

Innovative activities in the firm Pála, joint-stock company, in the period 1919–1945, inventions and trademarks

Zbyněk NIKEL¹

¹ Doctoral study program *History of Technology* (P 7108), Czech Technical University in Prague – Historical laboratory of electrical engineering of the FEE CTU in Prague, Technická 2, 166 27 Prague, Czech Republic

nikelzby@fel.cvut.cz

Abstract. My paper deals with the system and organization of innovative activities in the factory Pála, et al., in the years 1919–1945. Working with inventions and inventors was carried out according to standard procedures, which included search activity, expert opinions, basic and applied research, testing the own and external ideas, selection of applicable inventions for their introduction into production. As concerns a factory's own successful innovation, taking care of trademarks was necessary. Sometimes, litigation has arisen about the originality of some patents or trademarks.

Keywords

Innovation, Invention, Patent, Galvanic Dry Cell, Pocket Lamp, Gas-protective Filter, Guarantee Loop, Electric Battery, Palaba ...

1. System of work with innovations

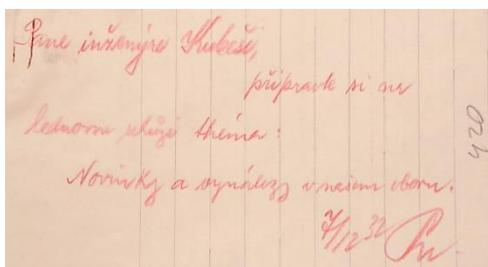


Fig. 1. The factory owner Pála let prepare Dipl. Eng. Kubeš a paper on news and inventions in the field of electrochemical cells for 1933 January management meeting.¹

Jaroslav Jan Pála demanded essentially continuous research of patents from various countries around the world that could somehow affect the *Palaba* product range. The patents received were taken over by Dipl. Eng. Jaroslav Kubeš, or sometimes Jiří Špaček. The manufacturer often wrote a note on the writings as: “Mr. Špaček will report

about this topic at our meeting, or how old, really old song! or they already do only copies too...”

The system of work with innovations in *Palaba* factory can be well reconstructed from the paper on the importance of patents and trademarks presented by Dipl. Eng. Jaroslav Kubeš on 14 March 1933 at a regular meeting of the factory management: “In addition to the quality of goods, patents and trademarks guarantee us a competitive position among other manufacturers. As concerns electric batteries, our company is the initiator of all new ideas in Czechoslovakia, and it is closely monitored and imitated in this activity by the other competitors.”²

Perhaps the most successful patent of *Palaba* factory was so called *Guarantee Loop for Electric Batteries*, which, according to Kubeš, became subject of persistent and consistent imitation by the company *Schlosser's Nachf.* “The owner of this company gave us his word of honor in this matter, that the tapes will not be marketed by him under our patent že nebude pásky dle našeho patentu uváděti do obchodu, however, these batteries persistently appear on the market.”³ The firm *Pála, et al.*, had to take appropriate legal action against this misdemeanor.

In addition to individuals reportedly eagerly followed the news from *Palaba* factory also large and established companies such as *Electrotechnical factory Schmidt, Podmokly, Prague accumulator factory, Leclanché* etc. “Thus, our boxes for batteries, provided with short contacts of the same length, which were the subject of our protective patterns, were imitated still in the last year of validity of their protection by the firm *Daimon and La Cie* and later by the firm *Pertrix*.”⁴

Mr. Kubeš paid in his report special attention to the cube cells of *Super* batteries. Almost all factories took over them after the protection of the appropriate industrial patterns. Smaller companies like *Hela, Příbram, or Pirkl, Liberec*, began assembling cylindrical normal cells in

¹ State Regional Archive (SOA) Prague, fund Pála, a. s., Slaný, NAD 1255, Registered Unit Number: 4, No. 420.

² State Regional Archive (SOA) Prague, fund Pála, a. s., Slaný, NAD 1255, Registered Unit Number: 18, No. 1–8.

³ State Regional Archive (SOA) Prague, fund Pála, a. s., Slaný, NAD 1255, Registered Unit Number: 4, No. 420.

⁴ Ibid.

square boxes. And, competitive firms even illegally picked up vignettes and printed materials. Which led to a court trial. “Representative of the firm Pertrix, selling Pertrix batteries, introduced himself as our representative and his company supported this acting by providing their batteries Saltrix with Palaba order number 2000.”⁵

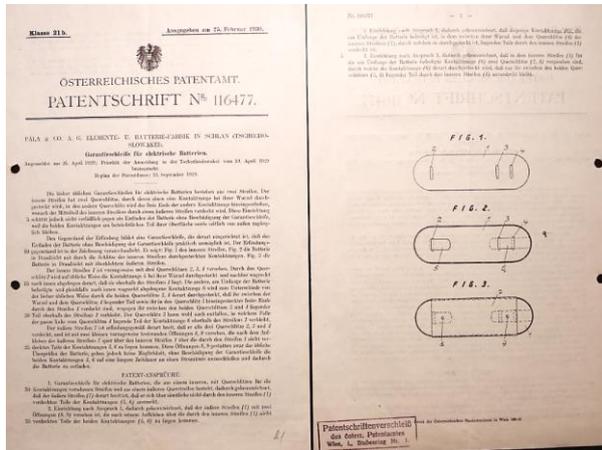


Fig. 2. Patent, protected in England under No. 359,741, in Poland under No. 116477, in Italy under No. 295025, in Yugoslavia under No. 7138 and in Belgium under No. 373171. In Czechoslovakia, it was patent file No. 61087.⁶

Mentioned above system *Guarantee Loop for Electric Batteries* was probably the most successful patent invented in *Palaba* factory, judging by the number of countries in which it was protected, but also according to frequency of imitation by other firms producing flat batteries. For these cases, in addition to the main patent attorney in Prague, the Slaný factory had a contract with an international office in Berlin to manage these patent things outside Czechoslovakia. “Patent law does not allow a foreign person to personally implement their patent claims against the authority, applicants and representation is therefore entrusted to authorized representatives.”⁷

It should be added that patent attorneys were not cheap. In 1930, *Palaba* factory paid them CZK 33,274.10, in the follow year already the whole CZK 60,966.05, and in 1932, the service of patent attorney cost CZK 45,458.90.⁸

The year 1931 became more expensive as the Slaný battery factory carried out five English and German patent applications, and also registered the acronym “*Palaba*”⁹ and the trademark of the horse at the English Trade Mark Office for five classes of goods.

“At that time, the patent law was changing in England, and England was dropped from the International Trade Property Office in Bern, so our international

⁵ State Regional Archive (SOA) Prague, fund Pála, a. s., Slaný, NAD 1255, Registered Unit Number: 18, No. 1–8.
⁶ State Regional Archive (SOA) Prague, fund Pála, a. s., Slaný, NAD 1255, Registered Unit Number: 7, No. 64–69.
⁷ Ibid.
⁸ Ibid.
⁹ *Palaba* means Pála’s Batteries.

trademarks in England were useless for us and had to be registered independently for England.”¹⁰

On other lines Dipl. Eng. Kubeš gives an exhaustive explanation of cooperation with the patent attorney carries out. He usually received a task from *Palaba* to apply for a patent with an elaborated technical description. Followly, the representative edited the technical data to a correct form and handed over the material to patenting. The Office examined the proposal and often objected. If the Office didn’t objected, competing companies inserted themselves to the given case, that were interested in not having the patent harmful them or they had invented similar things, and therefore opposed the granting of a patent within the official deadline.

All these phases, which took place during the processing of the patent application, were accompanied by difficult and expensive correspondence with the Office, inter alia because it was necessary to work with older files on which the Office had objections. “After the patent has been granted, the costs associated with its publication and printing must be paid. For each year of the patent continuance must be paid taxes, which gradually grow and reach e.g. in the last, i.e. 15th protection year, the amount of CZK 3,400.”¹¹



Fig. 3. Advertisement of *Palaba* factory in the magazine *LE MARQUES INTERNATIONALES*.¹²

Knowledge of the innovations at the World Patent Forum was a matter of obviousness for the Slaný factory. *Palaba* had subscription of regular listings of the most interesting applications concerning its field of production from all the world. German patent applications were supplied by an associate professor Fuchs office in Brno, the

¹⁰ Ibid.
¹¹ Ibid.
¹² State Regional Archive (SOA) Prague, fund Pála, a. s., Slaný, NAD 1255, Registered Unit Number: 7, No. 50.

factory also subscribed to *the Patent journal* together with *E. O.* and *Batterien magazines*. This way, *Palaba* gained an overview of all relevant news and interventions in its industrial property, and thus the opportunity to defend itself within the official deadlines.

| No. | Patent file No. / Patent granted in | Title |
|-----|-------------------------------------|---|
| | | Represented author |
| 1. | 523,240 United Kingdom | <i>Improvements in or relating to Gas-protective Filters</i> Jaroslav Jan Pála |
| 2. | 359,741 United Kingdom | <i>Guarantee Loop for Electric Batteries</i> Jaroslav Jan Pála |
| 3. | 379,141 United Kingdom | <i>An Improved Electrolyte for Galvanic Dry Cells of the Manganese Dioxide Type</i> Jaroslav Jan Pála |
| 4. | 388,471 United Kingdom | <i>Improvements in and relating to Electric Dry Batteries</i> Jaroslav Jan Pála |
| 5. | 375,644 United Kingdom | <i>Improvements in Anode Batteries for Wireless Receivers</i> Jaroslav Jan Pála |
| 6. | 351,823 United Kingdom | <i>Improvements in or relating to Electric Pocket Lamps</i> PÁLA A SPOL., AKCIOVÁ TOVÁRNA ELEKTRICKÝCH ČLÁNKŮ A BATERIÍ VE SLANÉM, a Jaroslav Jan Pála |
| 7. | 398,638 United Kingdom | <i>An Improved Process for Making Electrolytes for Dry Cells which require Filling with Fluid</i> Jaroslav Jan Pála |
| 8. | 390,396 United Kingdom | <i>Improvements in and relating to Electric Battery Lamps</i> Jaroslav Jan Pála |
| 9. | 367,698 United Kingdom | <i>Improvements in the Manufacture of Galvanic Dry Cells</i> Jaroslav Jan Pála |
| 10. | 371,478 United Kingdom | <i>An Electrolyte for Galvanic Cells</i> Jaroslav Jan Pála |
| 11. | 399,783 United Kingdom | <i>Improvements in and relating to Electric Dry Batteries</i> Jaroslav Jan Pála |
| 12. | 390,896 United Kingdom | <i>Improvements in and relating to Electric Dry Batteries</i> Jaroslav Jan Pála |
| 13. | 828.694 France | <i>Manipulateur télégraphique d'exercice</i> Jaroslav Jan Pála |
| 14. | 709.868 France | <i>Lampe électrique de poche</i> Jaroslav Jan Pála |
| 15. | 608,694 Germany | <i>Verfahren zur Herstellung eines Elektrolyten für auffüllbare Trockenelemente</i> Jaroslav Jan Pála |
| 16. | 603,050 Germany | <i>Verfahren zur Herstellung von Trockenbatterien, insbesondere Anodenbatterien</i> Jaroslav Jan Pála |
| 17. | 565,741 Germany | <i>Verfahren zur Herstellung von Trockenelementen</i> Jaroslav Jan Pála |
| 18. | 591,163 Germany | <i>Elektrolyt für galvanische Trockenelemente</i> Jaroslav Jan Pála |

Tab. 1. List of all *Palaba* patents granted abroad.¹³

¹³ Assembled from: State Regional Archive (SOA) Prague, fund Pála, a. s., Slaný, NAD 1255, Registered Unit Number: 2, 3, and

2. Inventions and Patents

The database of the Industrial Property Office in Prague lists 31 Czechoslovak and 18 international inventions by Jaroslav Jan Pála. There were several types of electric torches, galvanic battery, small bag electrodes' production apparatus, dry electric cell, method of production of so called dry galvanic cells, method of production of electrolyte for dry infusion cells, method of increasing the output of galvanic cells, bulb socket, coil skeleton of bicycle small dynamo...¹⁴

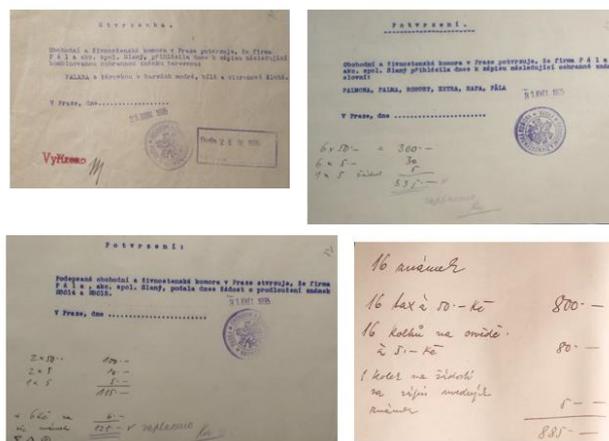


Fig. 4. Copies of receipt on application to prolong trademarks 28014 a 28015 of 31 May 1935, further trademark works „PALMONA, PALMA, ROBUST, EXTRA, RAPA, PÁLA“ from the same day and colour combined trademarks for device (elektric lamp) „PALABA with bulb in colours blue, white and lemon yellow“ from 25 April 1935 issued by the Chamber of Commerce and Trade in Prague. For each trademark it was necessary to pay a tax of CZK 50, then CZK 10 for two stamps on the certificate and CZK 5 for stamps on application for registration of the mentioned trademarks. On the right hand side below is the calculation for 16 other trademarks. In *Palaba*, Dipl. Eng. Jaroslav Kubeš (before him Rudolf Pála) looked after trademarks. He usually signed the above confirmations.¹⁵ Trademarks required phrases too, e.g. „*Health like granite*“, „*With Erpa like new*“, „*ERPA – soap for metals*“, „*Palaba is the responsibility of Pála*“, „*I want light, I want Palaba*“ or „*Guaranteed with no salmiac*“.

3. Trademarks

Word trademarks mean words and phrases issued by the Chamber of Commerce and Trade in Prague, such as: PALABA 444; INDUKTA; JUPITER; DYNAMO; RADIUM; PÁLA MINOR; L PALABA; ESPERA; OPTICA; SIGNALIA; ROTAX PALABA. In the case of chemical products, these are e.g. names: ERPALA, POLA, ERPO, ERPIS, “*Palaba – Object of permanent need*”; ESPE KARMELITKA; KARMELITSKÝ KRÍŽ; KARMELITER; KARMELITKA...

¹⁴ *Vynálezy/patenty* [online]. [Accessed 17 June 2016]. Available from: <http://www.upv.cz/cs/prumyslova-prava/vynalez-patenty.html>.

¹⁵ *Vynálezy/patenty* [online]. [Accessed 17 June 2016]. Available from: <http://www.upv.cz/cs/prumyslova-prava/vynalez-patenty.html>.

¹⁵ State Regional Archive (SOA) Prague, fund Pála, a. s., Slaný, NAD 1255, Registered Unit Number: 13, No. 12–14.

However, the graphic symbols and pictures of the whole products, or their packaging, and advertising slogans were also protected as well as the names of products of an administrative nature, i.e. various printed forms. All of these protected words, phrases, and graphic symbols were 500.

4. Conclusion

Analyzing the implementation and use of patents and inventions in *Palaba* firm is a relatively difficult task for historian. A technocratic approach could easily mislead a researcher, assuming that he assesses the importance of the work of technicians and developers from the perspective of a progressive shift in the development of the production of electrochemical cells and accumulators in the Czech lands or even worldwide. Such viewpoint leads to embarrassment and the statement that the inventions of Jaroslav Jan Pála and his followers in the company are futile, especially since in essence the most successful invention that came from *Palaba* is the so-called *Guarantee Loop for Electric Batteries*.

With careful consideration of the archive material, I have come to the conclusion that such approach is incorrect. The company had to generate profit. It was precisely such a banal idea as a functional tape that prevented discharging of stored flat batteries and therefore significantly extended their service life, and which was applied and paid by many European producers (Germany, Italy, England, Poland, Yugoslavia...) that brought not only the desired profit, but also advertising for products with higher added value – starting from pocket torches, and ending to car batteries, eventually licensed radio receivers.

Registration of trademarks by the company *Pála et al*, and applications for their extension had been made since 1920, further in the period of the 2nd Czechoslovak Republic as well as during Protectorate Bohemia and Moravia until the days of Gottwald's Czechoslovakia. Jaroslav Jan Pála had already been in prison for many years but the popularly democratic system sold batteries under Pála's name and newly under the trademark of national enterprise Bateria Slaný.¹⁶

Acknowledgements

Research described in the paper was worked out in the frame of the 24th International Student Conference on Electrical Engineering, POSTER 2020, under the supervision of Marcela Efmertová and Jan Mikeš (Historical laboratory of electrical engineering, Faculty of Electrical Engineering of the CTU in Prague) and within the grant No. **SGS17/131/OHK5/2T/13: Technical Professions: Technical Engineers and the Czech Society**

(*Between Scientific Milieu, National Prestige and Entrepreneurial Activities*) in the Years 1881–1945.

References

- [1] State Regional Archive (SOA) Prague, fund Pála, a. s., Slaný, NAD 1255, Registered Unit Number: 2, 3.
- [2] State Regional Archive (SOA) Prague, fund Pála, a. s., Slaný, NAD 1255, Registered Unit Number: 4, No. 420.
- [3] State Regional Archive (SOA) Prague, fund Pála, a. s., Slaný, NAD 1255, Registered Unit Number: 7, No. 50, 64–69.
- [4] State Regional Archive (SOA) Prague, fund Pála, a. s., Slaný, NAD 1255, Registered Unit Number: 13, No. 12–14.
- [5] State Regional Archive (SOA) Prague, fund Pála, a. s., Slaný, NAD 1255, Registered Unit Number: 52, No. 1–108.
- [6] *Vynálezy/patenty* [online]. [Accessed 17 June 2016]. Available from: <http://www.upv.cz/cs/prumyslova-prava/vynalez-patenty.html>.
- [7] *90 let Patentového úřadu v Praze = 90 years Patent Office in Prague: 1919–2009*. Praha: Úřad průmyslového vlastnictví České republiky, 2009. 126 s. ISBN 978-80-7282-076-4.
- [8] SMOLKA, Ivan, ed. et al. *Studie o technice v českých zemích V., 1918–1945, (1. část)*. 1. vyd. Praha: Národní technické muzeum, 1995. 597 s. Sborník Národního technického muzea; č. 28. ISBN 80-7037-041-6.
- [9] SMOLKA, Ivan, ed. et al. *Studie o technice v českých zemích VI., 1918–1945, (2. část)*. 1. vyd. Praha: Národní technické muzeum, 1995. s. 608-1127. Sborník Národního technického muzea; č. 29. ISBN 80-7037-041-6.
- [10] KÁRNÍK, Z. *Malé dějiny československé (1867–1939)*. Ed. 1. Prague: Dokořán, 2008. 502 p., [24] p. Imagery Attachment. ISBN 978-80-7363-146-8.
- [11] GEBHART, Jan a KUKLÍK, Jan. *Druhá republika 1938–1939: svár demokracie a totality v politickém, společenském a kulturním životě*. Vyd. 1. Praha: Paseka, 2004. 315 s. ISBN 80-7185-626-6.
- [12] GEBHART, Jan a KUKLÍK, Jan. *Dramatické i všední dny protektorátu*. Vyd. 1. Praha: Themis, 1996. 288 s., [16] s. il. ISBN 80-85821-35-4.

About Author...

Zbyněk NIKEL was born on 4 July 1966, in Bílovec. He is an employee of the Historical laboratory of electrical engineering, Faculty of Electrical Engineering of the Czech Technical University (CTU) in Prague, and student of the all-school doctoral study program *History of Technology* (P 7108). Nickel's studies concerning the planned dissertation with the working title *History of the company Pála et al., factory of electric cells and batteries in Slaný, 1889 (1919)–1945*, was approved by the Scientific Council of the CTU doctoral study program *History of Technology* on 8 February 2018.



¹⁶ State Regional Archive (SOA) Prague, fund Pála, a. s., Slaný, NAD 1255, Registered Unit Number: 52, No. 1–108.