porcelain buttons, and porcelain beads") for the first time. It is familiar to us from a number of sample cards (Plates 25A-B, 26B-C, 32C) (Zentralmarkenanzeiger 1908:211). In the same year (1908), an important contemporary source reports on the Redlhammer Brothers' Porcelain Bead and Button Factory, Gablonz:

A very singular industry which was not represented in Austria at all only a short time ago and is still only represented by one large enterprise is the manufacture of porcelain beads and buttons. These articles are generally known in the trade under the name, "Oriental Beads" and "Agate Buttons:" they are ceramic products which are fired at a very high temperature and which require an extraordinarily high degree of specialized knowledge and very complicated machinery and equipment for their production.

The Redlhammer Brothers Company in Gablonz, which has taken up this industry rationally for the first time, is far older than their current manufacturing processes. It was founded already in the year 1854, by the Imperial Councilor Eduard Redlhammer and his brother Albert and originally operated a wovengoods factory in Rochlitz near Reichenberg. It was not until later that it changed over to the production and export of glasswares, porcelain beads and buttons. Since this industry, as we know, has always been at home in the Gablonz area, it was logical for the company to move to Gablonz so that its new line of production could develop properly. In 1896, the company built its own factory here. It has had to be expanded a number of times since then. The owners of the company succeeded in overcoming the unusual technical difficulties they encountered in developing a usable product. A continuous improvement of the machinery assisting production made it possible to perfect the quality of the product even more. At the same time new business connections were made, trips were taken to foreign countries, and representatives were situated in all the important export locations on the continent.

The owners always kept an eye on the task of expanding the local industry as a whole. They did not stop at establishing this new branch of manufacture that was still in the development stage, but endeavored to bring it to the highest degree of perfection. They have achieved this goal since the porcelain beads and buttons they make are exported all over the world and are able to maintain their importance on the world market to an increasing extent,

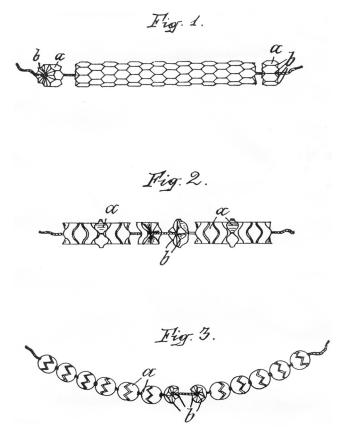
regardless of the very lively foreign competition.... In 1905, an important site was purchased in Gablonz and a big new factory built on it... thus, in the year 1908 alone, an important expansion of the factory took place.... The equipment for the works includes a large number of special machines and devices constructed by the company itself. Some of them are not used anywhere else in the country and are made in the company's own machine shop. A 150 h.p. steam engine with modern precision controls takes care of the mechanical drive for the manufacturing machinery. In addition, there is a lighting and power plant for operating various motors and the machine workshop... (Mahla 1908:381).

The Redlhammer Brothers' sample cards in the Technical Museum (complemented by a few cards from the Gablonz Archive and Museum in Kaufbeuren-Neugablonz) comprise the most complete collection of its kind, even though they apparently consist of examples from different series. All of them, however, have the same pressing technique in common. The cards display the popular and famous *Perles Orientales* (Plates 27A-B), as well as the short cyclindrical beads in different variations (Plates 28C-29C): the so-called cylinder beads (*Walzenperlen*) (Redlhammer 1952:74), which were also called tube beads (*Röhrenperlen*) and once, strangely enough, even *Rocailles* (Plate 28C); round and oval beads, discs, rings and stars; façon beads of various types, and finally, the "tooth-like interlocking" beads patented in 1896 which create smooth chains (Figure 123; Plates 36A-C).

The sizes of these pressed beads can rarely be classified according to prescribed norms, especially when they take on unusual elongated shapes or only form a whole in three-part motifs consisting of demi-olives and discs (Plates 38A-B, 39B-C).

## **ACKNOWLEDGEMENTS**

This work was made possible with the assistance of many people and institutions. Interest in a common subject led to the formation of working groups from which friendships grew: the fascination of glass and porcelain beads had drawn us into its spell. I wish to thank all of them here. Those who obligingly placed their knowledge and their private bead treasures at my disposal, those who helped untiringly to solve difficult problems, and those whose enthusiasm contributed to coping with the immense volume of the material they themselves helped create. My gratitude also extends to all the people and institutions mentioned below, who have thus far supported me in my research in every imaginable way:



**Figure 123.** Tooth-like elements meshing with one another for a piece of jewelry, 1896, Redlhammer Brothers, privilege no. 46/3959 (Austrian Patent Office).

Thomas Werner (Director of the Technical Museum, Vienna) and his staff.

Alfred Lechner, the founder and former director of the University Archive of the Vienna Technical University.

Erich Jiresch, head of the University Archive of the Vienna Technical University, also Juliane Mikoletzky and Johann Axnix.

Ingrid Weidinger (Director of the Library of the Austrian Patent Office, Vienna) and her associates (Brigitte Reicher, Walter Amstötter, Helmut Hammel, and Wilhelm Korinek)

Heinz Kleinert (Gablonz Archive and Museum e.V., Kaufbeuren-Neugablonz) and his associates.

Susanne Rössler (Neugablonz Industry and Jewelry Museum e.V., Kaufbeuren-Neugablonz) and her associates.

Walter Dürr (Director of the Museum for Nature and Urban Culture in Schwäbisch-Gmünd) and Monika Boosen.

Klaus Breit, Schwäbisch-Gmünd; Mario Coressi, Vienna (M. Hurtz and Sons, Vienna, "Goldperle"); Heinz Fitschek, Steyr-Gleink; Adolf Glaser, Schwäbisch-Gmünd; Artur Kratzmann, Enns; Alfred Mantel, Sr. and Jr., Mauerstetten-Steinholz; Maria Reiter, Vienna.

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Ann Dubsky devoted herself to the subject and its difficult terminology in the English translation with special dedication. There is no doubt that she performed pioneer work in doing so, chiefly in dealing with highly specialized problems which – although appearing to be untranslatable at first – she mastered with bravura.

## **ENDNOTES**

Editor's note: Self-published in 1994, Dr. Waltraud 1. Neuwirth's book, Perlen aus Gablonz: Historismus, Jugendstil / Beads from Gablonz: Historicism, Art Nouveau, is one of the most useful publications for both bead researchers as well as bead aficionados who wish to understand the Bohemian bead industry and its products. Unfortunately, not only is this reference out of print but it is hard to find in libraries outside of Europe and impossible to purchase at a reasonable price anywhere. To make this valuable resource available to researchers and collectors around the world, Dr. Neuwirth has granted permission for the English text to be republished herein. The text essentially remains the same though the format has been changed slightly to conform to journal style. In addition, some text omitted from the initial translation has been included, a few typos have been corrected, and some problematic terminology has been clarified. To allow the color images to be published together, the illustrations have been segregated into two groups: the black-and-white images are now Figures while the color images are Plates. The editor extends his heartfelt thanks to Dr. Neuwirth and her translator, Ann Dubsky, for making this publication possible. Special thanks are also due the Bead Society of Los Angeles for a generous grant that helped with the publication of this issue.