CHAPTER 4

Progress (1880–1889)

Market conditions and Norwegian ice exports

During the 1880s, the price of timber and shipping freight rates continued to fall.[270] In the timber industry, this decline was resolved in part by innovations in wood processing and a boom in the manufacture of mechanical pulp.[271] In the shipping sector, Norwegian companies continued to invest in labour-intensive wooden sailing ships. These ships were rapidly developing into a second-rate technology in the face of competition from the growing use of steamships. Although sailing ships continued to be profitable, the industry was finding that its vessels were being outcompeted in a growing number of 'trades' by the more efficient steamships.[272] However, the trade in timber and ice constituted niches in which the use of sailing ships continued to be profitable during the 1880s.

As in the 1870s, ice continued to dominate over other export industries.[273] In the 1880s, exports increased by 1.2 million register tons compared to the previous decade, although the value per register ton decreased by NOK 0.82 compared to the 1870s. The total volume of exported ice was 2.6 million register tons, amounting to a total value of NOK 12 million (1865 = 100). The UK received more than 76% of Norwegian ice exports. (See Table 4-1).

270 Hodne & Grytten (2000), p. 275.
271 Hodne (1981), p. 87. Mechanical pulp is timber that is ground into fibre and used as a raw material for newsprint.
272 Hodne (1981), p. 150.
273 Hodne & Grytten (2000), p. 275.

Table 4-1. Norwegian ice exports distributed by country (1880–1889)

(Register tons)

	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	Total	In %
UK and Ireland	133,008	154,900	165,474	177,216	210,312	199,986	221,075	234,540	214,650	250,115	**1,961,276**	**76.66%**
Sweden	130	60	5,287	158	3,596	534	484	1,645	916	958	**13,768**	**0.54%**
Denmark	671		14,108	58	29,843	650	135	524	220	1,681	**47,890**	**1.87%**
Germany	145		10,269	73	152,913		817	88		3,589	**167,894**	**6.56%**
France	6,259	8,229	9,007	23,115	28,032	12,354	13,554	13,561	11,430	19,936	**145,477**	**5.69%**
The Netherlands	4,980	11,472	15,054	6,845	35,687	6,504	4,185	6,283	3,213	4,077	**98,300**	**3.84%**
Belgium	2,577	3,031	4,884	7,592	25,235	3,830	6,610	7,005	6,299	7,193	**74,256**	**2.90%**
Spain	644	1,632	916	974	357	163	648	217	1,568	274	**7,393**	**0.29%**
Italy		523	173	360	258	466	2,227	884	1,170	285	**6,346**	**0.25%**
Portugal				358	422	344	457	445	863	624	**3,513**	**0.14%**
US	14,117				301		1,186				**15,604**	**0.61%**
Africa					2,135	2,702	2,444	1,085	2,733	2,904	**14,003**	**0.55%**
Turkey						303	657				**960**	**0.04%**
Other countries	709				879						**1,588**	**0.06%**
Total	**163,240**	**179,847**	**225,172**	**216,749**	**489,970**	**227,836**	**254,479**	**266,277**	**243,062**	**291,636**	**2,558,268**	**100.00%**

Source: Compiled on the basis of Statistics Norway. Historical statistics of external trade (1880–1889).

The next largest importing countries were Germany and France, with 6.6% and 5.7% respectively. For a period of three years during the 1880s, ice was also exported to the US: in the peak year of 1880, 19 sailing ships arrived in New York carrying 14,117 register tons of Norwegian ice.[274] The reason for this export was that New York had a mild winter in 1880, with an average temperature of 3.2°C, and the US was unable to produce enough ice to meet the demand.[275] Prices rose by 300%, making it

274 Statistics Norway. Historical statistics of external trade (1880); Ouren (1991), p. 30. Ouren described exports to the US, but it is possible that ice was also transported to other countries and/or cities; Statistics Norway. Excerpts from annual reports from the consuls of Sweden/Norway (1880), p. 141.

275 Clayton et al. (1927), p. 892. Compiled on the basis of temperatures recorded in December, January and February. Temperatures have been converted from Fahrenheit to Celsius.

profitable to ship ice all the way from Norway.[276] The variations reflected changes in supply and demand often caused by variations in temperatures, as we shall see.

The peak years of 1882 and 1884

There were two record years in the 1880s. Regarding value, 1882 held the record. The winter of 1881–1882 was exceptionally mild in Norway.[277] In December, the average temperature in Kristiania was 0.5°C; in January, it was zero, and in February, it was –1.5°C.[278] It was even milder along the coast and ice exports from the town of Risør were two thirds down on the previous year. No ice was exported from anywhere south of Risør in 1882.[279] It was also a mild winter in Germany and on the Continent in general, with an average temperature of 2.3°C in Berlin.[280] The warmer climate resulted in increased demand for ice, as well as a limited supply, leading to a dramatic price rise. The value of Norwegian ice rose to a record high of NOK 11.84 per register ton, which was the highest recorded value during the period covered by the scope of this book.[281] For those exporters that could deliver ice despite the warm winter, 1882 was a record year. But on the whole, Norwegian ice exporters were unable to deliver sufficient ice to meet customer demand in Europe, and 1882 was the only year prior to the 1920s in which significant quantities of ice were imported to the UK from countries other than Norway.[282]

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276 Ouren (1991), p. 30. Normally, New York obtained ice from the Hudson River and from the vicinity of Boston, Massachusetts and Kennebec, Maine.

277 Ouren (1991), p. 30.

278 Compiled on the basis of temperatures in December, January and February in the Norwegian Meteorological Institute (1958), pp. 43–44.

279 Statistics Norway. Historical statistics of external trade by customs office (1880–1889); Ouren (1991), p. 26.

280 Clayton et al. (1927), p. 502. Compiled on the basis of temperatures in December, January and February.

281 Compiled on the basis of Statistics Norway. Historical statistics of external trade (1870–1930). (1865 = 100).

282 Ouren (1991), p. 31.

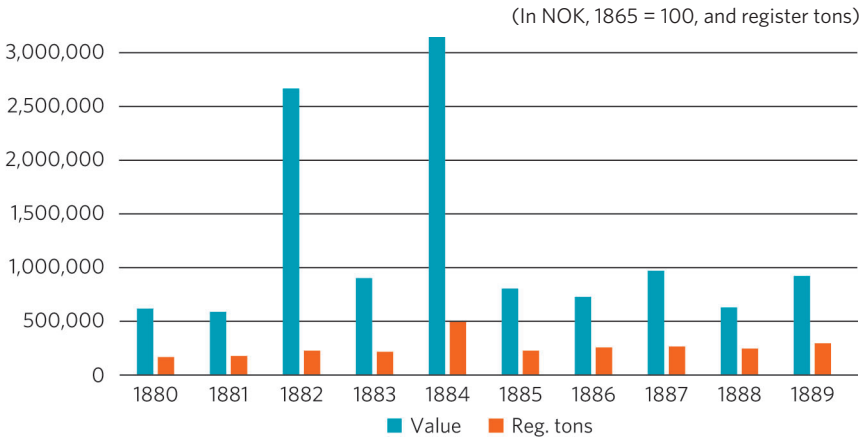

Figure 4-1. Value and volume of Norwegian ice exports (1880–1889).

Sources: Compiled on the basis of Statistics Norway. Historical statistics of external trade (1880–1889).

The other record year, 1884, was the best year for ice exports in volume during the 1880s. Norway experienced a colder winter than most of Europe, while the summer was warm in most places.[283] Demand for Norwegian ice rose in the UK, Germany and many other countries. In contrast to 1882, the Norwegian winter had been cold and there was no shortage of ice to export. It rose to a record of nearly 500,000 register tons and the value of the ice to NOK 6.41 per ton. That meant a total value of over NOK 3,000,000 (see Figure 4-1).[284] As the decade wore on, the annual volume of Norwegian ice exports remained high: between 200,000 and 300,000 register tons. But from 1884, the value decreased to a lower level.

Wiborg & Somerville

As discussed in the previous chapter, Wiborg & Somerville moved to Kristiania in 1879. In 1880, most of the company's ice exports still came from the Brevik area while, at the same time, the company was working

283 See: Temperatures in December 1883, January and February 1884, as recorded by the Norwegian Meteorological Institute (1958), pp. 43–44. Temperatures measured in December 1883, January and February 1884, cited in Clayton et al. (1927), p. 502. The mean temperature of central England 1884, cited in Manley (1958), p. 419.

284 Compiled on the basis of the Thos. J. Wiborg Archive. Chartering journal (1880–1889); Statistics Norway. Historical statistics of external trade (1880–1889).

to enter the market in Kristiania. To attract customers in Kristiania, the company placed advertisements. One of them invited customers to buy shiploads of ice from the Brevik area for onward export (Picture 4-1). It was placed in the Kristiania-oriented, national newspaper *Dagbladet*.


Iisfragter!

Flere Iisfragter haves paa Haand for Lastning fra i Nærheden af Langesund og Brevik.

Christiania 7/1 80.

Wiborg & Somerville.

Picture 4-1. Advertisement for sales of shiploads of ice by Wiborg & Somerville.
Source: The newspaper *Dagbladet* (7 January 1880).

By 1881, the company's work to enter the market in Kristiania seemed to have yielded results. A new export location close to the capital, Løkenæs Kristiania,[285] appeared in the chartering journal. From this site, a total of 16 shiploads of ice were exported that year. In addition, 12 more were exported from other sites in inner Kristiania Fjord.[286] Another 45 shiploads were sent from the southern (Larvik – Risør) region, from the Brevik area.[287] The northern Kristiania Fjord area had by no means supplanted the southern region, but it was growing. Wiborg & Somerville exported a total of 73 shipments of ice in 1881 (11,738 register tons at a value of NOK 38,564).[288] This accounted for nearly 7% of Norway's total ice exports for the year.

285 Located on the Konglungen Peninsula in Asker.

286 Thos. J. Wiborg Archive. Chartering journal (1881). From Nærsnes in Røyken (8 consignments) and Flaskebæk in Nesodden (4 consignments).

287 Thos. J. Wiborg Archive. Chartering journal (1881). From Knardal by the River Porsgrunn (8 consignments); in the following locations on Frier Fjord – Havreager (4 consignments), Sortebogen (8 consignments) and Hitterøbæk (2 consignments); in the following locations by Eidanger Fjord – Ørvik (3 consignments) and Lerstang (5 consignments); Smevika by Ormer Fjord (6 consignments), Bjerke by Langesund Fjord (1 consignment), Elvik by Åby Fjord (4 consignments) and Vaag (strand) by Vågøy Fjord (4 consignments).

288 Thos. J. Wiborg Archive. Chartering journal (1881); Statistics Norway. Historical statistics of external trade (1881).

It is often held that ice exporters typically obtained ice from a single city or customs district (such as Kragerø, Brevik or Drøbak).[289] As we have seen, Wiborg & Somerville and the successive 'Wiborg' companies were different: they bought ice from several cities and districts in both of the main areas of the ice industry. We cannot understand the companies' activities unless we take a broad perspective, beyond the local level to a much wider geographical area. The companies leased ice production facilities and bought ice wherever it was available.

A wide geographical perspective is, perhaps not surprisingly, necessary also when looking at the market that Wiborg & Somerville sold to. If we take a closer look at the company's export destinations, we find that the number of final destinations was very large. The UK was clearly the most important market, but it was a dispersed market: in 1881, for example, the company sent consignments to 13 different destinations.[290] Ice was also sent to Ireland, Scotland and Wales.[291] A similar picture emerges in the case of France where ice was bought by importers in four cities.[292] In Italy, they sold two shiploads to Josias Pernis in Cagliari, Sardinia. The geographical reach of the company was broad and they sold a wide range of quantities, from one shipment upwards.

The new company – Wiborg & Sommerville – marked a turning point in T. J. Wiborg's business career. The company moved to the capital and became more active in Kristiania and the fjord around it in which ice was produced. The sources of ice for export became both more numerous and widespread. On the other hand, sales were broadly dispersed across large areas and varied in relation to quantities sold, down to one shipment in some instances. Wiborg was seeking to export ice that he himself owned. One inroad to this was through ice production, which had been tried but failed; however, the attempts did not stop.

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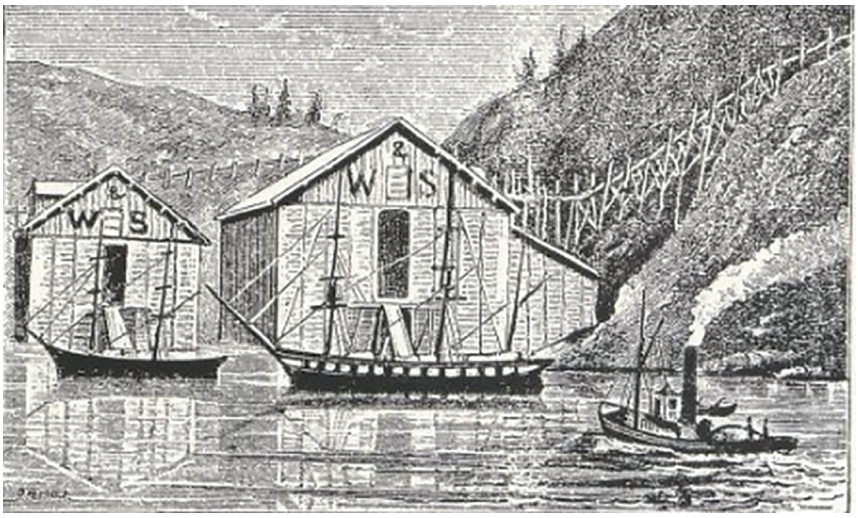
289 Holm (1996), pp. 44, 51; Pedersen (1933), pp. 39, 41; Schilbred (1946), pp. 106–114.

290 Folkstone (4 consignments), Ipswich (1 consignment), Jersey (2 consignments), King's Lynn (3 consignments), Liverpool (9 consignments), London (3 consignments), Newcastle (2 consignments), Preston (4 consignments), Scarborough (13 consignments), Southampton (3 consignments), Stockton-on-Tees (1 consignment), Sunderland (6 consignments) and Whitby (2 consignments).

291 In Ireland, Dublin (3 consignments); in Scotland, Inverness (2 consignments), Leith (6 consignments) and Newport-on-Tay (1 consignment); and in Wales, Swansea (1 consignment).

292 Bordeaux (2 consignments), Calais (1 consignment), Rouen (1 consignment) and Trouiville (1 consignment).

Soon after its establishment in Kristiania in 1879, Wiborg & Somerville decided to produce its own ice. In order to finance this enterprise, both partners took out loans – Wiborg from his family and Somerville from a Mr. W. W. Strode in London, who apparently was a friend of his.[293] In December 1879, the company bought the Knardal ice establishment located by the River Porsgrunn near Brevik and, in the summer of 1880, a second plant was acquired, the Vaag ice establishment in Bamble, not far from the first-mentioned location.[294]



Picture 4-2. The Høvik ice facility, displaying the Wiborg & Somerville company logo.
Source: Schilbred (1949) p. 60.[295]

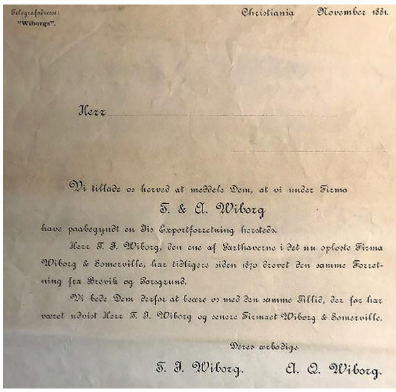
Both of these purchases were mainly financed by a loan from W. W. Strode. However, the businesses failed to flourish as expected and full ownership of both plants was transferred to Strode, just six and twelve months respectively after having been bought. Strode then leased them to Wiborg & Somerville. In the autumn of 1881, Wiborg and Somerville broke up their partnership and the company was dissolved, after which

293 Hambro (1901), pp. 38–44. Verdict of 8 June 1886.
294 Ibid.
295 Schilbred (1949) p. 60. According to Schilbred, Wiborg & Somerville owned the facility, but as far as other sources show, the company did not own it at any time. The picture may indicate that they had such plans.

Strode demanded a payment of a little in excess of GBP 165,000, which was what he meant the company owed him. Somerville accepted and paid his half, but Wiborg refused: a year later, on 17 August 1882, Strode sued him.[296] Wiborg responded with a series of countersuits. It took another four years before a legal decision was handed down, but on 8 June 1886, the court found in favour of both parties' suits and countersuits. However, the claims were calculated at the same amount and the court concluded that they were thus mutually liquidated to the extent that neither party had to pay anything at all.[297]

T. & A. Wiborg

After the break-up of the partnership with his brother-in-law Thomas Townsend Somerville, Wiborg established a new company with his half-brother Axel Quinsgaard Wiborg called T. & A. Wiborg on 8. November 1881. This was the beginning of a 17-year-long collaboration (it came to an end in 1898), and it proved to be successful for both parties.[298]


Telegrafadresse: "Wiborgs".

Christiania November 1881.

Herr

Vi tillade os herved at meddele Dem, at vi under Firma

T. & A. Wiborg

have paabegyndt en Iis Exportforretning hersteds.

Herr T. J. Wiborg, den ene af Parthaverne i det nu opløste Firma Wiborg & Somerville, har tidligere siden 1870 drevet den samme Forretning fra Brevik og Porsgrund.

Vi bede Dem derfor at beære os med den samme Tillid, der før har været udvist Herr T. J. Wiborg og senere Firmaet Wiborg & Somerville.

Deres ærbødige

T. J. Wiborg. A. Q. Wiborg.

Picture 4-3. T. & A. Wiborg brand logo and letter confirming start-up of company.
Source: Thos. J. Wiborg Archive.

296 Hambro (1901), pp. 38–44. Verdict of 8 June 1886. A full description is available at: https://www.nb.no/items/0eee2af1a228c9782ff07739925ad9b8?page=43&searchText=wiborg
297 Ibid.
298 The company enjoyed steady growth throughout the period of the collaboration.

At this time, Wiborg was engaged in whaling off the northern coast of Finnmark in Norway, where he and Axel had only a few months after the T. & A. Wiborg company started co-founded a limited company called the Kiberg Whaling Company.[299] Wiborg acted as 'catch manager' for this company and spent much of the 1880s in Finnmark, while Axel managed the ice export business in southern Norway.[300] But this new line of business came to an end in 1888. T. J. Wiborg wrote that due a shortage of whales, they considered it right to quit the whaling and realise their assets.[301] An advertisement in the newspaper *Morgenbladet* of 30 January 1888[302] stated that the properties, assets and whaling vessels owned by the Kiberg Whaling company were to be put up for sale at a voluntary auction on 27 February 1888. Several letters sent by T. J. Wiborg to his bank N. A. Andresen & Co. from 1889 to 1891 described repeated problems linked to the payment of instalments on outstanding debts related to whaling operations in Finnmark.[303] Wiborg's investments in the whaling business could hardly be described as a success, but the lessons learned may have influenced further business operations in a positive way.

T. J. Wiborg's long absence from the ice business explains why Axel Wiborg assumed sole power of attorney for the company's ice export business from 1884,[304] a position he retained throughout the entire lifetime of the company (see Picture 4-4). The reason for this must have been related to the fact that Wiborg was being sued in the previously described lawsuit and, in addition, had been unable to repay his debt on schedule after the whaling activities had ceased.[305] It must have been seen as likely that their ice company would fare better if he kept in the background, especially in the event that he lost the lawsuit and was liable to

299 Thomas Johannes Wiborg, cited in Sørensen (1912), pp. 111–112. This book contains an autobiographical account of Thomas Johannes Wiborg's whaling enterprise.

300 *Norsk Kundgjørelsestidende* (Norwegian Announcement Gazette) (16, 18 February 1884).

301 Thomas Johannes Wiborg, in Sørensen (1912), pp. 111–112.

302 *Morgenbladet* (30 January 1888).

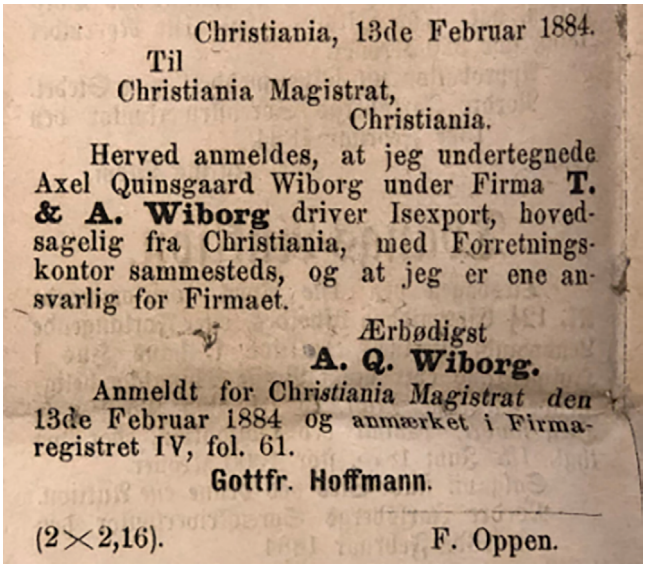
303 Thos. J. Wiborg Archive. Copy book (1888–1892); Letters to the bank N. A. Andresen & Co. (18 November 1889; 1 June 1891; 8 December 1891).

304 *Norsk Kundgjørelsestidende* (Norwegian Announcement Gazette) (16, 18 February 1884).

305 Thos. J. Wiborg Archive. Copy book (1888–1892). Letters to the bank N. A. Andresen & Co. (18 November 1889; 1 June 1891; 8 December 1891).

debt collection. Nevertheless, T. & A. Wiborg remained a joint company throughout its existence.[306]

On 1 November 1884, the company acquired the Knardal ice establishment which Wiborg had given up three years previously in connection with the dissolution of the Wiborg & Somerville company.[307]



Christiania, 13de Februar 1884.

Til
Christiania Magistrat,
Christiania.

Herved anmeldes, at jeg undertegnede Axel Quinsgaard Wiborg under Firma **T. & A. Wiborg** driver Isexport, hovedsagelig fra Christiania, med Forretningskontor sammesteds, og at jeg er ene ansvarlig for Firmaet.

Ærbødigst
A. Q. Wiborg.

Anmeldt for Christiania Magistrat den 13de Februar 1884 og anmærket i Firmaregistret IV, fol. 61.

Gottfr. Hoffmann.

(2×2,16). F. Oppen.

Picture 4-4. Confirmation of Axel Wiborg's sole power of attorney for T. & A. Wiborg.
Source: Norsk Kundgjørelsestidende (Norwegian Announcement Gazette) (16, 18 February 1884).

The 1880s were a period of growth for T. & A. Wiborg (see Figure 4-2). A total of 826 shiploads of ice containing over 150,000 register tons were exported, equivalent to an average of 186 tons per load.[308] Annual volumes varied from 8,284 register tons in 1880 to 26,796 tons in 1889. The total value of the ice amounted to NOK 624,134 and the company accounted for between 3% and 9% of Norway's total ice exports for the entire decade.

306 On dissolution of the company, the company's assets, including its ice production facilities, were allocated among the former partners: 'Owners of the dissolved company T. & A. Wiborg' with both signatures below. See, for example, Thos. J. Wiborg Archive. 'Transfer of ownership of Syverstad ice plant' (23 November 1901). Furthermore, statements of profits show that these assets were distributed among the partners. Thos. J. Wiborg Archive. Copy book (1889–1898), p. 411. Settlement for 1897.

307 Hambro (1901), pp. 38–44. Judgment of 8 June 1886, p. 616–618; Judgment of 11 April 1891.

308 These figures include shiploads exported by the firm of Wiborg & Somerville.

Like the Norwegian ice industry as a whole, 1882 and 1884 were good years for the company. In 1882, it exported 65 shiploads containing a total of 9,087 tons of ice, with a total value of NOK 107,590. This was the highest value achieved in the 1880s. Prices continued to rise as 1882 wore on, and T. & A. Wiborg made almost three times as much profit on a delivery of ice to Scarborough in England in November 1882 as it had for a similar delivery made in February the same year.[309] In 1884, T. & A. Wiborg exported 96 shiploads amounting to 15,893 tons of ice, with a value of NOK 101,915.[310]

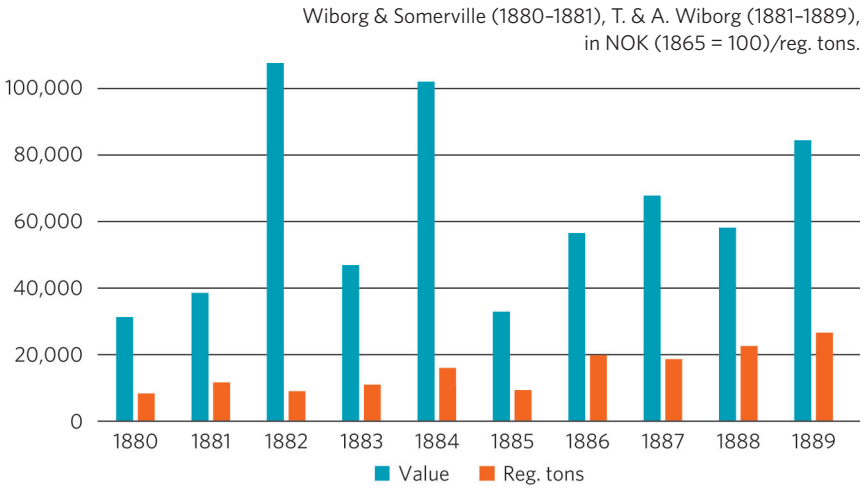


Figure 4-2. Value and volume of ice exports.

Sources: Compiled on the basis of the Thos. J. Wiborg Archive. Chartering journal (1880–1889); Statistics Norway. Historical statistics of external trade (1880–1889).

The Wiborg companies' joint invoice book provides a detailed summary of the company's export performance during the 1880s.[311] Figure 4-3 shows that in terms of exports by country, the UK remained by far the company's largest market, with 82.5% of sales going to the UK (60.7% to England, 21.4% to Scotland and 0.4% to Ireland). France was second with

309 Thos. J. Wiborg Archive. Invoice book (1876–1890).

310 Compiled on the basis of the Thos. J. Wiborg Archive. Chartering journal (1880–1889).

311 Thos. J. Wiborg Archive. Invoice book (1876–1890). Only records for this period are available in the archive material.

10% and Italy third with 2.3%, followed by Portugal, Germany, Belgium, Algeria and Denmark.

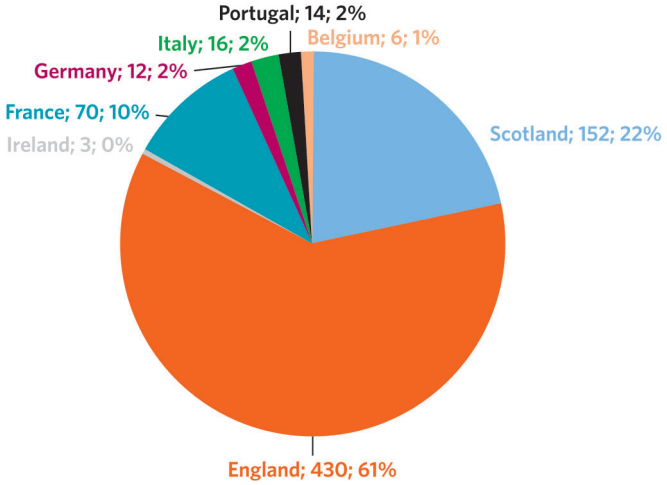


Figure 4-3. The Wiborg companies, selection of long-term customer relationships, by country (1877–1889).

Source: Thos. J. Wiborg Archive. Invoice book (1876–1890).

The invoice records also allow us to account for about 682 of the 826 shiploads of ice exported by the company during this decade. Table 4-2 illustrates the diversity of the companies that bought ice from Wiborg.

Table 4-2. The Wiborg companies: list of ice sales (1876–1890)

Purchasing company	Port of discharge	Shiploads of ice	First year	Last year	Number of years
John Anderson & Sons	Edinburgh / Leith	61	1876	1885	10
Peacock Brothers	Sunderland	22	1876	1881	6
Charles Freeman	Inverness	12	1877	1890	14
Prytz & Co.	Bordeaux	11	1877	1889	13
H. P. Robinson	Newcastle	29	1878	1886	9
W. B. Whall Esq.	King's Lynn	19	1878	1890	13
Josias Pernis	Cagliari	13	1878	1888	11
C. C. J. North & Co.	London	4	1878	1885	8
James Sellers & Wyrill	Scarborough	68	1880	1886	7
Charles Muirhead	Edinburgh	19	1880	1887	8
Thos. Browne	Newcastle	16	1880	1890	11
Süter & Co	Liverpool	15	1880	1887	8
H. J. Ropes	Liverpool	13	1880	1890	11
John Hillidge	Preston	12	1880	1890	11
Div	Penzance	5	1880	1890	11

Purchasing company	Port of discharge	Shiploads of ice	First year	Last year	Number of years
Div	Tralee	2	1880	1890	11
John Miller	Whitby	10	1881	1887	7
A. Pain	Rouen	9	1881	1887	7
Kenny & Co.	Southampton	7	1881	1885	5
Brodersen, Vaughan & Co.	Liverpool	6	1881	1889	9
Charles Muirhead	Leith	7	1882	1884	3
John Wotherspoon	Glasgow	6	1882	1888	7
Smack ice owner	Ramsgate	3	1882	1890	9
A. Hercier	St. Nazaire	14	1883	1890	8
G. W. Jones, Heard & Co.	Newcastle	9	1883	1889	7
G. Krokisiüs	Stettin	5	1884	1884	1
Holsterbro Svineslagteri	Struer	3	1884	1885	2
John Goodchild & Co.	London	25	1885	1890	6
Peter Johnstone	Aberdeen	16	1885	1889	5
Domingos, Moreira, Garcia & Co.	Lisbon	14	1885	1890	6
Alec. Sandison	Uyeasound & Baltasound	6	1885	1890	6
George Robertson	Kirkwall	5	1885	1890	6
H. H. Playford	London	4	1885	1887	3
Scarborough Smack Owners Ice Co.	Scarborough	52	1886	1889	4
Haagensen & Co.	Grimsby	24	1886	1890	5
H. Fourny Cheri	Boulogne	6	1886	1886	1
H. Casteels de Coene	Ostende	6	1886	1888	3
Messrs Hay & Co.	Lerwick	5	1886	1888	3
Le Corre Freres	Loctudy	5	1886	1890	5
Brasserie & Maltherie Algerienne	Algiers	3	1886	1886	1
Domenico Toscano	Messina	3	1886	1888	3
Carlo Gatti	London	1	1886	1886	1
J. Muland	Calais	11	1887	1890	4
A. Bryford & Co.	Liverpool	11	1887	1890	4
The North Eastern Ice Co.	Newcastle	11	1887	1889	3
Others	Lerwick	5	1887	1890	4
J. M. Combie & Co.	Peterhead	5	1887	1890	4
Chr. Salvesen & Co.	Leith	1	1887	1887	1
Knutsen & Montgomery	Sunderland	11	1888	1890	3
Colgate & Grey	Newhaven	9	1888	1890	3
Isle of Thannet Ice Co.	Ramsgate	8	1888	1890	3
Duus Browne	London	7	1888	1890	3
J. B. Delfierre & Co.	Boulogne	6	1888	1890	3
Lütke & Co.	Glasgow	4	1888	1890	3
W. B. Harrison	Sunderland	4	1888	1890	3
Blichfeld & Co.	London	7	1889	1890	2
Schwoon & Co.	Bremerhaven	4	1889	1890	2
Pierre Lequellec	Quiberon	3	1889	1889	1
Total number of cargoes		**682**			

Source: Thos. J. Wiborg Archive. Invoice book (1876–1890).

The export destinations covered a broad geographical area. T. & A. Wiborg exported ice to locations from the Shetland Islands in the north to Algiers in North Africa in the south; to large cities such as London, Lisbon and Stettin, and to smaller settlements such as Uyeasound and Baltasound in the Shetland Islands, Struer in Denmark and Fenit, one of the westernmost ports in Ireland. The companies that bought the ice, as well as the number of ice cargoes and the years in which the companies bought ice are covered by the invoice book. There were large variations in the number of cargoes purchased by individual importers and also in the duration of their business relationships with T. & A. Wiborg. For example, one company purchased just two cargoes over a period of ten years, while two other companies, described below, together bought a total of 120 cargoes over a ten-year period. Although some connections were short-lived, T. & A. Wiborg established many connections that endured far beyond the period covered by the invoice records.[312] In other words, the company succeeded in establishing many new and durable business relationships, involving regular trade transactions. As we will see, these regular customers were important to the company and enabled it to survive when the market was in decline, as it was during the second half of the 1890s up until 1898.

Ice transport and the chartering of ships

A total of 826 shiploads of ice was exported by T. & A. Wiborg in the 1880s, all by chartered vessels. There is no detailed information about how this chartering took place, but according to the company protocols, ships were chartered through both Norwegian and foreign shipbrokers. Brokers would contact T. & A. Wiborg when they had a suitable ship available for an ice cargo, and the company would contact brokers when they needed a ship for ice transport. The origin of the vessel was probably irrelevant provided that the price was low and the crew had experience

312 We refer, for example, to protocols with ice contracts, chartering journals and copy books in the Thos. J. Wiborg Archive.

in shipping ice. According to Professor Worm-Müller, this was the usual approach to chartering ships at the time.[313] The shipbrokers were the best judges of which ships were suitable for carrying ice and were aware of key factors such as the quality of the ship and whether or not it was insured.[314] T. & A. Wiborg and the other ice exporters relied greatly on the brokers' expertise in such matters.

Of the 826 ships that carried ice for T. & A. Wiborg in the 1880s, 34% were foreign.[315] (See Table 4-3). Foreign vessels were chartered in the same way as Norwegian ships and sailed for the most part from Norway to a country other than the vessel's country of origin, as was common practice, known as 'third country shipping'.

The shipping market was clearly international and also linked to the transition from sails to steam, where many shipowners had switched from sails to the new technology. However, there were shipping companies based in many European countries that had not yet made the change and continued to invest in the wooden sailing ship sector, and ice transport from Norway was a potential market for them.

At the same time, steamships had also started transporting ice, and the first steamships to carry ice for T. & A. Wiborg appeared in the 1880s (their activities are summarised in Table 4-3.). The first steamship was the SS *Victoria* of Kristiania, which transported a cargo of 350 tons of ice to Aarhus in Denmark in May 1882,[316] while the second, SS *Sandra*, was Scottish and transported 210 tons of ice to Glasgow in July the same year.[317] This vessel was owned by the Glasgow ice importer John Wotherspoon and the cargo was sold 'free on board' (FOB); in other words, Wotherspoon was to pick up the cargo in the Norwegian port and take over responsibility for the ice from there. From 1882 until 1916, some ice from Wiborg was transported by steamship every year with

313 Worm-Müller (1950), pp. 436–441.
314 Ibid.
315 Thos. J. Wiborg Archive. Chartering journals (1872–1891).
316 Thos. J. Wiborg Archive. Invoice book (1876–1890), p. 148.
317 Ibid, p. 150.

Table 4-3. Nationality, number and types of ships used to transport ice

Chartered by Wiborg & Somerville (1880–1881) and T. & A. Wiborg (1882–1889)

Year	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	Total
Denmark	13	29	18	7	34	12	11	13	3	23	163
Sweden		1	4		5	4		1	2	5	22
Finland					1						1
England	4	9	5		5	1	2	2	5	17	50
Scotland		1	2	2			1	1		1	8
Ireland	1			1							2
Germany	5			1	5	3	6	1		1	22
France		1								6	7
The Netherlands		1	2								3
Total foreign	**23**	**42**	**31**	**11**	**50**	**20**	**20**	**18**	**10**	**53**	**278**
Total Norwegian	**36**	**31**	**34**	**50**	**46**	**38**	**72**	**71**	**90**	**80**	**548**
Total ships	**59**	**73**	**65**	**61**	**96**	**58**	**92**	**89**	**100**	**133**	**826**
Foreign in %	39%	58%	48%	18%	52%	34%	22%	20%	10%	40%	34%
Norwegian in %	61%	42%	52%	82%	48%	66%	78%	80%	90%	60%	66%
Steamships	0	0	2	1	12	0	10	5	2	7	39
Steamships in %	0%	0%	3%	2%	13%	0%	11%	6%	2%	5%	5%

Sources: Compiled on the basis of Thos. J. Wiborg Archive. Chartering journal (1872–1891).

the exception of 1885. It was clear that this new technology had made its entrance into the ice trade. We will return to this in the chapter dealing with the 1890s.

Exporting ice to Scarborough

The ice export trade was very much dependent on the fisheries sector, which purchased large quantities of ice in order to cool catches during transport to the urban centres. One important fishing port was Scarborough in Yorkshire, England. In the 1880s, three trawler companies from Scarborough purchased a total of 120 shiploads of ice from T. & A. Wiborg. Messrs Sellers & Wyrill purchased a total of 68 shiploads in the period from 1880 to 1886, and the Scarborough Smack Owners Ice Co. purchased 52 shiploads in the period from 1886 to 1889.[318]

318 Ibid.

Although this ice was destined primarily for the fishing sector, it was also made available to local households and the town's various hotels and tourist spas. James Sellers and Henry Wyrill worked closely together and were major players in Scarborough's trawling sector, owning a number of sailing trawlers or smacks.[319] In addition to owning boats, they invested in others and were also involved in the sale of fish. This led them to start importing natural ice.[320] In the 1880s, however, a crisis developed in the British sail trawling sector due to overfishing in the North Sea. This had a major negative impact on Scarborough's fishing industry, leading to several bankruptcies, including that of Henry Wyrill, whose business went under in 1885. James Sellers died two years later.[321]

Despite all this, T. & A. Wiborg continued to export ice to Scarborough and, in 1886, Scarborough Smack Owners Ice Co. began to purchase ice from the company.[322] However, Scarborough's days as a fishing port were coming to an end, largely due to its sailing trawlers becoming unprofitable in the face of competition from the new steam trawlers, which could fish at greater distances from ports. As a fishing port, Scarborough was too small to accommodate a large steam trawler fleet,[323] and the newer steam trawlers came to be centralised in the larger east coast ports, such as Hull, Grimsby and North Shields, which had the capacity to accommodate the fleet.[324] These developments may help to explain why T. & A. Wiborg, after selling 120 shiploads of ice to Scarborough during the 1880s, ceased exporting to the town.[325]

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319 E-mail from Dr Robb Robinson, Blaydes Maritime Centre, University of Hull (19 June 2020).

320 Ibid.

321 Ibid.

322 Thos. J. Wiborg Archive. Invoice book (1876–1890).

323 The city had its spa tourism to fall back on and in fact went on to expand this sector. The town continues to be known for its spa. https://www.scarboroughspa.co.uk/

324 E-mail from Dr Robb Robinson, Blaydes Maritime Centre, University of Hull (19 June 2020).

325 No sales of ice to Scarborough were registered in the Thos. J. Wiborg Archive after 1889.

Exporting ice to Portugal

From 1885, T. & A. Wiborg played a key role in supplying ice to Portugal. Ice had been exported sporadically to the country since the 1840s.[326] During the 1880s, exports grew because ice was needed to facilitate storage and processing in the fisheries and brewery sectors.

Ice exports to Portugal in the 1880s started up in 1883, as we can see from the consular reports from Lisbon.[327] The consulate recorded the arrival of two small shipments of ice.[328] A couple of years later, from 1885, T. & A. Wiborg took over much of the export trade to the city and over the next six years sold a total of 14 shiploads to the Domingos, Moreira, Garcia & Co., and one shipment to Companhia Uniao Industrial Lisbonense (see Figure 4-4). These transactions established the company as the dominant ice exporter to Portugal during the 1880s.[329] The consul expressed great faith in the profitability of exporting ice to Lisbon, but not to the city of Porto, where he argued that the climate was too cold to make the trade profitable, not least because the ice that was collected from the nearby mountains in winter was sufficient to meet the city's needs.[330]

Thomas Johannes and Axel Wiborg had brothers who were twins, Trygve and Bjarne. The twins settled in Lisbon in 1889 and 1890 respectively, and established a business for the production and trade of cork bark in 1900.[331] In 1889, Wiborg asked in a letter to Trygve if he could sell ice for T. & A. Wiborg in Lisbon, but there is no further record of this, so it is unlikely that it ever took place.[332]

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326 Olsen (1981), p. 14, cited in Norseng (2019).

327 Norway was in a union with Sweden and had no consuls of its own to represent Norwegian interests abroad. The economic effects this had, especially on exports, resulted in a demand for independent Norwegian consuls. This actually became a central theme in the struggle for separation from Sweden in this period, which ended with the dissolution of the union in 1905.

328 Statistics Norway. Excerpts from annual reports from the consuls of Sweden/Norway (1883), p. 116.

329 Thos. J. Wiborg Archive. Invoice book (1876–1890).

330 Ibid.

331 Fleischer (1925), p. 63.

332 Thos. J. Wiborg Archive. Copy book (1889). Letter to Trygve Wiborg (11 December 1889).

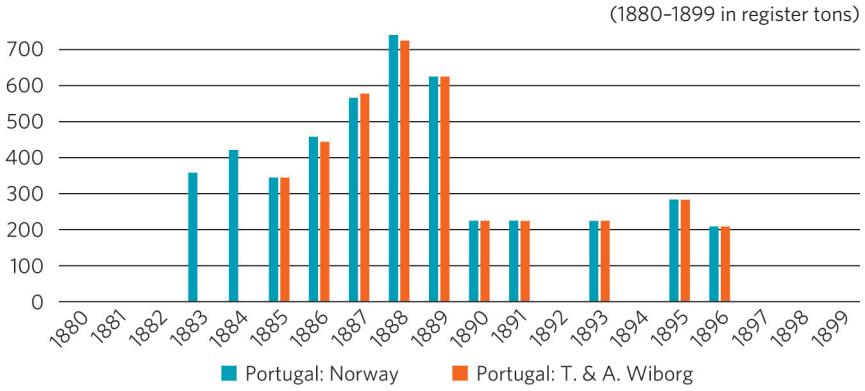

Figure 4-4. Exports of ice to Portugal: T. & A. Wiborg and Norwegian ice exports.

Sources: Compiled on the basis of the Thos. J. Wiborg Archive. Invoice book (1880–1889), Chartering journal (1890–1899); Statistics Norway. Historical statistics of external trade (1880–1899).[333]

In 1896, T. & A. Wiborg's and, in effect, all of Norway's exports of ice to Portugal came to an end. The main reason for this was that in 1891, Portugal introduced a six-fold increase in its tariff on Norwegian ice in order to protect its domestic ice factories.[334] Subsequently, only a single brewery in Lisbon continued to receive imports from Norway.[335] In 1894, a newspaper article was published claiming that natural ice was unhygienic and this was the reason, according to the consul, why the brewery cancelled its order for that year.[336] Deliveries were resumed to the brewery in 1895 and 1896, but the trade was coming to an end. The consul reported in 1898 that 1896 was in fact the last year in which ice was imported and that imports had ceased altogether.[337] The ice factories had succeeded in removing their competitor.

333 There is probably a displacement of the records of Norwegian ice exports for the years 1887 and 1888. It is likely that the total is correct, but with an erroneous annual distribution. The consular accounts for 1887 state that more ice was imported than is indicated in the historical statistics. Unfortunately, there is no consular report for 1888. Norwegian exports in 1887 and 1888 are thus based on the consular report for 1887 and the Thos. J. Wiborg Archive. Invoice book (1887–1888), Chartering journal (1887–1888).

334 Statistics Norway. Consulate reports from the consuls of Sweden/Norway (1891), p. 466.

335 (The name is not mentioned). Statistics Norway. Consulate reports from the consuls of Sweden/Norway (1893), p. 633.

336 Statistics Norway. Consulate reports from the consuls of Sweden/Norway (1894), p. 563.

337 Statistics Norway. Consulate reports from the consuls of Sweden/Norway (1898), p. 853.

Ice exports to Algeria and the sale of ice to warmer climes

In the period 1884 to 1886, T. & A. Wiborg exported four shiploads of ice to Algeria. This trade serves very well to highlight the problems associated with selling ice to warmer regions. The first ice exported to North Africa in the 1880s was to Algeria in 1884.[338] According to the consular report, a brewery called Brasserie Malterie Algerienne received all Norwegian exports of ice in this year, a total of 2,212 tons. The ice was partly for use in the brewing industry and partly for local resale.[339] The report states that the ice came from the Kragerø district and was transported to Algeria in five separate steamship cargoes.[340] It is not entirely correct that all the ice came from around Kragerø, as one of the shipments was sold by T. & A. Wiborg and came from Løkenæs in Asker, just outside Kristiania. The ice was transported by the SS *Norden*, which left Norway on 11 September carrying 497 register tons of ice for delivery to F. M. Bürke Esq. in Algeria.[341]

The consul was unsure as to whether ice imports from Norway would be successful, emphasising that factory-made ice had been produced in the city for several years using state-of-the-art equipment.[342] However, it was added that ice imports would succeed provided that an ice house was built in the city, which could be used as a base for transporting the commodity both inland and along the coast. The consul went on to encourage larger Norwegian ice exporters to take an interest in the ice house company to give it greater weight.[343]

In 1886, T. & A. Wiborg sold three sailing ship cargoes of ice, totalling 1,565 register tons, to the Brasserie Malterie Algerienne.[344] The barque *Cito*

338 Statistics Norway. Historical statistics of external trade by country (1880–1889); Excerpts from annual reports from the consuls of Sweden/Norway (1884).

339 Statistics Norway. Excerpts from annual reports from the consuls of Sweden/Norway (1884), p. 341.

340 Statistics Norway. Excerpts from annual reports from the consuls of Sweden/Norway (1885), p. 315.

341 Thos. J. Wiborg Archive. Invoice book (1884); Chartering journal (1884).

342 Statistics Norway. Excerpts from annual reports from the consuls of Sweden/Norway (1884), p. 341.

343 Ibid.

344 Thos. J. Wiborg Archive. Invoice book (1884, 1886), Chartering journal (1884, 1886).

left Bjerkås in Asker outside Kristiania on 11 February carrying 517 register tons and arrived in Algeria on 16 March. Subsequently, on 21 June, the barque *Petrus* left Knardal in Porsgrunn loaded with 540 register tons, arriving in Algeria on 27 July, and the full-rigged ship *Christiania* left Sjøstrand[345] in Asker outside Kristiania on 11 September with a cargo of 508 register tons of ice, arriving in Algeria on 18 October.[346]

Sales of ice to Algeria[347] illustrate the problems encountered by companies attempting to export ice to warmer regions. Under ideal conditions, a standard steamship was expected to unload twice as much ice in weight (metric tons) as its registered tonnage. The corresponding figure for sailing ships was 1.5 times as much.[348]

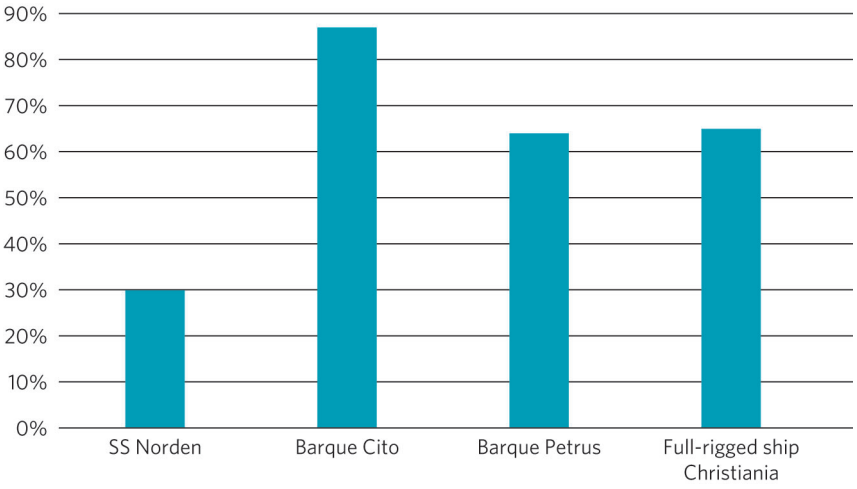

Figure 4-5. Percentages of ice arriving in Algeria on four vessels sent by T. & A. Wiborg.
Source: Thos. J. Wiborg Archive. Invoice book (1884, 1886), Chartering journal (1884, 1886).

345 Lokalhistoriewiki.no Sjøstrand (Asker) https://lokalhistoriewiki.no/wiki/Sj%C3%B8strand_(Asker).

346 Thos. J. Wiborg Archive. Invoice book (1884, 1886), Chartering journal (1884, 1886).

347 Surland (2021) sheds some light on the ice trade with Algeria.

348 Den Norske Sagførerforening (1902), pp. 511–512. Some types of steamships were built so that they could load more ice than a so-called 'standard' steamship, although constructed to the same rating in terms of register tons. So-called 'Glasgow' type steamships could carry so much ice that they were able to unload as much as 3.5 times their register ton rating. Such ships were purpose-built to carry large bulk cargoes and, according to this reference, were not commonly used for the transport of ice. Some ice export contracts banned the use of such ships for 'free on board' transport.

Figure 4-5 presents a summary of the percentages of ice remaining when the vessels unloaded their cargoes in Algeria: SS *Norden* in 1884 and the *Cito*, *Petrus* and *Christiania* in 1886. The steamship *Norden* unloaded with only 30% of its cargo remaining, while the *Cito*, *Petrus* and *Christiania* unloaded 87%, 64% and 65%, respectively. The figures for the wooden sailing ships were much as expected. In the case of the *Cito*, which departed in February and arrived in March, only 13% of its ice melted, probably due to the fact that it completed its journey in winter and that the crew had expertise in the transport of ice. In the case of the *Petrus*, only 36% of the cargo was lost, which was a good performance considering that the journey took place in the middle of summer. This was probably a reflection of the skill of an experienced crew. In the case of the *Christiania*, which departed on 11 September and arrived in Algeria on 18 October, 35% of the cargo melted, probably due to the fact that the voyage was completed across the Mediterranean in warm, late-summer temperatures. This was the only voyage made by this vessel for T. & A. Wiborg. It was otherwise engaged primarily in the overseas timber trade.[349]

The question remains as to why so much ice melted on board the SS *Norden*, which being a steamship should have been able to transport its cargo much faster than the sailing ships. One problem is that since we lack information about the date of arrival, we cannot determine whether the vessel was in some way delayed. It was fully loaded and departed from Løkenæs on 11 September, so temperatures during the voyage should have been favourable. It had previously carried wine from France and Spain, so the crew ought to have been familiar with Mediterranean trade.[350] However, the ship was built of iron and had to have a garnishing of planks before the ship could load ice. As such, it was not ideally suited to ice transport and it was, in fact, one of the first steamships used by T. & A. Wiborg for this purpose. It is possible that the crew was not experienced in ice transport and that melting was the result of poor management and handling, causing the cargo to melt by contact with the iron hull or

349 Norwegian Maritime Museum. The Petter Malmstein Sailing Ship Register. Including Canada's east coast and from the White Sea.

350 Andersen (1978), p. 59.

engine-room bulkheads. The fact that this voyage was the only one made by the SS *Norden* for T. & A. Wiborg may lend support to this idea.[351]

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The volume of ice exports increased during the 1880s. The two best years were 1882, a mild year with a shortage of ice and rising prices, and 1884, the peak year of the 1880s with both a good supply and demand and a record year for the Norwegian ice industry.

In the autumn of 1881, Wiborg and Somerville broke up and the company was dissolved. A new company, T. & A. Wiborg, was established by T. J. Wiborg together with his half-brother Axel Quinsgaard Wiborg. The transport of ice continued exclusively with chartered ships, and the company's ice was transported by both foreign and Norwegian vessels. The decade also represented the start of the company's shipping of ice by steamships.

351 Thos. J. Wiborg Archive. Chartering journal (1872–1891).