



FIGURE 8. Housing for Use With a Tethered Balloon.

about $\pm 0.2^\circ\text{F}$ can be obtained when it is operated by skilled personnel and the necessary precautions are taken, such as daily check calibrations on resistors, clean wicks on the wet bulb, and continual amplifier checks. It is also felt that the method of measuring dry- and wet-bulb tem-

perature is a basic approach and does not suffer from the disadvantages of an indirect measurement of moisture content through the measurement of humidity by means of an electrolytic strip whose readings of humidity depend also on the ambient temperature. An instrument using ceramic resistors for temperature and electrolytic strips for humidity measurement is available for field work and is a result of development work at Washington State College [1].

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Ambient vs Tree Temperatures

At the University of New Hampshire Horticulture Department some interesting work is being done with the use of the Micromax recording instrument which records eight temperatures at intervals of two minutes continuously night and day by means of thermocouples, the points of which may be inserted in various places. Cambium temperatures in trees, for instance, ran 84 to 93° F when air temperatures were 39 to 45° F during the winter. This was on the sunny side of the tree. On the shady side of the tree the temperature was the same as the air. Various plant covers for protection from frost were found, in some cases, to lower the temperature rather than increase it. Underneath a glass dish, for instance, it actually frosted one night when the air temperature outside the cover was several degrees above freezing.