well the motions of the three outer planets known to the ancients.

Modern astronomy has of course rendered Ptolemy's scheme entirely invalid, though for fourteen centuries his theory stood unchallenged, while for fifteen centuries no observations cast serious doubt upon its acceptability. With the coming of the telescope its doom was sounded so that its final rejection in favor of the Copernican theory was but a matter of time. Nevertheless we must give credit to the last of the great Greek astronomers, Ptolemy of Alexandria, whose ingenious theory of the mechanics of the heavens dominated its field for so long a time without serious challenge and remained vested in unquestioned authority until it bowed before the greater work of Copernicus.

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## THE LATITUDE OF MANILA OBSERVATORY

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The latitude of Manila Observatory has been determined by the Horrebow-Talcott method with a Repsold broken transit instrument.

*The place of observation.* The place where the observations have been made is the Astronomical Department of the Manila Observatory. The same pier and instrument which is used for the transit of time stars has been used for the determination of latitude. Strictly speaking, the latitude of Manila means the latitude of the foot of the vertical that contains the intersection of the cross on the dome of the Catholic Cathedral of Manila. This is the latitude referred to in the old Spanish books and in the modern hydrographic charts. The bearing of this historical point with reference to the time ball pole of the Observatory is 34°24′07″.2, or the azimuth of the time ball pole of the Observatory with reference to the Cathedral of Manila is A = 325°35′ 52″.8. The distance between the cross of the Cathedral and the new place of observation is 1,795.6 meters.

*The instrument.* The instrument used is of the broken type, a prism in the middle of the telescope sending the light of the