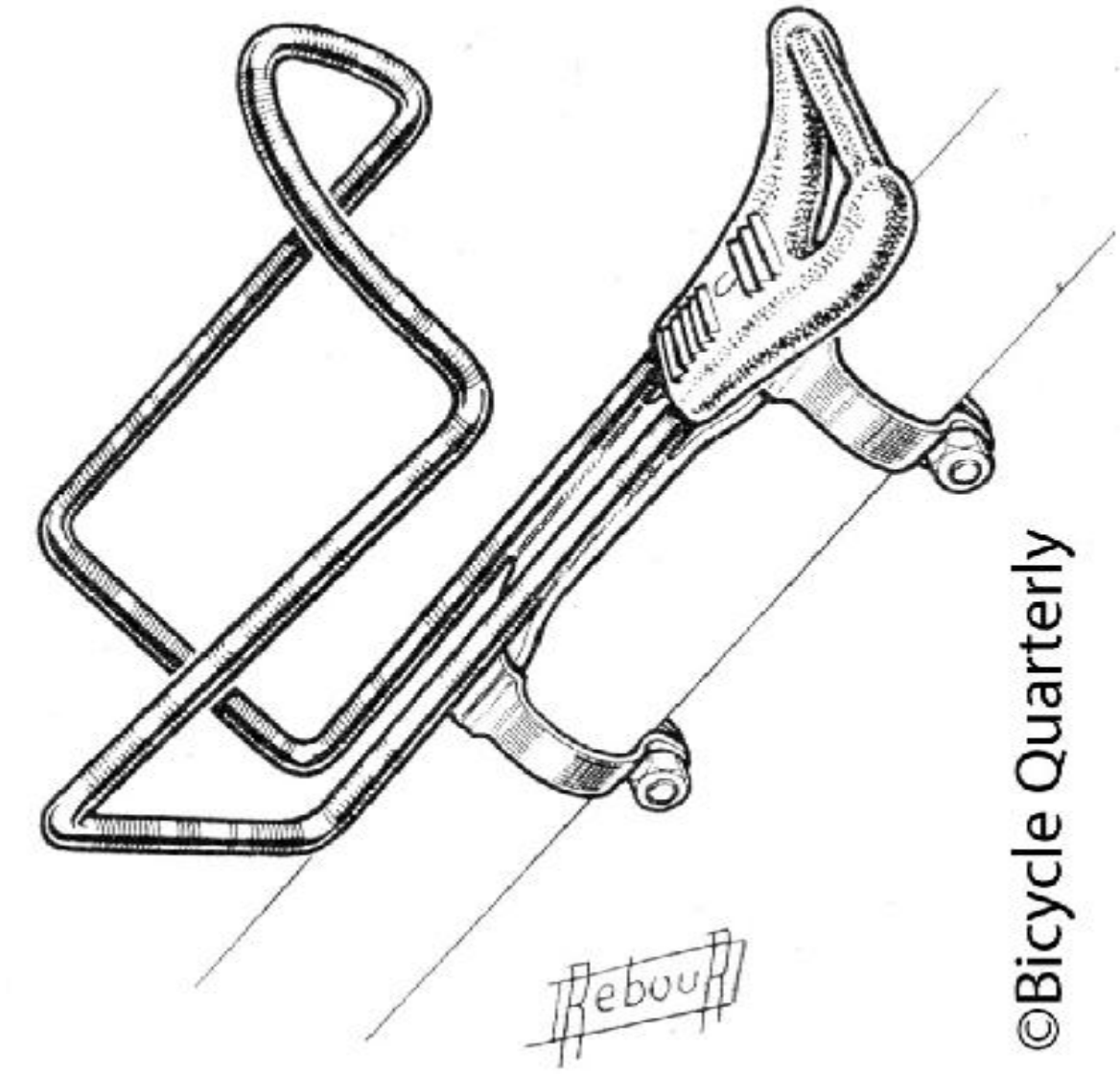
Material Drawing:Water Bottle Cage



A bottle cage is device used to affix a water bottle to a bicycle. Composed of plastic, aluminum, stainless steel, titanium or carbon fiber, it is attached to the main frame of a bicycle, the handlebars, behind the saddle, or, in uncommon cases, the fork. Most modern bicycles have threaded holes in the frame to hold the bottle cage, often called braze-ons even though they may be welded, glued, riveted, or moulded into the frame material.Clamps are necessary on bicycles not so equipped, such as older or less expensive models.

Styles

The vast majority of bottle cages consist of a single hoop of metal tubing or rod bent to hold the bottle snugly and engage the top, or an indentation in the case of larger bottles, to prevent it from bouncing out.

Varieties, often made out of plastic or carbon fiber, may completely encircle the bottle.

Some manufacturers have released non-standard bottles and cages that only work with each other in order to offer specialized shapes (streamlined, for example)[3][4] or restrict consumers to purchasing brand-specific items.[citation needed]

Standards Mounting

The standard bottle cage has two mounting holes, two and a half inches (2.5") or 64 mm apart, to match the threaded holes in the frame, and through which small bolts pass. Some have a strap, adjustable for non standard bottles.

The holes are usually sized and threaded to accept an M5 x 0.8 bolt, which means 5 mm in diameter and threads 0.8 mm apart.[5]

Bottle

The standard size of bottle cage holds a bottle 2-7/8 inches (2.875") or 73 mm in diameter and five inches (5") or 127 mm tall, or with an indentation that far from the bottom for the tab on the cage to engage.