While the White Sea and the coasts of that district of Lapland which belongs to Russia are encumbered with ice before mid-autumn, that portion of Norway which is within the Polar Circle is, by a curious caprice of nature, free from ice during the whole of the year. The immense depth of the long fiords which cleave the coast of this wild region is, doubtless, one cause of the phenomenon. The influence of the Gulf Stream, the waters of which do not wholly lose their tropical warmth after communicating to the western side of the British Isles a temperature so perceptibly higher than that of the eastern, is undoubtedly another. Be the cause what it may, it happens that while Archangel is locked up for eight months of the year in thick-ribbed ice, and the ports of the Sea of Okhotsk are for the same period inaccessible, the town of Hammerfest, situated within the Polar Circle, has an open harbour all the year round, and the inhabitants, instead of yielding to the lazy influences of an Arctic winter, employ the long night in fishing and in hunting. The harbours of this region are, as we have said, enormous. Compared with them the mighty bay of Sebastopol itself is a paltry creek; a long barrier reef of islands protects the navigation to the south, and a voyage —we are afraid to say of how few days—might transport a fleet from these vast harbours to the shores of the British Islands. It is wonderful that Russia, while devoting such enormous expense to the formation of an arsenal and fortress in the south, should have submitted so long to be cooped up within the narrow and shallow waters of the Baltic, and to suffer a blockade in which ice relieves the efforts of a hostile fleet. Of late years Russia has awoke to the full importance of this oversight: all that the most dexterous intrigues, the most cautious encroachments,—all that threats and blandishments could effect, has been tried on the United Kingdoms of Sweden and Norway to induce them to cede only so much apparently worthless territory as would bring Russia within reach of this precious strip of coast. A fishing station on the Bay of Varanger was all her modest desire. The Bay of Varanger is forty miles long by six miles wide, and protected by the Island of Skogesø, where a few batteries could defy a numerous enemy. It has two outlets, is only fifty miles from the present Russian boundary, there is in depth from five to fifteen fathoms, it abounds in fish, and affords on its southern side a secure anchorage for any number of vessels. It is easy to imagine how soon the mere fishing station which Russia so modestly demands, would grow into a naval station, the naval station into a fortified harbour, the fortified harbour into a fortress of the first class, and the fortress of the first class, into a military and naval arsenal, calculated to overawe Norway, and to menace the shores of Western Europe. We have great pleasure in announcing that all these schemes of grasping ambition have, so far as human foresight can effect it, been completely frustrated and an impassable barrier imposed between the aggressive designs of Russia and her lodgment on the seaboard of the North Atlantic, which she has so ardently desired. By the treaty which has been entered into between the Western Powers and the United Kingdom of Sweden and Norway, the latter undertake, on the one hand, that they will not cede any portion of their territory to Russia, and the Western Powers promise, on the other, that they will guarantee the Scandinavian kingdoms their present boundaries, and neither permit Russia to encroach upon them to the North, nor to seize, as it is very probable she might wish to do, the large and important island of Gothland. Thus, it may be hoped, we have succeeded in drawing a line beyond which Russian ambition shall not penetrate, and limiting at last that gradual and constant encroachment which has been for the last hundred years obliterating province after province from the map of Europe, and transferring them from the domain of civilization and progress to that of a brutal tyranny and retrograde barbarism. We know not whether this proposal may be followed up by any more extensive form of alliance, whether it will be deemed advisable by the Western and the Scandinavian States to unite in arms against the common enemy, and seek to terminate the war by one great and concentrated effort on the fortifications of Cronstadt and St. Petersburg,—of this we know nothing; but, at any rate, much has been gained by inducing these States to assume a firm and self-respecting attitude towards Russia, and by placing what we may fairly hope is an insurmountable obstacle between that aggressive Government and the object of its fondest desire,—an access to the Atlantic Ocean never closed by ice, and within a few days' sail of the shores of France, England, and Germany.

PIRATES IN CHINA.

Her Majesty's sloop Bittern and the merchant steamer Paoushun, which had been placed at the disposal of Captain Vansittart by her owners for the purpose of towing, &c., left Shanghai on the 13th of Sept. to destroy a well-organized body of pirates, who for months infested the coast of China, stopping all native trade, attacking and occasionally capturing vessels under the English flag. On the 18th they boarded a suspicious-looking Ningpo junk without obtaining any information, but proceeding with all speed, and arriving at the piratical stronghold of Sheipoo, in latitude 29 deg. 10 min. north, and longtitude 122 deg. 5 min. east, the harbor was found to be perfectly sheltered, and so strongly fortified by nature as not to be equalled in any part of the world, having three entries for ships, all of which are very narrow, with hills on either side rising from the water's edge to some height, which, if fortified, would render Sheipoo inaccessible to any fleet which might be sent against it. A fleet of twenty-two large piratical vessels were observed moored head and stern, fully prepared for an attack, their flags and banners flying at the mast-heads, guns pointed (one vessel had fourteen heavy guns on one one side) and the decks crowded with men. At half-past 10 o'clock they opened a heavy raking fire upon the two ships as they entered the north-eastern passage, which is not 100 feet in width. Owing to the steamer towing the sloop of war at full speed, and a strong tide running in, they flew through the shower of round shots which were fired at them. The Bittern having been cast off by the steamer anchored with springs on her cable, and opened her broad-side upon the piratical fleet with a beautiful accuracy of fire. The pirates kept up their desperate attack with great spirit, doing considerable damage to the hull and rigging, besides wounding several men, some dangerously. Shortly after twelve, the pirates ceased firing, and retreated. The boats were immediately sent to board the deserted vessels, and found only one able to float. She had been preserved from the Bittern's destructive fire by filling a large merchant junk with cotton bales, and sinking her to a required depth with ashes, so that the shots only entered the bales, without injuring the floating battery behind. She had 25 guns mounted on deck, three of them measuring upwards of 12 feet in length, and 20 smaller guns dismounted below. All the other vessels were so riddled and damaged as to be in a sinking state. They were set on fire, and burnt to the water's edge. All were heavily armed with English-made guns, varying in calibre from 6lb. to 32-lb. Some of the pirates had belonged to the fleet which attacked the Bittern at Fuchau, in Leautung, in August last, and had arrived here about 14 days ago. The English and American missionaries' Ningpo boat was recaptured, and had still on board property belonging to them. The pirates having in great farce taken possession of a joss-house, a few miles over the hills, Captain Vansittart, at the urgent entreaty of the mandarins, landed the marines and small arms men, under the orders of Lieutenant Brooker and Assistant-surgeon Newton, accompanied by Mr. Interpreter Sinclair, the joss-house being well situated for a defence on the summit of a hill commanding all approaches and surrounded by trees and thick brushwood, among which a number of the pirates had taken up their position, well armed and determined to defend themselves to the last. They succeeded in killing several of the Chinese soldiery, who had followed the Bittern's men, commanded by a white-button mandarin. The pirates, however, found a difference when they charged the Englishmen, for they were invariably shot down or bayonetted. After skirmishing through the brushwood the doors of the temple were forced, and the pirates discovered concealed in most singular places. Two coffins had been emptied of their proper occupants, and filled with the living, armed with short swords; others were found behind, over, and under the idols, and a number under a stack of straw: among them were a few women, who were allowed to escape. Only four or five trifling injuries were received by the Bittern's crew, although many suffered from the powerful rays of the sun; a marine died from its effects a few days afterwards. Such a complete destruction of a piratical horde had never previously been heard of in China, all their vessels were destroyed and burnt; some hundreds, according to the evidence of a prisoner were killed by the shot and shell during the engagement, while those who escaped ashore, and who would in a short time have manned another fleet, were followed and destroyed or captured. The only vestige of a piratical fleet remaining when the ships left Sheipoo were a few pieces of charcoal which the natives were collecting for firewood. The following were the principal casualties:—Mr. Turner, master of the Bittern, a wound in the right side from a round shot; died four days afterwards. Thomas Stevens, a marine, died of the effects of the sun. William Hanney, marine, loss of right leg by a round shot. Thomas Ellis ordinary seaman, loss of the left leg by a round shot. James Brownlie, boy, loss of the left leg. Several other men were wounded by splinters, &c.,—none severely.

Fevers of all descriptions and their cure.—Many remedies have been prescribed for the relief of suffering humanity for the cure of these distressing and often times fatal diseases. Few seem to be worthy of much comment, in a word, few possess any intrinsic value, Holloway's Pills, however, will be found invaluable for these complaints, and will readily check the worst stages of the evil, in truth, by a perseverance with this remedy according to the prescribed directions, they will restore the sufferer to health, after every other means have failed. These Pills are also famous in all diseases of the stomach and bowels.

AMERICAN SPIRAL BULLETS IN ENGLAND.

English papers state that the interior spiral bullet of J. W. Cochran, of this city, described by us in the last volume of the SCIENTIFIC AMERICAN, has been highly approved in England, where the inventor now is, for the purpose of introducing it there. This bullet, having three spiral grooves in its interior chamber, and a very minute passage at the point, receives a whirling motion round its long axis when discharged from a smooth bored fire-arm, and has, therefore, the same direct flight as a ball discharged from a rifle. Numerous plans have heretofore been tried to give bullets such a motion from smooth bored firearms, but they all failed, because they (the bullets) were formed with projecting spirals, and were, therefore, constructed upon wrong principles. The projections met with such a resistance in passing through the air, that their extent of range was greatly reduced. Cochran's bullets are smooth outside and of conical form, so that they offer less resistance to the air than a common rifle bullet. It is stated that he has received orders from the British Government for manufacturing a great number of his shot for cannons.

HOW MACHINERY INCREASES BENEFICIAL LABOUR.

About five years ago, when sewing machines were beginning to be introduced into this city, some furious attacks were made upon them by ignorant and mock philanthropists, who pretended to be anxiously concerned for poor seamstresses. They pictured the sad fate which awaited those persons; told how the hard-earned bread was to be taken out of their mouths by such capitalists as could purchase and use such machines, thereby dispensing with the labour of needlewomen, and thus bring them to want for lack of employment. Have such predictions been fulfilled? We who have for years carefully watched the effects of labor-saving machinery of every kind upon society, knew that such ideas, when uttered, were no better then the emanations of an idiot's dream, trusted to a few years' experience to prove the benefits of such machines to every class in the community. Thousands of such machines are now in operation in our country, and if we are rightly informed, more than a thousand of them are in operation in New York City alone; but instead of these having thrown any industrious females out of employment, they have rather increased the quantity of work for them to do. We were told a few days since, by one engaged somewhat extensively in providing needle-work, that twenty stitches are now made in some garments, for one that was made five years ago—in short, that sewing machines had greatly increased the demand for sewed work. Thus coat linings, which used to be made plain, are now mostly elaborately worked, and finely stitched, and it is the same with almost every kind of sewed work. The amount of such work, he stated, had increased even in a greater ratio than the machines to execute it. A higher taste is now being gratified, and hundreds of women who used to ply the needle early and late with their fingers, for a mere pittance, are now better remunerated for their labor in attending sewing machines, while, at the same time, their hours of toil have been measurably reduced. It is our opinion, that the very class—needlewomen—respecting whom so much was at one time said about being injured by sewing machines, will be the most benefited. In many, if not in almost every instance, this has been felt to be the case already. Sewing machines, therefore, which are but a recent invention, afford abundant examples "how machinery increases beneficial labor."

WHEN TO WEAR INDIA RUBBERS.

We have noticed that many persons in our city wear India rubber overshoes in cold dry weather, to keep their feet warm. This is an injurious and evil practice. India rubber shoes are very comfortable and valuable for covering the feet during wet, sloppy weather, but they should never be worn on any other occasion; their sole use should be to keep out water. They should therefore be put off whenever the wearer enters a house, and be worn as little as possible, because they are air-tight, and both retain and restrain the perspiration of the feet. The air cannot be excluded from them, or from any other portion of the body, for any length of time, without sensibly affecting the health. It is our opinion, that no habit tends more to good health than clean feet and clean dry stockings, so as to allow the free perspiration of the nether extremities.

RUSSIAN SEA WORMS.

The British fleet has found a terrible enemy in the Sea of Azof, in the form of large and destructive sea worms peculiar to those waters. These attack the uncoppered parts under the water line of the ships, and bore through them with the rapidity of an old carpenter handling an auger. Vessels navigating these seas have to be sheathed to the water line, or else their days are soon numbered.