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ANTWERP TELEPHONE AND ELECTRICAL WORKS AND WORLD WAR II

By Jan Verhelst

This is Part I of the condensed English-language summary of the 68-page second chapter of the book ATEA Verhalen (ATEA Stories) written by Jan Verhelst in the Dutch language. Chapter 2 of this book describes the history of ATEA during World War II. Parts II and III of this summary will be published in upcoming issues of Singing Wires.

The complete text of this well-illustrated book, is available at http://www.kulentuur.be/ateamuseum/atea_verhalen/Atea_verhalen_overzicht.pdf

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1. Introduction

ATEA's history has been already explained in a previous article. ATEA was an artisanal telephone company, founded in Antwerp in 1892, In 1926 ATEA came under the control of the Theodore Gary group (who also controlled Automatic Electric Chicago and ATM Liverpool) and it was converted into an industrial



company manufacturing telephones and Strowger telephone exchanges.

When the Germans occupied Belgium on the 10th of May 1940, ATEA's General Manager **Joe Janssens** escaped to the USA. Chief Design Engineer **Rudolf Stehlik**, an American citizen wanted to escape also, but since his wife and children did not have an American passport, he decided to stay. He was appointed as General Manager of ATEA by the board of directors.

On the 7th of December, 1941 the Japanese attacked Pearl Harbor. As a result, the Americans declared war on Japan and Germany. This decision caused some changes in occupied Belgium. An American citizen was considered as an

enemy by the occupying Germans, so Rudolf Stehlik had to step down as General Manager of ATEA at the beginning of 1942.

The Board of Directors had a difficult choice to make:

1. Either leave the decision to the occupying Germans, and let them assign a "curator" who had little knowledge of the telecommunication business.

2. Or find themselves a German citizen who had knowledge of the telecommunications business and put him in charge of the company as he would be trusted by the occupying Germans.

The disadvantage of the first option was that the curator could obtain electro-technical orders for ATEA, which had nothing to with the telecommunications manufacturing background of the company.

The second option gave the opportunity to appoint a qualified person. So a German National had to be found, who was qualified in telecommunica-

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tions manufacturing. ATEA management made contact with Siemens & Halske in Berlin. Siemens was interested, as they desperately needed production capacity.

1.1 Siemens & Halske and Automatic Electric

Siemens & Halske (Germany) and **Automatic Electric** (USA), who were two big telecom players knew each other. Siemens & Halske since the early days of the 20th century had a license from Automatic Electric to build Strowger exchanges. They also made their own version of Strowger, which was derived from the original.

They had met each other also at the important telecommunications manufacturers meeting in Zurich in 1929, where the **Zurich Agreements** were made. Those agreements were concerning the world telephony market outside of the US, which prices should be used, etc.

An important American involved in this story was Arthur Frank Adams (1881-1958). Adams had been in charge in 1926 of a project to purchase ATEA and bring it into the British-American holding company headed by Theodore Gary. ATEA's strategic location in Ant-

werp was an important consideration.²

During the "Great Depression" Adams did several restructurings and – among other things - he sold ATM Liverpool back to a British holding.

Adams should have offered the ATEA shares to Siemens & Halske at the end of the 1930s, but at that point in time, they were not interested.³

In 1942 the situation was completely different, Siemens & Halske definitely needed additional production capacity. In Germany, a lot of men were serving in the army, and were unable to work in the

Adams should have offered the ATEA shares to Siemens & Halske at the end of the 1930s, but at that point in time, they were not interested.

electro technical industry.

After the ATEA board got in touch with Siemens & Halske in Berlin, the Siemens board sent a telegram to Adams in Chicago in order to ask "can we rent ATEA?"

Adams replied to get in touch with Ru-

dolph Stehlik for this matter. But Stehlik was in hiding and was unreachable.

Finally ATEA was not rented to S&H, but the Siemens manager Eugen Merkel was appointed as general manager, starting from the 1st of April, 1942.

1.2 Who was Eugen Merkel?

Eugen Merkel was born in **Salzburg/Sachsen** (Germany) on the 13th of June 1892. He started his career on the 1st of December 1928 at Siemens & Halske, Wernerwerk F (the PABX division). He became Department Director of the Siemens subsidiary **PROTOS Telefon GmbH** in October 1934. PROTOS Telefon was a company which operated a PBX rental business in the north and middle part of Germany. Merkel was promoted to Co-Managing Director of PROTOS on Jan. 29, 1937. At the same time he became a high-level member of the upper Berlin management of Siemens & Halske ("a *Generalbevollmächtigter*" is one step below the board). He was given leave of absence to take over the management of ATEA Antwerpen as of the 1st of April, 1942. In that position, he might benefit from his position as "General-bevollmächtigter" in having good connections to the upper Siemens management in Berlin.

While working in Antwerp, Eugen Merkel resided in a luxurious downtown hotel called "Grand Hotel de Londres" near the central station.

On the 3rd of September 1944 (*one day before the allied forces liberated Antwerp*), he escaped to Austria. In October 1944 he wrote an extensive report about his activities in ATEA, which is the basis of this article. Eugen Merkel passed away on the 20th of April 1949, he was only 57 years old. (See Figure 1).

1.3 German assistants of Eugen Merkel

Eugen Merkel brought two assistants from Siemens⁴ :

- One was called **Fuhr**, who was a financial controller, and had worked previously for Siemens-Kabel-Gemeinschaft, a Siemens subsidiary which made cables.
- The other one was called **Ostlinning**,



Figure 1: "Grand Hotel de Londres", Antwerp, where Eugen Merkel resided
Source: old postcard

Continued on page 5.

Telephony	28,384,820	65.11%
Meters	4,783,018	10.97%
Electricity meters	2,433,581	5.58%
Zippers	7,817,031	17.93%
Miscellaneous	177,854	0.41%
Total	43,596,304	100.00%

Figure 2: Invoice distribution 1942. Figures in local currency, Belgian Francs.

who had worked in Berlin as a manufacturing engineer in a “Werkstatt” (Workshop) in Adalbertstraße, headed by Merkel. This workshop was a Siemens manufacturing unit for telecommunications equipment in mid-Berlin.

2. ATEA under Siemens management (April 1, 1942 – September 3, 1944)

2.1 Introduction of the new general manager



Figure 3: Assembly of meters on ATEA in the 1940s. Source: ATEA-archives

Eugen Merkel started with some efficiency improvements, such as higher worker efficiency, flexible movement of people within the organization (due to war circumstances), and stock management improvement. Also Siemens products were introduced and manufactured.

He worked together with the existing Board of Directors, who were members of the “Société Générale”. When they started the cooperation, the board wished to lease the whole factory to Siemens. The main reason was that Siemens placed very large orders which in turn placed a heavy financial burden on the company.

Finally Siemens financed their orders themselves and gave logistical sup-

port and tooling, so ATEA’s risks were minimized.

2.2 1942: The Beginning

The traditional local customers such as the National Telephone Operating Company and the Railway Company started to reduce their orders due to the war circumstances. However orders came in from Siemens, but the standard German manufacturing cost was much lower than that in ATEA, therefore the manufacturing processes had to be changed to improve efficiency.

Using Siemens knowhow and tools, adjustments were made and thorough staff training was carried out. A lot of money was invested in production facilities and in buildings such as in the construction of shelters against air attacks.

2.2.1 Production Telephony

One of the problems that were encountered was that the knowhow of manufacturing the Strowger switches was in Liverpool, UK, and was not available. ATEA engineers succeeded in doing reverse engineering, and created their own version.

Siemens gave large orders for switching equipment. The standard ATEA phone was also delivered in quantities to Siemens. A separate study on this phone has been carried out, and published earlier.

2.2.2 Production of Meters

ATEA was market leader in Belgium for electrical meters, but its production environment was outdated and needed to be improved urgently. There was technical support from Siemens, and the biggest buyer was also Siemens.

Telephony	34,496,000	67.43%
Meters	8,434,000	16.49%
Zippers	8,228,000	16.08%
Total	51,158,000	100.00%

Figure 4: Invoice distribution 1943. Figures in local currency, Belgian Francs.

2.2.3 Watertight exchanges and dials for Siemens

From the Siemens Archives in Munich, we learned an agreement was made to manufacture **watertight manual exchanges⁷ and dials** for Siemens. Transfer of tooling had to be organized from Vienna and Berlin.

2.2.4 Zippers

As a sideline, the company produced also zippers, which was a profitable business. This department was mostly considered as a “buffer” for the company. If the sales in electro technical equipment was low, there was still the zipper business.

2.2.5 Financial result 1942

See Figures 2 and 3.

2.3 1943: At Cruising Speed

After the 1942 reorganization, benefits were obtained in 1943. The orders from the local customers decreased further as expected, but the civilian Siemens orders came in big quantities. By order of the occupying Germans, they had to stop manufacturing electricity meters. Siemens did not order military equipment, which could have provoked sabotage. See Figure 4.

Due to war circumstances material adjustments had to be made frequently. i.e. brass used in manufacturing of zippers, had to be substituted by zinc, and later on by iron.

2.3.1 ATEA in the Siemens Financial Year 1942/1943

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The Siemens annual report for the financial year 1942/1943⁸ contained the following information regarding ATEA.

Among the companies under Siemens control to which Siemens communications division Fernsprengerät (Fg)⁹ has shifted production, ATEA is in a special position. This company is managed by (Siemens Fg) Director Merkel, who is supported by a technical and a commercial assistant from Fg. Moreover, that same report shows that:

- ATEA's production capacity is filled in 1942/1943 to about 85 per cent by Siemens Fg;
- ATEA prices (charged to Siemens) show an increasing trend, mostly due to wage increases;
- Station apparatus and PABX deliveries are of good quality although sometimes delayed due to a lack of supplies. (See figure 5)



Figure 5: Calendar ATEA August 1942. Source: Archive Friends of the ATEA museum

2.4 1944: it becomes more difficult

See Figure 6.

The factory could have run at full capacity, but due to war circumstances, there were limitations.

- Due to air attacks, interruptions in electricity and gas supply, and resistance activities, many hours were lost and supplies of material were hampered.

- As a consequence, a number of unfinished products had to be stored because parts were missing.

2.5 Social Activities

War circumstances:

- o Building of bomb shelters
- o Installation of a camouflage system, so people could work longer.

Improvement of the working environment

- o New washrooms, toilets and canteen.
- o Installation of a medical service, with the most advanced equipment.
- o Public address system for service announcements and

To Siemens/Berlin:			% Siemens	% not Siemens
Telephony	39,284,000			
Meters	6,500,000	45,784,000		
To Siemens/Brussels				
Telephony	2,600,000			
Meters	800,000	3,400,000		
Totally to Siemens		49,184,000	78.84%	
Railways, RTT, private				
Telephony		4,100,000		6.57%
Meters		1,300,000		2.08%
Zippers				
Germany	5,200,000			
Holland	1,400,000			
Belgium	1,200,000	7,800,000		12.50%
			78.84%	21.16%
Grand total		62,384,000	100 %	

Figure 6: Production 1944 (up to August, 31) Prices in Belgian Francs

music, even in the bomb shelters during an air raid.

Cultural activities

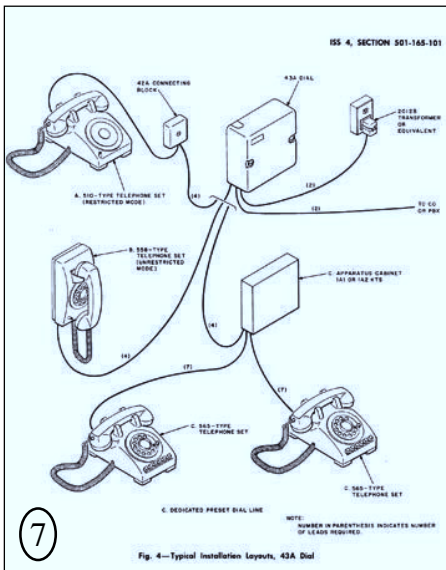
- o Yearly visit to theatre, opera, and fairytales for the children
- o Christmas party for the

children

The war conditions were hard for the families, so it was common to help the workers in purchasing difficult to get basic items such as potatoes and coal. ☹

Continued on page 11.

For the technically inclined, the wiring of the unit is very simple. Eight terminals are used for each configuration selected (restricted or unrestricted): phone instrument, phone line, power, and start button (Figure-5). I have chosen to use a W.E. 410 set (2 lines) so that I can have a restricted as well as an unrestricted dialer operation and the push switch under the two-line key will serve as the push switch. A view of the necessary equipment can be seen in Figure-6. The hobbyist may choose to mount the unit on a board along with an



accessory box to house the power cube and the terminal block to connect all components (for local demo), or mount the dialer unit in an equipment cabinet and dedicate the required pairs to the phone and phone line located elsewhere. The basic diagram for the installation of the several types of phones is noted in Figure-7.

The redial feature, phones with number programming features, and a variety of other gadgets have pretty much eliminated the need for a dialer of this type and limitation, but it was a great idea when it was put into service. ☛

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This article will be continued in the September issue of Singing Wires.

¹ The first Siemens & Halske made Strowger

SHOW ANNOUNCEMENTS

TCI welcomes announcements from members hosting regional shows. Detailed announcements will be published in the three months preceding the month of the show. Send copy to: editor@telephonedcollectors.org. Announcements may be edited for format, clarity and/or length.

The Annual TCI Labor Day Show

August 30-31 2013

Holiday Inn – Cincinnati Airport

1717 Airport Exchange Blvd.

Erlanger KY 41018

For registration see “Shows and Events” on TCI Website



2013 Canadian Phone Show

Sept 28th, 2013

Fort Henry Discovery Center

1 Fort Henry Drive

Kingston, Ontario.

8am-3pm

Directions: Take Exit 623 (Highway 15) off Highway 401. South on Highway 15 approximately 6.6KM, turn right on

County Road #2. Drive 600 meters to Constantine Drive. Turn left and follow the road up the hill to the Discovery Centre.

Kingston has an airport serviced by several flights per day from Toronto. Train service from Toronto or Montreal to Kingston is excellent.

Exhibitor Rates: First table is \$25, additional tables \$15 each. Free admission to the public.

As per our Canadian Phone Show tradition, we will be holding an auction of phones provided by show exhibitors. 10% of the auction proceeds will go towards offsetting the cost of the 2013 show.

For more information, contact Don Woodbury at organizer@phoneshow.ca, visit www.phoneshow.ca, or call the show sponsor, Oldphonenetworks, at 1-800-843-1320.

You can register and pay on-line, or send payment to: Phoneshow, 10 Binnington Court, Kingston, Ontario, K7M 8S3

switch was put in service in 1909 in München-Schwabing, Germany.

²“Within a 500-mile radius of Antwerp were the metropolitan centers of **France, Germany, Norway, Sweden, Denmark and Holland.** Gary sales representatives moved swiftly to develop export business for the new Antwerp plant.” Quote found in “The History of GTE, The Evolution of One of America’s Great Corporations”, of Thomas R. Maccarthy, GTE, 1990. The Americans hoped they could reach the European market from Antwerp. They did not realize the European market was quite different, with local suppliers such as Ericsson (Scandinavia), Siemens & Halske (Germany) and Thomson (France), just to name a few.

³This is Eugen Merkel’s statement. Richard Dierks, a member of the Siemens board had a different opinion on this in 1946. So is this gossip??

⁴Information about these gentleman was found in a 1938 Siemens telephone directory by Dietrich Arbenz, a Siemens historian.

⁵So Merkel seemed to have practical experience with heading a manufacturing unit.

⁶ The “Société Générale” was a holding company which controlled most of Belgian companies in those days.

⁷Contract of December 1, 1942 between Siemens & Halske Berlin and ATEA, Antwerp, Belgium

⁸ Thanks to Dietrich Arbenz for this information

⁹Siemens Fg: Fg is Fernsprechergerät, i.e. telephone apparatus, both telephone station and “switching” equipment.

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http://www.kulentuur.be/ateamuseum/atea_verhalen/Atea_verhalen_overzicht.pdf

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3. ATEA people at work in Siemens Berlin

3.1 Introduction

The use of forced labor in and throughout German-occupied Europe during World War II took place on an unprecedented scale. It was a vital part of the German economic exploitation of the conquered territories.

In the beginning of the war, a lot of Germans had to go to the army. However the war lasted longer than expected. A lot of them were killed in action (approximately 150,000 troops), and they had to be substituted by other men, so German industry had a hard time to recruit new people, and to fulfill all the required orders for the "Wehrmacht", although highest priority was given to military orders.

3.2 ATEA Workers in Berlin

One of the ways to get workers was to tell companies in occupied countries to send a percentage of their workers to Germany. Although ATEA already worked for Siemens, they had to send workers to Germany. Mr. Merkel arranged that those people could work for Siemens & Halske

in Berlin. In the given circumstances, this was an advantage for both parties. ATEA workers knew where they would end up, and Siemens got skilled telephony workers. Civilians like the ATEA workers got a salary which was comparable to German workers.

They had to work for the Siemens & Halske division "Wernerwerk F", which was the telecommunication department, located at several places; mostly around Berlin.



Figure 7: Postcard of one of the Siemens "Wernerwerk F" buildings in Berlin

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We did find contradictory figures for the number of ATEA people working in Berlin, but it must have been between

visited Berlin, and the life and working conditions of the Belgian workers was reasonably good¹⁰.

Zwangsarbeit-forschung¹¹ states that records about forced labor in the Berlin area show that there were about 3500 “lager” (places where workers

housed in downtown Berlin and the men in a nearby town. They even created a Jazz band to entertain people in the local pubs. The ATEA HR manager reported that there were about 12000 foreign workers at Siemens Berlin, but in 1944 this went up to 50000. In those figures the number of ATEA people (100 to 200) is very small, so we could not find any details about them. See *Figures 8 and 9.*

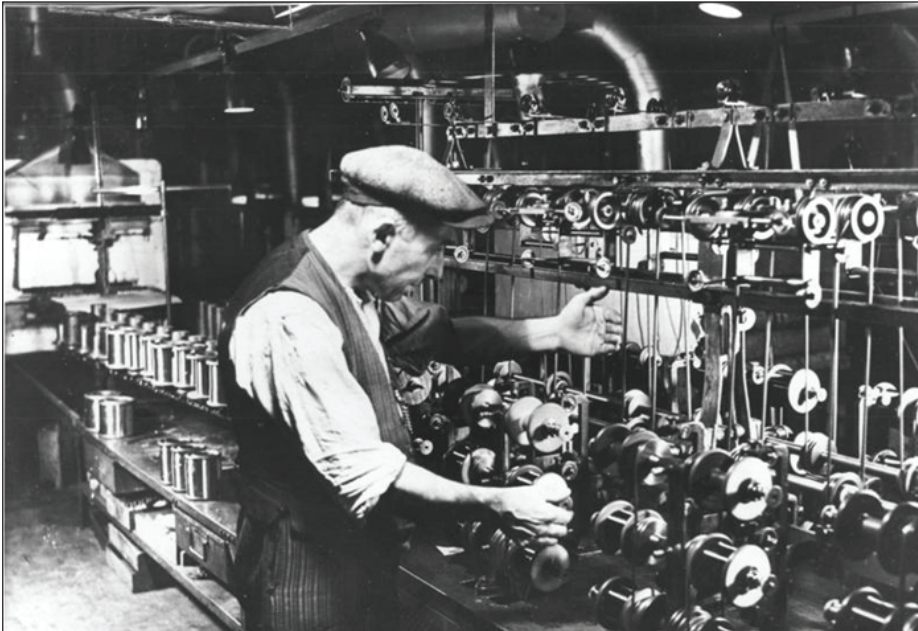


Figure 8: Belgian at work in Siemens & Halske's coil winding department (1943)
Source: German “Bundesarchiv” via <http://www.v-like-vintage.net>



Figure 9: Foreign women assemble Strowger step switches at Siemens & Halske (1943) Source: Bundesarchiv, Germany via <http://www.v-like-vintage.net>

100 and 200.

An ATEA human resource manager

were lodged) in the Berlin neighborhood. Female ATEA workers were

4. Other Sources about ATEA under Siemens control during WW II

4.1 ATEA During WWII, seen through the eyes of employees

4.1.1 Witness De Belder, 1977 interview

In 1977 a former employee was interviewed, here are some comments:

Mister Merkel was a very friendly man. He was a very “human” manager.



Figure 10: ATEA office in the 1940s

During the war, resistance people were in the company cellars listening to London messages. There was some passive resistance. Products sometimes encountered unexpected problems, which caused delay in deliveries.

D-day on June 6, 1944, was a joyful event. Everybody was very happy. But due to the decreasing workload, however people had to be laid off.

On September 3, 1944 Merkel and his two German assistants left the company. In November 1944 the company had some collateral damage due to a V2 bomb in the neighborhood. See *Figure 11.*

Continued on page 5.



Figure 11: "Collateral damage" in November 1944 due to a V2 bomb. Source: ATEA archives.

4.1.2 Interview with Maria Weyninckx

We had the opportunity to meet an 88 year old lady, Maria Weyninckx in 2012. Maria came to work in ATEA as an 18 year old girl in 1942. She started in a tooling drawing department to do some administration.



Figure 12: Maria Weyninckx in 2012

She remembers general manager Eugen Merkel very well. She could not judge his management capacities, but she was very well pleased in the way he treated people. She also knew the German Mr. Ostlinning. She told me he had a patch over his eye and was limping a bit. Some gossips said he came back from the Russian front. We were not able to verify this story.

4.2 Resistance at ATEA

During World War II, resistance activities were deployed everywhere in occupied countries and also within companies.



Figure 13: Lucien Kesteleyn (1897-1974)
Source: ATEA archives

One of the important resistance men at ATEA was **Lucien Kesteleyn**¹². The Siemens manager Merkel assigned him as HR manager during the war. As HR manager he had to work very close with the (German) general manager, but he was also very active as a resistance lieutenant. They took action in several areas:

4.2.1 Thwarting the occupying Germans

4.2.1.1 Delivery of a bad cable

An important German headquarters was located in a Brussels hotel. The Germans needed a special 63 wire cable for a strategic application. A bad cable was given, and the installer put acid on the cable, which led to bad quality in the long term.

4.2.1.2 Delay in service

The Germans required a direct tele-

phone connection between two airports through ATEA exchanges. When they were asked for an expert, they were sent to several faulty addresses before they obtained their expert.

4.2.2 Sabotage activities

4.2.2.1.1 Sabotage within the company

Students who were assigned to the company were sent on holiday, so over 11000 work hours were lost.

ERLA was a factory repairing German airplanes in the Antwerp area. The telephone exchange was sabotaged by ATEA maintenance people.

In 1944 a lot of actions were taken against the occupying Germans. There were the allied forces air raids, but also resistance activities on the ground.

This had consequences for the ATEA production.

- Some piece parts did not reach the company, so there was a huge stock of non-finished products
- A lot of workers could not reach the company.

4.2.3 Gathering important information

ATEA had a number of telephone exchanges installed at companies. So its personnel had access to all those companies for maintenance purposes and could gather information how things were going at those locations.

4.2.4 Assistance with the progress of the allied forces

Resistance movements gathered a lot of information, and forwarded it to London, to prepare for the liberation. ATEA people sent information regarding the status and availability of the Belgian public telephone network to the allied forces.

This article will be continued in the October issue of Singing Wires.

¹⁰These people were considered as "Civil Arbeiter" (civilian workers) from West-European countries, which is a totally different situation as the ones in concentration camps. But that study is beyond the scope of this article.

¹¹<http://www.zwangsarbeit-forschung.de>

¹²Background information: see 5.4 Lucien Kesteleyn (1897-1974)