

Figs. 206 and 207 show some of his results. At that time (in the nineties) no systematic investigations of the Norwegian Sea through any length of time had been carried on, so he could only study the surface-temperatures noted at three Norwegian lighthouses.

In Fig. 206 we see the variations in the surface-temperature off the west coast of Norway (indicated by the thick line) and in the air-temperature at Örebro in Sweden (indicated by the thin line), both for January during the years 1874 to 1892. The vertical scale indicates the deviation from the mean temperature, which for the coast-water is 5.3°C . and for the air 3.4°C . On the whole the curves agree well, a high temperature in the

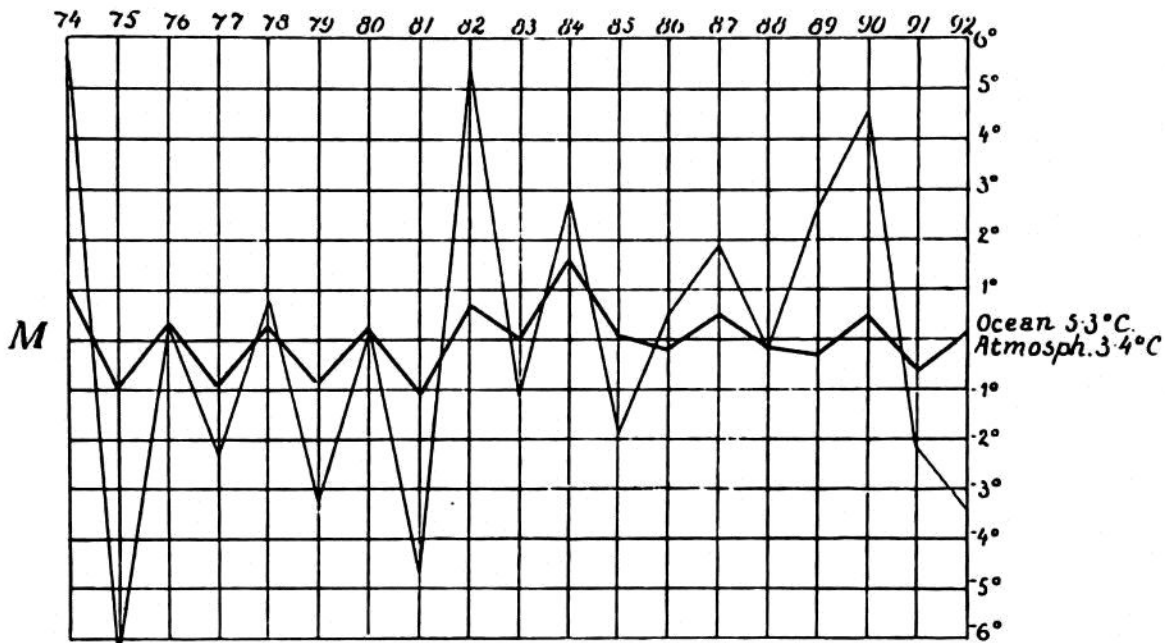


FIG. 206.

The thick line shows the variations in January of the surface temperature off the west coast of Norway from year to year; the thin line the variations of the air-temperature at Örebro (Sweden).

surface-water corresponding to a high temperature in the air. Pettersson further pointed out that a certain deviation from the normal temperature of the air, as a rule, lasts for a length of time; a cold period, for instance, often lasts for weeks, or even months. Now, there are many relations on the land which are influenced by the deviations of the air-temperature from the normal, among other things, the duration of the snow-covering, the time of blossoming of many plants, the time for beginning field-labour in spring. Pettersson found the variations in some of these particulars to agree with the variations in the temperature of the air and of the surface-water off the west coast of Norway some time before. Fig. 207 shows an example of this agreement; the lower curve gives the variations