

# JÓZSEF GALAMB, DESIGNER OF FORD T-MODEL AND HIS RELATIONSHIP WITH HOMELAND

József GÁTI,<sup>1</sup> János KUTI,<sup>2</sup> Krisztina NÉMETHY<sup>3</sup>

<sup>1</sup> Óbuda University, Donát Bánki Faculty of Mechanical and Safety Engineering, Budapest, Hungary, [gati@uni-obuda.hu](mailto:gati@uni-obuda.hu)

<sup>2</sup> Óbuda University, Donát Bánki Faculty of Mechanical and Safety Engineering, Budapest, Hungary, [kuti.janos@bgk.uni-obuda.hu](mailto:kuti.janos@bgk.uni-obuda.hu)

<sup>3</sup> IBS, International Business School, Budapest, Hungary, [knemethy@ibs-b.hu](mailto:knemethy@ibs-b.hu)

## Abstract

In October 1908, a Ford Model T designed by József Galamb and companions, rolled out of the assembly line and achieved for the company a worldwide success it still enjoys today. The car's ease of use and reliable construction, as well as its affordable price, won the favour of buyers so much that the model was produced until 1927. The increasingly successful Hungarian chief designer of the Ford Motor Company, József Galamb never forgot his homeland. When he returned home, he supported his brothers in building up and running a Ford site and assembly plant in Makó, and established scholarships, gave lectures to members of the professional community, and supported the Reformed Church in Makó.

**Keywords:** *József Galamb, Ford Model T, Ford Motor Company.*

## 1. Preparation for the technical career

József Galamb was born on the 3rd of February in 1881, into a Reformed family in Makó. His father was József Galamb and his mother Erzsébet Putnoki. Graduating from the Elementary Civic Boys' School in Makó, József Galamb studied in the metal industry department of the Szeged State Vocational School of Wood and Metal Industry. He continued his studies at the Royal Hungarian State Higher Industrial School in Budapest which he and his 28 colleagues completed in 1900/1901. (today's Óbuda University, Donát Bánki Faculty of Mechanical and Safety Engineering).

After that he went to the Iron Factory in Diósgyőr as a technical draftsman, then in 1901, he entered the military service in Pula, where he served on a gunboat under the command of Miklós Horthy. After his discharge, he worked for a short time at Magyar Automobil PLC. in Hódmezővásárhely and in Arad. In 1903 he traveled to Western Europe on a scholarship and then on a self-funded study trip. He toured the large machine factories in Dresden, Berlin, Hamburg, Bremen, Belgium, the Netherlands, Düsseldorf, and finally visited

the Adler Car Factory in Frankfurt am Main. Here, he heard the news that there would be a World Exhibition in 1904 in Saint Louis.

## 2. Starting a successful career

He arrived in New York on October 6, 1903, where he took a job in a box factory. The World's Fair in St. Louis made such an impact on him that he was determined to stay in America. After a short detour, he traveled to Detroit to look for a job, from three offers- C Cadillac, Silent Northern, and Ford- he chose the latter, joining them on December 11, 1905. The engineers who applied at the time were asked not for their degree but for a test drawing. So he began working on the design of the N-model. He designed a new cooler, a circulating pump.

In 1952, Joseph Galamb recorded her audio memoirs for the Ford Museum. A cite from this:

„At the beginning of 1907, Mr. Ford said to me, Joe, I have an idea. Let's design a new car. Take your drawing board to a separate room and let's start designing a new model. No one needs to know about it. The first thing I need is a new



**Figure 1.** József Galamb in 1905 in Pittsburgh.



**Figure 2.** The T-Model from 1922 restored by Óbuda University, Donát Bánki Faculty of Mechanical and Safety Engineering.

transmission because I'm unsatisfied with what's been there so far, it's not practical enough. Then of course we didn't know it was going to be the T model! Or I worked on the design of the gear shift for half a year." [1]

On October 1, 1908, the first car for sale rolled off the production line. The car, which has become world-famous as Tin Lizzie, was produced for nearly 20 years, more than 15 million were sold, and in 1997 an international jury chose the Ford model T above the Porsche 911, Volkswagen Beetle, Citroën DS and Morris Mini for Car of the XX. Century.

The ease-of-use, reliable design and the affordable price pleased buyers so much that the model was manufactured until 1927. Production demand could only be met by assembly line.

The engine of the world's first production car is the Otto-system four-cylinder, four-stroke, thermosiphon water-cooled engine. Its maximum power is 15 kW, which it achieved at 1450 RPM. Consumption is 13.5 liters of fuel per 100 km, with a top speed of 65 km / h. The most ingenious technical solution employed in the car was the planetary gearbox, designed by József Galamb.

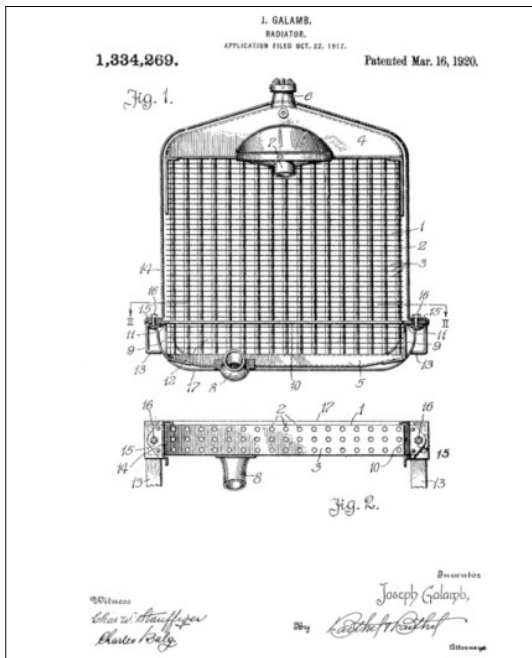
Cite from polish writer, Alfred Liebfeld's book, titled Henry Ford is the ' God: „It turns out that the new car will meet not only the needs of the rural population but also the urban population. Its construction was so simple that anyone could sit behind the wheel and, as promised, make minor repairs themselves.” [2]

The price of the T-model dropped from the initial \$ 825 to \$ 575 in four years, and later reached the \$ 355 minimum.

An important Fordson tractor, designed by József Galamb and Jenő Farkas, played an important role in the mechanization of American agriculture.

In addition to the above, József Galamb also designed many other constructions: he was involved in the development of other Ford car models, trucks and track cars, as well as working on prototype experiments and designing new factory departments. He was also involved in the design of a submarine finder and light tanker during World War I. [3]

Machine design work of Galamb is well characterized by his patent activity. A total of 27 patents filed with the United States Patent Office between 1920 and 1952 reflect carefully edited, clear, accurate engineering work.



**Figure 3.** Patent sketch of the radiator.

The four decades of chief engineering work of József Galamb, an engineer, is an example of American wonder and success.

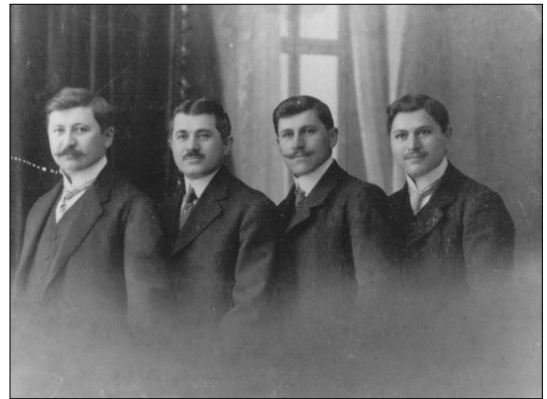
In 1905, Ford was still a small factory with 300 employees, and by 1944 it had become one of the largest U.S. giants. In the mid-1910s, 250 cars a day were produced, and twenty years later production was 10,000 cars a day.

### 3. Relationship with the homeland

According to the birth certificate of the Galamb family with roots in Makó, József Galamb was the second child of his parents, and five more (four sons and one daughter) followed him in line (his two brothers died early). Persuaded by a Reformed teacher the intelligent peasant farmer supported the further education of two oldest sons, Alexander and Joseph. The eldest son, Sándor, became a lawyer.

József Galamb first re-visited his homeland in the autumn of 1911. His mother and siblings welcomed him after his eight-year absence with great love. It was then that the famous picture of the four Galamb boys was taken in the Homonnai studio. He became an American citizen in 1915.

In 1921, he founded a scholarship of 100,000 crowns to support further education. According to the Articles of Association: " József Galamb,



**Figure 4.** Galamb Brothers in Makó: Sándor, József, János, Ferenc (from left to right)

born in Makó and currently a resident of Detroit, completed his upper vocational school studies on a scholarship; (North America, Michigan); he provided a scholarship foundation of 100,000 crowns for the poor but well-educated students of the mechanical engineering department of the upper industrial school and paid this amount to the public fund of the city of Makó". [4]

John took his younger brother out to America, and he also worked for Ford for two years. After World War I, in 1921, Joseph Galamb sent six Fordson tractors to his Makora brothers to work on and promote Ford products. This is how the family business was founded, run by two younger Galamb brothers, John and Francis. József Galamb visited Makó to start the business in the autumn of 1922, on which occasion the Pénzvilág published a longer interview.

The Makó site was located on the corner of Deák Ferenc Street. Colorful Ford cars were painted on the exterior wall of the repair shop in the late 1920s, traces of which can still be found on the facade to this day. The workshop and service of the warehouse were managed by János, and the commercial tasks were managed by Ferenc. With the increase in turnover, a Galamb warehouse was opened in Békéscsaba, where 35 mechanics worked [4].

During his return visit, József Galamb not only visited his family but also gave lectures at the Hungarian Association of Engineers and Architects and at the Technical Academy. He brought films with him, which allowed professionals to learn about Ford's factory production and the technical features of the products.

The appearance of the Ford caravan in Hungary served to promote the Ford brand. The car line

representing the best in Ford's range has traveled across Europe. On May 1, 1926, a caravan of 25 different cars arrived in Hungary having set off from Trieste. Then József Galamb visited to Makó again. This time the governor greeted him at an interrogation in the Castle. It turned out that they had first met on the mechanical training school ship 25 years earlier. After their official meeting, Miklós Horthy invited József Galamb to his private suite. He met the governor's family and talked for more than four hours. They planned that after graduating from university, István Horthy, the son of the Governor would go on a study trip to Detroit [5].

During the First World War, the bells of Makó also fell victim to metal shortages, and after removal, they were melted down for military purposes. Sándor Galamb, the pastor of the Reformed Church, played a significant role in their replacement.

In the tower of the Reformed Church in October 1927, the so-called On the Horthy Bell, which was “cast for the public use of the Reformed Church in Makó,” it ranks first in the list of donors “Dr. the name of the valiant Sándor Galamb”, next to which is the inscription “Galamb József Amerika” [6].

István Horthy, the governor's eldest son, obtained his degree in mechanical engineering in 1928. The young man, who spoke fluent English, German and French, was well prepared for the American study trip.

Governor Horthy inaugurated the World War I Heroes Memorial in Makon on September 29, 1929. Here the Governor asked Alexander Galamb to write to his brother that Stephen had graduated and could go to America. On his intervention, Henry Ford wrote to the governor with his own hand that his son could come, welcoming him to Detroit. From the autumn of 1929, the later deputy governor worked first as a simple worker, then in the tractor assembly department, and finally in the experimental design department. He spent a total of 18 months at Ford.

His last homeland visit was in 1932. Even then, he gave a lecture at the headquarters of the Hungarian Association of Engineers and Architects, and once again screened a film about Ford products. This was his last visit to Hungary, he recovered from a heart attack in 1944 and applied for his retirement. On December 4, 1955, at the age of 74, a retired chief engineer from one of the world's largest automotive corporations died.



Figure 5. Ford depot from the yard in Makó.



Figure 6. Advertising of the Ford caravan in Szeged.

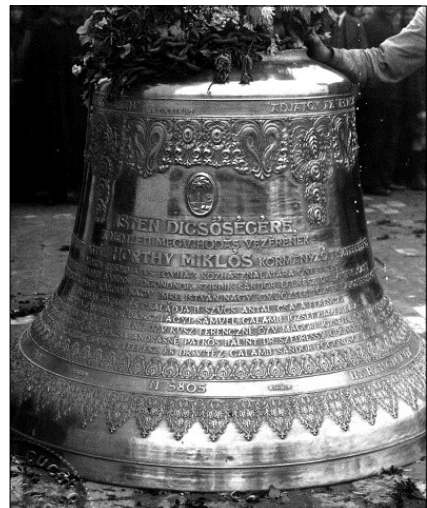


Figure 7. Horthy bell cast from the donations of the Reformed Makó.

## References

- [1] Galamb Józseffel folytatott angol nyelvű, hangszalagra felvett beszélgetés kézírata a Ford Archivumból. Riporter Owen Bombard, Pontchartrain, 1952. január 30.; február 6. Fordította Terplán Zénó egyetemi tanár
- [2] Liebfeld A.: *Henry Ford, az „isten”*. Kossuth Kiadó, Budapest, 1973.
- [3] Gáti J.: *Galamb József. Ford T-modell, a XX. század autója*. Magyar Örökség Díj nyolcvankettedik díj-átadó ünnepsége. Laudáció. Magyar Tudományos Akadémia, 2016. március 19.
- [4] Halmágyi P.: *Egy világra szóló karrier. Galamb József életútja*. Makói História, József Attila Múzeum Kulturális Lapja, Makó, 2006.
- [5] Gáti J., Horváth S., Legeza L.: *A XX. század autója. 100 éves a Ford T-modell*. Budapest Műszaki Főiskola, Budapest, 2008.
- [6] Harangzúgás, a Makói Református Egyház lapja, Makó, 1927. október 9.