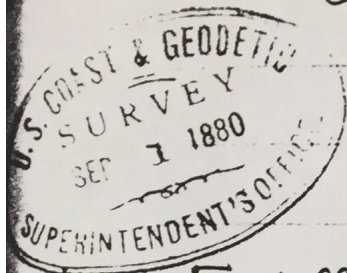


Results of Pendulum Experiments, By C. S. Peñée



The following are my results for the lengths of the seconds pendulum at four important stations, together with reductions to the sea-level and to the equator. In making the last reduction I have assumed the ellipticity $\frac{1}{293}$, which is the latest result from measurements of arcs.

	At station	At sea-level	At equator
Hoboken	0.9932052	0.9932074	0.9910003
Paris	0.9939337	0.9939500	0.9910132
Berlin	0.9942399	0.9942482	0.9909865
Kerr	0.9941776	0.9941790	0.9910083

The differences of the figures in the last column from 0.991 when reduced to oscillations pendulum are

Hoboken, +0.501; Paris, +0.558; Berlin - 0.59; Kerr + 0.56.

The following are the residuals of former observations according to Clarke (Geodesy p. 349)

New York, +0.520; Paris - 3.29; Kerr + 2.89.

John Clarke has used a value of the ellipticity derived from the pendulum experiments themselves, so that with equally good compensation he would probably find small residuals.

Foot note.

* The value for Hoboken is derived from [I² Inv.] "Regular set," given on p. 318 and also on page 416. of the Report of the Superintendent of the U. S. Coast & Geodetic Survey for 1876. This number is treated as explained for 1876. The altitude of the Hoboken station on ^{page} 319 ~~320~~ ~~at the bottom of p. 319~~, where in the second line from the bottom for [I² Rev.] read [I² Inv.]. The altitude of the Hoboken station is stated on p 204. The numbers of for the European stations are copied from page 320.