

## **EUROPE-INDIA TELEGRAPH "BRIDGE" VIA THE CAUCASUS**

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A thin metal post with the English inscription "Siemens London Patent" stands on the beach of the "Chelyuskintsev" sanatorium in the picturesque Black-Sea resort-city of Gagra (Georgia). Guests are often puzzled: wherefrom and how did it turn out here? Not only guests, but even communication specialist cannot clearly explain the "mysterious origin of this post, they only shrug their shoulders and say: it has been standing here for a long time.

This is actually so, for it has been standing here since 1869. And, of course, nobody, even possessing rich imagination, cannot imagine that the wires supported by this metal pillar "carried telegrams to a far-away Calcutta from London and Geneva, Budapest and Prague, Petersburg and Paris, Stockholm and Berlin, Vienna and Oslo, New-York and Rome. Thirty four countries of the world exchanged telegrams with India via this modest telegraph-post in Gagra. Eleven thousands of such posts were shipped from London to the Caucasus and Persia in order to support wires of the World's longest land Indo-European telegraph line.

But let us start from the very beginning.

On January 11, 1870 a festive dinner was given on the occasion putting the Indo-European telegraph into operation. Representatives of Georgian social organizations, including those who supervised the construction of the telegraph system in the Caucasus were present here.

And, of course, everybody raised glasses in honour of the Siemens brothers, who were in charge of the construction of the telegraph line from England to India.

The Indo-European telegraph stretched as long as 8.300km and was in operation from 1870 to 1930. It had played an important part in the development of the world's telegraph system.

Even to-day, telegraph-posts and specially constructed buildings of the Indo-European telegraph remained in some parts of Georgia.

Numerous documents on the construction and operation of this telegraph, materials about the activities of the Siemens brothers — Verner, Walter, Otto, Karl, William, who visited Georgia at various dates in connection with the construction of the first telegraph lines in the Caucasus (Tiflis-Kutaissi-Poti, Dzhulfa, Tiflis-Baku) were found in the Central State Historical Archives of Georgia.

Walter Siemens and Otto Siemens died in Tblisi in 1868 and 1871 respectively, and were buried in the same grave.

In 1861, when the telegraph line from Europe reached Constantinople, construction of the Constantinople-Bagdad telegraph began. The line, then was extended to Fao, located in the Persian Gulf. The Indian government suggested the submarine telegraph cable between Karachi, Bashir, Fao and in 1865 telegrams from Europe to Calcutta were despatched via Constantinople, Bagdad, Fao, Bushir, Karachi. However, for a number of reasons it took a long time to transmit, for example, from England to India by this telegraph line: 6 days 8 hours and 44 minutes on the average, which by modern standards is, of course, very long. But this was, nevertheless, a very great technical achievement if compared with a month-long period needed for main delivery.

However, Verner Siemens, the renowned German inventor, and subsequently a member of the Berlin Academy of Sciences, was of a different opinion. The great experience in the construction of telegraph lines prompted him that a line from Europe to India had to be constructed along another route, namely via Russia and the Caucasus.

The Siemens brothers Verner and William dwelt at length on the forthcoming gigantic construction of that time. William Siemens promised to assist his brother in this undertaking — to manufacture the submarine telegraph cable at his London cable factory and to lay it in the Black Sea.

In November 1867 concession terms concerning construction of India telegraph were published in the Caucasian newspapers. The Russian Government granted the right to the construction to set up direct telegraph communication between Europe and India, and the Siemens brothers committed themselves to construct the line and to prepare it for operation within 2 years upon receiving the concession from the Russian, Prussian and Persian governments.

Telegrams from Europe to India were to “travel” by the following route: London-submarine cable through the North Sea to Emden-Berlin-Warsaw-Zhitomir-Berdichev-Vinnitsa-Balta-Odessa-Kerch — submarine cable in the Black Sea — Sukhumi-Tiflis-Erevan-Dzhulfa-Tabris-Teheran-Bushir-Karachi-Calcutta.

Early in 1868 “Executive committee of the Indo-European telegraph line” met in Berlin to discuss the question of telegraph line construction. Verner Siemens informed

the participants of the meeting that materials for the Russian line section were in the process of preparation and part of the materials for Persia had already been despatched there.

The construction of the "Indian telegraph" began in 1868 and continued intensively in 1869. The progress of construction was closely surveiled both in Russia and in Persia. "The Kavkaz" newspaper published in Tbilisi frequently wrote about the progress of construction.

By May 13, 1869 the construction of the telegraph section between Dzhulfa and Tabris was completed. In this construction "The Kavkaz" newspaper wrote: "One of the important Tabris events is that by May 13 the stretching of the telegraph wire has been finished and posts of the Indo-European telegraph of Siemens company have been erected from Dzhulfa to Tabris. The work in the town and nearby villages has been completed, the Tabriz working team is moving in the direction of Erevan where it is to meet with the Teheranian one, Tabriz, May 29"

It is interesting to note, that by that time telegraph posts had been installed in Odessa and Kerch. On May 14 "The Kavkaz" wrote: "They have started to erect posts of the "East-India telegraph", while on May 15 "The Kavkaz" informed the readers that the East-Indian Telegraph Company was successfully erecting metal posts in Kerch.

In May 1869 the construction was in full swing. Posts had been erected everywhere from Zugdidi to Tiflis and used for suspending wires. The materials are transported from Tiflis to Dzhulfa. The builders met with a great difficulty due to the shortage of hands; bad road conditions, and almost impassable forests delayed the work they had to cut out the woods. Materials for this section were brought from London by sea to the coastal storage terminals (Adler, Gagra, Ochamchire).

In Georgia, the construction of the "Indian telegraph" was followed with a great interest and in many cases the local authorities rendered all kind of assistance to the builders. Thus, on January 24, 1869 the head of the Trans-Caucasian rail-road construction management was informed that the manager of the Caucasian telegraph department was informed that the manager of the Caucasian telegraph department, ober-engineer K. Helzer had asked local constructors of the telegraph line to build it along the rail-road, since telegraph posts might fail due to flood in some areas. His request was compiled with.

Recently K. Helzer's letter, in which he in all sincerity thanks the local authorities for the assistance rendered in the construction of the telegraph, has been found in the State Historical Archives of Georgia.

In choosing a convenient rout for the telegraph line the builders often sought council from the Russian general Hejman. "The Kavkaz" newspaper of May 21, 1869 wrote: The construction of the road from the Iori to the Inguri and the extensive wood clearing done for this purpose will help the builders who have chosen this route, taking the advice of general Hejman".

Verner Siemens's brother- William kept his word and brought the submarine cable from London to the Black Sea.

When was the "Indian telegraph" put into operation over the entire route — from London to Calcutta? In this connection "The Kavkaz" wrote on December 10: "We know from the reliable sources, that the Indo-European telegraph is about to be opened". And, indeed, this event took place in January 1870. And, as it has already been mentioned, the ober-engineer of the Caucasian department of the telegraph line K. Helzer gave a grand banquet in Tbilisi in honour of the opening of the telegraph. This was reported on January 18, 1870 by "The Kavkaz".

Putting the longest land telegraph line into operation was of great importance for the development of the World's telegraph system. Considering that the telegraph communication existing previously between Europe and India had been entirely unreliable, while the new telegraph line was intended for Indian telegrams, we can believe that India established a reliable and constant larger-capacity telegraph communication with the European countries mainly after putting the "Indian telegraph" into service. At the same time, the new telegraph allowed India to exchange telegrams via the Caucasus with Algeria, North America, South America, Central America, South Africa, Belgium, Bulgaria, Great Britain, West India, Germany, Gibraltar, Greece, Denmark, Egypt, Spain, Italy, Costa Rica, Luxemburg, Maklta, the Netherlands, Norway, Persia, Portugal, Rumania, Serbia, Turkey, Tunisia, France, Sweden, Switzerland, Chernogoria...

Telegrams from many countries of the world were conveyed to distant India.

In the years to follow the telegraph line was extended from Calcutta to Australia (there was no communication between Australia and America at that time), and telegrams were dispatched from America to Australia and Japan by the "Indian telegraph". From America telegrams were first received in London (by means of a Trans-atlantic telegraph), and then from here in Berlin, Warsaw, Odessa, Kerch, Tiflis, Teheran, Calcutta, Sydney, Tokyo.

The discovered archives documents inform us, for instance, that in 1880, transit telegrams numbering 42,719 were despatched to different countries of the world via the Caucasus, while for the entire Russia their number reached only 76,144. Thus 63 percent of transit telegrams have been despatched by means of the "Indian telegraph".

Electric signals "travelled" for many years by the telegraph post set up on the Gagra beach to many countries of the world. And the inscription "Siemens Patent London" on the post reminds us that this post was manufactured in London and V. Siemens recived a patant for-its design as for the technical innovation. To-day the post carries intra-town communication wires.

In 1914 in connection with the beginning of the World War I, the communication of Europe with India via Russia broke off. It was restored in 1923 in the USSR and was effective till 1930.

The Indo-European telegraph played an important part in information exchange and was considered exemplary from the viewpoint of technical equipment. But the main thing from the history of the "Indian telegraph" construction and operation is that it started the tradition of setting up transit links between the countries and demonstrated the possibility of closer relation between the nations by means of electrocommunication.

History of construction and operation of the world's longest transcontinental telegraph line is the history of the advanced thought of the second half of the 19th century, which further developed on the basis of the new achievements of science and engineering.