

European telephone manufacturing in the 1890s by small companies

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1. Introduction

When I started to look into the Telephony history, I came in touch with the Australian expert Bob Estreich (who unfortunately passed away at the age of 62 in 2011).

I learned quite a bit from him, one thing I will always remember. When the telephone business started booming in the 1890s, the major designs were done by greater companies, but also a lot of smaller companies started their business, especially in Europe.

Bob: *"Many phone companies of this period used parts from Siemens and Eric-*

sson until they could build their own. The companies doing this included BTMC and ATEA in Belgium, Sterling and Peel Conner in Britain, Elektrisk Bureau in Norway, Mollers in Denmark, and many of the smaller French companies. Many of these companies were using just about all bought-in parts except woodwork, and then gradually started introducing their own metalwork, as the company grew."

Basically, what did one need to build a wooden telephone in the 1890s? You need a good carpenter to make the "housing", and an experienced electrician to install the circuitry.

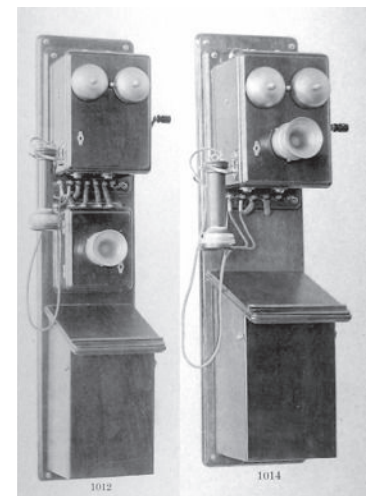


Fig. 1 Typical 3-box and 2-box wall phones from 1890s

2. Some examples

Everybody was manufacturing the well-known two or three boxes wall phone such as the ones in Figure 1. This original American styling was not well appreciated in Europe, and especially the Swedish company Ericsson started to design their own phones.

Their styling was followed by many smaller companies. Here an example of the Belgian company ATEA, who copied the original Ericsson styling.

Also this is a proof that Ericsson's styling was followed by smaller, starting companies such as BTMC, ATEA and others.

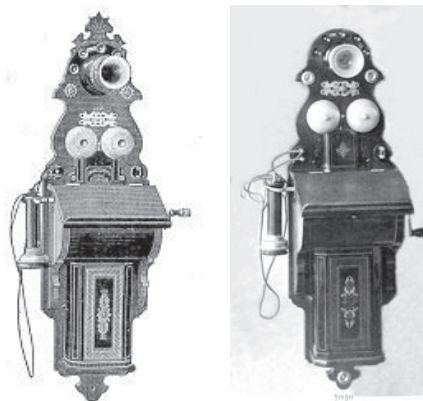


Fig. 2 Ericsson 301 Fig. 3 ATEA 1040

3. A "marriage" of a Western Electric with an Ericsson

This telephone is derived from a Western Electric Model 85 (nicknamed "fiddle-back") body dating from the 1890s. BTMC Antwerp (a daughter company of Western Electric in those days) added an "Ericsson flavour" to it with the introduction of the Ericsson handset and a hookswitch. This design was followed by several other manufacturers, such as ATEA and Peel-Conner. BTMC and Peel-Conner delivered phones to the (British) National Telephone Company, we don't know if ATEA had NTC as a customer.

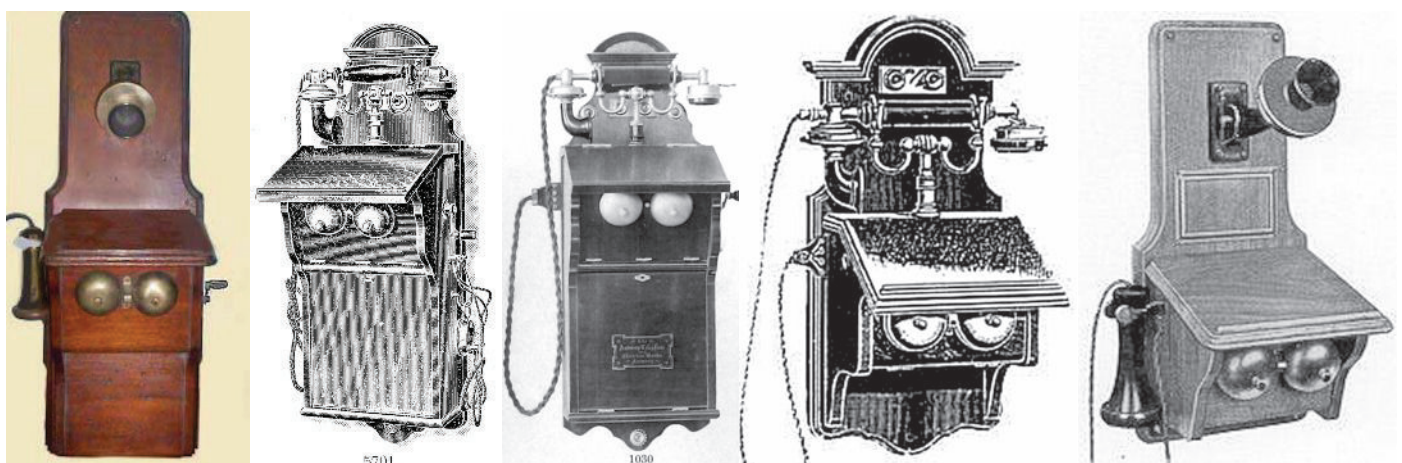


Fig. 7 Marriage of a Western Electric with Ericsson style & handset
L-R WE Fiddleback Model 85, BTMC 5701, ATEA 1030, Peel Connor K8160, Ericsson N1460

Andy Emmerson added: "I had a Peel Conner copy of the Western Electric fiddleback and a British Western Electric (like BTMC 5701). The BTMC 5701 was marked on the back with both the Post Office type number (Tele. 59) and the National Telephone Company type number (something like NT7). Both of these

telephones had been bought by the London & North Western Railway company and they had remained in use until 1965."

In 1906 Ericsson made a similar phone the N1460, in this example with a different microphone and earpiece.

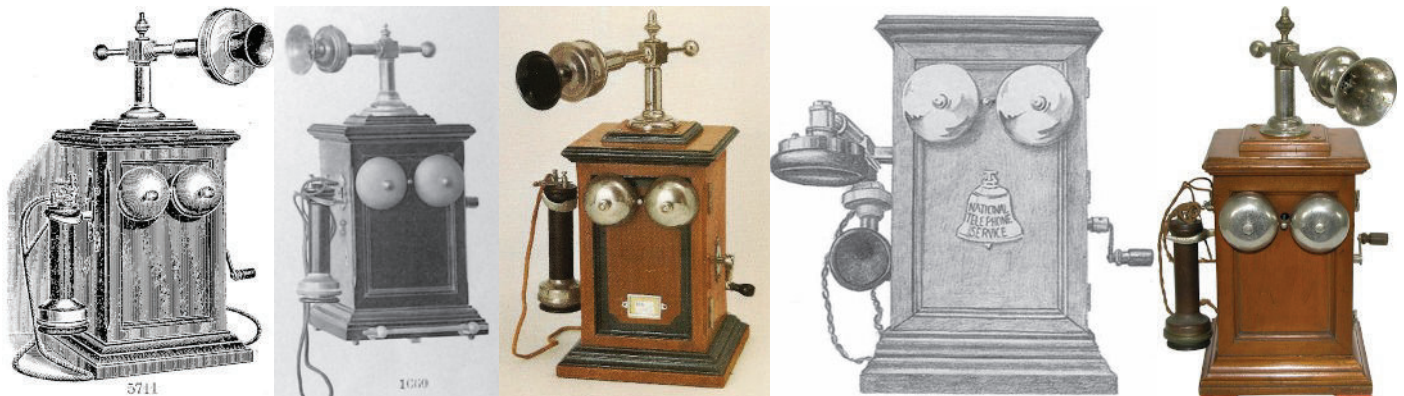


Fig. 8 The so called "Turretphone"

L-R: BTMC 5711; ATEA 1060; Hasler; NTC version with handset (BTMC); Japanese version

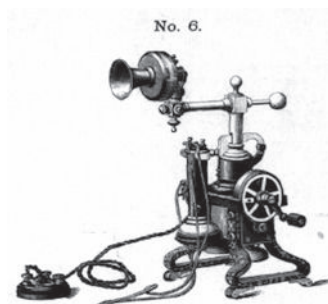


Fig. 9 The Ericsson nr. 6 from the 1892 Ericsson catalogue

This table phone, nicknamed the "turret phone", has been designed by BTMC with a microphone, which is apparently referring to an Ericsson origin. It has a microphone of the Ericsson nr. 6, which can be found in the 1892 Ericsson catalogue (see Figure 9). Also ATEA had a similar phone in his product catalogue, the ATEA 1060.

The Swiss company Hasler (which is in 2016 part of Ascom Holding AG) copied the BTMC design, but changed the micro-

phone circuit. (Source: the website of the "Museum für Kommunikation" from Bern, Switzerland)

BTMC made also a version for the British NTC with an Ericsson handset. We found also a Japanese version on a Korean museum website

See <http://www.gumho.net/shop/shopdetail.html?brandcode=002000000059&search=&sort=order>

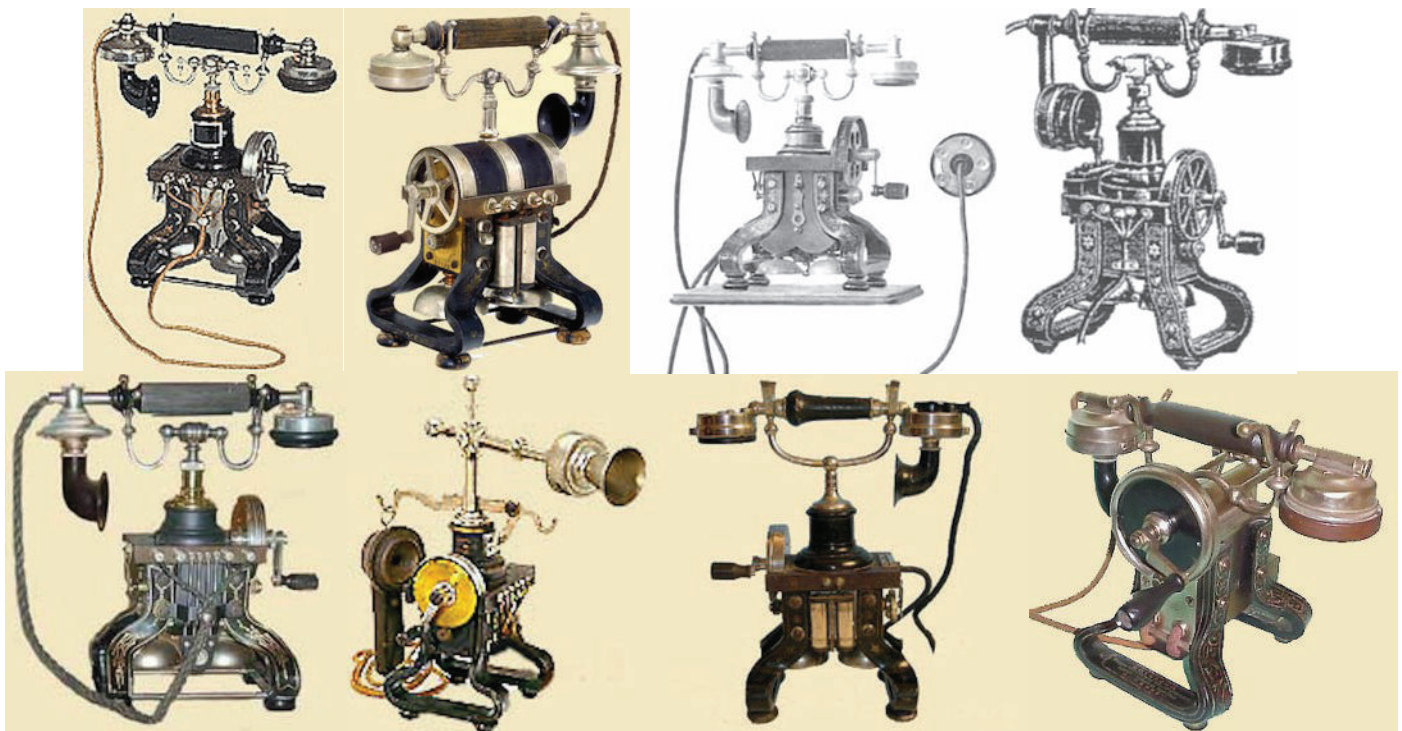


Fig 10. The Ericsson skeleton phone, copied by numerous companies

Top row: Ericsson, Sweden; AB Telefonfabriken, Sweden; ATEA, Belgium; Berliner, Germany.

Bottom row: Peel-Conner, GB; Reiner, Germany; Rikstelefon, Denmark; Telefongyar Reszvenytarsasag, Budapest, Hungary

Elaborating on this telephone is beyond the scope of this article, but more details can be found at

<http://telephonecollecting.org/Bobs%20phones/Pages/Skeletal/Skeletal.htm> :

website of the Australian phone collectors houses the website of the late Bob Estreich.

<http://www.mirz.homepage.t-online.de/st/skelette.pdf>: a German website with a complete overview of the Skeleton phones

Original Ericsson skeleton telephones have a serial number, and their year of manufacturing can be derived from that, i.e. from Bob's website at:

<http://www.telephonecollecting.org/Bobs%20phones/Pages/SwedEricsson/Ericsson%20Serial%20Numbers.htm>

Berliner sold these under their own name and through the New Century Telephone Company. Probably the General Electrical Company (GEC, Byng and Hirsch) got their skeleton telephone from Berliner too.

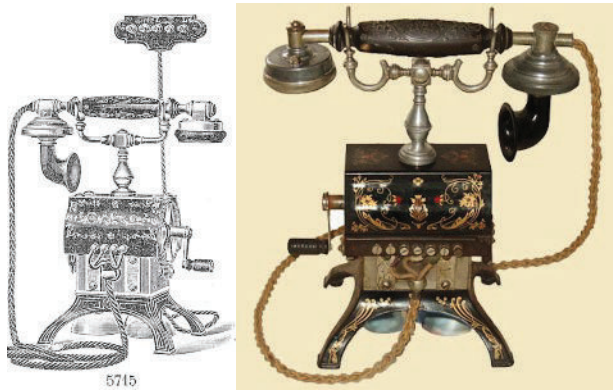


Fig. 11 BTMC 5715 – BTMC/Western Electric answer to the Ericsson skeleton phone

Left, the BTMC Catalogue entry and Right, a beautiful sample from Bob Estreich's website

<http://www.telephonecollecting.org/Bobs%20phones/Pages/Eiffel%20Tower/Eiffel%20Tower.htm>

BTMC and Western Electric had their own version, nicknamed the Eiffel tower phone.

6. Patents?

Did smaller companies just copy the phone, or did they have to obtain a licence? At the end of the 19th century, it looks like patents were treated a bit differently compared to 2016. If somebody wanted to protect his patent in one particular country, the patent had to be registered explicitly in that country. There is the well-known example of Germans who copied the phone design of Graham Bell, because he neglected to register his patent at the German patent registration office.

Bigger companies seemed to neglect sometimes that their designs were copied by start-up companies. For them it was not real competition. And those smaller companies came anyhow to them to buy piece parts.

Often it was for start-ups also better not to import assembled phones, since transport and custom costs were pretty high, since local authorities tried to encourage local production.

It is sometimes difficult to identify the manufacturer of a phone, since smaller companies used bigger companies as a supplier for piece parts. In the US, Western Electric was frequently the supplier for smaller companies, and Ericsson or Siemens & Halske in Europe.

It looks like some manufacturers made telephones under a licence. Others offered a beautiful wooden "box" (made by a carpenter) and purchased their piece parts.

I presume that skeleton phone manufacturers had to apply for a licence. That could be the reason why BTMC and Western Electric created their own version, called the Eiffel Tower Phone. Did they want to avoid a licence application?

7. Sources

This little study of phones at the end of the 19th century is not complete, it just gives a trend from the 1890s.

Own copy of catalogues of BTMC and ATEA.

In writing this text, I exchanged ideas with a lot of people, which I am very grateful.

- Dietrich Arbenz, Munich, Germany
- Andrew Emmerson, UK
- Steve Cichorsky, USA
- Dirk Klaum, Frankfurt, Germany
- Karl Kronig, Museum für Kommunikation, Bern, Switzerland
- John Mulrane, Eire
- Jack Ryan, Australia

Note: The company ATEA mentioned in this article has been described in an article in the THG journal No 78, Spring 2012.

Websites:

Several pages at Bob's Estreich's website

<http://www.telephonecollecting.org/Bobs%20phones/index.htm>

Website with Ericsson's catalogues and other interesting stuff

<http://Ericssonhistory.com>

A website on the skeleton phone, maintained by Peter Mirz

<http://www.mirz.homepage.t-online.de/st/skelette.pdf>:

An overview of Ericsson wooden telephones on Bob Freshwater's website

<http://www.britishtelephones.com/ericsson/qfpics/qfwood.htm>

