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A Science Service Feature

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? WHY THE WEATHER ?

Dr. Charles F. Brooks,
Secretary, American Meteorological Society
says:

AIR EXPANSION MAKES THUNDER

Thunder is produced by the violent expansion of the air caused by the tremendous heat of the lightning. Immensely powerful waves of compression are set up, just as the blast from a cannon acts upon the atmosphere. In fact, just as the gun's explosion may damage objects by the concussion of the waves which pass from it, so, too, do the compression waves from a thunderclap sometimes inflict damage.

The accepted theory is that thunder is due wholly to the explosive expansion incident to extremely sudden and great rise in temperature. The waves are heard as a single crash when the bolt is straight and short. But if the path be long and forked, as seen in irregular "zig-zag" flashes, there is a succession of crashes, for while the flash is practically instantaneous, the several explosions occurring at different distances register at different moments. The rolling of thunder is usually caused by reverberations, as the sound echoes back and forth between clouds or from eminences.

(Tomorrow: Hail, Hot Weather's Ico.)

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