



Chapter 2

Kværner Works Under Onsum (1853–1888)

Industry in a country environment. In the foreground is Kværner Works as it appeared in the early 1860s. The factory was located in Lodalen not far from the capital, in surroundings that had not yet been touched by the dawning industrialisation that was under way in the city of Christiania. Vaalerengen Manor can be seen in the background.



In 1834 the fourteen-year-old Oluf Adelsten Onsum travelled from his family farm on Veblungsnæs near Molde to Christiania. It was not poverty that forced young boy out into the big world. Onsum came from a family that was quite well-off. His father, Gulbrand Gulbrandsen Onsum, not only ran the family farm but had ventured into trade. Yet for Oluf there was no future on the family farm. He was number six in a flock of eleven siblings and had to find another way to make his fortune in life. His father did offer him help by laying the foundation for Oluf to have an independent career. Through his business contacts he procured his son a position with the merchant Schjøller in Christiania, where Oluf would be an apprentice in the retail trade.

Oluf stayed with Schjøller for one year. By then he was a trained shop boy and could begin to look for other work. He decided not to return to his old home district, but chose to remain in the capital. Perhaps this had something to do with the many opportunities that were opening up in those days for a young shop boy in Christiania. In the decades of the mid-19th century the city was becoming more and more important as a trade hub and distribution centre for the rest of the country. And an increasing share of Norway's imports was passing through the city's harbour and through the hands of the city's wholesalers. This development began to make serious headway in the middle of the century, but the trend was already noticeable in the first decades.⁶¹

Oluf Onsum quickly found work. Shortly after he finished at Schjøller's, he was hired as a salesman by Donato Brambani, an Italian merchant who had immigrated to Norway by way of the Netherlands, and who eventually had obtained a trade license in the capital. In other words, Brambani was one of many immigrants from the Continent who came to Norway and the capital in the years after 1800 and became a vital part of the city's new merchant class.

Brambani belonged to the group of tradesmen who began to deal in a more specialised selection of wares at this time. Typical examples of such new speciality shops were the merchants of groceries and manufactures. The hardware dealers also belong to this group, and it was in this field that Brambani had begun to specialise in the mid-1830s. In this way Oluf Onsum came into contact with hardware and the hardware business at an early age.

We know little about Onsum's life and work during his first years in the capital. But there is much to suggest that he must have made an impression on his employer. When Brambani died in 1842, only 42 years old, it was Onsum who was given the task of running the business on behalf of Brambani's widow – Johanna Caroline Brambani. This was at the express wish of Johanna Caroline herself and with the consent of her father, the merchant Carl Rumi. The latter also helped Oluf obtain a trade licence, so that he could officially lead the business. Now, it is true that the requirements for a trade licence had been eased through the new trade law that was introduced in 1842. But no doubt it also helped to have the support of one of the city's most prominent merchants. In his recommendation, Rumi wrote that Onsum had "served his superiors to their satisfaction and exhibited diligence and good moral conduct".⁶²

But the recommendation also contained another comment. "Similarly it is known to me," wrote Rumi, "that Herr Onsum, should he be granted the authorities' approval and licence, has the hope of receiving from my daughter, who wishes henceforth to terminate her business, the favourable trade benefits belonging to her and in addition have transferred to him the remaining stock of goods". It was therefore the intention that Oluf would acquire the business. Nothing is stated as to how this would be arranged, but perhaps Onsum and Brambani's widow had already discussed a merger. At any rate, Onsum continued to run the business together with Johanna Caroline after he received the authorities' approval and trade licence in 1844. And in the summer of 1846 the two were married.



Oluf Adelsten Onsum, the founder of Kværner Works, in his younger days. The photograph was presumably taken sometime in the late 1850s and shows a young, apparently slightly hesitant gentleman. Later in life he would become one of the capital's wealthiest captains of industry.

Onsum must have been involved in the finances of the Brambanis even before the marriage. In 1845 Onsum was listed with an income of 1000 spesidaler [= 4000 kroner]. This was much more than a salesman could expect to earn in those days.⁶³ He still had no fortune, but this changed when he married. In 1846 Onsum was listed with an income of 2000 spesidaler, and in addition he had a fortune of 21,000 spesidaler. Through his marriage with Johanna Caroline Brambani, Onsum had become quite a wealthy young man.

The Kværner Works Is Founded

In 1845 Onsum advertised under his own name for the first time. In a newspaper advertisement from this year we see that he was offering construction materials of every conceivable type, such as French window glass, glass-cutting tools, iron and brass wire, nails, and simple tools and woodworking equipment. In addition, he had a large assortment of dry goods, such as French candles, candlesticks and sconces, mirrors and the like.⁶⁴

Building materials and hardware were thus the main products in Onsum's shop, and he began to specialise more and more in these products in the years to come. In 1850, according to an advertisement in *Morgenbladet* [The Morning News], he was offering English iron wire,



Dronningens gate 20 in Christiania, where the Italian-born Donato Brambani had his hardware store. Here Oluf Onsum began as a shop-boy in 1935. Eleven years later he married the widow of owner Brambani, and made a small fortune in the bargain.

steel of all types and dimensions, English iron bolts, vices and tools for woodworkers, building fittings, window glass, locks, etc. He also offers saw blades “in a wide assortment”.⁶⁵

His focus on the construction field is no doubt primarily due to the increased building activity in and around Christiania in these years. During the period from the end of the 1830s to around 1850, the number of inhabitants within the city limits rose from 20,000 to 30,000, a 50 per cent increase in little more than ten years. There was considerable population growth in the city's suburbs as well. Such growth prompted a great deal of construction, and thus a sharply rising demand for hardware and other building materials.

Most of the hardware and building materials that Onsum carried were imported from Germany, Great Britain and other countries. However, in the early 1850s he and a group of other entrepreneurs began making plans to manufacture such goods themselves. Their plans soon led to the establishment of two factories, both of which would come to play an important role in a Norwegian context. In the year 1853 the Christiania Nail Works and Kværner Works were founded. Onsum played an important role in the establishment of both factories.

Responsible for the establishment of Christiania Nail Works was a consortium consisting of Onsum and the wholesalers Hans Ludwigsen and Thorleif Schjelderup, along with Jacob Woxen and Johan Fredrik Danelius. The group came together because of previous connections. Woxen and Danelius had been employed by Brambani at the same time Onsum worked there. Woxen was also married to Onsum's sister. In addition, Danelius and Woxen were cousins, and Ludwigsen and Schjelderup were brothers-in-law.⁶⁶ In other words, there were close personal bonds between the participants in the consortium, and all of them played a more or less active role in the establishment of the factory.

Kværner Works, on the other hand, was to a greater extent Onsum's sole initiative. Here too, of course, Woxen and Danelius played a role, but primarily as financial guarantors. As owner, Onsum stood alone. It was this factory that would become one of the largest mechanical workshops and foundries in the country.

Kværner Works was established at Ekeberg, east of Christiania. The factory took its name from the farm on whose land it was built. Ekeberg was an agricultural area, and seen from the city the place must have appeared remote. However, it was the access to water power that made Kværner Works of interest as an industrial site. Before steam and electricity became available on a large scale, power was often an essential basic requirement in industry. Norway, of course, was rich in water power, but in and around Christiania there was a limited amount to be had. The river Loelva ran across the Kværner farm, and here there was also a waterfall – the Kværner falls – which belonged to the farm. The exploitable power was somewhere between 30 and 50 horsepower,⁶⁷ and the falls had long been used for mill operation. So there was not a great deal of power, and the falls were considerably smaller than most of those that lay in Akerselva north of the city, where the new industrial plants sprouted like mushrooms during these years. But the power was sufficient for Onsum's new factory. It would be primarily an iron foundry for production of cast-iron trade goods, and the power was necessary mainly to operate the blast bellows in the cupola. Some workshop production would also be carried out, but the machines were few and the power requirement marginal.

***Kværner Works in 1906.
Lodalen is still primarily an
agricultural area.***



The investment required to get the factory into operation was not huge. Onsum paid 3,200 spesidaler for the 4.5-acre Kværner property. Included in the purchase were rights to use the Kværner falls and regulation machinery farther up the waterway, as well as several operating buildings that Onsum could use without great modification in his own factory. The plant that was constructed was quite simple. Onsum engaged the engineer Oluf Roll, who was one of the leading contemporary technical experts in Norway, to design the power plant. Roll acted as consultant for a number of industrial operations, and he also participated directly in industrial activity.⁶⁸ He had also designed a new kind of water turbine, and this may have been the type that was installed at Kværner Works.

An intake dam was built just above the Kværner falls, and from there the drive-water was conducted in a wooden flume down to the turbine some metres below. In other words, there could not have been much horsepower involved. The two mill buildings located on the property became the factory's first premises. The lower one became the iron foundry, and the upper one the mechanical workshop. We do not know exactly when the plant was ready to begin operation, but Anker Olsen thinks that this occurred sometime in the autumn of 1854.

The Kværner Works Iron Foundry

As we have seen (chapter 1), most early iron and metal works operated somewhere between the two extremes of pure trade goods production and pure mechanical workshop production. On this scale, the early Kværner Works belongs to the category of trade goods foundry with machine goods and simple machinery as sidelines. The historian Lars Thue has indicated that the focus of Kværner Works on trade goods may have been related to the fact that Onsum had no technical background. As he writes, "The fact that merchant Onsum chose to let the foundry be the cornerstone of Kværner in the first years can perhaps be viewed in relation to Onsum's lack of technical qualifications."⁶⁹ We have seen, however, in Chapter 1 that several mechanical workshops were started by men with no technical background. In Onsum's case it was no doubt mostly his already strong orientation towards the construction industry and the hardware business that determined production. Kværner was established as an extension of Onsum's retail operations.

Kværner Works manufactured almost everything under the sun in the way of cast goods for building, household and other purposes: scaffolding, banisters, railings, fence-posts, window-frames, anchors, grave markers, waffle irons, irons, iron pots, mortars, kettles, and many other items. Of the individual products, heating and cooking stoves soon became the most important. Here there was obviously a huge market. As mentioned, Christiania was a city that was growing fast, with the accompanying demands for building materials. Furthermore, we have seen in Chapter 1 that fuel prices climbed significantly in this period, which contributed to increased demand for more efficient heating methods. Finally, the good economic conditions played a role. "The first modern economic boom flooded the capital in the mid-1850s," writes Jan Edvind Myhre.⁷⁰ No doubt this also stimulated an increased demand for stoves and other cast-iron trade goods.

The types of goods produced at Kværner Works remained largely unchanged for many years. In the 1860s we see the first move into new areas, when the factory began making larger and more advanced sheet-metal and iron designs.⁷¹ At the same time it began offering simple mechanical

Church stove from Kværner Works, 1878. The stove weighed almost 400 kilos and was intended for churches, as the name indicates, as well as other large buildings.



equipment, mostly agricultural machines and tools such as threshing and chaff-cutting machines, winnows, horse-powered threshers, ploughs and harrows. But this did not constitute a fundamental restructuring of production. As late as the end of the 1860s, trade cast-iron goods still dominated. In addition to the whole spectrum of trade goods for building purposes, new equipment for marine use was produced, such as windlasses and crab-pot winches, galleys, chains, pulley blocks, pumps and grapnels. Probably the most important change was that stoves became an ever more important single product. In 1867 Kværner advertised 50 different models of cast-iron stoves, with and without air circulation. From the selection we can also see that coal and coke were in the process of gaining ground for home heating. Kværner offered smooth-finished coke stoves in 12 sizes, along with an assortment of cylinder stoves. A wide variety of cooking stoves was also offered, as well as baking ovens and boiling stoves.⁷²

Around 1870, Kværner began for the first time to concentrate seriously on mechanical workshop production. In 1869 the workshop was expanded and modernised, and at the same time a foundry was built for machine goods. For the first time an engineer was hired as managing director, William Ludvig Rode. In the coming years Kværner concentrated on polishing units and turbines for the timber-milling industry. Steam boilers and a number of machines and other industrial equipment were also produced.

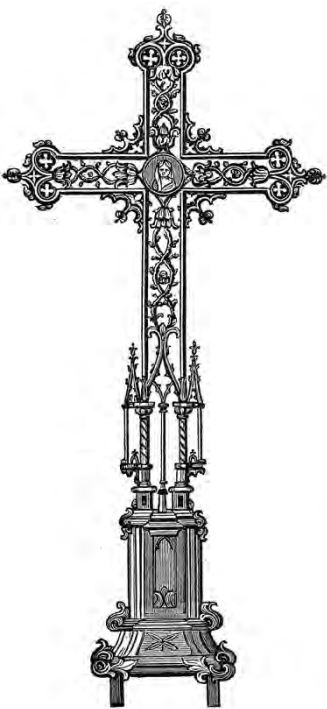
The increased emphasis on mechanical workshop production, however, did not mean that the production of trade goods was relegated to the background. Rather, production became increasingly diversified. Greater emphasis was placed on deliveries to industry, but trade goods production was also expanded. Onsum moved his retail operations to a larger site in Nygaten, and here he eventually sold almost nothing but products from his own factories. Other activities also indicate that the construction business remained an important speciality. In 1862 he had purchased Svendengen Brickworks. Later he also built several sawmills and planing mills.⁷³ With these Onsum gradually gained the capacity to supply almost everything needed on a construction site: bricks, planks and nails, as well as everything in the way of cast-iron goods from building elements to appliances such as heating and cooking stoves and the like.

The 1870s: Time of Greatness

In many ways the 1870s represented Oluf Onsum's greatest period. Over the course of this decade Kværner Works developed into one of Norway's largest industrial operations, and Onsum became one of the richest men in the capital. The basis for this rapid growth lay primarily in the ever-increasing demand for machines and other equipment for industry. The second reason was that the 1870s were a golden age for producers of construction materials. The early 1870s have been called the "champagne years" of the Norwegian economy. The good times led to increased demand for cast-iron goods and other types of building materials.

In 1865 Kværner Works had 39 employees, two-thirds of whom worked in the stove casting operation. From this perspective, the plant was not one of the largest in the capital. For example, Hjula Weaving, Aker's Mechanical Workshop and Nydalens Company each employed between 150 and 250 workers by the mid-1850s.⁷⁴ After 1865, however, Kværner Works entered a period of rapid expansion. In 1869 the plant had over 100 employees, in 1875 more than 200, and in 1879 almost 300.

Among its many products, Kværner Works cast many varieties of grave markers/crosses.



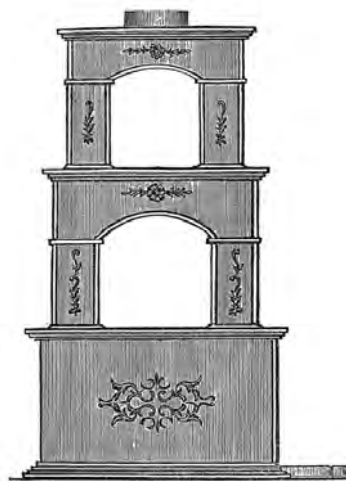
By 1880 Kværner Works had become a large industrial company. And it was also diverse. In 1879 there was a total of 280 employees at the plant. They were divided into the following departments: casting, 79; filing and lathe workshop, 58; polishing house (including manual labourers), 42; smithy, 22; boiler workshop, 19; and finally the pattern workshop and horse-shoe factory, with 14 workers each.⁷⁵ The employees also included one engineer and two draughtsmen, four workshop foremen and four office clerks. At this point there were eight departments at Kværner Works. In addition, there was a draughting office, a planning office and an administration department with clerical staff.⁷⁶

As mentioned, the first part of the 1870s was marked by a strong boom economy. This was interrupted, however, by a recession around 1875 which would last until the beginning of the 1880s. The recession was serious. During the period from 1877 to 1879 alone, the gross national product of Norway fell by 6 per cent and investments by 16 per cent.⁷⁷ It is true that there is some uncertainty about these figures, and the national figures may obscure important geographical and business inequalities. At the same time there is no doubt that industry in the capital was also affected by the recession. "In the years between 1875 and 1885, industry in Kristiania felt the effects of the great depression," writes Jan Eivind Myhre.⁷⁸ It has also been claimed that the iron and metal industry was particularly hard-hit in these years.⁷⁹ A number of companies had to cut back or shut down, including Nyland's Workshop, which was one of the largest mechanical workshops in the capital.⁸⁰

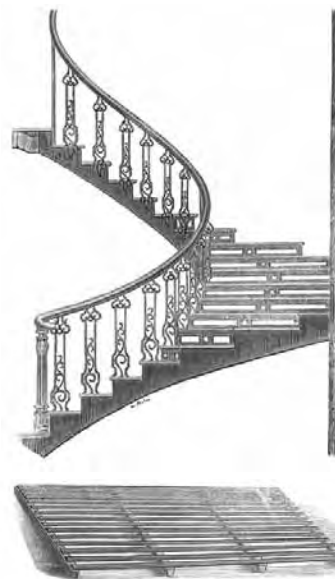
For its part, Kværner seems to have done well throughout the entire 1870s. They did not decrease their number of workers until the early 1880s. Nor did profitability seem to drop. "Financially, Onsum became one of the city's wealthiest men during these years," it says in Norsk biografisk leksikon [Norwegian Biographical Encyclopaedia]. The article also states that Onsum and Kværner did fairly well through the year 1878, which was the crisis year of the period.⁸¹

This impression was confirmed by the growth in Onsum's income and fortune. In 1865 he had an income and personal assets of 10,500 and 85,000 spesidaler, respectively. In 1875 this rose to 30,000 and 275,000 spesidaler.⁸² Up to 1880 his assets did not grow, but did not decrease either.⁸³ We must of course be cautious when deducing too much from these figures. On the other hand, there is much to indicate that Kværner actually did rather well in the latter part of the 1870s. This is confirmed, as we have already pointed out, by the fact that employment in this period actually continued to grow.

How did Onsum and Kværner Works steer clear of the recession? The answer probably lies in their production diversity. During the good years up to the mid-1870s, many mechanical workshops had increasingly specialised in certain areas of production. Some concentrated on ship-building, others on special types of machinery, etc. This made them more susceptible to the recession, however. Kværner, on the other hand, had for a long time had a quite diverse production in place, and the company operated in markets with different economic cycles. For example, there is reason to believe that activity in construction followed different economic patterns than manufacturing in general. At any rate, the population of the capital grew by 36 per cent in the years from 1875 to 1885, and this must have meant that the demand for construction materials continued to be quite high despite the overall recession.



Drawing of a tile stove that could be used for cooking.



Building materials were long an important part of Kværner Works' product line. Here is a spiral staircase with foot-rest, presumably from the 1870s or 1880s.

Onsum's magnificent residence, Lille Munkeengen, popularly known as "the Onsum palace". The house was built in 1875-76. The garden was called "The Garden of Eden", and contained many statues, including a large sculpture of Adam and Eve.



But to some degree the good results could also have been due to the fact that Onsum consciously sought to initiate various projects that would support the demand for products from his own companies. As we shall see, this was a risky path to take, and it would finally lead to Onsum's downfall.

Onsum Goes Bankrupt

Although things went well for Onsum and Kværner Works during the 1870s, they went terribly wrong in the 1880s. As mentioned, Onsum's wealth reached its zenith around 1880. After that it began to plummet. In the early 1880s, employment at Kværner Works began to drop dramatically. Reports show that in 1885 there were 169 employees at Kværner Works.⁸⁴ In other words, the work-force was nearly half what it was five years earlier.

Onsum's personal finances were also suffering. In the first half of the 1880s his assets gradually decreased, and by 1885 his fortune was completely gone. It was obvious that Onsum's businesses had big problems. At the same time his debt was enormous, and this led Onsum to file for bankruptcy in 1887.

What was the reason for the bankruptcy? Kristian Anker Olsen thinks that it was primarily related to the fact that Onsum invested in a number of projects that went sour. His participation in Otterelven's Paper Factory in the 1870s was one of them. According to accounts, he joined in with the intention of supplying the factory with Kværner Works turbines and machinery. The project became a huge burden for those involved, however, mainly because the factory was hit by a number of technical problems.



Pissoir from the late 1880s. These were supplied in several sizes - single, double, triple, and quadruple, with or without dividing walls.

The desire to secure the future of Kværner Works also led Onsum to get involved in a number of construction projects that resulted in big losses. Onsum's son-in-law, Ludvig Aall, relates that in 1884 Onsum had seventy blocks of flats finished or under construction. "These deals," he writes, "were basically made to create a market for the products from Kværner and Svendengen."⁸⁵ In addition, Onsum was hit by a minor housing crash in the late 1870s, which meant he had to take over a number of blocks of flats where he had large outstanding investments. Later these proved difficult to sell.

In 1887 Onsum's fortune in real estate, stock and investments was estimated at about 3.1 million kroner. At the same time he had debts totalling 2.5 million kroner.⁸⁶ In good times this large debt may have been possible to handle, but not during the oppressive times in the mid-1880s, and in 1886 he finally had to stop all payments.

In 1887 Onsum was 67 years old. After his bankruptcy he never made a come-back as a man of industry. He died in 1899. Even though Onsum failed personally, he left behind companies that continued to flourish to the highest degree. Christiania Nail Works and Kværner Works both continued in operation and developed into great industrial enterprises in the decades that followed. In the next chapter we shall look more closely at how the companies developed in the coming years, and how the casting operation eventually took on a quite different position than it had held previously.



At the peak of his career, Oluf Onsum was appointed to several prominent public offices in the capital. In this photo from around 1880, he presides with an authoritative air as city captain - leader of the Civil Guard.