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George W Heine* (gheine@mathnmaps.com). *How Johann Bernoulli Solved a Problem whose Solution was Obvious (Or Was It?)*.

Johann Bernoulli's work on the brachistochrone problem, one of the precursors to the calculus of variations, is well known. Here we examine a more obscure work on another problem related to the calculus of variations, that of "Drawing the Shortest Line Between Two Points on an Arbitrary Curved Surface." This was the title of a 1728 communication to the Swedish mathematician Samuel Klingenstierna. After giving his main result, Bernoulli mentions that, as a corollary, the shortest curve on a sphere is a great circle. We put this problem in historical context, discuss Bernoulli's work in detail, and briefly summarize later work by Clairaut and Euler. (Received August 28, 2014)