

An unusual ATEA telephone from the second half of the 1920s

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Introduction

The Belgian telephone company ATEA was founded in 1892 in Antwerp. In the first years the company was involved in manual telephony. Like many start-ups in that period, they started with copying telephones of the Swedish Ericsson and assembled manual telephone exchanges.

After the First World War, automatic telephony was introduced, and ATEA could not develop it on his own. First it made an agreement with the British Relay Automatic Telephony (=RAT), whose products they manufactured and installed under licence in the early 1920s. They had installations in Belgium, the Netherlands, Luxembourg and also in Spain. RAT had a superior technology, but also had its limitations.

In 1926, ATEA was searching for another partner with knowledge on automatic telephony. The company was bought by a British/American holding company, which had the Strowger technology through Automatic Electric in Chicago and its European counterpart ATM (Automatic Telephony Manufacturing) in Liverpool, UK.

The Strowger technology was introduced through these companies. ATEA, which used to be a workshop, was transformed into an industrial company. The impact of Automatic Electric and ATM can be noticed in the products manufactured since then.

When we began to show interest in ATEA's past in 2008, we immediately saw the influence of the British and Americans in the new products at the end of the 1920s.

In the product range we did find however an “unusual” telephone.

Discovery of an “unusual” phone



Figure 1: Remarkable ATEA telephone (+/- 1927-1930)



Figure 2: Remarkable ATEA telephone- inside view

Two collectors have a wooden ATEA telephone with dial, which did not appear in any catalogues of the 1925-1930 period, and which challenged us to do further investigation.

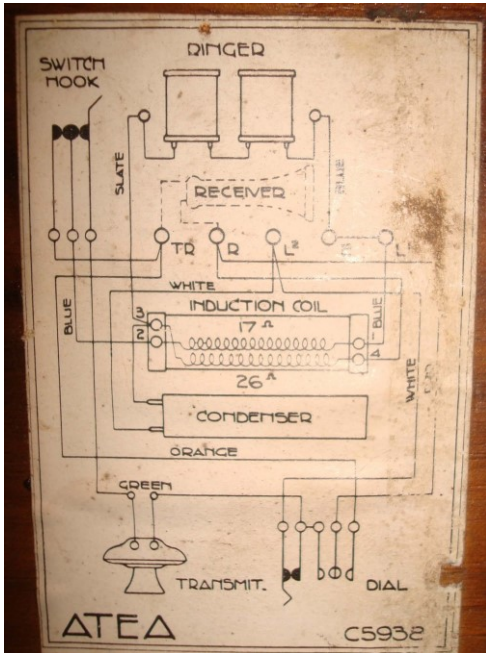


Figure 3: Remarkable ATEA telephone-schematic

Observations:

If we look at the Atea catalogues of the second half of the 1920s, we notice mainly:

- Telephones made of metal (following Automatic Electric Chicago and ATM Liverpool in those days), see Figure 4.
- The telephone of Figure 1 has a dial, but is made of wood.

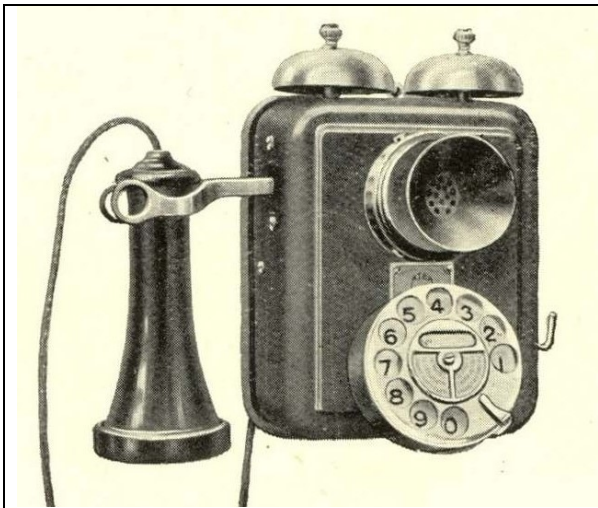


Figure 4: Similar ATEA metal phone

Source: ATEA catalogue April 1927



Figure 5: Automatic Electric version of this metal phone.

Source: AE catalogue 1928

If you look at the inside (Figure 2):

- We see a ATEA schematic, with a “valid” ATEA circuit number (C5932)
- The comments on this circuit are in English only, while on other circuits, comments were at least in French, or French and English.
- The components are in no way similar to ATEA components used in other devices of the same period.
 - The labels on the coils are not yellow, which was standard for ATEA
 - We do not find an ATEA label on the coils.

- We do not find this phone in the catalogues of the end of the 1920s. At least not in a wooden version (a metal one can be seen at Figure 4).

This leads us to believe that Atea has built this device under licence, as it did in its early days of copying Ericsson telephones.

Origin: The British GPO

After some research, we found out that this phone is very similar to a standard phone of the British public telephone company, which was GPO in the 1920s.

As in many other countries, British customers had to rent their telephone set from GPO. Telephones were usually designed by GPO and manufactured in the so-called "GPO factories" or licensed to suppliers (usually British).

This unit was called the "tele 121", and was delivered from 1924 onwards. Some suppliers had it in their catalogues until 1935.

It could be connected to exchanges equipped with central battery (CB), especially to manually operated exchanges if they were equipped with CB, and to automatic exchanges (always CB). The phone was delivered with or without a dial depending on which public exchange was installed. When a manual exchange was replaced by an automatic exchange, the phones could be converted by installing a dial. Some examples of GPO phones at Figure 6, 7 and 8.

Some versions were with a "backboard" like the classic telephones of the early twentieth century (see Figure 8 for an example).

Some websites indicate that the "tele 121" was built on the basis of the "bell set 1". This was a bell, which was supplied separately with a "candlestick phone", see Figure 14.

Candlestick phones are beautiful in design, but have no place for a bell, which has to be placed separately, hence the success of the "bell set 1". Some call the tele 121 the "*wall version of the candlestick phone*". After all, the components (microphone, pear-shaped earpiece and dial) were mounted on the case of the "bell set 1".

Who were the suppliers

Besides the GPO factories, suppliers included (among others?) Ericsson, ATM and GEC. On www.britishtelephones.com (by Bob Freshwater) we found the following illustrations:



Figure 6: GPO dial version 1926



Figure 7: GPO manual version 1926



Figure 8: GPO backboard version



Figure 9: ATM L11146 (catalogue 1928)



Figure 10: Ericsson N1050 (catalogue 1926)



Figure 11: GEC K8384 (catalogue 1926)

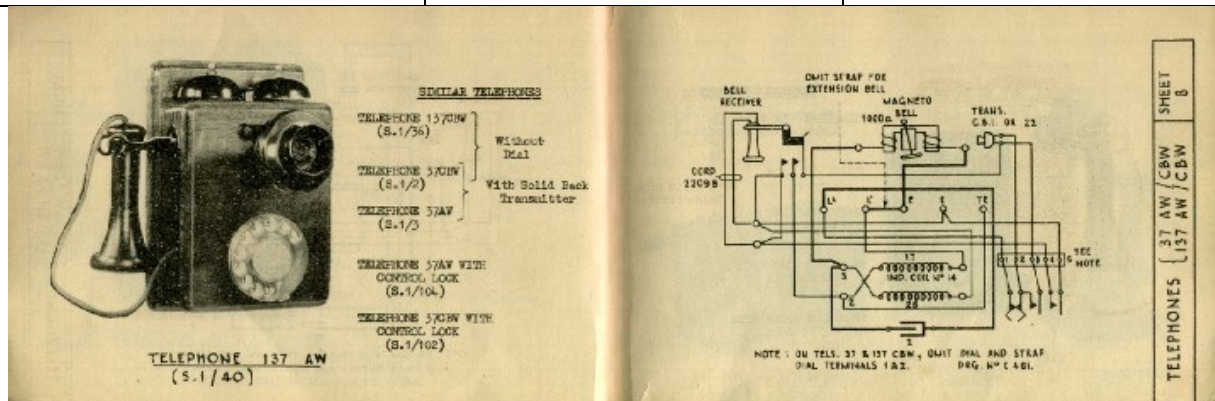


Figure 12: Australian version, called telephone 137AW

"Automatic Electric" made a similar telephone as early as 1908, see Figure 13. I don't suppose there is a direct "connection" with the tele 121.



Figure 13: Automatic Electric: preliminary version of the Tele 121? (1908)

Because of the shape of the dial, it was called the "Mercedes Dial". A remarkable resemblance! Since Automatic Electric was already active in the United Kingdom before the First World War, a link with GPO may well have existed.

ATEA production, a possible hypothesis

When in 1919 Automatic Electric from Chicago was almost bankrupt due to competition with AT&T (American Telephone and Telegraph), Theodore Gary, big chief of the holding company "Associated Telephone and Telegraph" had taken over Automatic Electric. After this takeover, Automatic Electric was even allowed to supply the Strowger system to AT&T. Become the supplier of your competitor!

In 1920, the holding company became the owner of the European company that sold Strowger, ATM from Liverpool.

In 1926, the same holding company took a majority stake in ATEA. ATEA, ATM and Automatic Electric were thus sister companies under the same umbrella of the holding company.

The workload at Atea had dropped, as it had no direct answer for automatic telephony due to the evolution of technology. According to sources, it was looking for orders to keep the people at the factory working.

Traditionally, the company had a quality carpenter shop, and also a department that could assemble "classic" telephones.

ATM Liverpool, however, was a step ahead: they had been doing automatic telephony for years, had plenty of work, but had to keep their contracts for supplying customers with "wooden wallphones".

It does not seem illogical that ATEA would have taken over the production of this telephone from ATM Liverpool, in order to keep workload in the factory. "Contract manufacturing" is a typical solution in times of recession.

Is the ATEA version a tele 121?

Back in 2008 we contacted Ron Sewel and David Walton. At that time they were within THG the experts of the "wooden wall phones".

Ron Sewel told me the following:

- The "Atea" telephone is based on the bell set box GPO no 1.
- The hinges have 4 screws, while GPO normally requires 6 screws (higher cost, better quality).

- Presumably these phones are for the private market.
- The dial is clearly ATM (not GPO standard)
- The coil, capacitor and bell are GPO standard.
- the hook switch is from ATM
- This phone clearly has an ATM origin, but is not made for delivering to GPO.
- Phones approved by GPO get a GPO label. (See Figure 15 for an example.). This is not the case with the ATEA phone.

After studying the circuit, David Walton told me: your phone is somewhere between type 105 and 121.

- GPO made pretty much the design, and had it manufactured by different suppliers. Sometimes manufacturer 1 would make part A, and manufacturer 2 would make part B, and they would swap them around.

- Suppliers sometimes made derivative items for the private market. Presumably the ATEA version was for the private market of ATM.

	
<p>Figure 14: GPO Bell set 1, the origin of the Tele 121</p>	<p>Figure 15: GPO approval label</p>

This phone has been used in a movie

When we wanted to make a film to describe the operation of a Strowger exchange in a light-hearted way, we used this phone! See Figure 16.

Thank you to

- Bob Freshwater for the illustrations on his website
- The late Australian Bob Estreich for his help
- Ron Sewel and David Walton for their feedback on the ATEA phone.



Figure 16: Telephone used in a movie about Strowger exchange.

https://www.youtube.com/watch?v=A_cwXDK-L6c "Demo Strowger Telephone exchange with French Song"