

CHAPTER 6

The Iceman Cometh

O Iceman! My Iceman! summer at length is here,
The gladdest, gayest time for you of all the circling year;
For when beneath a sultry sun the milk is turning sour,
And butter's rank and meat goes bad, then is the Iceman's hour.

O Iceman! my iceman! pray daily bring to me
A solid block of crystal ice from faultiness quite free.
I'll put it in my ice-safe – refrigerator called –
And then before no magistrate shall I ever be hauled!²³⁴

The second half of the nineteenth century was the age of the telegraph. For Victorian and Edwardian economy and society, it formed a precursor of the modern internet. Telegraphic communication revolutionized the conduct of business, the exercise of law and order, the operation of the military, not to mention the lives of people. For the ice trade, the telegraph could hardly have been more critical. It was the means by which London ice merchants, for example, were able rapidly to re-stock their stores when high summer temperatures caused a surge in demand, especially from among the general public. Messages to Norway requesting prompt steamer cargoes pulsed down the telegraph wires. In the same way, the telegraph was a means by which customers at home could place orders for ice with the local merchants. And so conscious were such merchants of the role of the telegraph for their businesses that they were endlessly inventive when it came to selecting telegraphic addresses.²³⁵ Some went for the obvious, such as the Cardiff Pure Ice Company, with simply 'Ice Cardiff', 'Ice Newport', 'Ice Barry' and 'Ice Milfordhaven' to cover its four premises. The Liverpool Imperial Cold Stores was more imaginative, though, choosing 'Hoarfrost Liverpool'. The Bolton Pure Ice Company

²³⁴ *Cold Storage and Ice Trades Review* III (1900), p. 101.

²³⁵ Addresses are taken from advertisements in the *Cold Storage and Ice Trades Review*.

used 'Icecold', while among other memorable telegraphic addresses were 'Polar', 'Snowcap' and 'Icicle'. However, telegraphic communication could have its downsides. Messages could become garbled in transcription. In 1866, for instance, a London ice importer wrote to a Hull ice merchant inviting him to offer a price for a 100-ton cargo of ice then aboard a schooner at Grimsby. The purchaser replied by telegraph that they would offer 23/- a ton, but a telegraph clerk subsequently mis-transcribed this as 27/-. Having ordered the schooner captain to proceed to Hull, the ice importer then found that the purchaser refused to receive the cargo on the grounds that he had offered 23/- not 27/- for each ton of ice. The matter ended in a court case, in the process raising important general points of law.²³⁶

The sudden surges in demand for ice that telegraphic communication was so vitally important in meeting had an allied contingent in the shape of the need for extensive storage capacity. All commodity trades require storage, but its scale varies according to the periodicities and synchronicities of demand and supply, and the extent to which prices vary from month to month and from year to year. Of all commodities, the ice trade necessitated very extensive storage capacity. In Norway, this was because ice was inevitably harvested in winter at the time when it was in least demand. In Britain, it related to the way ice demand was characterized by an acute summer peak, a few weeks in June, July or August when consumption grew exponentially, and in a manner that no conventional trading capacity could go anywhere towards meeting. Extensive storage was also necessary because most English traders in natural ice obtained their supply during the months from early spring to early summer when contract cargoes could be obtained at relatively cheap rates. The report on ice and cold storage in London, prepared for the London County Council in 1904, gave details of one ice well that was all of 104 feet deep, had a diameter of 40 feet, with perhaps the whole available space in constant use.²³⁷ Occasionally, pickaxes or other tools fell down in the crevices between the ice blocks and were not recovered for several years. Leftwich and Company, ice merchants at Little Albany Street in London,

²³⁶ *The Times*, 22nd April 1869.

²³⁷ W.H. Hamer, *Ice and Cold Storage: Report for London County Council* (London, 1904) – a detailed summary appeared in *Cold Storage and Ice Trades Review* VIII (1905), pp. 4–8.

THE CARDIFF PURE ICE
 AND
COLD STORAGE CO.,
 LIMITED,
 (NEALE & WEST, Managers)
 ICE MANUFACTURERS & IMPORTERS.

Cold Storage for Cargoes of Foreign Meat.
 Storage for Local Butchers; also for Butter, Cheese, Bacon,
 Game, Poultry, Fruit, Fish, &c.

For Terms, &c., apply Head Offices, Tresillian Terrace, Cardiff.

Branches:—

CARDIFF.	Tresillian Terrace.
BARRY DOCK.	No. 2 Dock.
NEWPORT, MON.	Shaftesbury Street.
MILFORD HAVEN. Dock	

Output of Ice— 500 tons Weekly.

Cold Storage space for 150,000 Sheep, Butter, Beef, &c.
 Separate Rooms for all sorts of Provisions, Game, Poultry,
 Fruit, and Fish.

Telegrams :	Telephones .
"ICE, CARDIFF."	CARDIFF - Nat. 666.
"ICE, MILFORDHAVEN."	" - P.O. 532.
"ICE, NEWPORT."	NEWPORT - P.O. 517.
"ICE, BARRY."	BARRY - P.O. 12.

Figure 6.1. The Cardiff Pure Ice Company's advert from the *Cold Storage and Ice Trades Review* of January 1900 (Bodleian: Per 193998 d.1/II p. x).

had an 82-foot-deep ice well with a capacity of 1500 tons of ice. According to an account given by one of the family members, Richard Leftwich, in 1899, the well resembled an egg in shape, some 34 feet in diameter at its widest part. Originally a water well that extended 600 feet down to the chalk stratum, the residual well-shaft provided an easy means of drainage for ice that melted.²³⁸ The same firm had further ice wells in

²³⁸ *Cold Storage and Ice Trades Review* II (1899), p. 35.

Camden Town, one of which was cylindrical in shape and reputedly had a capacity of 3,000 tons.²³⁹ At London's Cumberland market, built in 1830, there was, as we have seen, an underground ice-store 82 feet deep with a capacity of 1,500 tons. Towards the close of the nineteenth century, as London's leading ice businesses expanded and as combination brought larger and larger firms into being, the size and range of ice storage facilities increased. The North Pole Ice Company, for example, founded in 1899, had stores at Waterloo, Camden and Greenwich by 1905.²⁴⁰ Together these could hold 14,000 tons of ice. The Waterloo store was the biggest, comprising all of the railway arches under Waterloo Railway Junction. The North Pole Company's great rival, United Carlo Gatti, Stevenson and Slaters, had some half a dozen ice stores by 1901. The principal one was at Ransome's Dock, Battersea, the others at Westminster, King's Cross, Commercial Road, Shadwell and Stepney. Together they could accommodate 11,700 tons.²⁴¹ In 1898, the *Cold Storage and Ice Trades Review*, in its news column, recorded the unfortunate death of a lighterman in charge of an ice-berge in Ransome's Dock. He was drowned in the basin there.²⁴²

Large ice stores were no strangers to cities and towns outside London. At Liverpool, the ice merchant, H.T. Ropes, maintained an extensive store at their premises in North John Street. The business had started life in 1847 and was first known as the Wenham Lake Ice Company. At that time the ice was imported from America, from Lake Wenham in Massachusetts. After 1869, however, the firm's ice imports were exclusively Norwegian. It became a limited liability company in 1899 and had been run by successive generations of the Hinchliff family who maintained that it was the oldest ice importing business in Britain. In fact, the firm had a remarkable record for the length of service of its various employees. Thomas Kearney, the warehouse keeper in 1909, had worked for H.T. Ropes for 40 years, and there were other men of his age who had started as errand boys and who, by 1909, had sons who were also employed in the business. The company's founder was a shipowner from

²³⁹ *Ibid.*

²⁴⁰ *Ibid.*, VIII (1905), p. 98.

²⁴¹ *Ibid.*, IV (1901), p. 131.

²⁴² *Ibid.*, I (1898), p. 100.

ICE! ICE!! ICE!!!

Largest English Firm of Ice Merchants in England

ANNUAL OUTPUT OVER 70,000 TONS

SLATERS, Ltd.

Wholesale Ice Merchants

PURE NORWEGIAN LAKE BLOCK ICE

DEPOTS AND WHARVES

Park Road, Battersea, S.W.

(Chief Depot)

Martha Street, Shadwell, E.

Commercial Road, E.

Millbank Street, Westminster, S.W.

North Road, King's Cross, N.

Ann Street, Stepney, E.

SLATERS, LTD.

**Supply Ice under Contract to the largest Stores, Hotels, Butchers,
and Fishmongers in London.**

THE TRADE, HOTELS, SHOPS, AND LARGE CONSUMERS ONLY SUPPLIED.

CONSTANT AND REGULAR DELIVERIES IN ALL PARTS OF LONDON.

KINDLY WRITE FOR QUOTATIONS, WHICH WILL BE IMMEDIATELY SUPPLIED.

Figure 6.2. Advertisement of August 1900 for Norwegian ice supplied by the London firm of Slaters, not long before it merged with other ice businesses to become the United combine (Bodleian: Per 193998 d.1/III p. 182).

the early decades of the nineteenth century, with a fleet of sailing ships working out of Liverpool.²⁴³

At King's Lynn in Norfolk, natural imported ice was stored in deep cellars or vaults beneath the dockside warehouses. Once used for storing imported wine, they formed ideal ice stores, the ice blocks showing

²⁴³ See the respective accounts in *Cold Storage and Ice Trades Review* II (1900), pp. 153-4; *idem.*, XII (1909), p. 127.

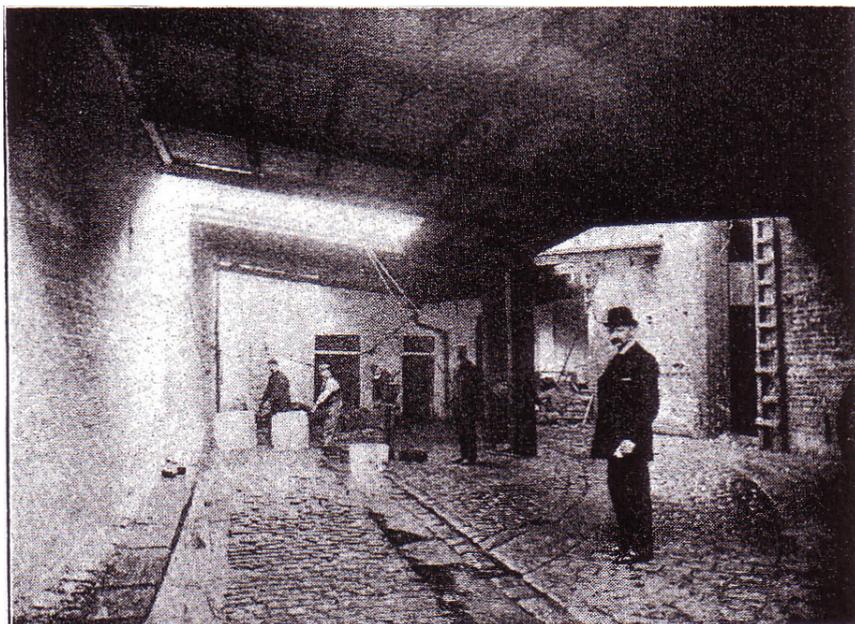


Figure 6.3. H.T. Ropes's ice store at North John Street in Liverpool (Bodleian: Per 193998 d.1/IX p. 145).

only minimal loss during the winter months.²⁴⁴ At nearby Lowestoft, Norwegian ice was stored in a specially thatched ice house where a quay-side gantry facilitated the unloading and loading of ice blocks from and to waiting vessels.²⁴⁵ The thatch plainly had insulating benefits, although how this compared with ice that was kept in underground wells or cellars is not apparent. In Southampton, there were not only half a dozen or more ice cellars in the town itself, but also ice stores outside of the town at Shirley and at Sholing. The Shirley store was under the Ice House Inn there. The Sholing store was at one time used by a steam shipping company. All were supplied with Norwegian block ice landed at Southampton's town quay.²⁴⁶

The Norwegian ice trade into King's Lynn was recalled by one of the town's older residents from the time when he lived there as a child, in 1913. His father was among a group of local businessmen who had set up the

²⁴⁴ S.P. Beamon and S. Roaf, *The Ice-Houses of Britain* (London, 1990), p. 50.

²⁴⁵ R. Maltster, *Lowestoft East Coast Port* (Lavenham, 1982), p. 116.

²⁴⁶ M. Ellis, *Ice and Icehouses through the Ages, with a Gazetteer for Hampshire* (Southampton, 1982), pp. 45-7.

Eastern Counties Ice Company and he remembered watching ice blocks being lifted from the holds of ice steamers by means of manual hoists and then taken precariously in wheelbarrows down narrow wooden gang-planks on to the wharf. Given the weight of the ice blocks, this was a feat requiring a fine balance. Otherwise, wheelbarrow, ice block and dock-worker would easily tumble into the wharf basin itself.²⁴⁷

The task of excavating ice from ice-stores or ice-wells was no easy one. If individual blocks had not been stored in dry condition and if they had not been properly packed, with layers of sawdust or some other non-heat-conducting substance between them, the ice blocks could fuse into giant and almost unmanageable masses. In 1871, *The Times* reported a fatal accident at the Gatti ice-well in Islington. Six labourers were in the process of digging out a block of Norwegian ice about eight feet high and two tons in weight when part of it broke away and collapsed on one of the workmen, fatally injuring him. At the ensuing coroner's inquest, it was established that the ice-well was 72 feet deep and 40 feet in diameter. Excavated ice was raised in baskets each containing about one and half hundredweight of ice. The usual practice was for ice only to be taken from the top. It was never to be worked from below. However, the inquest made clear that undermining the ice mass from below was a common practice, even if it had not previously led to a fatal accident.²⁴⁸

The London County Council report on ice and cold storage inquired in some detail into the type and condition of ice stores in the capital. It noted how many wells rested on gravel or other 'pervious' material, and hence were self-draining. However, a few had drainage outlets that connected to sewer pipes and this meant that there was always a possibility of back flow and thus a danger of contamination. The most unsatisfactory ice stores were those above or just below ground and constructed of brick. Even when lined internally with wood and with sawdust as insulation, there was 'suction' from the bricks such that, four or five weeks after filling, you could walk right round the ice, the blocks adjacent to the walls having entirely melted away.²⁴⁹

²⁴⁷ See S.P. Beamon and S. Roaf, *op. cit.*, pp. 49–50.

²⁴⁸ *The Times*, 22nd November 1871.

²⁴⁹ W.H. Hamer, *op. cit.*

A problem that all ice merchants faced was the best way to light their wells. Excavation and manipulation of ice-blocks was a difficult enough task on its own, but even worse given the dark conditions in which the job had to be undertaken. Tallow candles were the primary means, but they gave only feeble illumination and had to be used in large numbers, and sometimes a thick mist would rise from the ice mass and make work on the ice all but impossible. It was thus no surprise to discover that some ice merchants were soon experimenting with electricity in their wells. In Bristol a large ice well was lit by means of electric glass lanterns fixed in the roof and arranged so as to cast illumination both downward and laterally. This ensured that all wires and switches were kept outside the well and hence unaffected by the damp atmosphere.²⁵⁰

The authors of the London County Council report explored several ice wells as part of their deliberations, remarking that it was not a task to be undertaken lightly, especially when the wells were empty. They were unsurprised to learn that writers of fiction had had recourse to the ice well as a means of affording unanticipated *dénouements*. In some ways, they offered an apotheosis of the macabre, a refuge for ghosts, demons and suspect corpses.²⁵¹ When the *Daily Mail*'s reporter visited a Gatti ice well in London in June 1900, he considered it to be the coolest place in the metropolis. You reached the vast storage cellar by a sequence of ladders that appeared to penetrate to the bowels of the earth. The cold was like death's finger. It was as if you had momentarily been transported from the torrid to the polar regions.²⁵² It was almost the stuff of science fiction, akin to a narrative out of H.G.Wells. The *Harmsworth Monthly Magazine* offered a not dissimilar account in its feature article on Norway's ice imports in the August 1901 issue. Its reporter had been invited to inspect Slater's large wharves and depots at Battersea. Alongside the main dock there, trapdoors in the quay floor led one down into a frozen world of clear blue ice, gleaming mysteriously in the half light. The doors were

250 See *Cold Storage and Ice Trades Review* II (1899), p. 23.

251 W.H. Hamer, *op. cit.*

252 *Daily Mail*, 20th June 1900.

covered with layers of thick felt and a host of precautions were taken to exclude air.²⁵³

As well as maintaining extensive ice stores, ice merchants plainly had to have a means of distributing their goods to business and to domestic customers. Ice intended for country destinations invariably found its way there by rail. Ice blocks were packed in special hemp sacking and were either carried as small lots on passenger trains or else in larger consignments on goods trains. In 1872, the Railway Clearing House, the central agency responsible for the setting of railway freight rates, distinguished ice that was to be carried loose, ice that was packed, and ice that was made up of lots of four tons or more. In all cases, weight was specified as being taken at the starting point of the journey, clearly implying an element of melting in transit.²⁵⁴ By the 1890s, at the height of the Norwegian import trade, ice conveyed on regular merchandise trains paid 2.65d per ton mile for the first 20 miles, falling in a tapering fashion to 1.5d for over 100 miles. Ice sent by passenger train, by contrast, cost 8d per ton mile for the first twenty miles, tapering to 2.4d over 100 miles.²⁵⁵ Conveyance by passenger train was so much more expensive by virtue of the greater speed that it guaranteed, in other words minimizing loss through wastage. Railway companies at the time could set their freight rates according to what traffics would bear, and ice was no exception. At King's Lynn in Norfolk, just before the First World War, the Eastern Counties Ice Company was regularly importing hundredweight blocks of Norwegian ice that were subsequently despatched via passenger trains of the Great Eastern Railway to destinations all across East Anglia. The buyers were mainly inland hotels, restaurants, fishmongers and ice-cream makers. But country houses and country estates were also important users, especially if their ornamental ponds and lakes had failed to provide an adequate winter supply to re-stock their ice-houses.²⁵⁶ On the south coast of England in the late

253 'From Lake to Lemon Squash: How Norway Lowers Britain's Temperature', *Harmsworth Magazine* VII (1901), p. 20.

254 Railway Clearing House, *List of Alterations in, and Additions to, General Classifications of Goods* (London, 1872), p. 17.

255 J. Davies, *Railway Rates, Charges, and Regulations of the United Kingdom* (London, c. 1893), pp. 96, 141.

256 S. Beamon and S. Roaf, *op. cit.*, p. 50.

1880s, the Norwegian Block Ice Company, with depots at Portsmouth and Southampton, was distributing imported ice by rail, ‘securely packed in sacking and sawdust’, to destinations throughout Hampshire, Wiltshire, Dorset and Sussex.²⁵⁷ Some ice importers even boasted that they could have ice delivered by rail to any part of the kingdom within 24 hours of receiving the order.



Figure 6.4. Norwegian block ice being advertised in *Kelly's Directory for Hampshire & the Isle of Wight* (London, 1889).

Ice destined for consumption within city limits was mainly for hotels, clubs, restaurants and the town houses of the upper classes. In 1911, London's National Liberal Club, with 5,000 members, spent nearly £254 on ice – somewhere around 30 tons.²⁵⁸ Earlier, in 1903, one London ice merchant recorded supplying to such customers some 400 ‘ice pyramids’, consisting of columnar masses of clear natural ice, weighing from 20 to 400 pounds.²⁵⁹ In hot summers, though, on so-called ‘dog days’, the number of individual households requiring ice grew exponentially. In London and most other

²⁵⁷ See M. Ellis, *op. cit.*, p. 44.

²⁵⁸ *Cold Storage and Ice Trades Review* XV (1912), p. 117.

²⁵⁹ W.H. Hamer, *op. cit.*

towns and cities, ice was distributed in ordinary carts, wagons and vans, although some firms in due course came to adapt such vehicles for the specific purpose of carrying ice. By 1900, the firm of Scammells of Spitalfields had begun building special insulated vans for use in distributing meat from the capital's cold stores. Cork was the insulation material used and the van weighed just over two tons, with a loading capacity of up to four tons.²⁶⁰ At the time, it was stated that ice merchants in general had shown no interest in using such vehicles, preferring ordinary close-panelled vans and carts. In later years, though, particularly after the 1914–18 war, such vans did appear on some city and suburban streets, as we will later see.

In 1900, Slaters was distributing some 70,000 tons annually to users within about a ten-mile radius of its Thames-side depots.²⁶¹ When London's United ice combine came into being in 1901, it became the possessor of a total of 234 ice vans and ice-carts, together with 231 horses.²⁶² By the summer of 1911, it was reckoned that London's principal ice merchants operated between them some four or five hundred carts or vans engaged in ice distribution on a daily basis.²⁶³ Of course, some proportion of this ice was by now artificial ice, since a number of companies both manufactured ice and also imported it. In the summer season, though, it was Norwegian ice that predominated, simply because the artificial ice plants could not cope with the phenomenal surges in demand that spells of hot summer weather brought. The scale of ice distribution by 1911 was thrown into sharp relief when a strike of dockers and carmen paralysed much of the capital's import trade, ice included. The United Carlo Gatti ice combine, for instance, had five ice-steamers and several sailing vessels waiting to be unloaded in the first week of August. They also had a number of cargoes in passage across the North Sea.²⁶⁴ But their plight was perhaps less acute than that of the manufacturers of artificial ice, several of whom had to cease production altogether because there were limits to the quantities of ice that they were capable of storing.

260 *Cold Storage and Ice Trades Review* II (1900), p. 171.

261 *Ibid.*, III (1900), p. 166.

262 *Ibid.*, IV (1901), p. 131.

263 *The Times*, 10th August 1911.

264 *Ibid.*

The men who plied ice around London and other British cities were, like the sailors who brought it over the North Sea, a hardened breed. Those who worked for the United Carlo Gatti Company typically had to rise at three or four in the morning in the summer season. The first few hours were spent loading the carts from the freezing ice wells. Once on their rounds, the men had to manoeuvre the ice blocks into customers' premises. Sometimes there was old ice to be removed from safes and refrigerators, and it was sometimes necessary to clean them before they were re-filled. By late morning the men would have exhausted the two to three tons of ice that their carts carried and it was time to return to the ice wells and re-load before going out on a second round. Handling the ice was never easy, even when wrapped in sacking. On a hot day, it was melting continuously, water constantly trickling from the back of the ice-cart. The ice could be quite brittle and, in the process of unloading, small pieces were continually breaking off. If the men lost their grip on a large ice block while taking it down from the cart and it slipped to the ground, it often smashed beyond use. For small customers, the iceman had to cut the blocks into halves or quarters at the roadside. 'Sixpenny worth' of ice was about as much as an ordinary person could carry in two hands. Otherwise blocks had to be slid along the ground and then down planks or chutes into cellars. In a heatwave the icemen might make three daily rounds, not returning to depot until early evening. It was hard labour, in other words, and wages were poor. Whilst most icemen received a weekly wage, they had to account daily for the ice they sold. If there was any discrepancy between the ice they loaded at the start of a round and the money they returned at the end, it had to be accounted for. Thus icemen who were careless in handling or cutting the ice inevitably faced penalties.²⁶⁵ The system, though, was also open to abuse. In July 1902, a Westminster court gaoled two icemen employed by the Shingleton Ice Company for selling ice to a Mayfair fishmonger not among the company's customers and then pocketing the money.²⁶⁶

265 This account of men who distributed ice for the United company is drawn largely from F. Kinross, *Coffee and Ices: The Story of Carlo Gatti in London* (Sudbury, 1991), pp. 27, 33–4; see also 'From Lake to Lemon Squash', *op. cit.*

266 *Cold Storage and Ice Trades Review V* (1902), p. 107.

Most of the leading ice merchants in London at different times evolved distinctive liveries for the fleets of vehicles they operated. The United Carlo Gatti Company's colours were yellow and black, the North Pole Ice Company's at one time green.²⁶⁷ A few of the largest firms had begun experimenting with motorized traction by this time. In 1906, for instance, the North Pole Ice Company took delivery of a German-built motor lorry capable of loading thirty of the company's two-hundredweight ice-blocks. The vehicle could travel up to eight miles an hour.²⁶⁸ Outside of London, William Milne's Ice Factory in Old Wynd in Glasgow was running a three-ton Halley 24 horse-power petrol van by the same date.²⁶⁹ In the quieter parts of the provinces, though, ice carriage remained very much locked into the horse-drawn era, as exemplified by William Francis Freelove's watercolour of a Richmond ice merchant's cart in the early 1870s.²⁷⁰ Carlo Ferrari was probably an Italian ice-cream maker who did a parallel trade in ice in the locality of Richmond. The long flap at the rear



Figure 6.5. Motorized traction for ice transport, Glasgow 1906 (Bodleian: Per 193998 d.1/IX p. 355).

267 E. David, *Harvest of the Cold Months: The Social History of Ice and Ices* (London, 1996), pp. 345, 349.

268 *Cold Storage and Ice Trades Review* IX (1906), p. 153.

269 *Ibid.*, p. 355.

270 W.F. Freelove, *Victorian Horses and Carriages; A Personal Sketch Book* (London, 1979)

of the gaily painted cart may have been for sliding ice blocks down on to the ground. For in the absence of hoists or other mechanical means of moving it, ice was always a difficult commodity to handle manually, even when wrapped in sacking or other insulating material.

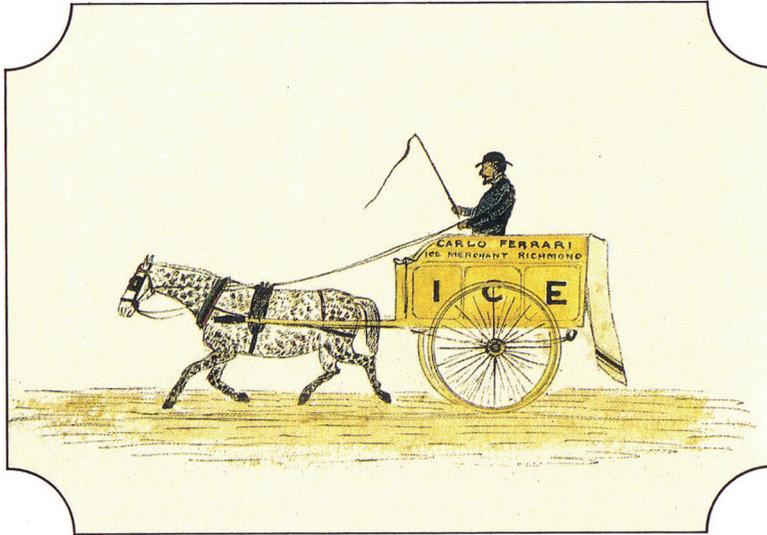


Figure 6.6. Carlo Ferrari's ice cart (Freelove, Lutterworth Press, 1979).

The editor of the *Cold Storage and Ice Trades Review* was one of a number of key commentators of the time who became particularly exercised about the methods of unloading ice-carts at the roadside, and especially on town and city streets. In 1906 he remarked that the United Kingdom was among the worst countries in Europe for the extent of contamination from ice-handling during delivery.²⁷¹ Earlier, in 1902, the same journal had carried a detailed report of what it described as 'unappetizing ice'. It recalled how ice-carts were regularly dirty, comparing most unfavourably with their counterparts on the continent. The blankets or sacking in which the ice was wrapped were likewise soiled, while the carters and carmen who handled the ice were 'not overclean' either. Worst of all, however, was the way ice blocks were dragged along pavements upon which all manner of excreta were to be found. Even outside high-class hotels,

²⁷¹ *Cold Storage and Ice Trades Review* IX (1906), p. 261.

restaurants and fishmongers, bare blocks of ice could be seen dumped on pavements before being manhandled to entrance doorways.²⁷² In 1905, the *Review* also observed that one London ice contractor sent ice-carts for use as platforms for public meetings.²⁷³ This was presumably a means of maintaining cash flow at times of slack demand.

Most of the largest ice importers, as well as producers of manufactured ice, supplied their product under regular contract. In other words, theirs was largely what today we would call a 'trade' business. The London firm of Slaters typically advertised that it serviced only 'the largest stores, hotels, butchers, and fishmongers in London'. Daily deliveries were made throughout London for this category of customer so as to ensure a constancy of ice supply. Such firms would sell ice to private houses, but only if it was ordered on a regular basis. This was a pattern of dealing that had prevailed for fifty years and more. When the Wenham Lake Ice Company was importing American ice in mid-century, for example, most of its customers were business rather than household users; and when the Shingleton Ice Company began artificial ice-making in London in the 1870s, it developed its trade largely with West End clubs which took ice on annual contracts.²⁷⁴ Most of the natural ice took the form of square blocks of from one to four hundredweight, in other words exactly in the form in which it had been cut from the lakes and fjords. With ice coming in this kind of size and weight, it could not be for anything other than trade sale.

In the spring of 1900, in a plain effort to enhance the sale and use of ice, an enterprising Dutchman launched the Star Ice Company from premises near London's Oxford Circus.²⁷⁵ The firm specialized in manufacturing ice in small cubes for table use and the centre of each cube contained a glittering star. The ice cubes themselves were roughly an inch square and the star impression was made by a patent stamping apparatus. The idea was to use the ice in drinks. Given the appellation 'glace de luxe', it was

272 *Ibid.*, V (1902), p. 98.

273 *Ibid.*, VII (1904), p. 8.

274 See G. Weightman, *The Frozen Water Trade: How Ice from New England Lakes Kept the World Cool* (London, 2002), p. 144; *Cold Storage and Ice Trades Review*, II (1900), p. 154.

275 *Cold Storage and Ice Trades Review* III (1900), p. 15.

anticipated that other designs would follow. Sadly for the entrepreneur, as well as for the intrigued consumer, the Star Ice Company had an all too brief existence. By March 1902 its operations had ceased.²⁷⁶

One particularly interesting feature of the use of ice in restaurants, inns and other public places was the way it had become stimulated as a result of the demands made by American travellers in Britain. In 1900, the American consul in Birmingham filed a report to the Bureau of Foreign Commerce in Washington remarking on the incessant clamour among American visitors for ice.²⁷⁷ As a result, even some country inns began placing ice in glass dishes which you picked out with sugar tongs and placed in your drink. It was invariably pure Norwegian block ice that was used for this purpose, not the artificial output of the emergent ice factories.

For Oxford undergraduates ice had by the later decades of the nineteenth century become a staple ingredient of what were then some of the most fashionable drinks. *Oxford Night Caps* described how, when the famous sherry cobbler was first introduced to the young men of the university, the ice was procured from local confectioners and fishmongers who had taken it from stagnant ponds and noisome ditches. The result was not wholly appetizing. Subsequently, Wenham Lake ice was substituted, first from America and later from Norway. To make a sherry cobbler, you pounded a small quantity of ice quite fine by wrapping it in a coarse cloth and beating it with a mallet or rolling pin. You then half-filled a large tumbler with the powdered ice, added a teaspoon and a half of powdered sugar, some pieces of lemon rind and, lastly, a wine glass and a half of sherry. The concoction was then mixed by pouring rapidly from one tumbler into another, adding more ice as needed. It was drunk through a straw. For its instructions for making mint julep, *Oxford Night Caps* took directly from the Wenham Lake Ice Company's own recipe: you mixed ice and sugar exactly as for a sherry cobbler, then added a wine glass of brandy, half a wine glass of rum and some sprigs of fresh mint before stirring well and adding a straw. Not surprisingly, Oxford ice merchants did a busy trade in term time supplying ice for such purposes.²⁷⁸

276 *Ibid.*, IV (1902), p. 359.

277 *Ibid.*, III (1900), p. 205.

278 R. Cook, *Oxford Night Caps* (Oxford, n.d.), pp. 8–10.

From the 1890s until 1914, the practice of using ice for decorative purposes grew considerably. The Queen's railway carriage had long been cooled in summer by placing large irregular blocks of ice, often concealed by foliage or flowers, on the compartment floor. In hotels and clubs in London and other large cities, miniature ice blocks were placed on dining tables and sideboards on hot summer days. In some of the smartest establishments, as we have seen, chefs sculpted decorative features from the ice. Only Norwegian ice was usually suitable for this purpose: it was less brittle and was longer-lasting than the factory product. The final touch was to place small incandescent electric lamps inside the ice for use at night-time.²⁷⁹

The later nineteenth century also witnessed a widening of industrial uses of ice. Alongside the fishing and cold storage industries, brewers, for instance, had discovered that by using refrigerating tanks, the 'wort' could be cooled much more quickly than before, allowing them to brew almost daily rather than once a week. Another growing use of ice occurred in hospitals and infirmaries. By 1900, London's principal hospitals were consuming thousands of tons every year. It was especially used in surgical operations.²⁸⁰ In each case, though, in brewing as well as in medicine, it was generally factory ice rather than natural ice that was being used. In the summer of 1911, during the dock strike in London, which paralysed the unloading of supplies of Norwegian ice, the hospitals became one of the few institutions that continued to receive ice on a daily basis.²⁸¹ London's ice factories then had an output of some 500 tons a day.²⁸²

Supply of ice to domestic users was, on most authorities, a near monopoly of the fishmonger trade. One commentator writing on London in 1904 reckoned that as much as 95 per cent of ice sold for domestic purposes came from fishmongers.²⁸³ In 1907, the *Fish Trades Gazette* offered advice to fishmongers on how to cut ice blocks. The saw was regarded as the most economical means, since it minimized chipping and hence waste. After sawing down two or three inches, it was usually possible to split the ice

279 See *British Refrigeration and Allied Interests* III (Jan-June 1900), p. 187.

280 *Ibid.*, p. 163.

281 *Cold Storage and Ice Trades Review* XIV (1911), p. 220.

282 *Ibid.*, p. 221.

283 *Ibid.*, VII (1904), p. 305.

with a pick, particularly if care was taken to see in which direction the grain ran. Cutting ice to sell by weight required a good deal of practice, but it could normally be cut to within about half a pound, especially if the grain was right.²⁸⁴ A few milk-dealers and butchers also dealt in ice for domestic use, but they were very much a minority. A critical difficulty with door-to-door delivery of ice was its bulk, weight and wetness. This is what made handling it alongside milk so problematic. Certainly it was beyond the capacity of ordinary dairy carts to deal in ice in any significant quantity. Besides, most dairymen delivering from door-to-door already had their work cut out just supplying milk.²⁸⁵ There was still no *general* demand for ice within English households. Domestic demand was entirely contingent upon hot weather, hence helping to explain why the ice trade was such a volatile one. For ten and perhaps even eleven months of the year, the suburban middle classes required no ice at all. Come a heat wave, though, all were clamouring for ice. It was essential for food preservation. Butter, milk, meat and all manner of other foodstuffs quickly went putrid. Many of those involved in the ice trade repeatedly observed that this pattern would be altered if the public at large could be educated in the uses and applications of ice. Too few householders registered how a plentiful supply of ice was of great value for food preservation, for maintaining articles of food in a fresh and wholesome condition. Commentators pointed to the position in America and in parts of the Continent where ice was much more widely used and could be obtained with much greater ease and more cheaply. As late as 1910, a Norwegian commentator on the ice trade to Britain sagely summarized the position of domestic ice consumption. Ice was not an article people sought unless they wanted it. Cheap ice was no inducement for them to buy it. They bought it when they had to buy it. Whether it was 10 shillings or 20 shillings a ton made little difference. If people did not want ice, they would not appreciate it as a gift, so the writer claimed.²⁸⁶ It was, nevertheless, true to say that small quantities of ice were more expensive to purchase than large ones. A fishmonger or butcher around 1900 would charge customers 2/6d to 3/- per cwt, the equivalent

284 *Ibid.*, X (1907), p. 135.

285 *Ibid.*, VII (1904), p. 233.

286 *Ibid.* XIII (1910), p. 36.

of 50 to 60 shillings a ton at a time when factory ice could be bought for a fifth of this figure and Norwegian lake or fjord ice for a quarter.²⁸⁷ The added cost came from cutting the ice to the requisite size and all the wastage and melting that that invariably incurred.

In the early summer of 1902, with the warm weather approaching, retail confectioners and caterers were urged to adopt the practice of a 'keep cool' window in their premises as a means of encouraging wider use of ice. This might, it was suggested, comprise a block of ice, ice tongs, an ice cream freezer drum, lemons, a siphon and a series of fans. The entire effect could then be enhanced by creating a small waterfall. A further possibility was to display one of the American soda fountains which were already being stocked by some London confectioners.²⁸⁸

One of the ways in which the larger ice importers had long sought to address the issue of a wider usage of ice was through the sale of ice chests, ice safes and ice refrigerators, along with all manner of other contrivances or utensils intended for use in the preservation of particular items of food. The Wenham Lake Ice Company, for instance, had, almost since its formation, advertised and sold 'American refrigerators or miniature ice-houses' to its customers. And by the 1880s it had regular notices in *The Times* for American Ice Water Pitchers, Ice Butter Dishes, Ice Cream Machines, not to mention Duplex Refrigerators complete with water tanks and filters.²⁸⁹ A whole variety of British firms also patented ice-boxes. The smallest were just a few feet square, typically lined with zinc. Broken ice was placed in the bottom and the foodstuffs to be preserved suspended in a wire cage. A correspondent of *The Times* in August 1868 especially recommended Sorenson's patent felt-insulated ice-box, relating how, four days previously, he had placed 20 pounds of rough ice in the box, he had emptied the box of water each morning, and yet on the fourth day there was still ice left. In the interim, ice had been removed from the box for table use and various foodstuffs had been preserved in it. And all this in a room with a southerly aspect.²⁹⁰ Thomas Masters's *Ice Book* of

287 *British Refrigeration and Allied Interests* II (July-Dec 1900), p. 11.

288 *Cold Storage and Ice Trades Review*, V (1902), p. 54.

289 See, for example, *The Times*, 6th June 1881.

290 *Ibid.*, 4th August 1868.

1844 had described an ice-box of his own design intended for general sale. It was wood-lined on the outside, then lined inside with a patent material known as orpholithe. Within this, though, was found yet another wooden case, this time lined with lead. The wood and the orpholithe were bad conductors of heat and enabled food to be kept for quite long periods provided small quantities of ice continued to be added each day. Masters also sold wine coolers designed along similar principles.²⁹¹

There was universal agreement among all those who dealt in ice that water was its greatest enemy, not heat. A 25-pound block of ice could be placed in a room with a constant air temperature of 75 degrees Fahrenheit and, provided it was kept perfectly drained, the ice would remain little diminished after 24 hours. However, allow the same ice block to stand in its own meltwater and much of it would disappear after five or six hours. The general maxim was that water at 40 degrees will melt ice with ten times the rapidity of air at 80 degrees.²⁹²

Some large ice merchants, in an effort to stimulate demand, resorted to hiring out refrigerators and ice-safes to private households. For an average-sized household in London's West End, this meant an outlay of 15/- or £1 per month. For a middle-class family in the suburbs, a much smaller ice-box would be sufficient, with a correspondingly lower hire fee.²⁹³ In cool summers, there were always customers who, having ordered refrigerators or ice-boxes for hire, promptly sought to return them after a few weeks, usually leaving the suppliers with a financial loss in terms of the costs of delivery and collection. In hot summers, demand typically outstripped supply very rapidly. In 1899, for instance, all American ice refrigerators, either in stock or in transit, were sold within a matter of weeks once the heat wave seemed assured.²⁹⁴ For some ice importers, as well as ice producers, this was exactly the springboard for widening domestic usage of ice. A succession of 'broiling hot' summers would stimulate manufacture of inexpensive ice-boxes and thereby generate the basis of a more regular domestic demand.

291 T. Masters, *The Ice Book: Being a Compendious & Concise History of Everything Connected with Ice* (London, 1844), p. 82.

292 *The Times*, 4th August 1868.

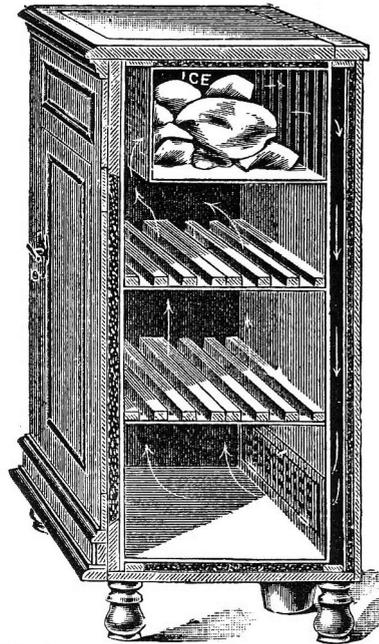
293 *Cold Storage and Ice Trades Review* VII (1904), p. 305.

294 *Ibid.*, III (1900), p. 205.

And with households cultivating 'a more regular ice habit', the view was that, ultimately, the price of ice would also fall. However, it was recognized that there remained a need to educate the householder much more fully in the use of ice refrigerators or ice-safes. Some made the mistake of laying fish in with the ice. Others wrongly placed jellies and blancmanges there to set. Where food items placed in the ice compartment were accidentally spilled, this often blocked the drain and so the ice, in due course, ended up standing in accumulations of water and began to melt rapidly. It was also not unknown for householders to place the refrigerators in the courtyard or garden, exposed to sun and rain. Others were just careless in failing to keep the ice compartment filled with fresh ice every three or four days.²⁹⁵

After 1918, ice trade commentators repeatedly returned to the issue of domestic ice supply, desperately keen to achieve an ice-producing industry that was in direct relation with the household consumer. The war decimated the Norwegian ice trade, as will later become clear, but the producers of artificial ice, as well as the few firms who continued to import ice, still clung to the objective of a public door-to-door ice supply. It still drew repeated comment in

packing charges extra.
New Dry-Air Cabinet Refrigerators.



This is an improved refrigerator. The ice chamber is so arranged as to allow a perfect circulation of air in the food chamber, while any condensation or water from the melting of ice is kept from entering it, and is drained off through a space provided in the wall of the refrigerator.

No.	1.	2.	3.	4.	ft.	4	in.	by	2	ft.	by	2	ft.	9	in....	£	s.	d.
	No. 1.	4	ft.	4	in.	by	2	ft.	by	2	ft.	9	in....	10	15	3		
	" 2.	4	"	4	"	2	"	3	"	3	"	3	"	11	19	6		
	" 3.	4	"	4	"	2	"	3	"	9	"	9	"	13	6	0		

Figure 6.7. An ice refrigerator from the Army & Navy Stores catalogue of 1907 (reprinted as 'Yesterday's Shopping', David & Charles, 1969).

295 *Ibid.*, XXVI (1923), p. 5.

the various trade journals.²⁹⁶ However, a letter from the managing director of a leading refrigeration company to *The Times* in 1926 summarized very effectively the difficulties that remained, even by the 1920s.²⁹⁷ Ice merchants and ice producers were severely hampered by the extremely variable British climate. Despite the country having a highly progressive ice industry, the trade involved high risk and great uncertainty. In one year an ice factory could be completely unable to meet local demand and yet in another not even be able to sell one quarter of its normal output. A large storage capacity was vital in all events, but it was never enough to cope with the ten days in the year when demand soared with thousands requiring ice who on the remaining 355 days never used ice at all. It was impossible for ice producers (or even ice importers) to maintain a potential scale of supply that would meet such demand peaks. For the same reason, it was hard to maintain a door-to-door delivery operation given the expenditure in vehicles and manpower that was necessary. In 1927, though, one company in London did start with a door-to-door operation. The Domestic Ice Supply Company Ltd., with a fleet of white horse-drawn vans, staffed by ex-servicemen, began delivering ice direct to households in Kensington and Marylebone. Customers had to agree to a contract of eight, thirteen or seventeen weeks that ensured ice three days a week in quantities of around 25 pounds. The company supplied customers with an ice-box (ice refrigerator) as part of the contract. The venture was a considerable success, with around 20,000 customers in its first summer season.²⁹⁸ In the following year, new districts were added and the enterprise was still in operation in 1929, by which time a number of other firms had begun to organize similar services in other parts of the country.²⁹⁹ In Birmingham, the Lightfoot Refrigeration Company began delivering 16-pound blocks of ice by horse-drawn van twice weekly to some of the city's suburbs.³⁰⁰ A similar service was begun in Tunbridge Wells in Kent in the same year and another in Hove in 1931, in the latter instance using a

296 See, for example, *ibid.*, XXVIII (1925), p. 278.

297 *Ibid.*, XXIX (1926), p. 192; also XXXVII (1924), pp. 459–60.

298 *Ibid.*, XXX (1927), pp. 255–6.

299 *Ibid.*, XXXI (1928), p. 244; *Ibid.*, XXXII (1929), p. 189.

300 *Ibid.*, XXXII (1929), p. 160.



Figure 6.8. A horse-drawn delivery vehicle belonging to the Domestic Ice Supply Company, 1927, based in London's West End (Bodleian: Per 193998 d.1/XXX p. 256).

motorized vehicle.³⁰¹ All of these various ventures embarked on intensive advertising forays, using such slogans as 'save it with ice'. Posters for ice refrigerators appeared in ironmongers' windows, while fish merchants were plied with extra ice for display. However, there was a spectre on the horizon: the mechanical refrigerator. As we have seen, machine refrigerators were beginning to find their way into many of the more affluent homes, sounding the death-knell for ice refrigeration and for the ice man. The one encouraging portent for ice producers was the steady expansion of the ice-cream industry bringing with it new demands for ice supply and, as the next chapter will show, enticing some ice producers themselves to engage in ice-cream making as a regular component of their business operations.

It is tempting to assume that, as the scale and range of demands for ice had expanded over the final two decades of the nineteenth century and into the first decade of the twentieth, notably as technology and organisation improved, so the price to the consumer progressively fell. In 1884, the average price for Norwegian imported ice at dockside in Britain was some 18 shillings per ton. The parallel figure in 1899 was some 13 shillings.

301 *Ibid.*; *Ibid.*, XXXIV (1931), p. 182.

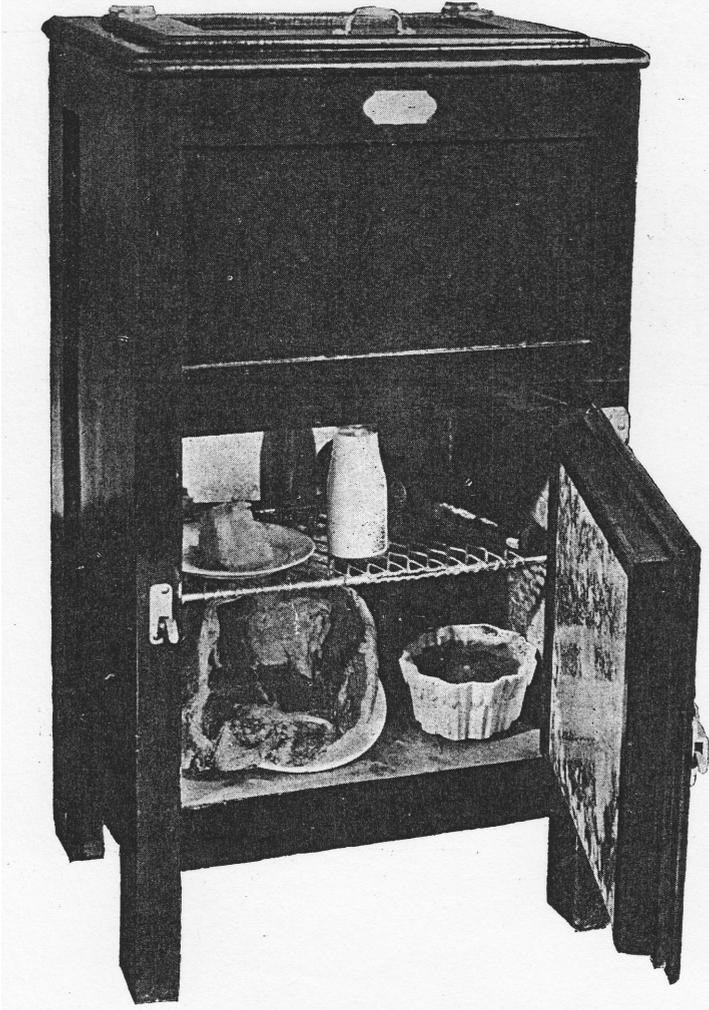


Figure 6.9. An ice-chest supplied by the Lightfoot Refrigeration Company in Birmingham in 1929 (Bodleian: Per 193998 d.1/XXXII p. 160).

But this was no steady fall. The fickle nature of supply and demand made for very uneven movement. In 1897, for instance, the price had dropped to just below 11 shillings, but in 1898 it had rocketed to almost 15 shillings.³⁰² There could, likewise, be very significant price movements from month to

³⁰² *Ibid.*, III (1900), p. 134.



Figure 6.10. One of three motor lorries used for household ice delivery in Hove in 1931 (Bodleian: Per 193998 d.1/XXXIV p. 182).

month. In February 1899, for instance, ice was selling at dockside for 10 to 12 shillings per ton, but by July 1899 for over 17 shillings.³⁰³

In the years after the turn of the century, the price slipped further and a little more evenly, but by a fairly small margin only. In March 1904, for instance, at the start of spring shipments, ice was landed at just below 9 shillings a ton, close to a record low.³⁰⁴ But over much of that decade, it hovered at just below or just above 10 shillings a ton. This relative stability may have been linked to the formation of the Society of Norwegian Shipowners which, in early 1906, had proposed an advisory scale of minimum freights for Norwegian sailing vessels engaged in the timber, coal and ice trades.³⁰⁵ There were inevitably limits to the extent that freights could be squeezed. In fact, over 1913-1914, prices were creeping back up to above 11 shillings, a sign that general demand for ice was becoming greater than the capacity of the ice industry to meet it.³⁰⁶

303 *British Refrigeration and Allied Interests* II (July-Dec 1899), p. 11.

304 *Cold Storage and Ice Trades Review*, VIII (1905), p. 112.

305 *Ibid.*, IX (1906), p. 81.

306 *Ibid.*, XIX (1916), p. 27.

