

I have already stated that the north and east coasts of Iceland are boreo-arctic areas. Even as far south as lat.  $64^{\circ} 17' N.$  and long.  $14^{\circ} 44' W.$ , that is to say, quite close in to the coast, the "Michael Sars" found purely arctic forms at a depth of 75 metres, namely, the prawn *Sclerocrangon boreas* and the ascidian *Molgula retortiformis*, together with forms that are either widely distributed throughout both regions, or are boreal with a boreo-arctic distribution.<sup>1</sup> Here again, therefore, the character of the fauna was evidence of the meeting of the

two great currents, the East Iceland Polar Stream and the Atlantic Stream.

Before leaving the arctic fauna I have still to mention a few characteristic forms, which penetrate for a short distance into the boreal region along the coast of Norway. The starfish *Ctenodiscus crispatus* is found as far south as Christian-sund, where it occurs in enormous quantities; and another starfish, *Leptoptychaster arcticus*,<sup>2</sup> has its south-



FIG. 374.  
*Pecten islandicus*, L. Reduced. (After G. O. Sars.)

ern limit in the Trondhjem fjord. A very characteristic arctic species of mussel, *Pecten islandicus* (see Fig. 374), is very numerous and of large size in the Trondhjem fjord, and may be met with even farther south, while the same fjord is the southern limit for the molluscs *Onchidiopsis glacialis*, *Dendro-notus velifer*, and a few others. We have thus another instance of the difficulty in fixing definite boundaries for the different regions. The Trondhjem fjord shelters too many forms which

<sup>1</sup> I append the names of a few forms:—Ascidians: *Ascidia obliqua*, *Pelonia corrugata*, *Macroclinum pomum* (numerous), *Distoma crystallinum*. Crustaceans: *Hyas coarctatus*, *Pagurus*, *Pandalus annulicornis*, *Hippolyte polaris*, *Crangon allmanni*, *Arcturus* sp. Echinoderms: *Asterias rubens*, *Echinaster sanguinolentus*. Pycnogonids: *Pycnogonum littorale*, *Nymphon mixtum*, *N. hirtipes*. Cœlenterates: *Metridium dianthus*, *Corymorpha glacialis*, *Tubularia indivisa* (common), *Hydrallmania falcata*, and a few other hydroids. Also some sponges and worms.

<sup>2</sup> The peculiarity about this form is that it lives mainly in boreo-arctic areas, and is thus neither purely arctic nor purely boreal.