

# CITIZENS OF LIEPĀJA CITY TEODORS AND NIKOLAJS BREDŽS-BRIEDIS IN BUSINESS AND ENGINEERING SCIENCES

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**Summary.** The article is dedicated to the citizens of *Liepāja* city *Teodors Bredžs-Briedis* (1885–1940) and *Nikolajs Bredžs-Briedis* (1909–1989) – father and son. Father *Teodors Bredžs-Briedis* was an entrepreneur in *Liepāja* city, but his son, *Nikolajs*, graduate of the Faculty of Chemistry (1936) of the University of Latvia, emigrated to the United States of America at the end of the Second World War. *Nikolajs Bredžs-Briedis* had a brilliant scientist's career – his research work in the metal welding industry was valued in 1955 by the Lincoln Gold Medal Award of the American Welding Society. In 1956, he was admitted to the US Honorary Society of Scientists and Researchers. *Nikolajs Bredžs-Briedis* has received 27 patents and is the author of 14 scientific publications.

**Keywords:** *Teodors Bredžs-Briedis*, *Nikolajs Bredžs-Briedis*, business, engineering sciences.

## Introduction

Entrepreneur of *Liepāja* city *Teodors Bredžs-Briedis*' name is unknown even to *Liepāja* city citizens. The professional activities of his son, the Latvian engineer *Nikolajs Bredžs-Briedis*, and his accomplishments in metallurgy, are also unknown to the general public. The life story of Latvian engineer *N. Bredžs-Briedis* is similar to biographies of many other Latvians who emigrated during the Second World War. Being far away from his own and his parents' homeland, he had to build a new life, as well as, by constantly demonstrating his skills and excellence, his career. Thus, during many years of new life in the United States, it turned out to be very successful. There are not many Latvian scientists in emigration who in the post-war years could achieve such significant success and world recognition of their research activities.

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The article was prepared using materials from the Latvian State Historical Archive and the collections of Latvian libraries, as well as publications from the newspapers of the first independent Republic of Latvia and from newspapers published by Latvian emigrees abroad.

## **The owner of the cinema *Teodors Bredžs-Briedis (1885–1940)***

*Teodors*, son of *Matīss*, *Bredžs-Briedis* was born on 30 January 1885 in *Gulbene* city [1]. His second baptised name was «Gothards», which was not used on daily basis, and appears only in documents, for example in his Latvian passport [2]. The surname of the representatives of this family is also reproduced in various versions (*Bredžs*, *Bredšs*, *Bredže*, *Bredž-Briede*, *Bredže-Briedis*), without consistency.

The author failed to acquire information about *Teodors Bredžs-Briedis*' parents, childhood and the reasons why the family left *Gulbene* city, but it is possible to guess that he arrived in *Liepāja* city after the First World War and successfully started his career in business. During the interwar period, *Teodors Bredžs-Briedis* has been the sole owner of the «*Viktorija*» cinema, which was founded in 1922 in *Liepāja* city and was located at 36 *Graudu* Street, taking over the management from his spouse *Elizabete Bredžs-Briedis*' father *Kārlis Fišers* [3]. Moreover, «*Viktorija*» was the only cinema in *Liepāja* city, which belonged to a Latvian family [4]. *Teodors Bredžs-Briedis* was not afraid to accept the challenges and take risks.

It is clear that the *Bredžs-Briedis*' family has been financially well positioned. This is also indicated by the fact that makes the researcher to ask questions. On 19 June 1924, the *Liepāja* city notary *Jānis Kaupiņš* registered a contract (register No. 3596) signed by *Teodors* and *Elizabete Bredžs-Briedis* which cancelled the common property of the spouses. Previously, *Teodors Bredžs-Briedis*' spouse *Elizabete* passed on the management of various movable property (furniture, clothes, gold and silver items, household equipment), with a total value of around 4000 lats to her husband. After the conclusion of this agreement, the aforementioned property became *Elizabetes*' separate property [5]. Supposedly, these were the risks associated with doing business.

Given the versatility of *Teodors Bredžs-Briedis*' activities, the term «entrepreneur» is not accurate. His professional activities can be described by the epithet «creative». Such designation is rarely attributable to entrepreneurs and house managers, but after a wider exploration of the biography of *T. Bredžs-Briedis*, it must be admitted that he really deserves it. When the 15th anniversary of the «*Viktorija*» cinema was celebrated in 1939, the newspaper «*Kurzemes Vārds*»

(«Kurland Name») wrote about its owner: «Returning to Latvia after the World War as a retired lieutenant colonel, *Bredžs-Briedis* joined the *Liepāja* city Customs Office as an expert, but later took over the management of the cinema from his wife's father and has managed it until this day. After 1934, he also participated in the film industry, establishing K.-S. «*Līgo-filma*» in Riga city. *Bredžs-Briedis* was a member of the Association of *Liepāja* city House managers and a Council member of the *Liepāja* city Anna Parish [6]. *Teodors Bredžs-Briedis* was the manager of the cinema until the end of his life. Supposedly, he died already in 1940, since in the People Census documents of 1941, the name of *T. Bredžs-Briedis* no longer appears [7]. The «*Viktorija*» cinema functioned also during the Second World War, and was managed by *T. Bredžs-Briedis'* widow *Eiženija Bredžs-Briede*. In February 1944, someone broke the window shop and stole the cinema advertising photographs [8]. After the Second World War, during the Soviet era, the cinema was nationalized, like all private companies.

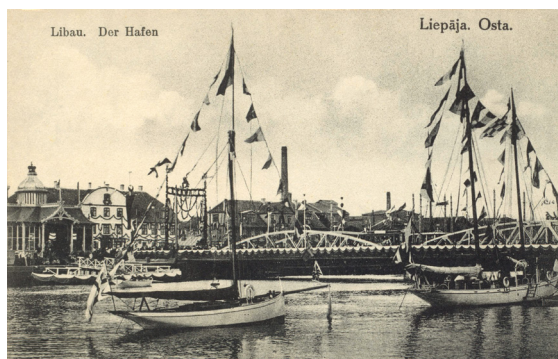
No less active *Teodors Bredžs-Briedis* tended his own spiritual life, by serving in the Evangelic Lutheran Church of Saint Anne in *Liepāja* city. In 1940, the members of the church council came up with the idea that the pastor of the church *Dr. Visvaldis Sanders* could be appointed as Head of the church. Such request was submitted to the church headquarters in Riga, but on 12 March 1940 it was rejected by Archbishop *Dr. Tedors Grīnbergs*, justifying that a pastor may be a member of own church board, but cannot be its chairman, respectively – Head of the church [9]. In order to solve the situation, an energetic man had to be found among the members of the same church. And he was found – in the spring of 1940 *Teodors Bredžs-Briedis* became Head of the Evangelic Lutheran Church of Saint Anne in *Liepāja* city [10].

## **The circus founded by *Teodors Bredžs-Briedis***

Presumably, the successful business management in the entertainment sector was the reason for *Teodors Bredžs-Briedis'* idea to manage not only the cinema but also the circus in *Liepāja* city. The idea of circus was already known to the citizens of *Liepāja* city. Moreover, as it can be deduced from the periodicals and sources of history, circus had affected them very much. An extremely popular was the circus that took place annually on 8–16 August at the Anna Fair in *Jaunliepāja* city. The tradition of the trade fair there began before the First World War and lasted for decades, even during the interwar years. It was very popular not only with the citizens of *Liepāja* city, but also with the inhabitants of *Kurzeme* (Kurland). People duly arranged time-off from work to be able

to attend the circus shows in the second half of August, or at least some of them. People with impatience have been waiting for annual fair with its integral performances – fire-eater, wrestler, clowns and wild animals [11]. The researcher of the Latvian circus history *Ģirts Dzenītis* colourfully presented the fair in *Jaunliepāja* city and the circus artists during that time: «In summers in *Liepāja* city, the fairs of Anna's day lasted for half a month. There were all sorts of merchandise products advertised by merchants as well as possible. .. From early morning to midnight, wind instruments played, the newest *schlager* music sounded, and there always was the unmissable barrel-organ. Carnivorous beasts howled and roared. Artists felt like a real market audience [12].»

In addition to the performances of circus artists during the fair, the citizens of *Liepāja* city could also visit several stationary circuses. Before the First World War, at 14/16 *Aleksandra* Street (at present *Brīvības* Street) was located one of the first circuses of *Liepāja* city. In 1920s, another circus was founded in the herring warehouse at *Vecā Ostmalā* (Old Port).



**Figure 1.** Port of *Liepāja* city, beginning of the 20th century [13].

The city-owned herring warehouse was not used, and from 10 July 1923, *Teodors Bredžs-Briedis* began to lease it, having obtained the right to lease for an initial period of three years. Already on 18 July 1923, the businessman sent the necessary documents to the Construction Board of the Ministry of the Interior in Riga in order to obtain the permission for the reconstruction of warehouse for circus needs. The reconstruction was planned to be accomplished on 15 August. The rebuilding works were supervised by the contractor, graduate of the Department of Engineering (1912) of the Riga Polytechnic Institute (RPI) *Kārlis Vinkmanis* (1888–1942) [14].



**Figure 2.** Circus construction project in herring warehouse in Liepāja city (1923) [14].

Documents from the Latvian State Historical Archive show the reconstruction process of the herring warehouse. It was a one-story masonry building made of bricks. The circus rooms were set up for 1000 spectators and did not have any heating, because the circus performances were planned only in summer [15].

On 16 September 1923, the rebuilt herring warehouse was visited by a commission consisting of Prefect of Liepāja city Kārlis Šteinerts, Head of the Liepāja city Pēteris Stiprais and Chief of the Construction board engineer Eižens Kolpaks. By the way, one of the members of the commission, Eižens Kolpaks (1885–1926), was a graduate of the Department of Engineering of RPI (1911). In the conclusion of the commission, it was written that after «seeing the renovated circus building by T. Bredžs-Briedis in Liepāja city at 14 Dienvidrītu ostmala we decided to approve it and to permit to start the reconstruction works [16].» The compliance of herring warehouse reconstruction with the requirements of the circus was also confirmed by the Chief of Construction Board Eižens Kolpaks, and administrator Jānis Ceriks signed the certificate of the Construction Board of the Ministry of the Interior on the completion of the construction works.

The circus was opened with gorgeous performances and even parades through the *Liepāja* city streets immediately after the completion of the construction works. The celebration brought about unfeigned delight of the citizens of *Liepāja* city. «During the circus, interesting events took place there – it was launched by a huge advertisement lasting for three to four weeks, announcing that a huge surprise is going to be expected. And it really was – in the first minutes of the show there was a demonstration of 20 trained horses, probably it was nothing extraordinary, nevertheless, at that time it attracted the audience [17].» The citizens of *Liepāja* city could not enjoy it for long, because the circus went bankrupt already in 1928, when the economic crisis began. After the crisis, the herring warehouse was taken over by the organisation of Guards and it became a shooting range. The old structures of the building have been partially preserved to the present day.

It should be noted that the *Bredžs-Briedis* family rented an apartment at 36 *Graudu* Street and there is no evidence of family properties in *Liepāja* city. Apparently, the entrepreneur's profit was not high enough.

### **Engineer *Nikolajs Bredžs-Briedis* (1909–1989)**

*Nikolajs*, the son of *Teodors Bredžs-Briedis* and *Eliabete Fišere*, was born on 29 October 1909 in *Liepāja* city [18]. He did not follow his father's footsteps and did not become a businessman, but can be considered one of the talented *Liepāja* city citizens, whose contribution to the development of engineering is very significant, however, the name of this person has been undeservedly forgotten [19].



**Figure 3.** *Nikolajs Bredžs-Briedis* (around 1927) [21].

*Nikolajs Bredžs-Briedis* received his first education at the *Liepāja* 1st State Secondary School (real-school), where he studied from 21 August 1922 until 14 June 1927. The grades at the end of the study process show that he was good in a number of exact subjects (algebra, algebraic



After studies, *Nikolajs Bredžs-Briedis* returned to his hometown. Already in his study years, he had been considering how to apply his knowledge, which culminated in registration of the patent «The method for obtaining gasoline from peat» in the summer of 1936 [25]. From 1938 to 1944, the young engineer worked at the *Liepāja Metallurgical Factory*: at first as an engineer, later as a laboratory manager and senior engineer. During the Second World War, *Nikolajs Bredžs-Briedis*' and his sister *Hēlēna's* family left Latvia and went into exile. First, their road leads to Berlin, where *Nikolajs* worked as an assistant at «*Spandauer Stahlwerke*» enterprise from 1944 to 1945, but then the family went to the United States [26].

The first years of *Nikolajs Bredžs-Briedis*' life in the new country was difficult, because, like countless other Baltic refugees, he had to take unqualified jobs: at orange plantations, as caprice, and in road construction. Only in 1951, the scientist was able to get the job related to his education at the research department of the Illinois Institute of Technology. Already after one year work at the institute, *Nikolajs Bredžs-Briedis* received his first promotion – he began working as a senior assistant, later in 1953 as an associate professor, in 1955 as a research metallurgist. In November 1954, *N. Bredžs-Briedis* published a paper titled «Research on the Factors Determining Tensile Strength in High-Temperature Metal Compounds» in welder journal. In 1955, he was awarded with the American Welder Association Lincoln Gold Medal and Money Award for the best published work in the metal welding industry. It is awarded once a year, and at that time about 10 000 scientists were competing for it. Only about 20 scientists, including a Latvian from Chicago, *Liepāja* city citizen *Nikolajs Bredžs-Briedis*, won the medal. As acknowledged by the honoured engineer, «in this work, for the first time, three-dimensional exertion is carried out, which raises the tensile strength of metals by three to four times and, as a result, the metal resistance is raised in a fragile plane of fracture» [27]. At the same time, other studies and scientific articles were written and published. In 1956, *N. Bredžs-Briedis* received the Award of Cultural Foundation of the American Association of Latvia «for the achievements in science, which honour the name of Latvia and the Latvian people among other nations [28].»

One of the most prominent discoveries of *Nikolajs Bredžs-Briedis* is the use of bee cell construction elements for increasing the speed of airplanes and rockets. The bee cellar plates created by *Nikolajs Bredžs-Briedis* «consisted of very thin metal plates made up of a sample of natural bee cells. The elements of this construction withstand exceptionally high loads and are several hundred times lighter than single-piece metal plates [29].» In 1958, the biography of Latvian scientist was included in the encyclopaedia of prominent persons «Who is Who in America» in United



States. In 1961, the name of *N. Bredžs-Briedis* was included in the encyclopaedia «American Men of Science» [30].

It was in the US that *Nikolajs Bredžs-Briedis* was able to make his greatest progress in science, evidenced by 27 patents and 14 scientific publications. Until 1965, he worked as a metallurgy researcher at the Illinois Institute of Technology in Chicago, and from 1965 in the company «Wall Colmony» in Detroit.

*Nikolajs Bredžs-Briedis* has presented his discoveries in science at several public lectures, for example during the summer session at the Massachusetts Institute of Technology in 1960, he lectured on metal fermentation [31].

Although *Nikolajs Bredžs-Briedis* did not follow his father's footsteps, choosing not to become a businessman, but a scientist, they were united by faith in God. After his arrival in the United States, *Nikolajs* took active part in the Chicago Congregation of Cyana, where for some time he was even the Chairman of the Council [32].

For many years, engineer *N. Bredžs-Briedis* did not create his own family. Only at the end of the summer of 1963, he got married with *Lilija Freimane* (1914–1997), a veterinary from *Kurzeme* (Kurland) who began studies in veterinary medicine in 1942 in Riga [33] and graduated abroad.

## Conclusions

Engineer *Nikolajs Bredžs-Briedis* devoted his life mainly to science, which is widely described in the publications of the Latvian emigree periodicals. In *Liepāja* city, he is only taking his first steps in research work, therefore, apparently, there is no mention of a talented engineer in *Vladimirs Čičotkins* book «*Metāls dzimst ugunī*» («Metal is born in fire») [34] and not in the book by *Jaroslavs Dorenskis* «*Liepājas Metalurģis: Anno 1882*» («*Liepāja* City Metallurg: Anno 1882»). It is also not found in the publication «*Liepājnieku biogrāfiskā vārdnīca*» («*Liepāja* City Citizen Biographical Vocabulary») [35]. In spite of the «forgetfulness» of *Liepāja* city citizen, *Nikolajs Bredžs-Briedis* is known in the history of chemistry as an introducer of new methods in the production of cermet, as a researcher in various problems of sinking and fray metal fractures, as a metallurgical specialist whose name is known in the world. His name, undoubtedly, is ranked among the outstanding Latvian scientists. Engineer *Nikolajs Bredžs-Briedis*' life ended on 2 May 1989 in Barrington, Illinois, USA [36].

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### Liepājnieki Teodors un Nikolajs Bredži-Brieži uzņēmējdarbībā un inženierzinātnēs

Raksts veltīts liepājniekiem Teodoram un Nikolajam Bredžiem-Briežiem. Tēvs Teodors Bredžs-Briedis bija uzņēmējs Liepājā. Viņa dēls Nikolajs, Latvijas Universitātes Ķīmijas fakultātes absolvents (1936), Otrā pasaules kara beigās devās emigrācijā un nonāca Amerikas Savienotajās Valstīs. Nikolajs Bredžs-Briedis izveidoja spožu zinātnieka karjeru – viņa pētniecības darbs metālu metināšanas

2018/2

nozārē 1955. gadā tika novērtēts ar Amerikas Metinātāju biedrības Linkolna zelta medaļu, 1956. gadā – ar Amerikas Latviešu apvienības Kultūras fonda Goda diplomu par sasniegumiem zinātnē, kā arī tai pašā gadā zinātnieks tika uzņemts ASV zinātnieku un pētnieku Goda biedrībā. Nikolajs Bredžs-Briedis ir saņēmis 27 patentus un ir 14 zinātnisko publikāciju autors.

**Atslēgas vārdi:** Teodors Bredžs-Briedis, Nikolajs Bredžs-Briedis, uzņēmējdarbība, inženierzinātnes.

*Ласма Гайтниеце*

### **Лиепайчане Теодор и Николай Бреджс-Бриедис в предпринимательстве и в инженерных науках**

Статья посвящена лиепайчанам Теодору и Николаю Бреджс-Бриедис – отцу и сыну. Отец Теодор Бреджс-Бриедис (1885–1940) был предпринимателем в Лиепе – руководил цирк и кинотеатр. Его сын Николай Бреджс-Бриедис (1909–1989), выпускник Химического факультета Латвийского университета (1936), в конце Второй мировой войны эмигрировал в Соединенные Штаты Америки. Николай Бреджс-Бриедис создал блестящую карьеру ученого – его исследовательская работа в области сварки металла в 1955 году была оценена высшей наградой Американского общества по сварке – Золотой медалью Линкольна, в 1956 году – почетным дипломом Фонда Культуры Объединения латышей Америки за достижения в науке, а также в том же 1956 году ученый был принят в Почетном обществе ученых и исследователей США. Николай Бреджс-Бриедис получил 27 патентов и является автором 14 научных публикаций.

**Ключевые слова:** Теодор Бреджс-Бриедис, Николай Бреджс-Бриедис, предпринимательская деятельность, инженерные науки.