No. 619

May 6

A Science Service Feature

? WHY THE WEATHER ?

By Dr. Charles F. Brooks
of Clark University.

CLOUDY WEATHER THUNDERSTORMS

It is always surprising to hear thunder in generally cloudy weather. One rather expects to see the preliminaries of forming cumulus clouds, or at least an overspreading sheet from the oncoming storm. But now and then the thunder begins without visible warning, unless it be somewhat more than usual darkness or showery weather.

We are loudly reminded that thunderstorms are not the product simply of considerable local heating on the hot muggy days of summer. Any process that will make large masses of humid air very unstable and then cause overturning favors thunderstorms. A quiet layer of cool air next the ground may simply shut out the thunderstorm making processes taking place above, just as a body of water would maintain quiet at the bottom, boisterous though the wind might be above it. A moist warm wind running over the cool may do more than a body of water, for a low sheet cloud is commonly formed that prevents all sight of processes aloft. Only the aviator, aeronaut, or mountaineer can observe the towering thunder clouds that may be formed under these circumstances, when at still greater heights the air is much colder than the warm wind.

(Tomorrow: Continental vs Marine Climates)

SCIENCE SERVICE,
B and 21st Sts.,
Washington, D.C.