

18th December 1963

Bernard S. Finn, Curator
Division of Electricity
Smithsonian Institution
Washington 25, D.C., U.S.A.

Dear Mr. Finn:

Thank you for your letter of the 12th. My radio telescope is constructed of wooden members held together by steel gussett plates. The Bureau of Standards allowed the instrument to seriously deteriorate. By the time the pieces arrived at Green Bank; few if any, of the wooden members were usable. The steel plates were mostly straightened, cleaned and repaired. All the wooden pieces were then remade from new timbers impregnated against decay. They are identical with the original, made from original drawings of 1937. Ink copies are at Green Bank. The original mirror surface was galvanized iron. About half was lost and the rest damaged. The new surface is identical to the old, except the material is now aluminum. Thicker sheet of the same weight per square foot is used to retain balance of the structure.

The original instrument consisted of the above wood and steel carriage meridian transit mounted upon four concrete pillars. By 1939 sufficient results were in hand to demonstrate the general scientific worth of the device. Plans were then made to put the carriage upon a steel turntable thereby producing an altiazimuth mounting; and move the entire assembly to a better observing location. However the war intervened. The turntable was constructed but the parts remained in storage until 1947 when everything was moved to National Bureau of Stds. The instrument was altiazimuth mounted at NBS and so remains at Green Bank. You may wish only the meridian transit configuration as was actually used at Wheaton. A general discussion of the work at Wheaton with more references may be found in the January 1958 issue Proc. IRE.

I trust the above explains circumstances.

Yours faithfully,

Grote Reber
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