

LORD DUFFERIN.

On the retirement of Lord Lisgar from the Governor-Generalship of the Dominion, no one was surprised to learn that his successor had been appointed in the person of Lord Dufferin, who had already been spoken of as likely to succeed Lord Mayo as Governor-General of India. The appointment has given satisfaction to all parties at home, and there is little doubt that his Lordship and Lady Dufferin, who are both favourites in society, will become exceedingly popular on this side of the Atlantic.

Frederick Temple Blackwood, K.P., P.C., K.C.B., Earl of Dufferin and Baron Claudeboye, was born June 21, 1826. He was educated at Eton and Christ Church, Oxford, and succeeded to his father's title, July 21st, 1841. Under the Liberal Administration he was for some years (1848-52 and 1854-8) Lord in Waiting on the Queen. At the time of the famine in Ireland, 1846-47, he paid a visit to that country, and on his return published an account of his observations. In 1859 he made a yacht voyage to Iceland, and a narrative of the trip appeared in 1860 under the title of "Letters from High Latitudes." The same year he was sent to the East by Lord Palmerston as British Commissioner in Syria, for the purpose of prosecuting inquiries into the massacre of the Christians there, in which capacity he acted with great tact and firmness, and was made a K.C.B. for his services. From 1864 to 1868 he held the office of Under Secretary for India, and in 1868 that of Under Secretary for War. In 1868 he was appointed Chancellor of the Duchy of Lancaster. In 1862 he married Harriet, eldest daughter of the late Archibald Rowan Hamilton, of Killyleagh Castle, Co. Down.

His Lordship is a man of considerable property in Ireland, noted for his appreciation of art and literature. (In 1867 he acted as President of the Social Science Congress at Belfast) and a staunch man of business. He presided over the Royal Commission upon Army Education, and more lately over an Admiralty Committee on the designs of recent ships of war.

NEWFOUNDLAND CORRESPONDENCE.

St. John's, Nfld., May 17, 1872.

AMONG THE ICEBERGS AND ICEFLOES—GREAT ICE-RIVER IN THE OCEAN.

Should any one wish to study the wonderful phenomena of ice-fields and icebergs, let him come to Newfoundland, and during the first four or five months of the year, he will find, around our coasts, ample materials for such studies. During those months, the great ocean-river or Arctic current, which sets out of Davis' Straits, is laden with the icebergs and ice-floes of which Baffin's Bay is the huge factory. Even so early as January these ice-masses begin to show themselves; but February and March are the favourite months for the transport of the vast ice-crop from the place of its growth to the bosom of the Gulf stream. A river of ice, from one to two hundred miles in breadth, and from fifteen hundred to two thousand miles in length, then flows slowly and majestically past these shores. The icy stream is not continuous, varying considerably at different times, according to the season, and the manufacturing and exporting energy of the ice-works. Neither does this frozen river follow the same track invariably, as the direction of the prevailing winds determines whether it shall press closely on our shores, choking up bays and harbours and, at times, establishing an ice-blockade, or be broken up and driven off many miles out of sight of land. A few hours of easterly wind deflect the great ice-current and drive it in on the shore; while before a westerly wind it speedily vanishes, and the green waves are dancing where, an hour before, the ice-fields were spread, grim and ghastly. Still, the ice-laden stream steadily pursues its way, bearing on its bosom thousands on thousands of icebergs, and transporting ice-fields hundreds of thousands of square miles in extent. There sails the towering iceberg, its white pinnacles glittering in the sunbeams, or reflecting tremulously, by night, the stars from its gleaming, snow-white peaks. There, when the winds are hushed, the ice-field spreads its ridges and furrows, wrapping ocean in a huge windings-sheet and gliding along in silence deep as death. But when the storm rises and rends the glittering sheets, by ocean's swell, into floes and hummocks, dashing them against and over each other, then the thunders awake; then begins, for the poor mariner, the reign of terror. With a mighty swing, an ice-floe a million tons in weight is hurled against a huge iceberg which is like an Alp afloat, its summit being 200 feet above the waves and its base 1,800 feet below. The blow makes the ice-mountain shiver, but cannot overturn it, and the floe is rent and torn, with a noise like thunder, into a thousand fragments, which are piled on one another or strewn over the ocean far and wide. Or perhaps two enormous fields of ice, under the influence of opposite rotatory motions, rush together in a death-grapple. The struggle is frightful, but is only for a moment. The weaker yields, and with a noise louder than thunder, is crushed beneath the waves, while fragments of the weightier giant are piled to the height of thirty or forty feet on the back of his conquered foe, and fifty or sixty yards in length, as though to bury him deep in the fathomless sea. Ice twenty and thirty feet in thickness is rent in enormous fissures, and beaten into fragments. The ocean is covered with rolling masses of ice, hard as floating rocks of granite, as this tournament of the ice-giant proceeds. Heaven help the unhappy ship that is caught in this drifting "pack!" Perhaps the night comes down around her, dark and stormy, while the choking, blinding snow-drift is hurled on the wings of a fierce nor-easter, and the spray beats perpetually on the deck and freezes as it falls. No situation more trying to human courage and endurance can be imagined. The straining and groaning of the ship's tim-

bers, while the huge blocks of ice strike her, as if hurled from a catapult, making the masts quiver at each blow—the thunder and crash all around as the blows of the ice-giants resound—the rush and roar of the snow-storm overhead—these make up a scene enough to appal the stoutest heart. And yet it is amidst dangers such as these that our sealers pursue their perilous calling; and undismayed by all the terrors of the scene they boldly steer their vessels into the hideous tumult, in pursuit of their prey. That the dangers are not imaginary may be gathered from the results of this season's operations amid our ice-fields, in hunting the seal. At this date it is known that seventeen sailing vessels and three large steamers have been wrecked and totally destroyed, and at least fifty seal-hunters have met a watery grave, and twenty or thirty besides are seriously injured. Not for half a century has such a season of peril and destruction of life and shipping been known. Such are the dangers of seal-hunting. Nevertheless—

"Men must work and women must weep,
Though the harbour bar be moaning."

COURSE OF THE ICEBERGS—DANGERS FROM THEIR MOVEMENTS.

The vast numbers in which icebergs are borne past these shores is almost incredible. Three days ago I took a walk to the top of Signal Hill, an eminence 600 feet high, which overlooks the harbour, and commands a splendid view of the ocean. The day was clear, and with the naked eye I could make out close on sixty icebergs, great and small, moving slowly southwards to their grave in the waters of the Gulf Stream. I do not know a more strikingly beautiful object than one of these stately wanderers of the deep, huge and solitary, proudly sailing onwards, regardless alike of wind and tide, borne irresistibly along by the deep-sea current. The waves that dash in foam against its sides shake not the strength of its crystal walls, nor tarnish the sheen of its emerald caves. Sleet and snow, and storm and tempest are its congenial elements. Ice-floes come in its way and are shivered to atoms; storms rage but it heeds them not. Proudly it flings back the billows from its projecting crags and pinnacles which gleam like cliffs of chalk or white marble. We fancy that nothing could avail to destroy such a giant mass, and that it may sail on for ever. But all the while, the rays of the sun are playing on its surface, and penetrating its substance, and the warm breath of spring is loosening its joints, and relaxing its strength. Streams begin to pour down its great sides. Huge crags drop down, with sullen plunge, into the ocean, awakening the echoes along the neighbouring rocks and hills. Large pieces are detached and float away in independent existence. The iceberg is "calving," as the sailors say. Presently it becomes top-heavy, loses its equilibrium and turns on its side or heels completely over with a thundering crash, making the sea bed into foam, and causing a swell that is perceptible for miles. Woe to the luckless boat or vessel that may be in too close proximity when this occurs. At times the berg cannot recover its equilibrium, and continues rolling and tumbling, like a huge porpoise, dropping fragment after fragment, in its unceasing gambols, till the whole mass falls asunder like a wreck. These rolling icebergs, which are peculiarly dangerous, our sealers call "growlers." Or the berg may right itself by a complete inversion, and sail onward, reduced in dimensions, and enveloped in mist, until it reaches the warm waters of the Gulf Stream, where it is finally dissolved. Seldom are any icebergs ever met with farther south than 40° of north latitude. Even now, when the summer warmth is but slight, it is surprising to note how rapidly the smaller bergs that drift into our bays and harbours, and get aground, dissolve under the influence of the sun's rays. As the summer advances, they become very brittle; and then a slight degree of violence is enough to rupture them. It sometimes happens that during a storm the seamen try to moor their ship for safety under the side of an iceberg. In planting an ice-anchor in its surface, when in the brittle stage, even the blow of an axe will sometimes rend the huge mass asunder, and the ice-fragments, falling on the vessel, will crush her like a nutshell, and send the ill-fated mariners to a watery grave. It is a perilous matter to make friends of such treacherous voyagers. The best plan is to keep a respectful distance from the monsters. Many a gallant ship has met her doom by striking on an iceberg during the darkness of night, or when enveloped in thick fog.

The utmost vigilance is requisite in navigating our ice-laden seas at this season. The submerged part of an iceberg has often sharp, angular points projecting, on which, should a vessel strike, a fatal wound may be inflicted in a moment. It sometimes happens, too, that a fragment of ice, 200 feet in length, has an iceberg resting on each extremity, and keeping it sunk at a certain depth below the water. Ships may then sail between the bergs and over the sunken fragment, but it is a perilous undertaking. Should one of the bergs shift its position and set free the sunken ice-floe, it will rise to the surface and hurl the ship into the air with tremendous force, leaving her a shattered wreck. Should a vessel be caught between two bergs, or between a floe and a berg in motion, she could no more resist the pressure than a wine glass the effect of a ball discharged from an Armstrong gun.

SIZE AND FORMS OF THE ICEBERGS.

The majority of the bergs that float past are of no great size; but occasionally we see them of vast dimensions. One was reported last year by several captains as half a mile in length. This might seem to be an exaggeration; but one was seen by Ross in Baffin's Bay, the birth-place of our bergs, two miles and a half long, two miles wide, and fifty feet high; nine times as much of its bulk being under the water as above the surface. The weight of this iceberg was estimated at 1,292,357,673 tons. The visible portion of an iceberg is only about one-ninth part of the real bulk of the whole mass; so that if one be seen a hundred feet high, its lowest peak may perhaps be 800 feet below the waves. But bergs are frequently seen 200 and even 300 feet above the sea; and these, if their sub-marine portions sank to the maximum depth, must have reached the enormous total height of 2,700 feet—that is rather higher than the Cheviot Hills. The bergs are of all shapes, as well as sizes, sometimes rising into pointed spires, like steeples; sometimes taking the form of a conical hill; sometimes having domes and pinnacles. I have seen one or two bearing a striking resemblance to the form of a crouching lion; and others which, at a distance, might be taken for one of the old abbey's adobe, with walls and buttresses of marble. The most general form, however, is with one high perpendicular side, the opposite side very low, and the inter-

mediate surface forming a gradual slope. When of this form, the higher end is generally to windward. Some have been seen containing prodigious caverns, and some with hollows having vast accumulations of snow. Their appearance is that of chalk cliffs, with a glittering surface and emerald-green fractures. Pools of azure-blue water lie on their surface frequently, or fall in cascades from them. From these reservoirs vessels often obtain supplies of water, peculiarly sweet and agreeable.

HOW THE BERGS ARE FORMED.

The icebergs of these seas have a course of not less than 2,000 miles from the place of their birth to that of their dissolution. They are entirely of land formation and consist of fresh water frozen. The huge glaciers along the Greenland coast, which project their masses into the foids, are the parents of the icebergs. From the sea-ward face of the glacier, as it is pushed farther and farther into deep water by the pressure behind, masses are detached by fracture, which float off as bergs. They often bear, embedded in their substance, clay, boulders and great fragments of rock torn from the sides of the Greenland hills; and drop them, as they melt, at the bottom of our seas, or on the sub-marine Banks of Newfoundland; thus helping to build new isles and continents.

JASPER AND BLOODSTONE.—Jasper, one of the many varieties of quartz, is very compact, and is found of various colours—dark, green, reds brown, yellow, grayish, and sometimes bluish and black. It is very hard, and takes a fine polish. Occasionally it is found banded, or in stripes of different colours, when it is termed ribbon-jasper; the stripes are usually red and green alternating. Jasper alone is infusible before the blow-pipe, but it will melt with the addition of carbonate of soda. It is sometimes found imbedded in trap rock, but more frequently in pebbles in the beds of rivers. The yellow jasper is found near the Bay of Smyrna, in Greece, and other places; the red in the plains of Argos; the variety known as ribbon-jasper comes from Siberia and Saxony; another kind, termed Egyptian jasper, is found on the banks of the Nile. This latter is of a fine brown on the exterior, and clouded with brown of various shades, frequently spotted with black, the markings in this variety occasionally resembling natural objects. A specimen in the British Museum is thought to exhibit a likeness of the poet Chaucer. The yellow variety is used in Florentine mosaic-work called *petra dura*. The ancients were well acquainted with this stone, and prized it most highly. Onomakritos, 500 years before the Christian era, speaks of the "grass-green jasper, which rejoices the eye of man, and is looked on with pleasure by the immortals." The emeralds spoken of by Roman and Greek authors were most probably green jasper, as we hear of pillars of temples cut out of one piece. Pliny, who describes no less than ten kinds of jasper, relates that it was worn by the natives of the East as an amulet or charm. This stone was much used for cameos; many specimens are extant, having several layers, and the objects represented are cut deep or shallow, so as to bring the colours into contrast—for instance, in some specimens may be seen the head of a warrior in red jasper, the helmet green and breastplate yellow. In the collection of the Vatican are two marvellous vases of this substance; one of red jasper with white stripes, the other of black jasper with yellow stripes. This stone is cut on copper wheels, with fine sand and emery, and polished on wooden or metal wheels with putty and Tripoli. The jasper, according to the Authorized Version of the Scriptures, was the twelfth stone in the breastplate of the High Priest; and as the Hebrew name is "yashaph," which is strikingly similar to jasper, and almost all the translations agree, there can be little doubt as to its identity. Galen, among other sage advice, relates that if a jasper be hung about the neck, it will strengthen the stomach. The bloodstone is another jasper-variety of quartz, of a dark green colour, and having those minute blood-red specks disseminated throughout, which give its name. The word *heiotrope*, from *helio*, the sun, and *trope*, a turning, is derived from the notion that, when immersed in water, it changed the image of the sun into blood-red. Pliny relates that the sun could be viewed in it as in a mirror, and that it made visible its eclipses. It is found in large quantities in India, Bokhara, Siberia, and Tartary, and also in the Isle of Rum in the Hebrides, occurring generally in masses of considerable size. It is translucent, and susceptible of a beautiful polish; its commercial value, as in the case of other stones, varies with the quality of the specimen. The bloodstone is used for the same purpose as agate and onyx. There is a tradition that at the Crucifixion the blood which followed the spear-thrust fell upon a dark green jasper lying at the foot of the cross, and from this circumstance spring the variety. In the Middle Ages the red-specks alluded to were supposed to represent the blood of Christ; and this stone was thought to possess the same medicinal and magical virtues as the jasper.—*American Watchmaker and Jeweller.*

A PERSIAN RACECOURSE.—Sir R. Kerr Porter, in relating his travels, gives the following account of a Persian racecourse in the presence of royalty which would rather scandalise our home notions of head-quarters:—"My curiosity was fully on the spur to see the racers, which I could not doubt must have been chosen from the best in the nation to exhibit the perfection of the breed before the sovereign. The rival horses were divided into three sets, in order to lengthen the amusement. They had been in training for several weeks, going over the ground very often in that time, and when I did see them I found so much pains had been taken to sweat and reduce their weight, that their bones were nearly cutting the skin. The distance marked for the race was a stretch of twenty-four miles, and the horses had set out long before, by three divisions, from the starting point—a short interval of time passing between each set, so that they might begin to come in a few minutes after the king had taken his seat. The different divisions arrived in regular order at the goal, but all so fatigued and exhausted that their former boasted fleetness hardly exceeded a moderate canter when they passed before the royal eyes."

At a late meeting of the Polytechnic Association of the American Institute, Professor Vander Weyde exhibited artificial musk, made by treating blood in a peculiar manner. By adding little hairs, such as are found in genuine musk, the deception is so complete that it cannot be detected even by the microscope.