No. 635

May 25

A Science Service Feature

? WHY THE WEATHER ?

By Dr. Charles F. Brooks
of Clark University.

RELAYED MOISTURE

There must be water vapor before there can be rain. This is a statement of a simple fact, which, however, is of great importance to the weather forecaster and the farmer. Suppose an area of low pressure is coming eastward. Will there be rain, and, if so, about how much? The forecaster considers the available water vapor within range of the winds of the low, and tries to figure out whether or not much moisture is likely to reach or draw near to the centerbefore the low goes by.

A southern low is in a much better position to draw in abundant moisture from over tropical waters than is a northern one, and so its rains are usually heavier. A procession of lows farther south than the usual summer line through Canada may import so much moisture that heavy rains and floods will drown out the crops, along their paths, but leave Canada drought stricken. When lows of almost winter intensity occur through the middle of the country, the abundant moisture from the warmer ocean and vegetation covered lands brings torrential rains under conditions that make but moderate precipitation in winter. The usual northern lows in summer are not so badly off, however, for the general continental indraft keeps a good supply of moist air on tap over the southern half of the eastern United States.

In the desert Southwest, rains in summer occur only when there has been an indraft of moist air from the Gulf of California. There it never rains, but it pours.

(Pick up one column matrix 5-25.)

(Tomorrow: Factors in Summer Characters)

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