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ASSISTANCE TO THE RUSSIAN IMPERIAL BAKU BRANCH OF THE TECHNICAL SOCIETY FOR THE IMPROVEMENT OF THE CITY OF BAKU

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The work carried out by the Baku branch on the full provision of the city with drinking water can be said to have remained outside the scope of research. The works carried out in order to satisfy the need for drinking water in the city of Baku are mentioned in articles and books, and in the few records even a step-by-step solution to this problem is reflected in detail. However, for some reason, the decision on this issue, that is, technical calculations and recommendations, after the appeal of the mayor's office to the management of the department within its structure, are not reflected in any literature. One of the directions of activity of the Baku branch was the problems associated with various works on the issues of urban economy and improvement of Baku. This activity was based on working relations with the local authorities of the department, their sufficiently formed scientific and technical working potential and the appeal of the city mayor's office to solve various problems. Such activities and relationships contributed to the solution of many problems of the Baku city economy and, along with the fact that they had a great economic effect, helped to solve many issues related to the population and its social and everyday problems. Relations between the department, the Baku City Hall and the heads of the city economy on the problem of supplying drinking water to the city began in the 80's of the XIX century. It should be noted that the issues of drinking water supply in Baku were in the focus of attention of the Baku branch and repeatedly became the topic of discussion. However, the limited possibilities of the city budget and the preference for solving the problem at the expense of the city's population itself and other reasons contributed to the fact that none of the specific projects was implemented, and the work performed remained at the level of the department's proposals and recommendations. At the same time, enough work has been done to improve and develop the city.

Key words: *Baku city, Technical society, tram line, municipal economy, city lighting, department, water supply project, city council.*

Гаджійєва Махбуба Джамал гизи. Допомога Бакинського відділення Російського Імператорського технічного товариства щодо благоустрою міста Баку

Роботи, виконані Бакинським відділенням щодо повного забезпечення міста питною водою, можна сказати, дотепер не були досліджені. Про роботи, виконані з метою задоволення потреби в питній воді міста Баку, ідеться у статтях і книгах, а в нечисленних записах навіть детально висвітлено поетапне вирішення цієї проблеми. Однак чомусь рішення із цього питання, тобто технічні обчислення і рекомендації, після звернення мерії до керівництва відділу в рамках його структури, не відображені в жодній літературі. Одним із напрямів діяльності Бакинського відділення були проблеми, пов'язані з різним роботами з питань міського господарства та благоустрою Баку. В основі цієї діяльності лежали робочі відносини з місцевими органами управління відділення, їхній досить сформований науково-технічний робочий потенціал, звернення міської мерії за рішенням різних проблем. Така діяльність і взаємозв'язки сприяли вирішенню багатьох проблем бакинського міського господарства, водночас давали великий економічний ефект, допомагали вирішити багато питань, пов'язаних із населенням, його соціально-побутовими проблемами. Зв'язки відділення, Бакинської мерії і керівників міського господарства із проблеми постачання питної води міста почалися ще з 80-х років XIX століття. Варто зазначити, що питання постачання питної води Баку були в центрі уваги Бакинського відділення і неодноразово ставали темою обговорення. Однак обмеженість можливостей міського бюджету та віддавання переваги вирішенню проблеми коштом самого населення міста, інші причини сприяли тому, що не було здійснено жодного з конкретних проєктів, і виконані роботи залишилися на рівні пропозицій і рекомендацій відділення. Водночас було зроблено досить роботи із благоустрою та розвитку міста.

Ключові слова: *місто Баку, Технічне суспільство, трамвайна лінія, міське господарство, освітлення міста, відділення, проєкт водопроводу, міська дума.*

Introduction. There are some periods in the history of Azerbaijan that still require research. One of them is the period of the late XIX – early XX centuries, because a new study of many issues of that time, clarification of new facts and their assessment is still relevant.



One of such questions is the multifaceted and important materials, bearing the character of primary sources, about the activities of the Baku branch [6, p. 6] of the Russian Imperial Technical Society, established in 1879, playing the role of an invaluable source for historical research, but mentioned in only a few records. The activities of the Baku branch, first of all, were aimed at solving problems of finding and finding effective ways of oil production and their improvement [1]. At the same time, it is necessary to especially note the role of the Baku branch in providing drinking water, lighting streets and solving problems of the social and domestic nature of Baku and other cities of Northern Azerbaijan.

The article focuses on the study of these very issues. Most of the materials under study are included in scientific circulation for the first time. The historical approach and scientific objectivity are presented in the article taking into account the latest achievements of world historical science and the historiography of the homeland. When studying the sources and interpreting the facts, historical comparison, analysis and other methods were used.

The article was written in compliance with the principles of analysis, generalization, conclusions and chronological sequence of materials.

Main part. One of the areas of activity of the Baku branch was the problems associated with various works on the issues of urban economy and improvement of Baku. This activity was based on working relations with the local administration bodies of the department, their sufficiently formed scientific and technical working potential and the appeal of the city mayor on solving various problems.

Such activities and relationships contributed to the solution of many problems of the Baku city economy and, along with the fact that they had a great economic effect, helped to solve many issues related to the population and its social and everyday problems.

Given the versatility of the department's activities, we'll focus on three very important issues for the city economy – providing the urban population with drinking water, lighting city streets and solving transport problems. The territory on which the city of Baku is located has historically been not entirely favorable in terms of supplying it with drinking water. Most of the population's need for drinking water was met by delivering it from surrounding settlements and other water sources. Even the reservoir built in Baku in 1860 near the monument to Tsitsianov, later popularly called Tsitsianov's, the construction of a second reservoir near the commandant's garden (now A. Vahid's garden), called the commandant's garden, as well as the creation in 1867 year two new reservoirs near the Mariinsky Garden [9]. Even before the establishment of the Baku branch, G.Z. Tagiyev allocated 1 000 rubles for the pipeline project competition. The special commission of the Baku branch, which was engaged in the acceptance and evaluation of these projects, until 1893 reviewed about 40 such projects, of which not a single one was accepted [8, p. 112].

The city authorities did not succeed in conducting water supply from the sources of the surrounding villages of the peninsula in Baku until the 90's of the XIX century, either because of the high cost of this work, or because the natural relief did not allow water to be delivered by gravity, or there were others the reasons.

From this point of view, certain necessary work was carried out on the basis of appeals of the structures and employees of the Baku branch to the city mayor. One of such works was the commissioning in 1893 of a special reservoir for the purification of sea water in the Baku bay [2].

Despite the fact that the second such reservoir was commissioned by the order of the city municipality in 1896, it was only after the creation of the third treatment reservoir in 1899 that it was possible to reduce the delivery of water from the Kura River to the city by transport [8, p. 113]. However, purified sea water was most often used for technical purposes, and less often as drinking. Therefore, in the activities of the Baku branch, at various meetings of its commission, this problem was repeatedly discussed, specific calculations were carried out on the ground, effective proposals were submitted to the city municipality, and ready-made projects were submitted to the city mayor's office. Among the works carried out in this area, there was a very important joint activity of the commissions and specialists of the department until the decision on the construction of the Shollar water pipeline in Baku in 1909 was decided [3]. The work carried out by the Baku branch on the full provision of the city with drinking water can be said to have remained outside the scope of research.

The works carried out in order to meet the need for drinking water in the city of Baku are mentioned in articles and books, and in the few records even a step-by-step solution to this problem is reflected in detail.

However, for some reason, the decision on this issue, that is, technical calculations and recommendations, after the appeal of the mayor's office to the management of the department within its structure, are not reflected in any literature. These discussions and preparations were not the work of one day or a year and span a period of more than three decades.

Relations between the department, the Baku City Hall and the heads of the city economy on the problem of supplying drinking water to the city began in the 80's of the XIX century. However, the limited possibilities



of the city budget and the preference for solving the problem at the expense of the city's population itself and other reasons contributed to the fact that none of the specific projects was implemented, and the work performed remained at the level of the department's proposals and recommendations.

Checking sanitary standards in water samples and the state of wells with drinking water in Baku by the department employees on the basis of requests from the city mayor's office has already become a necessity and a tradition. On the other hand, official reports on the results of these checks were systematically published in the city press and in the department's publications. Among the works in this direction, one should especially note the special report of the head of the department S. Kvitko, made by him on September 15, 1893 at the general meeting of the Baku department, and the discussions held around this issue. All this subsequently, to a certain extent, contributed to the acceleration of the work performed [15, p. 4].

During these discussions, it was revealed that in previous years, negotiations were held between the parties on the construction of a water pipeline in Baku from the Kura River, and even most of the technical calculations have already been completed. However, due to the fact that, in the opinion of the urban population, the Kura water was considered not completely suitable for drinking, interest in this issue dropped and all funds were directed to the creation of seawater purification plants for the reservoir. In fact, this was only a temporary solution to the problem.

In connection with the supply of drinking water to Baku, the materials of the department contain various points. The position and arguments of the parties interested in the optimal solution of this issue and the attitude of specialists to this problem are of particular interest.

It can be said that in all approaches it was unambiguously emphasized that even before the discovery of oil reserves here, Baku was famous as an ancient city, geographically advantageously located in terms of trade relations. It has always been a historical territory of residence, through which the trade and caravan routes connecting the Caspian and Black Seas, Iran and Europe passed. These ties continue to develop and expand.

Therefore, in the shortest possible time, despite all the financial costs, the issue of supplying the city with drinking water had to be resolved. The calculations of the department's specialists showed that if the problem of providing drinking water is not solved in the first place and in the shortest possible time, not only will the material situation of the city's residents worsen, but their number may also be reduced to 17 thousand [15, p. 3]. The results of geological studies of water in water wells, as well as rocks and soil layers where they were located, showed that the water reserves in these wells are prone to pollution due to various natural reasons and are even hazardous to health.

After the analyzes made by the staff of the department on the basis of the available conclusions, in order to solve the problem, they initially settled on two options. First, the construction of a large water pipeline to the city from the Kura River. The second, financially cost-effective option is to pump water reserves from various villages of the Absheron Peninsula around Baku to the city's reservoirs.

In the conclusion of the department commission, it was noted that each of the two options had both positive and negative sides, and the choice, of course, had to be made by the leadership of the Baku Duma. By themselves, both options contained features that did not suit the city leadership. Let's say that at that time the commercial price of 1 liter of drinking water was 1 kopeck, while the initial estimated costs of the Kura water supply system, causing much discussion and controversy, were 4–5 million rubles, which did not correspond to the material capabilities of either the city council or the population. On the other hand, wastewater from Tiflis and other cities of the South Caucasus located along the river was discharged into the Kura, and in 1829, cholera microbes were found in its waters, which raised great doubts about the implementation of this project.

Despite the fact that the second project supported by the commission required a relatively cheap financial expense, short-term construction and had a number of other advantages, its main disadvantage was that the supply of drinking water on the Absheron Peninsula was limited. In addition, it was assumed that for the implementation of this project it would be necessary to additionally carry out large-scale exploration and calculations.

As a result of the activities of the commission and the department, materials were submitted to the city government bodies, where the third option for solving the problem was assumed. It was an alternative to the first two variants of the project, providing for natural and artificial filtration of waters of various origins.

The calculations proposed in this project on the basis of specific results carried out after the appeal of the City Council were based on the rich world as well as European experience in solving such problems. On the other hand, the chemical, physical and mechanical processes of natural and artificial water filtration, reflected in the documents, resembled a broad scientific report on the quality of this process.

The calculations and analyzes in the proposed report related to this option did not yet mean that this is a progress report addressed to the city leaders in addresses. Even a simple examination of these documents



showed that the work offered by this department could not be carried out by any scientific organization or group of scientists, either in the city or in the regions. Because for such accurate calculations, in addition to the required knowledge and information in various fields of science, special technical training was also required.

As already noted, the report of the chairman of the department S. Kvitko at the general meeting of the department, dedicated to the prospects of projects on water supply systems, was of great importance, both from a practical and theoretical point of view.

The proposals and opinions expressed during the discussions of the issue were of great importance for solving this problem. The report was small in volume, but in terms of the formulation of the question, the conduct of accurate mathematical and engineering calculations, scientific definitions and other parameters, it did not differ from modern serious research.

It can be noted that after a thorough analysis of all the materials related to activities to solve this problem, many complex issues were clarified. Even during the discussion, specific proposals and amendments were voiced, which played a positive role here. The management of the Baku branch, after preference was given to the first option and a decision was made to build a natural water purification facility in a low-lying area on the banks of the Kura River, chose a flat area near the Haji Kabul railway station to create this facility as the most optimal place.

This was dictated by the fact that the soil rock of this territory, where the water supply will be laid, did not contain chemical trace elements that could affect the quality of water. Thus, having significantly saved on the use of multi-pronged expensive cast-iron pipes, it was possible with the help of pumps to pump purified drinking water of the Kura River in Baku.

It should be noted that both in the city administration bodies and among the members of the department there were several opponents of the final design of the Kurinsky water supply system recommended by the department. Most of all, the statements of engineers G. Wright, N. Ayvazov and Abramovich, who actively participated in the preparation of one of the alternative water pipelines for Baku, contributed to the discussions and disputes [15, p. 21–22]. These experts, who are supporters of solving the problem of drinking water for Baku in the shortest possible time, cited examples from the history of such ancient cities as Rome, Feodosia, Dusseldorf, the relatively young city of Odessa and noted that one of the reasons for their pollution and decline was the poor supply of drinking water. Especially G. Wright believed that the multimillion-dollar estimated cost of the Kura water pipeline should not scare anyone, because, according to the calculations of the department, over 10 years of its use, the funds spent will be returned. The result of all discussions and proposals was that everyone was unanimous in the decision on the importance of building the Kura water pipeline in a short time. Disputes and disagreements related only to such issues as which filters are better to use for water purification – natural or artificial, what are their technical characteristics, in which foreign company to order them. Later, all the surviving materials related to the construction of the Shollar and Kurinsky water pipelines and the work carried out in this area by the Baku department were of great benefit when such a grandiose social project as the construction of the Kurinsky water pipeline was carried out in 1971 under the leadership of national leader Heydar Aliyev. These materials have helped make the comparisons and calculations needed for such projects [4].

If you drive along the Shirvan-Baku highway, before reaching Haji Kabul, you can see a large reservoir on the right. It is located 5–6 kilometers from the Kura River and was built in 1970–1971, but on the coordinates that were once proposed by the Baku branch. And this at least indicates that despite the past 80 years since the calculations and recommendations were made by the department for the construction of a water supply system, they have not lost their practical significance.

It should be noted that the issues of drinking water supply in Baku were in the focus of attention of the Baku branch and repeatedly became the topic of discussion.

The main activity of the department before the construction of the Shollar water pipeline was control over the existing 3 water pipelines, 2 treatment reservoirs and the activities of more than 100 water wells involved in the sale of water. If we consider that after the rain, water wells located in different parts of the city were contaminated with various microelements and microbes that are harmful and dangerous to the human body, and sanitary and hygienic standards that are not controlled by city authorities were often violated, then the importance and importance of this work increases even more.

The instruments and devices of the chemical laboratory at the disposal of the department were the only way to accurately carry out these analyzes in the city. The severity of the problem, the growing discontent among the population sometimes became the reason for the intervention of the leadership of the Baku Duma and even the governor in the problem. Articles in newspapers about the poor quality of drinking water



and public discontent led to the fact that the quality of water in the city's wells and other indicators were periodically checked.

The practice of banning the use of drinking water was also effective if it turned out to be completely unusable as a result of checking the condition of Baku water wells. After a speech by the City Duma Sanitation Bureau with a demand to re-check the position of water in the wells, this work to a certain extent was accelerated. The involvement of the staff of the Baku branch in this work led to a significant turn of affairs in this area. One of the main innovations in the course of this work was that all wells with drinking water began to be numbered so that they could be accurately identified and, after verification, the city authorities' response to the verification materials was obtained.

It is possible that checking all the mentioned wells was associated with certain difficulties. So, the work on checking water samples by repeated analyzes, at the same time the lack of specialists whose duties included the implementation of this work, and other reasons associated with the current situation, made it difficult to check water wells. From this point of view, the results obtained during the inspection of drinking water wells were of great importance in eliminating the concerns and implementing proactive measures. The attitude to the project for the construction of a drinking water pipeline from the water source of Zugulba, discussed for a certain time at the meetings of the department commission, gave rise to disagreements among specialists, scientists and doctors.

The discussion of the issue lasted more than a year, as opinions on it were sharply different. In this regard, scientists, chemists and specialists from St. Petersburg and other cities were invited, who helped to make the right decision. So, as a result of chemical and bacteriological analyzes, two main indicators were established – the degree of water liquid in Zugulba and the content of various salts.

The results of repeated analyzes carried out by specialists invited from Moscow also differed from those obtained earlier. It turned out that the ammonia content in the Zugulbinsk water exceeds the norm. True, this water, in terms of physical and bacteriological characteristics, was cleaner in comparison with the water sources located around Baku, and was distinguished by a relatively low content of organic substances harmful to health. However, the content of sulfur, calcium and magnesium salts in the water exceeding the norm could cause various gastrointestinal diseases in the population during its use.

Thus, after the studies and discussions, the construction of the Zugulba water supply system, which could improve the situation in the area of supplying the city with drinking water, was recognized as impossible.

Although we will not be able to note the activities of the Baku branch on the preparation of any new water supply project or the implementation of reconstruction works that radically contribute to a change in the situation, we must in any case recognize the effectiveness of the work that the Baku branch has done in this direction.

Because if the position of water wells was always under control, and it was always possible to prevent the physical, medical and other complications arising during the construction of the Zugulbinsk water supply system and other similar structures posing a danger to human life and health, then this was, first of all, the result of an effective activities of the department and its commission.

Another point that attracted attention among the research materials was that as a result of the checks, many interesting facts were revealed about the content of various mineral salts and organic substances in various water samples, the determination of water hardness, the location of these wells and who they belong to.

Summarizing the above, we would like to emphasize once again that if the Baku branch did not carry out its joint activities to solve the problem of drinking water with other management structures, it would probably be inevitable that many social and economic problems would arise that we can and cannot imagine. The work carried out in this area contributed to the fact that both the city administration and various business people took decisive steps to finally resolve this issue, which finally led to the implementation of the construction of the Shollar water pipeline.

In the activities of the department, along with solving the problems of city residents, there were other types of cooperation on the basis of appeals from institutions of the city and the region. According to the order of the Department of the South Caucasus Railway, on March 12, 1888, at the meeting of the department, detailed information was presented on the work done to find water sources near the road located between the Baku-Haji Kabul stations [14, p. 33–56].

On the basis of the collected materials on the establishment of water reserves near 6 stations such as Baku, Balajar, Buta, Sangachal, Alat and Navai, the places of water sources were specified, information about which was transferred to the customer along with their images.

These facts once again testify to the fact that business, fruitful relations existed between the department and the bodies of city and provincial administration. The main result of the work carried out in subsequent years



was the commissioning of the Shollar water pipeline, which was capable of delivering about 3 million buckets of water per day. The construction of the water pipeline was implemented at the beginning of 1917, and thus, for those years, the problem of drinking water for Baku was finally solved [8, p. 116]. Another important area of activity of the Baku branch, contributing to the expansion of works on the improvement of the city, was the improvement of the lighting of Baku streets. This issue and the work done in this area were repeatedly discussed in the department [13, p. 13]. Referring to the discussion materials allows you to get acquainted with the results of the productive work carried out in this direction. The City Council began to seriously deal with the problem of lighting the city from the end of 1882 to the beginning of 1883 [16].

On March 19, 1888 in Baku, on the basis of materials collected by the commission of the department, a discussion was held on the issue of street lighting and improving its quality. It turned out that during the work of the commission for several months, a lot of information was collected about the practice of solving this problem in the large cities of the empire and Europe, and proposals and recommendations for improving the situation in this area were sent to the city дума [10, p. 114–115].

It was clear from the materials that, despite the increase in the number of lanterns and the decrease in budgetary costs for them, due to negligence and non-observance of the rules for their operation, untimely preventive maintenance, poor-quality repair and renovation, etc., due to unplanned circumstances, the city budget significant damage was inflicted. As a way out of the situation, it was proposed to fine the contracting company engaged in the maintenance and safety of flashlights by 0,5–0,8 rubles for each damaged flashlight, while increasing control over the efficiency of work in this area.

Another feature that deserves attention in the materials was the decision to create a special commission at the Baku branch to improve the work on lighting city streets and develop rules using best practices in this area, for which it was decided to allocate 250 rubles from the city budget.

This decision was met with dissatisfaction by the responsible persons of the city economy, but G.Z. Tagiyev, who was present at the discussions, said that he would bear all these costs, as it is very important for the city [8, p. 112].

The facts we talked about are only a small part of the work carried out by the Baku branch together with the city дума, economic structures and the sanitation department to provide assistance in solving the problem of lighting the city streets.

This joint fruitful activity continued in subsequent years and helped to save tens of thousands of rubles, and most importantly, provided practical assistance in improving street lighting.

Starting from the first years of the XX century, they began to install the first electric lamps on such city streets as Nikolaev, Torgovaya, Telefonnaya and Sahil [16]. After that, in various parts of the city, on the territories of factories and plants, several power stations were installed and put into operation, which made it possible to significantly increase the use of electric lamps. Naturally, all work in this direction was carried out thanks to projects that were reviewed and approved by the Baku branch, as well as a result of the experience of famous engineers.

The figures and facts that we came across in the process of researching materials give us reason to believe that, in fact, the Baku branch, together with the City Дума and its structures, did a lot of work to determine the optimal ways to solve the problem of lighting the city, sometimes determining the only correct way for it. solutions. One of the areas in which the Baku branch provided assistance to the city дума was the improvement of the city transport, the use of new means of transportation and other work in this direction.

Since in the first half and middle of the 19'th century, the city of Baku did not occupy a very large territory, here the main form of transportation was the traditional and widespread mode of transport: a horse, carts and special passenger phaetons. However, as already noted, the expansion of the city and the increase in population required the application of innovations in this area [7].

Sources say that the first initiator of the use of the horse-drawn railway, in other words, horse tram, was G.Z. Tagiev. The great philanthropist, together with five entrepreneurs, organized in November 1887 a joint-stock company of equestrian railway transport. On the basis of a special project of the engineer-technologist A. Rotuld, the opening of the horse tram, covering the city center, took place on November 24, 1889. It is reported that the head of the civil administration of the Caucasus, Prince Dondukov-Korsakov, took part in this event [5]. In subsequent years, the expansion of the city, an increase in the need for transport in the streets of the upper part of the city, forced the city hall to think about the use of more efficient and economical forms of transport, including trams running on electricity.

In connection with the need to create and put into operation in Baku such a type of transport as a tram, since the beginning of the 20'th century, it has become one of the areas of joint activity of the city дума and department. In different years, this important issue was sometimes brought up 3–4 times for discussion by the department council at general meetings and special events were held on it. These discussions were very



valuable in terms of their breadth, concreteness, the formulation of issues brought up for discussion of finished projects, the types of work performed and the time of their implementation, the provision of raw materials and finances, the seriousness of the specialists' approach to these issues, and thorough calculations covering all stages of tramway construction.

In the last years of the 19th century, especially at the beginning of the 20th century, this issue was discussed in the activities of the department in special commissions and rational proposals were put forward on it. In the early years of the 20th century, the above issue was discussed at least 2–3 times at general meetings of the department, decisions were made on it and specific proposals were made. Intensive discussion of the issue for 5 years on the eve of the First World War was an indicator of how important this problem was in the life of the city.

From this point of view, the year 1914 was especially memorable. On February 22 of that year, at the third meeting of the department, a report was heard by engineer K. Nekrasov on the creation of a tram transport in Baku, the calculations of which were carried out several years ago with the participation of a commission, which included specialists. After listening to the report, a number of practical recommendations were put forward [11, p. 7].

In several projects submitted for discussion by the department, along with the need to create tram transport and positive changes as a result of this on the streets of the city and in the lives of people, information was given about the history of this problem in world practice, and there was also information about the cost of the work done, the time spent according to the cost estimate, the beginning of the date of receipt of income. All stages, progress, time and specific results of the work were given in precise calculations in the form of special tables [12, p. 11].

The continuation of these discussions for several years, the delay in the start of construction work was associated with the technical aspects of the issue, and the construction and estimate costs (6,5 million rubles), which were a large enough amount for that time, the maintenance of tram lines, the mismatch of maintenance costs with the financial capabilities of the city council – with others. In the materials of the discussion of these issues in the department, there are certain points and facts that you will not find in any of the studies, and they are mentioned for the first time.

One of the reasons that hindered and delayed the construction of tram services was long-term discussions in which the question of how work in this direction would be carried out, at the expense of the budget or private firms, was decided.

In the initial design work, the length of the first stage of tram lines was planned to be 27,5 versts [12, p. 16].

At the general meeting of the department, the problems related to the Baku tram and the laying of tracks were repeatedly discussed, and it was substantiated on concrete facts and calculations that the construction work and estimated costs would justify themselves in the optimal time. From these materials it was clear that with the construction of a tramway in Baku, the city administration first turned to the governor of the Caucasus in 1896, but this appeal was rejected [12, p. 44]. The refusal was based on the fact that the construction costs were too high. In subsequent years, due to the improvement of the construction project and its some reduction in cost, on the basis of appeals to the Baku branch, this issue again came up on the agenda and was discussed several times. Especially these discussions continued intensively for 5–6 years on the eve of the First World War.

Most of the participants in the discussion of the last ready-made version of the project for the construction of tram lines were strong supporters of a quick solution to this problem and the start of construction. They noted that in this sense, Baku lags behind not only such large cities of the empire as Moscow and Kiev, but even behind small and medium-sized cities that do not have tram lines.

Among the members of the department there were also those who were against the construction of tram lines in Baku. At the heart of their protest were doubts that the finished line would justify the funds spent on its construction on time and would bring real profit.

However, the serious arguments of the majority of participants that the number of residents of the city exceeded 200 thousand, the city is expanding every year, and a decrease in population is not expected in the next 20 years, led to the approval of the project and a decision to submit the finished documents to the appropriate authorities.

At the general meeting of the department held on March 1, 1914, one of the main topics discussed was again the tasks arising from K. Nekrasov's report in Baku on the construction of a tram line.

At the 7th meeting of the department, held on April 19, 1914, and the 8th, held on May 10, 1914, this problem was discussed again. An assessment was made of the work done, and at the same time, tasks were identified to improve the efficiency of work in this area [11, p. 9–10].



However, with the outbreak of World War and financial and economic problems that arose, the implementation of the effective proposals of the department was postponed until the end of the war.

Later, during the construction of electric tram lines in Baku under Soviet rule, most of the calculations, proposals and recommendations prepared by the branch commission were taken into account. The most memorable event of that time was the commissioning and official opening of the tram line of the Baku railway station (6,6 kilometers) on Azneft Square on February 8, 1924 [5].

Conclusions. Summarizing our reasoning about the assistance of the Baku branch in the improvement of the city of Baku, we should note that although the activities of the branch, its proposals and work in individual years were different, they in an effective form and in a timely manner helped to solve a variety of tasks of a construction, domestic and social nature. Connected with the urban economy, and also contributed to the saving of quite large financial resources of the city budget.

It should be noted that most of the department's appeals to the city дума with household projects and proposals opened the way for the improvement of the city and innovations. The issue of supplying drinking water to the residents of the city is one of the areas of activity of the department that deserves attention, and the effectiveness of work in this area has been repeatedly highlighted in the press.

Issues related to the lighting of the city were discussed many times at the meetings of the commission and councils of the department, and optimal decisions were made on them, which contributed to the improvement of the condition of the city and the way of life of its inhabitants.

The materials studied by us allow us to conclude that all cases associated with the danger of harm to the health of the population and violation of sanitary standards in the work of organizations for everyday life and services in the city were prevented.

Based on the analysis of the content of the materials and the conclusions we made, we can say that the activities of the Baku branch for the improvement of the city and in the direction of solving a number of its economic problems were quite fruitful.

Along with the fact that information on the degree of participation of the Baku branch in all the above-mentioned works is included in the scientific circulation for the first time, we would like to hope that the study of a number of other important points will attract the attention of future researchers.

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