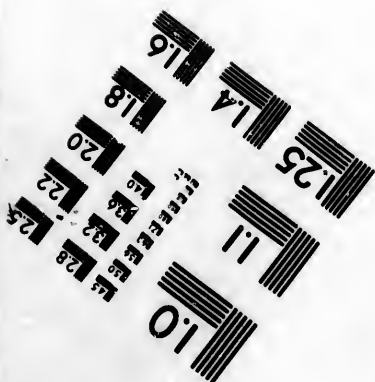
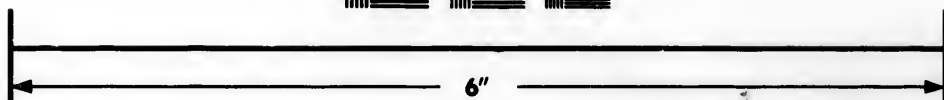
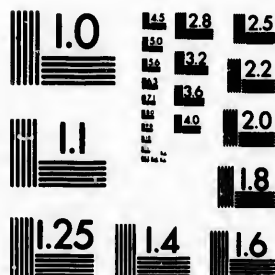


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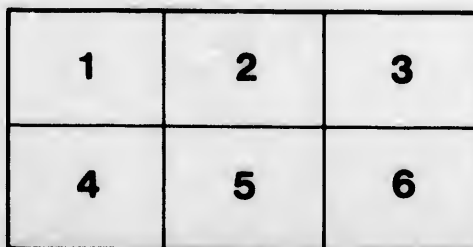
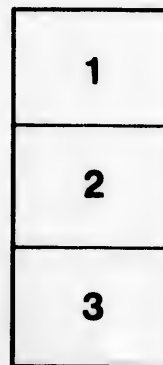
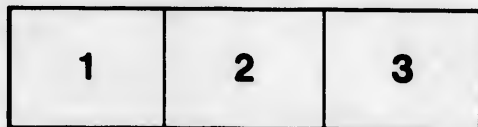
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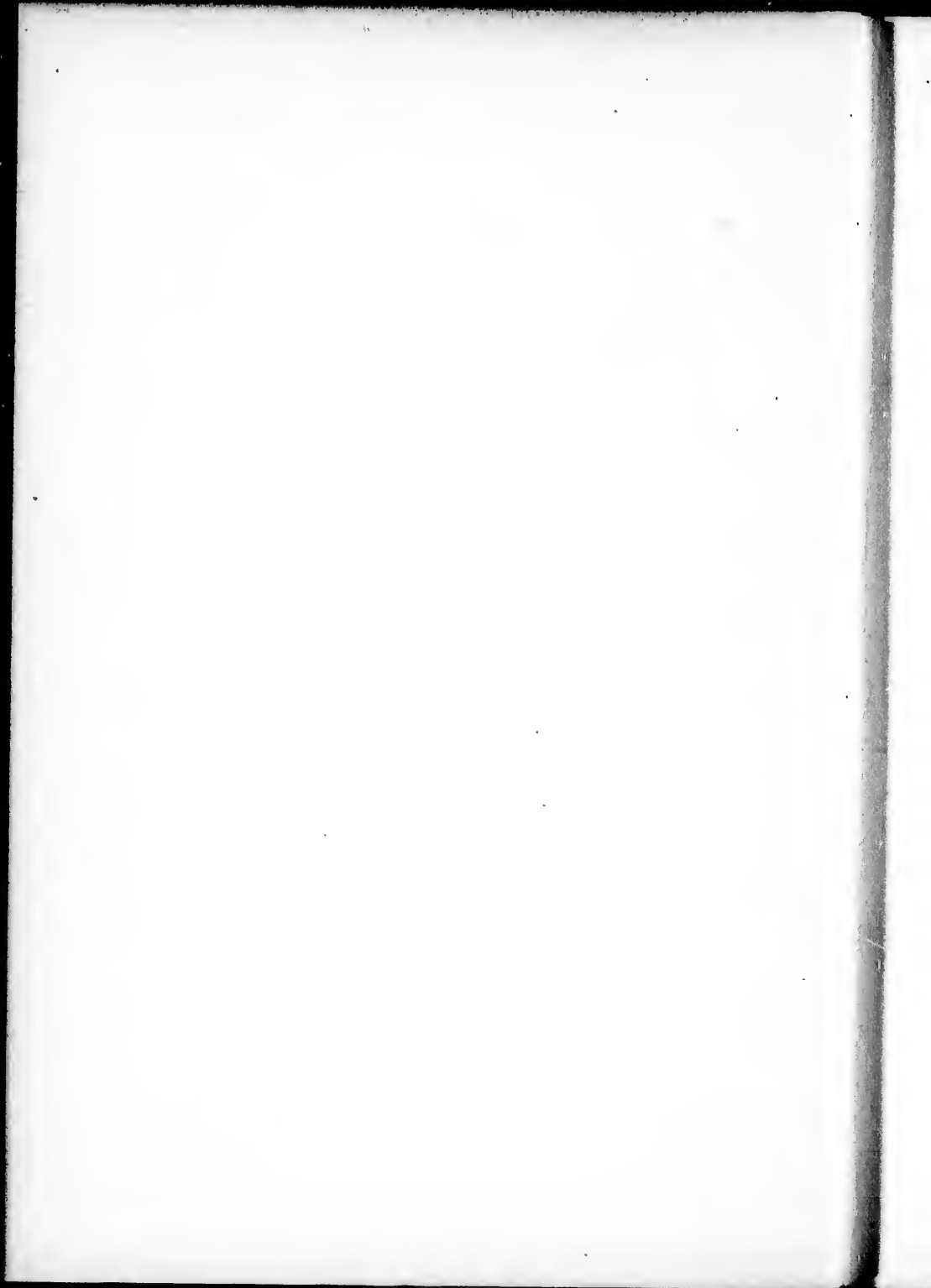
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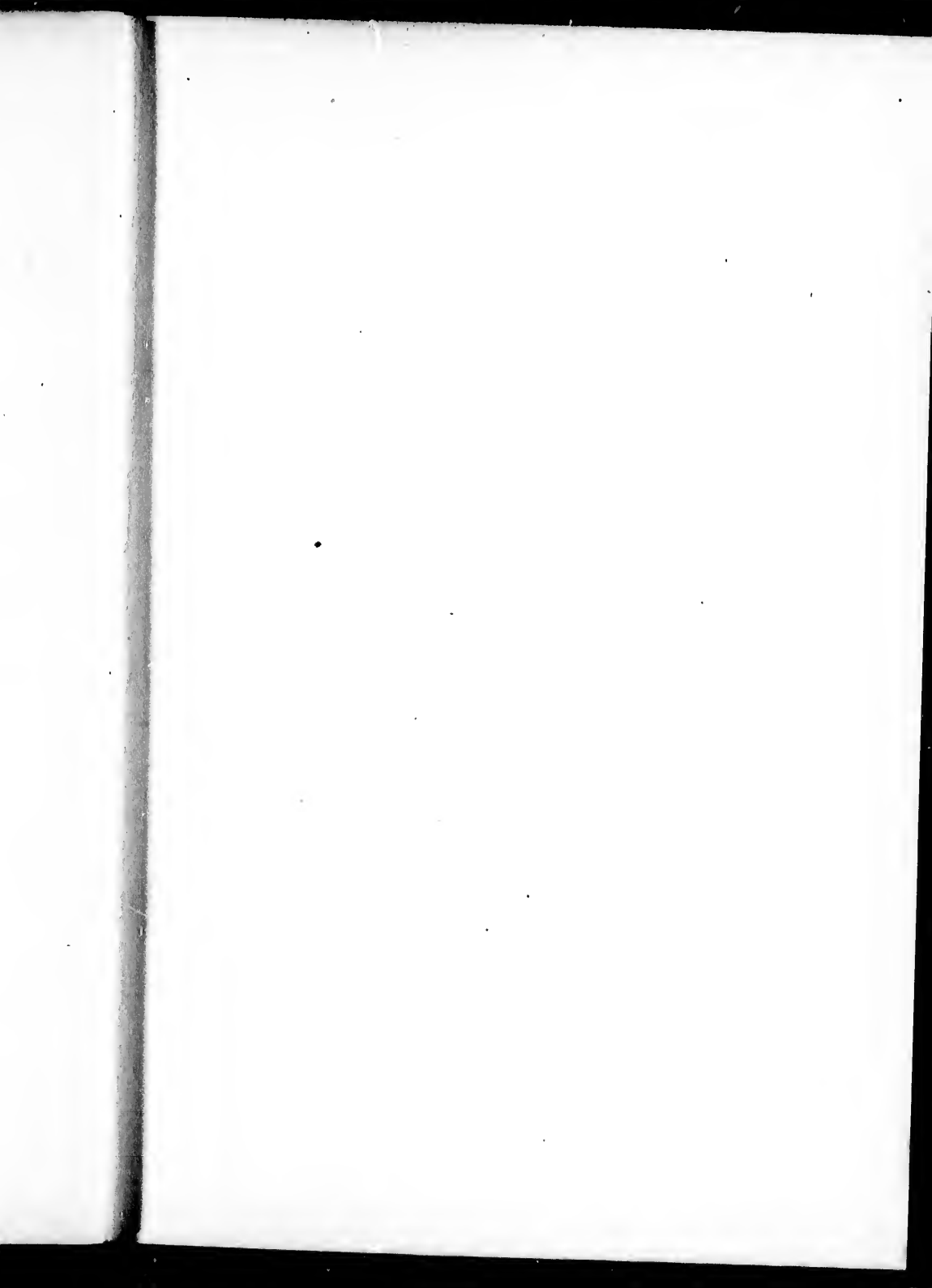
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THE STORY OF DR. SCORESBY.  
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OPERATIONS FOR SAVING THE ESK WHALER SERIOUSLY DAMAGED BY THE ICE page 39

THE STORY OF

D R. S C O R E S B Y

*THE ARCTIC NAVIGATOR.*

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" Here let the billows stiffen, and have rest."

COLERIDGE.

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**L**ondon:

T. NELSON AND SONS, PATERNOSTER ROW.  
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## Contents

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I. THE ARCTIC REGIONS, .. .. .	7
II. SCORESBY'S EARLY YEARS, . . . . .	26
III. SCORESBY THE NAVIGATOR, .. .. .	44
IV. SCORESBY ENTERS THE CHURCH, .. .. .	89
V. LAST YEARS OF A USEFUL LIFE. .. .. .	99

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[The compiler of the following narrative desires to acknowledge his obligations to the late Dr. Scoresby-Jackson's "Life of Dr. Scoresby," as well as to Dr. Scoresby's own works.]

# THE STORY OF DR. SCORESBY.

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## CHAPTER I.

### THE ARCTIC REGIONS.

 AS the reader ever attempted to picture to himself the wilderness of ice and snow, of barren waste and frozen sea, which surrounds the North Pole?

That wilderness of ice and snow, those barren wastes, those melancholy seas, which are comprehended under the title of the Arctic or Polar Regions?

There, both landscape and seascape assume a gloomy and dreary aspect, except during the brief reign of Summer, so that one might almost be tempted to think a terrible doom had been laid upon the scene.

Immense steppes, or level plains, intersected by morasses, and scantily relieved with woods of fir and birch, stretch for leagues and leagues far away into the dull obscurity of the winter haze, until they merge into rent and rocky deserts, bare of all vegetation except a few mosses and lichens, which are nearly always crusted with glittering snow and ice, and descend to the frost-bound waters of the Arctic Ocean.

We find these dreary regions in their greatest extent in North America ; not simply because that continent approaches much nearer to the pole than does the Old World, but because, owing to its geological conditions and geographical position, it lies especially open, even towards the south, to the baleful influence of the Arctic climate.

This climate, with its bitter cold and considerable humidity, prevails over nearly the whole of Danish America, Alaska, Hudson's Land, and Labrador, down even to the unimportant ridge or watershed which separates the tributary streams of Hudson's Bay from the great basins of the St. Lawrence, the five celebrated lakes or inland seas, and the mighty flood of the Mississippi. The ridge or watershed to which we refer winds be-

tween the 52nd and 49th parallels of latitude, from Belle-Isle Strait to the sources of the Saskatchewan, in the Rocky Mountains, where it bends towards the Pacific Ocean, and forms the northern boundary of the basin of the Columbia.

It has been estimated that the Arctic lands of America, including the numerous island-clusters which lie to the north and north-east, do not occupy less than 560,000 square leagues. Therefore they greatly exceed in extent the lands of the European continent, which are calculated to cover 490,000 square leagues.

Polar America, as it may conveniently be called, divides itself into three distinct zones or sections: the Province of the North-West, where Nature sometimes condescends to smile, and human labour succeeds in making the earth productive; the Middle or Wooded Zone; and the Barren Landes.

The Wooded Zone includes the basins of the Upper Mackenzie River, the Churchill, the Nelson, and the Severn. Hudson's Bay penetrates it on the east, and indents it with many a formidable creek. The navigation in this great northern Mediterranean, which lies all open to the Polar currents and the icebergs of the Pole, begins only in the month of June, and closes in



the month of September : for the rest of the year its waters are bound in chains of solid ice, impenetrable to the most adventurous seaman. Along its shore the soil *never* thaws below the surface, and even the surface not infrequently freezes in the very heat of summer ! Not a tree, not a shrub, not an herb diversifies the monotony of the dead and blighted landscape.

Like a despotic and invincible tyrant, Winter reigns here for nearly ten months out of twelve. From the end of September the barren soil, the rivers which flow into the bay, the tributaries which swell these rivers, the chaplet of lakes which connect them with each other, all disappear under a shroud or pall of hoar-frost. Who shall paint the dreariness, the gloom, nay, the lurid ghastliness, of this scenery, as it lies at times in the cold light of an unclouded moon, and a deep blue, but chill and cheerless sky ?

It is not until May comes round that the thermometer rises ever so little above 32° (or freezing-point) in the wooded zone, or that a breath of life inspires its vegetation. Then, indeed, if you strike inland, you will see the reddish sprays of the willow, and the boughs of the poplar and the birch hang out their cottony tassels ; a gleam of

greenness rises above the snow ; saxifrage, and dandelion, and burdock creep about the rocks ; the sweet-brier throws out its pleasant perfume ; the strawberry and the gooseberry put forth a promise of fruit ; and high above these lowly shrubs rise the noble thuya, the larch, and the glorious pine. But, at the same time, the rapid melting of the snow has converted the soil, recently as hard and polished as marble, into a wide surface of swamp and marsh, tenanted by innumerable swarms of mosquitoes.

We proceed northward to the zone of the Barren Landes. Its southern boundary may be defined by a line drawn from the mouth of the river Churchill in Hudson's Bay to Mount St. Elias on the coast of the Pacific, and passing along the southern shores of the Bear and the Slave Lakes. In the north, this zone is lost, as it were, in the eternal ice which fetters the coast of the Parry Archipelago ; in the east and north-east, similar conditions of soil and climate bring within it the greatest part of Labrador and all Greenland ; from which, indeed, it is separated only accidentally by the breaking up of the mass of ice which bridges over the channel of Baffin's Bay.

In Asia, the Polar Regions comprehend the whole of that desolate tract which is known as Siberia, and a considerable portion of the vast and gloomy steppes. However, the north-eastern extremity, the peninsula of Kamtschatka, exhibits a chain of volcanic mountains, many of whose craters are still in activity, and one of which, Klisutchevskoï, is remarkable for its grandeur and loftiness.

In Europe the only Polar Lands, properly so called, are Russian Lapland and the sea-cleft coast of Northern Russia.

To the north of the most advanced point of that coast, but separated from it by a narrow arm of the sea, lie the three islands forming Nova Zembla; desert islands, inhabited by a few fishermen, and containing no important types of animal or vegetable life. The western side of this group is traversed by a mountain range 2000 feet in height.

Lastly, we must notice, almost in the centre of the Frozen Sea, and situated at nearly equal distances from the Old and the New World, the sombre archipelago of Spitzbergen (that is, "the Peaked Mountains,") first visited by Barentz in

1596. It lies between the parallels of 77° and 81°, and the meridians of 10° and 24° east of Greenwich. The summits of these island mountains are crowned by perpetual ice and snow. Between them yawn deep narrow valleys or ravines, mostly occupied by those slow moving ice-rivers, called glaciers. The surrounding ocean swarms with fish, and the frozen shores are frequented by the walrus and the seal. Here the huge glaciers descend into the very waters, and ever and anon throw off vast masses, which float out to sea, drift hither and thither with the currents, and in the shape of icebergs threaten and dismay the mariner. Except during the too brief summer, the approach to Spitzbergen is rendered impossible by a formidable barrier of ice; and the channels between the different islands are so completely frozen over, that it was long doubted whether Spitzbergen was not one large island, deeply indented by gulf and creek, rather than an archipelago. It is uninhabited; yet the voyager, landing at certain points of the coast—as, for example, in Madeleine Bay—fails not to meet with human bones thickly scattered over the snow, and mingled with the remains of bears and seals. These are the relics of hapless seamen who have

been stricken by cold and hunger in the desolate land !

The able and energetic navigator, to the story of whose adventurous career a portion of the following pages will be devoted,—we mean Captain (afterwards Dr.) Scoresby,—in one of his northern voyages disembarked on Spitzbergen, and penetrated into the interior.

After leaving the shore, he and his men almost immediately began to ascend a steep hill, which rose to an elevation of about 1500 feet, and was joined on the north side to another of about twice the elevation. They undertook to climb the acclivity on the most accessible side, yet the looseness of the stones and the abruptness of the ascent rendered it an arduous enterprise. There was scarcely a possibility, he says, of advancing by the common movement of walking, for in this attempt the ground gave way at every step, and no progress was made ; hence the only way to succeed was by leaping or running, which, under the peculiar circumstances, could not be accomplished without excessive fatigue.

On their way to the principal mountain, they passed along a ridge of the secondary mountains,

so narrow that Scoresby got across it with a leg on each side, as on horseback. One side of it made an angle with the horizon of  $50^{\circ}$ , and the other of  $40^{\circ}$ . To the very top its bulk consisted of loose, sharp limestones, of a yellowish or reddish tint, the pieces being mostly of small size, and few exceeding a pound in weight.

After creeping along this painful ridge about three or four furlongs, and crossing a lodgment of ice and snow, they descended by a sort of ravine to the principal mountain, which rose with a uniformly steep ascent, similar to that they had already surmounted, to the very summit.

The ascent was now even more difficult than before; they could make scarcely any progress except by leaping and running, and the exertion was so great that every fifty or sixty paces they were compelled to halt and rest. They met neither with solid rock, nor earth, nor soil. The stones, however, were larger, appeared more decayed, and were covered more thickly with black lichens; but several plants of the saxifrage, salix, drata, and cochlearia, which they had noticed here and there during the first two thousand feet of elevation, disappeared altogether as they ap-

proached the summit. The invariably broken state of the rocks would be the effect of frost.

Just as they completed their laborious enterprise, the sun had reached the meridian below the pole, and his reviving rays, of intense brilliancy, kindled into glory the small surface of snow which capped the mountain's summit. This summit was of a round-backed form, the area of so much of it as was tolerably level not exceeding a fourth of an acre in extent. The south side, by which our adventurers had ascended, and the south-east, are the only accessible parts; the east, north, and west acclivities being precipitous nearly from top to bottom. The snow still remaining on the summit—this was the 23rd of July—was but a few inches deep, and appeared in a state of rapid thaw; the hill-sides were almost wholly free. The masses of stone on the mountain-brow were larger than any the climbers had previously fallen in with; the fracture was less fresh, and they were more generally encrusted with lichens.

From the summit, on the side by which they had ascended, many blocks of stone were dislodged by design or accident, which, whatever their size, shape, or weight, generally made their way with accelerated swiftness to the bottom.

As they crashed and clanged in their fall from ledge to ledge, they produced considerable smoke at each concussion ; and setting in motion numerous fragments in their headlong thunderous course, they were accompanied usually by showers of stones, which lodged in a deep drift of snow about two thousand feet below the place where the avalanche took its departure. This fact will enable the reader to form an idea of the steepness of the declivity. Most of the larger blocks broke into countless fragments ; but a few table-shaped masses, happening to whirl along upon their edges, though they bounded several hundred feet at a time, and acquired a tremendous swiftness, reached the bottom intact.

The prospect which greeted the eyes of Scoresby and his companions was one of astonishing magnificence.

To the east spread a fine sheltered bay ; to the north-east an arm of the same ; while westward stretched the immense expanse of ocean, its glassy surface unruffled by a breeze ; and all about the shores and in the adjoining creeks the icebergs, some like hoary castle towers, and some like cathedral spires, reared their lofty crests almost as high as the mountains, and defied the



power of the summer sun. Beds of snow and ice filling extensive hollows, and lying thickly on the valley-slopes—one of which, beginning at the foot of the mountain where they stood, stretched in a continuous line towards the north as far as the eye could reach; mountain rising above mountain, until lost in the distant azure; the whole contrasted by a cloudless over-arching firmament of deepest, serenest blue, and kindled into glory by the rays of an unveiled sun,—all combined to present a picture of the most impressive sublimity; a picture such as one rarely sees, but which, once seen, one never forgets; a picture whose solemn grandeur and awful beauty naturally leads one to reflect how glorious must be the scenes reserved for us hereafter, if these are vouchsafed to us in a world of sin and sorrow!

“Here,” says Dr. Scoresby, “we seemed elevated into the very heavens; and though in a hazardous situation, I was sensible only of pleasing emotions, heightened by the persuasion that, from experience in this kind of adventure, I was superior to the dangers with which I was surrounded. The effect of the elevation and the brightness of the picture were such, that the sea, which was at least a league from us, appeared

within reach of a musket-shot; mountains a dozen miles off seemed scarcely a league from us; and our vessel, which we knew was at the distance of a league from the shore, appeared in danger of the rocks."

After a short rest, in which the adventurers were greatly refreshed by a gentle breeze, and after they had sufficiently surveyed the surrounding scenery, they commenced the descent.

The task, however, which, before attempting it, they had regarded with indifference, proved to be a very hazardous, and, in some instances, even a painful one. The way seemed precipitous. Every movement had to be performed cautiously and deliberately. The keen-jagged stones cut their boots and wounded their feet; while they were so loose as to give way at almost every step, frequently throwing them backward with force against the hill. They were careful to advance abreast of each other, for any individual below the others would have been in danger of being overwhelmed with the stones which they dislodged in showers.

At length, by resolution and patience—the two qualities that from the beginning of the world have enabled men to overcome difficulties—they

made good their descent as far as the summit of the secondary ridge. But instead of crawling along its saddle-back, as they had previously done, they preferred to slide down one of the steepest banks, whose inclination was little less than fifty degrees. Towards the foot of the hill an expanse of snow interrupted their line of descent. As it was loose and soft they entered upon it fearlessly, and their progress, at first, was not at all too rapid; but coming to a surface of solid ice, about a hundred yards in depth, they were launched across it with a velocity which discomfited though, happily, it did not injure them!

On the belt of land intervening between sea and mountain, they found the horns of reindeer, many skulls and other bones of sea-horses, whales, narwhals, foxes, and seals, and some human skeletons laid in chest-like coffins, exposed naked on the strand. Two Russian lodges, formed of logs of pine, with a third in ruins, were also discovered; the former gave various signs of having been recently inhabited. One of them, though small, was not uncomfortable; it smelt intolerably, however, of the smoke of wood and the fume of oil. Many domestic utensils were within and about it. A new hurdle lay by the door; and

traps for foxes and birds were scattered along the beach.

Among the shingle were numerous nests, containing the eggs of terns, ducks, and burgomasters, and in some of them young birds were cradled. They were all watched by the respective birds which owned them; with loud screams and bold attacks, they defended their frail homes from the Arctic gulls and other predatory birds that hovered about the place. They ventured even to descend within a yard or two of some of the sailors who were so cruel as to take their eggs or young, and followed them for a considerable time, flapping their wings and screaming violently.

The only insect seen by Scoresby was a small green fly, which infested the beach in swarms. The sea along the coast teemed with a species of *helix*, with the *clio borealis*, and with small shrimps. The birds seen were the puffin, tern, little auk, guillemot, black guillemot or tysto, kittowake, fulmar, burgomaster, Arctic gull, brent goose, eider-duck, crimson-headed sparrow, and sandpiper; but no living quadruped was observed.

Drift-wood was strewn about in some abundance; but all of it seemed to have lain long on

the beach, being much battered and bleached, and some of it worm-eaten.

We now take leave of Spitzbergen.

The Polar Sea, it has been justly remarked, exhibits to us the Arctic Desert in a form which is at once specially imposing, majestic, and terrible. On its surface float vast fields of ice, huge mountains of ice, steep banks of ice, far more formidable to the navigator than the cyclones and typhoons which he encounters in the waters of the Torrid Zone. As we have explained, these floating ice-mountains are the offshoots of the great glaciers which glide down to the margin of the sea, and frequently project a considerable distance beyond the coast, where, disrupted by their own weight, or by the continuous action of the waves, they splinter into enormous fragments. Of these fragments, which are borne in all directions by wind and tide, the outlines greatly vary: sometimes they assume a beautiful, sometimes a fantastic character; representing, with but little aid from the imagination, old ruined keeps of Norman castles, long lines of frowning battlements, minarets and domes of Moorish mosques, and the tapering spires, arched roofs, and flying buttresses

of medieval cathedrals. When illuminated by the clear radiance of an Arctic sun, their beauty becomes something weird and almost awful; so that probably the time may come when the artist will seek inspiration from the icebergs of the Polar Seas, as he now does in the forest-depths, on the sea-shore, or in the piny mountain glen.

Masses of ice rise annually from the bosom, so to speak, of the Arctic Ocean, and accumulating together, slowly develop, in conjunction with the ruins of half-dissolved icebergs, into *ice-fields* of surprising extent, the area of which is frequently computed by thousands of square yards. Their thickness varies, but is always inferior to that of the icebergs. It is not uncommon for the latter, however, to attain an elevation of three hundred feet; and an idea of their gigantic dimensions may be gained from the fact that the submerged portion is usually four to eight times the height of the mass which rises above the waves. During the winter, hills, floes, and fields of ice so congeal and bind together as to cover ocean with a compact and impenetrable crust; an immense snowy waste, broken up by walls and columns of strange design, whose crystal surfaces reflect, in changing gleams of

amethyst, azure, gold, vermilion, emerald, the wondrous fires of the northern auroras. When, after a long absence, the sun returns and shoots his rays obliquely athwart the Pole, the crust breaks up in every direction; the dislocation rapidly extends; and sweeping ocean-currents carry to the southward the blocks and islets of ice, which roll and glide, and chase and cross each other, and sometimes dash wildly together, in an indescribable disorder, and with a din which resounds afar!

Dreary as is the region the principal features of which we have thus briefly described, its exploration has been undertaken by many brave and adventurous spirits, either from love of enterprise or from a thirst for scientific knowledge, or from both motives combined. A little more than three centuries ago, it was utterly unknown to geographers; in the maps a gloomy blank indicated its position, and nothing more; but now, despite the difficulties which beset its approach, despite its protracted and oppressive winters, despite its real and imaginary terrors, the outlines of its shores are known with almost scientific accuracy, and its various bays, sounds, gulfs, creeks, and channels have

been carefully surveyed. It is known that immediately around the Pole, and beyond the vast tracts of ice and snow which render the work of the explorer at once so laborious and so dangerous, lies an open sea. The climate of these strange regions has been studied in all its changes; their natural and physical history has been closely investigated; we are familiar with their meteorological phenomena. It is true that something still remains to be done by human skill and courage, that on certain points our information is imperfect; but on the whole our knowledge of the Polar Lands is both comprehensive and exact. This comprehensiveness and this accuracy are due to the heroic energy of such men as Ross and Parry, Franklin and M'Clintock, Kane, Richardson, and Scoresby. To swell the sum of scientific acquisition, they have not feared to endure the greatest hardships and to encounter the greatest dangers.

It is to the life and work of Scoresby this little volume will be dedicated; and in his life, as in his work, the youthful reader will find much to admire, and much to imitate.



## CHAPTER II.

### SCORESBY'S EARLY YEARS.



WILLIAM SCORESBY, the subject of the following sketch, was born at Whitby, in 1789.

We think it desirable to tell the story of his life, though he was a man of no distinguished lineage, and who neither in arts nor arms acquired renown; whose name, indeed, has never been loudly sounded by the trump of Fame, because it is the record of an individual of active and observant mind, who did good service in his generation to the cause of science; of an individual of devout piety, who laboured to teach and amend the ways of his fellow-creatures; of a sincere believer, and an earnest philanthropist, who did what work there came to him to do in a spirit of honesty, truthfulness, and zeal. The example of such a man will, it is hoped, be of use to some of our

readers, who, studying his simple annals, will see how easy it is to employ one's mind in beneficial labour, to aid in the amelioration of humanity, to further the progress of knowledge, and will be induced, in like manner, to follow the path of duty with unwavering footsteps, diverging neither at the voice of pleasure nor the call of ambition.

William Scoresby was happy in his parents, his father, an experienced seaman, of considerable intelligence, unimpeachable integrity, and strict, almost austere, piety; his mother, affectionate, faithful, conscientious, and well-cultured. Over his childhood these two watched with an admirable care; neither too rigid in discipline, nor too yielding in love; and neglecting neither the education of his heart nor the training of his mind. Their religious views were characterized by a severity that is now becoming, perhaps unfortunately, more and more uncommon; but they succeeded in impressing their son with a sense of honour and a love of the Sabbath which, we fear, would now be regarded as "old-fashioned."

In a charming autobiographical sketch which he left behind him, he says:—

"My veneration for the Sabbath was such, that I not only declined play, but even scarcely dared

to pick up any trifling article that I might happen to find without an owner on the street or field on that day, and was not a little surprised at greater boys than myself appropriating them to their own use as soon as ever they discovered them. I recollect one Sunday having found a penknife with six blades, quite new, and to me a great treasure. No owner appearing to claim it, I was tempted to pick it up. After carrying it about me a week, being no longer able to bear the pain of conscience it gave me, I threw it into the river near the place where I found it. I also recollect on another occasion, when proceeding to purchase some trifling article at a country house where it was wont to be kept for sale, I asked some boys whom I met by the way whether there was any to be got. They declared it was all sold, they themselves having purchased the last. I advanced, however, to make personal inquiry at the house, and found to my astonishment that the boys had told me a wilful untruth. The remark I made on the occasion was expressive of the abhorrence I felt at such *great* boys telling lies; and I was greatly astonished that they should so wantonly sport with the favour of the Almighty, who, I was taught to believe, would not love a liar.

These impressions, however, I found from later experience were merely the effects of education and of a tender natural conscience; for they grew weaker and weaker as I began to see more of life, and to associate with persons less scrupulous than myself."

Scoresby acquired the rudiments of knowledge, as was customary in those days, from an elderly dame of mild and amiable manners; such an one as Shenstone has so graphically described in his poem of "The Schoolmistress." But as soon as he was old enough he was removed to a boys' school, kept by a pedagogue who realized the type of the ferocious and arbitrary master we are apt to imagine to have been the creation of novelists and tale-tellers. This man did not only employ the ordinary means of punishment,—such as the cane or ferule, both of which he could use with curious dexterity, and both of which he took care should be of more than ordinary magnitude,—but he would lock offending boys in the school, and keep them for several hours in darkness, after the rest of the scholars had departed; he would strap the unfortunate little culprits to a bench, and keep them immovably fixed for hours together; and, at other times, he would fasten a

cord to their thumbs, an Inquisition-like torture, and then passing it through a pulley above them, would hoist them up so as to leave only their toes on the ground. In this cruel posture, with their arms above their heads, and their thumbs almost disjointed, he would detain those who had seriously offended him during the absence of the school at dinner.

Happily, such masters no longer exist ; but, unhappily, the race of unruly, turbulent, and disobedient schoolboys has not died out. Do not our young readers think, now that discipline is so mild and considerate, now that their tutors are men of such high character, who labour anxiously and earnestly for their good, now that the paths of knowledge have been cleared of wounding thorns and made easy to the industrious wayfarer,—do they not think that it is time they abandoned the old traditional deceptions, the bad habits of idleness and untruthfulness, and honestly endeavoured to profit to the utmost by the abundant means of self-improvement now brought within their reach ? Fain would we see English boys as bold and daring and high-spirited as they ever have been. But they may be bold, and yet honourable ; daring,

and yet obedient; high-spirited, and yet courteous. As the boy, so the man; as the seed, so the flower. Let them cultivate in youth those graces of truth, generosity, purity, and diligence, which are the best ornaments of manhood.

Scoresby continued at the school of which we have spoken until 1800, when he was ten years of age. A singular accident then interrupted for a time the regular course of his studies. His father was then captain of a whaling-ship, the *Dundee*; and on his voyage to the North he put in at Whitby, to take leave of his wife and family. On his going on board, he took with him his little son to see the vessel, intending him to return with the pilot who would steer her out of harbour. William was so fascinated by the novelties which met his eye in every direction, that he resolved *he* too would sail to Greenland; and, consequently, when the pilot was ready to depart, Master Scoresby was nowhere to be found. No answer was made to the call for "William," until his father's summons was too peremptory to be longer disobeyed. Then he came upon deck, *bare-headed*, leaving those who might observe the circumstance to infer that he had lost his hat, and that it was impossible for him

to go ashore without one. His father understood the childish device; but pleased, perhaps, by the boy's evident inclination for a seafaring life, he resolved to take him with him. A message to that effect was sent to his mother; and the sailors, having been provided with the necessary materials by the captain, quickly rigged out "Master William" in correct nautical attire.

His joy at finding himself at sea received, however, something of a check when he had been two or three days on board. The weather was fine, the wind brisk and favourable; and the ship sped merrily along under a press of canvas. Officers and men were busily engaged in making things neat and orderly between decks, and arranging the stores in their proper places. In the consequent bustle the "look-out" had been for a while neglected, when suddenly a voice on deck was heard to exclaim,—

"A ship bearing close down upon us!"

The reader must recollect that England was then engaged in war with France and her allies, and that the North Sea swarmed with the enemy's ships of war and privateers. The look-out man's announcement was, therefore, one of

the greatest importance, and sounded the signal of alarm throughout the *Dundee*.

Captain Scoresby soon made out the approaching ship to be both a vessel of war and an enemy. She was bearing down, steering easterly, exactly so as to intercept their track, but not on any of the courses usually steered for England, France, or Denmark. When discovered, she was already within little more than a mile of the whaler, and in a quarter of an hour would be within hailing distance.

With characteristic energy and coolness, Captain Scoresby made every preparation for the defence of his ship, determined not to yield her up without a struggle. She was well armed and well manned, carrying a crew of between fifty and sixty men, and twelve guns, eighteen-pounders. Still, she was manifestly unable to cope with a ship of war, or even with a privateer of any size. Scoresby's design, therefore, was to surprise the enemy by suddenly displaying his armament in such a manner as to give the impression that his ship was really more formidable than appeared. And it happened that circumstances connected with the qualifications of the crew and the build and armament of the ship, favoured the strata-



gem. For, not unaware that he might be called upon to encounter such a peril as that which now confronted him, Captain Scoresby had selected, out of the variety of "hands" offering themselves for the voyage, two men of somewhat unusual qualifications,—one being an adept in beating the drum, the other in "winding the boatswain's call."

The construction of the ship was, as we have said, another favourable circumstance. She was "deep-waisted," like a war-vessel, with a high quarter-deck. Yet, all her guns being below, she gave no outward indication, at a distance, of either ports or armament.

On the first alarm, the men, by a spontaneous impulse, had swarmed upon deck; but their retirement was immediately commanded. The gunners were despatched to their quarters, with orders to prepare for action, but to lift no port. The men engaged in navigating the ship were kept as much as possible on the lee-side of the deck, where, from the vessel's heeling and the enemy's windward position, they were sufficiently concealed. The "drummer" and "boatswain"—two important personages!—received their special instructions; and the whole crew, through the

orders given, began to comprehend their commander's ingenious manœuvre, and were ready to carry it out efficiently.

Short as was the time, the coolness of the commander and the quick intelligence of the men were so complete, that every arrangement was made before the enemy arrived within hailing distance. At that moment, as, indeed, to all *appearance* from the very outset, everything visible on board the *Dundee* indicated an unconcerned quietness, and an utter unconsciousness of danger from the enemy's approach. The men were lying prone upon the deck. The captain was calmly pacing the quarter-deck, and he and the helmsman were the only persons who could be descried from the deck of the assailant.

Without showing any colours in answer to the English ensign waving at the mizzen-peak,—

“The flag that's braved a thousand years  
The battle and the breeze,”—

the stranger bore down within short musket-shot distance. A loud and almost unintelligible roar of her captain, through his speaking-trumpet, was understood to mean the usual inquiry relative to the nationality and name of the ship. Scoresby vouchsafed no other reply than a signi-

ficant wave of the hand. Immediately the drum beat to quarters; and while its roll still pealed through the ship, sharply rose the boatswain's whistle. His hoarse voice then shouted forth the customary orders; the apparently plain sides of the ship seemed to be suddenly pierced; six ports on a side were simultaneously raised, revealing a row of "grinning cannon-mouths" ready to pour forth a volley of fire and shot.

The stratagem was complete, and so was its success. The adversary was panic-struck. Men on his deck, some with lighted matches in their hands, could be seen to fall flat, as if they had been prostrated by cannon-balls; the guns remained silent; the helm flew to port, and the yards to the wind, on the opposite tack; and without waiting for a reply to his summons, or venturing on a single broadside, the stranger suddenly hauled off, under full sail, and was seen no more!

During the interval of suspense, young Scoresby was in a condition of strange perplexity and excitement, in being so suddenly and unexpectedly thrown from the pacific life of a schoolboy into all the perils and adventures of those who "go down to the sea in ships." The incident led his

father to reflect that he was exposing him, at a very early age, to a too arduous experience, and he entertained the idea of leaving him in Shetland until his return. With this view he arranged for his reception into a school at Lerwick. But his ingenuity was not equal to his son's. When the lad observed that the vessel was on the point of sailing, he hired a boat at a heavy price, and overtook her before she got clear of the harbour. The voyage out and home was safely performed, and on young Scoresby's return, he resumed his usual studies.

An intelligent and industrious lad, his progress was rapid; and in 1802 it was thought advisable to send him to a first-class school near London. This was under the charge of a Mr. Stork, of whom his pupil says, "He was a rigid disciplinarian, but a teacher of the first order. His system, which was founded on emulation and the distribution of rewards, the result of small subscriptions and fines, possessed a stimulus which awakened the energies of the most unambitious; and his plans being uniform and methodical, and ably supported and enforced by his numerous assistants, the result in many instances was most brilliant. For my own part," he adds, "the ad-

vantage I gained was incalculable. In grammar I attained uncommon proficiency ; in calculation, much facility ; in writing, much improvement. On the first weekly examination of exercise copies I was almost at the bottom of the list, my number being below seventy : at the conclusion of a quarter of a year I stood number two. In the exercises for calculation, and in the division of the weekly funds, I gained many prizes. The exertion, however, on a delicate frame was severe. I had to rise at five in the morning, and to pursue the routine of the seminary until the same hour in the evening, with the usual intervals for refreshment, after which I never failed to have some exercise for my employment at home ; and sometimes, which was optional, attended the familiar lectures of Mr. Stork, on interesting branches of science, in the evening."

In the following year we find Captain Scoresby in command of the *Resolution*. He now made his son the constant companion of his voyages, and trained him thoroughly in his professional duties. Though still very young, he showed a natural aptitude for a "naval career," and on every occasion displayed the highest courage and

complete presence of mind. His progress was so rapid that in 1806 he was pronounced competent to undertake the responsibilities of chief officer; and in this capacity, still under his father's command, he sailed from Whitby in 1806.

The *Resolution*, on this occasion, left the whole of the whaling fleet behind her, and pushed further northward than any ship before had ever ventured. Captain Scoresby entertained a belief, which has since been proved to have been well founded, that an open sea existed near the Pole; and he resolved on an attempt to reach it. The enterprise seemed hopeless from the compact and apparently impenetrable state of the ice. But Scoresby was a man of inexhaustible resource; and, being seconded by an energetic and loyal crew, he carried his ship into open waters. In fact, he continued to advance until he had reached  $81^{\circ} 31' N.$ , or within about five hundred and ten miles of the Pole. Their situation was singular and solitary. No ship, possibly no human being, was within a hundred or a hundred and fifty leagues. They represented the most advanced post of human civilization; the sentinels stationed by science on the threshold of an unknown world.

But the sea began to freeze ; and, to prevent his ship from being hopelessly pent up in the ice-fields, Captain Scoresby was compelled to put about and make for home.

In the autumn of 1806 young Scoresby went to Edinburgh, where he attended the winter classes at the University, profiting greatly by the lectures of the professors. His improvement was due, however, not less to *his own* industry and method than to *their* admirable instructions. The teacher can do nothing without the concurrence of the taught.

In March 1807, he was called away to resume his duties on board his father's vessel ; and after his return from the fishery, he volunteered, in response to the call of the Government, to assist in bringing from Copenhagen to a British port the fleet which had been recently captured from the Danes. He was the first at Whitby to offer his services in the national cause. "All the sailors of the port," he says, "previous to my taking this step, and which was a powerful reason for it, refused their assistance, from the foolish persuasion that it was a scheme for impressing them. But on my name being given in as a volunteer, they came forward to the number of

fifty-four in one day, and afterwards others engaged in the service." He was much impressed by his visit to Copenhagen, which exhibited painful traces of the heavy bombardment it had suffered from Lord Gambier's fleet.

During the voyages of 1808 and 1809, Scoresby exhibited that faculty of ready and accurate observation—a much rarer faculty than is generally supposed—which afterwards distinguished him among Arctic navigators. He employed all his leisure time in studying the fauna and flora of the Polar World, and made a valuable collection of plants previously unknown. His investigations into the forms of snow crystals—those fairy playthings of Nature—led to some interesting results. He found that, in the particulars both of beauty and variety, the delicate flakes which fall so silently and yet so rapidly on the earth equal, if they do not surpass, the most beautiful and varied of the microscopic objects procurable in the animal and vegetable kingdoms. He ascertained that the principal configurations are the stelliform ("star-shaped") and hexagonal ("six-sided"), though numerous other fanciful and elegant outlines may be discovered.



One of those incidents which render the whale fishery so perilous a pursuit occurred in the voyage of 1809.

The harpooner of one of the ship's boats, during a fresh gale of wind, having struck a sucking whale that was under maternal guidance, the other boats were scattered about in the hope of entangling and capturing the mother. It pursued a circular route round its cub, followed by the boats; but its velocity was so considerable that they failed to keep pace with it. After some time young Scoresby also engaged in the chase, and, having marked the manœuvres of the mother-whale, selected a situation where he conceived it was likely to make its appearance: it rose in the very spot, and—though unperceived by the whalers—struck the boat so heavy a blow that the bottom was driven in, and it sank in a moment. Fortunately, assistance was close at hand, and after a few minutes of anxiety and peril, all were rescued without having sustained any particular injury.

In the autumn Scoresby again repaired to Edinburgh and resumed his attendance at the University, selecting the classes of mathematics, natural history, logic, and anatomy. He devoted himself to the pursuit of knowledge with extra-

ordinary earnestness ; with an all-absorbing devotion, indeed, which threatened serious results. "For years," he says, "I had been of a consumptive habit. For years my appetite was so bad that I knew not what it was to enjoy a dinner ; and for the same period I was liable to severe colds. I had frequently hectic symptoms, and sensible perspiration altogether ceased. I was so enervated when in Edinburgh that the exertion of running up a dozen of the college steps would cause my heart to palpitate with such a violence that I could distinctly hear it, and would raise my pulse from ninety or ninety-five—its most usual rate—to one hundred and twenty or one hundred and thirty vibrations in a minute ! Yet I never applied for advice ; but pursuing a system of great abstemiousness and regularity of living, and avoiding every kind of excess, for which, indeed, I had no taste, I was graciously upheld, and enabled to go through with my studies in the most effectual and uninterrupted manner."

### CHAPTER III.

#### SCORESBY THE NAVIGATOR.



ON the 5th of October 1810, Scoresby attained his majority; and on the same day, by the unanimous consent of the owners of the vessel, he was promoted to the command of the *Resolution*, from which his father had retired. The distinction was unprecedented in the case of so young a man, but was fully earned by his integrity of character, firmness of purpose, superior capacity, and great scientific acquirements. In the following year he married, and in 1813 a son was born to him. In 1813, also, he left the *Resolution*, and took the command of a large, new, and finely-equipped ship, the *Esk*, in which he made several voyages, greatly to the advantage of his employers, and to his own private profit. His success, indeed, was extraordinary, and must be ascribed, partly to his

nautical abilities, and partly to the influence he exercised over his crew.

But he devoted his attention to other than commercial objects only, and was always on the watch for an occasion of adding to his stores of knowledge. At one time we find him experimenting on the difference of temperature in sea-water at the surface and at various depths, inventing for this purpose an apparatus which he called the *Marine Diver*; at another he was collecting some hitherto unknown sea-weed or marine plant. His mind could not be idle. It was incessantly and beneficially active. In 1814 he communicated a paper, entitled "A Description of the Polar Ice," which attracted so much attention that the naturalist, Von Buch, thought it worthy of being placed before the great physicist, Gay Lussac. Von Buch wrote of the author,—then only in his twenty-sixth year,—“He is one of the most courageous and skilful of the captains who frequent the Greenland Seas; he, indeed, is a man worthy of being placed along with a Hudson, a Dampier, and a Cook; and, if he should ever be placed at the head of a voyage of discovery, I am persuaded that his name will descend to future ages with those of the most able navigators.”

This was high praise from such a man ; for the value of all praise depends upon the source whence it proceeds.

It seems to have been at this period that Mr. Scoresby became more sensible of the value of religion, and began to comprehend that the "pride of life" must not be allowed to render the soul forgetful of "the promise of the life that now is" in Christ, "and of that which is to come." As if to deepen his sense of the worthlessness of worldly pleasures, and to test the strength of his new resolves, he was exposed to a series of bitter disappointments; which, however, did but bring forth the sterling excellences of his character. His voyage of 1815 was his first failure; the cargo which he brought back to Whitby consisting only of 130 tuns of oil, representing nine whales captured. The voyage of 1816 was even a greater failure, from a commercial point of view, though it did not terminate so disastrously as at one time threatened, while it brought out all Scoresby's courage, promptitude, ingenuity, and resolution.

The *Esk* had scarcely entered within the confines of the Arctic Regions when she was beset by a terrible storm, such as Scoresby had never before experienced. Though he had made fourteen

voyages to the North, and passed through many dangers, he had met with nothing so appalling, nor been so nearly on the point of ruin. While labouring in the gale, he was horrified to find a huge mass of ice bearing down upon the embarrassed ship; at one instant covered with foam, the next concealed from sight by the waves, and instantly afterwards reared to a prodigious height above the surface of the sea. In order to pass this barrier, the *Esk* was steered towards a small creek or fissure discoverable in it; but the ship refused to obey her helm, and the opportunity was lost. A second opening was soon afterwards descried. This time the vessel, as sailors say, behaved better, and entering the narrow channel, she went through it in safety to the open sea beyond.

This occurred on the 2nd of May. With only tolerable success the fishery was prosecuted until the 19th of June.

On that day, while effecting a passage between a couple of immense ice-floes, the *Esk* sustained a considerable pressure; but it was not apprehended that she had suffered any serious injury. Such, however, was the case; and as soon as the ice-floes floated off, and no longer supported her, she began to sink!

Happily several ships were in sight, and a signal of distress soon brought the *John* of Greenock, commanded by Scoresby's brother-in-law, Mr. Jackson, to their assistance. Pumps and buckets were plied lustily, until the extent of the mischief could be ascertained. It was alarming enough! A large piece of the after-keel, and a portion of one of the planks of the vessel's bottom had been torn away, leaving a large hole, through which the water entered freely. What was to be done? Many suggestions were put forward, but as all were more or less impracticable, Scoresby determined on *turning the ship upside down*, so that the carpenter might obtain access to the injured part.

Such an operation was, to say the least, unusual, but having determined upon it, Scoresby set to work with characteristic energy.

All her stores and movable furniture were taken out and piled upon the ice, and then, on the 30th of June, ropes were carried under the vessel, and attached on the side furthest from the ice to the tops of the fore and main masts, which were weighted with heavy anchors, to assist by gravitation in the intended rotation of the ship. When she had sunk as far as possible, an ingenious

apparatus of blocks and pulleys on the ice was set in motion, and no fewer than a hundred and fifty men were employed in hauling in the ropes so as to turn her bottom upwards. All their force, however, availed only to bring her down some distance in the water. At this juncture Scoresby went on board with a hundred and twenty men, and having drawn them up on one side of the deck, caused them to run in a body to the other, giving in this way so sudden and violent a shock to the ship that the men feared she would accomplish an immediate somersault! Such was not the case; and as all their efforts to bring the keel uppermost failed, they were compelled to adopt some other plan.

It was then determined to partition off the injured portion of the vessel from the rest. This was expeditiously done, and being tightly calked, formed a strong barrier against the influx of the water. A *thrumbed* sail—that is, a sail coated with oakum and rope-yarn—was also applied externally, and being sucked into the leak, materially helped to fill it up. The stores were then got on board, and, towed by the *John*, the *Esk* safely entered Whitby harbour on the 27th of July.

Intelligence of the accident which had befallen



her had reached England long before, and her owners and insurers had given her up as lost. Their surprise at her safe arrival was equal to their gratification, and they did not fail to reward and acknowledge the persevering ingenuity to which it was due.

It seems desirable here to quote a passage from Scoresby's autobiography in illustration of his thoughts and views at this time, and as explanatory of the step which he afterwards adopted.

"The dealings of Providence with me on this voyage," he says, "were most remarkable. It was a series of difficulties and dangers, and abounded with striking displays of a Divine interposition for our eventual preservation. These various trying circumstances called forth an earnestness, and, occasionally, an energy in my private devotions (which, however coldly performed, were seldom omitted), such as I cannot but think were in some measure accepted; yet I am conscious that, generally, my secret reserve of sin was not overcome, nor the subjugation of my own will to that of God accomplished. I began to perceive through these trials the design of Providence: it appeared to me that the object was to turn me from vanity and the unsubdued love of sin to the love of God."

During his stay at Whitby he unbosomed himself to his clerical friend, Dr. Whitby, and gained much benefit from his wise and judicious counsel.

In the interval of his whaling voyages—1816–17—he prepared his work on the “Arctic Regions,” enriching it with the results of his latest observations. He also wrote and read before the Wernerian Society a paper on “The Pressure of the Sea at Great Depths.” He could not be idle. His active mind was never happy unless engaged in useful employment.

He entered on his sixteenth voyage on the 1st of April 1817. It proved a complete failure, only two whales being caught. In the course of the voyage he touched at the wild and dreary island of Jan Mayen, which was then very little known. He discovered it to be volcanic, the beach being covered with magnetic iron-sand, and the foot of the cliffs with burnt clay, slag, and lava. He also discovered and examined two extinct craters, one of them a fine basin of considerable dimensions.

On his return home, finding the owners of his ship disposed to attribute his want of success to a want of energy on the part of the captain, he resigned his command. He then took up the

interesting question which at that time excited so much attention in England,—Was there, or was there not, a communication between the North Atlantic and the North Pacific Ocean? In other words, Did there exist a North-West Passage? Was it possible for a ship, entering the Polar Regions by Baffin's Bay, to quit them, on the other side of the American continent, by Behring's Straits? Scoresby, in common with most men of science, contended that such a passage *did* exist, and strongly advocated the fitting out of an expedition to be employed in the great but difficult work of Arctic discovery. He himself engaged in the work in the course of the voyage of 1818, which he undertook in a ship, the *Fame*, belonging to his father. It was on this occasion that he landed in Spitzbergen, and made the observations which we have quoted in a preceding chapter. He also essayed some valuable and interesting experiments with a view of ascertaining the cause of the variation in the colour of the Greenland Sea, which he found to depend upon the *quality* of the water.

To discover the nature of the colouring substance, he procured a quantity of snow from a piece of ice that had been washed by the sea, and

was much discoloured by the deposition of some peculiar matter upon it. On dissolving a little of this snow in a wine-glass it appeared perfectly nebulous, the water containing a great number of semi-transparent spherical substances, with others resembling small fragments of fine hair. He proceeded to examine these with a compound microscope, and obtained the following results:—

The semi-transparent globules appeared to consist of an animal of the *medusa* kind, from one-twentieth to one-thirtieth of an inch in diameter. Its surface was marked with twelve distinct patches, or *nebulæ*, of brownish-coloured dots, disposed in pairs; four pairs, or sixteen pairs alternately, composing one of the *nebulæ*. When the water containing these animals was heated, it emitted a very strong odour, not unlike the smell of oysters when thrown on hot coals, but much more offensive. The fibrous, or hair-like substances, were more easily examined, being of a darker hue. They varied in length from a point to one-tenth of an inch; and, when highly magnified, proved to be beautifully moniliform. In the longest specimens the number of bead-like articulations was about thirty; hence their diameter could not have exceeded the one-three-

hundredth part of an inch. Some of these substances seemed to vary their appearance; but whether they were living animals, and gifted with locomotion, Scoresby could not then determine.

He afterwards examined the different qualities of sea-water, and found that they abounded in water of an olive-green colour; and that they occurred, but in less quantity, in the bluish-green water. The number of medusæ in the olive-green sea was found to be immense. They were not more than one-fourth of an inch apart. In this proportion, a cubic inch of water would contain 64; a cubic foot, 110,592; a cubic fathom, 23,887,872; and a cubic mile about 23,888,000,000,000,000! From soundings made where these animals were discovered, it appeared that the sea was about a mile in depth. Probably, the depth to which they extended was not more than two hundred and fifty fathoms; in which case the enormous number we have mentioned might occur in a space of two miles square. It may give a clearer idea of the amount of medusæ in this extent, if we calculate the length of time that would be requisite, with a certain number of persons, for counting their legions. Well, let us suppose that a single individual could count (which

is barely possible) a million in seven days: it would have occupied eighty thousand persons from the creation of the world to 1818 to complete the enumeration!

What a stupendous idea this fact gives of the immensity of creation, and of the bounty of Divine Providence, in furnishing such a profusion of life in a region so remote from human enterprise! Nor are these animals, notwithstanding their minuteness, without their recognized place in the grand economy of creation. They form almost the sole nourishment of the sepia, actinia, helices, and other genera of molluscs; which, in their turn, supply the whale with its food, and enable it to maintain its existence in the deep waters of the Northern seas.

Scoresby remarks that the vastness of their number, and their exceeding minuteness, are circumstances, in connection with these animalcules, of surprising interest. "In a drop of water," he says, "examined by a power of 28·224 (magnified superficies), there were fifty in number, on an average, in each square of the micrometer glass, of an eight hundred and fortieth of an inch; and as the drop occupied an inch on a plate of glass containing five hundred and twenty-nine of these

squares, there must have been in this single drop of water, taken out of the yellowish-green sea, in a place by no means the most discoloured, about 26,450 animalcules. Hence, reckoning sixty drops to a dram, there would be a number in a gallon of water exceeding, by one half, the amount of the population of the whole globe! It gives a powerful conception of the minuteness and wonders of creation, when we think of more than twenty-six thousand animals living, obtaining subsistence, and moving perfectly at their ease, without annoyance to one another, in a single drop of water!

“The diameter of the largest of these animalcules,” he continues, “was only the two-thousandth of an inch, and many only the four-thousandth. The army which Buonaparte led into Russia in 1812, estimated at five hundred thousand men, would have extended in a double row, or two men abreast, with two feet three inches space for each couple of men, a distance of one hundred and six miles and a half; the same number of these animalcules, arranged in a similar way in two rows, but touching one another, would reach only five feet two and a half inches. A whale requires a sea, an ocean to sport in; about a hundred and

fifty millions of these animalcules would have abundant room in a tumbler of water!"

In 1819 we find Scoresby at Edinburgh, where he arranged with Messrs. Constable for the publication of his work on the "Arctic Regions," and devoted himself assiduously to its completion. He had purchased a one-third share in a whaling ship which was being built by a Liverpool firm, and of which he was to take the command, and he purposed resuming his Greenland voyages in the following year. Meantime he prepared and published some valuable scientific memoirs. On the death of his mother he left Edinburgh and removed to Liverpool, where his ship, the *Baffin*, was launched on the 15th of February 1820. She put to sea on March 18, and returned on August 23 with a larger cargo than had ever before been imported from Greenland into Liverpool. During his absence his work on the "Arctic Regions" was published, and was received with the most flattering welcome. It had a large sale in England, was translated into French, and the most eminent authorities pronounced it the most accurate and comprehensive work on the subject which had been given to the world. It was



pecially valuable on account of its honesty. It was a record of actual observations, of well-authenticated facts, and not the ingenious theories of a fanciful speculator.

It is unnecessary to chronicle the successive voyages undertaken by this energetic and industrious navigator. In that of 1822, however, an incident occurred which may be described in these pages as illustrative of the perils attending the whale-fishery.

The boats had gone in pursuit of a whale. After they had been absent for some time, and on coming within speaking range of the ship, Captain Scoresby, noticing an unusual air of melancholy about their crews, inquired what had happened. The officer in command of the first boat replied : "We have lost Carr!" This melancholy and unexpected intelligence caused a general consternation, and it was some time before Scoresby felt able to listen to the details of the catastrophe.

So far as could be ascertained from the crew of the boat of which he had charge, but whose minds were completely confused by the sad event they had witnessed, the circumstances were as follow :—

The two boats that had been so long absent had, at the outset, separated from their companions; and, allured by the excitement of the chase and the fineness of the weather, had proceeded until far out of sight of the ship. The whale they pursued led them into the midst of a vast shoal. So numerous were the ocean leviathans that their "blowing" was incessant; and it was the belief of the men that they could not have been fewer than a hundred. Fearful of alarming them without striking any, they remained for some time motionless, watching for a favourable opportunity to begin the attack. One of them at length rose so near the boat of which William Carr was harpooner, that he ventured to pull towards it, though it was meeting him, and afforded but an indifferent chance of success. He, however, fatally for himself, succeeded in striking it. The boat and fish passing each other with great rapidity after the stroke, the line was jerked out of its place, and, instead of "running" over the stem, was cast over the gunwale; its pressure in this unfavourable position had the effect of heeling the boat, so that the side sank below the water, and thereupon it began to fill.

In this emergency the harpooner, a fine active fellow, caught hold of the bight of the rope, and attempted to right the boat by restoring it to its place. In some inexplicable way, however, a turn of the line flew over his arm, in an instant dragged him overboard, and plunged him under water—to rise no more!

The accident was so sudden that only one man, who had his eye upon him at the time, was aware of what had occurred; so that when the boat righted, as it immediately did, though half full of water, a general cry arose, “Where is Carr?”

It is impossible, perhaps, to imagine a death more awfully sudden and unexpected. The deadly bullet, though it speeds through the air with a velocity which renders it invisible, seldom produces so instantaneous a destruction. The whale, at its first descent, usually gives at the rate of about eight or nine miles per hour, or thirteen to fifteen feet per second. Now, as this unfortunate man was occupied in adjusting the line at the very water's edge, when it must have been perfectly tight, in consequence of the obstruction to its running out of the boat, the interval between the coiling of the rope around him and his disappearance could not have exceeded the third of

a second ; and in one second he must have been dragged to the depth of ten or twelve feet! The accident was, indeed, so instantaneous that the sufferer had no time to shriek or call for help ; and the person who witnessed his lamentable fate observed, that though his eye was upon him at the instant, he could scarcely distinguish him as he disappeared.

Captain Scoresby's account of this voyage was afterwards published (in 1823), under the title of a "Journal of a Voyage to the Northern Whale-Fishery ;" and it is replete with matter equally interesting and instructive. On the 8th of June the *Baffin* sighted land, it appears, in lat.  $74^{\circ} 6'$ , at the distance of about fifty miles. This was the eastern coast of Greenland, being a northward extension or continuation of that coast on which the ancient Icelandic colonies were planted in the tenth century. As the main design of Scoresby's voyage was not incompatible with researches in this unknown region, he resolved on penetrating immediately as near as possible to the shore.

On the 2nd of July, in a kind of bay formed by the union of an ice-floe with a mass of drift-ice, a great shoal of whales was discovered. All

the boats were despatched in pursuit, and remained on the watch, or in chase, for about ten hours; but the weather was so calm and silent that almost every fish they approached within a ship's length took the alarm. The boats having been recalled by signal, two were sent, as a last effort, into a promising corner on the borders of a floe, where they had not remained long before a large whale rose near one of them, and received a harpoon. For nearly an hour afterwards it made no sign; then came up exhausted to the surface, close to the place where the *Baffin* was moored to the ice. A second harpoon was immediately fastened, and lances fell so fast and thick that it had no power to descend again, but died in a few minutes, within fifty yards of the ship.

Scoresby remarks that the extraordinary exhaustion of this whale was owing to the length of time it had remained under water, and the depth to which it descended. Most other animals, he says, when attacked, instinctively pursue a conduct which is generally the best calculated to secure their escape; but not so the whale. Were it to remain on the surface after being harpooned, to press steadily forward in one direction, and to exert the wonderful strength that it possesses; or

were it to await the charge of its enemies, and repel them by well-timed blows from its formidable tail, it would not infrequently conquer in its contest with man, whose strength and bulk scarcely equals a nine hundredth part of its own. But, like all the lower animals, it was designed by Him who "created great whales, and every living creature that moveth," to be subject to man; and, therefore, when attacked by him, it perishes through its very simpleness. Instead of repelling his attacks, it generally dives at once to an immense depth; where, under a pressure frequently exceeding two hundred thousand tons upon its body, it grows so weary and spent that, on returning to the surface of the sea, it falls an easy prey.

It may be pointed out, however, that the whale's conduct in this respect is due to the instinct which impels it to descend into the ocean-depths for escaping its natural enemies in the same element; and it also shows that whatever these enemies may be, whether sword-fish, thrashers, or sharks, it must be able, since this is its means of escape, to descend lower than they can, and to sustain a greater degree of pressure from the superincumbent waters.

In the course of the month, Scoresby discovered

several islands, and laid down the position of some remarkable mountains on the mainland, christening them with the names of his friends, patrons, and men of eminence. On the 24th he was witness to a singular atmospheric phenomenon. After a day's survey of the shore, he returned to his ship about eleven o'clock at night. The weather was beautifully fine, the air quite mild. Owing to the warmth, the atmosphere was in a highly refractive state, and many remarkable appearances, therefore, were presented by the land and icebergs. But the most extraordinary effect was the distinct inverted image of a ship in the clear sky, over the middle of a large bay or inlet in the distance the ship itself being entirely beyond the horizon. Similar appearances he had noticed before, but on this occasion Scoresby was struck by the perfection of the image, and the great distance of the vessel that it represented.

In truth, it was defined with such admirable exactness that, on being examined through a good telescope, Scoresby could distinguish every sail, the "general rig of the ship," and its peculiar characteristics, so that he confidently pronounced it to be his father's ship, the *Fame*,—which, indeed, it afterwards proved to be; though, on comparing

notes with his father, he found that their relative positions at the time showed they must have been separated from one another by an interval of nearly thirty miles.

Our indefatigable navigator continued his careful explorations of this hitherto unknown coast, which he found to be largely broken up by headlands and inlets, presenting a diversified and even capricious aspect. The extent of his survey ranged over twelve hundred miles, if allowance be made for all these sinuosities; in a direct line it measured about four hundred, from lat.  $69^{\circ} 30'$  to  $76^{\circ} 30'$  N. The average elevation was found to be nearly 3000 feet, and the general appearance of the country "barren, rugged, and mountainous."

In the course of his laborious explorations some interesting incidents occurred, with two or three of which we may relieve the even tenor of our narrative.

On one occasion the Captain says he traced a hill towards the west for three or four miles, passing over a continuous surface of loose stones, or over beds of ice and snow, until he descended near Cape Swainson, a prominent and elevated headland, named after a distinguished naturalist,



to a flat, sandy beach, about a furlong in breadth. Here he discovered a circle of stones so artificially constructed that there could be no doubt it was the work of man. Soon afterwards he came to the remains of deserted habitations, consisting of a couple of circular walls, and, in some places, merely of rows of stones enclosing a clear area of five yards in diameter, laid out exactly in the manner in which the Eskimos prepare the ground for their summer tents. Moreover, several hollow tumuli were visible, each being neatly arched in the form of a bee-hive, with an opening either at the top or in one of the sides. They varied in size from two and a-half to four and a-half feet across, inside the walls.

Nearer the cape some still more striking evidences of human occupancy were found; namely, a couple of cavities, enclosed by stones, on the edge of a bank. These had evidently been used as fire-places, for in them lay the remains of the fuel that had formerly been ignited, consisting of charred drift-wood, with half-burned moss, and a quantity of ashes. Several pieces of bone and wood, wrought by human industry, were also met with, and also the head of an arrow or small dart, rather neatly made of bone and tipped with a

small piece of iron. Whether the iron was native, or had been carried ashore in the timbers of some wreck, was difficult to determine. The manufacture closely resembled that of the iron implements of the Arctic Highlanders, discovered by Captain Ross, and probably had the same origin. From the state and situation in which it was found, Scoresby conjectured it had not been long out of use. It was lying in a tiny rock-pool, and yet was not greatly corroded by rust. Obviously, it could have lain there but a few months.

Scoresby saw scarcely any birds on the shore, though the waters swarmed with various species of eider-ducks and roaches. Numbers of winged insects, however, including butterflies, bees, and even mosquitoes, disported in the warm radiance of the summer sun. Several plants were flowering, and others fructifying, near the beach—among these the beautiful *Ranunculus nivalis* and the graceful *Potentilla verna*. A merciful Creator is unwilling that the bleakest shore shall be wholly wanting in the charm of bloom and blossom. A kind of salix was the only arboreous plant our explorer noticed. This willow expands to the extent of three feet or more, and grows to the thickness of

one's little finger; yet it is so wonderfully accommodated to the nature of the climate that it does not spring upward, in which case it would be quickly felled by the bitter winds, but spreads laterally, never rising higher than three or four inches above the ground, from which it derives both warmth and nourishment.

Proceeding to the northward, Captain Scoresby fell in with remarkable traces of human habitation, and all of them recent, at the foot of an abrupt ridge, which he called Neill's Cliffs.

Here were the remains of an Eskimo village, consisting of nine or ten huts closely set together, besides many others scattered about the margin of the level ground.

The locality was admirably adapted for a winter residence, being elevated about fifty feet above the beach, perfectly dry, and presenting a rapid slope towards a river which bounded the little plain or plateau on the south, and towards the beach which limited it on the east. The roofs of all the huts had either been removed or had fallen in; what remained consisted simply of an excavation in the ground at the brow of the bank, about four feet deep, fifteen feet long, and

six to nine feet wide. The sides of each hut were sustained by a wall of rough stones; and the bottom appeared to be made of gravel, moss, or clay. The access to these huts was after the usual Eskimo fashion—a horizontal tunnel about fifteen feet in length opening at one end on the side of the bank into the external air, and at the other end into the interior of the hut. It was so low, this underground gallery, that to enter his dwelling the owner must have crept on his hands and knees. The roofing consisted of stones and sods.

As this kind of hut is deeply sunk in the earth, and is approached only by an underground passage, it may fairly be characterized as a subterranean dwelling. In truth, it rises so little above the surface, that as the roof, when entire, is generally covered with sods, and clothed with moss or grass, it partakes of the appearance of the rest of the ground, and can hardly be distinguished from it.

Scoresby was much struck by its admirable adaptation to the nature of the climate and the circumstances of its occupants.

The uncivilized Eskimos, he says, use no fire in their huts, but only lamps, which serve both

for lighting and culinary purposes; hence they require, in the terrible rigour of an Arctic winter, which almost chills the heart and freezes the blood, to economize with the greatest care such artificial warmth as they are able to produce in their huts.

The reader will see that for this purpose an underground dwelling, defended from the penetrating frost by a close roof of turf and moss, and an outer layer of snow, protected from the insidious attacks of a benumbing and blighting wind by a long subterranean tunnel, which prevents the intrusion of cold draughts of air, forms one of the most ingenious, and certainly one of the most successful, contrivances which the Eskimos, with their limited resources, could possibly have adopted.

The plan of the tunnel is really of very skilful design. Its opening is always directed to the southward, and this for two good reasons;—first, that the noontide rays of the spring and autumn sun may cheer it with their genial light and warmth; and second, that the winds of the north, east, and west, which are remarkable for their severity, may pass by without entering. They are unwelcome guests, whose presence may not be

invited. In some cases the bottom of the tunnel is on a level with the floor of the hut; in others it is so much lower that its *roof* coincides with the floor of the former. On this plan—which, though unintentionally, is thoroughly scientific—the cold air which creeps along the tunnel being denser than the warm air in the hut, can have no tendency to rise into it unless a circulation were set in motion by allowing the escape of the warm air from the roof or windows.

In the curious little hamlet we are describing, six of the huts were arranged in a row, and very near together, on the southern slope of the plain, with openings or tunnels pointing to the southward. Of these the easternmost was situated at the corner of the bank, where it began to incline to the northward; near it were three others, on the eastern edge, with their entrances obliquely directed towards the south or south-east.

Adjoining the huts numerous excavations might be seen in the ground, which, apparently, had been employed for stores and similar purposes.

There were also several tumuli, or burial-mounds, and a considerable number of graves was scattered about the vicinity. Many of these were immediately in the rear of the huts, others among

them or in front, and two or three were found in the floors of some of the older huts, which had probably become the resting-places of the last of the occupants. In general these graves contained human bones. A very perfect skull was taken out of one of them, which, from its character, was supposed to have belonged to a female of about twenty years of age. Many, in addition to their human relics, contained fragments of the implements used by the natives in their fishing and hunting. Among these were found a few pieces of "unicorn's horn" (the tooth of the narwhal), some branches of reindeer's horn, and several bits of wood that had been rudely wrought.

"These deposits of useful utensils," says Scoresby, "were additional characteristics of the habits of the Eskimos. This people, it is well known, in their natural and totally uncultivated state, are of opinion that they shall require their implements for their maintenance after death. The highest virtue, in the opinion of many Eskimos, consisting in a dexterous, successful, and industrious application to the business of hunting, fishing, and the like,—and their enjoyments, in connection with the support of life, being derived from the produce of their sealing and hunting,—

they rest their title to happiness in another state of existence to the greatness of their exploits, or to the hardships they may have suffered; and they make the enjoyments of their Elysium to consist in a perpetual day of endless summer, and, above all, in an 'exuberance of fowls, fishes, reindeer, and their beloved seals,' which are to be caught without toil. Some, indeed, believe that these animals will be provided and cooked for them without any care of their own; but others, less sanguine in their expectations, consider that they shall require their spears and darts to kill them (which are therefore buried along with them when they die), but that they will be in such abundance as to render the capture of them rather an occupation of pleasure than of labour."

In some of the graves examined, pieces of seal-skin or deer-skin were found among the bones; these were evidently the remains of the dresses in which the bodies had been interred. The graves were all dug in the earth, not raised above the surface as is the custom in rocky districts; and they were covered over with slabs of slate or sandstone, and pieces of wood or bone laid transversely; in not a few the bottom was lined with clay-slates.



The height of the coast, in a noble inlet which was named Scoresby's Sound, in honour of the navigator's father, was estimated at 2600 feet. It would seem that this coast is a kind of manufactory of icebergs. Every valley and ravine, from Cape Brewster for many leagues to the westward, is filled with ice. In some places this ice forms enormous beds on the top of the coast-range of hills, extending in an unbroken surface for many miles together. From these vast glaciers are rent or disrupted the numerous floating bergs with which the sea is strewed to an extent of thirty or forty miles. The whole of them—though some rise to an altitude of 150 feet or more above the waves, and, beneath, are probably 1000 feet in diameter, and nearly a mile in circumference—are simply dismemberments of the rivers of ice which roll with slow but continuous motion from the ravines among the mountains down to the ocean's edge.

In the course of his voyage northward, Scoresby fell in with what we must call a shoal of icebergs. Throughout an area of almost twenty miles in diameter the sea was thickly sprinkled with these vast floating bodies. At one time Scoresby counted 500 from the mast-head, and

out of the 500 scarcely one was less than a ship's hull in size. About one-fifth appeared to reach the height of a ship's main-mast. Some were fully twice that height, or 200 feet above the surface of the sea, and several hundreds of yards in extent. Their forms were infinitely various, so were their tints; but the prevalent appearance was that of cliffs or islands of chalk majestically borne onward by the rolling tide. Many of them were loaded with masses of rock of great thickness, weighing, it was computed, from 50,000 to 100,000 tons.

The weight of some of the icebergs is enormous. Take, for instance, a mass of 1500 feet square and 100 feet above the level of the sea. Owing to its regularity of shape it is not difficult to calculate its weight. Had its upper surface been exactly horizontal, the bulk of ice below, as compared with that above the level of the water, would have been in the proportion of 8·2 to 1; but allowing for inequalities, we may compute it as 7 to 1,—that is, the ice sunk below was seven times greater than the ice floating above the surface of the water. Hence, its weight must have been equal to that of a mass of sea-water of 1500 feet square and 700 feet thick, being the

quantity that it displaced. The solid contents of this displacement, namely, 1,575,000,000 cubic feet divided by 35, which is the number of cubic feet of water of the Greenland Sea in a ton weight, gives the result of

*Forty-five millions of tons*

for the weight of the iceberg.

Can the reader follow this calculation? If not, let him reflect that the weight of the largest man-of-war is about 6000 tons, and that it would take 7500 such men-of-war to make an iceberg of this astonishing magnitude!

Our explorer could not carry on his persevering investigations without occasionally incurring personal danger. Thus, on the 10th of August he landed under Vandyke Cliffs, near Cape Moorsom, on a steep slope formed by the débris of the rocks above. After an unsuccessful attempt to ascend, he entered upon a slope included between two precipitous rocks, and with considerable labour accomplished about five hundred feet; above which, the cliff sheering upward almost perpendicularly, further progress was impossible in that direction. By skirting the bottom of another precipice beneath him, where the angle

was dangerously sharp, and the surface composed entirely of loose, sharp stones, he gained the bottom of a chasm between two prodigious pinnacles, and then made a third attempt to ascend. However, the enterprise soon assumed so dangerous an aspect that he would gladly have abandoned it, had it been possible. But it was almost as difficult to retrace his steps as to press forward. The rocks of the two pinnacles which flanked the chasm, distant about twenty feet from each other, were vertical on both sides. One of these rocks, which was so decomposed and broken as not to afford a firm holdfast, Scoresby was forced to grasp with his left hand, while he thrust his right among the loose stones, and made a step in advance; frequently no inconsiderable deliberation was required before a second step could be essayed. A slip of the foot would have been *death*, for the bottom of the chasm opened on a precipice four hundred to five hundred feet deep, over which, whenever the courageous explorer moved, a large shower of the loose stones around him fell with a terrible and ominous din.

On the summit he had hoped to find some small tract of level surface, whose flora would repay him, at least in part, for the hazardous exploit into

which he had been betrayed by his thirst for knowledge. Great was his disappointment to discover a narrow ridge,—with the sea on either side,—a ridge narrower and sharper than the top of the highest pitched roof. Here, however, he rested for a few minutes, sitting astride on the ridge—a surging sea below; and, above him, two tremendous perpendicular pinnacles, between two and three hundred feet in elevation. These actually vibrated with the force of the wind, and appeared altogether so shattered and unstable that it was a marvel they remained erect. From this dangerous position Scoresby made haste to retire, and happily succeeded in accomplishing the descent in safety.

Yet another incident, to illustrate the perils attendant upon Arctic exploration.

It was the 11th of August. Captain Scoresby being greatly fatigued by keeping the deck nearly all day, exposed to a fall of rain so heavy and incessant as to defy the usual defence of capes and wrappers, retired to bed about midnight, leaving the ship in charge of the chief mate. After enjoying a couple of hours' repose, the captain's attention was aroused by the circumstance that the ship tacked twice in about

five minutes. Alarmed at this significant proof of intricate navigation, he sprang from his couch, slipped on a wrapper, and hastened upon deck. He arrived at a critical moment; the vessel was involved in a narrow channel or creek, with the ice rapidly closing in on every side. The width of the channel when he went below was fully two miles; when he came on deck, it had become narrowed to some eight or nine hundred yards. Moreover, the position of the *Baffin* was specially unfavourable, for a large ice-floe to the eastward and a sheet of thin land-ice to the westward were drawing close together. In a very short time the width of open water was diminished to one hundred and fifty yards. Every stitch of canvas was crowded on the ship which she could safely carry. Fortunately, her crew were experienced and steady, and her commander was a thorough seaman; his well-conceived orders were instantly carried out; the gale blew strongly, but top-gallant sails were set upon double-reefed topsails, and the *Baffin* was driven into the thinner ice, which she crashed and shivered before her bows. Sometimes her course seemed to be arrested, and those on board felt the profoundest apprehension; but eventually the ice

yielded before her continuous pressure, and enabled them to carry her into a broader and clearer channel.

A "whaling" experience may also be recorded for the entertainment of the reader.

About four in the morning of the 15th of August, the weather being calm and misty, word was passed round the decks that some animals of the whale tribe had been heard "blowing." It was feared, however, they were not the right species, the *mysticetus* or Greenland whale, but the "razor-back," or some other kind, for whose capture they were not provided with the necessary apparatus. On sending a boat to ascertain the species, it was found, however, that their fears were agreeably disappointed, for the shout so welcome to the ear of a whale-fisher came ringing over the waters,—“A fall!—a fall!” Just at this moment, the mists rolled away, the sun filled the scene with its glorious radiance; and the boat which had been sent out to observe was descried with its jack flying, as a token of being “fast to a fish.” Misled by a whale which dashed past the ship as the other boats were lowered, and which was supposed to be the “fast-fish,” most of the *Bajin's* officers pursued it to such a

distance, that the real prize had nearly been abandoned in their eager impetuosity for the chase. Only one boat out of six joined the "fast-boat," near which, in an exhausted condition, the "fast-fish" soon afterwards rose, and received a second harpoon.

A reserve-boat, which, fortunately, had been kept on board, was despatched to the whalers' assistance; and after a bold and energetic contest had been maintained by the three boats for some time, the animal's capture was accomplished.

The whale having been brought alongside, the ship was run a little off the land-floes, under a light westerly breeze, and moored to a piece of ice. As the weather was fair, and several whales were moving to and fro, the *Baffin* did not immediately secure her prize, but despatched all the boats on a second campaign. The whales, this time, were rather numerous, four or five being sometimes seen at a time. A whale usually remains at the surface, for breathing, about two minutes, seldom much longer; it was a remarkable circumstance, therefore, that the leviathans we speak of remained regularly from five to fifteen minutes at a time—some nearly half-an-hour—before they sank into the "hidden depths."



During this long interval they were usually motionless, and offered the most favourable opportunities for attacking them.

Soon after the boats arrived on the scene, a couple of whales were harpooned; but, to the great regret of the fishers, both escaped, owing to the breaking of the "fore-ganger," or that part of the rope immediately connected with the harpoon. In one case, the rope, which had been considerably exposed to bad weather, was faulty, and gave way; but in the other, the line retained its perfect strength, and seemed to have been broken by being coiled round the tail of the fish, and subjected to a degree of tension it was unable to bear.

In spite of all discouragements, however, the fishers continued their pursuit for several hours. At length, another whale was struck. No help being at hand, it was nearly two hours before a second harpoon was fastened; and then, without the application of a single lance, the wounded animal dived to the bottom, and died. However, by dint of great energy and inexhaustible perseverance, its carcass was recovered. Just before this was accomplished, a fourth whale "hove in sight,"—was pursued, surrounded, and captured.

On the evening of the 26th of August, the *Baffin* took leave of the coast of Greenland, and turned her prow homeward. The voyage was made without let or hindrance until the 11th of September, when Captain Scoresby was caught in a violent storm off the Butt of the Lewis. During the gale a sad calamity occurred. Notwithstanding the heavy sea and the violence of the wind, the *Baffin* bore herself bravely. She was near a lee-shore, and the billows shook her terribly; but no water was shipped until towards evening, when a fatal wave at length struck her near the stern with tremendous force, and throwing up a vast mass of water, carried along with it, as it swept across the deck, one of the harpooners, or principal officers, sweeping him over the heads of his companions, and dashing him overboard!

As most of the crew were under water at the same time, his loss was unknown until he was discovered floating past the vessel's stern, but out of reach, and lying, apparently insensible, on the surface of the rolling billows. He was seen but for a few seconds, and then disappeared—for ever!

For some minutes it was not ascertained who

the sufferer was. All were exceedingly distressed; and each, by his anxious exclamations, revealed his fears for his friend.

"It is Shields Jack," cried one.

"No," replied a voice of pathetic self-congratulation and thankfulness; "I am here."

"It is Jack O'Neill," exclaims another.

"Ay, poor fellow; it is Jack O'Neill."

But a dripping, stupor-struck sailor, clinging by the weather-rail, comes aft at the moment, and replies, "No; I am here."

After a pause of suspense, one adds: "It is Chambers."

"Ah! it must be Sam Chambers," cries another; and no voice contradicted the assertion; for *his* voice, poor fellow, was already choked with the waters, and his spirit had passed away to meet its GOD!

Happily, says Scoresby, he was an excellent man; and those who knew his habitual piety and consistency of conduct did not doubt that he was prepared to die. His conduct, in all circumstances, was worthy of his profession, and afforded a sufficient proof, if such proof could be necessary, that religion, when real and sincere, gives courage and confidence to the sailor, rather

than destroys his hardihood and bravery. He was always one of the foremost whenever and wherever danger threatened, and at last he met with a hero's death, for he fell in an exposed and perilous position where he had voluntarily placed himself at the voice of duty.

Let the young reader remember that a pure and simple faith in GOD, and a devout obedience to his commands, will always be a guide to his feet in hours of perplexity; a light in his moments of darkness; a consolation in times of sorrow; a source of strength when the spirit is weak and uncertain; and a support and comfort in the hour of death. Without religion, life becomes a burden almost too great to be borne, as it is a mystery too deep to be understood; but trust in GOD, have faith in CHRIST, and you will find the burden lightened until it is easy to carry, and the mysteries made clear so that you can read their meaning. You will learn that life begins and ends in GOD, and that he has willed the eternal happiness of all who believe in him, and amend their ways according to his holy Word.

We return to Scoresby and his tempest-tossed ship.

The sun had gone down angrily, and the weary seamen had before them the terrible prospect of a dark and dreary night, in which they would be called upon to encounter the combined perils of a raging wind, a sea rolling with heavy billows, a labyrinth of rocky islands close at hand, and a lee-shore.

Hitherto the *Baffin*, though rapidly approaching the land, had been drifting along under bare poles. This was a matter of prudence as well as necessity; for had any canvas been set while the gale was at its worst, the sails would have been torn into ribbons, and the masts, in all probability, carried overboard. In either case the ship would have driven ashore in a few hours, and have been lost with all her crew. No human hand could have saved them. Soon after they had shipped the sea which proved fatal to poor Chambers, the gale began to moderate its fury; and as the wind shifted a little towards the north, there was reason to hope that, if some canvas could be set, they might be able to clear the land on the star-board tack.

They therefore hoisted a treble-reefed foresail, strengthening it in every way they could devise, and wore to the westward.

Next they added a close-reefed main-topsail and reefed trysail, which was all the canvas the ship could safely carry. Under this sail they were urged to the westward, *against* the sea, which occasionally broke over the deck with a violence which threatened to sweep everything away.

As they sped onward they came in sight of the rocky isle of St. Kilda, and as it lay directly in their course, they once more felt apprehension of shipwreck. They feared that if they fell in with it at night, they would not find room to wear clear of it. Scoresby, however, did not succumb to despair; he saw the danger, and took every precaution which good seamanship and long experience could suggest to neutralize it. One of the men was lashed securely in the fore-rigging to keep a good "look-out," others were posted wherever they could find safety from the inrush of the billows, and the remainder of the crew were kept in readiness below, to rush upon deck at a moment's warning. But, in God's infinite mercy, they passed the night,—a night of peril and anxiety, a night of darkness,—without experiencing any fresh alarm, or encountering any accident other than the washing away of their

bulwarks fore and aft, the staving of one of their boats, and the loss of another. This damage was caused by the furious waves which burst from under the vessel's lee, and mounted to the height of two or three yards above the deck.

The reader will imagine how welcome came the first flash of dawn on the eyes of the worn and weary crew. Never before, says Scoresby, had he understood the full force of the expression of the Psalmist: "My soul waiteth for the LORD more than they that *watch for the morning.*" As the shadows of night were slowly lifted up, they saw a dark object on their lee-bow, which, as daylight advanced and enabled them to see things more distinctly, they recognized to be the much-dreaded island of St. Kilda, lying not more than three or four miles distant. But the danger was past. The weather rapidly moderated; the wind went down, and the vexed sea ceased to roll in mountainous billows. All sail was crowded on, and with cheerful and grateful hearts they bore away merrily to the southward, reaching Liverpool on the 10th of September, where Scoresby received the sad intelligence of his wife's death.

## CHAPTER IV.

### SCORESBY ENTERS THE CHURCH.

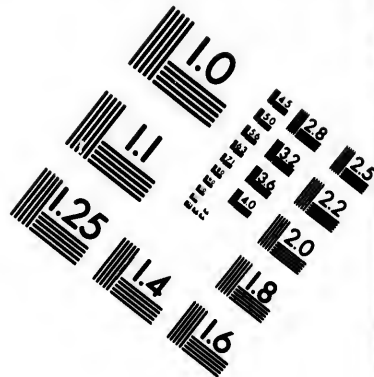
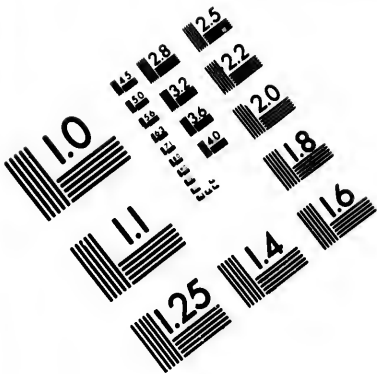


SCORESBY now determined on abandoning the sea,—a step he had long meditated,—and devoting the remainder of his life more immediately to his Master's service. He had for some time cherished a deep desire to enter the Church, and on his return to Liverpool he made his intentions known to his most intimate friends. He was well aware of the difficulties he would have to encounter, but he had never been accustomed to let difficulties conquer him. First and foremost was his ignorance of Latin and Greek, the Church of England requiring of her ministers that they shall be educated men as well as devout men, that they may be able to teach by precept not less than by example.

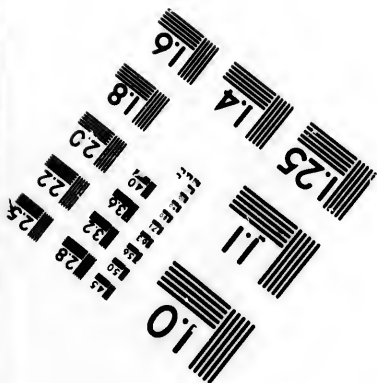
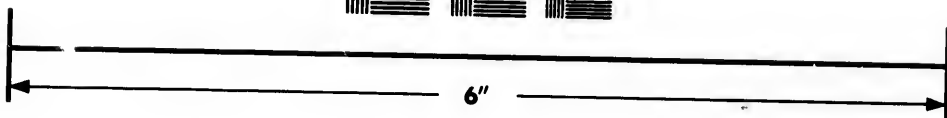
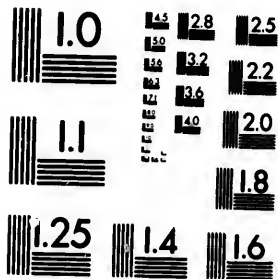
After consulting his friend, Archdeacon Wrangham, he went to board with a country clergyman







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well known for his piety and scholarship; and under his care he made such rapid progress, owing partly to his good natural abilities, and partly to his indefatigable perseverance, that, previous to ordination, he passed the usual examination most respectably; and, as we shall see, his college,—for, in 1823, he entered himself at Queen's College, Cambridge,—thought him not unworthy of the honour of D.D. Scoresby's success in mastering the classics at the age of thirty-three is a remarkable proof of what may be accomplished by an industrious man, when supported by a noble and lofty enthusiasm.

We find little to record in the next three years of his useful and laborious life. He was ordained on the 10th of July 1825 by the then Archbishop of York, and he soon afterwards commenced his ministerial work at Bessingby, where he proved himself an effective preacher in the pulpit, and an anxious and diligent pastor in the parish. Towards the close of 1826 his Liverpool friends communicated to him a scheme which they had devised for the establishment of a floating church for the benefit of the numerous sailors frequenting that busy port, and wished him to undertake its charge. In January of the following year he was

unanimously elected to the chaplaincy, and, with the sanction of the bishop of the diocese, accepted it. It was a post, we need hardly say, for which he was eminently fitted by his special acquaintance with the ways of thought and the characters of seamen, who are a class apart, and not easily understood by the purely civilian mind.

The Mariners' Church, as it was called, consisted of a ship-of-war, appropriately fitted up, and capable of accommodating about one thousand persons.

Here his ministrations appear to have been attended with the most gratifying success. The work done in CHRIST'S name and for CHRIST'S sake is ever blessed by CHRIST! We have said that Mr. Scoresby brought to his new career some special qualifications; and, in particular, in preaching to his congregation, he succeeded in arresting their attention and awakening their interest by the employment of appropriate nautical illustrations familiar both to them and to himself. Here is an example:—

“ You are all acquainted with the compass, and most of you, it is presumed, know something of its construction; every one who has been at sea must be aware of its usefulness. It is your guide

and means of safety and prosperity. Now, what the compass is to the sailor, the Spirit of CHRIST (which, entering the heart, produces the new birth) is to the believing Christian. The former guides through the trackless deep, when neither sun nor stars are visible, and enables you to reach the port to which you are bound ; the latter guides through the mazes, darkness, and manifold perils of this mortal life, to the haven of eternal bliss. But consider what the compass would be *without being touched*. It might have all the apparatus and requisites of a compass,—it might resemble other compasses so much as to present no difference in its external appearance whatever, and yet, for any purpose of navigation, it would be entirely useless. And such precisely is the natural man, before his heart is touched by the Spirit. He is a soul without divine life,—a compass without magnetism. He may, indeed, exhibit all the outward appearances of the spiritual man ; he may sustain a moral character ; he may be diligent in religious duties ; he may be forward in good works,—yet if he have not the divine touch—the heaven-born love, or charity—he is nothing. As the untouched compass has no attraction to the pole—stands in any direction—is inactive,

inanimate, useless—so the unregenerate man has no attraction to CHRIST, the believer's Pole-star; he is indifferent to heavenly influences; more readily stands out of the right direction than in it; and is, in short, sluggish, dead, and unprofitable. As, therefore, the compass, however well made and beautifully finished, must be touched with the mysterious influence of the magnet before it can turn to the pole, so the heart must be touched with the secret influence of CHRIST'S Spirit before it can turn to CHRIST."

We cannot resist the temptation of quoting another of these happy illustrative passages; for though originally addressed to seamen, they embody truths which are applicable to all readers:—

"Let me reason with you on the folly of delaying religion. Let me endeavour to impress you with the danger of rejecting *now* the salvation of the gospel. The approach of death may be compared to the stranding of a ship on a lee-shore, in which the men who escape represent the righteous, and those who are lost the impenitent. Let us amplify this figure for present edification. Suppose, now, you were all in a ship which had struck on a sand-bank at a distance from the shore to leeward. Imagine a frightful extent of

roaring breakers between you and the land, and nothing but destruction staring you in the face. Suppose, whilst in this terrible condition, when all hope of escape was given up, that a *life-boat* should bravely push off and approach the straining, parting wreck to which you clung. What joy would the sight of the boat inspire! What hope and animation would be felt! Imagine now the boat within hail; and being as near as safety will permit, the commander cries out, 'Now is the proper time; now is the moment for being saved!' Would any hesitate whether they should then jump in? Would any answer, 'Come again after a little while, and perhaps it will be smoother'? Would any one in his senses say, 'I cannot come *now*; but I will try to-morrow'? How strange, then, that we should be so wise for this life, and such fools as to the next! Yet such is the sinner's folly who refuses the salvation that is offered him *now*, supposing he may have it to-morrow! To-morrow! Before to-morrow's dawn, O hesitating sinner, thy poor, fragile, crazy hulk may be broken up, and thy ill-prepared spirit may have been called to meet its God."

Mr. Scoresby held the chaplaincy of the Mari-



ners' Church for a period of five years. In the interval he married a second time (June 1828), and lost his venerated father (in 1829). In the spring of 1832 his wife's feeble health rendered a removal from Liverpool imperative, and he accepted the proffered incumbency of Bedford Chapel, Exeter. In 1834 he received the degree of B.D., after passing the necessary examinations, from Queen's College, Cambridge. And in the same year he once more tasted the "cup of bitterness" in the premature death of his second son, Frederick, a youth of much promise and of decidedly Christian character. Three years later he suffered another blow, his only surviving son, William, being suddenly stricken down by fever, just as he was preparing to enter with the happiest auspices upon a medical career.

In 1839 Scoresby was honoured with the degree of D.D., and about the same time was appointed to the influential and laborious position of Vicar of Bradford. It was a noble field for Christian enterprise, and Dr. Scoresby addressed himself to its cultivation with characteristic energy and courage. He found his parish completely disorganized, and the large manufacturing population of Bradford almost wholly estranged from

the National Church. These evils he set himself to remedy. He established schools for the young, and he opened churches for the old, increasing his staff of clerical assistants by the appointment of five curates. The time was one of great social uneasiness, for the poor had suffered greatly from a succession of bad harvests, and an unusual slackness of trade. Wages had been greatly reduced; want, sickness, misery abounded in every direction. In these trying circumstances Dr. Scoresby found it no easy matter to do his duty; but he laboured steadfastly, and with a deep Christian love for the poorer members of his flock, whose confidence and sympathy he eventually succeeded in gaining. His unremitting exertions, however, completely prostrated him, and he was reduced to so enfeebled a condition that he was constrained, very reluctantly, to resign the vicarage in September 1846. He was mainly induced to take this step by the failure of his sight, which could be checked only by a cessation from work.

No better proof can be given of the success of his pastoral labours, and the high estimation in which he was held by his parishioners, than the fact that he was invited to revisit Bradford in 1847, for the purpose of receiving a splendid

testimonial in silver, purchased by public subscription. In the course of the presentation address the chairman alluded to Dr. Scoresby's exertions in the cause of education. Four schools, he said, had been built by the late vicar, at a cost of about £4000, and, with one exception, entirely on his own responsibility as to the funds. When Dr. Scoresby came to Bradford there was not a single child under daily education in connection with the parish church; when he left, about fifteen hundred children were receiving daily instruction, exclusive of some twelve hundred Sunday scholars. In addition to the erection of these schools, Dr. Scoresby had also undertaken the entire pecuniary responsibility of carrying on all the day and some of the Sunday schools, relying only on the children's pence, the annual collections, and, for two or three years, a small contribution by the National Society. Their expenses exceeded the sum of £4000. The town was also indebted to its late vicar for the establishment of the Church Institution, for the expenses of which he had been for two or three years solely responsible. The subdivision of the parish had also been effected under his superintendence, new churches built, and an efficient body of


clergymen organized to carry the glad tidings of the gospel into the crowded lanes and squalid alleys.

We are told, and can well believe, that Dr. Scoresby was too much affected by the kindly words and earnest greetings of his friends to attempt any brilliant valedictory address. In a few simple, heart-felt words, he thanked them for their reception of him, and for their magnificent gift, and then took leave of them, "who sorrowed most of all for the words which he spoke, that they should see his face no more."

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## CHAPTER V.

### LAST YEARS OF A USEFUL LIFE.

 HIS wife, towards the end of August 1847, showing symptoms of restored health, Dr. Scoresby accepted an invitation to visit the United States, and set sail from Liverpool on the 4th of October. Reaching Boston safely, he travelled overland to Canada, where he was cordially received by Lord Elgin, then Governor-General, and returning to the United States, spent a short time with the Bishop of New Jersey, and afterwards with the Bishop of Pennsylvania. While sojourning with the latter, he received the unexpected and melancholy intelligence of his wife's death,

As soon as he had partly recovered from the shock, he resolved to return to England, where he arrived on the 11th of March 1848. During the voyage he made some valuable and interesting

experiments on the height of the ocean-waves ; for his active mind was always seeking some new channel in which to expend its energies. These experiments proved a source of considerable amusement to his fellow-passengers, and were graphically and humorously recorded by one of them in a communication to Mr. Charles Dickens's journal, *Household Words*.

One brisk March morning, in the year 1848, says the writer, the brave steam-ship *Hibernia* rolled about in the most intoxicated fashion on the broad Atlantic, in north latitude  $51^{\circ}$  and west longitude  $38^{\circ} 50'$ , the wind blowing violently from the west-south-west. The scene was full of grandeur, and the ship rode the tumultuous waters like "a thing of life ;" but few of the passengers were in a condition to appreciate the grandeur of the scene or the stately bearing of the ship. Everything was made tight on deck. Had any passenger left a toothpick on one of the seats, he would assuredly have found it lashed to a near railing. Rope was coiled round every imaginable article, and water dripped from every spar. Now it seemed as though she were traversing a brilliant gallery, flanked on either side by walls of crystal water ; now she climbed one of

these crested walls, and an abyss, dark and terrible as the famous Maelstrom, yawned to receive her.

Violent as were the waves, and incessant the rolling of the ship, there was, however, a monster—"a monster in British form"—actually on deck. It was said of him that he was not braving the storm, but rather tempting it—tempting it, that is, to sweep him headlong into eternity. The cook hesitated not to express a strong opinion against the saneness of a man who, though he might, if he chose, be securely ensconced in the cabin out of harm's way, *would* and *did* remain upon deck in momentary danger of being blown overboard. "The cook's theory was not ill supported by the subject of it; for he was continually placing himself in all manner of odd places and grotesque postures. Sometimes he scrambled up on the cuddy-roof; then he rolled down again on the saloon deck; now he got himself blown up on the paddle-box,—*that* was not high enough for him, for when the vessel sank into the trough of the sea, he stood on tip-toe, trying to look over the nearest wave. A consultation was held in the cuddy, and a resolution was unanimously passed that the amateur of wind and water

(which burst over him every minute) was either an escaped lunatic or a college professor."

It was unanimously resolved, we are told, that he was the latter, and thenceforth nobody was surprised at whatever he thought proper to do. As for the professor, he calmly continued his observations. He took up his position on the cuddy-roof, which was exactly twenty-three feet three inches above the ship's line of flotation, and there watched the mighty mountains which buffeted the noble vessel. He was anxious to ascertain their height, but found the crests rose so far above the horizon from the point where he was standing, that, unless he could gain a higher post of observation, it would be impossible to arrive at any just results. He had ascertained, however, as a fact beyond doubt, that the majority of these rolling masses of water attained a height of considerably more than twenty-four feet, measuring from the trough of the sea to the crests of the waves. But the professor was not satisfied with this negative proof, and in the pursuit of his interesting inquiry, was not at all disposed to be baffled.

It is impossible to know, says the chronicler, what may have been the secret thoughts of the



man at the wheel when the valiant observer signified his intention of mounting from the cuddy-roof to the larboard paddle-box. Now he might be seen rolling to and fro with the motion of the ship; at one moment clinging to a chain-box, at another flinging himself into the arms of the second mate. Now he becomes invisible in a cloud of spray, and now his tall spare form is seen supported by the rails which connect the two paddle-boxes.

The storm rages without, but within the mind of the supposed professor all is calm, and he is intent upon the solution of a mathematical problem. He knows he is elevated twenty-four feet nine inches above the floating-line of the ship, and allowing five feet six inches as the height of his eye, he perceives that he has acquired a total elevation of thirty feet three inches. Now he pauses until the vessel subsides fairly for a few minutes into the trough of the sea—that is, the hollow between two billows—in an equable and upright position, while the nearest approaching wave reached its greatest altitude. Then he finds that at least one half of the wave intercepts by a considerable elevation his view of the horizon. He asserts that he frequently observes long ranges

extending a hundred yards on either side or on both sides of the ship, and that these mount to such a height as to form an angle of two or three degrees when the crest of the wave is fully one hundred yards off. This distance adds about thirteen feet to the level of the eye. Such an immense elevation occurs only, however, in about every sixth wave.

Now and then, when the course of a mighty billow, as it thunders from afar, is intercepted by another liquid giant, and they clash together, like Achilles and Hector, their shivering crests shoot upwards fully ten or fifteen feet higher—the height, let us say, of about half that of the London Monument—and then come down in a tremendous deluge on the labouring vessel. The professor is literally inundated, but he bravely keeps his post, until he has satisfactorily proved, by accurate observation, that the average wave which passes the vessel is fully equal to the height of his eye, or thirty feet three inches; and that the mean highest waves, not including the Hectors and Achilleses, rise about forty-three feet above the level of the hollow occupied at the moment by the ship.

Having collected all the data he requires, our observer, half pickled by the salt water, and

looking very cold and miserable, descends to the cabin, where, throughout the dinner-hour, he keeps up an animated conversation with the captain—the only person on board, apparently, who takes any interest in his scientific investigations; for we are told that the ladies, one and all, vow the professor is a monster, only doing “all this stuff” in mockery of their sufferings, and the male passengers seem to be too much absorbed in their own private cares to pay the slightest attention to a problem in science.

As night draws in, the wind increases to a hurricane, and the ship quivers and shakes like a frightened child at witnessing the awful battle of the elements. Darkness comes down upon the vexed Atlantic, and the wild battle of the waters is hidden for a while.

Towards morning, after a storm of thirty hours' duration, the weather grows fairer. The professor hastens upon deck. The waves have visibly decreased in height, and again he resumes his old position on the cuddy-roof. The waves have decreased in height, it is true, and yet ten of them in succession, as they surge past the ship, rise above the apparent horizon; that is, they must measure more than twenty-three, and pro-

bably as much as twenty-six feet from hollow to summit, from base to ridge. Gaining the larboard paddle-box, the professor observes that occasionally four or five successive waves mount above the horizon, and hence are thirty feet in height; and he notices too that they run no longer in continuous ridges, like a range of green hills, but assume more of the form of moderately elongated cones.

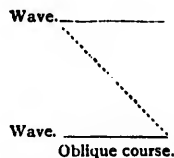
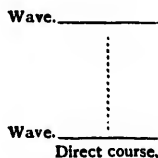
Having thus far satisfied himself as to the height of Atlantic waves in a great gale of wind,\* our hero proceeds to inquire into minuter details. His next object is to measure the time occupied by the regular waves in overtaking the ship, their width from crest to crest, and their rate of speed. First he ascertains the speed of the ship: she is going at the rate of nine knots an hour. Next he notes her course in reference to the direction of the waves: she is steering east, while the waves come from the west-north-west. Consequently they pass under the good ship *Hibernia* at a considerable angle. Observe, the *length* of the vessel is 220 feet.

With these facts in his mind, the professor proceeds to count the seconds occupied by the

\* Scoresby's observations do not apply to the highest known waves, such as occur during a cyclone in the Pacific, but to those of a rough Atlantic sea.

crest of a wave in travelling from stem to stern : one, two, three, four, five, *six*. Now he calculates the time between the moment when one crest strikes the stem of the vessel and the next touches it : result, sixteen seconds and a fraction. Thus he obtains at once the width between crest and crest ; for as the crest travels two hundred and twenty feet (= length of vessel) in six seconds, and as sixteen seconds elapse before the next crest touches the stem, any schoolboy will see that the actual length of the wave must be nearly three times that of the ship, or, in plain figures, 605 feet from crest to crest.

But then it falls to be considered that the oblique course of the ship necessarily lengthens her line over the waves ; thus :—



The professor estimates the elongation at forty-six feet ; deduct this from six hundred and five, and you have *five hundred and fifty-nine* feet as the probable average distance between crest and crest.

Though satisfied so far with the result of his experiment, the professor, "still balancing himself on his giddy height, to the wonder and amusement of the sailors," is now anxious to compute the actual velocity of the waves. This would seem very easy. My young reader at once exclaims, Why, the wave-crest travelled two hundred and twenty feet in six seconds; divide 220 by 6 ( $220 \div 6$ ), and you will have the rate per second. Not quite so fast, if you please. You forget, dear reader, that the ship travels at the same time as the wave, and at the rate of about nine geographical miles per hour, or 15.2 feet per second. Now add *this* rate to your former calculation, and you will find that the actual distance traversed by the wave in 16.5 seconds will be 790.5 feet, being at the rate per hour of 32.67 English miles—the pace of an ordinary railway train.

I may tell you that this estimate was afterwards compared with calculations made from totally different data by Mr. Scott Russell, and found to be quite accurate. You may therefore realize for yourself the conception of Atlantic waves, thirty feet high, sweeping after one another at the rate of more than half a mile per minute!

Armed with these interesting facts, the professor descended from the larboard paddle-box of the *Hibernia*. But he had also made some observations on the forms of waves. When the wind blows steadily from one point, they are generally regular; when it is high, and comes in "fitful gusts," and shifts from point to point, the sea is broken up, and the waves assume a more conical shape, and are covered with foamy fantastical crests. While the sea ran high, the professor observed now and then a ridge of waves stretching from about a quarter to a third of a mile in length, and forming, as it were, a dark-green liquid rampart. Sometimes this ridge was straight, and sometimes bent like a crescent, with the central mass of water higher than the rest, and, not unfrequently, with two or three semi-elliptical mounds in diminishing series on either side of the culminating peak.

"When the wind had subsided," says our authority, "a few of the bolder passengers crawled upon deck in the oddest imaginable costumes. They had not much to encounter, for about a third part of the greater undulations averaged only twenty-four feet, from crest to hollow, in

height. These waves could be seen and selected from the pigmy waves about them, at the distance of a quarter of a mile from the ship.

“The professor had been very unpopular on board while the stormy weather lasted, and the ladies had vowed that he was a sarcastic creature, who *would* have his little joke on the greatest calamities of life; but as the waves decreased in bulk, and the wind lulled, and the sun shone, and the men took off their oil-skin coats, and the cabin-windows were opened, the frowns of the fair voyagers wore off. Perfect good-will was general before the ship sighted Liverpool; and even the cook, as he prepared the last dinner for the passengers, was heard to declare (in confidence to one of the stokers) that, after all, there might be something worth knowing in the professor's observations.

“When the professor landed at Liverpool, he would, on no account, suffer the carpet-bag containing his calculations to be taken out of his sight. Several inquisitive persons, however, made the best use of their own eyes to ascertain the name of the extraordinary observer, and found it to be legibly inscribed with the well-known name of SCORESBY.”



That the reader may easily bear in mind Dr. Scoresby's calculations, we place them before him in a clear and distinct form.

He ascertained, as the result of his investigations, that the highest waves of the Atlantic average in—

Altitude.....	43 feet.
Mean distance between each wave.....	559 feet.
Width from crest to crest.....	605 feet.
Interval of time between each wave .....	16 seconds.
Velocity of each wave per hour.....	32½ miles.

In 1849, the Doctor, who stood greatly in need of a home-companion and domestic sympathizer, married for the third time, and was united to Georgiana, youngest daughter of William Ker, Esq., of Gateshaw, Roxburghshire, and The Castle, Torquay. Immediately afterwards he erected a handsome villa at Torquay, that delightful watering-place on the balmy south coast of Devon, where he spent the remainder of his useful life, devoting himself to fresh and original experiments in magnetism.

He also took charge of the Sunday afternoon service at Upton, the parish church of Torquay, and in other ways did his best to assist in the diffusion of knowledge and the advancement of truth. If each of us followed his example, and

employed our leisure in promoting the happiness and enlightenment of our fellow-creatures, how rapidly would the condition of the world improve! And we set Dr. Scoresby before our readers as a model, because he was not so much a great man as a good man, and one whom it is not difficult to imitate. The secret of his success is to be found in the fact that he made the best possible use of such talents as God had gifted him with, and wasted not an hour. Inaction was impossible to that vigorous, persevering, courageous intellect.

In pursuance of the magnetical investigations to which we have referred, and in order to work out his theory of magnetic development, Dr. Scoresby, in 1855, at the advanced age of sixty-five, resolved to undertake a voyage to Australia! This was eminently an enterprise worthy of the man, for its principal object was to devise some means by which the excessive and dangerous variations of the compass in iron ships might be prevented or neutralized. And as iron was rapidly displacing wood as a material for ship-building, Dr. Scoresby's object was one of national importance.

This was so generally felt, that, when Dr

Scoresby's determination became known, the Liverpool and Australian Steam Navigation Company offered him a free passage, outward and homeward, on board their fine new iron screw-steamer of 3000 tons, the *Royal Charter*; and all extra expenses, including those of Mrs. Scoresby, who had resolved to accompany her husband, were defrayed by a subscription raised among the Liverpool merchant-princes. It was felt that Dr. Scoresby, in undertaking what was really a public service, ought not to do so at his private cost. The instruments necessary for his contemplated investigations were supplied by the Admiralty; and Dr. and Mrs. Scoresby embarked on Thursday, January 17, 1856, under the most encouraging auspices.

The *Royal Charter* put into Plymouth, to make some necessary repairs, on the 26th of January, and sailed from that port on the 16th of February. She arrived at Melbourne in the unprecedentedly short period of fifty-nine days. After a brief but pleasant sojourn in the Australian colonies, including a visit to the gold-diggings, Dr. Scoresby sailed from Melbourne, on his homeward voyage, on the 25th of May, and arrived in the Mersey on the 13th of August.

On the outward voyage the *Royal Charter* experienced a terrible tempest, of which Dr. Scoresby, in his "Journal," has furnished a very graphic description.

He says that at ten A.M., on the day of the storm (April 6th), the scene was awfully sublime. About an hour afterwards, it was in its highest condition of awful magnificence. "The continuance of the wind for several hours steadily at west (the direction of a previously existing swell), produced waves of the most formidable magnitude; whilst the sea, from its commencement at north, and a former sea from the southwestward, threw up the perplexed waters into the most strangely tumultuous peaks and crests, and other forms of waves. The sea was to me a new phenomenon. Even in the terrific and devastating hurricanes of which I had so often read descriptions, the sea had rarely time to gain the enormous height it now had with us—a height frequently of forty feet—regular waves rolling in the direction of the wind, and incomparably higher peaks and crests produced by crossing waves. Here, too, every feature of the tempest was set forth in grandest and most awful magnitude and sublimity. The fearful force and

grandeur of the waves—the fierce howling of the storm—the novel and majestic magnitude of the crests, and peaks, and broken summits—the peril to ship and life in the event of an accident to the helm in scudding—the glorious action, as I may call it, of the ship under these tremendous disturbances—and the drift sprays, confounding sight, as an atmospheric haze—gave the deepest interest to this memorable scene! These features of grandeur were made more impressive by not infrequent gleams of bright sunshine penetrating amid the broad cumulus-like masses of cloud which drifted across the upper sky, and chrowing beams far from cheerful into the midst of the exciting scene—an incongruous glare of heavenly light which threw the rest of the picture into more striking contrast—and which, on the coming over us of the rain, or snow-shower of the fiercer squalls, painted the dark threatening astern with more ominous blackness.”

The spectacle on board the *Royal Charter*, though not so grand and awful as the scene without, was one of the deepest interest. No anxiety was felt about the security of the sails and spars of this admirably rigged ship; but the safety of a ship, in the hour of the tempest, depends on

her steering, and any failure in the apparatus, gear, or management of her helm, would have been disastrous. Every ordinary precaution had indeed been taken to guard against the breaking of the wheel ropes,—which in a former part of the voyage had all but happened,—men being stationed at hand on the poop, and relieving tackles placed in the most advantageous position for being attached to the tiller in case of necessity; but still the uncertainty of putting into effect this appliance in time to prevent the ship broaching-to, left a possible risk, which no reflecting mind could overlook or fail to be impressed with.

Hence at and around the helm all was watchfulness and activity. There you might see four men of the best class of seamen, supported by others on either side of the deck, superintended and sometimes vigorously assisted by the hand of a principal officer, keeping the wheel in continuous play as they endeavoured to counteract any sideway tendency of the ship's head, or to anticipate the probable swing from previous movements of the wheel or the impulses of rolling seas. Every man was a type of energetic, experienced, patient manhood. In his face you could read that he felt the importance of his trust:

that he knew that, in the management of the wheel, he held, under Providence, the destinies of many lives and the fate of a gallant vessel. There, a few paces forward of the helm, stood the captain, his figure and features characteristic in expression of an intelligent perception of his responsibilities, and yet of a firm confidence in the experience gained in many voyages on many seas. "Were I a painter," exclaims Dr. Scoresby, "there is no scene which, since my abandonment of Arctic adventure, has come under my personal observation which I should more earnestly attempt to place on canvas than the poop-deck of the *Royal Charter* during the height of the hurricane. First, in the after-part of the ship, looking upward, we should have the mizzen-mast denuded of all sail, with the cordage swelling under the influence of the wind; then the ship herself cast into an oblique heel towards the port side, the stem raised high by a mountain-like wave; then the living pictures at the helm,—the attending officer and the directing captain standing sideways in the foreground of all; then, externally, the assailing mountain-like wave following close on the starboard quarter, and giving the direction and angle to the ship's inclined position, yet threaten-

ing, as many such waves do, to overwhelm the ship in mightiness of waters; then the atmospheric part of the picture—the mistiness of the storm-drift, the sun throwing a lurid glare through an aperture in the dense masses of cloud flying above, eliciting in the sea-spray of some immediate breaking crest a striking and brilliant segment of a prismatic arch; and, finally, beyond this, astern, or on the left hand of the picture above, an approaching squall-shower, thrown by the contrast of the penetrating sunbeams into the aspect of consummate threatening and blackness!

On his return to England, it became painfully evident to his friends that the Doctor's health, which for some years had been delicate, was greatly injured by his arduous exertions. Yet he would not, could not rest. Visiting Edinburgh in November, he delivered a valuable and entertaining course of lectures "On the Arctic Regions," to audiences numbering from three to four thousand on each occasion. Soon afterwards his illness assumed a more serious aspect, and it was found that he was suffering from valvular disease of the heart, producing occasional congestion of the lungs. Though aware of the dangerous and almost hope-



less character of his malady, he continued to exhibit the same Christian calmness and composure, and his interest in his favourite studies showed no signs of abatement.

Travelling southward to Torquay, the milder and more genial climate afforded him sensible relief for several weeks; but early in 1857 his disease returned with increased severity, occasioning paroxysms of agony which he bore with heroic resignation. About the middle of March his medical advisers confessed that his recovery was not to be expected. He suffered so much from difficulty of breathing that he was unable to lie down, but day and night he rested in an easy-chair, supported by pillows, never uttering a word of complaint or impatience, but, with true and simple Christian faith, exclaiming, "Lord, *thy* will be done!"

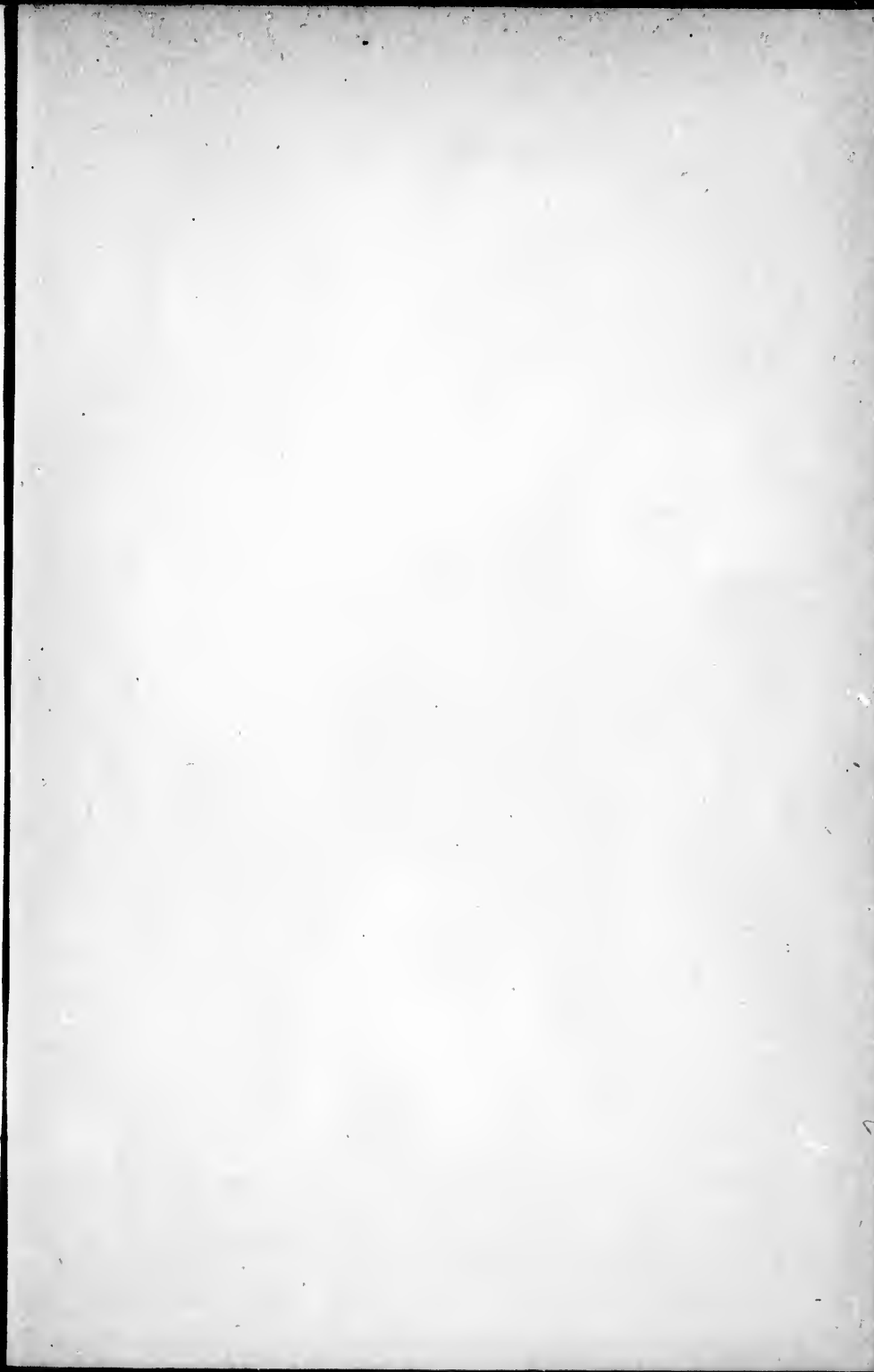
"Oppressed with sickness," writes the clergyman who attended him in his last days, "and the most painful feeling of weakness, he was led, like the great apostle, to 'desire to depart and to be with Christ;' which, he was convinced, would be 'far better' for him. He believed that though he died yet should he live, because his life was hid with Christ in God; and that when Christ, who

was his life, should appear, then he should appear with him in glory."

Peacefully and tenderly, without any apparent struggle, his spirit passed away early in the morning of the 21st of March. God grant that you, dear reader, leading a life as pure and useful, may also enjoy an end like his!



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