

June 30

? WHY THE WEATHER ?

By Dr. Charles F. Brooks,  
of Clark University.

-----  
SEA BREEZE AND SEA TURN

Along the Atlantic coast north of Hatteras the simple daytime sea breeze seldom reaches more than 10 or 20 miles inland. Sometimes during an exceptional hot spell, a more extensive sea breeze circulation is developed similar to the strong indraft observed in Texas. There, day and night there is a wind blowing from the warm sea to the much hotter land, but the flow is pulsatory. The heating by day starts a fresh indraft every 24 hours. On the shore this is felt at noon or before. One hundred miles inland the appearance of a bank of clouds or a row of thunderstorms regularly marks the approach of the sea breeze. This wind usually arrives in late afternoon or early evening, blows freshly for a few hours, then wanes in the night.

5 Where coastal waters are cool and where the interior becomes greatly heated, a sea-breeze may develop strongly into a sea-turn. This happened in the northeastern states and eastern provinces early in June, 1925. When the great high and low pressure areas ceased to dominate the winds after many days of hot weather, the heated air over the land so expanded that it was allowed in the coastal districts to spill over at moderate heights onto the denser air over the cold water. With this loss of air, a small low formed in southern Quebec or northern New England and ran southward and southeastward as the resulting magnified sea breeze came inland towards it from the area of higher pressure off-shore, where some of the overflowing land air had accumulated. The first puff was like an ordinary sea breeze, but the cold blast that followed was on a much larger scale. It was a sea turn.

-----  
(Tomorrow: Accumulated Temperatures)

All rights reserved by Science, Service, Inc.

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