A Science Service Feature

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? WHY THE WEATHER ? Mailed October 19,1926

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HESITATING HIGHS

When a high pressure area appears in the northwest and from day to day advances several hundred miles east and southeastward, the weather forecaster expects it to keep on going and predicts the weather accordingly. But sometimes, without obvious warning, the high hesitates in the East, occasionally even coming to a full stop for one, two, or more days. Then the weather, instead of changing, becomes settled. If one place was having fine weather when the stoppage occurred that type continues with but small variations. On the other hand, if the conditions were cloudy or rainy there would be a "spell of weather". The fine weather would occur in the interior and northern portions of the high, while the bad weather would persist in the southern, particularly the southwestern part, where the winds are northeast to southeast.

A fundamental reason for this hesitancy is the warmth of the sea relative to the coolness of the land. Our weather maps often indicate the immediate cause of the slowing down or stopping of particular highs. Reports from the Atlantic and western Europe indicate that the blockade of highs and lows sometimes begins far east of us. Not infrequently, however, an Atlantic cyclone appears to be immediately responsible. The intensity with which these storms sometimes whirl tends to maintain a pericyclonic ring of high pressure. Thus when such a storm approaches the Atlantic seaboard from the southeast it tends to raise the pressure ahead of it, thereby augmenting and often temporarily stopping any high then approaching from the west or northwest. Northern cyclones, too, when they reach the sea and feel the vivifying influence of more abundant vapor, great contrasts in temperature, and reduced friction, usually grow in intensity and size, often expanding backwards as fast or nearly as fast as the now more slowly moving center is going forwards. This holds the following high in check.

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