In winter, heat will be radiated from the sea-surface to the Radiation of colder air, and the temperature will be lowered. In Figs. 159 heat from the surface of the and 160 two maps of the North Atlantic, one for February and sea. one for August, are reproduced from Atlantischer Ozean, ein Atlas, published by the Deutsche Seewarte in Hamburg. In the February map the isotherm of 25° C. runs from the Antilles towards the east and a little to the south, in the direction of Africa, whereas in August this line lies, in the western part of the ocean, as much as twenty degrees of latitude

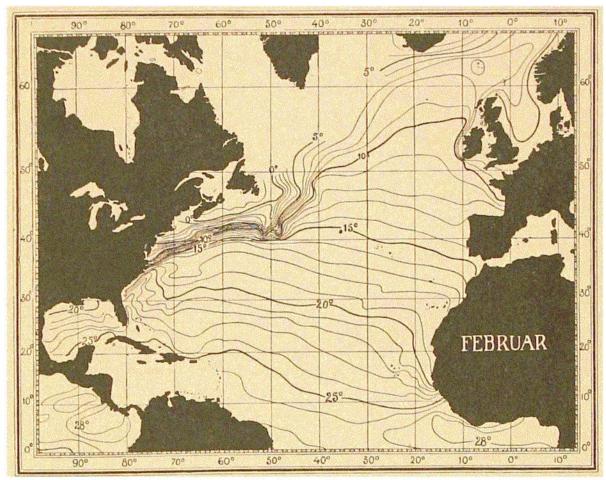


FIG. 159.—SURFACE TEMPERATURE OF THE NORTH ATLANTIC IN FEBRUARY.

farther north. In the same way the other isotherms have more northerly positions in summer than in winter. difference between the surface-temperature in February and in August is about 5° C., in some places less, in others considerably more. Near land the annual variations are much greater, as in the coast-water within the Norwegian skjærgaard ("skerryguard," literally: "fence of islands"), where the surfacetemperature in summer is 15°-20° C., and in winter only a few degrees above zero. Beneath the surface the variations gradually decrease, and at a depth of a few hundred metres no marked seasonal variations can be traced.