Martin Brenner's, Pilot Balloon Resources

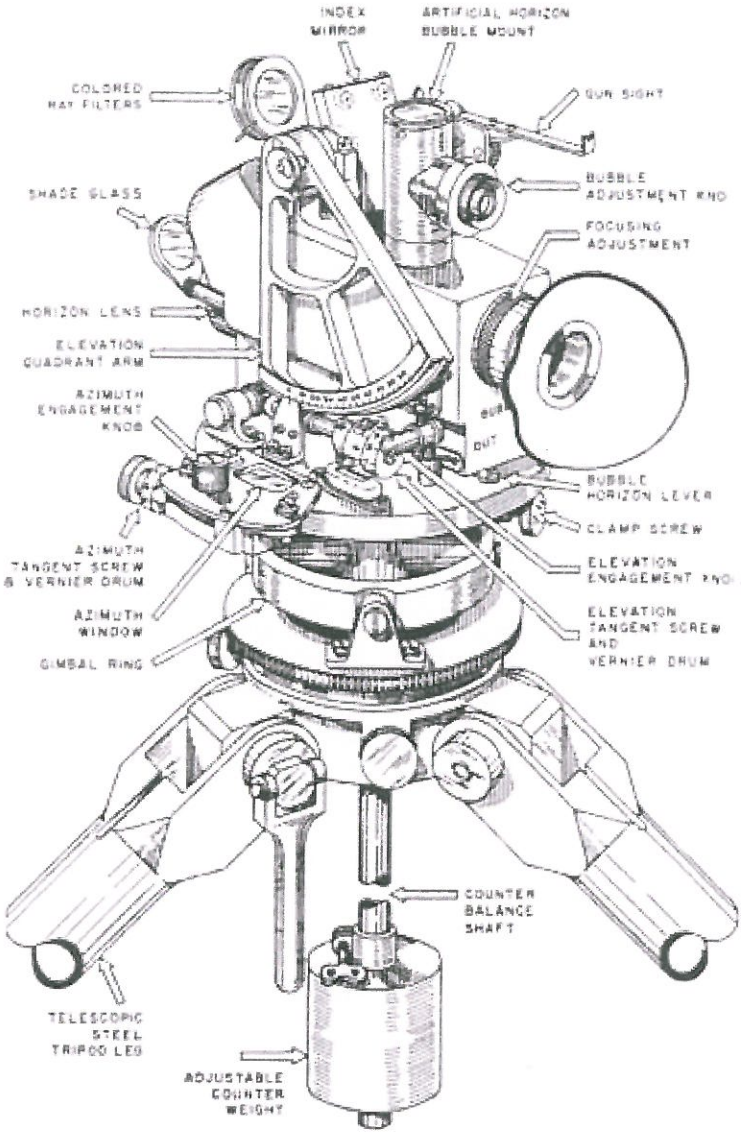
Up

K & E Photo

The K & E Marine Pibal Theodolite

Photo from U.S.S. Bunker Hill Nov 43'-44'

The marine theodolite is designed with a gimbal and a counterweight. It is not leveled and aligned like a land based instrument. Elevation angles are measured with a marine theodolite in the same way that a star site is taken with a marine sextant. A movable index mirror is used to converge the balloon with the horizon. The true horizon or artificial horizon (bubble horizon) may be used. Azimuth is measured the same way as a land based theodolite. More detail and jpegs of the K & E Marine Theodolite are also available on this site.



This image scanned from Manual of Winds-Aloft Observations Circular 0, September 1959. This publication has some pages explaining the operation of this instrument.