the 100 fathoms line belong to generic types which, if they include littoral species, are ground-sharks—as we generally find the bottom-feeders of our littoral fauna much more strongly represented in the deep sea than the surface swimmers. All belong to two families only, the *Scylliidae* and *Spinacidae,* the littoral members of which live for the greater part habitually on the bottom and probably frequently reach to the 100 fathoms line. Distinctly bathy- bial species are two small dogfishes — *Spinax granulatus* from 120 fathoms, and *Scyllium canescens* from 400 fathoms, both on the S.W. coast of S. America; also *Cent-*

*roscyllium granulatum* from 340 fathoms in the S. Ocean, whose congener from the coast of Greenland probably descends to a similar depth. The shark which reaches the greatest depth recorded hitherto appears to be *Scyllio- rhinus indicus* obtained by the Valdivia expedition from a depth of nearly 1000 fathoms in the W. Indian Ocean. It belongs to the genus *Centrophorus,* of which some ten species are known, all from deep water in the N. Atlantic, Mediter­ranean, the Molucca and Japanese seas. The Japanese species were discovered by the naturalists of the

“ Challenger ” on the Hyalonema ground off Inosima in 345 fathoms. Dr E. P. Wright found *C. coelolepis* at a still greater depth on the coast of Portugal. The fishermen of Sétubal fish for these sharks in 400 or 500 fathoms, with a line of some 600 fathoms in length. “ The sharks caught were from 3 to 4 ft. long, and when they were hauled into the boat fell down into it like so many dead pigs ’’; in fact, on being rapidly withdrawn from the great pressure under which they lived they were killed, like other deep-sea fishes in similar circumstances. It is note- worthy that the organization of none of these deep-sea sharks has undergone such a modification as would lead us to infer that they are inhabitants of great depths.

One of the most interesting types of the division of sharks is the small family of *Notidanidae,* which is externally distinguished by the presence of a single dorsal fin only, without spine and opposite to the anal, and by having six or seven wide branchial openings. They represent an ancient type, the presence of which in Jurassic formations is shown by teeth extremely similar to those of the living species. Their skeleton is notochordal. Only four species are known, of which one *(Notidanus griseus)* has now and then strayed N. to the English coast. Allied to

the Notidanidae are the Chlamydoselâchidae or frilled sharks, represented so far as is known by a single living species, C. *anguineus* Garman (fig. 16), which occurs frequently in deep water off the coast of Japan and as isolated specimens off the coasts of New South Wales, Madeira and Norway. A fossil species has been described from the Pliocene of N. Italy. It resembles a conger in shape, and differs from the *Notidani* proper by its elongated body, wide nearly terminal mouth, extremely wide gill-openings and peculiarly formed teeth. The teeth are similar in both jaws, each composed of three slender curved cusps separated by a pair of minute intermediate points, and with a broad base directed backwards.

A few words may be added with reference to the economic uses of this group of fishes. As mentioned above, some of the smaller dog- fishes are eaten at certain seasons by the captors, and by the poorer classes of the population. An inferior kind of oil, chiefly used for the adulteration of cod-liver oil, is extracted on some of the N. fishing- stations from the liver of the spiked dogfishes, and occasionally of the larger sharks. Cabinet-makers make extensive use of shark’s- skin under the name of “ shagreen ” for smoothing or polishing wood. This shagreen is obtained from species (such as our dog- fishes) whose skin is covered with small, pointed, closely-set, calcified papillae, whilst very rough skins, in which the papillae are large or blunt, are useless for this purpose. The dried fins of sharks (and of rays) form in India and China an important article of trade, the Chinese preparing gelatin from them, and using the better sort for culinary purposes. They are assorted in two kinds, viz. “ white ” and “ black.” The former consists exclusively of the dorsal fins, which are reputed to yield more gelatin than the other fins. The pectoral, ventral and anal fins constitute the "black” sort; the caudal are not used. (A, C. G.; J. G. K.)

SHARON, a borough of Mercer county, Pennsylvania, U.S.A., on the Shenango river, about 70 m. by rail N.N.W. of Pittsburg. Pop. (1900) 8916, of whom 1805 were foreign-born and 113 were negroes; (1910 U.S. census) 15,270. Sharon is served by the Erie, the Lake Shore & Michigan Southern, and the Pennsylvania (Erie and Pittsburg division) railways. Sharon has an excellent public school system, and the F. H. Buhl Club (1903) is a social and educational institution, named in honour of its founder, an iron manufacturer of the borough. The borough has blast furnaces and rolling-mills; and iron and steel products, tin­plate and terne-plate are its principal manufactures. The total value of factory products in 1905 was $4,776,914, being 26·9% more than in 1900. Sharon and South Sharon (pop. by U.S. census in 1910, 10,190), which was separately incorporated as a borough in 1901, form what is virtually a single industrial community. Sharon was first settled in 1795, but was only a small village when a movement for developing the coal-mines in the vicinity was begun in 1836. It was incorporated as a borough in 1841.

SHARP, GRANVILLE (1735-1813), English philanthropist, was the ninth of the fourteen children of Thomas Sharp (1693- 1758), a prolific theological writer and biographer of his father, John Sharp, archbishop of York. Granville, who was born at Durham in 1735, was educated at the grammar school there, and apprenticed to a London draper, but obtained employment in the government ordnance department in 1758. Sharp’s tastes were scholarly; he managed to acquire knowledge of Greek and Hebrew, and before 1770 he had published more than one treatise on biblical criticism. His fame rests, however, on his untiring efforts for the abolition of slavery. In 1767 he had become involved in litigation with the owner of a slave called Jonathan Strong, in which it was decided that a slave remained in law the chattel of his master even on Engh\*sh soil. Sharp devoted himself to fighting this judgment both with his pen and in the courts of law; and finally it was laid down in the case of James Sommersett that a slave becomes free the moment he sets foot on English territory. Sharp was an ardent sympathizer with the revolted American colonists, and at home advocated parliamentary reform and the legislative independence of Ireland, and agitated against the impressment of sailors for the navy. It was through his efforts that bishops for the United States of America were consecrated by the archbishop of Canterbury in 1787. In the same year he was the means of founding a society for the abolition of slavery, and a settlement for