IX.—THE FISHING-VILLAGES, SNEKKERSTEEN AND SKOTTERUP, AND THE COLLECTION OF FISHING-IMPLEMENTS EXHIBITED BY THEM AT ELSINORE, DENMARK, DURING THE SUMMER OF 1872 \*

The fishing-villages, Snekkersteen and Skotterup, are situated not far from the town of Elsinore, on the Danish island of Zealand, where the sound is narrowest. The inhabitants are, with few exceptions all fisherinen and entirely dependent on the sea for their living. The circumstances under which they are obliged to gain their livelihood are some-What Peculiar, for, while the location of their villages offers in some respects, great advantages for fishing, on the other hand it presents difficulties which the greatest energy of the fishermen can scarcely over-The most important field for their operations is the narrowest Part of the sound where it widens on both sides like a funnel; and they have consequently both the advantages and disadvantages of being in the very spout of the funnel, where everything that is poured into it must pass through. All the schools of fishes pass close by them, but the powerful current, which, flowing sometimes this way, and sometimes that, according to the wind, while it brings the fish to them, frequently drives them just as rapidly away. Hence, here more than in many other places the fishermen must understand how to seize the right moment for their work. The large number of ships sailing by or riding at anchor t proves useful to the fishermen, as they are by this means often enabled to sell their fish at a very high price. Yet their nets are often destroyed by the ships or entirely carried away by anchors or oars. The peculiarity of the location makes stationary fish migratory, and vice versa. The haddock and flounder are thus obliged to migrate, and though their migrations do not extend far, they occur all the more frequently; while the hornfish and other migratory fish are often compelled to remain in those waters much longer than is good for them. Thus many different things are to be considered by the fisherman in order that he may not come too soon or too late with his nets. The more accurately he can calculate the probabilities, and the more completely he is provided with suitable nets for catching the numerous kinds of fish that pass the coast, the more remunerative will be his labor.

It has not been possible to exhibit all the implements "in natura," hence the boats and great casting-nets are only shown in models.

1. Model of a transport-boat.—The boat of which it is a, model was

<sup>\*</sup>From Nordisk Tidsskrift for Fiskeri.

t On an average, 21,000 per annum. —[ Translator's note.]

7 years ago, and has brought millions of genuine Snekkersteen haddock, plaice, and cels to Copenhagen. From 5 to 6 such boats are continually plying between Snekkersteen and the capital, and their numbers will soon be increased by one or two more. During the winter of 1866-167, one of these boats made 36 trips, and brought to Copenhagen 10,142 pounds of cel, 49,655 haddock, and 2,995 plaice, which sold for a total sum of 4,264 Danish rigsdalers, (one rigsdaler = about 50 cents, gold.)

These boats must be good sailers and must be built very solidly, of a tonnage of not more than four tons, and their price, completely rigged, is about 1,000 Danish rigsdalers.

- 2, 3. Models of fishing-boats.—These are models of fishing-boats used by the fishermen of Snekkersteen and Skotterup. The two villages possess, at present, 122 of these boats, and their number is constantly increasing All these boats were formerly built in Sweden and Norway, but now they are built in the villages themselves, and are even exported from there to Sweden. These boats are constructed for fast sailing, and are of all sizes. One of the largest size, built of oak, costs, with sail and rigging, 300 Danish rigsdalers; while one of the smallest size, but just as fast a sailer, can be bought for 70 rigsdalers. No family has less than two of these boats, while some own as many as six, the use of so many different kinds of nets requiring that large number.
- 4. Model of a casting-net.—This is the largest net used by the fishermen, and the original is from 80 to 200 fathoms long.
- 5, 6, 7. Prices of a casting-net.—As such a net must be adapted to the place where it is set, and as it must be placed in such a manner that the upper edge may reach the surface of the water, while the lower touches the bottom, the nets are naturally of different length and depth. The cost of such a net is about 700 rigsdalers. It is tarred yearly, and in spite of this and the solidity of the work, it scarcely ever lasts longer than 4 years, and even then it must frequently be repaired. There are in Snekkersteen and Skotterup, 11 such nets, but they are seldom all used at the same time. The number of fish caught in these nets varies, of course, in different years. Thus, two such nets caught, in the fall of 1871, 459½ rigsdalers' worth of fish, while two nets caught, in 1861, 1,5443 rigsdalers' worth. The casting-net can be used only near the land, but here all those fish are caught that travel along the coast. The cels often manage to slip through the meshes, but for other fish, such as herring, mackerel, hornfish, haddock, &c., this net proves a sure trap.
- S. An cel-trap or bow net for catching cel.—Notwithstanding the cel's nimbleness, it is caught in large numbers in this trap, hundreds of which are set, one row alongside of an other, from the shore to an extent of fathoms. Every fall an immense school of cels passes through the sound from the south. From the middle of September till November, the cels travel during star-light nights; when wind and current are favorable, but when there is no moon, and the traps are carefully cleaned of all sea-weed, the fishermen may calculate on a rich booty. Great care is

required, however, for the eel is very sly, and a few sea-weeds or a little white stone at the entrance of the trap is sufficient to drive it away; and if only one mesh be broken, or if it be a little larger than the others, we may be sure that the eel which has been caught will find the weak place, and tail foremost, work his way out. Three kinds of eel pass through the sound, and, strange to say, of two of these not one can ever be seen by day at the bottom of the sea, while the third is occasionally seen among the seaweeds.

- 9. Apparatus for holding the cel-trap, (bow-net.)—The cel-trap or bownet is an old invention, and is known and used throughout the greater part of Europe. But, so far as we are aware, it is nowhere else placed as it is here, owing, of course, to the peculiar locality. While, in many other places, a pole is fixed at the bottom, to which the trap is fastened, they have on the coast of the sound a special apparatus for this purpose called "vager," which is laid before the traps are put in position, and which remains at the bottom of the sea when they are taken out to be dried. This apparatus is not in the way of ships, as a pole might be; is strong enough to resist any current; and enables the fishermen easily to take the trap out and again place it in its exact position.
- 10. An ecl trap on its "vager," as placed at the bottom of the sea.—This exceedingly practical arrangement dates from a very ancient period, perhaps a thousand years back, as is proven by the technical terms applied to its different parts, Danish words entirely out of use now, but common at that distant period. Snekkersteen owns 680, and Skotterup 240 of these bow-nets. Like the casting-nets, they are never all used at the same time, about one-fourth being kept as a reserve. Such a bow-net complete costs from 17 to 20 rigsdalers, and lasts from 4 to 6 years. They are made either of flax or of cotton, and their manufacture is a favorite employment of the fisher-families during the long winter evenings. The places where these bow-nets are set are sold by the government to the fishermen at a high price. The profits, of course, vary very much. A fisherman, who kept an exact account, says, that in 1861, he caught 352 rigsdalers' work of eels in 24 bow-nets; in 1862, 216 rigsdalers' worth in 30 nets; and in 1871, 197 rigsdalers' worth in 19 nets.
- 11. Bow-net for catching shrimps.—The location is not favorable for shrimps, and they are but rarely caught here as an article of food; they chiefly serve as a bait for the haddock.
- 12. "Ulken," a sort of net for catching shrimps.—This is dragged after the boat, in order to catch the shrimps, which are so deep in the water among the sea-weeds that the fisherman cannot wade in and catch them with—
- 13. The "hoven," an implement which he pushes before him. To this branch of fishing belong also—
- 14 and 15, two different kinds of nets or "hoven" for catching shrimps.—In winter the shrimps go into deeper water, (from 3 to 4 fathoms,) and live among the masses of sea-weeds torn off by the currents and the

storms. A sort of hook is thrown out, by means of which large quantities of these sea-weeds are brought up, and the shrimps are shaken out of the net into—

- 16. A little fish-trunk or cauf, (the shrimp-box,) where they are kept alive till used for bait.
- 17. A pole called "stampe" is used for stirring up the bottom of the sea in order to bring out the sand-worms which are also used for bait; these are then caught with a sort of comb or catcher—
  - 18. Called, in Danish, "krillen," the curl.
  - 19. Trap for catching snails, also used for bait.
  - 20. Herring-catcher, for catching herring for bait.

One may see, on any winter morning, numerous boats, each manned by one or two fishermen and provided with all the different kinds of bait, leave the two villages for catching haddock. The fish, when caught, are thrown into a tub filled with water, which must be constantly renewed, or into a sack-like net hanging outside the boat, for it is of the greatest importance to keep the fish alive. In its endeavors to swallow the bait, the hook easily pierces the inner part of the gullet and produces a fatal wound. In order to prevent this, the hook is furnished with a piece of tin soldered to it, often in the shape of a little fish. This makes it heavy, and the fish can scarcely get it further down than the gristly parts of the mouth.

The fishermen encounter more difficulties in striving to keep the fish alive than in catching them. During severe winters, when the sound is covered with ice, the Danish fishermen do not put on skates as the Swedes do, but merely wooden shoes with small spikes in the soles to prevent slipping. Thus shod they start out dragging behind them a sledge furnished with the fishing-implements, their temporary house, and its furniture. The house consists merely of a large sail and some poles, and to put this up is the fisherman's first work. He makes him self as comfortable in this tent as possible. He cuts two holes in the ice, one for his fishing-line and one for the sack into which the fish are to be put. The sledge serves as his chair, the basket containing his food and the tub containing the bait being so placed that he can reach them without moving from his seat. Thus he sits quietly for hours, and returns home in the evening drawing the sledge, whose load is now increased by the tub full of water containing the fish.

- 21. A fishing line with the so-called "tin-fish" attached.
- 22. A line for catching whiting.
- 23. A line for catching mackerel.

It is interesting to watch from the terrace of the ancient castle of Kronborg, commanding a magnificent view of the sound, the catching, in the spring, of hornfish, which then pass through the sound in large numbers on their way to the Baltic. Two boats always go together, each manned by four men, and a large net stretched out between the boats. Everything, apparently, is quiet; most of the fishermen seem to

be asleep with the exception of the two standing on a board stretched across the boat to keep a lookout. Everything, however, is prepared; the oars are in their places, and the stones are prepared, which are thrown into the water for the purpose of chasing the fish into the net. The two men stand on the board motionless as statues, straining their eyes to see in the distance the faint and indistinct shadow appearing on the surface of the sea, occasioned by the approach of a school of fish. For hours they may be observed standing thus, unmindful of wind and Weather. Suddenly one of the men raises his arm, and immediately, but silently, every man is at his post. He hurls a stone a great distance, then another, constantly nearer in order to drive the school toward the net. Now the fish are inside the bay forformed by the net "Row!" is the order given, and the oars dip into the water. The former silence is now changed to a scene so wild and picturesque that one would scarcely believe that all this commotion is only produced by some hornfish. All are on the alert, and every order given by the commander is executed with the greatest swiftness and precision. When the boats have approached each other, and the fish are consequently entirely surrounded, but by no means caught as yet, the net is carefully drawn together, so that the inner space becomes smaller and smaller. The fish now try to slip out beneath the boats, but the fishermen are at their post, and by shouting and splashing they chase the frightened fish back. After such unsuccessful attempts to escape, the Whole school frequently turns the other way, pushing with all their might against the net. This is the moment for which the commander has been eagerly waiting. "Draw together!" he shouts, and with a desperate Pull the net is entirely closed, heavy with the splashing fish, and is soon drawn up into the boats.

There is, of course, the greatest difference in the number of fish contained in different schools. Sometimes there are only a few, and, at other times, one school will more than fill two boats. In this latter case the contest becomes more animated, and to a person who sees it for the first time it looks like a desperate combat between the crews of the different boats, never failing to attract a large number of spectators. The most animated spectacle is presented when the fishermen make the so called " Hage-stretch," i. c., when they are forced by the current Past the promontory called "Hage," in order to catch the fish which are just being driven back from the south. The boats shoot through the foaming waves with fearful rapidity, and it requires a great amount of skill, strength, and courage to obtain a favorable result. One little mistake, an order given or executed too soon or too late, is sufficient to frustrate the whole scheme. To make this stretch is therefore considered the crucial test for all fishermen on the coast, and unless one has accomplished this feat he is not esteemed very highly by his comrades. Affairs become still more complicated when there are two schools coming on at the same time, for if one turns to the right, the other is sure to turn to the left, and it requires the utmost attention of the fisherment to make sure of either.

24. A net for catching hornfish.—It costs, when new, from 60 to 80 rigsdalers, and can be used for five or six years if kept in careful 10 pair.

25. A model of the preceding net, showing in what manner it is placed in the water.

Toward fall the hornfish returns from the Baltie and travels through the sound toward the North Sea. They can then no longer be caught in the same place and in the same manner as described above, for they are spread at this season of the year over the whole sound. The whole coast of Zealand, south of Kronborg, is now closely packed with large nets, and the fish are not chased by men alone, for a large number of porpoises are all day long busy in securing their share of the booty. These porpoises appear in August, and chase the hornfish with the greatest zeal. They are not at all shy, and they pursue the fish close up to the boat, so that they can easily be caught. Their flesh, however, cannot be eaten, but they prove useful, inasmuch as they actually assist the fishermen in the chase for the fish. Special nets, called in Danish "nedgarn," are used for this kind of fishing.

26. One of the above-mentioned nets, ("nedgarns.")—At night the fish will enter this net very readily, but by day they are very careful to avoid it, and now comes the porpoise in its useful capacity of hound. for these animals the fish would remain at the bottom of the sea below the nets. The fisherman rows toward the place where the porpoises are seen and where the hornfish leap out of the water. Here he casts his net and lies in ambush like a spider. Suddenly a rushing sound is heard; it is a school of hornfish jumping toward the net on the surface of the water. Behind them is the porpoise chasing them, now shooting along under the surface with incredible swiftness, now leaping out of the water, and not infrequently easting up some fish or holding one in its mouth. Sometimes it turns a somersault, but, for the most part, its large body falls straight back into the sea, splashing the water in all directions. The school of fish turns directly into the net, and only those that leap over it manage to escape and the fisherman gathers the fish caught in the net and makes it ready to receive another school. the weather is favorable and the porpoises are lively, this chase is very Porpoises, like trained dogs, never touch a fish that is caught in the meshes, and with the most admirable dexterity they avoid tearing the net in their bold leaps. The porpoise is often seen swimming patiently alongside of the net waiting for a fish to fall off; but should it be ever so hungry it would never think of plucking off one by itself. It is therefore considered as a friend by the fishermen, and none of them would ever venture to injure one of these animals.

27 and 28. Nets for catching herring.—These nets are of different depth, but all equally long. They are twice as long as the common nets,

and can be divided into two parts. Snekkersteen owns 140 such nets, and Skotterup 40. They cost from 16 to 20 rigsdalers each. A horn-fish-net costs from 12 to 16 rigsdalers, and the two fishing villages own about 50 of them. Of mackerel-nets Snekkersteen own 130 and Skotterup 54, the price of these being from 10 to 16 rigsdalers each.

29 and 30. Mackerel Nets.—The so-called "small nets" play an important part in the fishery on this coast, and they are consequently manufactured of many different sizes to suit all circumstances. They are twice the usual length, and can be separated into two parts. While the poorer fishermen do not possess any casting nets or bow-nets, there is not one of them who does not own several "small nets." They are used all the year round for haddock, flounders, turbots, dabs, &c. Salmon or sturgeon are sometimes caught in them, and occasionally a lobster or crab finds his way into them; perhaps a mackerel, and even wild ducks; and more rarely yet a porpoise, which becomes strangled in the meshes from want of air

31 to 41. "Small-nets" of different sizes.—These cost about S rigsdalers each. Snekkersteen owns about a thousand of them, and Skotterup two hundred and fifty.

During the summer the fishermen cast their nets for plaice in the neighborhood of the island of Hveen, (about the middle of the sound.) The fish caught there are of a very superior quality, and often very large. Some have been caught weighing 104 Danish pounds, (1 Danish pound is equal to 1.101 pounds avoirdupois;) and fish weighing from 4 to 6 pounds are frequently caught. Turbots are also often taken here, the largest, as far as known, weighing 30 Danish pounds. These fish are sold almost exclusively in the Elsinore market or to the ships lying at anchor there. The fisherman rises very early in summer-time, mostly between 1 and 2 o'clock, a. m. He first observes the weather, and if it be favorable he hurriedly dresses and hastens down to his boat, for the fish must be in the Elsinore market as early as 6 o'clock. He is soon in his boat, and speeds swiftly toward the place where the nets have been cast the previous day. While one of the fishermen plies both oars, the other draws in the nets. Others are cast out immediately, and, rowing rapidly, the boat soon approaches the coast again. There his wife and children meet him, help him to draw the net on land, and to take out the fish and sort them. In a few minutes they are packed on a wheelbarrow and one of the fisherman's children or his wife wheels them to the market, and at 7 o'clock a. m., not a fish is to be had.

As soon as the nets are dry they are mended, stretched out on poles, and loaded down with stones, to prevent the wind from carrying them away, so as to be ready for the next day's work. All this keeps the fisherman and his family busy during the day. Every now and then the nets are boiled in lye or tree-bark, with an addition of soda or potash.

<sup>42.</sup> The so-called "kvistekjveppe," a sort of switch or broom, is a very

practical implement for freeing the nets of rubbish, which they invariably bring up with them from the water. It requires some skill and practice to use this tool, but it cleans the nets much better than any other used for that purpose. Strange enough, this useful implement is scarcely known outside of Snekkersteen and Skotterup.

- 43. A net for catching porpoises.—This is but seldom used, and there is only one such in the two fishing villages. Most fishes of the flounder kind are caught in "small nets," but the halibut proves too large for these. This fish is therefore caught with special balibut-hooks, (called "bagger" in Danish,) or with lines. All along the sound, nearer the Swedish than the Danish coast, there is found a very considerable depression of the bottom of the sea. From Helingsborg, the Swedish town opposite Elsinore, the fishermen call this great deep "Skraepperne." This seems to be the favorite resort of the halibut. In summer one may also find there large haddocks and skates. The fishing in these waters pays very well, and most of the fish caught here are brought to the Copenhagen market.
  - 44. A number of halibut-hooks.
  - 45. A halibut-line.
- 46. Different specimens of haddock catchers, (Danish, "torskepilk.")—In fishing in the "Skraepperne" the fishermen are often obliged to make use of this instrument for want of bait, but it is not a favorite with them.
- 47. A flounder-net, ready to be cast out, or, as the Danish technical term has it, to be "stoned." By holding the split peg with one hand, and throwing out the stones with the other, the net is laid without much trouble, and, sinking to the bottom, places itself in position.
  - 48. A buoy; a so-called herring-buoy.
  - 49. A grapple, or anchor.
- 50. A claw.—These are of many different sizes, and are sometimes used as anchors, but more frequently to search the bottom of the sea for nets and other objects that have been lost.
- 51. A fisher-buoy.—In the sound, where the shipping, the current, and large masses of seawceds all prove injurious to the buoys, this kind, simple as it looks, has proved the most effectual in diminishing all these causes of injury.
  - 52. A net-trough.
  - 53. A hundred claws, "baggers," ready for being cast out.
- 54. A hundred cleft claws, hung up for drying. Of these the two fishing villages possess an endless number.
- 55. An cel-iron.—A sort of spear for spearing eel, which, however, is but seldom used.
  - 56, 57, and 58. Different kinds of caufs.
  - 59. Tools for manufacturing nets.
  - 60. Apparatus for weighing cels.
  - 61. A catcher.

Nearly all these implements are made by the fishermen themselves. The women spin and the men bind them; small children even assisting in the work.

The amount of material, however, is so large, and requires so much repairing, that the fishermen and their families cannot do all the work alone, so that there is enough work left for the poor and old folks of the villages. The considerable expense required for the material and its repairing, consumes, of course, a large portion of the fishermen's annual income, so that they can not save much money. Still they suffer no want, and are enabled to keep up with the age, being decidedly better housed, fed, and clothed, than their ancestors.

Local influences have tended to make the fishermen of Snekkersteen and Skotterup better educated than fishermen generally are. Living close by the sound, the great European highway, they have learned much from the many foreigners of all nations, with whom they come in constant contact. They are enlightened and liberal in their views and possessed of a strong feeling of independence.

As far back as the year 1745 they established among themselves a society for the relief of the sick and the burial of the dead. It is interesting to see from the old account books of this society, that the majority of the members, who were only simple fishermen, could write and cipher, some of them even very well, and this at a time when such learning was not often found among the poorer classes.

Much could be done to increase the value of the fisheries of Snek-kersteen and Skotterup, both in the way of new methods and more modern implements. But what is particularly wanted is a good harbor. Such a harbor would cost from 6,000 to 8,000 rigsdalers. The ministry of the interior has appropriated 1,000 rigsdalers for this undertaking, the district council, 800; and many private individuals have made contributions. The work was begun last spring, and there is every prospect that these two flourishing villages will soon possess an excellent boat-harbor, and have it free of debt.