Snellius, to return to that observer, calculated the value of a degree at 55,020 toises (about 260,000 English feet). Shortly after his time, RICHARD NORWOOD, an English mathematician (about 1635), measured the meridian between London and York, and arrived at a result much nearer the truth, 57,300 toises (270,000 feet nearly).

But in 1665 was established the French Academy of Sciences,* and its inauguration corresponded with a great scientific movement, simultaneous with the *renaissance* of French literature. Of all the questions with which scientific men then busied themselves, not one was worthier of their consideration than that of the figure of the Earth. The members of the new Academy believed their honour, so to speak, engaged in clearing up the uncertainties that prevailed with respect to its dimensions. One of them, M. PICARD [born 1620; died 1682], was charged with the task of measuring in France an arc of the meridian. He laid down a network of triangles between Malvoisin and Amiens, and found, as the final result of his operations, 57,060 toises to represent the value of a degree of the meridian. The base employed by Picard measured 5663 toises (12029.93 yards, or 6 miles 6 furlongs); it was laid down on the road from Villejuif to Juvisy.

This new determination of the length of the terrestrial meridian was generally accepted, and had a result which deserves to be here recorded, because it is very little known. It redeemed from nothingness, so to speak, the principle of universal gravitation. To verify, by direct measurements, the law of the attraction which the Earth exercises on the Moon, Sir ISAAC NEWTON had employed a very erroneous measurement of the terrestrial degree (49,540 toises = 297,240 yards), and as these figures conducted him to a result incompatible with the law of gravitation (the law of the universal square of distances), Newton had already renounced that law. When Picard published his new measurements, the illustrious English philosopher resumed his calculations by the rectified standard, and found them

* [Our own Royal Society, which has done much for the development of scientific truth, was established three years earlier (1662). It issued the first volume of its "Transactions" in 1665.]