The name "L. M. Ericsson" is one well known in the telecommunications industry. Not so well known is the story of the telecommunications pioneer who formed the company that carries his name.

L. M. Ericsson

Telecommunications pioneer

On April 1,1876 Lars Magnus Ericsson opened an electro-mechanical workshop in a rented kitchen at 15 Drottninggatan in Stockholm. His physical assets were meagre, consisting primarily of an instrument maker's pedal lathe. His working capital was 1,000 kronor (about $50), his labour force, a single twelve-year-old assistant.

In America Alexander Graham Bell had just received his first patents on the telephone. A great new era in communications was about to open. In the beginning Ericsson was engaged mainly in the repair of telegraph instruments and other electrical devices. But he soon began to produce improved equipment of his own design.

A notable example was a dial telegraph instrument for use in railway systems. He also designed a fire telegraph system for small communities that became the prototype of systems used at home and abroad for many decades. Ericsson's reputation for quality work soon enabled him to obtain orders from a wide variety of public and private authorities in such fields as telegraphy, fire protection, police administration and rail transportation.

Not long after opening his workshop Ericsson brought in a former workmate, Carl Johan Andersson, as his first and only partner. Andersson, who had also studied abroad with the assistance of Government grants, contributed 1,000 kronor to the enterprise which now became known formally as L. M. Ericsson & Co. Andersson continued as Ericsson's closest associate for many years, even after the

partnership was later dissolved and the founder regained complete financial control.

Two significant events in Ericsson's life occurred in 1878. At the age of 32 he married Hilda Simonsson who became not only the mistress of his home but also an active colleague in business. For a number of years, the winding of electromagnet reels with silk-insulated copper wire was entrusted to Mrs Ericsson, at first working alone and later with the help of one or more assistants. It is said that even when confined to bed Mrs Ericsson continued her work with the winding machine propped on her knees.

The second major event of 1878 was the delivery, during the month of November, of the first telephones of Ericsson's manufacture. American made instruments had been introduced in Sweden the previous year and some of them had already been in Ericsson's shop for repair.

The experience thus gained, coupled with the studies Ericsson had undertaken after reading news accounts of Bell's invention, had enabled him to design and produce "serviceable" instruments.

Ericsson and his wife, Hilda, with an early telegraph instrument.

Other orders followed in close succession and, although the telephone continued to be regarded as a luxury, Ericsson intensified his efforts to improve the instruments and related equipment. The "break-through" of telephony in Sweden occurred in 1880 when the American Bell Company, using American equipment constructed the first telephone networks. The situation was critical for Ericsson. He stood to lose virtually all his home market unless he and Andersson could demonstrate convincingly that their equipment was equal, if not superior, to Bell's.

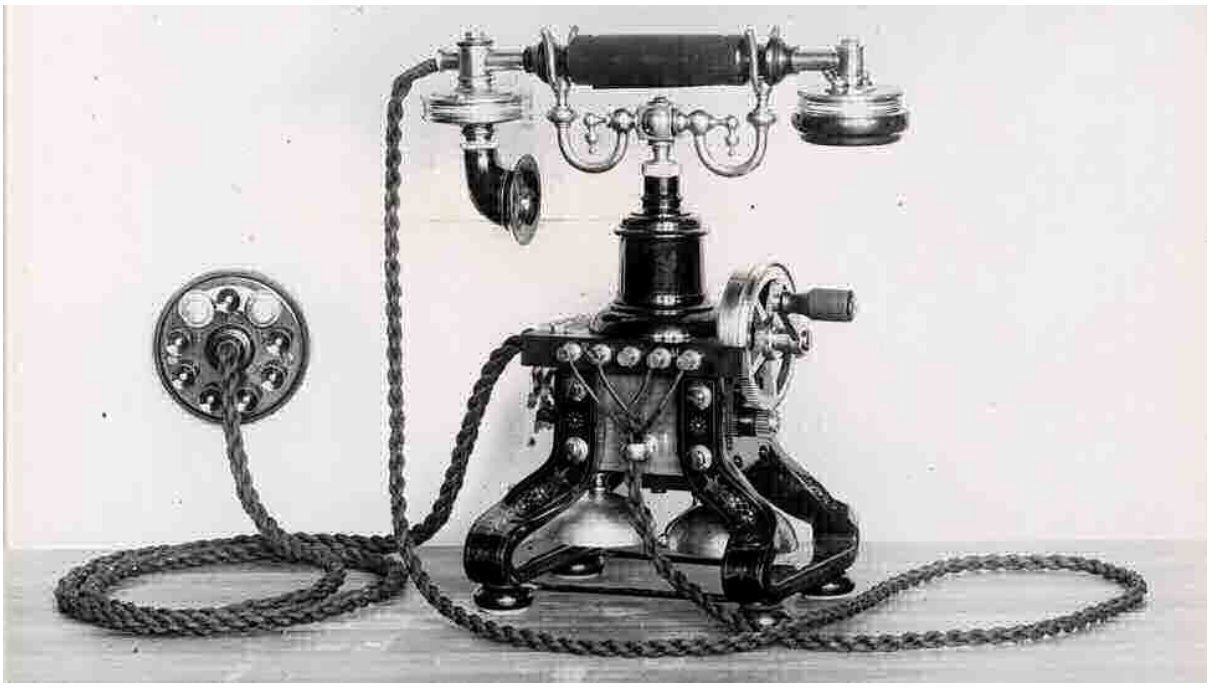
The showdown came the following year – 1881 –when the city of Gavle on the Baltic coast, called for bids to supply a local telephone system. The Bell Company in Stockholm offered to install and operate a system for 200 kroner per subscriber per year, based on a minimum of 50 five-year subscriber contracts.

At this point a local entrepreneur entered the picture. Relying on Ericsson's engineering and price estimates, he offered to install the system for 275 kronor per subscriber and thereafter to operate it for 56 kronor per subscriber per year.

At the end of January, instruments from Bell and Ericsson were set up in Gavle for comparative testing. The testers certified that both functioned very well but that they considered Ericsson's telephones "simpler, stronger and more attractive."

The Gavle Exchange Association, which had responsibility for the final decision, nevertheless decided to call in a new jury of two telegraph experts and one technician. On February 15 the new inspectors reported Ericsson's telephone "to be better made, provided with a better ringing device and with a better designed and movable microphone . . ." Ten days later the bid on behalf of Ericsson equipment was accepted with only minor modifications. The victory over Bell at Gavle and later the same year at Bergen, Norway were major milestones in the development of Ericsson's five-year-old enterprise. He had demonstrated that Swedish craftsmanship and Swedish technique could compete on an equal footing with the largest company in the field. He had established a firm position in his home market and he had opened up the first in a long succession of markets outside Sweden. Both were momentous achievements.

At the beginning of 1880 Ericsson had 10 workmen on his payroll. Four years later the number was close to 100. The dynamic growth of the enterprise which was to continue – with few setbacks – for nearly a century was under way. In 1888 Ericsson provided the principal support for the formation of Sieverts Kabelverk, in the Stockholm suburb of Sundbyberg, to produce covered copper wire. Max Sievert had for a number of years represented a foreign manufacturer of this type of wire, which was becoming increasingly important in Ericsson's production program.



Ericsson pioneered the development of the desk telephone. This famous design was introduced by his company during the early 1890s.

The Sieverts company, now the largest producer of cable in Northern Europe, is today a subsidiary of the Ericsson Group. One of Ericsson's important contributions was to give telephone instruments and their important components a light, attractive appearance without any impairment of technical performance. In this respect, Ericsson instruments differed substantially from the early equipment offered by other manufacturers. Ericsson instruments produced during the last two decades of the 19th century, widely imitated by other companies, are today collectors' items throughout the world. Ericsson's first transmitter, the so- called "spiral microphone" developed in 1880, was an original and ingenious design which greatly facilitated the spread of the telephone service in Scandinavia prior to the introduction of the carbon transmitter. It was Ericsson who provided the practical design and engineering for the first hand sets which combined receiver and transmitter in a single unit. While the concept is not regarded as his invention, he is credited with recognizing its value and with establishing the new-style instrument in world markets. Similarly, Ericsson contributed substantially to the design of early telephone exchanges, designing and producing the first "multiple desk" in Europe in 1884.

With Cedergren, he is also credited with developing several automatically connnecting switchboards that offered unusually low subscriber rates in 1883. Many of these switchboards continued to be used for more than half a century. In the concluding years of his business life Ericsson participated actively in the design and engineering of the then new central battery system. One of Ericsson's major contributions to telephony was his continuing insistence on product quality. His standards were higher than those then considered necessary by foreign competitors, who were gradually forced to raise their sights. The solid quality of Ericsson's work and the elegance of his designs established his products as symbols of the finest telephony. By the mid-nineties Ericsson's company had approximately 500 employees – a relatively large number in those days in nearly all countries – and was firmly established in both domestic and export markets. The company had customers throughout the world, the bulk of them located in the Scandinavian countries, Russia, England and the countries that today comprise the British Commonwealth. Export sales consistently exceeded sales in the limited Swedish market and in some years accounted for 70 to 85 per cent of invoicing. In 1896 Ericsson transferred the business of L. M. Ericsson & Co., to a new corporation, Aktiebolaget L. M. Ericsson & Co., capitalized at one million kronor. Ericsson owned all the shares except for a number distributed as gifts to the faithful Carl John Andersson, his works manager for many years and to 31 other

key employees. Ericsson served as managing director and chairman of the board of the new corporation for four years, retiring as managing director in the fall of 1900.

He continued as board chairman, displaying an active interest in the company, until 1903, when he disposed of his shareholdings and severed all formal connections with the enterprise he had founded and guided to a position of international stature. He took up farming on an estate near Stockholm in 1906 at the age of 60 and died in December 1926 in his 81st year.

Originally printed in "Telecom" and reprinted in Electronics Australia May 1978