SPITSBERGEN, *TERRA NULLIUS*

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The archipelago of Spitsbergen lies about 400 miles north of Norway, extending to within 600 miles of the North Pole. It consists of two large and many small islands and has a total area of about 25,000 square miles, that is to say about twice the area of Hawaii. Bear Island, about 130 miles south-southeast of Spitsbergen, has an area of 70 square miles. Spitsbergen, with Bear Island, holds an almost unique position today in being a *terra nullius,* one of the last remaining territories on the face of the globe to be unclaimed by any state.

Discovery by the Dutch

It was the search for a route to the Spice Islands and the riches of Cathay independent of Portuguese control that led to the discovery of Spitsbergen. Towards the end of the sixteenth century the Company of Merchant Adventurers of London, generally known as the Muscovy, or Russia, Company, sent forth ships to seek a northeast passage. Sir John Willoughby and Richard Chancellor discovered Novaya Zemlya, or at least revealed it to western Europe, and opened up a rich trade with the White Sea. The Dutch, strenuous rivals of the English, were soon on the scene pushing northward to share the Arctic trade and hoping to forestall the English in the discovery of a route to the East. It was in 1596 that two Dutch navigators, Willem Barents and Jan Cornelis Rijp, found Bear Island and gave it its present name. Pushing farther northward the small ships encountered some difficulty with ice but ultimately, in a high latitude, were able to bear eastward and on June 17 discovered a lofty snowy land which from the appearance of its sharp peaks they called Spitsbergen. The name is therefore Dutch, and there is no excuse for adopting the German version with a medial "z". The two Dutch ships mapped the northwest corner of the land, erected the Dutch arms either at Cloven Cliff or at Vogelsang, and sailed south along the west coast, noting several fine bays. Reaching Bear Island once more the two ships parted company. Barents sailed eastward and ultimately wintered in Novaya Zemlya. Next summer he perished in an open boat on the way to the mainland. Rijp on parting from Barents returned to Spitsbergen, but his visit was barren of results. There is no foundation whatever for the story that he circumnavigated Spitsbergen or even visited the east coast.

Possible Earlier Discoverers

There is some evidence that the Dutch were not the first to visit Spitsbergen and that the country had already been known for several cen-

turies and forgotten. It would indeed be strange if roving Norsemen had never crossed the few hundred miles of sea between Norway or Iceland and Spitsbergen. Definite proof, however, is hard to find. The Icelandic annals of the fourteenth century record that Svalbard was discovered in 1194, and the "Landnamabok," published early in the thirteenth century, says that "from Langanes on the north side of Iceland it is four *doegrs* sea to Svalbard on the north of Hafsbotn." What land was Svalbard? The name means cold side or coast and so clearly refers to an Arctic land. Hafsbotn was the ocean to the north of Norway. Due north of Langanes there is no land, but the directions in the Landnamabok must be liberally interpreted. Four days' sail to the northeast would be about 400 to 850 miles' distance, depending on the strength of the winds. Spitsbergen is only 840 miles from Langanes, so that it is quite probable that Svalbard was really Spitsbergen.[1] It is possible that, having discovered Spitsbergen, the Norsemen visited it to hunt walrus, seals, and bears. There are legends existent that suggest that this was the case, but nothing definite is on record.

Not only Norwegians but also Russians may have forestalled the Dutch in Spitsbergen. Early in the sixteenth century, if not before, Russians from the White Sea and Murman Coast hunted in the Polar seas. They frequented a land which they called Grumant. This possibly was Spitsbergen but may have been Novaya Zemlya. In all probability it was not the land now known as Greenland. Modern Russians frequently use the name Greenland for Spitsbergen, with which it has become traditionally associated. Although it is difficult to trace the legend to its origin, it is generally believed in northern Russia that Spitsbergen was known many centuries ago. Of course it is possible that these traditions date merely from the Russian trappers of the eighteenth century and do not antedate the voyage of Barents.

The Whalers

The discovery of Spitsbergen had no immediate result. Barents had many comments to make on the country, but he failed to notice its resources in oil, fur, and ivory. No ship visited its shore till the English navigator Henry Hudson in 1607 made the discovery of whales and walrus in Spitsbergen waters. A few years later the Muscovy Company, acting on this information, began the important whaling industry which for many years was to make Spitsbergen one of the most talked-of places in western Europe. England therefore was the first nation, with the possible exception of Russia, to make use of Spitsbergen. It is perhaps more correct to speak of early walrus hunters than of whalers, for it was some few years before whaling was regularly pursued. The species hunted was the northern right whale (*Balaena mysticetus*), chiefly valuable on account

[1] For a full discussion of this problem see Fridtjof Nansen: In Northern Mists (2 vols., New York, 1911), Vol. 2, pp. 165-173.

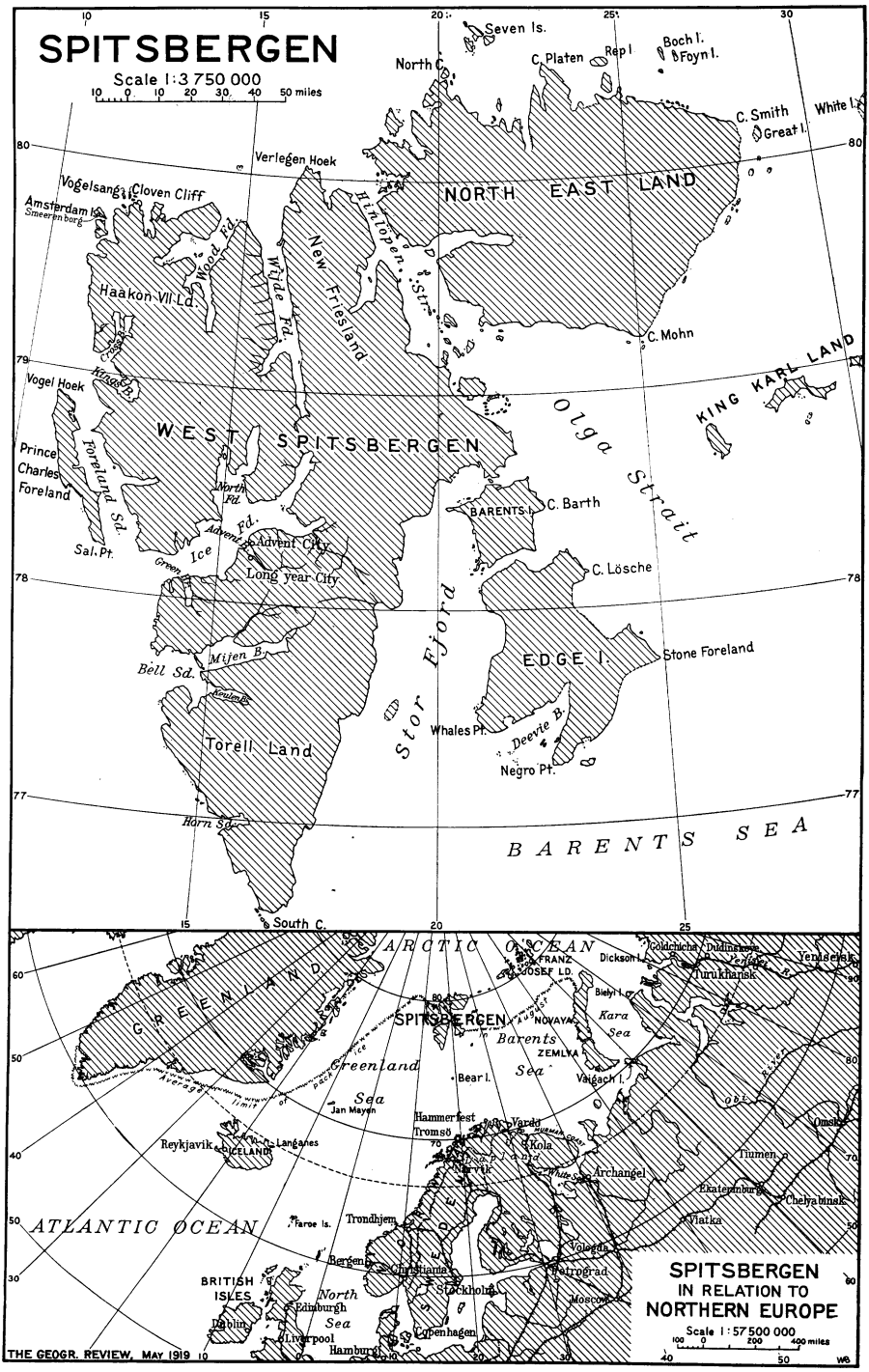

FIG. 1—Sketch map of Spitsbergen, 1:3,750,000. On the inset below, the average limit of pack ice in August is shown according to the map for that month in "The State of the Ice in the Arctic Seas: Summary, Average Limits, etc." Danish Meteorological Institute, Copenhagen, 1917.

of its whalebone, which was the main object of the hunt. English whalers were quickly followed by Dutch and Danish ships. A few Basque whalers, whom the English at first employed to teach them the art of harpooning, also came in their own ships. The profits of the chase—at first in walrus ivory, later in whalebone and oil—were large. In some years several hundred ships frequented the western bays and the Edge Island fishery. Both the Muscovy Company and the rival Dutch company obtained charters from their respective sovereigns granting each a monopoly of the fishery, and to add to the confusion the Danes maintained that neither company had any right to visit Spitsbergen without Denmark's permission. The Danish plea was that Spitsbergen, being part of Greenland, was Danish territory. Certainly on its discovery it was supposed to be part of Greenland, and the name was frequently applied to it throughout the whaling days; but the Muscovy Company's skippers after a very few years decided that it was an island. The Danes probably held the same belief but fain clung to the Greenland theory in the hope of maintaining a tribute from the whalers. Disputes were numerous, fights often occurred, the whalers were frequently accompanied by fighting vessels, and there was endless diplomatic correspondence. King James I had claimed the country in 1614 and had authorized Baffin and Fotherby to take possession in his name. This they did, but the annexation was received with indifference by the Dutch and ignored by the Danes. The exciting annals of Spitsbergen at this period have been recorded in detail by Sir Martin Conway, to whose book reference should be made.[2] Eventually the whalers found a *modus vivendi* and pursued their calling more peacefully. They began to erect shore stations at which to boil down the blubber, and this led to the assignment of certain bays to certain nations. Summer settlements grew up, of which the Dutch Smeerenborg on Amsterdam Island was the most important. At the height of its prosperity, about 1640, this blubber town had a summer population of some 2,000, including women. A few men even wintered there, but scurvy generally exacted its toll. At length the whaling failed, by reason of the whales' leaving the bays for the open sea. The Dutch followed and persisted in that policy till the end of the eighteenth century, but the English abandoned Spitsbergen many years earlier.

The Trappers

The next phase of Spitsbergen life was the era of the fur trappers. When the Russians began this pursuit we do not know, but by 1720 they were already wintering in Spitsbergen and continued to do so for over one hundred years. Fur animals must be trapped in winter, as the skins are of little value at any other season. These trappers came by hundreds and built small rude shanties on every headland along the coast. Here they lived in twos and threes, pursuing their arduous but lucrative calling.

[2] Sir Martin Conway: No Man's Land, Cambridge, 1906.

Bears, foxes, and reindeer were plentiful, and walrus were not then extinct. The death rate from scurvy was high; every headland has its relics of a grave and a cross. But there was no lack of adventurers for the work. In summer the party was relieved, and a new party set down at another spot. One trapper, by name Staratchin, is said to have spent fifteen consecutive years and a total of thirty-nine years in Spitsbergen, where eventually he died in 1826.

The Russian trappers were followed about a century ago by Norwegians, but it was not till the beginning of the present century that Norwegians began to winter there. Their habits were much the same as those of the Russians. But animals were decreasing in number, and to supplement lawful hunting the Norwegians resorted to poisoned bait. This increased their haul for a few years but virtually exterminated the foxes and reindeer on the west coast. Many poisoned beasts crawled into holes to die and were lost to the hunter. So in the end this dastardly method was its own undoing. Only in recent years, with the soaring price of furs, has the occupation of fur trapping in Spitsbergen again become profitable. The hunters have been accused with ample justification of exterminating the animal life, but they are not alone to blame. Tourists of all nationalities have wrought wanton destruction in the name of sport. I have seen a dozen bodies of reindeer in one short valley, all slaughtered for the insane joy of killing. One of the most necessary reforms in Spitsbergen is stringent game laws in order to preserve what is left of the fauna.

Exploration

The Muscovy Company's skippers were frequently of an exploring bent of mind and pushed eastward to see what they could find. The Dutch also did some exploring but were as a rule too keenly interested on the commercial side of their venture. English and Dutch names around the coast testify to the work of these early navigators. The chart would be more explicit in this respect if all the early names had been retained. Many have been replaced by modern names. The whalers were fond of keeping their discoveries secret, and so the chart grew but slowly. Sir Martin Conway has tried to restore the early names to the modern chart,[3] but it is to be feared that many of the newest names are too firmly established now to be removed. We can at least protest against the Norwegian and Swedish habit of rechristening places with Scandinavian names and ignoring the work of earlier explorers. Norwegians were last on the scene among the explorers of Spitsbergen and for their want of initiative should be content to accept the names which more enterprising explorers gave to the features of the coasts.

The period of the trappers was a dark one in exploration. Illiterate and caring for little but material gain, they added nothing to the chart of

[3] *Op. cit.*, pp. 347-368.

Spitsbergen. But already the period of scientific exploration was dawning. Scoresby, the great Arctic navigator, was the forerunner of this period in 1805. He was followed in a few years' time by several expeditions sent by the British government. The most famous was that of Sir Edward Parry in 1827, which did much exploration in the north and northeast of the country. But the objective of these expeditions as a rule was the Pole; Spitsbergen was only a secondary matter. The serious exploration of Spitsbergen is not a century old, and much still remains to be done. It is impossible here to record even the principal expeditions. Suffice to say that the Swedes led the way in geological work. Lovén, Torell, Nordenskiöld, De Geer, Nathorst, and Andersson are a few of the best-known Swedish names; nor must Andrée and his fateful expedition be forgotten. British explorers have also done important work: they include B. Leigh Smith, Arnold Pike, Sir Martin Conway, E. J. Garwood, and W. S. Bruce. The last, with eight or ten expeditions to his credit, during his long record as a polar explorer, has visited every coast of Spitsbergen and crossed the country in several directions. It is safe to say that no living man knows more of Spitsbergen than Dr. W. S. Bruce. Norwegian explorers with one exception were late in the field, although a Norwegian first circumnavigated Spitsbergen in 1863. Their research efforts have been mainly directed to survey work in the interior in recent years. Other nations have done little in Spitsbergen. The Prince of Monaco, however, deserves mention. Several seasons he took north his splendidly equipped oceanographical yacht, *Princesse Alice,* and conducted valuable hydrographical surveys.[4] He was also very helpful to both British and Norwegian expeditions on many occasions. Finally the joint Russian and Swedish expedition of 1898 to 1902 may be noticed.[5] The object was to measure an arc of meridian in a high latitude. For this purpose the Swedes wintered in the north and the Russians in the south of Spitsbergen. In the course of several summers the two parties joined their trigonometrical network along the east of the country. Unfortunately the detailed maps of this expedition are not yet available.

Cartography

The British Admiralty chart of Spitsbergen[6] is the only large-scale map of the whole country. Successive editions show considerable changes even on the west coast. The east coast is still rather vague and sketchy and probably far from accurate in detail. The Swedes have put together use-

[4] Exploration du Nord-Ouest du Spitsberg enterprise sous les auspices de S. A. S. le Prince de Monaco par la Mission Isachsen: Première Partie, par Gunnar Isachsen, Fascicule 40; Deuxième Partie, par Gunnar Isachsen et Adolf Hoel, Fascicule 41, *Résultats des Campagnes Scientifiques Accomplies .... par Albert Ier ... de Monaco,* Monaco, 1912 and 1913. Accompanied by a map in 2 sheets, 1:100,000, with relief and glaciers in contours and shading.

[5] See Gerard De Geer: Om gradmätningsnätets framförande öfver södra och mellersta Spetsbergen, *Ymer,* Vol. 20, 1900, pp. 281-302, with map of triangulation net, 1:1,000,000.

[6] No. 2751, mean scale, 1:750,000.

ful maps of Ice Fiord[7] and the northwest coast.[8] But the only maps of Spitsbergen which contain any accurate detail of the interior are the Norwegian state surveys of the western parts of the main island,[9] the work of Isachsen,[10] Staxrud, and others, and Dr. W. S. Bruce's large-scale survey of Prince Charles Foreland.[11]

Beginning of Mining

Although coal was discovered in Kings Bay by Poole in 1610 the mining era in Spitsbergen is a quite recent development. From time to time a little coal was dug for the whalers' use, and now and then in later years some small vessel gathered enough to take her back to Norway. A few sloops were even loaded for the Kirkenes iron mines nearly a century ago. Europe, however, was slow in investigating the mineral wealth of the islands. Geologists from time to time reported coal seams, but their discoveries were only of interest to scientists. Strangely enough coal was not the mineral which first brought miners to Spitsbergen. In 1872 a Swedish company began to dig phosphates in some curious concretions at Cape Thordsen. A large house was built, and a tramway was constructed to the sea; but the venture was a failure and was abandoned the same year. The house is still standing. Twelve years later it was occupied by a Swedish meteorological expedition which wintered there. Since then it has been from time to time frequented by hunters. The twentieth century had begun before mining was again undertaken in Spitsbergen. In 1904 a Sheffield company acquired an estate in Advent Bay and began operations. A level adit was run into a seam of Jurassic coal outcropping on the hillside not far from the sea. The mine was connected with a small jetty by a gravity tramway. A well-built settlement of log houses, stores, and machine shops, lit by electricity, soon grew up and was grandly styled Advent City. Operations, however, progressed slowly. The coal was not of high quality, and the site of the mine had been unwisely chosen. A few vessels were coaled every summer, till the venture was abandoned in five years' time, before the export stage was reached. Meanwhile important developments had been taking place on the opposite side of Advent Bay, where a thick seam of Tertiary coal crops out. Tertiary coal is not generally

[7] Map of Central Spitzbergen, with the main coal-district, by Gerard De Geer, 1911, 1:300,000, accompanying as Pl. 11, "The Coal Region of Central Spitzbergen," by Gerard De Geer, *Ymer*, Vol. 32, 1912, pp. 335-380.

[8] Map of the North Coast of Spitzbergen, Western Part, constructed mainly from measurements, sketches, and photos of the Swedish arc measurement expedition, 1899-1902, by Gerard De Geer, 1:100,000, accompanying as Pl. 4, "The North Coast of Spitzbergen, Western Part," by Gerard De Geer, *Ymer*, Vol. 33, 1913, pp. 230-277.

[9] Spitsbergen: Farvand og Ankerpladser paa Vest- og Nordkysten, 1:200,000, with seven insets, Norges Geografiske Opmaaling Chart No. 198, Christiania, first edition, 1912.

[10] Gunnar Isachsen: Travaux Topographiques de l'Expédition Isachsen, 1909-1910, *Kristiania Videnskapsselskapets Skrifter: I. Mat. Naturv. Klasse*, 1915, No. 7, with map in 2 sheets, 1:200,000, with relief and glaciers in contours.

[11] Prince Charles Foreland by W. S. Bruce, 1:140,000 Scottish Oceanographical Laboratory, Edinburgh, 1913.

looked upon as the equal of coal from older measures. Spitsbergen, however, is a land of contradictions, and its Tertiary coal is not only of better quality than its Carboniferous and Jurassic coal but is equal for steam purposes to Welsh coal.

American Mines

The Arctic Coal Company of Boston, Mass., was founded by Messrs. Ayer and Longyear, who purchased estates which a Norwegian company had claimed a few years previously but had not yet developed. In 1906 the Americans began to develop their estate in a thoroughgoing fashion. From an adit into a good seam a wire ropeway was run to a well-built jetty along which large vessels could load in safety. Longyear City grew rapidly and soon became, as indeed it is today, the capital of Spitsbergen. Mining went on all the year round, the winter output of coal being stored for export in summer when navigation opened. By 1912 the annual export had risen to some 40,000 tons. The demand in northern Norway was great, for the coal proved cheaper and was in greater demand than British coal, on which Tromsö, Narvik, and other ports had previously had to depend. Advent Bay in those days presented a busy spectacle in July and August. Half a dozen colliers, a liner or two with tourists, perhaps an exploring ship, and a few hunters' sloops were all at anchor. The American store ship sailed to and from Tromsö and added the Stars and Stripes to the many flags seen among the shipping of the bay. The American estates were extensive and valuable and had been well prospected. In Green Harbor the same company opened more than one adit. The mines attracted much attention for their value; more than one offer to buy was rejected, but trespassers tried to encroach on the estates. Finally, two years after the outbreak of the European War, the Arctic Coal Company sold all its estates to Norwegian buyers and retired from Spitsbergen. While British endeavor discovered coal in Spitsbergen and began mining, it was American enterprise that showed what could be done in the country and led the way in successful commercial development.

Present Conditions

It is not possible within the compass of this article to trace the story of all the mining companies which have fixed their hopes on Spitsbergen. Many, if not most of them, have come to nothing. The success of a few companies drew adventurers and prospectors to the north. In the first decade of this century claim boards were erected every summer along almost every mile of the bays in the vicinity of the coal measures, often in places where no minerals had been reported. Few of the claimants had any geological knowledge; the object was merely to claim a piece of land in the hope that it might be of value. The claims overlapped; claim-jumping was frequent. In most cases the claimants never revisited their land, but in a few instances disputes arose. Such disputes dragged on—

some are still unsettled—because there is no authority to whom appeal can be made. It became the unwritten law in Spitsbergen that a claim was valid if undisputed and if the estate was not neglected, whether the work accomplished was prospecting, surveying, or actual mining. In order to secure the validity of titles it became customary for claimants to notify their own foreign office of the extent of their estates. This ensured a record and proof in case of dispute. Out of this period of confusion few serious ventures emerged and stood the test of time. At the outbreak of the war, in addition to the American company already noted, there were two British companies, the Scottish Spitsbergen Syndicate and the Northern Exploration Company, both holding large and valuable estates, and one or two small Norwegian, one Swedish, and one small Russian company.[12] The war curtailed the activities of British companies and indirectly resulted in the sale of the American estates. Scandinavians were left with the field to themselves and took full advantage of the example which more enterprising nations had set. The Swedes developed one of their estates and exported considerable quantities of coal to Norway and Sweden. The Russian company did little. Norwegians, however, were active; but their activity, beyond the purchase of the American coal fields, took the form very largely of trespass on British estates. This has occurred from north to south through the country, and the only excuse offered is the plea of opportunity. In some cases the trespassers have opened valuable coal seams and made good profits for themselves. The scarcity of coal in Norway and its high price during the war were great incentives to these illegal acts. Now that the rightful British owners, however, are preparing to take up again the development of their estates the Scandinavian squatters will have to pack up and depart. As early as August, 1918, a British expedition which visited the Northern Exploration Company's estates made this quite clear.

At the present date the areas of the estates held by companies of different nationalities are roughly as follows: British, 4,000 square miles; Norwegian, 900 square miles (excluding a small estate on Bear Island); Swedish, 350 square miles; and Russian, 100 square miles. These areas comprise only the estates to which the titles are valid and beyond dispute. It may be noted not only that the British claims are by far the largest but that they embrace all the good harbors and contain coal, iron ore, lead ore, asbestos, gypsum, and oil shale. Free oil has also been hinted at; gold and platinum are so far merely dreams.

A State of Anarchy

Despite the high latitude of Spitsbergen, mining is carried on under favorable conditions. The winter is cold but calm. American engineers have compared it favorably with winter in the eastern United States.

[12] R. N. Rudmose Brown: Spitsbergen in 1914, *Geogr. Journ.*, Vol. 46, 1915, pp. 10-23.

Miners who spend the winter there like the life and find it healthful. The physician at Longyear City had little to do except in case of accidents. Under modern conditions of hygiene and diet there is no fear of scurvy; other diseases are unknown. Freedom from governmental control has its advantage in absence of taxes, dues, and harassing regulations, but it has its drawbacks as well. Law and order are maintained only by a show of force; robbers in the shape of Norwegian hunters reap a rich harvest in unguarded mining camps. Property is unsafe from these marauders, who often add to their thefts work of wanton destruction. Numerous specific instances of this are on record. The fast disappearing herds of reindeer are at the mercy of any one with firearms and are slaughtered in the name of sport. Foxes, too, are sadly reduced in numbers.

Under present circumstances it is quite necessary that this lawless state of affairs should be ended. As long as anarchy lasts the efforts of the mining companies are seriously handicapped. Some system of government must be imposed on Spitsbergen, or there promises to be a revival of the local warfare of the whaling days.

Political Status

Several attempts have been made to regulate the political status of Spitsbergen, but so far all have proved abortive. The early Dutch and English annexations have merely historical interest, and the early Danish claim, based on the supposed identity of Spitsbergen with Greenland, never had any validity. Russia used to maintain a traditional claim, founded on her supposed knowledge of the country before the Dutch discovery, but this claim was never asserted and has no more validity than any other. Norway, strange to say, never laid any claim to sovereignty and indeed failed to show any interest in the country until recent times. Enthusiastic Swedish writers have called Spitsbergen a Swedish scientific conquest, but Sweden has put forward no stronger plea. Various international conferences have discussed the matter, and had it not been for mutual jealousy the problem might have been solved some years ago. In June, 1914, a large conference assembled at Christiania. All the nations that had even the remotest claim to an interest in Spitsbergen were represented, but no decision was reached before the adjournment on the outbreak of war. All nations, however, accepted the status of Spitsbergen as a *terra nullius:* this was made the basis of discussion. Thus all claims to previous sovereignty, vague and ill founded as most are, were declared void. The curious political situation which Spitsbergen presents has been discussed by several writers.[13] It is unnecessary to go over the ground

[13] R. Waultrin: La question de la souveraineté des terres arctiques: La question du Spitsberg, *Revue Gén. de Droit Internatl. Public*, Vol. 15, 1908, pp. 80-125.

Robert Lansing: A Unique International Problem, *Amer. Journ. Internatl. Law*, Vol. 11, 1917, pp. 763-772.

A. Raestad: Norges Høihetsret over Spitsbergen i aeldre Tid, Christiania, 1912; French translation by Charles Rabot under title "Le Spitsberg dans l'histoire diplomatique," *La Géographie*, Vol. 25, 1912, pp. 337-354 and 393-412 and Vol. 26, 1912, pp. 65-98.

again. In some respects the problem has become more complex than it was of old. The enormous development of British interests and the large amount of British work and capital expended in the country give Great Britain an undeniable claim to it. On the other hand, Norwegians point to Norway's state survey, the erection of a wireless telegraph station at great cost, and the institution of a so-called mail service to and from Tromsö. Sovereignty lies between these two countries unless some form of joint control can be devised. In any case it is to be hoped that an equitable settlement will be found at the present peace conference.

Future Development

The future of Spitsbergen depends to some extent on the system of administration it will receive and the success with which it is carried out. It is a country without a native population, and this fact no doubt makes the task of government simpler. Providing nothing is done to discourage pioneers in mining enterprises, there is a great future before the country. The British companies, as already pointed out, have all the most valuable land. Nothing should be done by prejudicial laws and regulations to fetter their activity, or this Arctic treasure house will fail to take its place in the commercial development of Europe. Spitsbergen coal will supply every port of Norway and Russia between Trondhjem and Archangel; it will serve the Scandinavian Lapland railway and the Russian Murman railway. The iron ore, if its body comes up to sample, will be eagerly sought for by the iron foundries of England, Scotland, and other countries of western Europe. No doubt the ore will be reduced on the spot and exported as pig iron. There is no need to dilate on the place the oil will take, if the resources in this direction prove as valuable as is expected. The other minerals, gypsum, asbestos, galena, etc., will find a ready market. In a few years Spitsbergen will have many busy mining camps and a large population throughout the year. In summer the population will be augmented by an influx of tourists and jaded men and women of the great cities seeking health in the invigorating Arctic atmosphere and continual daylight. Luxurious liners will bring these travelers to Spitsbergen; hotels will cater to their wants. Climbing, exploring, boating, and no doubt flying will occupy their time. It is to be hoped that in the interests of the wild life hunting will be prohibited. Spitsbergen bids fair to become not only a great mining country but the grandest playground in Europe.