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? WHY THE WEATHER ? Mailed October 8, 1932

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GOETHE ON THE BAROMETER

Goethe, who died a hundred years ago last March, dabbled in several sciences, including the science of weather. Some of his meteorological writings were the fruit of accurate observation and sound judgment, but he fell into one curious error. He supposed -- and some of his more distinctly scientific contemporaries cherished the same notion -- that the barometer tends to rise or fall uniformly, at any given time, over a vast area of the earth's surface.

Prof. Daniell, the English physicist, writing in 1823, had expressed this notion in the apothegm: "Barometers situated at great distances from each other often rise and fall together with great regularity." Goethe undertook to explain this supposed uniformity in the behavior of widely separated barometers by ascribing all barometric changes to a common cause; viz., variations in the force of the earth's gravitational attraction.

A glance at any modern weather map reveals the fallacy of this idea. Such a map never shows a uniform distribution of barometric pressure over an extensive area, but always a varied pattern of "highs" and "lows" -- regions where the pressure is, respectively, above and below normal -- and a series of such maps shows that rises and falls of the barometer are always occurring simultaneously at different places.

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