2014

Richter's Anker (Anchor) Stone Building Sets

Richter's Anker-Steinbaukasten
Richter's UNION Blocks

By George F. Hardy

Note: The Club of Anker Friends has decided that the English translation “Anchor” should not be used. Always use “Anker”. It is a trademark, not a physical item.

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Dedication

This book is dedicated to Niels Gottlob, who died in the Spring of 1991. Niels knew more about the Anker stone shapes than any other Anker expert. He vetted and drew up every new Anker stone discovered since the Richter company's last Anker Loose Stone catalog was printed. Both as an Anker scholar and as a master builder the Anker community sorely misses both him (although perhaps not his cigars) and his always interesting contributions to Anker-Steinbaukasten knowledge. Niels also made very significant contributions to his other two hobbies, Meccano and puppet theater.

Note: This book is also available in a German translation, ISBN: 0-9656288-1-7.

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I. Preface

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This book is intended for both dealers and hobbyists. The author knows of no other reference book which gives even the smallest amount of useful information on these very successful and (in their day) world famous toys. Richter's Anker blocks were by far the most famous and popular of all of the brand name toys before W.W.I. Only Anker Stone Building Blocks had both international distribution and a world-wide reputation for quality and educational merit. Only Anker Stone Building Blocks were purchased by so many of Europe's Royal Families for their children. The eclipse of Anker Stone Building Blocks was due to two almost simultaneous disasters -- W.W.I and the death of Richter himself. Richter, like Louis XV, seemed to have taken the 'Après moi le déluge' attitude.[1] Although by the time of his death Richter was one of the wealthiest men in Germany and the owner of one of that country's most successful companies, within less than fifteen years his heirs had lost virtually all of their inheritance. In like manner, his Anker Stone Building Blocks lost almost all of their momentum during this same period.

In 1993 manufacturing of Anker Stone Building Sets was undertaken again. As of 2013 all of the "large caliber-new series" (Gross Kaliber – Neue Folge GK-NF) sets, up through set # 34, which contains 3,848 or 3,851 stones, are being made again, and many others.

This book contains enough detail to be a useful reference work for those antique dealers who handle toys and dolls. Such dealers are often presented with the opportunity to buy a few of Richter's stone block building sets, usually under the **Anker, Anchor** or **Union** trademarks, less frequently under the names **Eagle**, **Orion** or **Comet**. But it is an unusual dealer who has any idea what the sets can be sold for, whether the sets are complete and how much their offer should be adjusted to reflect the condition and completeness of a set. The author has included those important details which will allow someone to identify, or classify, a set; determine how much one might expect to sell a particular set for -- whether for a small, quick profit or for a slower, but possibly larger, profit; estimate how rare each set is; and how much rarity affects price. No suggestion is made regarding how much a dealer should pay for a set. The author knows that that amount is based on the dealer's negotiations. A dealer who knows what an item can be sold for is much better able to determine whether to buy, or by-pass, what is being offered for sale. Loose stones can be sold profitably, but the market is **very** thin.

Anker hobbyists are also interested in this type of information, as well as the background information on the history of the sets. For those Anker builders who, like the author, have an inventory in excess of 180,000 stones, the cost of acquisition has been considerable. Anker hobbyists will want to know whether their money has been "lost" or "invested". Dealers will generally find that their best supporters and customers are Anker hobbyists. Often a dealer will pick up an old Anker catalog or promotional flyer along with some sets. These accessory papers can be sold separately to Anker collectors at surprisingly high prices. And Anker collectors are often willing to give (or sell at a very low price) a few stones or a book of

common building plans, allowing a dealer to market a complete set. This symbiotic relationship is one which both parties have found it profitable to cultivate.

Hobbyists and dealers alike need a basic reference work in which they can find most of the history and information relating to their hobby or purchase. This book is intended to be both a history of Anker blocks and a ready reference. Of course, there is more information that could have been provided regarding almost every detail. The packing plans of all 600(+) known sets might have been included. But these packing plans alone would fill a thick book. The building plans and stone layer plans for **each** of these sets average about 25 pages, not counting the eight or so pages of the cover, instructions and advertising. Just this direct documentation of Anker stone building sets would take tens of thousands of pages. And those few collectors who would be interested in this information probably already have most of it. All of this detailed information is available on the Internet at www.ankerstein.ch/archiv. The Club van Ankervrienden has published, for its members the CVA Stone Catalog, which contains full size drawings of the stones and accessories as well as tables of set contents. There are many Internet sites devoted to Anker; www.ankerstein.org includes a list of links at the bottom of the main (first) page.

It is hoped that the reader will find the history of Anker stone blocks interesting. The author, who has spent most of his business career developing products, generally in consumer electronics, found the history of this product and company more and more fascinating as he assembled the commonly known facts and dug out more. How Richter faced competition; how Richter established policies (such as establishing a maximum retail price, which affected the whole toy industry); how Richter created an international company (with profitable branches in over a dozen countries) from a few hundred dollars obtained through what would today be considered an outright fraud; how Anker dominated the construction toy market and became the first "brand name" toy; how Richter kept all of this success to himself, vertically integrating so as to never buy from others anything he could manufacture himself. Too many people have concentrated on Richter as a charlatan, a maker of patent medicines which were similar to the patent medicines which were so common in the USA during the late 19th C. and well into the first part of the 20th C. Richter's critics overlook the ease with which he managed an international manufacturing company, with factories in at least five German cities, plus Vienna, St. Petersburg and New York. The company had grown by acquisition and by expanding its capacity in order to absorb the production of both suppliers and non-competing companies selling to the same customers. Richter faced many challenges and converted virtually all of them into opportunities far better than the author ever did, and far better than all but a handful of businessmen today.

In Germany, the period from about 1880 until 1910 is known as the Gründerzeit (Founder Era). Let no one doubt that Richter was one of the most successful of these 'founders'. The author ended up with the greatest respect for Richter's ability as a businessman, particularly when the author remembers that Anker building stones, which are his own personal interest, were only a small, really a quite minor, part of Richter's product line.

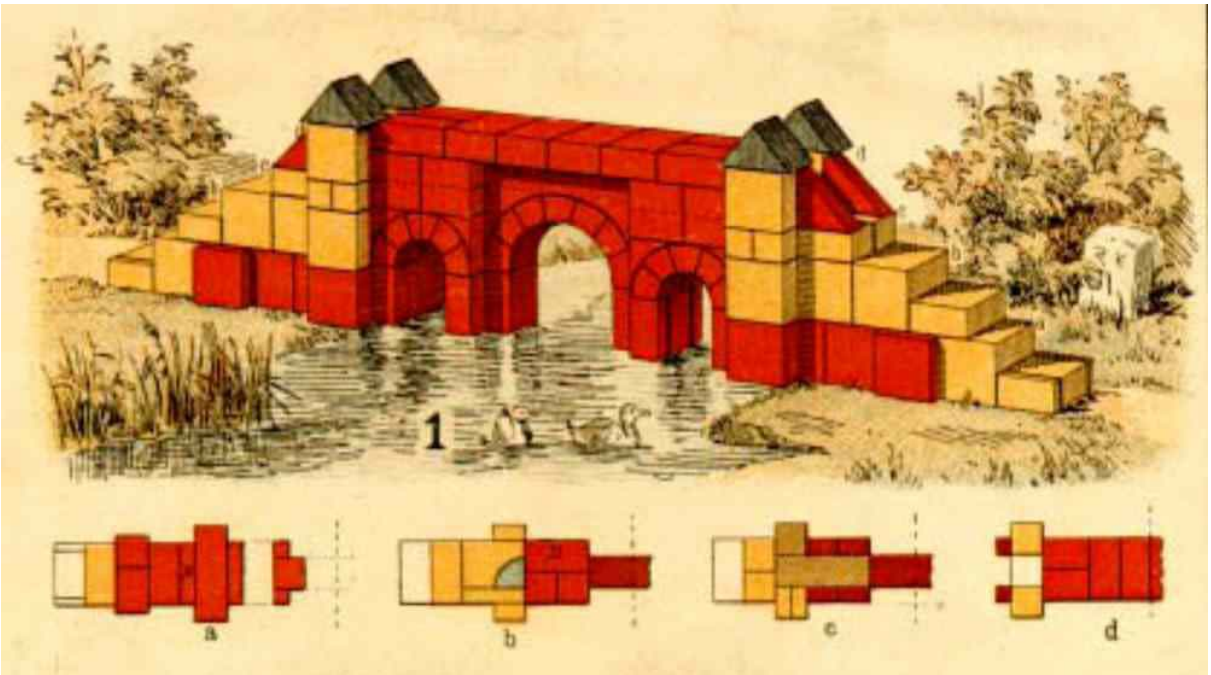
Over the roughly eighty year history of Anker stone building sets, many product variations were produced; some were commercially successful and some were not. It seems that even during the early years the consumer marketplace required "new" products every year. And Richter never disappointed his customers. His industries were all fast paced and rapidly changing. Perhaps not as fast as the fashion clothing and personal computer industries of today, but fully as fast as today's consumer electronics industry and certainly much faster than either the automotive or appliance industry. If some of the set variations seem a little like tail

fins on a car, the reader will do well to remember that, in their day, these fins were a very successful innovation. All of these Anker sets are found in the collector-hobby market today. As was true when they were introduced, some sets are more popular than others. Some sets are rare today simply because they were not popular at the time. But rare in such a case may not necessarily mean valuable today, just as popular then does not necessarily mean in high demand today.

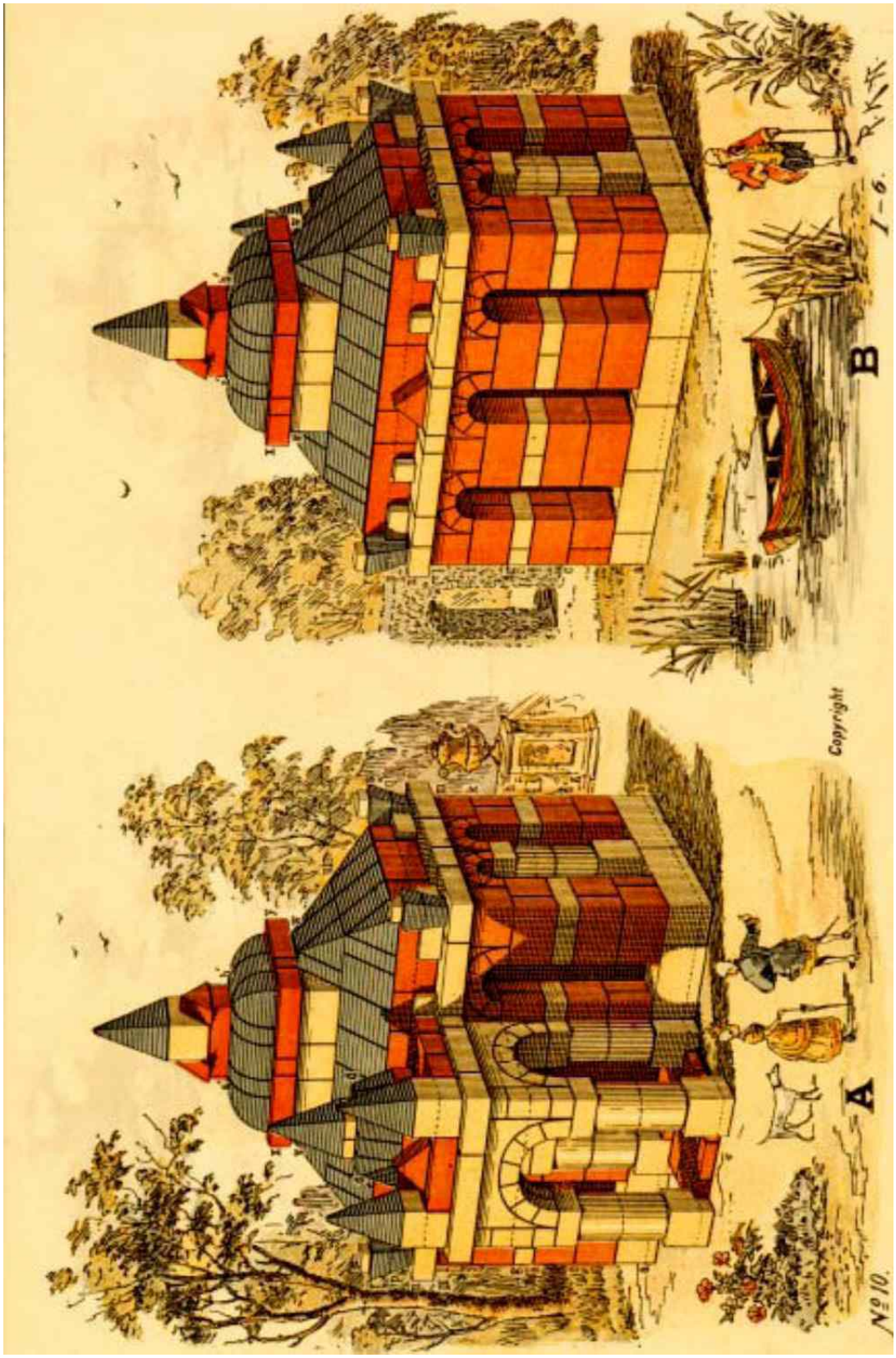
The pictures in this book are taken mostly from the company's catalogs and products. The author could have used exclusively photographs of new construction by contemporary Anker builders. It seems that every year the author receives from his Anker building friends photographs of more than a score of new, exhibition quality, buildings. More than any other type of building, the author enjoys the reconstruction, working from pictures in catalogs, of original Anker exhibition buildings. These buildings projects tax one's ingenuity because, in addition to being large, they were glued when made by the Richter Kunst Anstalt (R.K.A. [Art Department]). But, in general, construction does not actually **require** glue, although often stability is so marginal that it is virtually impossible to construct the building without either some modification or the added support of double sticky tape.

New information is being unearthed all of the time. Certainly there are inaccuracies and errors in this book. The author accepts full responsibility for them. One advantage of desk top publishing is that revisions can be made easily. For that reason the author has placed the date of publication on the spine of the book.

In addition, the author acknowledges he is not the most qualified person to write this book. That honor, in the author's opinion, went to Jan Hauer of Ermelo, Netherlands. But Mr. Hauer declined to undertake the task. The other Anker experts, and there are more than a few, show no inclination to write one either. However, most of these experts have been most generous in their suggestions and corrections. It is quite humbling for an American to have his English corrected by a Swiss, Austrian or German editor.



Bridge built with GK-NF set # 6, which is the most common set.



Rococo Pavilion. Built with GK-NF set # 10. Uses all 334 stone in that set.

II. Anker Stones - An Overview

(The term Anker will be used instead of Anchor for the trademark.)

Building blocks are very basic toys, like dolls. Their history goes back to the dawn of time. If adults were putting one log or stone on another to make a structure, it is a safe bet that their young children were also making toy buildings from available materials. By the early 19th C. building blocks, like other toys, had evolved from the informal, "Here, play with this." into products specifically intended for a child's play. By 1850 wooden block building sets were quite sophisticated. Sets existed for the construction of palaces and churches, often with details painted directly on the wood or printed on paper which was then pasted on the sides of the blocks. But the very nature of wood -- light weight and quite smooth surfaces, as well as the generally imprecise dimensions of the blocks -- limits the size of the buildings. In addition, often only one building, or at most, a very limited range of buildings could be constructed with these sets.

Friedrich Fröbel, the founder of the kindergarten, recognized building blocks as important educational toys. Fröbel theorized that a child learns two very important skills from play with blocks -- recreating a three dimensional design from a two dimensional plan and the placement of irregularly shaped three dimensional objects according to a two dimensional plan. Even in today's computer age, these lessons are best taught with blocks.

In the 1870s Dr. Jan Georgens was a well known educator, specializing in the education of women and children. One of his books was published by F. Ad. Richter's Teaching Materials Institute (Lehrmittel-Anstalt) in Leipzig. Together they put out a magazine, New Kindergarten (Neuer Kindergarten), and an accompanying line of toys, which included a variety of laying games -- the placement of colored pottery tiles in attractive patterns or arrangements. These toys were marketed under Georgens' name as educational toys. Gustav Lilienthal, an artist who had created new designs and illustrations for Georgens in 1877 for an enlarged edition of the book on feminine handicrafts, did some of the design work on this series of "Georgens" toys. As a result of his work on children's toys, Gustav Lilienthal conceived of the idea of building blocks made of artificial stone, rather than wood or clay. Since the stone blocks would be heavier and have rougher surfaces, structures made with them would not fall apart as easily. In conjunction with his engineer brother Otto, Gustav developed artificial stones from sand, powdered chalk and coloring, using linseed oil varnish as a binder. Although their engineering was sound, their marketing was not; so the brothers sold their invention to Richter in 1880.

Very little is known about the very early sets, from 1880 to 1884, but it is clear that Richter moved rapidly to capitalize on his investment. In 1882 he added a completely new building for the production of these toy building stones to his factory complex in Rudolstadt. A year or two later he established an Art Institute (Kunst Anstalt) for the preparation of building plans; he hired quite famous artists, illustrators, and architects to work on this project. In 1884 he offered for sale a completely reorganized series of stone building sets.

The original stones were based on a length of 20 mm (about ¾ of an inch). From this 20 mm length all of the other dimensions were derived – a ½ × 1 × 2 stone measured 10 × 20 × 40 mm. Richter introduced a whole new family of stones based on a 25 mm length. The 20 mm cube family of stones is known as **small caliber** (Kleines Kaliber, or KK), and the 25 mm cube family is known as **large caliber** (Großes Kaliber, or GK). Throughout this book, stones and sets will be identified as either **GK** or **KK**. Twenty five millimeters is generally known as a "metric inch"

and is within 2% of the standard English inch. The difference between 20 and 25 mm may not seem very large, but a 25 mm cube has about twice the volume of a 20 mm cube. And from a manufacturing point of view, the new GK family required a completely new set of tooling. But Richter realized that the GK stones and sets would be far more popular than the KK. It is clear that this difference in appeal was recognized right at the beginning -- not just because the investment in new tooling was made, but also because when the new sets were introduced in 1884 the largest GK set contained 881 stones, while the largest KK set held just 259. The importance of this difference can be even more fully appreciated when one considers that the largest GK set weighed over 45 lbs and cost $15.00, whereas the largest KK set weighed 12 lbs 2 oz and cost just $ 4.00. So from the very beginning Richter expected that the GK sets would be the more popular.

Richter was a master marketer. By the time he bought the stone block invention from the Lilienthal brothers, Richter had already built a large company with his over-the-counter medicines. Some of these medicines were quite effective, as were some of the patent medicines sold in the USA. Richter believed publishing and prestige were important support for massive advertising and successful merchandising of a broad product line. Also he believed that vertical integration maximized manufacturing profit. By 1874 he had already created a publishing (not printing) establishment in Leipzig to supply his advertisements. Like his earlier publishing venture in Duisburg[1], the Leipzig press also published school text books. There is no evidence that Richter owned a printer in Leipzig; the printing was done in Rudolstadt. To add his prestige he joined the Trade Association of German Publishers in 1875, and in 1882 he acquired the bankrupt Leipzig Teaching Materials Institute of Dr. Oskar Schneider (Leipziger Lehrmittel-Anstalt [Dr. Oskar Schneider]). Oskar Schneider was no longer involved with the business when Richter bought it. The publishing was added to the company. The building stones were shown at various exhibitions to gather awards, even if the exhibition, like the International Exhibition of Cement Products, Berlin, 1880, was not really applicable to toy building blocks. In his 1885 catalog, Richter bragged that the building stones had won 15 gold, 6 silver and 3 bronze medals. Many of the awards won by the stones were featured on the covers of the sets.

In 1884 four series of sets were simultaneously introduced, two in the 20 mm **KK** and two in the 25 mm **GK**, establishing those sets which later became known as "Alte Folge" (Old Series, Oude Reeks {Dutch} or more commonly **AF**). Since over the next four decades the Richter Company came out with "Neue Folge", "Neue Reihe", and "Neue Serie" sets, all of which translate into English as "New Series", all Anker block collectors use the original German terms or, more commonly, their abbreviations (**NF**, **NR**, **NS**); for consistency, the term 'Alte Folge', or **AF**, is also always used. As with **GK** and **KK**, this book will use the abbreviations **AF**, **NF**, **NR**, and **NS** to identify both stones and sets. Therefore, "GK-AF set # 19" means the large caliber, old series set # 19. By 1884 the Richter firm had built, and exhibited in Antwerp, a large castle -- over six feet high -- made with these stones. And in early 1886 Richter put out a catalog of loose stones and sets with 175 GK and 63 KK stones. This catalog was available in 13 languages![2] In this stone catalog identifying numbers were assigned to the individual stones.[3] People were invited to buy loose stones; both the designs and exhibition models shown in the catalog were illustrative of the sort of constructions a hobbyist could make. It is interesting that even this first catalog included stone shapes which were not then, and never were, found in any set. Richter had recognized the importance of the adult hobby market and had already begun to make stones for it. At that time, the adult hobby market was a very innovative marketing concept.

All successful children's toys seem to gather an adult following. But Richter was one of the first toy makers to specifically market his products to the adult market. In addition to publishing the catalog of loose stones, in 1887 the company put out its first "special set" - the House of the Pope. For the major tenth anniversary celebration in Rome of the papacy of Leo XIII, the factory built a large, scale model of the house where Leo was born. This model was exhibited in the Vatican and received a silver medal from the exhibition. A somewhat smaller model (2,608 stones) was offered for sale. This special set was followed the next year (1888) by two more sets, the Large Romanesque Church of 4,058 stones and the Large Bridge of about 1,817 stones. The instructions with all of these sets suggested gluing the stones together, but all of them can be built without using any glue. The hobby market was also supported by additional GK loose stones. In the 1888 catalog the number of GK shapes was increased from 175 to 226; KK stones remained unchanged at 63. By 1890, there were 338 GK stone shapes, all available in red and yellow, with the roof stones also available in slate blue, but KK shapes were increased by just 15, to 78. Eventually well over 1,000 GK, and 140 KK stone forms were offered in the company's Loose Stone Catalog and even more were fabricated by the company to fill special orders by hobbyists.[4] The company claimed that the Large Bridge was designed for an Indian prince, but it is likely that this claim was just imaginative thinking for advertising, not reality. During that period many of the very best luxury items, like highly finished firearms from the very best makers, were bought by Indian princes. Undoubtedly Richter felt it would be helpful advertising if he indicated that his building stones had been accepted by this class of trade. These special sets were not cheap, especially when compared to the average factory wage of about 25 marks ($10) a week. The House of the Pope cost 90 marks (54 Dutch Guilders or U.S. $ 40); the Large Church 110 marks (66 Dutch Guilders or U.S. $ 55); the Large Bridge 75 marks (45 Dutch Guilders or U.S. $ 37.50).[5] No one would think of these sets as toys for children.

Although the marketing of exhibition sets stopped before 1900, the exhibition models remained an important part of the Anker stone marketing effort right up to the end, in the early 1960s. The last major model, the Wartburg built by Hans Ludwig, was rediscovered at the Stiftung Deutschlandhaus, (Germany House Foundation) in Berlin. Today it is in storage in Schloss Heidecksburg in Rudolstadt.[6] This beautiful model is quite accurate and over ten feet long. It took Hans Ludwig more than 2,500 hours to construct this model of the Wartburg. Needless to say, the stones are permanently glued together.

Richter was also the first toy manufacturer to set the retail price of his wares and insist that the price was held. All of his catalogs included the retail price of all of the stones and sets. Purchases could be made at the local toy store or direct from the factory - there was no difference in price. Because the large sets were so expensive Richter included supplement sets in the AF series. A smaller set could be upgraded to a larger set by the purchase of a supplement set. Thus no set or stone was ever made obsolete. Every set was part of another, larger and more interesting set. The price of the larger set was identical to that of the smaller set plus the supplement set.

In 1886, the two KK series were merged at the top by the addition of the set KK-AF # 20; the GK, by GK-AF # 21.[7] It made no difference how one started out, Richter's sets could be increased with supplements and one ended up at the largest set (# 20 for KK and # 21 for GK) having spent exactly the same amount of money as if the very largest sets had been bought at one time. The two different KK and GK series were intended to accommodate any budget. One KK series reached # 20 in five steps, 1 to 4 to 8 to 12 to 20; the other took six steps, 0 to 2 to 5 to 9 to

13 to 20; where they ended up together. So the purchase of the 20 cent # 0 lead to the $7.00 # 20. Similarly, one GK series took eight steps to reach # 21, from 3 to 6 to 10 to 14 to 16 to 18 to 18A to 21; the other, six steps, 7 to 11 to 15 to 17 to 19 to 21 -- 60 cents to $21.00. In addition to allowing the building set to grow with the child and to never become uninteresting or obsolete, the supplement system permitted the parents to start a young child with an appropriate size set taken from a larger set of an older sibling.[8]

Supplement sets were identified by a suffix letter. Thus if KK-AF set # 9 was supplemented by KK-AF set # 9A, the result was a set identical to KK-AF set # 13. Other letters were used to differentiate supplement sets if necessary. In general the use of a higher letter indicated a larger supplement. Thus KK-AF set # 13B was a combination of KK-AF set # 13A and KK-AF set # 20A, a two layer set. But there were exceptions, even at the beginning. The difference between GK-AF set # 18, with its 653 stones, and GK-AF set # 21, containing 1,202, was too large. The upgrade was made by GK-AF set # 18A, Glück, containing 551 stones.[9] But in 1891 it was decided that this supplement set was just too expensive, so a new intermediate basic (not supplement) set, also identified as GK-AF set # 18A, Maan (in Dutch, German not known), was developed. Then to get from GK-AF set # 18 to the basic set GK-AF # 18A, Mann, one had to buy a different supplement set, also called GK-AF # 18A, Glut, of 329 stones. The supplement for this set (leading to GK-AF set # 21) was GK-AF set # 18C, Graf. Similarly the jump from KK-AF set # 12 was large enough to result, in 1890, in the creation of a new basic set KK-AF set # 12A.

Not one to miss any opportunity, Richter added double supplements to move one along the progression more rapidly and sets in elaborate boxes of "highly finished, elegant exterior, oakwood boxes with flap lid and fine strong lock."[10] These elegant oak-boxed sets were given numbers starting at 30. The content of these sets was identical to a regular set, but the numbering, and most catalogs, gave no indication which one. By now, the whole numbering system was so complex that one almost needed a degree in Richter Sets to know which set to buy. However, as the reader will see, despite the scraping all of the set and stone numbers in 1894 and the introduction of the **N**eue **F**olge numbers, the situation became ever more complex and confusing.

Model buildings look nicer if they have appropriate accessories. Sheets of printed figures were supplied with each AF set along with the plan books. These figures were supposed to be cut out and place around the finished building. But these flat cut-outs were not up to the quality of the buildings. So quite early, Richter sold accessory figures. By 1890 the accessory figure line consisted of 41 regular sets plus eight special Christmas crèche sets. The figures were made of porcelain, papier-mâché or sheet metal. The range of items was quite large, including trees, bars for lion cages, wagons, etc. as well as animals and people. These figures are very rare today. They lose their identity quite easily because only the boxes in which they came identify the figures as either Richter or Anker. All evidence indicates that Richter did not make the figures in his factory, but instead he purchased these figures from local manufacturers

Following his technique for advertising medicines -- the printing of letters of recommendation from satisfied customers -- Richter included in all his stone set catalogs, starting with the first one in 1884, letters of recommendation. He balanced the recommendations as much as possible, including educators, newspaper articles, famous people and ordinary customers. Starting in 1885 his catalogs included at least one letter from an adult hobbyist and another from a father describing how much his daughter liked the sets. Needless to say, letters from children were also

included. Seeing one's letter in print is a great incentive to send gushing endorsements. Although the 1891 USA catalog does not contain endorsements from any important Americans, the Cooper Union for the Advancement of Science and Art, New York City, wrote that the stones "have proved of the greatest advantage and usefulness &c." Some of the other endorsements, like the one from "Julius Greyer, Esq., Apothecary and Chemist, S.W. cor. Vine and Findlay Sts., Cincinnati, O." seem a little too self promoting, but one must remember that Richter knew the letter also supplied the address of a Pain Expeller retailer. This catalog is filled out with letters from Great Britain, Holland, Germany, Austria-Hungary, Switzerland, Denmark and Sweden. Endorsements fill more than ten pages of this 32 page catalog. But if these early endorsements seem unimpressive, one must remember that Richter was tireless in his efforts to obtain favorable comments from famous people in every country where his building sets were sold. And in Europe he had royalty from whom to obtain his letters. By 1900 he had gathered favorable and even quite strong recommendations from quite a number of important Americans, like the Catholic Archbishop of New York, the Commissioner of Education at the Department of the Interior, Thomas Edison, President Grover Cleveland, the Superintendent of the Catholic Schools in New York City, and many others.[11 & 12] One of the more surprising compliments came from A. C. Gilbert, of Erector Set fame, in his autobiography The Man Who Lives in Paradise. Gilbert wrote: "These stone blocks were very heavy, beautifully designed, and came in a variety of shapes that made possible the building of some wonderful structures."[13] But in the author's opinion, the very highest compliment came from the government of the United States.

During World War I all property owned by German nationals was taken over by the Alien Property Custodian. Most of the property was held in trust and returned to the owners after the war, but a small number of firms that were deemed important to Germany's war making potential were sold, with great care being taken to be sure that the ownership did not end up back in German hands. Much of the German owned chemical and drug industry in the USA suffered this fate, as did the New York branch of F. Ad. Richter & Company. The Richter subsidiary was not sold because of its patent medicine business, but because the building stones were considered to be a critically important factor in the development of the technical skills of German youth.[14] There may have been an element of truth in this accusation, as is illustrated by Nobel Prize (1954) winning physicist Max Born (1882 - 1970). He wrote in his autobiography: "The sets came with well printed brochures which contained the drawings and cross sections of horrible houses, castles, churches, etc. For the older generation the look of these buildings was according the styles they were used to, and the sets had a great educational value because if one made a single error in a single cross section and used the wrong stone, then one later ran into difficulties and could not complete the structure. I became fed up with this type of meticulousness very quickly and began to follow my own imagination - the results were admittedly, considered from an aesthetic point of view, quite a bit more dreadful than the printed plans and thus reaped ironic comments from the older generation, such as aunts and uncles. Therefore I decided to discover something new and wonderful which also satisfied me. It resulted in a new method, using building stones whose longest dimension was not more than seven or eight centimeters, of building bridges with a wide span (about one meter). I used no cement of any kind, rather applied the arch principle whereby I used small, wedge-shaped, blue building stones (which are normally used for roofs) as supports. These bridges were so elegant and amazing that they even evoked an admiring comment from my critical Grandfather Kaufmann."[15] Robert Oppenheimer (1904 – 1967) also played with Anker stones as a child.

In 1894 the Neue Folge (**NF**) series was introduced. And after a major factory fire in 1898, during which almost all of the inventory of printed plans, but not the lithograph stones, were destroyed, no more Alte Folge sets were supplied by the factory. The GK-NF series was assigned even numbers, from 0 through 34; the KK-NF sets were assigned odd numbers, from 1 through 21. Inexplicably, all of the stones were also renumbered. Supplement sets continued to be given a suffix letter, but the letter now indicated the number of layers in the box. For example, set GK-NF # 12A is a single layer supplement to set GK-NF # 12 (resulting in GK-NF # 14), # 12B is a two layer supplement to set # 12 (resulting in set # 16), # 12D is a four layer supplement to set # 12 (resulting in set # 20). This relatively orderly situation did not last long. By 1901 metal parts, for bridges and roofs, were added to stone building sets. Supplement sets (called Conversion Sets or Übergangskasten) that converted "all stone" sets to sets with metal parts were added to the line. The numbers were reused. In 1910 a (fourth) new series of sets with metal parts was introduced. These iron parts were painted with colored lacquer, not nickel plated as were the earlier iron parts. The sets containing these lacquered iron parts were given the odd numbers, just like the KK-NF series. The odd numbers had become available because the KK-NF sets were no longer in the main product line, although they were still available on special order from the factory. So now a # 5A could mean a supplement set in the lacquered iron (Roof Stone, or **DS**, or Dach Steine) series, a supplement set in any one of the three nickel plated iron series, a supplement set in the KK-NF series, a supplement set in the laying game series, a conversion set from the KK-AF series to the KK-NF series, or the no longer available supplement set within the KK-AF series. In fact, twelve different #5A sets have been identified -- two previously unknown sets were discovered as recently as 1992 in the records of the former factory in Rudolstadt. The company ended up printing special books to help the retailer determine which set was to be purchased. Even these books are far from complete, and they do not show which set had been the next set in the original series. They only suggest the current set which will give the customer a satisfactory transition to a then current series of sets.

The KK sets were dropped from the line shortly before Richter's death in 1910, but the supplement sets were still offered for at least another 15 years. The inventory of KK stones seemed to be infinite, when compared with the demand. Four new series of sets were introduced around the time of World War I. Fortunately these sets were given unique numbers -- sets starting with **100** are the Neue Reihe (**NR**; New Series); sets starting with **200** are the Modern House (American Bungalow) Series; sets starting with **300** are the Country House (Landhaus) Series; sets starting with **400** are the Fortress (Festung) Series. Innovation was quite limited after W.W.I. In the 20s came the Neue Serie (**NS**, New Series), a reissue of the GK-NF sets; the changes are new plans and slightly modified arch stones. After that only a few other stone building sets were created, including the **Lilienthal** and **Lilienthal 2**[16], although some effort was made to broaden the toy line with wooden blocks and more puzzles and games. The Anker Stone Building Block Company was dissolved and its facility was reallocated on December 31, 1963. Except for some completed sets, all of the stones in the inventory were given free to anyone who would carry them away. The balance was dumped just outside of the factory. Today there is a mound about three feet high, twenty feet long and an unknown number of feet deep which "bleeds" Anker stones. It is surprising that many of the stones, after exposure to thirty years of German weather, are still in quite good condition.

Just how popular were Richter's Anker blocks? Based on the printer's marks in the plan books, which generally provide the date and the planned press run, it seems that a few (probably between three and five, but certainly less than ten) billion (Milliarde) stones were sold. Of

course most of them are now lost, but today at least five builders own over 100,000 stones, and probably hundreds of collections exceed 10,000. The primary markets for the stones were Germany, the Netherlands, the USA, Austria, and Switzerland. The distribution was built before W.W.I and world events have made it almost impossible to get an accurate idea of sales in Eastern Europe, including Russia. In 1910, when Richter died, his company had its headquarters in Rudolstadt, and owned branches in Berlin, Konstein (Bavaria), Leipzig, New York, Nuremberg, Olten (Switzerland), Prague, Rotterdam, St. Petersburg (which had its own branch in Sablino), and Vienna. Other, short-lived, branches have been identified in Berlin, Bilthoven (Netherlands), Brussels, Copenhagen, London, Prague, and Reims. Note the failure of all of the British or French branches. The London branch was closed around 1900, after which the English market was handled by agents.[17] Probably the effect of the 1870 Franco-Prussian War was the main reason for the failure of representation in France. At its peak, the company's main products were chemicals, pharmaceuticals and patent medicines, phonographs and phonograph records (with a recording studio in Berlin), chocolate and cocoa, publishing, in addition to the stone blocks, which were made in Rudolstadt, Vienna, and to a lesser extent New York and Sablino, Russia.

If these blocks were such important and interesting toys, why aren't they more popular as collectors' items today? The simplest answer is weight. This virtue, which makes possible such large and beautiful buildings, is also the vice which makes the sets very inconvenient for dealers to handle. A relatively uninteresting and common set, a GK-NF # 6 with 105 stones, weighs seven and a half pounds; the slightly more interesting GK-NF # 12, with four trays holding 499 blocks, weighs 31 pounds. And no dealer will really want to take to a toy fair the largest of the more common sets, a GK-NF # 34, which contains 3,848 stones in a case 21 by 17 by 27 inches and weighs over 180 pounds. Sets missing stones and plans are hard to sell. Another problem is that, until a building is constructed, a set of building blocks is not all that interesting to look at. Few people see construction sets as does architect, sculptor and building set collector, Norman Brosterman. He wrote: "A model of a sailing ship is most interesting when assembled, while building blocks are most powerful and compelling in their unbuilt form, when they are not images of things, but ideas." To Norman Brosterman each set contains "not just one building but dozens, hundreds, an entire imagination full - whole cities waiting to spring forth under the touch of an interested adult or a curious child."[18]

Various Anker builder clubs have existed from shortly after the introduction of the building stones up to the present day. Very impressive buildings, some of which are pictured in this book, were built by active Anker block hobbyists of the production era. One might think that there is little new to be discovered about these blocks, but even today unknown sets -- and even whole series of sets -- are being discovered, and previously unknown block shapes are brought to light almost every year. As recently as 1990, a whole new series of Anker stones, the Roman Series, was discovered. Prior to then, only three of these stones were known -- two of them came as free "filler" stones in a shipment of loose stones from the Vienna factory just prior to W.W. II. The further chapters of this book will introduce the reader to much more interesting information about Anker blocks, the men who created them and the company which manufactured them.

Building Plans from a Very Early Georgens "Das Bauen" Set.
Notice that the arch stones in the lower right hand plan are multicolored.
This error was corrected in later printings.

III. The Early History and the Invention of Anker Stones

Richter, Georgens, and the Lilienthals

In the early 1830s Friedrich Fröbel (1782 - 1852), while head of the orphanage in Wartensee, Switzerland, became interested in the educational development of very young children. In 1837 he moved to Bad Blankenburg in Thuringia, Germany, and founded a pre-school educational institution for children between the ages of three and six.[1] In 1840 he coined the word Kindergarten. Fröbel recognized the educational importance of building blocks and established a series of six sets of blocks for his kindergarten. The first set was just a single shape, a sphere, which came in various colors - the "pure" colors of red, blue, yellow plus the "mixed" colors of gold, golden yellow and violet. The second set consisted of a cube, cylinder, cone and sphere in their natural wood color. These first two sets taught a child color and shape while the next four sets taught the important skill of recreating a two dimensional drawing in three dimensions. The third through sixth sets consisted of wooden blocks which were dimensionally related to each other. The third set had eight basic blocks; all of them were cubes two inches on a side. With these blocks the children could build over a hundred "life shapes", which were illustrated on pattern sheets. Since this third set had only cubes, the orientation of the individual blocks was not important, only their relative placement. But the fourth through sixth sets added blocks of different dimensions. The fourth set supplemented the third set with brick shaped blocks, one by two by four inches; the fifth set added prism (sloped or triangular) shaped blocks, two of which would form the basic two inch cube. The final, sixth, set added two different types of half blocks – 1 × 2 × 2 (a full cube, cut across the middle) and 1 × 1 × 4 (a half block, cut again, and then assembled lengthwise). Using these blocks a child learned very basic skills, such as the realization of a two dimensional plan in three dimensions and placing irregularly shaped objects correctly in relation to each other. Just returning the blocks to their box was educational -- having to place the irregularly shaped items in a proper manner. Improperly placed blocks might not leave room for the rest of the set or the next day a child might not be able to find the blocks he wanted because if two of the 1 × 2 × 2 blocks are stacked on top of each other they look exactly like a two inch cube, but if the same two blocks are placed side by side it is clear which ones are the cubes and which ones are the halves. While the limitations of wooden blocks, and the very young age of the builders, prevented construction of any true "buildings", the educational merits of blocks were well established. Even today, these skills are best taught with blocks. Another educational principle which Fröbel found to be very important was that the child had to build all of the examples on the plans before he was allowed to build according to his own ideas. Fröbel believed that mastery of basic technique is critical to creative expression.[2]

Fröbel's ideas influenced a number of people. Richter, Georgens and Gustav Lilienthal all built on the ideas of Fröbel. Although each one approached the question of the education of children from entirely different points of view, they came together in the late 1870s and their interactions resulted in Anker Stone Building Sets. A brief description of these three men, with special emphasis on Richter, who was the only one who had a continuing association with the building stones, will help in the understanding of the creation of toy stone building blocks.

Friedrich Adolph Richter was born in Herford, Nordrhein-Westfalen (Germany) on December 12, 1846, to master baker Friedrich Wilhelm and Christine Margarete Richter. He attended school there but quit high school to go to work for a druggist, Calvör. This experience was to be of great use to him in later life. No one can doubt that young Richter was "a young man in a hurry". He wanted to make money, lots of it. So while still in his teens he put an advertisement

in many newspapers. It read: "An infallible way to become rich will be given to everyone who sends a dollar. Richter". Within a very short time he had several hundred dollars in the bank. How did he answer the inquiries? By sending a preprinted post card carrying the message "Do the same. Richter".[3]

With money in his pocket he moved, first to Unna and then to Duisburg. The Duisburg city register shows him, on August 7, 1868, as single and employed as a sales clerk. Not one to allow his career to stagnate, he opened his own retail store on March 21, 1869, a store handling imported goods.[4] This part of Richter's career is easily traced because he was so firmly committed to advertising. The store's opening was announced in a large newspaper (Rhein-Ruhr Newspaper) advertisement. A week later he placed an even larger advertisement, offering food stuffs, cigarettes, woolen yarn, crockery, etc. Within a month, not letting his experience in Herford be wasted, the advertisements began to include medical nostrums. Foreign names added to the prestige of medicines in those days. French was no longer acceptable, due to the buildup of emotions preceding the Franco-Prussian War (in 1870). So English was used. Richter's tooth paste was "American Aromatic Tooth Powder", soap powder was "American Patent Washing Crystals", and tooth aches were driven away by "American Odontalgy Drops".[5] From July 1869, Richter was also the exclusive German distributor of Dr. Radway's Ready Relief, supposedly first made in New York in 1847. This preparation was sold predominantly as an externally applied preventative for rheumatism and gout. Richter decided it could be taken internally as well and that it was effective against exhaustion, dysentery, cholera, diarrhea, and much more. A bottle cost 17½ silver pennies.

Richter did not limit his interests to the retail trade. On June 5, 1869 he applied for the right to sell school books in his shop. He obtained from Mayor Keller a character reference on June 11th and managed to obtain by June 30th the whole school book marketing concession. On September 25th he opened his publishing company, complete with press, retail shops and street vendors. While it is likely that the mayor had thought that Richter would only be using his store to sell books printed by the established printers in the city, Richter's vertical integration of the whole function is quite typical of his approach to business. Richter's press was not just used for text book printing, it also produced advertising brochures and publicity books for his patent medicines. He called this new business the "Rhenish Publishing Establishment of Duisburg". In 1870 Richter began publishing an eight page newspaper, "The World in Change", which advised its "500,000 subscribers" about different disease conditions in various areas. Needless to say, it also recommended preparations, available from the Richter store, which could prevent or cure the various medical problems.

At the same time Richter continued to expand his store's business. A number of health drinks were very popular at this time, including such health and herbal-lemon beers as the "Alpine Herb Health Beer" (from R. Bohl of Berlin), which Richter sold in his shop. In September of 1869 Richter began selling "American Emperor's Drink" from Dr. John Jacoby -- a clear imitation of the then very popular "Emperor's Drink" produced and sold by Karl Jacobi of Berlin. As early as 1865 advertisements had appeared in Duisburg for Dr. Richter's electrically energized tooth necklaces. These necklaces were a velvet ribbon coated with sulfur. The ribbon was put around the neck of an infant and was supposed to facilitate teething by slight electro-chemical stimulation. These necklaces were the specialty of the A. Rennenpfennig factory in Halle and of course this "Dr. Richter" was not F. Ad. Richter. But the similarity of their names was used by F. Ad. Richter to add teething necklaces to his product line.

Richter added many other patent medicines, mostly from America. By 1870 he had opened a branch store and added a warehouse where he bottled bulk medicines. Dry products were not overlooked. From Dr. Cherwy, another of the fictional American doctors who were created by the manufacturers of the medicines, came "Coffee of Health" and "Celebrated Farina", a health flour. Graham flour is an example of a similar American product. The packaging operation was listed by Richter in the 1871 Duisburg census as a "chemical and pharmaceutical factory".[6] Richter understood just how important packaging was to successful marketing. The label of his "American Emperor's Drink" shows a hovering angel calling to the lame to: "Come unto me, all ye that labour and are heavy laden, and I will give you rest."

Three factors soon began to plague Richter's success. The medical establishment, both doctors and druggists, disliked any competition and worked hard to eliminate it; the people who manufactured the brands copied by Richter objected to both their loss of business and Richter's success; competitors sprang up. Only the first caused Richter any problems. No further mention will be made of the others, though it is amusing to read Dr. Karl Jacoby's vicious attacks on Richter. Richter and his medicines were the subject of attacks in newspapers, especially in the drug industry press. On June 1, 1871, a trade paper, referring to Dr. Cherwy's Cordial Drink, printed: "This item appears to be a pure North American swindle for which Adolph Richter of Duisburg has been named as the master distributor."[7] Various local ordinances were passed prohibiting the advertisement and sale of all health preparations by anyone who was not a druggist. The sale of health preparations was limited by a German national law on March 25, 1872, to pharmacies. Advertising and sale, but not manufacture, was forbidden. These laws were poorly enforced, but a success as great as Richter's would not be overlooked. On April 1st, 1873, Richter sold his businesses in Duisburg and moved. The Rhenish Publishing Establishment was dropped from the Duisburg Registry of businesses on April 2, 1873. Richter then tried Nijmegen (Holland); also in 1873, Luxembourg; in 1874, Leipzig and Nuremberg as well. Everywhere he went, he had problems with the local medical establishment, but he left a trail of Richter-owned businesses, which he managed to integrate into a synergistic conglomerate. Richter also made maximum use of his past experiences.

On July 1, 1874 Richter's Publishing Establishment was listed in Leipzig. "Dr. Adolph Richter" was admitted to the German Book Retailer's Association in October, 1875. His diploma, Doctor of Chemistry, came from the non-existent University of Philadelphia, and was dated January 30, 1873.[8] Richter acquired in 1882 the virtually bankrupt and moribund Leipzig Educational Material Establishment (Lehrmittel-Anstalt) which had been founded by Dr. Oskar Schneider, who was no longer associated with it. Various names were used on the many different publications and products, but all came from his Central Publishing House of Instructional and Occupational Materials. One of the first products was a girls' design game -- small, colored pottery tiles, which were to be arranged into attractive patterns.[9] Of course sample patterns were included with the tiles. This product, "Täfelchenlegen", is the earliest Richter "stone" toy known to the author.[10 & 12] This set, the earliest known Richter set, uses Richter's Lehrmittel-Anstalt trademark, "a squirrel in sitting posture holding a nut between his forepaws"[11].

Although later made with the more modern Anker stone material and renamed during the VEB era Anker-Mosaik set, the product was still in the company's line when the factory closed in 1963. His Leipzig branch brought Anker blocks came into the Richter family of products.[12]

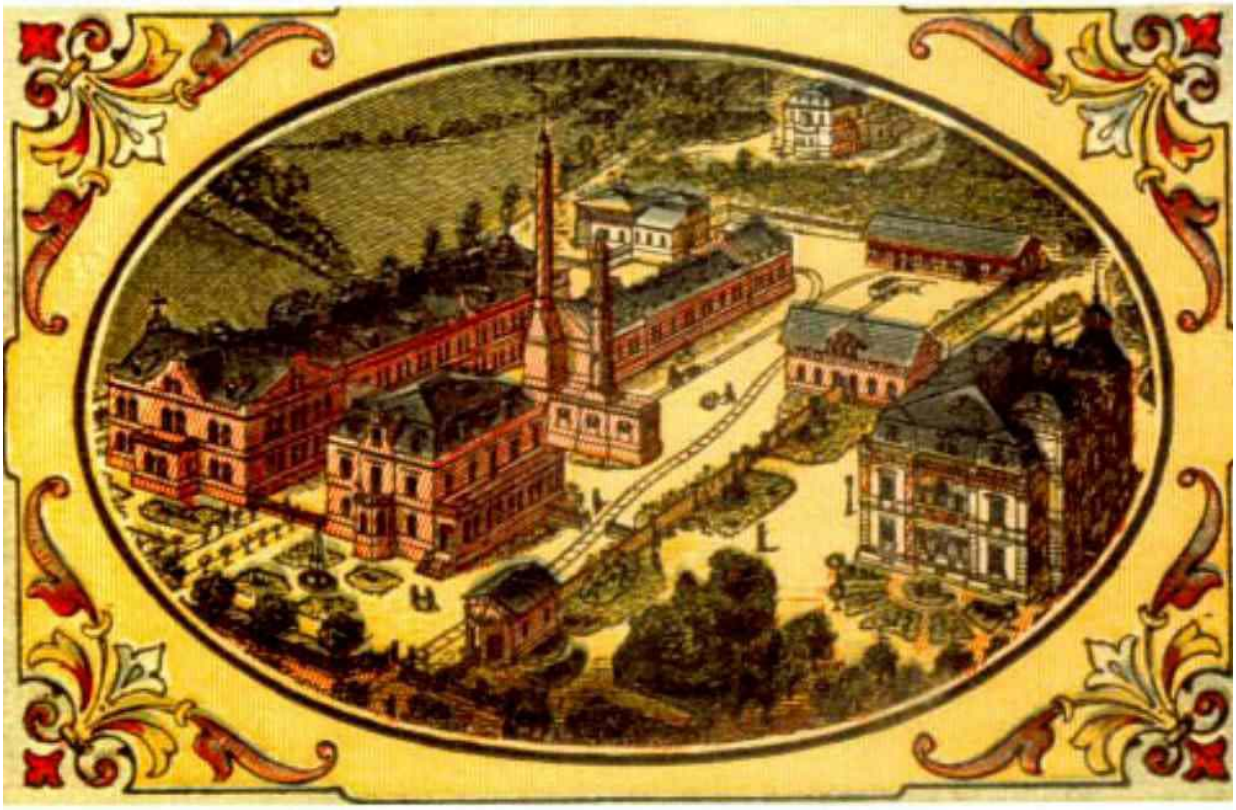
Before describing the creation of the building stones, it is necessary to describe how Richter ended up in the small capital city of Rudolstadt of the very small Thuringian principality of

Schwarzburg-Rudolstadt. Richter was continually trying to find a way to carry on his very profitable patent medicine business. But everywhere he was pressured by the medical establishment, often with the support of the very newspapers which carried Richter's advertisements. In Nuremberg, where Richter moved his patent medicine business in 1874, the Nuremberg City News and its editor, Monniger, attacked not only Richter's medicines, but also Richter personally. Richter sued. But when it became clear they would litigate, he withdrew his claim. The gingerbread (Lebkuchen) factory, which had been acquired as a base for his operations in Nuremberg, remained a part of the Richter industrial empire.

Finally Richter found the necessary technique to break through the opposition of the medical establishment. The law forbade both advertising and sale of medicine by other than pharmacies, but manufacture was allowed. But if the sale was legal in the locality where the medicine was made, there could be no complaint. So Richter decided on mail order retailing. Mail order retailing had developed in the 1860s, due to the establishment of the prerequisites -- an efficient postal system (rail) and a practical payment system (C.O.D. and postal money orders). Even today in Germany, and most of Europe, the postal banking system (Giro) is more widely accepted than any other form of non-cash payment. Foreign currency conversion problems were eliminated with a giro-cheque. During the (1870) war with France Richter's Duisburg firm had done a large mail order business with troops at the front or stationed away from home. For people sending items to men at the front it was much easier to use a mail order company than to purchase and ship the items themselves. Patent medicine manufacturers were among the first mail order retailers, so Richter was following a well marked trail. But Richter, as usual, did it better than his competition.

In 1876 Richter received permission from the local prince to build a chemical-pharmaceutical factory in Schwarzburg-Rudolstadt -- an independent principality about 85 miles (140 km) north of Nuremberg. In addition to being very small (about 300 square miles), the capital city of Rudolstadt (6,033 residents in 1861; 8,747 in 1880; 12,407 in 1900; 12,937 in 1910) lay on the main rail line between Munich and Berlin. Perhaps main line (completed through Rudolstadt in 1874) is not a strong enough description, as Schwarzburg-Rudolstadt lies in the Thuringian Mountains and this part of the Saale River valley was the only practical rail pass through these mountains. Richter bought a large section (about 26 hectares or 65 acres) of land west of Rudolstadt, where the Saale River curves from north to east. The land abutted the railroad and included the valley of a small tributary of the Saale. The factory was constructed in 1877/8, and was very impressive for the small principality. The complex had its own private rail station and spur line, its own electric plant with three steam driven generators, a water tower and a telegraph station. Richter built his own house next to the factory so he could enjoy these services, which were not yet available either in the city or even in Schloss Heidecksburg, the home of the prince. Not to be outflanked, shortly before completion of the factory, the Nuremberg druggists arranged for Richter to receive an official notice that, while manufacture of medical products was legal, these products could not be sold to the public, as such sales were restricted to pharmacies. Richter evaded this notice by arranging a contract with a non-existent pharmacy in Roda, Saxony. Products made in Rudolstadt were shipped to the "pharmacy" in Roda, which was really a central distribution depot.[13] By the time this subterfuge was penetrated in 1880, Richter factory was the largest in Rudolstadt, employing over 200 workers, and his company was still growing -- the high point was in 1910 when the factory employed 649 workers or 5% of the population of Rudolstadt. No one in authority in Schwarzburg-Rudolstadt saw any reason to take exception to his sales of medical products, and the loosely organized German Empire was

not ready to challenge to the local states on this type of issue. Effective regulation throughout the German Empire came in 1904, but by then Richter had established his medicines so well that they were "recognized" as legitimate "over-the-counter" drugs. In the USA, Coca-Cola was, from 1886 through 1903, a cocaine based patent medicine cure for headaches, especially those caused by a hangover. Any objective review of the history of pure food and drug laws, including those of the USA, will show that Germany was a good bit more advanced than other countries in its health regulations.



The Richter Factory in Rudolstadt, circa 1880.
Looking towards the North West.

Although Richter worked very hard to avoid contracting production out to others, he encouraged the expansion of his own business by any method, including co-operative ventures and private labeling. His Leipzig publishing establishment published (but did not print) school books, a business Richter had found profitable in Duisburg. The text book business brought Richter into contact with the Berlin educational establishment and Dr. Georgens.

Dr. Jan Daniel Georgens and his wife Jeanne Marie von Gayette-Georgens were quite well known for their work in the education of women and children. For the ten years prior to 1868 they had run the children's educational institute "Levana" in Austria. They moved to Berlin in 1868. Georgens worked at the Working Group of the Berlin Teachers' Union and was a committee member of the Educational and Teaching Materials Exhibition of the Berlin District Association of the German Teachers Union. This exhibition was organized in 1874 and was a permanent exhibition of the organization. Georgens himself was a strong advocate of

kindergartens and feminine handicrafts, like embroidery. He worked actively with other educators and artists on the creation of games and play things for children.[14]

In 1877 in Berlin Gustav Lilienthal, together with his sister Marie, opened on Elsässer Street (later renamed Fountain Street) the Work Place for Artistic Feminine Handwork. Gustav was a skilled artist with a solid understanding of classical design. The curriculum included the theory of clothing design and ornamentation as well as the designing of trim**,** as used on room ceilings, drapes, and women's and children's clothes. Gustav created books of patterns which were based on antique ornamentation. Gustav, like Georgens, was part of the Berlin circle of reform minded teachers, artists and intellectuals. So it is not surprising that Gustav Lilienthal and Georgens knew each other.

Note Gustav Lilienthal's Signature and the Many Corrections Made by Him, Including Changing the Name from "Der" to "Neuer".

In 1877 Richter's Leipzig publishing house created the second edition of Georgens' pamphlet series "School of Feminine Handiwork". The first edition had been printed in 1869, so it must have taken a long time to sell out. This new edition sold out much more quickly, possibly due to a smaller press run. A new, enlarged edition, with drawings, pictures and other visual aids, was begun. Gustav Lilienthal was hired by Georgens to do the illustrations and art work. Whether Gustav was actually paid by Georgens or whether he was counting on (in vain) the earnings from sales of designs by his workshop, is not known, though the latter seems probable. The Georgens book certainly emphasized that additional designs could be purchased from Lilienthal's Work Place for Artistic Feminine Handwork. While the Georgens pamphlets were in production, Richter and Georgens began a series of pamphlets and associated toys, both were called "New Kindergarten" (Neuer Kindergarten). It is possible that Georgens took the financial risk and Richter only published the book but not the printing, but subsequent events seem to establish that the project really belonged to Richter, and that Georgens received some appropriate compensation from Richter. In any event, it is certain that Gustav Lilienthal did the art work for this project also, as is shown above. This proof sheet from a box of laying rings, "Das Ringelegen", has many hand written changes signed by G. Lilienthal.[15] This toy, one of a series of sets containing rings, short rods (Das Stäbchenlegen), or tiles (Das Täfelchenlegen) intended for

laying out attractive patterns, was put out by the "Dr. Richter's Press and Educational Material Factory". The use of Georgens' name assured the buyer that the product was endorsed by an educator as suitable for the stimulation of a child's imagination. Gustav Lilienthal wrote in his autobiography that it was while making designs for these "clearly poor quality toys" that he decided to develop a building toy with "genuine aesthetic merit". He wrote that his pedagogical sense demanded that the sets should serve as an introduction to beauty, knowledge and life-like shapes, and that the use of the set should serve the child as a guide to the historical architectural styles in his environment. And for this purpose a stone-like material, rather than wood, was needed. However the reader of this book should keep in mind that Gustav Lilienthal's autobiography, written in 1930, describes how he wanted to remember his inspiration fully 50 years after the event and reflects his knowledge of the world-wide success that Richter had made of the Anker stones and the fame the stones brought Richter.[16] The autobiography also shows that Lilienthal thought that all of Richter's wealth came from the Anker stones, and no credit was given to any of Richter's other businesses or the importance of Richter's marketing genius.

Together with his brother Otto, who is quite famous as a pioneer in powered flight and gliders, Gustav began to develop an appropriate building material. Otto Lilienthal was a machine maker and had a small machine shop in Berlin. Gustav Lilienthal lived with his married brother in Berlin during this period. The approach they selected for the manufacture of artificial stones was a variation of the artificial stone used as a "core" for casting hollow shapes of iron or brass. A very similar material was also used to repair stone statues, especially those made of sandstone or coarse limestone. There can be little doubt that the Lilienthals did invent these building stones. Certainly there is nothing in Richter's background which would lead one to believe that Richter invented them. There is considerably more doubt as to which Lilienthal brother invented the stones. Most contemporary sources claim the stones were the invention of Otto Lilienthal, but Otto was the more famous brother and the invention may have been attributed to him for this reason. In the author's opinion, Gustav recognized the need and mentioned it to Otto. Otto, who knew about casting metal and the use of cores, suggested that core material might be readily adapted. It was so adapted, but by whom no one can tell. In any event, a formula (half sand, half finely ground chalk, plus coloring; mix well; add 25% by weight linseed oil varnish; mix; press in a mold until the linseed oil becomes free and runs out; dry by baking for eight days at between 100°C and 150°C[17]) was developed, and they undertook to make the molds. For some reason it seems that the molds were not made in Otto Lilienthal's machine shop. The resulting stone blocks were heavy, durable, and had a surface coarse enough to ensure that a structure made with them was not likely to fall apart easily. Gustav had thought that he could market these building stones, but it seems that he was not able to obtain an order for even one set, although he later claimed that a toy store on Leipzig Street in Berlin did allow him to put some stones in the shop window.[18]

The exact nature of the original Lilienthal set, or whether there even was a set or merely some loose stones, is not known.

The Lilienthal's toy building stone enterprise had failed and all of Otto's savings, about 4,000 marks, had been lost. In addition, they still owed 800 marks for molds. Richter stepped in and bought the idea, and the machinery, for 1,000 mark "profit". While I am not certain, it seems that, in addition to payment of the debt, Otto got all his savings back in addition to one half of the "profit", an additional 500 marks. Richter also had wanted a full non-compete clause in the contract but the Lilienthals resisted this demand. After a good deal of negotiations, the wording

was agreed on. The sale included an agreement by the Lilienthal brothers "from now on to renounce the manufacture of such stones" ("künftig auf die Produktion solcher Steine zu verzichten").19

Richter patented the process in Germany (# 13,770, submitted on October 8, 1880 and granted on May 25, 1881) and in the USA (#233,780, submitted on September 18, 1880 and granted on October 26, 1880). In Germany the patent was granted to Richter himself, as he was the one who filed the patent. But USA patent law required an oath that the person to whom the patent is granted is the "true inventor", even though the patent may be assigned to another. So the real inventors, Otto and Gustav Lilienthal, were granted the USA patent, which, of course, was assigned to Richter.

Gustav Lilienthal used his 500 marks to eliminate "the disappointments and annoyances of the dust of the home country" and emigrated with his sister Marie. Gustav moved to Melbourne, Australia, in the summer of 1880; Marie continued on to New Zealand. Actually, they had intended to go to Brazil, but when the boat arrived there they found that a revolution was in progress, so they just stayed on board for the voyage to Australia.

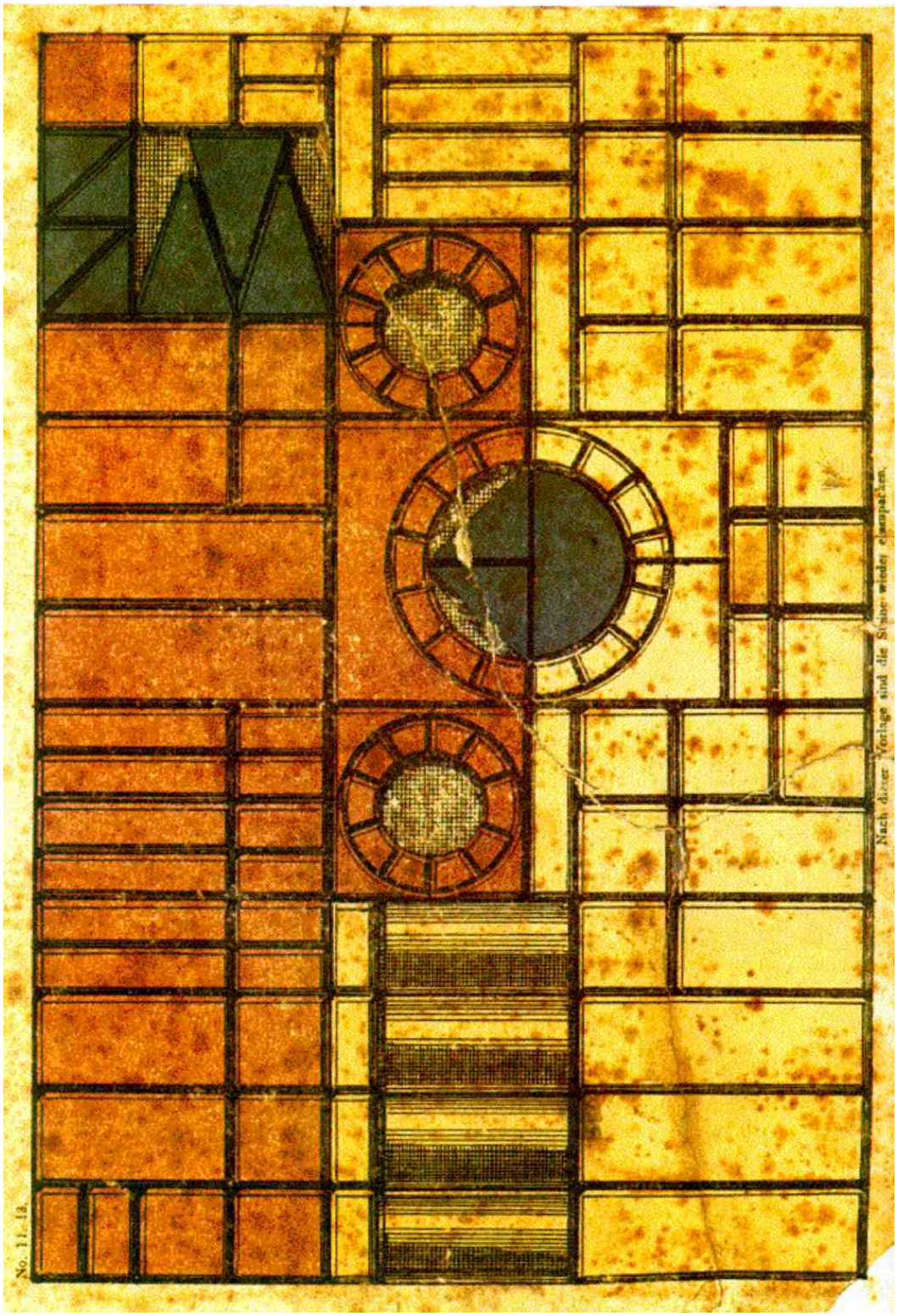
It has been reliably reported to the author that Richter's purchase of the Lilienthal's stone set business was reported in the New Kindergarten magazine, but the author has not seen this announcement. The exact date of the transaction is not known, though it is universally claimed to be 1880. Perhaps the Neuer Kindergarten announcement might help pin the date down.

The reader may think that too much emphasis is being put on the part that the Lilienthals, especially Gustav Lilienthal, played in the invention of Anker blocks, but the Lilienthals went back into the toy stone building block business in 1886, which caused two years of legal action. So this background is quite important to an understanding of the events in the mid-1880s.

Some Anker students have claimed that Gustav Lilienthal drew the designs for the first sets of blocks, "Das Bauen" or The Building, and that he worked for Richter for six months after the sale.[20 & 21] But Gustav's prompt departure from Germany makes this claim quite hard to sustain. It seems more likely that Richter just added the sets of stones to his "Lehrmittel" line of New Kindergarten products. Of course Gustav had already done extensive design work for Richter on plans for toys in this line. And Gustav may have drawn up building plans for his own use, both in his selling efforts and as part of the sets when they were actually sold. If any sets were made and sold before Richter bought the idea, no trace of them has come to light. None of the plans for the early sets of building stones, Das Bauen, give any indication that they were drawn by Gustav Lilienthal. We have examples of other Gustav Lilienthal designs; they are generally signed and most often dated. And many of the early building plans used in the Richter sets are both initialed and dated, so we know that Richter was not opposed to allowing an artist to put his identifying mark on his work. It is quite possible that some researchers have extended Gustav's earlier work on the New Kindergarten toy line to the first stone building sets. These sets, named "The Building" (Das Bauen, Het Bouwen, Architecture), also became part of Richter's New Kindergarten product line.

Photo of a Factory Building in the Anker Works, in Rudolstadt

The building has the date of 1882 (MDCCCLXXXII) over the door. The author believes that it is the "New Factory Building", which was built for stone block manufacturing in 1882. Photograph taken by the author in October, 1992. The location of this building is shown on the map in the End Notes section for Chapter XII.



A Georgens "Das Bauen" Packing Plan.
For set # 11, for which set the plans have been illustrated already.

IV. The Early “Das Bauen” Sets and the Lilienthal's Second Attempt to Enter the Building Stone Business

All of the known pre-1884 sets carry the squirrel trademark of Richter's Lehrmittel-Anstalt and the name "The Building" -- Das Bauen in German, Het Bouwen in Dutch, Architecture in English. Except for the very late sets, all have either the name “Georgens” or "New Kindergarten" (Neuer Kindergarten, Nieuwe Kindertuin[1]) on the cover. These sets are definitely Richter. As part of the arrangement with Georgens, Richter used the Georgens name on these building stone sets. This use of “Georgens” was a typical example of Richter's understanding of the importance of public recognition of the quality of his products. Many of these very early sets have covers in the Dutch language (Het Bouwen), showing the beginning of international marketing of these “Patent Stone Building Sets”. Richter's Rotterdam office was one of the first (perhaps the very first) foreign branch offices he established and Holland was an important market for his medical preparations. The number of different stone shapes in the sets was small - from 10 to 16, and the stones are in the primary Fröbel colors (red, yellow, and blue). In addition to the rectangular shapes, two different sized arches were included, as well as columns, roof stones and spires. All of the sets contain KK (Kleines Kaliber, or small caliber) stones, which is to say that the basic dimension is 20 mm.[2] Although it has been claimed that the Lilienthals introduced sets of the GK (Großes Kaliber, or large caliber, with a basic dimension of 25 mm) stones at the same time as the KK stones, all of the early sets known to the author are KK sets.[3] In addition, it seems highly unlikely, considering their financial situation, that Lilienthal brothers would have invested in two full sets of molds for the production of building sets in two non-interchangeable stone sizes, and even less likely that Richter would have kept the GK molds on the shelf for four years in favor of manufacturing only the KK stones.

On December 21, 1880 a newspaper account of a visit to the Richter factory reports that "building set stones of a unique material" were being made by the firm.[4] The earliest known indication of Richter offering stone sets for sale is mention in an advertisement in the Rudolstadt Newspaper on December 16, 1880. In 1881 a Richter Dutch language publicity booklet mentions the stone blocks. In this booklet is a quotation (which reads like a quote from a Richter advertisement) from issue No. 2, 1881, of the Bazar, the most influential women's magazine in Germany at that time.

By 1882 Richter must have decided that the stone building set business would be a success. He built a special building in his Rudolstadt factory area for making stones.[5] We are not sure which of the current factory buildings was this first stone factory, or even if the building has survived, but the "building block" style of one of the buildings, and the 1882 date over its door, indicate that it is probably that building. (See the picture on page 21.)

English language sets were only introduced at the very end of the "Das Bauen" era. These English language sets use the same label as early Alte Folge Sets.[6] Late in this "Georgens" Das Bauen, 1880 to 1884) period some Dutch language sets were sold with labels not carrying Georgens' name but only the identification "New Kindergarten" (Nieuwe Kindertuin). All labels in the German language carry both the Georgens name and "Neuer Kindergarten", as do most of the Dutch sets, including all of the larger sets. As there are no printer's marks (fortunately, a common feature starting in 1884) on the labels, it is not possible to tell whether these sets date from the earliest part of the period or the last when Richter was phasing out the whole Georgens line.[7] But there are good reasons to accept the later date. Unlike most of the other sets, the "non-

Georgens" sets have a packing plan label on the inside of the lid. The packing plans are marked with the set number. The packing plan feature is standard in the Alte Folge sets, which were introduced in 1884 and replaced the Das Bauen sets. The building plan booklet of these sets with packing plans have eight pages, and the plans were specific to the set, not just indications of the types of building which could be made with these stones -- also features not found in most Das Bauen sets. Since the building sets had begun to gain a reputation of their own, Richter may have discontinued the agreement with Georgens regarding the use of the Georgens name. In fact, since Richter planned to introduce several whole series of sets as replacements, one would expect Richter to have phased out use, especially outside of Germany, of the Georgens name. The reader should also keep in mind that Georgens died in the fall of 1886, so he may have been ill when Richter began to phase out the use of the Georgens name. One set's label reads: "**The Building**; New Kindergarten; Central Publication for Education and Amusement"; another reads: "Georgens; **The Building**; with real stones for children from 7 to 9 years old".

Georgens sets were numbered, but little sense has been made of the numbers. It seems likely that the sets were numbered in order of introduction, from 1 on up to at least 25, with # 1 being the first one introduced. Virtually all of these early sets are the same size -- holding a stone layer measuring 170 × 260 mm. The smallest known set was # 0, with 43 stones, is packed in a cardboard, not wooden box.[8] Its stone layer measures 120 × 190 mm, about half of the more common size. Set # 3 is the standard size. Two layer sets were made, with identical contents in each layer. Set # 7 contains 83 stones; set # 9, two layers totaling 162 stones.[9] Set # 11 contains 87 stones; set # 13, two layers totaling 174 stones. Both sets #s 7 and 11 have the standard size layers.

An odd set carries the Georgens label. It is a 173 stone set that is totally AF in style, and the set is very similar to the 182 stone set KK-AF # 12. Another Georgens set, # 25, is described in an 1883 advertising leaflet, but no example has been found. It is a two layer set containing sets # 20 and 24; the stone total of 259, which is the same number as the two layer KK-AF set # 13.[10] Both sets sold for 10 marks. It is also quite possible that these enlarged Georgens sets were really AF sets being used to fill orders from catalogs still carrying the Georgens sets. In any event, it seems that Richter executed a smooth transition from the "Georgens" period to his own "Patent Building Stones" era.[11]

In 1884 the four new series, which later became known as the Alte Folge (**AF** or Old Series), were introduced as replacements for the then current "Das Bauen" sets. Of course Richter, as a good merchant, phased over to these new sets, so the new Alte Folge sets were, at first, also called "Das Bauen".[12] As late as 1885, Wagener's "Illustrated Toy Catalog for Boys" carried the "Georgens Building Stone Sets". While in his 1930 autobiography Gustav Lilienthal strongly objected to this catalog's claim that "the building stones were invented by Georgens", it would be hard to say Richter objected; after all, he had authorized the advertisement and supplied the copy. Such an attitude was entirely in character for Richter. He seems to have had little objection to giving away the credit as long as the product sold well and the money made was his.

In the Annual Report for 1883 of the Schwarzburg-Rudolstadt Factory Inspection Service, Government and Building Advisor Brecht wrote, among other things: “An unusual industrial branch, which began in the year 1880, has had such a rapid expansion that a mention might be made here. The firm of Dr. Richter & Co. manufactures here itself building sets of stones of great neatness and precision. The stones are made in different shapes and colors, to which a great number of mathematically correct, in perspective plans are added so that the pedagogical

value is not to be underestimated; specifically there is a grouping of the sets and their plans for children of specific ages. Started with 3 workers, there are now 50 people already engaged, and the number will probably rise to 80 in the year 1884. In the year 1883, 42,000 building sets were sold at prices from 1 to 12½ marks and the orders were barely filled. Initially the foreign countries were not interested, as their needs come mainly from the Thuringian forest products industry; but now England, Holland and Austria buy a considerable quantity. The exports to Russia, France and America are not high due to the import duties, because the building sets are classified as toys. This industrial branch, which is patented in all countries, brings this country a double portion of business, in that the sets are delivered in boxes, 42,000 pieces of the original value of 0.25 to 3 Mk, from the wood industry of the forest.

"If we assume that these sets are displacing the less exciting wooden building sets more and more in the imagination and consideration of children, then the above described new industrial branch may develop itself into still more commercial value."[13]

It is interesting to note that the cost of the wooden boxes seems to have been about a quarter of the total cost of the stone building sets.[14] Until the end of production in 1963, sets were sold in wooden boxes. Only the very smallest of sets were packaged in cardboard boxes. The stones are heavy and therefore sets of more than 50 stones require the stronger packaging of wooden boxes.

The development of two virtually identical series of stones requires some explanation. It seems certain that the first stones were KK, or of the basic dimension of 20 mm. The metric system had been adopted in 1868, replacing the inch and foot which varied from country to country and even region to region. On the outer wall of the old Rudolstadt City Hall, built in 1524, there are a pair of marks which define a "yard" in the Rudolstadt marketplace.[15] This "Rudolstädter Elle" defined the standard of measure for cloth and linen dealers in the city. Such local definitions were definitely needed before the metric system. But the inch has a real advantage over the metric centimeter. For some reason, an inch is more "human" in size than the centimeter, not unlike the pint or pound, which is why the metric pound (500 g vs. 453g), metric pint (½ liter, or 17.6 oz.) and the metric inch (25 mm vs. 25.4 mm) still exist and are common packaging sizes.

A building made from KK stones just seems too small and not as attractive as the same building made from GK stones. Someone at the factory must have recognized this problem very early and changed the basic dimension from 20 mm to the "metric inch", or 25 mm.[16] Of course, a whole new set of molds had to be made, a very costly undertaking. But Richter was too good a merchandiser to push ahead with the 1884 introduction of a completely new series of sets which suffered from such a readily correctable handicap. And it is interesting to note that, when the Alte Folge sets were introduced, all 19 of the basic sets plus their supplement sets were announced at the same time. The largest GK set contains almost three times as many stones as the largest KK set. The very first GK sets carried the "Das Bauen" name, but these GK sets are Alte Folge.

Based on the chronology, the Alte Folge series should be described right now. These sets were introduced in 1884. But in the very early days of the Alte Folge, and not really influencing its evolution, the Lilienthals attempted to re-enter the toy building stone business. So the details of the Alte Folge will be postponed until this second, and final, chapter in the Richter - Lilienthal story is recorded.

The Lilienthals had not forgotten their toy building stones, but their financial situations had improved quite markedly. Gustav Lilienthal had immigrated to Australia in 1880. He found

work as an architect in Melbourne and became quite successful. There are many examples of his work there, as well as a lot of records. He had earned enough by 1885 to spend the summer with his sister in New Zealand and then take a one year vacation in Europe. It seems quite likely that Gustav didn't plan to return to Australia because his brother, Otto, was urging Gustav to return to Berlin so they both could work together on their efforts in aviation. Like Gustav, Otto's circumstances had improved greatly. Otto had created a very small steam engine and boiler with which he intended to power an airplane. In early 1881 he got a patent on the boiler and in that same year established a workshop to make the boilers. The compact boiler was very well received and his workshop quickly grew into a factory. Otto was quite prosperous. By 1885 Otto had put all thoughts of toy building stones out of his mind, though earlier, in 1884, he had patented, at Gustav's request, an automatic press for making building stones. To keep Richter from knowing about this development, the patent was filed under the false name Victor Lenglet of Paris. On October 27, 1885 Gustav Lilienthal of Melbourne, Australia, filed for a USA patent on a new formula for making artificial stones. A patent (# 335,707) was issued on February 9, 1886. Exactly when Gustav returned to Germany is not clear, but it was probably in the fall of 1885. Between his return and July 1886, when he moved to France to avoid the consequences of Richter's successful breach of contract suit, he met his future wife (Anna Rothe), persuaded Otto to cooperate in a new building stone venture, had the machinery made in Otto's shop and introduced the new Lilienthal building sets at the 1886 Leipzig Spring Fair.

Needless to say Richter found out about this new toy building stone competition and filed a breach of contract lawsuit against the Lilienthals. Perhaps there was an honest difference of opinion about whether the contract had been breached. Richter, as a sales oriented person, undoubtedly felt that "from now on to give up the manufacture of such stones" ("künftig auf die Produktion solcher Steine zu verzichten") meant stones of virtually the same look, feel, and purpose. The Lilienthals, as technical people, seem to have felt that the contract was limited to stones made by the same process, i.e. sand, chalk, and coloring, plus a linseed oil binder. The new Lilienthal stones used a casein binder instead of linseed oil, and did not contain sand, only chalk. The new stones are quite hard to distinguish from the linseed oil stones, although the casein stones weighed a little less, about 10%, have a slightly smoother surface and are not quite as cool to the touch. As Gustav wrote to Anna Rothe: "I do not want to take lawful property from anyone. In my conscience I feel no shame at the attempt to make the judicial order ineffective. Absolutely never have we signed a contract with Richter with the intention to never again make stones."

To escape Richter, Gustav moved to Paris in July, 1886. This event produced a great exchange of correspondence between Gustav and Anna Rothe. Fortunately the correspondence has survived. They exchanged letters every week! Richter won the suit. Otto and Gustav were ordered to pay Richter 10,000 marks in damages and 1,000 in court costs, but were not ordered to stop making their stones. They refused to pay Richter and filed an appeal. Richter countered by getting a court order sealing the production equipment until the judgment had been paid. But as Gustav wrote to Anna on July 12, 1886: "Fortunately we have prepared everything rather well, so that the only apparatus sealed were those which we had found not to be useful, although they look extremely correct. Since these items are not described in the accompanying list more accurately, we believe that Richter will suppose that he has found the golden eggs of the goose."

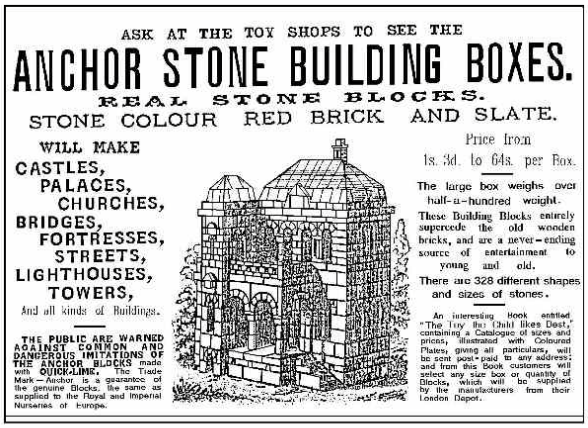
From this same letter we learn how he kept the production equipment in Germany, under the name of a straw man, Fritz Voss, at a new address. The plan to move the production equipment

to Paris, and thus out of Richter's reach, was frustrated when their small factory, along with about 20 other medium sized factories, was destroyed in a fire. So Gustav, along with his friend, the patent attorney Dittmar, opened a shop at 37 Avenue l'Opera. The stones were made in Berlin and shipped in bulk to Paris. According to Gustav's letters to Anna the business prospered, although the small number of sets known to have survived, eight, argues against his claim. He wrote that the key to sales was a display model in the shop window; he wrote that "without a model, they do not sell" and "Castles and churches are the two favorite buildings of the public." One cannot doubt that his second statement was correct, as castles and churches are the favorite construction projects of virtually all Anker block builders. Gustav's letters to Anna bragged about the great success of his stone building sets in France and other foreign markets. That Richter's sets sold poorly in France is not surprising, considering the feelings of the French against the Germans; the advantage of selling a "French" product against German competition cannot be minimized. Lilienthal sold his sets all over France, and added agents in Belgium, Portugal, China, England and America. In July, 1887, he went to England and by October had sold 3,000 sets and reorders were starting to come in. He wrote that the sales were so strong in America that he was thinking of immigrating to New York if Anna would come with him. All of the known Lilienthal sets were found in England.

The sets of this second effort by the Lilienthals were also based on small caliber (KK) stones. This choice of KK is quite surprising, as Richter had begun producing the large caliber (GK) stones in 1884, two years before Gustav exhibited his new stones in Leipzig. By 1885 it was perfectly clear that the GK sets were far more popular than the KK sets. Although the new Lilienthal sets introduced several novel and very useful stone shapes, there is no indication that Richter ever copied them. In his 1930 autobiography Gustav wrote that Richter was vindictive and always used legal action to chase out the competition, but the facts do not justify this claim. Richter seldom challenged his competitors in court, preferring to fight it out in the marketplace where he was very confident of winning.

Richter's problems with the increasing level of regulation of the drug and pharmaceutical industry had taught him the value of top quality legal advice. Richter seems to have had much sounder legal advice than the Lilienthals. Gustav had thought he could push Richter into dropping the suit by challenging the validity of the original patent that Richter had obtained. The brothers knew that the patent could be invalidated (in Germany, but not the USA due to differences in the patent laws) because the basic process had been taken from an old building technique manual -- even though the material was used for an entirely different purpose. Lilienthal arranged for a complaint to be filed by a friend who was in the German government.[17] Lilienthal's strategy was to withdraw the complaint if Richter agreed to not defend against the appeal. But Richter's actions show that in 1886 he had already accepted that the patent was going to be lost. In that year, before the patent was invalidated in Germany, two brothers who had worked for Richter in the stone manufacturing plant in Rudolstadt quit and started their own toy stone block company, also in Rudolstadt.

The Keller Brothers factory competed with Richter for 25 years. The Keller Brothers produced only KK stones, which may be why Richter took no action against them. There is some evidence that Richter sold them some KK stone inventory. Richter bought them out in 1910, when one of the brothers wanted to retire (the other went to work for Richter) and after Richter had already been diagnosed with the cancer that caused his death on December 25th.[18]


ASK AT THE TOY SHOPS TO SEE THE

ANCHOR STONE BUILDING BOXES.

REAL STONE BLOCKS.

STONE COLOUR RED BRICK AND SLATE.

WILL MAKE
CASTLES,
PALACES,
CHURCHES,
BRIDGES,
FORTRESSES,
STREETS,
LIGHTHOUSES,
TOWERS,
And all kinds of Buildings.

THE PUBLIC ARE WARNED AGAINST COMMON AND DANGEROUS IMITATIONS OF THE ANCHOR BLOCKS made with QUICK-LIME. The Trade Mark—Anchor—is a guarantee of the genuine Blocks, the same as supplied to the Royal and Imperial Nurseries of Europe.

Price from
1s. 3d. to 64s. per Box.

The large box weighs over half-a-hundred weight.

These Building Blocks entirely supercede the old wooden bricks, and are a never-ending source of entertainment to young and old.

There are 328 different shapes and sizes of stones.

An interesting Book entitled "The Toy Box Child likes Best," containing a Catalogue of sizes and prices, illustrated with Coloured Plates, giving all particulars, will be sent post-paid to any address; and from this Book customers will select any size box or quantity of Blocks, which will be supplied by the manufacturers from their London Depot.

Advertisement from a London Newspaper, 1887

In the 1888 addendum to the 1887 catalog Richter changed the name of the stones from "Patent Building Stones" to "Anker Stone Building Sets" (Anker-Steinbaukasten). Simultaneously the Anker trademark was added, although the squirrel trademark continued to be used, along with the Anker mark, for another ten years. Even though Richter seems to have taken the loss of the patent calmly, he did not ignore Lilienthal's competition in the market place. Some 1886 and 1887 British advertisements stress the point that the stones of his competitors contain "Quick Lime", which was well known as a deadly poison, while his stones did not contain any poison. Of course, the quick lime (CaO) had completely reacted with the casein and was not at all harmful in the Lilienthal stones.

Richter was not frightened by the Lilienthal strategy and countered with a suit, in March of 1887, claiming that the Lilienthal patent application in Germany, filed on November 7, 1886, was invalid because the stones were the same as his stones. In July a hearing was held and the Richter patent was ruled invalid (effective October 1, 1887) while the Lilienthal German patent, using strontium oxide as a hardener, was held to be valid. The notice of revocation was published on October 27th and Lilienthal's patent was published on October 28th. As a result Gustav returned to Berlin from Paris in late October. Gustav was certain that since Richter had lost the patent case he had also lost the breach of contract suit. But Anna Rothe could not follow his reasoning. She wrote in July: "That you are protected by the strontium patent I believe, because you say it, but I can neither understand nor comprehend it." The Lilienthals' world collapsed on November 5, 1887. The German Court of Appeals ruled that the issue of the validity of the patents was not an issue in the lower court judgment; the lower court's breach of contract judgment was upheld.

The Lilienthals had spent over 15,000 marks on the suit, which had consumed all of their money, and they still owed Richter the original 10,000 mark judgment. Richter agreed to settle for the production equipment. Richter did not force Otto to liquidate his machine shop to pay the judgment. Clearly Richter did not want money; he wanted the Lilienthals out of the building stone business. Otto Lilienthal had all of the equipment disassembled transported to Rudolstadt. An engineer from Otto's shop reassembled it in Rudolstadt and the machinery was working properly when he left Rudolstadt. Right after he left, the stone making machinery broke down, never to work again. Gustav wrote that it had been deliberately sabotaged.

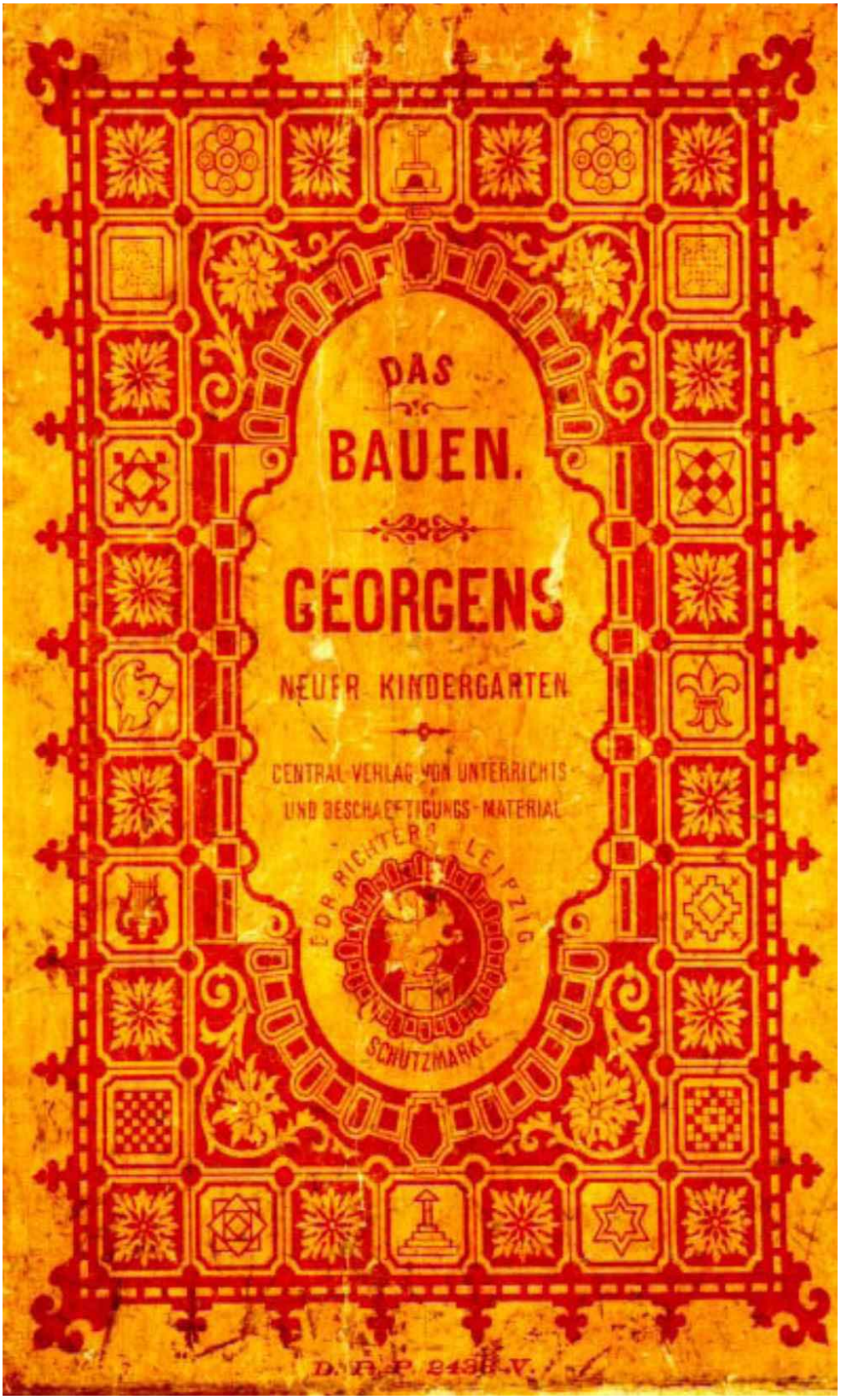
Both Lilienthals continued to reside in Berlin and went on to be successful. Otto's life was cut short in a glider accident in 1896, but he was a major contributor to the science of aeronautical engineering and the Wright brothers were greatly influenced by his work. Gustav claimed in his autobiography that the understanding of the aerodynamics of flight was really his contribution, based on observing sea birds during his voyage to Australia. But history has given the credit to Otto. Gustav continued his career in architecture in Berlin. Many of his houses in the Lichterfelde section of Berlin can still be found there today; they are excellent examples of

Gustav's extraordinary architectural ability. He continued to invent building toys, but never again entered the toy stone block business.

If the Lilienthals had chosen to pay Richter the damages, they might have succeeded in becoming major toy manufacturers. Otto had successfully automated stone production, an achievement never again duplicated in the history of Anker stones. “A Tour through the Work Rooms of F. Ad. Richter & Co.”, a brochure written in a 1906 includes: "Everything is done by hand, and for each stone there is a measuring device which guarantees the mathematical precision of the stones. Costly attempts have been made with automatic machines, but always the firm has had to go back to hand work again because fractions of a millimeter are important. A number which speaks for itself: more than seven hundred stone types are being formed here! And it goes quickly, despite the controls which are needed. The manufactured stones are checked once again by the women and then sorted into boxes."[19] Certainly the Lilienthals had a cost advantage over Richter. As we have seen, Richter was very anxious to obtain this automated equipment. Of course one may doubt that either of the Lilienthals had the marketing skills to compete successfully with Richter in Germany. But in France, or New York, commercial success would have come much more easily.

It is interesting that Gustav Lilienthal had again patented a known material. The casein process was used for almost all button manufacture at that time, although formaldehyde was used more commonly as the hardener than quick lime. Lilienthal added chalk as a filler, plus coloring. His German patent, in contrast to his USA patent, stressed the importance of using strontium oxide instead of common calcium oxide as the hardener. But there is no meaningful difference as far as the product is concerned; therefore the German patent, while valid, provided no useful protection at all. Never again did Richter claim his stones were patented, except in the USA, where his advertisements continued to carry the "Patented" claim until the patent ran out in 1896. Sets with USA labels also carried notices of his new patents on metal parts and a new formula for making stones. The 1902 and 1910 recipe books, which were still in the Anker Works in Rudolstadt in 1992, contain both the linseed oil and the casein formulas, plus a previously unknown one using Sorel cement, which results in water soluble stones.[20] The location of these books today is unknown.

The remaining portion of the history of both Richter himself, and the company he owned, is quite interesting and will be covered in Chapter XII of this book.



Cover Label from a Georgens era "Das Bauen" Set

V. The Stones, Exhibition Buildings, and Special Sets

It is hard to praise a one inch cube of ersatz stone -- an Anker stone. But it is worthy of praise. Somehow it is "right". Peter L. M. van Hulten, architect for the Dutch National Building Service, described how an Anker stone "feels good in the hand, a cool and pleasant feel. I think that an important part of the fascination of this material also lies in its tactile qualities -- the solidness, the coolness, the precisely correct weight; the very qualities, for example, that a good coin has. Lego has a lot of qualities, but not these."[1] In addition, the stones have a distinctive but subtle scent which is quite pleasant, but fades from notice within a minute or two of entering a room where Anker stones are stored. This scent comes from 'real' boiled linseed oil; modern boiled linseed oil is not actually boiled; it contains chemical hardeners instead. Thus no scent.

The stone material is actually an artificial stone, as we have read in the description of its development in the last two chapters. The result is a "stone" which is quite like natural sandstone. A combination of sand, finely powdered shells and organic binder is very close to an analysis of natural sandstone. The Superior Court of New York, on December 2, 1891, confirmed that Richter's building blocks were "stone", while those of a competitor, The Reform Stone Building Box Company of Eppendorf, were not.[2]

The stones came in over a thousand different shapes and sizes, including Gothic and Romanesque arches, plain and fluted columns, six different roof slopes and special stones for both square and octagonal corners. All stones were available in the basic colors of pale grayish-yellow and brick red; roof stones also came in slate blue, which was changed after WW II to a brighter blue. Other colors were made to meet special needs, like gray for a series of fortress stones, green to imitate copper roofs on (then) modern factory buildings and houses, and black.

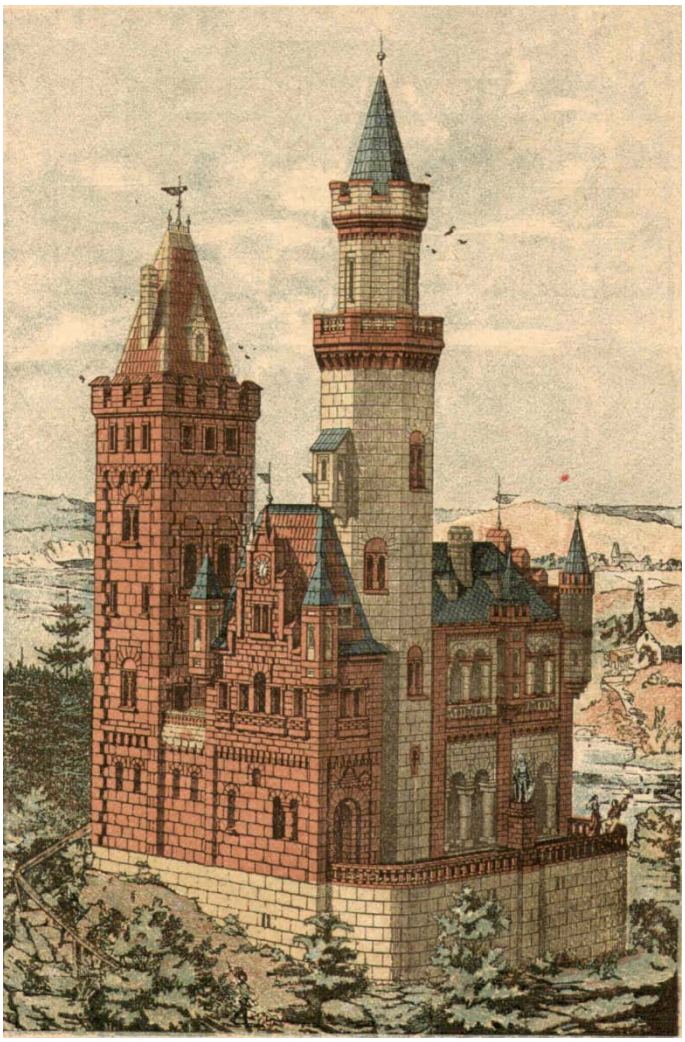
Perhaps the best way to describe Anker stones is to let the reader see the buildings made from them. Before going into the details of the many and varied series of sets, the reader should be given an understanding of the possibilities open to a builder who has an adequate inventory of stones. Most builders accumulate a stone inventory which does not reflect any particular set. All of the designs found with the sets may even be viewed as "exercises", leading to the design and construction of major buildings. But one of the most difficult of building problems is creating an attractive building for a particular selection of stones. Even the most skilled "free-style" builders have the greatest respect for those who can "design for sets".

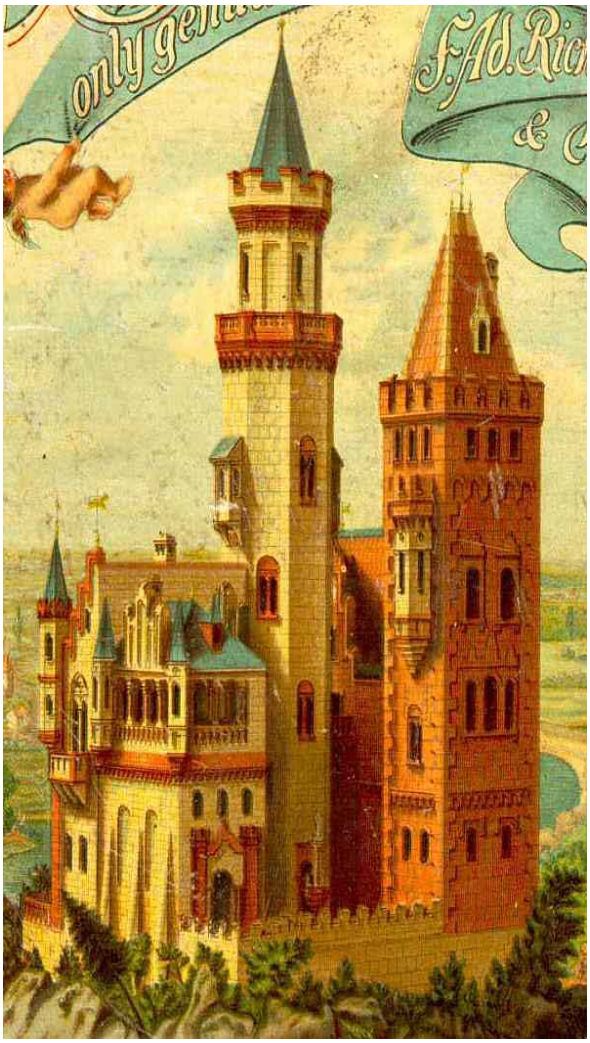
Very large buildings can be constructed, and sheer size is impressive. The preciseness of the dimensions, certainly within one tenth of a millimeter, four mils in English measure, allows one to make stable walls of significant height. The stones are heavy enough, and their unpolished surfaces rough enough, to insure that the stones will stay in place unless actually knocked off. Most builders will not use glue or double-sticky tape to hold a stone in an "impossible" position. Some builders, the author among them, are "purists" who eschew any adhesive, even if it is only used to steady a quite possible structure.

Richter, ever the showman, took immediate advantage of the building stones' possibilities. The first exhibition model that we know of, the **Large Castle of 1884**, was built in that year. Note that "**große**" can be translated as "**great**" or "**large**". Many other exhibition models were to follow. It was the era of grand expositions, and Richter was determined to win his full share of gold medals. From Richter's introduction of the building stones until the St. Louis World's Fair in 1904, Anker-Stone-Building-Sets virtually always won prizes. No prizes were won in St. Louis because Richter himself was elected chairman of the International Prize Jury on toys, so he

withdrew his Anker blocks from the competition.[3] The company itself, the branch offices and factories, and individual builders -- all built large "exhibition quality" buildings. Many of them are models of actual buildings. Needless to say, castles and churches got most of the attention, although railroad stations, skyscrapers, office buildings and even "the house next door" have all served as subjects. The early models are mostly known through the drawings made by Richter's Art Department (Richters Kunst Anstalt). But after W.W.I, most new exhibition models shown in Anker catalogs are photographs, not drawings. Quite a large number of individual efforts are pictured in catalogs; some were exhibited. While there is a very fuzzy line between photographs of "official" company-built models and those of models that were built by individuals not directly affiliated with the Anker Block company, all of the drawings are clearly of exhibition buildings designed by the company. It should be noted that, judging from photographs, some of the very best Anker builders are active today. Almost all builders tend to specialize. The author prefers to rebuild the exhibition models, generally from catalog pictures. Many hobbyists prefer to follow the design of local buildings; one of the very best builders specializes in the churches of Cologne. This section cannot feature these beautiful buildings, but mention will be made of most of the major "official" Anker exhibition buildings, including the special sets.

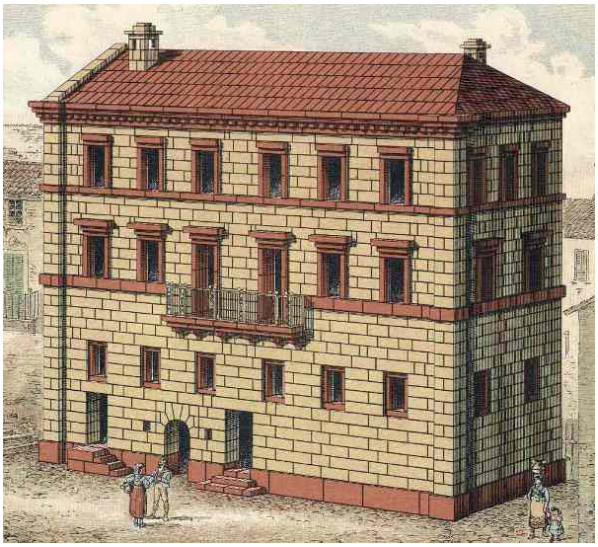
The **Large Castle of 1884** was built for the Antwerp Universal Exhibition, where it won a first

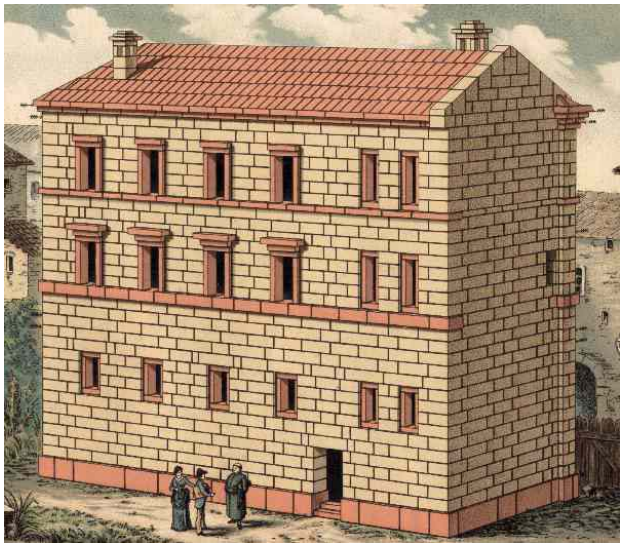




prize. Several contemporary accounts mention that it had a very high octagonal tower, as high as a man. The Leipzig Daily Advisor, on September 1, 1885, noted that a castle, very artistic and the height of a man, could be seen at the shop Lehrmittel-Anstalt of Dr. Schneider, on Schulstraße. As we know, this organization was part of the Richter Company. The article mentioned that the castle was glued, but could be soaked apart. There are no contemporary photographs of this castle, but the 1887 Richter American Catalog has a color drawing of this castle. A full color, triangular counter-display advertisement shows both sides of this castle. This display is known in both German and English. The American catalogs of 1923 and 1931 also picture this castle on the back cover. Dr. Meyer-Margreth (1897-1983) identified this castle as being the one exhibited in 1885.[4] For this reason this castle is also known as the **Large Castle of 1885**. The engraving is typical of the plans in this early period, and includes a Meyer drawn background. The engraving is signed (not with the "R.K.A." of the Richter Art Department) but not dated. The signature is very hard to read, but appears to be R. Loës(cko) – the cko is a second line and may be an identifying title. As with all of the exhibition buildings, there is no indication that there were ever detailed plans, though both views were drawn. There are several quite significant errors in the engraving, errors which would have been caught if full plans had been made. The roof of the main building, or palace, is not normal Anker stone construction. This roof was described by Anna Rothe, in a letter to Gustav Lilienthal, as made "of melted together stones" (aus zusammengeschmolzenen Steinen), but it seems much more likely that it is made of thin stones glued to a wooden roof. For the next forty years many of the company's exhibition models had one or more roofs of this type. The style of the Richter Large Castles was greatly influenced by such Southern Germany castles as Hohenzollern Castle in Hechingen, Baden-Württemberg, and Neuschwanstein in Bavaria. None of these castles has any merit as a fortification.

In 1887 a new exhibition model, the **House of the Pope**, was produced. Apparently the exhibition of the Large Castle of 1884 resulted in requests to purchase the "set" because a





reduced scale version of this new design was offered in the market as a set for which complete building plans were produced. The House of the Pope was built for the tenth anniversary of the papacy of Leo XIII. That model was given to the Vatican. So, if it still exists, it is in the Vatican archives. The smaller version was sold as a set in 1888. No complete set is known; only advertisements and the building plans. The set contained 2,608 stones in a seven layer box and

sold for $40 (£ 4.10) in 1890. The model had to be glued, as no beams of adequate length existed. To span the roof, six sets of two 100 mm beams (12.5 × 25 × 100) were glued together to make very weak 200 mm beams. The very next year Richter used wooden (beech) beams in his newest exhibition model and by 1890 these beams had been added to the loose stone catalog. Eventually beams as long as 225 mm, were made by the company in both stone and wood. Examples of European beech beams 325 mm are known, but they might not be factory original.

Two more exhibition buildings appeared in 1888. Again both buildings were issued as sets. The **Large Romanesque Church**, like the House of the Pope, has not been found as a set, but it is

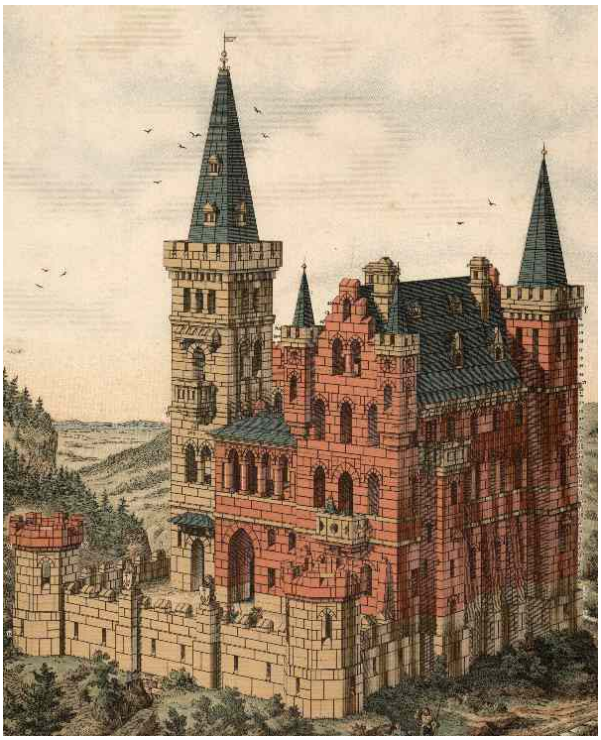
known through advertisements and the building plans, but not the boxes, packing plans or the set itself. This set contained 4,058 stones and cost $55 (£ 6.-). This church is the first of at least four exhibition church models; all of the others are in the Gothic style. This building is made primarily of red stones, with yellow highlights and a yellow base. For this reason one might think of this church as Dutch, or northern German -- that is, from an area of few stone quarries where brick construction is more common. The instructions: "Before starting to build one needs to get from a cabinet maker a cured plank of wood 3 cm (1.2") thick, 69 cm (27.2") long and 33 cm (13") wide and put it very securely on a strong table. When this is done and if one has liquid glue, a brush, a ruler, a large right angle and perhaps also a spirit level or a plumb line at hand, then one takes both of the views and the various layer plans and follows them strictly according to these directions." Certainly these requirements are very excessive. Glue is not needed in this building; there are no weak points in the construction, such as the glued 200 mm beams in the

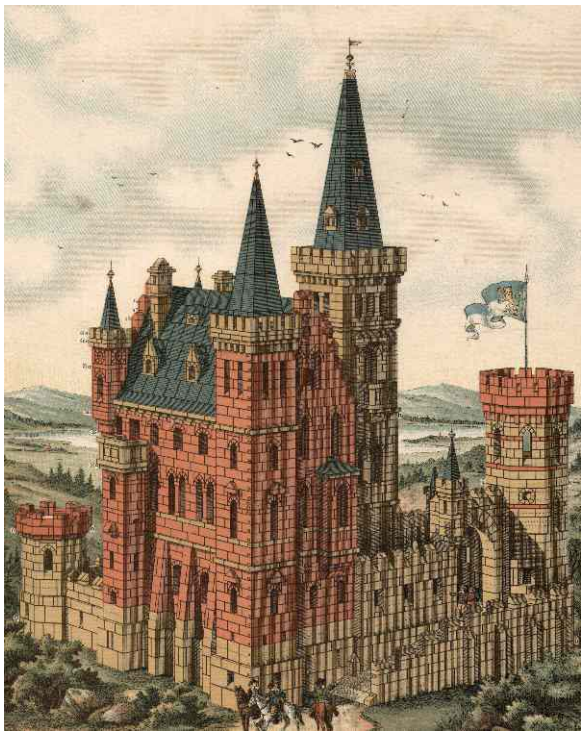
House of the Pope. To span the building to hold the roof Richter abandoned the glued beams and used 19 wooden beams 112.5 mm long. But for a builder who has never constructed an Anker building stone model before, starting on a large (more than four thousand stone) structure would have been quite daunting. And much greater care in following the instructions is needed if the builder does not have an inventory of stones to draw from. The finished model is 90 cm (36") high and probably weighs about 70 kilos (155 lb.).

The **Large Bridge** set, the other exhibition building introduced in 1888, has fewer stones, only 1817[5], but many of them are quite massive. All of the stones are yellow. The finished bridge is

158 cm (62") long, 22 cm (8½") wide and 28 cm (11") high. The bridge is a two arch redesign of the single arch bridge shown in the 1885 loose stone catalog. The half moon (half circle) design of the arches and the sloping ramps of 26° give these bridges, especially the single arch version, a very Oriental feeling. This bridge is quite hard to build without using glue or some sticky tape alternative. The problem is the handrail running up the 26°, or 1:2, slope. Anker stones have a slightly rough surface, just exactly rough enough not to slide on this slope **if** not given the least little push in any direction. The sliding friction is not enough to stop a stone's movement, and the static friction is just barely adequate. The building table must be as steady as a rock, and the builder must place every stone with the greatest care. The author has built the railing up one side of one ramp of the bridge - the limit of his stone collection for these particular stones. The railing stayed in place for more than a week - his test of stability. But building four of these railings would have been very wearing on one's patience. Seldom is a builder truly thankful that his stone inventory is limited. This set cost $ 37.50 (£ 4.-).

The last exhibitions models/sets were the Large Castle and Large Fortress. The **Large Castle** (or **Grosse Burg** as it is known to most Anker collectors, no date is needed) is the second of the three exhibition "Large castles". It was drawn, and presumably exhibited, in 1889. First mentioned as a set in an 1889 catalog, it finally reached the market in 1891. This castle is well known by all Anker hobbyists because it was sold as a supplement set to the GK-NF set # 34 in

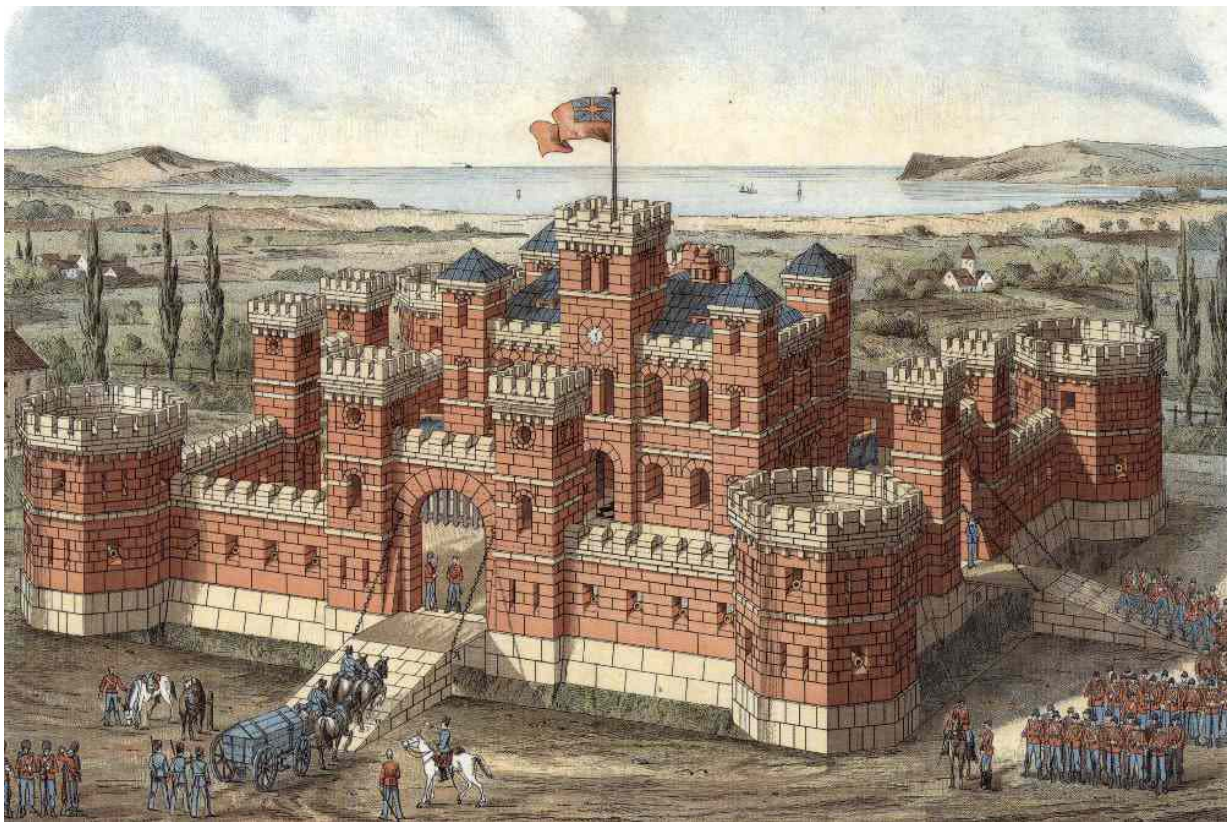




1909. Thus the Large Castle set was really put on the market twice, once in 1891 as an AF special set with a total of 5,811 stones, and once as the NF supplement with a total of 3,954 stones. Until 1986 the existence of the AF version of the Large Castle was known only through catalog announcements; the set itself was unknown. In that year a set, together with a Large Fortress Set, was purchased in England. This set came packed in 11 double trays, complete, never used, and included all accessories and the packing plan. The building plans were missing.

But that loss was minor, as the 1909 supplement set uses the plans drawn and dated in 1887, but the printer's mark indicates that the printing was in 1909. No outer case or box came with this AF set. Possibly there never was one; one must take into consideration that the cased set would have weighed over 110 kilos (242 lb.).[6] It seems likely that the set was originally sold only in these loose trays, each one of which weighs about 10 kilos (22 lb.) and can be stored independently. The author has never seen an advertisement for the sale of AF version of the Large Castle, only a catalog announcement that the Anker architects "are now busily engaged in designing" this castle and that it was hoped that the company would be able to place the set "in the hands of our patrons during the approaching winter". This announcement was printed in August of 1891, although as early as 1889 German language catalogs were making a similar announcement. It should be noted that while almost all of the Large Castle can be built without glue, one small guard tower definitely cannot be built without some adhesive to prevent the supporting wall from being overbalanced.

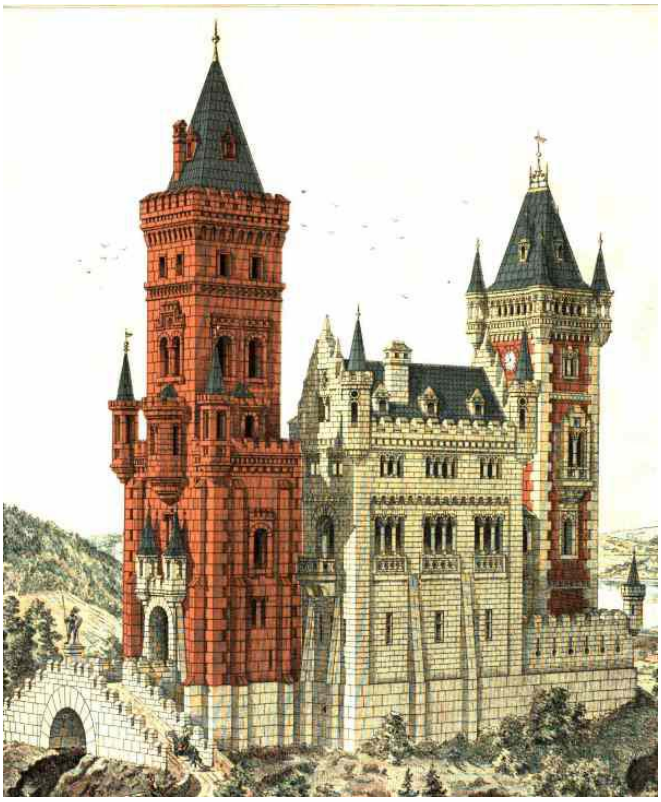
The **Large Fortress** (**Grosse Festung**) set is even larger than the Large Castle. It came in 17 double trays, though eight were missing when the set was purchased in 1986. The loss of eight



trays was confirmed both by the original numbers on the side of the trays and the eventual construction of the Large Fortress itself. Again there was no outer box, and no packing plan either. But fortunately, all of the building plans were found with this set. Almost equally fortunate was that the missing trays held only the simpler rectangular stones, which all Anker collections have, though not necessarily in the quantities required for this massive fort. The fort is a square, 1.5 m (60") on a side, and the central building reaches a height of 45 cm (18"). The flag shown in the main picture is an early British Naval battle flag, containing the crosses of St. George and St. Andrew, but not St. Patrick. The architecture indicates it is intended to be the

early 1800s, in a colony where the natives were not expected to have cannon. The soldiers are Royal Marines, and a special bright red was used in the lithography just for their uniform coats. Unlike other special sets, this one contains mosaic stones for the floor of the main building. Interior wooden floors were supplied so that the finished building could be used with toy cannon and soldiers. Special arches with holes for chains to raise the draw bridges were fabricated and included. It is impossible to determine the exact number of stones in this set, because often extra stones were included to fill out a tray. But 9,696 stones are needed to build the fort. A reasonable estimate of the weight of the set - 17 trays at 10 kilos each - is 170 kilos (375 lb.). The Large Fortress is the largest known Anker set.

The **Large Castle of 1894** is very interesting because, in addition to a large poster featuring the usual color drawing, we have four photographs of the building. The photographs were not taken

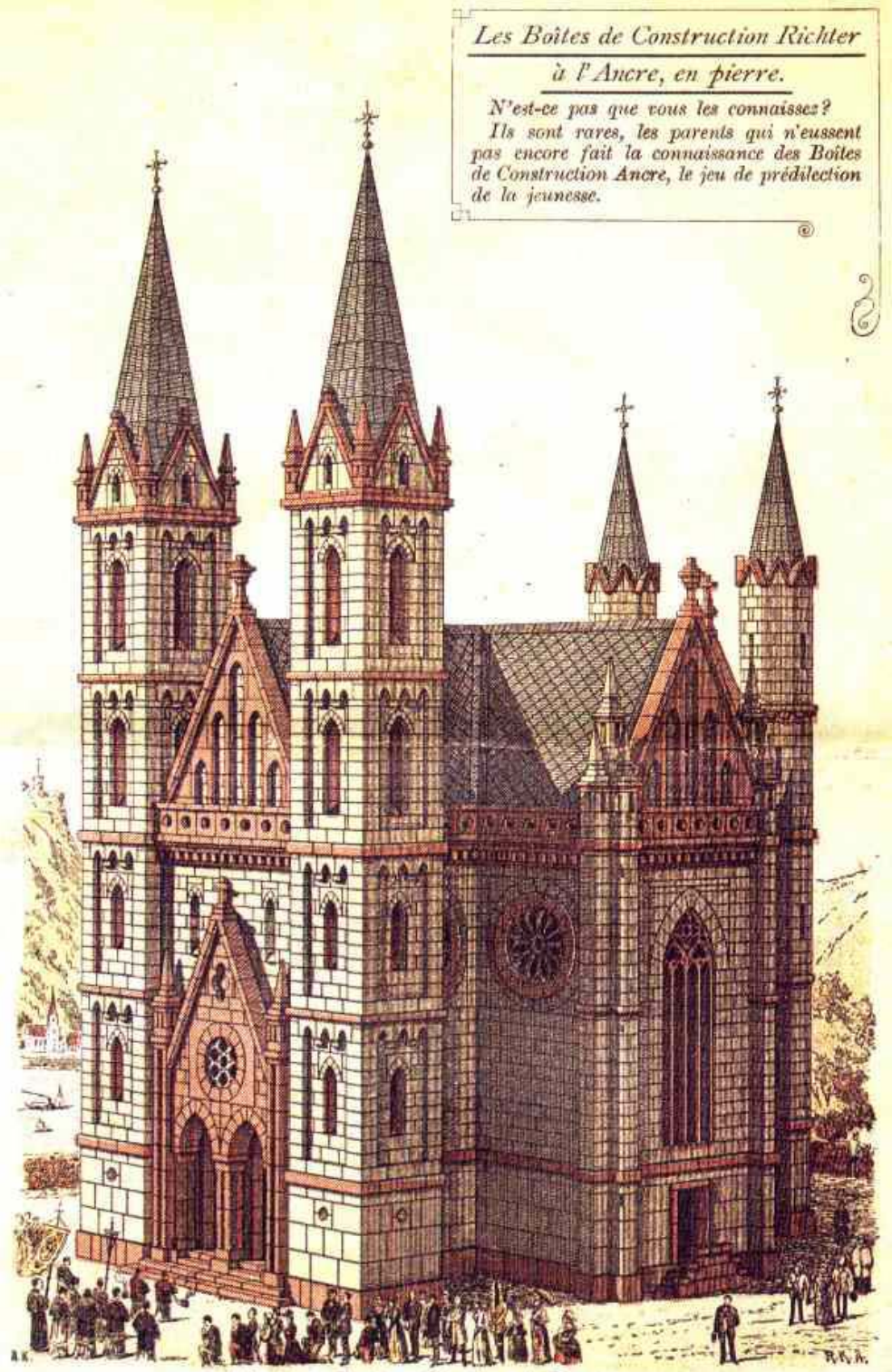


at the exhibition itself, but are studio shots, probably made at the Anker factory prior to the show. We know that this castle was exhibited in Erfurt at the Thuringian Trade and Industry show in 1894 and at another show in Erlangen. A drawing of the castle is found on the cover of the 1895 catalog and a stone at the roof-line of the palace displays the date 1894. The other drawing comes from an advertisement in the 1894 Leipziger Illustrirte Zeitung. A close comparison of the drawings and photographs will show a large number of minor differences, especially in the roof and the arches used at the tops of the windows and doors. In the photographs, the roofs of both the palace and the chapel are of the single piece (exhibition type) construction, but in the drawings they have been converted to a standard stone construction. No Gothic arches were used in the building; either Romanesque arches or custom cut and glued stones formed the windows and doors. In the drawings these non-standard cut stones were replaced with Gothic arch windows, and the chapel was changed from Romanesque to Gothic. It would seem that Richter had learned his lesson about allowing designs to be drawn which could

not be actually constructed with Anker stones found in his loose stone catalog. This castle can, with very minor exceptions, be built without glue and as drawn. This castle is the best of the three exhibition castles; it is much larger than the Large Castle and has better architectural balance than the Large Castle of 1884.

The three Gothic style exhibition churches are known only from catalog drawings and photographs. In every case, just one view is available. One of the churches may have been a set, or planned as a set. This church is known as the "octagonal apse" church, as the picture shows the side and apse, not the front (or western) entrance. (The picture is also found on the title page of this book.) It has been reported that some advertisements around the turn of the century stated that the set GK-NF # 34 -- the largest of the GK-NF series -- would be supplemented by a **Large Gothic Church**. As we know, the supplement which was finally offered in 1909 was the Large Castle. Although this octagonal apse church is about the right size to have been the supplement mentioned, the stone selection used in its construction argues against this theory. This church is pictured in color on the rear cover of both the USA and German 1907 catalogs, but no mention of this building is made in the catalogs. The church itself is 50 cm (20") high and about 75 cm (30") long and 37½ cm (15") wide; the twin towers are a 100 cm (39") high. The building contains a few new stone shapes. Especially obvious are the octagonal corner stones in the roof of the

apse, but the addition of new and useful stone shapes was always acceptable to Richter. The other two Gothic exhibition churches both have the special one-piece roof which was used for exhibition buildings but not sets. The largest of the churches, a model of the **St. Apollinaire Church** in Remagen, is shown, sometimes in color, in catalogs from around 1905. The author visited Remagen to see the actual church. It has been rebuilt since WWII, so there were differences. The rebuilt church is a lot less decorative. The church is part of an active monastery, so the apse end could not be seen as clearly as might be hoped.



L'église St. Apollinaire à Remagen.

The other Gothic church was discovered by the author in a photograph album in the Anker factory's archive room in 1992. This red stone church is attractively displayed on a 5 cm (2") high stone platform with four eight step stairways and a decorative fence. The date of this church is not known, but the 20s seems most likely.

After W.W.I the catalogs of the

company began to picture a number of buildings by individual builders, as well as exhibition models from the company's design department. There are many models, far too many to mention even a portion of them. In 1923 the company sent a 30,000 stone model of Buckingham Palace to a London exhibition. The 1923 Dresden Fair featured a model of Leuchtenburg bei Kahla, a castle near Rudolstadt. This model was featured on the souvenir post card pictured.

The 1925 factory built model of the Leipzig main railroad station is certainly one of the largest models ever made. (Picture found on page 130 in Chapter XVI.) It was 3 × 3½ m (10 × 11½ feet) in size and employed the Anker Imperator Iron Construction Set parts to form the roof of the train terminal.[7] Eight tracks, each with a platform on both sides of the train, were enclosed by four large iron roofs. This model also featured stones from the Neue Reihe sets. Stephen Hurlbut, the American designer of the series 200 supplement sets (see Chapter XIII), built models of the Washington National Cathedral, St. Agnes Church (this model was used as an exhibit at Marshall Fields in Chicago) and the Singer Building in New York. St. Agnes Church and the Singer Building, plus a model of Independence Hall and nine houses from Hurlbut's Modern House Series, were all combined into a "View of an American City" in the 1913 catalog. Special two color stones were made by the factory for Hurlbut's model of St. Agnes.[8] The author thinks it is likely that the second (red) color was painted onto the stones. The same catalog showed the Old City Hall of Leipzig, the Parthenon, and an "old German city" of at least 17 buildings made from the Landhaus Sets. The New York catalog in 1931 showed a beautiful new, and much better, model of the Parthenon by Henry Messerschmidt[9] of Brooklyn.

One late 20s interest should be mentioned -- building long span all stone bridges. Whether this interest was sparked by Max Born, who was the head of the Physics Department at the University of Göttingen at that time, or developed independently, is unknown. As the author found out, these bridges are really not at all hard to build and are far more impressive than their

relative ease of construction justifies. Some builders did full analysis of the structures, determining the load carrying capacity at various points along the roadway. At some points only 64 grams (2½ oz.) could be supported by the structure. Of course this test is made with the weight applied unevenly to the structure; if the same weight is applied symmetrically to the other side, these bridges can support a far greater weight.

The largest model of them all may have been the **Wartburg** which was built in the 1920s. Three exhibition models of the Wartburg are known. Two of them, both made by Hans Ludwig, still exist. One model was constructed in 1957 and is about 1.5 × 2 m (4½ × 6 feet). The other one is about 2 × 3 m (6 × 10 feet). Both of these models survive, though neither is on display. The smaller Wartburg is in possession of Aeropharm in Rudolstadt; the larger Wartburg is in storage at Schloss Heidecksburg, in Rudolstadt.[10] Based on a photograph seen in the Anker factory the third Wartburg model is about 50% larger than the larger Wartburg. So it must have been about 3 × 4.5 m (10 × 15 feet). The photograph is a close up of the palace only, so one cannot be certain that the entire Wartburg was actually constructed. Such a large building is hard to appreciate just from a picture. In volume, it is about 3½ times larger than the large Wartburg in Rudolstadt, and that building took Hans Ludwig about 2,500 hours, over one year of full time work, to make. Jan Hauer's notes state that this Wartburg was built in 1922 and contained 20,600 stones. It is amazing to the author that no pictures of this model are known, except those in one of the Anker factory albums. But there may be other pictures. The 1925 German catalog offers free loan (pay transportation costs only) of 70 lantern slides, titled “From Cube to Wartburg”. Unfortunately the catalog does not give any information about what is meant by "to Wartburg". As shown by this Wartburg model, as well as Buckingham Palace and the Leipzig railroad station, exhibition buildings in the 20s had become overwhelmingly large.

Two unusual sets deserve special mention here. One is the **Bridge Set** of 1895. This set, unlike

the sets created from exhibition models, came with a full selection of 16 building plans. For the first time, and a decade before Meccano developed his metal construction system, Richter added metal parts to one of his building sets. Up until this set, there has been little mentioned in this book that would lead the reader to suspect that the Richter company had any special expertise in metal working. But in the early 1890s Richter entered the mechanical musical instrument market -- music boxes, gramophones and records. These products require extensive metal working capability. The factory was moved from Leipzig to Rudolstadt in 1894. A few of the details of this part of the Richter product line will be covered in Chapter XII. It only needs to be noted here that the first gramophone without external horns was an Anker model and that Deutsche Gramophone grew out of Richter's Berlin recording studio and Anker records. Richter himself held 17 USA patents on mechanisms for his musical products.[11]

The Bridge Set was introduced to counter the Keller Brothers 1892 Gold Medal won for their bridge combining metal parts and stones. By 1895 Richter knew that there was no money to be made in large sets, but his prestige was at stake. This set was unusual and must have been the centerpiece of a major exhibition. The set, which is GK-NF, is large, 931 stones and 334 metal parts. However the metal parts, not the stones, are the stars of this set. The system of metal parts was patented by Julius Weiss of Hamburg -- German patents # 67,599 (July 20, 1892) and its continuation 76,747 (February 20, 1894). Both patents expired on July 19, 1907, just as Märklin, Meccano and Gilbert were getting started in the metal construction set business.[12] The metal girders were made in two shapes, as "tension" and "compression" girders. There is an “L” rib on the girders to simulate compression girders. Of course, any increase in resistance to bending is of no importance in the models, but it is very important in real structural steel bridges. The set cost 60 marks in the 1897 catalog; it was not offered in 1898. Several of these sets have been found, as have lots of loose metal parts. The stones are yellow, except for the slate-blue tower roof stones. Comparison of the actual metal parts with the reproduction parts (based on the packing plan, patent drawings and building plans) made by Rob Buis and Fred Hartjes shows that they are close to perfect. The most significant difference is that the reproduction roadbeds are plated metal and the original ones were painted brown with a wooden plank pattern. Stones were used to make the support towers and abutments for the metal bridge spans. Sixteen different truss style metal bridge designs were included, but some of the stone towers were used with two and even three of the different metal designs. The towers of the bridge pictured on the cover of the box are not found in the plans, but they can be built from the stones found in the set. The building plans contain a detailed description of the importance of compression and tension in metal bridge design. In addition to the girders and roadbeds, the metal parts include railings, posts, truss supports (feet where the metal bridge sits on the stone base), and roadbed clamps. There are a number of errors, relating to the metal parts, on the plans and packing plans. All of these errors have been corrected, by hand, at the factory. Even such a minor error as a girder length being changed from 68 mm to 67 mm, a difference smaller than the tolerance of the screw holes, was corrected on the plans. If the quantities of metal parts on the packing plan were wrong, only increases were made. Thus there is an excess of some metal parts, and even further extra parts were added to the sets. Richter was sales oriented and knew that a buyer who saw that a quantity had been reduced would feel cheated, but seeing a quantity increased would make him feel good. This set is the forerunner of a decade (1901-1910) of sets with metal parts. Yes, Richter holds the patents on these metal parts also.[13]

The other special and unusual set is the **Model Building Set** (Modell-Baukasten) introduced in 1913, just a few years after Richter's death.[14] This set consists of red stones; the number of

stones seems to have varied between 159 and 198 over the years (no printed packing plan is known). The set was intended to help teach brick laying to apprentice masons. In fact, the set was renamed the **Maurer** (Mason) Model Building Set by the VEB Anker company after W.W. II. The basic stone was GK-NF # 15R, a red stone 12.5 × 25 × 50 mm, which is a European brick in miniature. To avoid the necessity of cutting the stones, ¼, ½ and ¾ bricks, in the form of GK-NF #s 31R, 19R, and 17R, were included in the set. To make 45° and 135° angles in walls, other stones with 45° corners were added to represent cut bricks. Four pages of plans were included in the original set. All of the 12 exercises on the first two pages can be built with the stones in the box. The plans on the second two pages illustrate quite fancy masonry, including bases and capitals of buildings, roof lines, arches, circular and octagonal construction and the placement of corner stones. Even though all of these further plans could be duplicated with existing Anker stones, no set was offered.

The practical value of a trade education appealed to the East German government after W.W.II. Although the set was not changed, entirely new building plans were created for this set. The new plans contain exercises to be completed by the apprentice masons. These exercises start with stacking bricks to be hoisted up onto a scaffold or building platform. Great emphasis is placed on wall construction 1½ bricks (12 inches or 30 cm) thick, as well as building in chimney flues and laying bricks to fit door and window frames. A **Lehrer** (teacher) set was also introduced. This set has fewer stones (only 105) but they are twice as big, a new stone 50 ×100 × 25. These large stones came in a special case, the top of which is a rotating table. Despite the fact that this set is a post-W.W. II product, not one example has come to light yet, but the stones, in both red and yellow are known. In that the set cost DM 336, vs. DM 21.60 for the student's set, it seems likely that not all of the sets were discarded and that a set will soon be found in one of the trade schools in the former DDR. Sales have been documented.

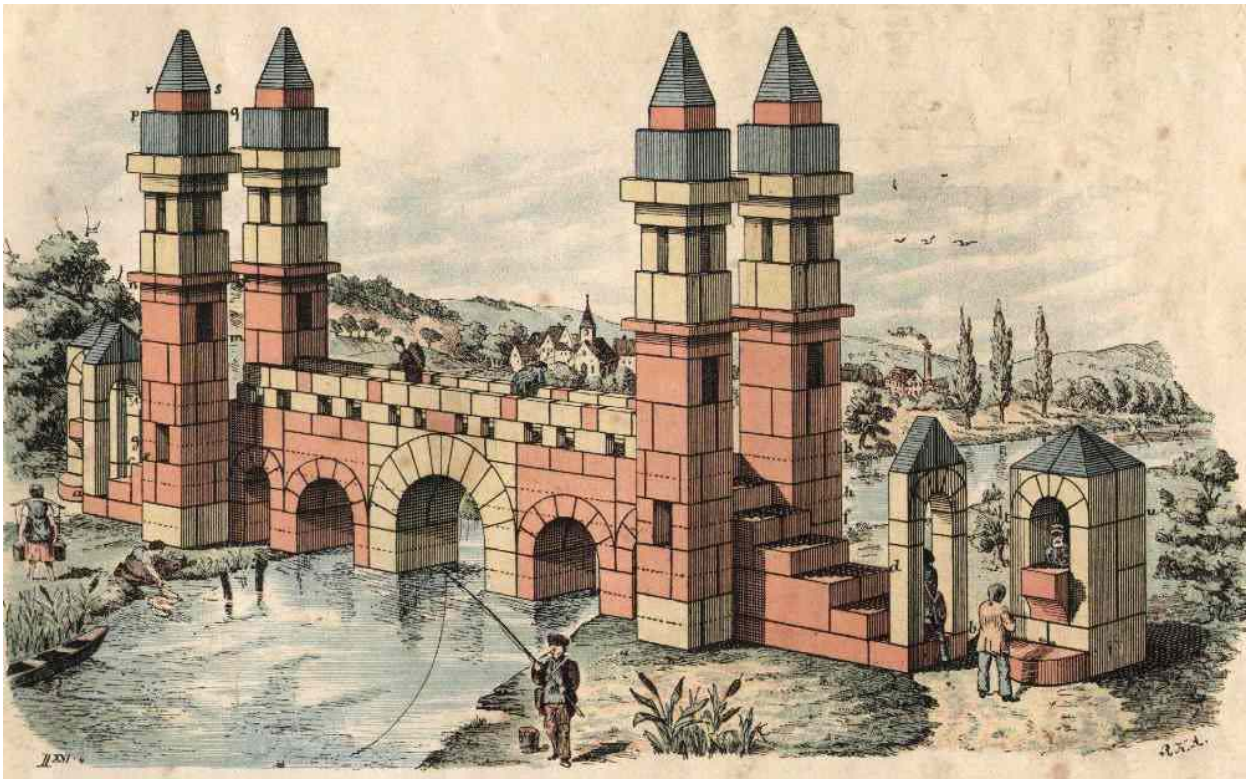
Label of the Model Building Set

(above) From the VEB (Post W.W.II) Era

(below) Initial production (1913)

VI. The Old Series (Alte Folge) Sets

In 1884 Richter introduced his fully rationalized system of sets. Although we know that some non-Richter catalogs continued to advertise the earlier sets, it seems that this changeover was quite abrupt and complete. The great popularity of Anker stones dates from the introduction of this system of sets. Most of the first nineteen sets were introduced, at the same time, in 1884; a few entered the market in 1885. The large caliber (GK) stones were used in the largest series, ending in set # 19, with its 881 stones (which appeared, along with # 18, in November, 1885). The largest small caliber (KK) set, # 13, contained just 259 stones. These stone building sets became very popular quite quickly, and within two years Richter extended both the KK and the GK series beyond the original top numbers of 13 and 19, respectively. In 1888, to accommodate those buyers who could not afford even the one mark (40¢) for the smallest set, # 1 (30 KK stones), Richter introduced set # 0, with just 18 KK stones, for half the price, 50 Pfg or 20¢. Simultaneously he introduced the supplement set # 0A, with 22 KK stones, which together equaled, with even an excess of six stones, set # 2, which was part of the main stream of KK sets. The fact that a # 0, at 20¢, supplemented by a # 0A, at 30¢, gave the buyer 40 KK stones, while a # 2 (also 50¢) contains just 34 stones, is a most unusual example of Richter pricing. In general, the prices and quantities of stones followed the supplement system very strictly. Only in these very small sets are there anomalies.



An Early Alte Folge Plan

Rich background colors are typical of the earliest Alte Folge building plans. Originally drawn for the second book for GK-AF set # 16, this plan was reused in the second book of KK-AF set # 20. Sharp eyes will see the II^{XVI} 4 in the lower left hand corner of the drawing.

Clearly it takes time to develop 19 sets, plus supplement sets. Drawing the plans is a massive effort, and it goes slower as the sets get larger. The addition of 100 stones to a set of 900 requires designs for buildings of almost 1,000 stones. In contrast, the addition of the same number of stones to a set of just 150 stones calls for designs containing 250 stones or less. It seems clear that extensive preparation work was required, probably lasting more than a year prior to the 1884 introduction of these four series of sets. Richter had organized his art department prior to 1884. The mark "R.K.A. '84", standing for "Richter's Art Department (Richters Kunst Anstalt) -- 1884", is found on plans. Earlier plans are either anonymous or are identified by the artist's name or initials. H. Weber, who became the chief architect of the R.K.A., signed, or initialed, designs in 1883.[1] H. Taubert (Jaubert?) is seen in 1884.[2] P. Rische also put his name to designs, which were metal plate (or wood cut) engravings.[3] By 1889, the dates on drawings had been dropped, leaving only the "R.K.A." mark. However it should be noted that sometimes names were skillfully worked into the background or shadow-lines of a drawing and can be very hard to find. These more or less private signatures are quite reminiscent of the "signatures" that computer programmers of today often leave in software they have written. By the spring of 1885 Richter had hired the famous artist H. Meyer to draw the background scenes of the plans.[4] Meyer also did the shading and coloring of the plans. C. Walther, an architect and professor at the Imperial Academy of Fine Arts in Nuremberg, designed the outer and inner labels for the sets in 1884. At first this label was printed in black on cream colored paper, then the black was reinforced with red highlights and golden-yellow to add emphasis as well as depth, and by 1887 a greenish-cyan was added, producing virtually four color printing, though by lithography, not the "four color" (CYMK) process. The inner labels were printed, lithographed, in black, two different grays, green, blue, yellow, golden-yellow and red. The golden-yellow was absolutely necessary for the proper reproduction of the gold medals won at various expositions. The plans were also printed by lithography, using green, blue, red, yellow, and black. Of course the red, yellow, blue and black were all needed just to reproduce the pictures of the buildings themselves. The addition of green, plus the careful use of the overprinting of colors and the printing of small irregular areas or fine lines enabled Meyer to produce quite realistic, virtually full color, backgrounds. Richter does not seem to have imposed many restrictions on Meyer, because other colors were added as needed, such as scarlet for the uniforms of English Royal Marines. In addition, Meyer sometimes changed the basic colors. For example, in one book he needed a rich golden yellow for the halo around the angel hovering over the crèche, so he used fine lines of this yellow to produce the pale yellow of the stones. And since this color was on the press, he used it in all of the pictures for hats, pants, wooden fences, and a golden statue of Kaiser Wilhelm II. This particular book, KK-AF # 13[I], has an unusual number of Middle Eastern scenes, as this rich yellow produces the feeling of warmth so helpful in desert coloring.

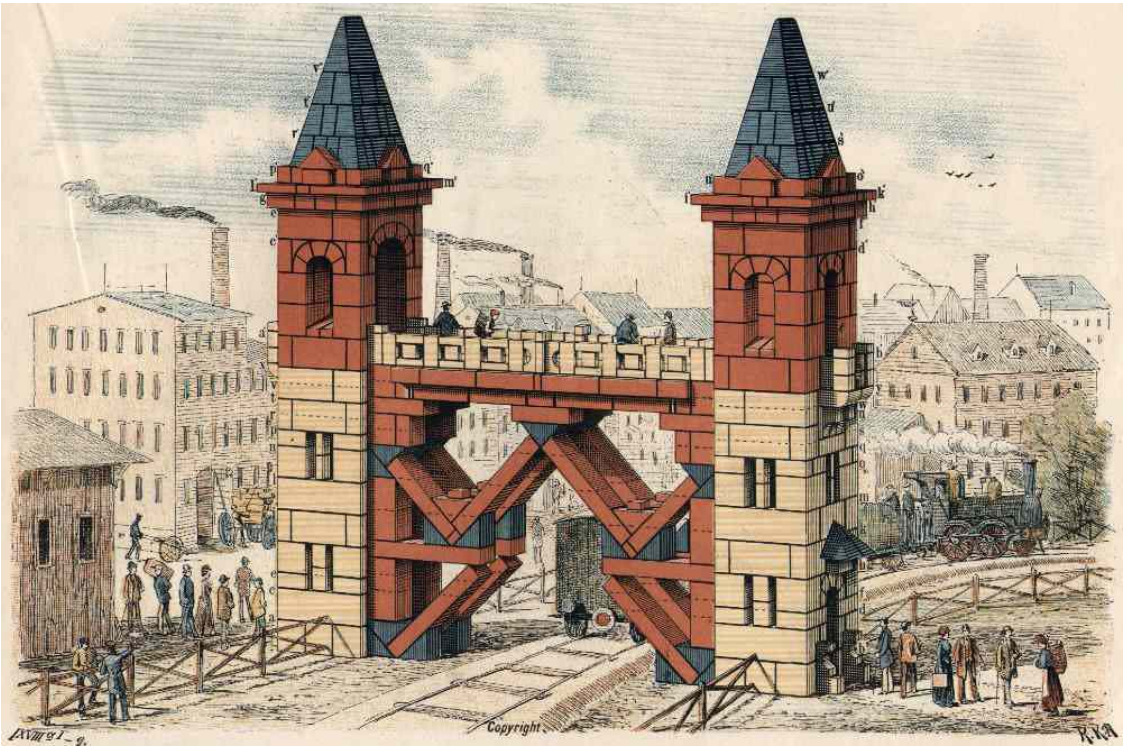
In addition to the GK stones, with the 1884 introduction of the AF sets Richter added **four important elements** to the stone building sets. **The sets are in graded series.** A buyer could start with a small, inexpensive set and add supplement sets, achieving exactly the same large set, at exactly the same total cost, as if the large set had been the original purchase. The owner of a small set knew that there were larger sets to which he could aspire. Thus these sets were wonderful Christmas and birthday presents. All questions of what to give next year were eliminated. The sets were designed so that the buildings grew more interesting, as well as larger, as supplement sets were added. Not only did a builder have more stones to work with, he got new stone shapes in every supplement set. Never one to miss an opportunity to pitch the next

sale, Richter included on the last page of each book a drawing of a building which required the purchase of the next supplement. During the Georgens era, a double layer set was nothing more than two single layer sets in a larger box.

The sets came with booklets of **plans** which **could be built with the stones in the set**. Almost all of the pre-AF sets contained the same plans, regardless of the number of stones in the set. So some sets did not have the proper stones, or enough stones, to build the models while other sets had many more stones than the plans called for. These plans had been intended as a collection of ideas, an aid in helping a child to create his own designs. But it quickly became apparent to Richter that the plans should reflect the stones in the set. The changeover was started before the first AF sets were introduced. For each set a second book, with all new plans, was offered for sale.

Richter set prices and made sure the buyers knew them through extensive advertising. It is hard to know if retailers offered any discounts, but it seems relatively certain that sets were not sold for more than the Richter advertised prices. Fixed prices for toys was a new policy for retailers; but Richter had found this policy very profitable in his patent medicine business.[5]

Richter courted the adult hobby market by selling loose stones to order. The stones were numbered. By 1885 the catalog of loose stones was available and individual stones were offered for sale.[6] Although there had been only 16 different stone shapes (the highest stone number is KK-AF # 29) offered during the Georgens period, the 1885 catalog pictured 101 stones (80 GK and 21 KK), which was increased to 175 GK and 63 KK, a total of 238, in 1886. Starting in about 1887 the stone numbers were also shown on the packing plans, which made replacement of lost or broken stones easier.



Alte Folge plans often include unusual, almost bizarre, constructions, such as this design from GK-AF set # 18A.

All of the new Patent Building Stone sets soon carried the classical styled label drawn by the Nuremberg architect C. Walther.[7] This label has the squirrel trademark, was generally printed in two languages, and featured a picture of Lady Architecture, but not, at first, Richter's name. The AF period also introduced a very important aid to Anker historians, **printer's marks**. A printer's mark typical of this era is "Lose Steine. **H.** 8608." This mark means that this loose stone catalog was printed for the Dutch (**H.** for Holland, as "**D.**" was used for Denmark; no country code means Germany) market in August, 1886. By 1888 the printer's marks had dropped the "0", so 886 means June, 1888. Since by 1885 this catalog was being printed in 13 languages[8], printer's marks had become quite necessary. The printer's mark often meant that more than one language was included. As an example "**A**" meant America; the languages are German, English, Spanish and Portuguese. So "Das Bauen 8712 **A** 5" means that 5,000 copies of the book "The Art of Architecture" was printed for the American market in December of 1887.[9] Often the printer's marks appear on the first page of each signature of a booklet (pages 1, 17, 33, 49, etc.).

There can be no doubt that Richter did everything he could think of to make his building sets attractive. He employed top quality artists and did not restrict their use of costly techniques. He knew, like most marketing executives, that an unhappy customer, one who does not have a good impression of a product, is more costly than adding a color in the building plan book. But one problem did come up quite soon. The early plan books did not have any progression in the difficulty of the buildings. Often the most attractive, and the most difficult to construct, building was found on the first page. Letters came to the factory complaining that the designs could not be built or that children had not developed the skill to build them. Richter responded with a new series of books. These books always included, along with the building plans, a write-up explaining to the parents the importance of the stone sets and the building plans. The reader may remember Fröbel's emphasis on learning technique. Perhaps it is best to reproduce Richter's own explanation from an 1889 plan book. The language may seem a little unrestrained to a modern reader. It reads:

The Fourth Edition

Only few years have passed since the appearance of the first edition of this book and already we are in the position to be able to present herewith the fourth edition to the friendly reader. Most of the figures are newly made and significantly more beautifully than those in the first editions. They are all drawn with greatest care and of course the correct prospective, so that children can easily build by following them. To facilitate the construction of the buildings, even more cross-sections have been drawn; likewise two views of several of the figures were produced, which are to be consulted during constructing. The first four pages contain small exercise buildings, like staircases, crosses etc., and one wants the children to begin with these. As soon as they have gained some skill from these, then one should explain to them first of all the layer plans on the following pages and make it clear to them that by means of these layer drawings those stones, which lie directly under the cut line shown on the main drawing and identified by letters, can always be seen. In the fortress gate, figure 2 on page 12, the cross-section a - b shows how the lowest layer of stones is to be put and the section c - d one has used in the same way for the second stone layer. The section drawing i - k however shows us the cut through a projecting stone (here the gate arch) by the fine black slanted lines. On various pages scales are drawn so one can measure exactly the size of the layers as well as

the individual stones. One can determine with a compass the size of a stone on the drawing and then check how many millimeters it is. If these layer drawings are examined during the construction of the buildings, then their completion is not too difficult for small children.

Numerous letters of thanks from all areas to the company confirm that the great educational value of Anker- Stone building sets is generally acknowledged. The full, correct and careful completion of the building plans is to be especially emphasized and simultaneously encouraged, so that the child will have confidence in his skill. It is completely correct that the best building stones are useless, if the plans do not exactly correspond with the contents of the set and are thus not able to be built. For that reason the publishing house book shop has avoided no cost in creating building models which are absolutely possible; therefore the children get a book which they can enjoy.

For the satisfactory completion of a building not merely a good plan, but also building stones of best quality, are required if the work is to be successful. The children receive through the Anker-Stone building sets a quality which formerly could not be offered and today is supplied by no other maker. These are real stones, not wood blocks! Colored stones of great hardness and extraordinary precision are found in each genuine Anker - Stone Building Sets; stones, with which the construction of large buildings goes easily and surely. The buildings stand very firmly and do not collapse at every little shock, as this is the case with ordinary wooden blocks, which causes children to lose all desire to build.

The previously outlined, undeniable, great advantages however are increased still more because the printing establishment has arranged the plan books such that several books can be used with the different Anker stone building sets. With Anker stone building set # 5, for instance, in addition to the first and second books of level 5 the first books of levels 1, 2 and 3 can be built. Through the purchase of these books the set receives a double value; for after receiving the new plans the child will continue to build with a new zeal, especially because for the second book of level 5 the layer plans are collected together in a special layer plan book. This way the small master builder is offered a chance to test himself, whether he can set up the different buildings without the aid of the cross-sections.

The best proof that a genuine Anker stone building set excites the spirit of children in a most wholesome way, indisputably lies in the fact that they all have the desire to execute the larger buildings; for these buildings go still further into the art of building. That this commendable aspiration of the small master builder finds support from all reasonable parents, we have observed from the surprisingly good reception which has been received by the supplement sets introduced by the factory. With them every Anker stone building set can be enlarged on a regular basis. For example, whoever owns set # 5 needs only to buy the supplement set # 5A and he then has exactly the same stones and plans that are found in the large set # 9. And how much larger and more beautiful are the buildings, which can be made after the purchase of the supplement set, is shown to the reader by the facade of the city hall, on page 16 of this plan book.

Of supreme importance to every owner of an Anker stone building set is the work: "Building with Available Stone Shapes". It contains not only 328 stone drawings and building models, but also statements about the most useful application of individual stones. Furthermore the prices of the stones in this book are provided, so that one can easily select and order replacements for any damaged or lost individual building stones. Thus it is very easy to always keep an Anker stone building set complete. The small book can be obtained for the enclosure of a 10 Pfg - 5 kr - 10 Cts - stamp from F. Ad. Richter & Cie. in Rudolstadt (Thuringia), Vienna (I. Nibelungengasse 4), Olten (Switzerland), Rotterdam, New-York (310 Broadway), London E.C. (1 & 2 Railway-Place, Fenchurch- Street).

In conclusion we make the request to all parents to recommend Anker Stone Building Sets to all the families of their friends and to advise all interested families that there are already worthless copies of the Anker Stone Building Sets on the market and that it is therefore very necessary to be absolutely sure when buying a set that it is also genuine. Only on those sets is found the trademark "Anker" on the label.[10]

What became of the older designs? Naturally they were used as the second book referred to above, although as the inventory of the early printed plans was depleted new designs were drawn.

In addition to the stones, most sets were fully fitted out in a nicely finished wooden box, which had a sliding lid and metal reinforced corners. A typical set included a plan book (in larger sets, all of the plan books of the smaller sets and supplement sets needed to equal this set were included), sheets of cut-out figures, a ground plan to help the builder line up the first layer, and a

packing plan showing how to arrange the stones again in the box. In most sets, the labels and books were printed in two languages, generally related to a local market. Sets for the Rotterdam branch were printed in Dutch and French; New York, German and English; Vienna, German and French; etc. Soon sets of supplementary three dimensional figures were offered.

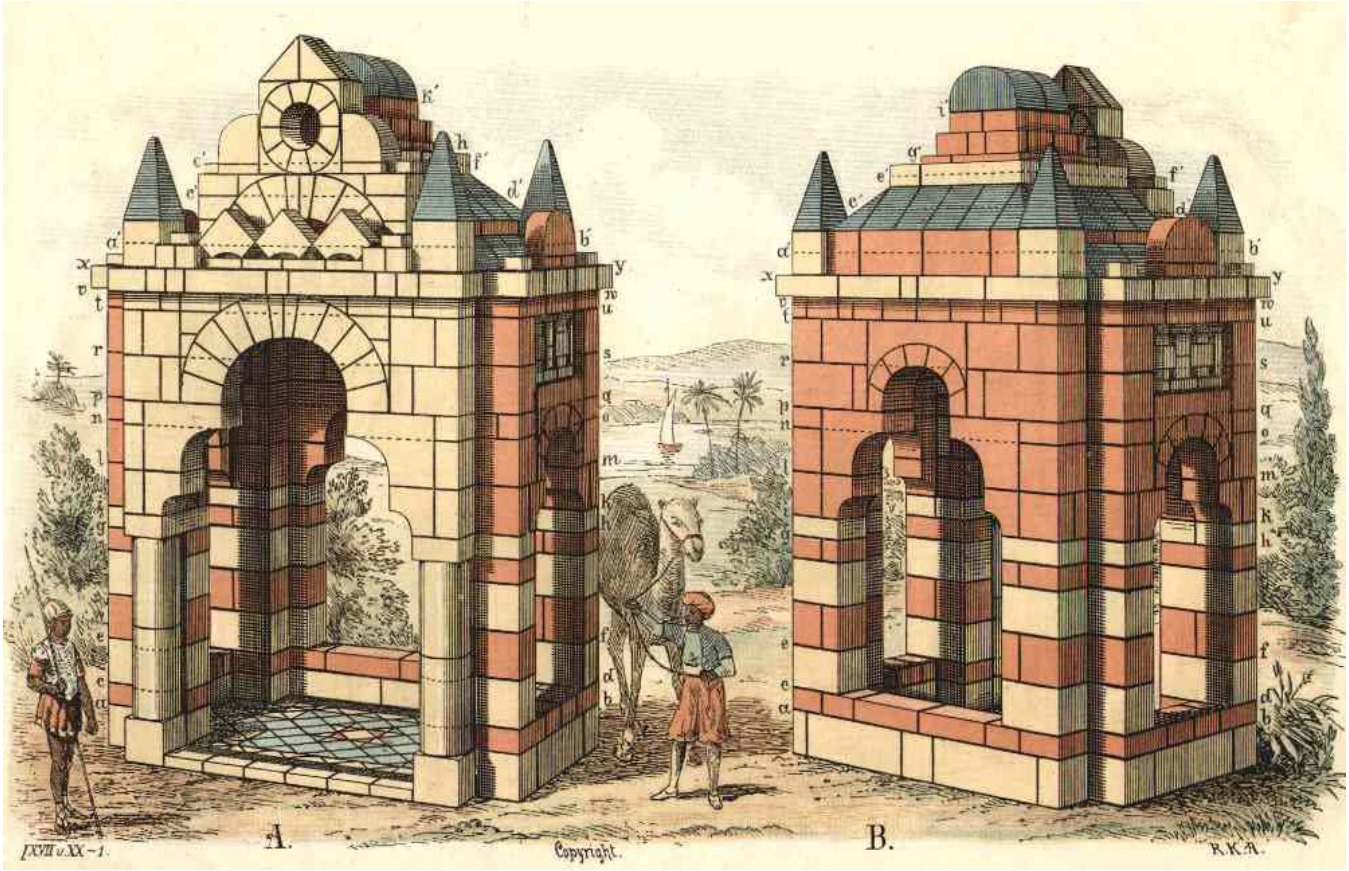
Richter sold accessory figures to be used with many of the buildings of the Alte Folge series, like this one from GK-AF set # 18.

The sets were not cheap. In 1890 a small set of 51 KK stones cost $.80 and a set of 53 GK stones cost $1.25 (3 shillings). At this time, a dollar a day was the common basic factory wage. The large # 19 set, weighing 37½ pounds, held 881 GK stones and cost $15 (37s. 6d.). Yet even at their introduction in 1884 Richter catered to the deluxe market with the # 35, which was the same as the # 19 but in a "very elegant" oak box with bronze handles, at $18.

For those who wanted to supplement their smaller sets more rapidly, double supplement boxes were offered. The numbers of GK and KK sets were intermixed and the nineteen basic sets multiplied rapidly with the addition of the various possible supplemental sets. Within a few years duplicate numbers began to appear. The original set # 12A, introduced in 1886, contained 267 KK stones and increased the KK # 12 to the originally unanticipated # 20.

This set cost $3.50, too much money for a supplement set. So a second # 12A, containing only 129 KK stones, was introduced in 1890 at $1.75. It increased the KK # 12 to an un-numbered level, which itself could be increased by a # 12C (150 stones at $2.25) to a # 20, albeit with an excess of 12 stones, which had cost the buyer 50¢. Despite this confusion, the Anker sets grew in popularity. By 1888 the KK series had reached # 22 (720 stones for $10) and the GK series, # 23 (1,924 stones plus 8 wooden beams for $33, or $42 in the elegant oak box).[11] A total of 58 sets, 24 basic sets and 34 supplement sets, and that is assuming one does not count the seven deluxe box versions of standard sets as "real" sets. The sets were beautifully displayed in the Great Album, which is really a deluxe catalog and shows buildings from each of the sets.[12]

It is tempting to claim that the organization of the sets was becoming complicated, but never again was it this simple.[13] In 1886 the decision was made to merge each of the dual series into one single series. The two KK series (1, 4, 8, 12 and 2, 5, 9, 13) were merged at # 20 into a single series. And to simplify identifying the correct set, in 1890 Richter introduced "telegraph words" (not to be confused with his later passwords). But to make the buyer feel more comfortable, each language had its own telegraph word. Therefore, for example, KK-AF set # 1 has the telegraph word **Arm** in English; **Abfahrt** in German; **Vertrek** in Dutch.[14] This book will use the German telegraph words, if known, as they are the ones used by virtually all Anker collectors.



Unusual color combinations are another typical feature of the Alte Folge plans. This plan is from the first book for KK-AF set # 20.

In 1890, as described above, the merger of the two series of KK sets at set # 20 was reversed. It was decided that, in the 1 - 4 - 8 - 12 - 20 series, the supplement set # 12A, Form, of 267 KK stones, was just too big and expensive. So a new KK set # 12A, Forst, of 129 stones, was inserted. The resulting basic set, not numbered or given a telegraph word, was supplemented by set # 12C, Förster, to produce a different set # 20 (also without a telegraph word) which contains 461 stones in contrast to the 449 stones of the earlier set # 20, Igel. To reach set # 22, Isar, the set # 20, Igel, required the supplement set # 20A, Greif, of 271 stones; the no-telegraph-word set # 20, was enlarged to set # 22, Isar, by the supplement set # 20C, Greifbar, with its 258 stones.

The GK series was also merged in 1886, at # 21, Ilm. In what can be only considered an inspired attempt to increase confusion, in 1892 or 3, the GK set # 23, Italien, which had been introduced in 1888, was "upgraded" to # 25, Italien, and a new, intermediate # 23, Isartal, was squeezed in. It seems that the set # 21A, Grund, with its 722 stones (from # 21, Ilm, with 1,202 stones, to # 23, Italien, with 1,924 stones) was just too expensive ($12). So a new # 21A, Grieche (but not new telegraph words in the other languages), of just 347 stones was introduced, which resulted in the new # 23, Isartal, and then a new # 23A, Griff, with 383 stones, lead to the new set # 25, Italien (all the **same** telegraph words as the old # 23), which now had 1932 stones, eight more than the old # 23, Italien! In a similar manner, in 1891, the set # 18A, Glück, of 551 stones, was divided in two, making a two step transition from set # 18 to set # 21. Certainly the telegraph words helped to identify the ambiguity of the set numbers, but one wonders why telegraph words were not changed in all languages when they were changed in German.

In 1892 the KK set # 24 was introduced; in 1894, the final KK set # 26, with 1,199 stones. The GK series grew to # 27 in 1894, with its 2,321 stones. In 1894 the Neue Folge (New Series or **NF**) was introduced in an attempt to eliminate the confusion. To the best of the author's knowledge, no one has put together a table of equivalent telegraph words for the AF sets in all of the languages, so just such an equivalency table is included in the appendices of this book. To the author's surprise this set of tables requires over 50 pages and its index covers over a thousand identifying words. Most people use the German names, as the stones were of German origin, but the best modern research has been done in the Netherlands and in those studies sometimes only the Dutch names are recorded. Dr. Meyer-Margreth of Hamburg claimed he had, when he died in March, 1983, a complete (without a gap) set of Richter's Anker printed material, in German, going back to 1884. Unfortunately, this material is not available for examination; it may be lost.

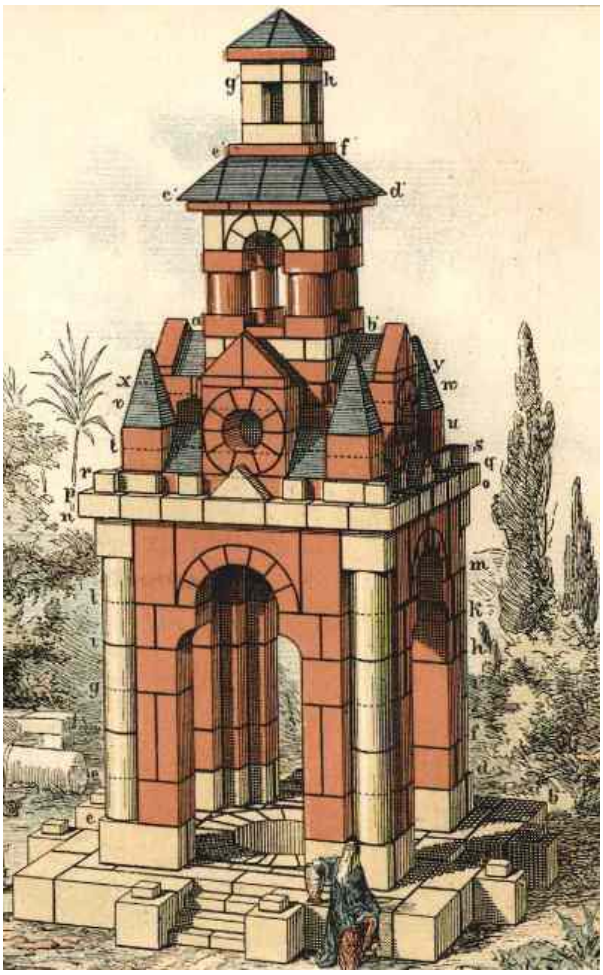
The real mystery of the AF series, however, has never been solved: All of the KK-AF (old series - small caliber) building plan books, starting in about 1888, which is after the introduction of the new "fourth" editions of the plans, have this note across the top of the front cover: "Licensed to be used only outside of the United States of America and Canada." Why? The KK-AF sets were sold in the USA.[15] Did these sets have different plan books? Not that the author can detect. Could it have been because Lilienthal used these books? No, Lilienthal used different, incompatible stone shapes. Did Lilienthal's agent in the USA copyright Richter's plans? No explanation seems to make sense. And, why not the GK-AF plan books also?

The introduction of the NF sets did not end the AF. In 1894 just a few NF sets (#s 1 through 8) were available, meaning the largest available NF set was far from as large as sets available in the AF series. As the size of the available NF sets grew, AF basic sets of similar size were dropped from the catalog, but the larger AF basic sets, as well as all of the AF supplement sets continued to be listed. In addition, new AF sets continued to be added. In 1894, both KK-AF set # 24A and GK-AF set # 25A were introduced; the corresponding basic sets, KK-AF # 26 and GK-AF #

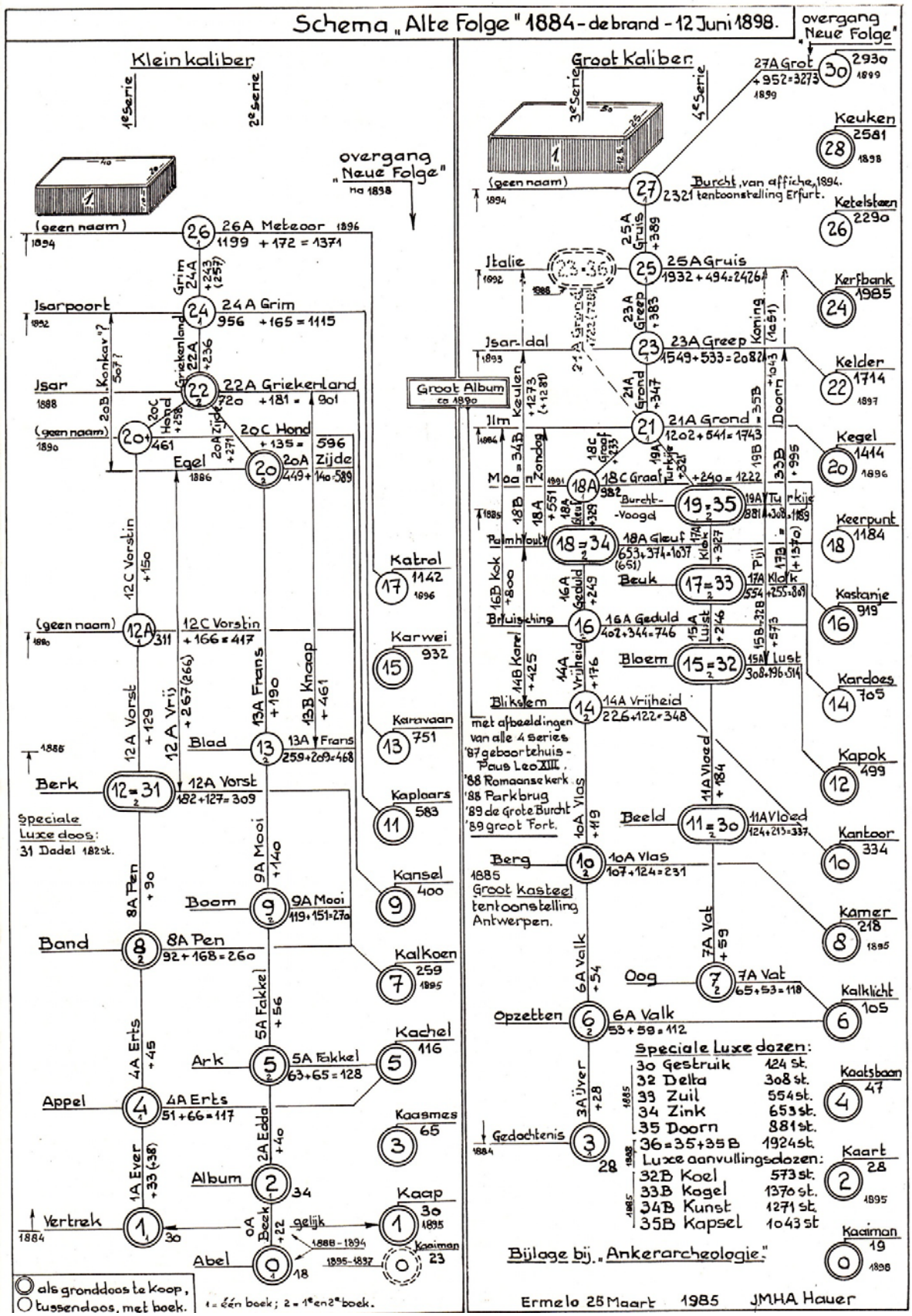
27, did not exist as sets and could only be reached by the purchase of supplement sets. As late as 1896 supplement set GK-AF # 27A was being promised in catalogs as being available in early 1897. But if someone notes that the last page of the building plan book for GK-AF set # 25A (printed in 1894) did **not** have a plan from this next supplement, one might understand if that person doubts whether this promise was sincere. At the top of the supplement set list in 1896 is KK-AF # 26A, Grimmbart, which does not lead to a KK-AF set # 28 but rather converts the 1,199 stone KK-AF set # 26 to the 1,142 stone KK-NF set # 17, Reitbahn, albeit with an excess of 229 stones. And the long promised GK-AF set # 27A, Grotte, finally made its appearance in 1899 as a conversion set to GK-NF set # 30, Ritterburg.

On June 12, 1898, there was a major fire at the Richter factory in Rudolstadt. The primary loss seems to have been the inventory of the printed plan books, but not the printing plant or the printing plates. Richter decided not to reprint the AF plans and announced that AF sets were no longer available.[16] By 1899 he had changed all of the supplement sets to conversion sets, retaining the old numbers and telegraph words.[17] Thus, for example, there is a KK-AF supplement set # 20A, Greif, of 271 stones which results in KK-AF set # 22 **and** there is a KK-AF to KK-NF conversion set # 20A, Greif, of 140 stones which results in KK-NF set # 9. As a result, even the combination of a set's number and telegraph word together do not clearly identify an "A" set of the Alte Folge.

Mr. J. M. H. A. Hauer, of Ermelo, Netherlands, was undoubtedly the world's expert on the Alte Folge series of sets. His death, in August of 1996, was a great loss to the Anker world. In 1985, he drew up a chart of all of the sets from this period. This chart, with his kind permission, has been included in this book. The chart shows quite clearly how both the GK and KK sets were divided into two series. All of the supplement sets are shown, along with the quantity of stones and the date of introduction of the sets. The chart also includes the conversion sets, by which an owner of an AF set could supplement his set and simultaneously convert to the Neue Folge series of sets. This chart has stood the test of time. In the forty years since it was made, not one error has been found.



Not all Alte Folge plans are unusual.


Schema „Alte Folge" 1884 - de brand - 12 Juni 1898.
overgang „Neue Folge"
Klein kaliber
1e Serie
2e Serie
overgang „Neue Folge" na 1898
(geen naam) 26 26A Meteoor 1896 1199 + 172 = 1371
Isarpoort 24 24A Grim 956 + 165 = 1115
Isar 22 22A Griekenland 720 + 181 = 901
(geen naam) 20+ 461 20C Hond + 135 = 596
Egel 20 20A Zijde 449 + 140 = 589
(geen naam) 12A 311 12C Vorstin + 166 = 417
Berk 12 = 31 12A Vorst 182 + 127 = 309
Speciale Luxe doos: 31 Dadel 182 st.
Band 8 8A Pen 92 + 168 = 260
Boom 9 9A Mooi 119 + 151 = 270
Blad 13 13A Frans 259 + 209 = 468
Ark 5 5A Fakkel 63 + 65 = 128
Appel 4 4A Erts 51 + 66 = 117
Album 2 34
Vertrek 1 30
Abel 0 18
Groot Album ca 1890
Katrol 17 1142 1896
Karwei 15 932
Karavaan 13 751
Kaploors 11 583
Kansel 9 400
Kalkoen 7 259 1895
Kachel 5 116
Kaasmes 3 65
Kaap 1 30 1895
Kaaiman 0 23
gelijk 1888 - 1894
1895 - 1897
als gronddoos te koop,
tussendoos, met boek.
1 = één boek; 2 = 1e en 2e boek.
Groot Kaliber
3e Serie
4e Serie
(geen naam) 27 2321 Burcht, van affiche, 1894. tentoonstelling Erfurt.
27A Grot + 952 = 3273 1899
30 2930 1899
Keuken 28 2581 1898
Ketelsteen 26 2290
Italie 25 25A Gruis 1932 + 494 = 2426
Kerfbank 24 1985
Isar-dal 23 23A Greep 1549 + 533 = 2082
Kelder 22 1714 1897
Ilm 21 21A Grond 1202 + 541 = 1743
Kegel 20 1414 1896
Moa 18A 982 18C Graaf + 240 = 1222
19 = 35 Burcht-Voogd
Keerpunt 18 1184
Palmhout 18 = 34 18A Gleuf 653 + 374 = 1027 (651)
Beuk 17 = 33
Kastanje 16 919
Bruisching 16 16A Geduld 402 + 344 = 746
Bloem 15 = 32 15A Lust 308 + 196 = 504
Kardoes 14 705
Blikslem 14 14A Vrijheid 226 + 122 = 348
met afbeeldingen van alle 4 series
'87 geboortehuis - Paus Leo XIII.
'88 Romaanse kerk.
'88 Parkbrug
'89 de Grote Burcht
'89 groot Fort.
Kapok 12 499
Beeld 11 = 30 11A Vloed 124 + 213 = 337
Kantoor 10 334
Berg 10 10A Vlas 107 + 124 = 231
1885 Groot Kasteel tentoonstelling Antwerpen.
Kamer 8 218 1895
Oog 7 7A Vat 65 + 53 = 118
Kalklicht 6 105
Opzetten 6 6A Valk 53 + 59 = 112
Speciale Luxe dozen:
30 Gestruik 124 st.
32 Delta 308 st.
33 Zuil 554 st.
34 Zink 653 st.
35 Doorn 881 st.
36 = 35 + 35B 1924 st.
Luxe aanvullingsdozen:
32B Koel 573 st.
33B Kogel 1370 st.
34B Kunst 1271 st.
35B Kapsel 1043 st.
Kaatsbaan 4 47
Gedachtenis 3 28
Kaart 2 28 1895
Kaaiman 0 19 1898
Bijlage bij „Ankerarcheologie."
Ermelo 25 Maart 1985 JMHA Hauer

VII. The New Series (Neue Folge) Sets

As noted in the previous chapter, the first Neue Folge sets were marketed in 1894, but the Alte Folge supplement sets were continued as catalog items until the fire in 1898.[1] The term Neue Folge, or **NF**, can be applied to all stones and sets introduced after the AF. But in this chapter the Neue Folge sets discussed will be limited to the main stream sets. The other NF sets, such as the sets with metal parts, the new sets of the 100, 200, 300 and 400 series, and the Neue Serie sets of the 20s will all be covered in separate chapters. As mentioned above, the Neue Folge was an attempt to bring order out of the chaos of set identification. The Neue Folge built on the lessons taught by the Alte Folge. Clearly the supplement set concept was working well. But as learned from the large 1888 GK-AF set # 21A of 722 stones, many buyers did not want large supplements, even though they supplemented quite large basic sets. The supplement sets should all be about the same size. It was better to create the large supplement sets from two or more small supplement sets, thereby giving cost options to the buyer. In the NF series each supplement set introduced new stone shapes, never only more stones in previously supplied shapes.

The sets were not just renumbered, they were completely changed. Only the very small KK-AF set # 1 was incorporated into the NF series of sets; both its stone arrangement and plans were carried over. The KK-NF set # 0, Rabe, was part of the KK-NF line from 1895 through 1897, but after the fire in 1898 the number "0" was given to the GK-NF series, although the "telegraph word" was not changed. Later the GK-NF set # 0 was renumbered "P". As it was the smallest set in the product line, which meant it was an initial purchase, it would seem that there was little risk of confusing the buying public.

For reasons quite impossible to understand the individual stones also received new numbers in the Neue Folge. Some minor attempt was made to put the existing stones in some semblance of order. Although numbers were reserved for stones already planned for introduction, it should have been obvious that any numerical arrangement would lose its meaning as soon as new sets were designed. The GK-NF stones #s 1 through 91 are all rectangular, #s 92 through 129 are Romanesque arches, #s 130 through 174 are Gothic arches, #s 175 through 207 are columns (including base stones), #s 208 through 312 are sloped roof and tower stones, #s 313 through 339 are rounded roof stones, #s 340 through 365 are corner stones for octagonal structures, #s 366 through 411 are circular stones (including stones to merge the circular structures into rectangular buildings), #s 412 through 456 are rectangular stones with shaped and scalloped edges.[2] This logic of the numbering system did not last long. Within a year, as shown by the numbers assigned to the new stones in the Bridge Set of 1895, stone numbers were being assigned without reference to grouping. To make the stone numbers even more difficult to remember, after stone # 6 the GK-NF and KK-NF stone numbers have no relationship to each other at all. Certainly the problems created by the new stone numbers must have become immediately apparent in 1894 when orders for stones were received without any indication as to whether the numbers used were AF or NF. The NF renumbering assigned stone # 1 to a cube of one standard dimension, replacing the AF stone # 1, which is brick-shaped -- 0.5 × 1 × 2 of the standard dimension. Most Anker collectors refer to the NF stone # 1 as the "standard" or "basic" stone.

The problems caused by renumbering the stones still plague Anker collectors today. Most collectors know the more common stones by their GK-NF numbers. When discussing AF sets,

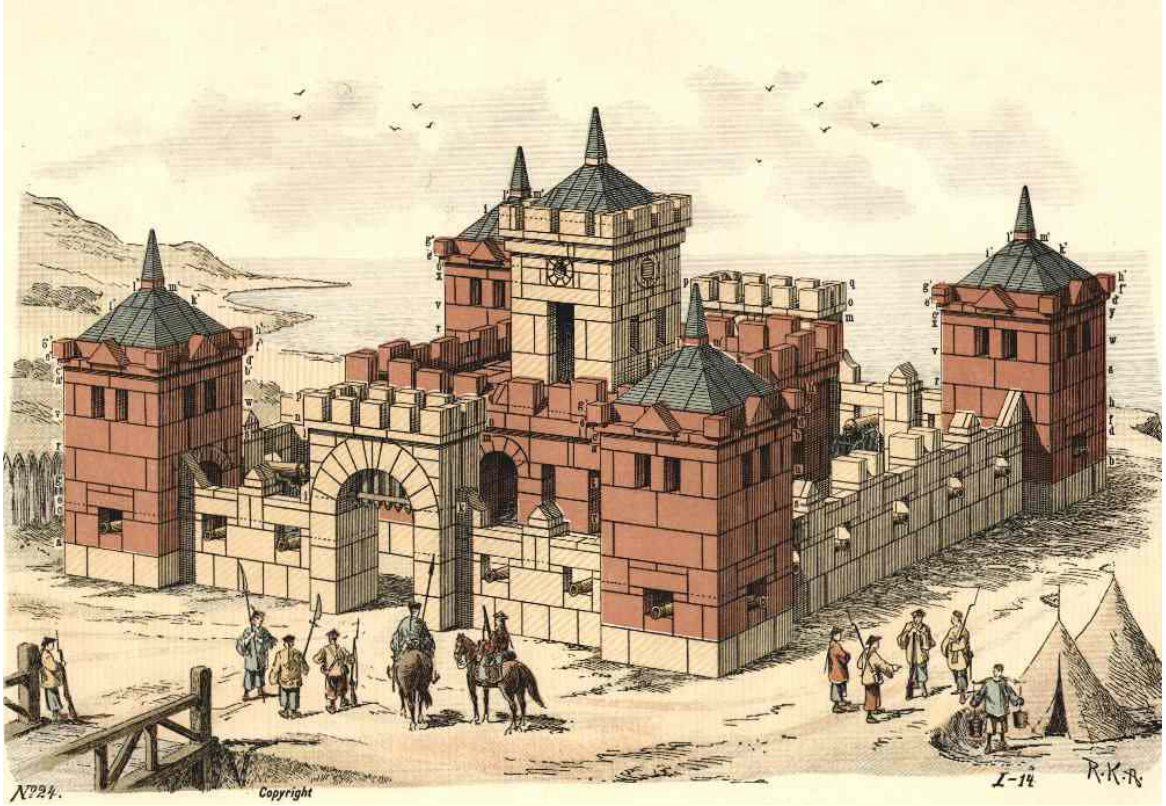
Church from GK-NF set # 34. It is not really a good copy of the Fünfhauser Church in Vienna. Churches and castles seem to be the favorite subjects for Anker builders.

collectors are quite likely to use the NF numbers for the stones. After all, a GK-AF stone # 10 **is identical to** a GK-NF stone # 6. Probably few Anker collectors will know what a GK-AF stone # 10 is, but all of them will know that a GK-NF stone # 6 is a stone 25 × 25 × 100. This confusion is in addition to the problem that sets and stones share the same numbers -- the difference between GK-NF stone # 6 (a single stone) and GK-NF set # 6 (a set of 105 stones). Many collectors will even use the GK-NF stone numbers when referring to KK sets, whether AF or NF. After all, the GK-NF stone # 98 is a very common and well known arch, but who remembers that its KK equivalents are KK-AF stone # 14 and KK-NF stone # 45? Or even that its GK-AF stone number is 23. The 1896 loose stone catalog showed all of the stones with their AF numbers, and in AF number order, but with the NF numbers printed in red. Sharp eyes will notice that GK-AF #s 34, 43, 44, 45 and 46 were not given NF numbers, an omission never corrected during the next 70 years of Anker stone production. These stones could be purchased right up to the end of production in 1963, but one had to request, for example, "GK-AF stone # 34" -- the full, formal name. The reader may feel that the use of such full, formal names is excessively pedantic, but when the various sets with metal parts are added to the total, along with the confusion between "Passwords" and "Telegraph Words", then it will be apparent to all that, for reference purposes, the full, formal name can be extremely helpful.

In 1894, the first year of the NF, sets through # 8 (KK-NF set # 7 and GK-NF set # 8) were available to the public. New sets were quickly created, so by 1896 the sets, including the appropriate supplement sets, through # 20 (KK-NF set # 19 and GK-NF set # 20) were on the market. 1897 saw the introduction of only GK-NF set # 22, but in 1898 GK-NF sets #s 24, 26, 28 and 30 were made available. GK-NF set # 32 followed in 1899 and the series was completed at the end of 1900 (too late for Christmas sales) with GK-NF set # 34. Again Richter gave his customers a hint that the GK-NF series had reached its end with the GK-NF set # 34; the plan on page 16 of the manual is **not** a plan for the next supplement set. That hint was really a very clear message.

To separate the GK and KK series of sets, the KK-NF sets were given odd numbers and the GK-NF sets even numbers. The box size was fixed for each stone caliber. GK-NF boxes (up through GK-NF set # 18A) hold 8 × 12 cubes of stones. Thus a GK-NF set # 6 plus set # 6A could be easily assembled into a two layer GK-NF set # 8. Similarly a KK-NF set # 5 holds 9 × 13½ cubes of stones, and the further supplements are also the same size (up through KK-NF set # 17A). The introductory sets #s 0 through 4 were smaller than these standard boxes, so KK-NF set # 5 and GK-NF set # 6 are considered today to be the "first set" and a "standard box" for their respective stone calibers. It is interesting to note that by introducing the NF with equal quantities of GK and KK sets (ten of each) the KK was being emphasized. The KK-NF set # 19 is larger than the largest KK-AF set, # 26 (1,320 stones vs. 1,199). In contrast, the GK-NF set # 20 (1,414 stones) is much smaller than the largest GK-AF set, # 27 (2,321 stones), which existed only as GK-AF set # 25 + GK-AF set # 25A. And also the 768 "cubes" of GK stones in a GK-NF set # 20 is significantly less than the 972 "cubes" of KK stones in a KK-NF set # 19, but the smaller relative size of the **average** GK stone results in more stones, as noted above. The next logical KK-NF supplement set, KK-NF set # 19A (#21), first made its appearance in 1905, while, as mentioned above, the GK-NF series moved ahead quite rapidly.

Crèche from GK-NF set # 22. **Chinese Fort in Kiautschau from # 24**.



The demands of the market caused Richter to introduce intermediate basic sets. The jump from KK-NF set # 3, with 65 stones, to KK-NF set # 5, with 116 stones, was considered too large. The intermediate set KK-NF (set) # 3½[3], of 71 stones, was added in 1901. The GK-NF series picked up a much larger number of these "fractional" sets, # 2½, two different # 4½s, and two different # 6½s. The necessary supplement sets, #s 2½A, 4½A, and 6½A, were also added. All of these fractional sets merged with the whole numbered sets at GK-NF set # 8. Actually the situation is somewhat more complicated than just described because, in 1910, a series of stone building sets which included lacquered iron parts (the DS or Dach Steine series of GK-NF sets, which are covered in Chapter XI) was introduced. These odd numbered DS sets contain metal parts only starting with numbers above (not including) DS # 3½ -- exceptions again: the DS # E/3 ("E" for Eisen, iron in German) and the USA versions of DS #s 1, 1A, and 3 all have metal parts. The smaller sets from this DS series are often found in catalogs as part of the GK-NF line. So DS # 1, Eger (but not the USA version, Eberbach), became a new GK-NF set # 2, also identified as Eger. DS # 3, Elster, (but not the USA version, Eisenach) became a new GK-NF set # 4, Elster. These sets are different from the GK-NF sets # 2, Lahr, and # 4, Lebus. The "DS" series also had fractional numbers – 1¼, 1½, 3¼, 3½, 5¼, and 5½. Since the last two (5¼ and 5½) have metal parts these sets were never cataloged as part of the GK-NF series of sets. But the lower numbered often were so cataloged -- sometimes with a number change to make the sets seem logically part of the GK-NF series of sets. Therefore DS # 1½ is the same set as GK-NF # 2½ and DS # 3½ is the same as one of the two GK-NF # 4½s. To the best of the author's knowledge, DS # 1¼ was never renumbered, even though it was sometimes included in the GK-NF series of sets. And in the 1920, the NS sets were introduced with GK-NF set numbers.

As with the AF sets, the NF sets were identified not only by a number, but also by a "telegraph word". Eight different telegraph words were used for the different languages -- German, French, English, Dutch, Danish, Polish, Czech and Hungarian. The same French telegraph word was also used for Russian, Romanian, Italian, Spanish and Portuguese. By 1906, when the addition of so many different series of sets with metal parts (see the next chapter) had made identification by number even more uncertain than it had been earlier, all of the <u>then current</u> sets were given "**Passwords**", which replaced the many "telegraph words". These Passwords are names of cities, generally in Germany. This new Password system of identification, which is described in some detail in Chapter IX, was very useful, even though the USA branch continued to use the original English telegraph words to identify sets.

Stone shapes continued to be added, and the numbers were arbitrarily assigned. Most of these new stones appeared in new sets, and others were intermediate thicknesses of well known stones -- thicknesses such as 1/8 (3.125 mm), 5/8 (15.625 mm) or 7/8 (21.875 mm). Some of the more common roof stones were made in odd widths (20.66, 15.5, 10.33 and 5.16 mm) to make the construction of octagonal roofs more precise.[4] A few of the new stones, such as the beautiful flying buttress stones, the untapered fluted columns and the Ionic capitals and bases have generated speculation about unknown sets. Two odd stones, which came from the Vienna factory, lead to the discovery of the Roman series in 1990. These stones were included (free) in a shipment of loose stones in order to fill up the box and thus reduce the likelihood of breakage in transit. How many of the Roman series stones were ever made, and when the four shapes that we know about were made, is not known. Around 1900, the loose stone catalog was made more complete by the assignment of GK-NF stone numbers to mosaic stones (including the KK sizes),

This "palm house" from the plans for GK-NF set # 22 is a reasonably close copy of the Orangery - Gardener's Residence in the Anker Works in Rudolstadt. The Richter Villa can be seen in the background of the lower drawing.

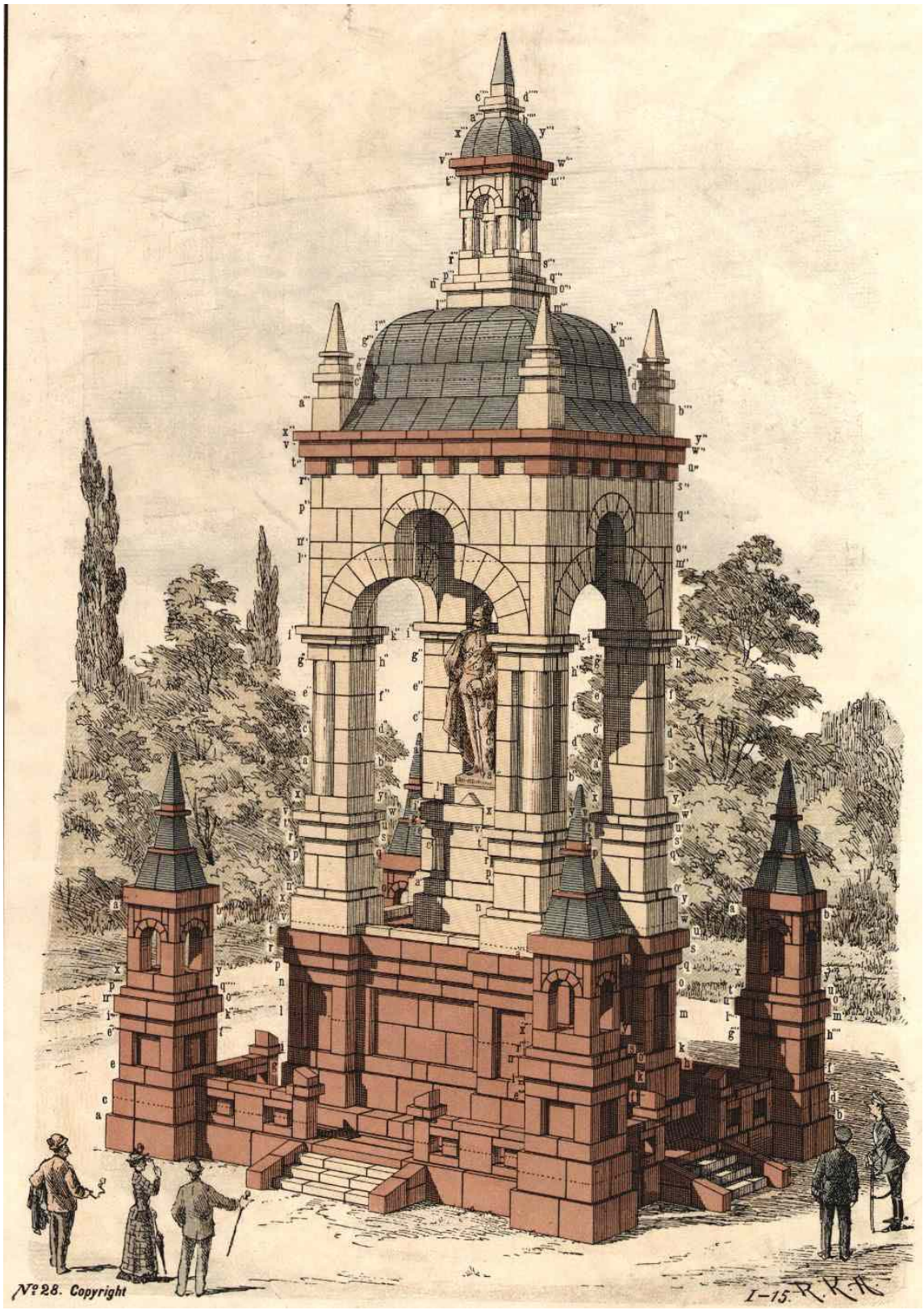
puzzle stones, and game stones. In a few cases, the same stone has two different numbers, one in the main part and the other in the mosaic part of the catalog.[5]

Starting in 1902, Richter attempted to increase sales of the KK-NF sets by adding "free" nickel plated iron bridge parts to KK-NF sets #s 1A and 3½. But this effort does not seem to have the desired effect, so the KK-NF set series was concluded in 1905 with the introduction of KK-NF # 19A (set # 21). This set was unusual in that it 1) was larger than the standard 9 ×13½ cube box and 2) it contained metal parts. The stone contents alone are 13½ × 14 cubes; the metal parts which are used for roofs but not bridges, make the set and its buildings even larger. It seems safe to assume that the only reason this set came out was that a KK-NF set # 19A had been promised in the plan book of KK-NF set # 19. Perhaps some people were asking for it, but certainly not many, as can be seen from the press run of only 1,000 plan books and just 500 packing plans. It is not known exactly when the KK-NF basic sets were dropped from the catalog. These sets were in the 1903 catalog and were assigned Passwords in 1906, but only the KK-NF supplement sets are listed in the 1907 catalog. Bold type was used to call attention to the fact that there were other sets (Imperator -- GK sets with metal parts) using the same numbers and that their respective supplement sets were not interchangeable. By 1913, even the KK-NF supplement sets were no longer included in the catalog. The author has never seen any indication that the KK-NF sets were ever offered for sale in the USA, although they were in the U.K.

As already mentioned, a few German language catalogs from around 1900 state that a Gothic church was planned as a supplement to the final GK-NF set # 34. But it was the Large Castle, in 1909, which became the ultimate supplement to the GK-NF series. Catalogs from 1908 to 1915 state that a new supplement set, GK-NF # 34D, was in preparation. Two versions are known; they were never cataloged but they were sold on special order. The sets merged the with-metal sets with the stones-only sets. One set merged the VE (nickel-iron) sets and the other merged the DS sets. The plan books for the sets were never completed, but a few partial drawings exist.[6]

The end of new introductions of sets for the GK-NF series, in 1900, did not mean that innovation had stopped or that new sets were not going to be offered. The addition of metal parts produced many new and interesting sets, which will be covered in the next few chapters. But first, a review of the sales volume of the GK-NF, the most popular of the Anker block series, should prove interesting.

Because the fire on June 12, 1898 destroyed the entire inventory of building plans, all of the plans had to be reprinted during the next few months. As previously mentioned, the Richter company's use of printer's marks is of enormous help to anyone researching the history of Anker stone building blocks. Printer's date marks "987" through "9810", from just after the fire, are among the most common. Generally these marks were quite complete. For example the more common plan book for GK-NF set # 22 (also 20A) carries the printer's mark "987 **II-I** 3", showing that during July, 1898, a second printing was made, that it was identical to the first printing, and that 3,000 were printed.[7] The original printing was marked "9712 **I** - 5". Examination of over two dozen plan books has shown that the company was still putting plans from this second (1898) press run into sets sold during the post WW II VEB era. It is certainly safe to say that all 5,000 of the original printing were not sold, but the books already packed in sets were not destroyed in the fire. The amount of detail in the printer's marks deteriorated in the early 1900s, and is of quite poor quality by the time W.W.I started. But the information provided by the printer's marks is very useful to anyone who studies the Anker sets.



This monument, from GK-NF set # 28, is quite difficult to build.

Using, as an example, the printer's marks found in the plan books for GK-NF set # 6: The first press run of 18,000 books was printed in August 1894 (948 **I** 18). The author has not seen a book from the second press run, but the third is clearly indicated as 30,000 copies in June 1896 (966 **III=I** 30). The "**III=I**" means that this third printing is the same as the first printing. Just before the fire another thirty thousand were printed (984 **IV-I** 30). The fire resulted in a new printing in October (9810 **V-I** 40). But since other plan sets were reprinted in July, August and September, and the GK-NF set # 6 had quite significant sales, it seems most likely that many books of plans, probably already packed in finished sets, survived the fire. The next printing illustrates the "19" problem. The year 1900 caused havoc with the printer's marks. The mark **not** used was "00", instead the turn of the century was memorialized by using "19" to indicate the year. The result is that the author has seen the printer's mark date "1910" used to mean October 1900, October 1919, and also the year 1910.[8] The 1900 press run was made in January (191 **VI-I** 70). Since 30,000 books had satisfied both the 1896 and 1897 Christmas demand (printing **III**), and 40,000 books had met a portion of the 1898 Christmas demand and all of the 1899 Christmas demand (printing **V**), then it seems probable that between ten and fifteen thousand books survived the June, 1898, fire. Other plan books also survived the fire. The book of plans for GK-NF set # 24, printed in April of 1898 (984 **I** 5) was never reprinted and the section books were first printed in August (988 **I** 3). So it seems that work in progress, in addition to the finished goods inventory of Anker sets, was not lost.

By about 1904 the printer's marks had become somewhat irregular. The number of the press run is often not identified (only 072-40) or is incorrectly identified (987 **II-I** 10 and 038 **II=I** 6 for the same booklet of plans), but the date and quantity were always changed. It may be that Richter felt that he was giving his competition too much information, or perhaps it was that the number of the press run simply served no useful purpose since most books were unchanged.

Based on the printer's marks, and making reasonable estimates of the size of press runs which are not known to the author, he has made the following estimate of the annual sales of GK-NF sets[9] in the fifteen years from 1898 to 1913:

GK-NF Set #	Date Introduced	Annual Quantity
2 (or 4 or 6)	?/94	70,000
4 (or 2A or 6)	9/94	40,000
6 (or 4A)	8/94	25,000
8 (or 6A)	?/94	15,000
10 (or 8A)	7/95	5,000
12 (or 10A)	10/95	1,500
14 (or 12A)	1/96	750
16 (or 14A)	9/95	500

The reader should remember that a GK-NF set # 8 came with books 2, 4, 6 and 8, so in the table "GK-NF Set # 8" means any set resulting in set # 8 (either # 8 itself or, more likely, set # 6A) or the sale of any higher numbered set, like GK-NF set # 10 (but of course not GK-NF set # 8A). Set # 34, purchased as a set instead of being achieved by purchasing supplement sets, came with all of the books for sets # 2 through 34. It is also important to remember that these numbers are based on planned print runs of books and do not take into account factory losses, scrap, damage, books sold separately or press overruns. The error in the sales volume of the smaller sets is undoubtedly less than in the volume of the larger sets because any one accident would have

affect a much smaller portion of the total quantity printed. Because the boxes of sets GK-NF set # 6 and above (through # 18A -- from # 20A and up the sets were larger) are all one standard size, it is meaningful to add up the quantities (leaving out #s 2 and 4, but correcting for their stones) and state that close to 60,000 "boxes" of stones were sold annually.

For GK-NF set # 18 and above, there were fewer press runs, often just one. For example, in addition to the pre-fire printing, the plan books for GK-NF set # 18 were printed just three times -- 6,000 in 1898; 3,000 in 1920; 1,000 in 1939. So the next table gives the total sold, from the 1898 fire through factory closing in 1963 -- the total for 65 years of sales.

GK-NF Set #	Date Introduced	Total Quantity	# of Printings [1]
18	?/96	10,000	3
20	?/96	8,000	2
22	12/97	3,000	1[2]
24	4/98	5,000	0[3]
26	7/98	5,000	2[4]
28	11/98	3,000	1
30	10/98	2,500	1
32	11/99	2,500	1
34	12/00	1,000	1
Great Castle	9/09	500	1

[1] - After the fire only. Just the building plans, not the layer plans.

[2] - Probably some finished, but unsold, sets survived the fire.

[3] - The plans for set # 24 escaped the fire.

[4] - Both printings were in 1898, but after the fire. One in July and the other in October. The small second printing was needed to equal the number of sets of layer plans printed in September, 1898.

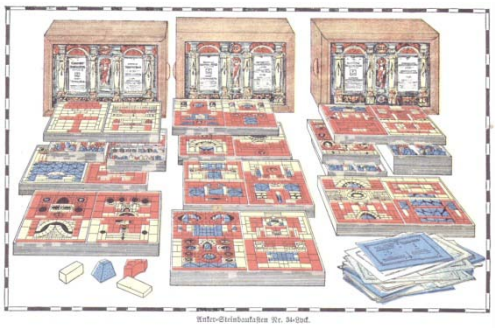
The amount of time needed to draw the many section plans for the GK-NF sets #s 32 and 34 delayed the introduction of these sets. The table above, of total sales of the larger sets, makes it clear why Richter saw no reason to continue the GK-NF series beyond # 34. In fact, one might suppose that the sets above GK-NF # 20 would never have been developed if Richter had known just how low the sales rate was going to be. But it is important to factor into Richter's business planning the prestige which the large sets of blocks brought to the company and Richter himself.

We know that virtually all of the plans were eventually used, because the VEB factory had to make some new printings, black and white, of many of the higher numbered plan books. These VEB printings are not included in the totals above. It is quite common to see a VEB plan book containing plans printed in 1898. Thankfully, a very good quality of paper was used for the NF plan books before W.W.I.[10] The paper used for plans printed after the start of W.W.I is of quite poor quality, with a lot of acid left in the paper. The pages of these building plan books are yellowing, brittle, and falling apart. When Richter died, the estate inventory showed an inventory of plan books valued at over 191,000 Marks, plus an additional 137,000 Marks invested in the printing plates. The sum of these numbers is remarkably close to the total value of the chemical-pharmaceutical business, 331,000 Marks -- this 331,000 Marks includes such current assets as accounts receivable and inventory, as well as equipment, but not the land and buildings.

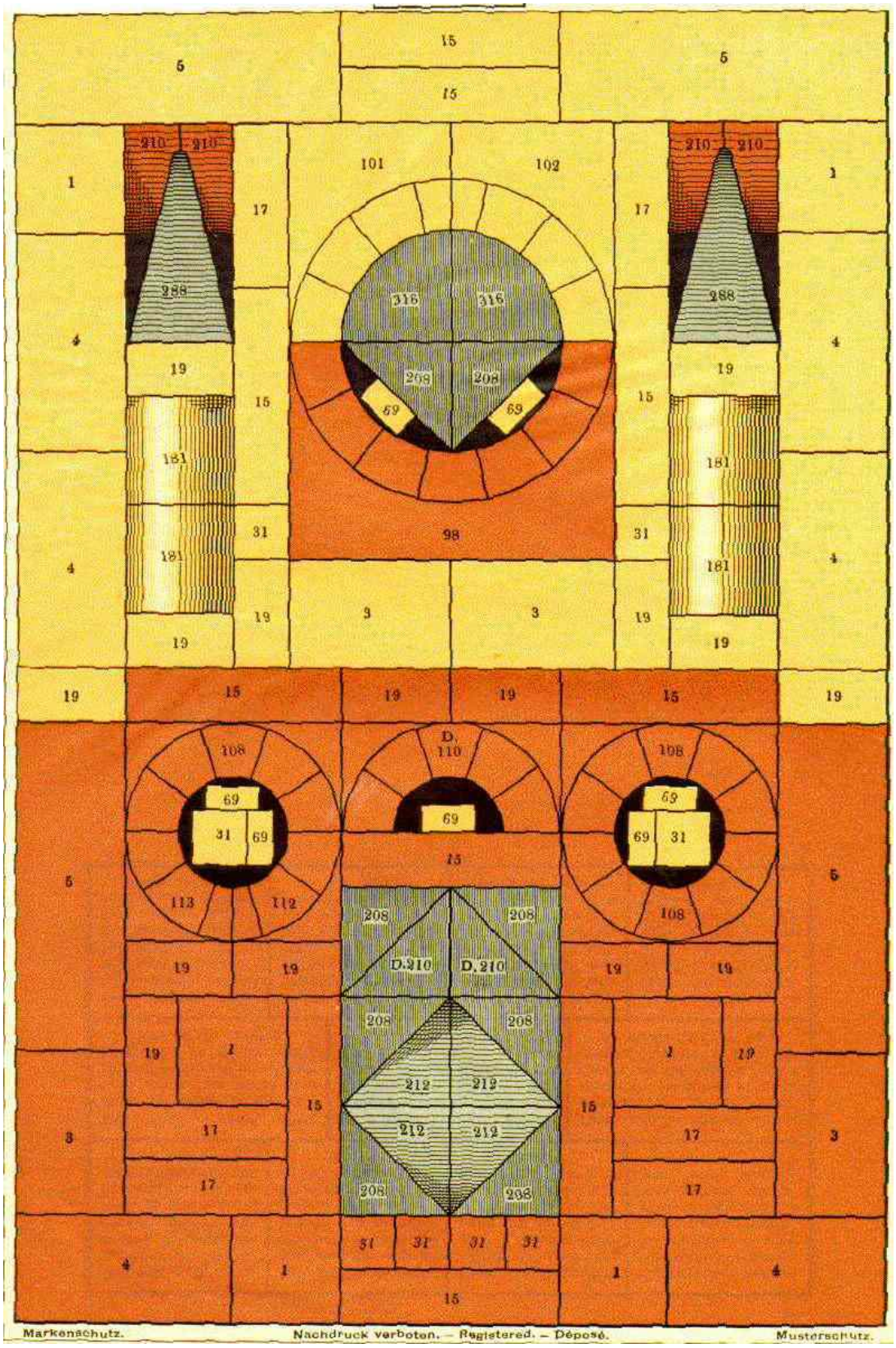
Not all of the basic sets were made as individual sets. All GK-NF sets through # 12 were made. From that point only GK-NF sets #s 16, 20, 28 and 34 were offered in a single box or chest. A GK-NF set # 22 was actually shipped as a GK-NF set # 20 plus a GK-NF set # 20A. Of course the large GK-NF sets #s 28 and 34, if ordered in a single box, came in a strong oak chest, which itself is valued a collector's item today.[11] A person ordering a standard GK-NF # 34 would have received three boxes, GK-NF sets #s 20 (66 lb.), 20D (45 lb.) and 28D (55 lb.), although the stones were packed in the same way as in the chest-packed sets. Two types of chests were made. One is the better known finished cabinet style; the other is a “travel chest” which is made for repeated shipping. The author has seen three Great Castle supplement sets in factory original chests, but two boxes was the standard packing.[12]

In addition to the standard GK-NF sets, fractional number sets, like 2½ , 4½ and 6½, were added to the line, as was the small GK-NF set # 0 (or "P" as it was called in the USA) of 19 stones. All of these sets had their respective supplements and merged into the main GK-NF series of sets at GK-NF set # 8. Larger supplement sets were also offered -- two, three and even four layer sets. The size of a supplement set is indicated by the supplement's letter. For example, GK-NF set # 12 is a basic set of four boxes (6, 6A, 8A and 10A; the stones are actually packed in four trays which are laid out as these four sets); GK-NF set # 12A is a single layer supplement set resulting in GK-NF set # 14; GK-NF set # 12B is a two layer supplement (containing #12A and # 14A) resulting in GK-NF set # 16; GK-NF set # 12C is a three layer supplement resulting in GK-NF set # 18; and GK-NF set # 12D is a four layer supplement resulting in GK-NF set # 20. Not all possible arrangements of large supplement sets were made.[13] Set 18A is an exception. It came in two versions – 18A, Meuselbach, and 18B, Piesau. Set 18B, Piesau, has a second, empty, layer to permit packing the stones following the set # 20 packing plan. Set # 20 has five double-layer trays – 10 standard trays. The stones were packed in 9 trays, with no stones in the arches, and small stones in a sectioned tray. The tenth tray holds the plan books.

The GK-NF series lasted until the end of the Anker era in 1963, although the Neue Serie (NS) sets replaced the GK-NF sets #s 6, 8, 10, and 12 in the 1920s, and GK-NF sets #s 14, 16, and 18 in the 1950s. These sets, to be described in their own chapter, are very similar to their GK-NF numbered equivalents, only the arch forms were changed. But the old arches were still made by the factory. The new arch stones, which will be described in Chapter XV, proved to be so unpopular that the factory actually offered a complete set of original GK-NF arches as substitutes for the NS arches and quite soon after introduction of the NS sets offered the buyer the alternative of the older GK-NF sets. Thus the GK-NF and NS sets were sold side by side from the late 20s until W.W.II. The higher numbered sets, above the NS series, continued to be supplied as the original GK-NF sets and with the original style arches.



On the left is a catalog representation of the GK-NF # 34, Lyck. These three boxes are sets #s 20, 20D, and 28D, but the factory shipped at # 34, Lyck, with the stones arranged according to the inventory packing plan. Only one set # 20D has been found and not even one set # 28D is known.



The Packing Plan for GK-NF set # 6, the most common set.

VIII. Neue Folge Sets with Metal Parts -- Part 1 (1901 - 1905)

As was mentioned in the section describing the Bridge Box of 1895 (in Chapter V) Richter had entered the music box and gramophone business in the early 1890s.[1] In 1894 he relocated this business from Leipzig to Rudolstadt. The music boxes were sold under the trade names "Libellion" and "Imperator". Imperator means emperor in Latin and quickly became a favored trade name of Richter. Of course this was the era of the German Empire and Kaiser Wilhelm I and II. The USA patents show that Richter himself was interested in the mechanical musical instruments and that he was the inventor of numerous improvements to their mechanical mechanisms.[2] But his claim of being the “true inventor” may not be truthful. He was also shown as the true inventor of all of the metal parts included in the Anker stone building sets. He bought the patent for the metal parts in the Bridge Box of 1895; he claimed he designed the metal parts for these new sets himself. Perhaps his personal interest in the metal parts may account for the company's many and varied attempts to incorporate metal parts into Anker stone building sets, as well as the relatively minor improvements which resulted in the introduction of a completely revised series of sets "with metal parts" every few years. In that Richter was already selling his third generation of combination stone and metal sets just Märklin, Meccano or Gilbert entered the construction toy business, one cannot accept the often expressed theory that the "with metal parts" Anker stone building sets were a reaction to the metal construction sets coming into the market.

In 1901 stone building sets with nickel plated iron parts were added to the line.[3] Except for two fully formed single piece bridge sections (one is KK, and the other is GK) the iron parts were screwed together to form metal bridge sections and, within a few months, also clipped together to form roofs. Just like the "all-stone" Neue Folge sets, the KK sets were given odd numbers and the GK sets even numbers. These first bridge sets were **supplement sets** to the all-stone GK-NF and KK-NF sets; these sets **could not be used** without the appropriate all-stone set or sets. As mentioned in the previous chapter on NF sets, Richter tried to improve sales of the KK sets by adding three ("free") metal parts in the KK-NF sets #s 1A and 3. But if one started his KK-NF building sets at set # 5, or had converted from the KK-AF series of sets, the "free" metal parts were neither supplied nor mentioned. To help introduce metal parts, Richter also added metal bridge parts to some GK-NF sets, like # 4½, for a short time. The books which came with these sets with free metal were the unneeded Imperator books printed in 1901. It is interesting to note that virtually all of the metal parts actually have GK dimensions, the exceptions are the KK fully formed bridge section and a companion ramp without sides (metal parts #s 1[4] and 2). In general, the KK bridge sets contain GK metal parts. Eventually a few more KK metal parts were created, but not for any of the sets covered in this chapter. Metal parts were added to the loose stone catalog, so both stones and metal parts could be purchased individually.

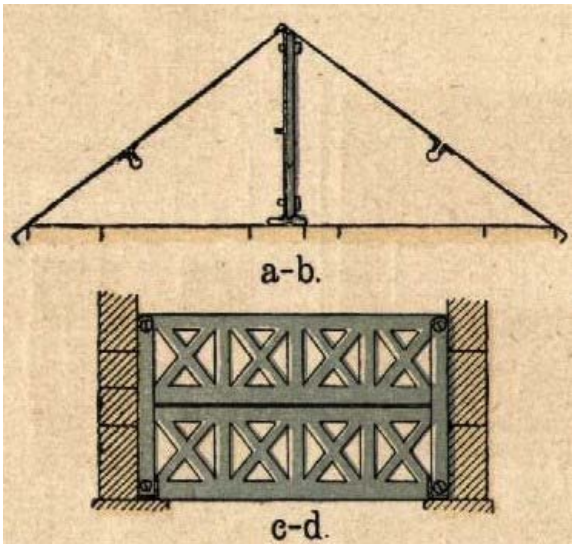
These supplement sets were called "**Br.**" by the company, so in this book they will be identified as "KK-Br" or "GK-Br". Since all of the sets containing metal parts were created after the start of the Neue Folge era, there are no AF versions to be concerned about. Therefore it isn’t necessary to use three part identifications, such as "KK-NF-Br".

From the printer's codes it is clear that from the start the plan was to offer sets with metal parts both as supplements to the main series and as a new "stand alone" series of sets containing both stones and metal parts. The first printings of the building plans, printed in 1901, carry the identifying marks of both series, such as **Br. 5 Im. 7**. "Im." stands for Imperator (Emperor). But

it was not until 1904 that the line of basic (plus associated supplement) sets containing stones and metal parts together was introduced into the market. Although the printer's marks prove that both KK and GK Imperator sets had been originally planned, only the GK versions were produced. By 1902 the "Im" identifier had been dropped from the KK-Br plan books. In 2013 a KK Imperator set (Im 1; Ideal, Jaagbad) was found in the UK. All label and booklet dates are 1901. Perhaps limited distribution, but the existence of KK-Im sets is no longer in question.

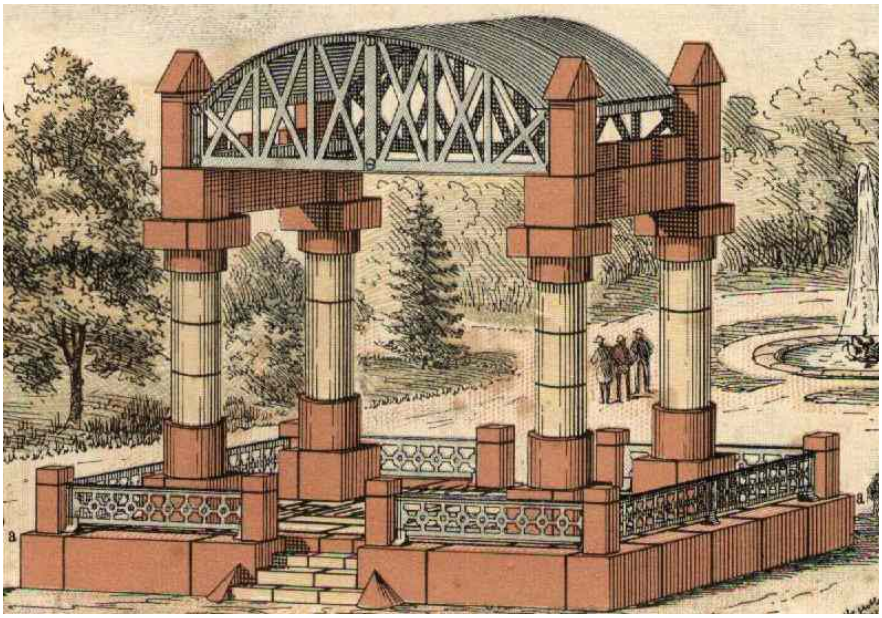
The "Br." sets came in both GK and KK and as both "basic" supplement sets and as "supplemental" supplement sets. Thus a person who owned a GK-NF set # 6 and wanted to add nickel plated metal parts would have bought a GK-Br # 6 to add the metal bridge parts. This set includes 95 stones as well as 40 metal parts and 28 screws. The alternative "all stone" supplement set was, of course, GK-NF set # 6A. Before the GK-Br # 6A supplement set could be added to the combination of GK-NF set # 6 and GK-Br # 6, GK-NF set # 6A had to be purchased to bring the "all stone" set up to GK-NF set # 8. Since the "Br" supplemental sets also includes stones, the total stone inventory of stones in the combined sets (GK-NF set # 8 plus GK-Br # 8 -- the same contents as GK-NF sets #s 6 and 6A plus GK-Br #s 6 and 6A) is much larger than the all-stone GK-NF set # 8 (417 vs. 218). The GK-Br series continued as companion sets up to GK-NF set # 14. For the GK-NF set # 14, the correct "Br." supplement was both GK-Br #s 12 and 12A, as no GK-Br # 14 was ever made. One might compare the 705 stones of just a GK-NF set # 14 with the 1,123 stones and 214 metal parts (plus 76 screws) of the fully supplemented set. But a more fair comparison would be with GK-NF set # 24 (five supplements up from GK-NF set # 14, as substitutes for the five GK-Br sets [#s 6, 6A, 8A, 10A and 12A] used as supplements). The GK-NF set # 24 has 1,985 stones, but no metal parts. These GK-Br sets did include a few stone shapes not found in any other GK-NF series.

All of the sets up through GK-Br # 12 came out before the end of 1902. Set GK-Br # 12A was not introduced until 1904. In its building plan book the set GK-Br # 18A was announced. The intermediate sets, GK-Br #s 14A and 16A were to be skipped. This booklet says that "many eager builders with sets # 34 are awaiting the supplements with metal parts." In order not to keep them waiting so long, after GK-Br # 18A, only two more sets were planned as supplements for sets up to GK-NF set # 34. But none of these three sets, GK-Br #s 18A, 28A and 34A, were ever introduced.[5]



At first, only bridges could be made with the metal parts. Although some flat roofed buildings were included in the building plans, they really just bridge sections used as roofs. The metal parts included small "feet" which would hold a bridge railing upright, so railings could also be used as fences. Almost at once, still in 1901, clips (Klammern) were added to all of the "Br." sets, both KK and GK. Clips were always included, even though some sets still came with the older bridge set plans (printer's marks like "**Br. 4 Im. 6** 0112 **II** 50"), which do not require clips. These clips allowed the sheet metal roadbeds to be clipped together to form a sheet metal roof of significantly greater area. Thanks to a clever use

of both the clips and feet, quite impressive roof structures were illustrated in the building plan books. For example, several railings could be clamped together to form a taller rafter. "Feet" were then added to hold the rafter upright. The roof surface, made from roadbeds which had been clipped together, was then leaned up against the rafter. The result can be unstable.



Richter clearly saw the advantages of special metal parts for roof constructions. In 1902, starting in set GK-Br # 8A, special metal parts were added for roof construction. This corrugated metal approach seems like the temporary construction of Quonset huts, but the use of cast iron supports and sheet metal roofs was quite advanced in 1900. It was used in formal gardens as well as railroad stations. Only a few years later, in 1906, a new series of sets which included metal parts and accessories which were designed to be used as either roofs or roadbeds for bridges, but not both. In the USA the bridge supplement sets were the same as those sold in Europe, except that they have special, English only, labels on the cover of the box. These sets are called **Anchor Bridges**, not to be confused with special USA sets to be described later and called **Anchor Blocks** (using the abbreviation "A-B"). The pictures on this label were different -- scenes of New York on all of the sets examined by the author -- but the plans are not specific to the USA.[6]

Although, as we have seen, the idea of "stand alone" sets of stones and metal parts was part of the initial planning in 1901, but few such sets were made available until 1904.[7] The first two of these series were called "Imperator", except in the USA. The Imperator sets are not just a combination of GK-NF and GK-Br sets, but unique selections of both stones and metal parts -- except for Im # 6 which has the same content as GK-NF set # 4 plus GK-Br # 4. Completely new plan books had to be created. Those early 1901 plan books with both **Br** and **Im** identifying marks had been used up in the "Br." sets, and these plan books were not available for use in the Imperator sets.[8] These Imperator sets were given even numbers from 0 through 12, with Imperator supplement sets numbered 0A through 12A. The Imperator sets had the same types of metal parts (metal bridge parts, clips and screws) as the GK-Br sets, but, of course, not the same quantities. The Imperator sets were sold in the same size boxes as the all-stone GK-NF sets; thus an Im # 6, like a GK-NF set # 6, is one standard box. Because the metal parts take up room in the box, an Im # 12 had significantly fewer stones than a GK-NF set # 12. Later, in very late 1905, a **second series** of **Imperator** sets was introduced as a substitute for these sets; the earlier series is known as the **first series** of **Imperator** sets. The sets are usually identified as Im (1.) set # X and Im (2.) set # Y. There are variations, such as Im^{2nd}. As the reader will discover, Richter used the name "Imperator" many times and on many different products.

Richter quickly realized that not having the Imperator and GK-Br series identical was wasteful and needed to be changed. Therefore, as a running change and without any announcements, the original sets were replaced with the much better known Imperator (1st series) sets. In the USA only this rationalized series of sets was sold. For the USA the box label was changed. These **Anchor Blocks** sets have their own unique identification, "**A-B**", and have odd numbers (1 through 11 and 1A through 9A).[9] Since the KK-NF sets (and the associated KK-Br sets) were not sold in the USA, this use of the odd numbers should not have caused the buyer any confusion.[10] (But, in the overall picture, the numbering of these sets is not helpful.) Only A-B # 5, Impatience, is the same as both of the corresponding Imperator sets, Im # 6, Impfschein, and Im # 6, Aluminium, as well as the contents of GK-NF set # 4 plus GK-Br # 4. Also A-B # 7 is identical in content to Im. # 8 and GK-NF set # 6 plus GK-Br # 6; A-B # 11, to Im # 12 and GK-NF set # 8 plus GK-Br # 8. The cover labels seen by the author all have pictures with New York backgrounds.[11] Only one of the plan books has come to the author's attention, the second book of set A-B # 5. This book has standard plans, printer's marks "Im 6^{II} Br 4", which means that these plans were the same as the ones for the second book for set Im # 6 and the first book for set GK-Br # 4. This book is the first composite book of plans that the author knows about. As was quite standard for Richter Art Department drawings, these plans have in the lower left hand corner of each page a notation of the set for which the plan (or plans) had been drawn. And in the lower right hand corner is "I-#", where # is the page number. This book is in the usual order until page 8, on which the lower left hand notation is "$\mathcal{J}$.6/1, (B.4)" and in the right hand corner is "I-", no page number. This notation is found on pages 8, 9, 14 and 15. All of the designs on these four pages are notable for their exotic roof constructions. But based on other plan books of the same period, it seems possible that the backgrounds of the buildings from the first book, the primary book, might have been intended to convey American themes, however inaccurately they may reflect the USA.[12] The identification "A-B" is the one used by the Richter company, but the reader is warned that this description is not understood by most Anker collectors. In addition Richter used the same **A-B** label later to mean **Anker Bridges**.

To make the bridges compatible with toy trains, which had become popular by then, wide (90 mm or 3½ inches) metal bridge roadbeds, with the appropriately sized braces, were added to the loose stone catalog by 1904. Single bridge spans of 300 (12 inches) and 400 mm (15¾ inches) also made the bridges more interesting to model railroaders as well as regular Anker builders.

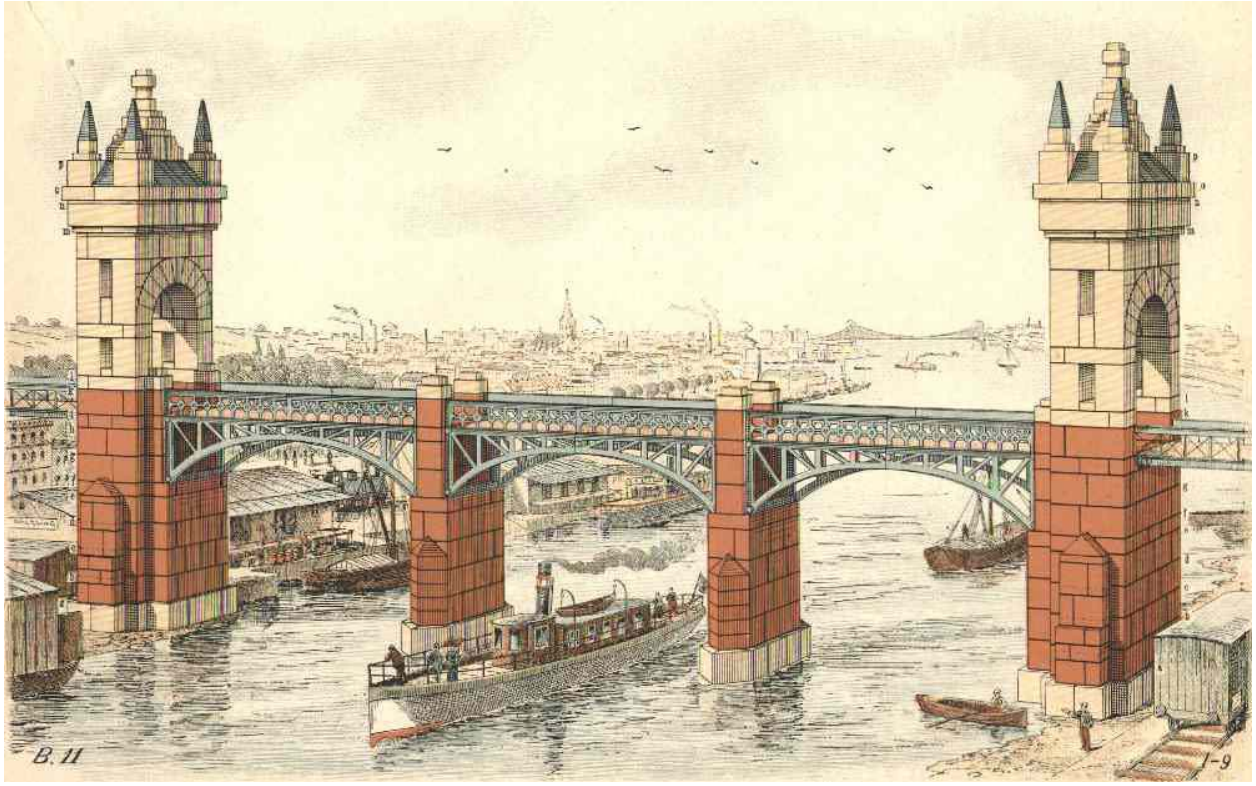
The KK-Br series of sets was structured in the same way as the GK-Br series.[13] Sets through KK-Br # 11 were sold, with KK-Br # 11A announced as under development but never put onto the market. As with the GK sets, the KK-Br supplements added stones as well as metal, but not nearly as many stones as an equivalent number of all stone supplements would have added.

Metal parts were added to KK-NF set # 19A, which was introduced in 1905. Included in the set were 32 of the new, patented, roof construction parts.[14] These metal parts formed the basis of a complete overhaul of the Anker sets with metal parts (see Chapter XI). But to round out the story of the first series of sets with metal parts, a short description of the changes is provided here. Metal posts, with feet permanently attached, were made to hold slip-on ridge beams. The bridge roadbeds were no longer used as roof plates; new roof plates were introduced. These roof plates have lips at all four edges. The lips along the sides are cut away at each end to allow the beams to pass directly under the bend at the ends. Angled roof pieces were made so that wings with sloped roofs could be created. These parts formed the basis of a **total replacement** of all of

the **GK** sets with metal parts -- GK-Br, the USA sets and Im (see Chapter XI). The new metal parts were added to the loose stone catalog, at first in a slip-in supplement (0512 **UNIV.** 2).

All of the GK sets with metal parts were totally revised and introduced in 1906 as replacements for the original GK-Br and Im sets (see Chapter XI). The KK sets were not changed. Anyone who wanted these new roof construction parts for his KK sets had to buy the new KK-NF set # 19A. As will be described, the new GK-Br sets were completely different -- the number of stones was changed and new metal parts, including the new roof parts, were added as were new building plan books -- only the set numbers remained unchanged. At this point another major confusion was created for Anker historians. This change occurred at the same time as the company was converting from Telegraph Words to Passwords (see Chapter IX). The first series of GK-Br sets has Telegraph Words but not Passwords, while the second series of GK-Br sets has Passwords but no Telegraph Words from the earlier era. This change in sets is in contrast to the KK-Br sets, which remained unchanged when their Telegraph Words were replaced by Passwords. Thus GK-Br # 6 could be a set from either the first series of GK bridge sets or the second series of GK bridge sets. It is true, the catalog descriptions noted whether the metal parts were "metal bridge parts" or "metal bridge and roof parts". But this difference is subtle and would have been of little help to the shopkeeper who was trying to provide the correct supplement to a GK-Br 6.

The new (second series) Imperator sets were given odd numbers, as no KK Imperator sets had been marketed. In the USA market these sets came with one of two different labels -- <u>either</u> the old **Anchor Blocks** label with its odd numbers and clear mention of metal parts, <u>or</u> **Anchor**



Bridge from the Plans for KK-Br set # 11

Stone Sets, with odd numbers and no mention of metal parts -- only the picture in the label on the lid of the box gives any indication that the set contains metal parts. The second series of Imperator sets (sold in Europe) and the new Anchor Block Sets, also called Anchor Stone Sets, (sold in the USA) are identical except for the label on the cover.

The previous two paragraphs give the reader additional appreciation that the numbers were becoming almost useless in identifying a set, so Richter introduced Passwords as the specific identifier of then current sets. All the changes seem to make it clear that metal parts were not popular with most Anker builders. They still are not. Before continuing with the story of the stone sets with nickel plated iron parts, two other concurrent developments need to be explained -- Passwords and the several new series of KK sets.

Cover of a USA Set, A-B # 3

See the enlargements containing the Statue of Liberty and the East River Bridges below.

Manhattan Bridge Brooklyn Bridge

IX. Passwords

While the "Telegraph Words" were quite useful as set identifiers, they had two major disadvantages. The existence of eight different Telegraph Words for each set -- German, English, French (which also served Spanish, Portuguese, Romanian, Russian, and Italian), Dutch, Danish, Polish, Czech and Hungarian -- caused confusion. In a few cases, the English Telegraph Words used in U.S.A. and the U.K are different. And some of the Telegraph Words are so much alike that errors were almost guaranteed (Sarj, Saru and Sarju; Kok and Klok). And no emphasis had been put on the use of Telegraph Words, except as aids in ordering for retailers. The examples given in catalogs were clearly intended for store orders. A typical example, converted into English, was "post cat 5 GK 5 express sun mint lawyer 2 figure 3 gold ice" -- which meant "Mail one GK-AF set # 3 and five GK-AF stones # 5. Railway express one each of GK-AF set # 18, KK-AF set # 12C and GK-AF set # 11A, two of GK-AF set # 6A, and three each of GK-AF set # 7 and KK-AF set # 9." As the reader can see, Telegraph Words were really intended to reduce telegraph costs, not serve as set identifiers. But people moved, and sets generally had at least four different Telegraph Words on the label, often all eight Telegraph Words of the next all-stone supplement were shown in the building plan book. Although the example given has only English Telegraph Words, a single order could easily have included Telegraph Words in several languages. Only one identifying word for each set would be a vast improvement. So the password system was adopted.

Virtually all Passwords are cities, generally in Germany. In addition, the Passwords of any series all start (generally) with the same letter and are (generally) in alphabetical order. For example, the KK-NF basic sets have Passwords Lage through Linz; the KK-NF single layer supplement sets, Mainz through Milspe; the KK-NF multi-layer supplement sets, Parchim through Penig; KK-Br (supplement) sets, Barby through Berlin, and KK-Br (supplemental) supplement sets, Raguhn through Remagen. Even today most Anker collectors identify a "GK-NF set # 34" as a "#34, Lyck" or even just a “Lyck”. The reader should remember that the change to a Password <u>did not mean a change in the set</u>. GK-NF # 20A, which will be known to collectors as "# 20A, Minden", is the same set as Schneeball, Seagull, Meetbrief, Persil, Finale, Scena, Sedmikrása and Savó. Some Anker collectors, including some excellent researchers, have believed they have discovered a "new" series of sets by failing to recognize the change from Telegraph Words and Passwords.[1]

In the USA the new Passwords were not adopted, rather the old Telegraph Words continued to be used as Passwords. Even the new series of sets, which never were given Telegraph Words, were given different Passwords if the label on the box cover was an American market label. Thus an American catalog (but not a British catalog) will list a # 34, Lyck, as a # 34, Resource. Although perhaps in 1906 the Atlantic Ocean was enough of a barrier to prevent confusion, it is hard to understand why the USA retained the old Telegraph Words. If the change had been made in 1916 instead of 1906, the reason would be obvious. But in 1906 there was little anti-German feeling in the USA. When Passwords were assigned to new sets, the USA market got different words, even though these words were German cities. For example, the German password Aken (Im # 3½) is the same set as the American password Bitburg. Some European Anker collectors have noted the strange absence of major German cities in the list of Passwords used -- Bonn, Kiel, Hameln, and Eisenach are examples. These city names were used as Passwords for USA sets. It is hard to believe that a different cover label was worth this much

potential confusion, but it seems it was. By 1910, however, when a new series of sets (The DS sets -- standing for Dach Steine [roof stones] -- include lacquered metal parts and special roof stones, as well as regular Anker stones.) was introduced, the American and German Passwords were the same even though the cover labels used continued to be different.

This book will not use the American Passwords, except for those sets which were only sold in the USA -- meaning there are no different German Passwords. From now on, a set will generally be identified as most collectors would do it -- GK-NF set # 20 will be called "# 20, Lissa". The useful initial letters, like KK-AF, Im, and DS, will continue to be used, but the password will be also included. The GK-NF identification will generally not be used any more unless it is needed as a helpful reminder to the reader of the series being discussed. In the absence of another series identifier, GK-NF is understood.

In the appendix of this book is a cross reference of Passwords and the Telegraph Words. Unfortunately this listing is not complete; names are being added as they come to light. Perhaps recent world events will make Polish, Czech and Hungarian language catalogs and sets more available. But the author's experience with Danish catalogs does not offer much encouragement. Only one catalog[2] from before 1906, the date of the introduction of Passwords, is known to the author.

Up until about 1910, many catalogs included charts and tables to help customers identify the new password of supplements to sets carrying the old Telegraph Word identification. From these catalogs we learn that the second series of Imperator sets, but not the second series of GK-Br sets, had been assigned Telegraph Words as identifiers. Only the English and German language Telegraph Words for this second series of Imperator sets have come to the attention of the author. The multi-layer supplement sets of this same second series of Imperator sets got Passwords right at introduction; they were never assigned Telegraph Words. Guide books for retailers were put out by the company. These books can be somewhat misleading because they recommend a <u>current</u> supplement set, which is often not the originally correct supplement, and might even be a conversion set.

Discontinued sets, like the AF sets, were <u>not</u> given Passwords. Even recently obsoleted sets, like the basic sets of the first series of Imperator sets -- the supplement sets received Passwords -- and all of the first series of GK-Br sets failed to receive Passwords. In addition, the AF to NF conversion sets were considered obsolete by 1906, although catalogs into the 1930s stated that sets of conversion stones were available on special order from the company. As the 1931 catalog from the New York agent, The Block House, states: "Sets of Richter Blocks that were purchased prior to 1892 (sic) cannot be supplemented by our present supplement sets. They require special transition boxes to convert them into the equivalent of our modern sets. Upon receiving the number and code word of your old set, we can provide you with the proper transition set to modernize it and enable you to continue in the present series."

X. New KK Sets -- COMET (KOMET), ORION AND EAGLE

Despite the clear lack of commercial success of the KK sets, the 1905 introduction of (KK-NF) # 19A, Milspe, did not end Richter's efforts to find a market for KK stones. He had a very large amount of excess KK stone inventory. During the first decade of the 1900s three new series of KK sets were added to the Richter product line -- COMET, ORION and EAGLE. Many Anker collectors have suggested that these sets came into the Richter product line as a result of acquisition of competitors. While this theory may be attractive in some respects, it has certain fatal flaws. Why would Richter acquire a company that made only KK building stones? Richter knew the KK sets were not serious competition for the GK sets. The many competitors (over 30 have been identified) mentioned by others were started after 1911, after Richter died. Bing made the next most popular stone building sets, but not until several years after Richter's death. Judging by the number of sets which have survived, their sales appear to have been much less than Richter's sales, perhaps as less than 10%. Both Bing and Pantheon made GK stones; both had unique and useful stone shapes not found in the Anker stone selection. Yet the Richter company never made any attempt to compete directly. Similar stones were not introduced. No negative advertisements, similar to the ones made against the "quick lime" stones of Lilienthal, are known. Richter restricted himself to urging all buyers to look for the "Anker" trademark. The only competitor known to have been acquired by Richter is Keller Brothers of Rudolstadt.[1] None of the stone building sets from the Keller line ever appeared as a Richter, or Anker, product, although some of the Keller games were marketed as Anker products. Such an acquisition had no commercial justification. Richter did not need production capacity. Richter did not need new trademarks. It is the author's belief that these KK sets were all made by the Richter Company, initially as private label products. Then, when the buyer could not buy all of the inventory ordered, Richter undertook to sell the goods himself. It is likely that Richter felt his dealers would accept the competition of KK sets, since he refused to make private label deals for GK sets -- a sound business decision. The only real question is why someone would enter the market with only KK sets to sell.

No catalog mentions the **COMET/KOMET** sets; many COMET sets do not even carry a maker's name. None of them is labeled "Anker". A very early COMET set is from 1901.[2] This set is a nice size, 9 by 12 cubes in size, thus slightly smaller than the standard Richter KK box of 9 by 13½ cubes. The printer's codes on the building plans are in the classic Richter style. In the lower left is "Comet 5" while in the lower right is "018 **III** 8". The plans include the artist's notation "C.K. V-#", where # is the page number. This notation is found on the plans of many of these sets. The plans seem to be from Richter's art department as all of the protocols for documenting views and layers, such as stones extending above the plain of a layer drawing or not coming up to the level of the plain of a layer drawing, are followed. The backgrounds show the same technique and style that H. Meyer gave to the Anker drawings, but the drawings are less detailed and the use of color is not as carefully done. The cover label makes no mention of any maker; the only words are "Der Comet-Steinbaukasten. Comet Stone Building Blocks". The only difference in the stones is the groove pattern of the arches -- just enough so that Richter could disclaim any involvement in the manufacture of the sets.

In 1902 Richter added the COMET line of KK sets to his product line. The size of the COMET 5 set remained the same, but the stone selection changed. (The original 1901 Comet set reappeared in 1922 as set ORION 5.) It is clear that these sets were made by Richter, because on every page of the plan book is found the notice: "COPYRIGHT, 1902, BY F. A^{D}. RICHTER & CO." The building plans were all new, with full backgrounds. The new COMET 5 building

plans were intended for the USA. One plan shows a gate to a baseball park. Another plan is the gate to a cavalry fort in the West; on the saddle blanket is U.S. The label on the box cover calls the sets "*Richter's* POPULAR **COMET BLOCKS**". The picture, like the earlier set, shows a boy building with two sisters watching. An open set of COMET blocks is also under the table. But the Richter cover adds a father holding a newspaper, a mother sitting next to him; both parents admiring the boy as he puts the final piece on the building. Richter knew that parents buy the toys.

The cover of the building plan book for a COMET block set gives no indication that other COMET sets were available, or that any supplement set exists. Instead it states that COMET blocks are "a lower priced edition of Richter's world-renowned Stone Building Boxes", that the stones are made "by the same patented process as the 'Anker Blocks', but the blocks are 25% smaller in size". In addition the buyer was urged to purchase Anker blocks, whose "educational value is one of its greatest merits." Also the Anker puzzles were mentioned.[3] So far two different series of COMET sets without metal parts have been identified: USA market - #s 0, 1, 2, 3, 4, 5, 7; European market – 0, 1, 2, 4, 5, 6. The COMET sets were also made with metal parts. These sets will be described later in this chapter, after the ORION sets.

While most **ORION** sets known to the author come from the immediate post-W.W.I period, the earliest known set is clearly Richter and from 1906.[4] This set's building plans have the same "C.K." notation mentioned above in connection with a COMET set, and the booklet's cover is definitely Richter. Richter is not mentioned, but the printer's mark is in classic Richter style (**Orion 7** 065 - 1) and the Meteor game (a Richter game, see Chapter XVI) and the puzzles are mentioned by their trademarked names. Also the ORION 7 building plan booklet shows a picture of the Meteor game's box, which carries the Anker trademark. The cover of the booklet has advertisements for Richter games in German, English, French, Polish, Dutch and Danish. The set was called "7 ORION 7" at the top of the first page and the sentence: "It will be obtainable in the shop where the Orion Box was originally purchased." There is no other mention of ORION or of building stones. The cover of the set has only the name "ORION", the number "7", and a small "Made in Germany", no maker's name or address. This cover also shows a group building with the stones. The picture has two boys and two girls -- the older girl is holding the plans and doing the building. This set has the same contents as COMET 7 set, including the arches with the "non-Richter" groove pattern. The building plans are virtually the same as those found in a COMET building plan book with printer's marks "**Com 7**" and "091 II 10". The ORION 7 booklet has just eight pages of plans while the COMET 7 booklet has 15 pages. All pages in both of them are marked "C.K.VII". Seven of the eight pages of plans in the ORION 7 booklet are also found in the COMET 7 booklet.

Label from an Eagle Set

There are many more links between the ORION and COMET sets. The smallest ORION set, # 0, has a comet on the cover, but the cover does not mention any trade name. The two # 0 sets have the same 17 stones. After W.W.I the packing plans and building plans of the two groups of sets seem to have been used indiscriminately, such as an ORION 5 set, with "H 257-4" on the ORION 5 packing plan. But the building plans, with "ORION 5" and "176 - 5" on the booklet's cover, cannot be built with the stones in the set! These building plans have the printer's mark "**COMET 5**" and "183 **III** 8". All of these buildings can be built with a COMET 5 set. The COMET 5 set has 86 stones and the ORION 5 set only 81. The ORION 5 has more of some stones and not any of others. These COMET 5 plans have the notation "C.K. V-#", where # is the page number. Another ORION 5 plan book, with "185 5" on the cover, has pages 9 through 16 of the COMET 5 (including the 1902 copyright notice), the one with the building plans with American backgrounds. In one ORION 6 (185 3) building plan booklet the pages of plans have the "Comet 6 091 **II** 10" printer's marks. There are far too many other examples to mention them all.

After W.W.I, the cover label of the ORION sets was changed. The domestic scene was dropped and a stylized picture of the ruins of Greek (Doric order) temples was used. The printer's marks such as "H 252 - 3" are often seen on this label.

ORION sets were mentioned on price lists and in catalogs. Some German price lists from the 1920s list ORION sets 1, 2, 3, 4, 6, 7; others list sets 1 through 7 (including 5); the USA Anker catalog from 1923 lists ORION sets 1, 2, 3, 4, 5. In addition the number of stones mentioned in the sets is not always the same. While the catalogs and sets agree that there are 25 stones in ORION 1 and 67 in ORION 4, there are small differences between the various catalogs and the sets for #s 2, 3, and 5.[5] A building plan book for ORION Nr. 8 (1710 **Int.** 2) has been found, but not the set. The booklet contains six pages, printed on one side, of Keller plans -- printer's mark "Z. 10. 09. 2." (2,000 printed in October, 1909). So if one includes this booklet and the ORION # 0 set, there may be as many as nine KK ORION sets.

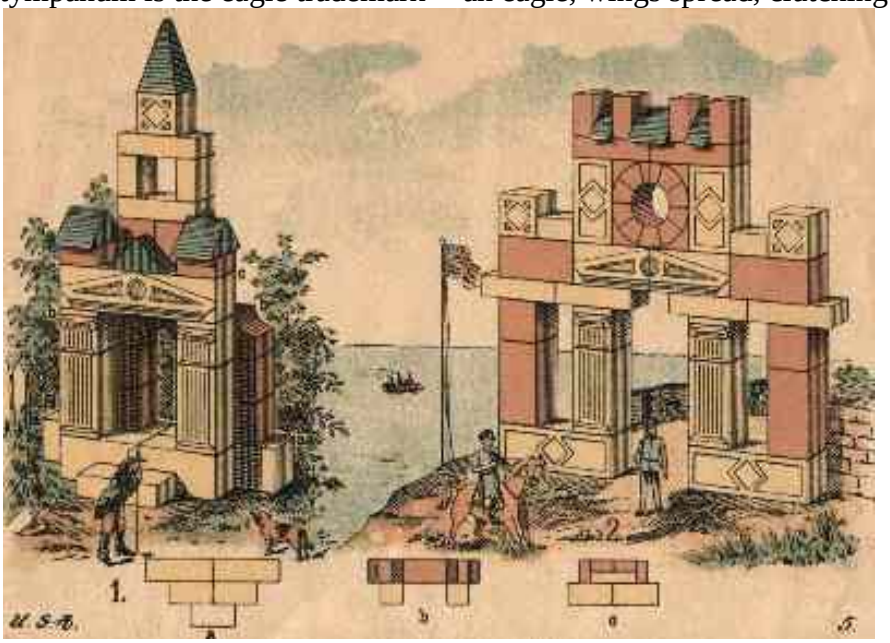
After W.W.I the company offered a GK ORION series. The stones are 3/4 cube (18.75 mm) by 1 cube. Seven sets were sold -- #s 1 through 7. The plans are marked "O.#.", where # is the number of the set. Since this identification is on every page of the plans and was not used for the KK ORION sets, separation of the KK and GK building plans is very easy. The ¾ × 1 cross section makes for some very interesting building plans. The sets are small -- 12 to 60 stones.

Sets with nickel plated iron parts were added to the COMET line in 1909. Like the COMET sets without metal parts, they are not mentioned in any Anker catalog. Sets #s 12, 13, 15, 16, and 17 have been found. All of the sets show printer's marks on the cover labels, packing plans and building plans from March and April 1909. Each building plan carries the identifying notation "E. C. #", where # is the number of the set, and "I-#", where # is the page number. The author feels quite sure that "E.C." stands for "Eisener Comet", German for Iron Comet. Compared with the all-stone COMET sets, these sets were large -- # 12 has 32 stones and 1 metal part; # 17 135 stones and 8 metal parts. The metal parts are all new and in true KK dimensions. A new style roof beam was included in the higher numbered sets. This part was patented (USA # 1,015,342, filed on 2/2/09, issued on 1/23/12). So far, all COMET sets with iron parts have been found in the USA. It is certainly remarkable that new nickel plated iron parts, in KK, were introduced in 1909. Richter filed for two patents on new "lacquered metal parts" on August 3, 1909 in the USA (July 22nd in Germany), thus just five months after the patent filing for the new plated iron part in the COMET sets. Perhaps he had not yet thought of the new system of metal parts. It certainly seems clear that Richter never quit trying to breathe commercial life into the sales of

KK stone building sets. The plan book which came with set E.C. 12 is marked "**I**.1" which means Imperator, set # 1. This set is GK and contains many fewer stones. In fact, of the 38 "cubes" of stones in E.C. 12, only 21 are used to build the plans. And since E.C. 12 only has one metal part, there are no problems created by the new metal parts.

The COMET and ORION sets seem to have been given a lot of attention. There are four generations of COMET building plans (the original ones in 1901, the copyright notice plans in 1902, 1909 and 1918) plus the (1909) plans for the COMET sets with nickel plated iron parts. The COMET and ORION sets seem to be more commonly found in the USA than Europe. It could be that Richter used the COMET trademark, which he registered in the USA as a label (# 9,517) in 1902 and as a trademark (# 60,316) in 1907, as a way of selling KK stones in the USA without competing with his main GK building set line. ORION sets do not seem to have been sold in the USA before W.W.I. But since the company lost all of its USA trademarks and copyrights in 1919, through the sale by the Alien Property Custodian, to A. C. Gilbert (Erector sets), the ORION trademark could still be used in the USA after W.W.I.

During the same period, the first decade of the 20th century, Richter brought **EAGLE** stone building blocks to the USA.[6] These sets are numbered, 101, 105, 106, etc., which numbers were, at one time, incorrectly, thought by the author to be date codes. At about the same time, marketing of these **Adler** (Eagle, in German) sets began in eastern Europe.[7] In all Eagle sets some of the stones have a pattern impressed into one face. This technique had been used by some of Richter's competitors, including Keller. But even though Richter acquired the Keller factory in 1910, and thereby obtained the tooling for the Keller-style embossed KK stones, the EAGLE stones have different patterns. Several <u>different</u> patterns were used in eastern Europe, none being Keller's. In the USA only the plainest of these patterns was used. As with some COMET building plans, special USA plans were made up for these EAGLE sets. But except for "U.S." on a saddle blanket and the notation "U.S.A." on each plan, one cannot find any distinctive American themes. Some of the European Adler sets have fully shaped stones. On the tympanum is the eagle trademark -- an eagle, wings spread, clutching an adder in one foot and drafting tools (a compass and an equilateral triangle) in the other. More than any other Richter trademark, the name Adler was translated into many eastern European languages. Orlov and SAS are among the names the company used for these sets. The major push into eastern Europe seems to have been initiated by the stone block factory in Vienna, and probably started by Oskar Richter after Richter's death in 1910.



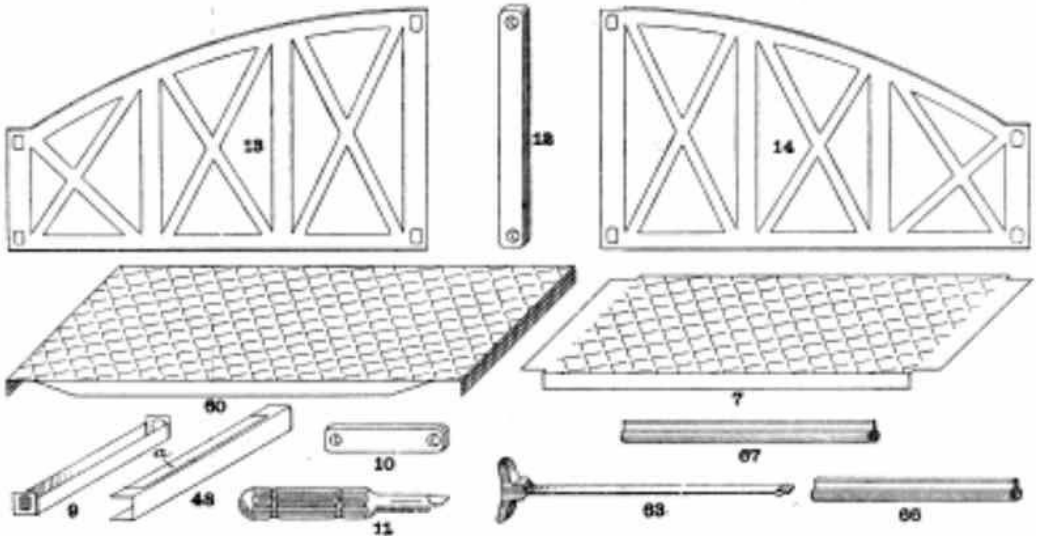
"U.S.A." Plans from an Eagle Set

XI. Neue Folge Sets with Metal Parts -- Part 2 (1906 - 1912)

In very late 1905, well after that year's Christmas sales, the entire line of GK sets with nickel plated iron -- the Imperator sets, the GK-Br (Anchor Bridges) supplement sets and the Anchor Block (A-B) sets for the American market -- was replaced with new sets.[1] The new sets were the second series of Imperator sets, and the second series of Anchor Bridges sets. (In the USA the Anchor Block name was also used for these new Imperator sets.) Both the stones and the metal parts were changed. And new plans were drawn. No changes were made in the KK sets with metal parts, but since the new metal roof parts had made their first appearance in the KK set # 19A, Milspe, earlier in 1905, metal roof parts were already available to KK builders.

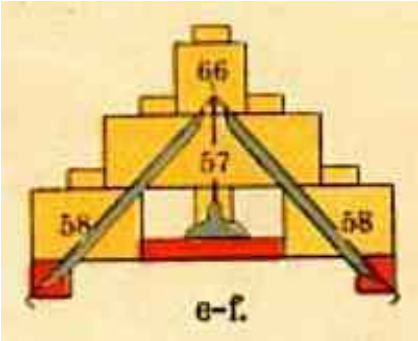
The main change in the stone selection was the elimination of some unusual stones -- stones which are not even found in the # 34, Lyck. These unusual stones included half-round stones, #s 470R, 472R and 475R, with a diameter of 31.25 mm (1.25 × 25 mm), primarily used to create rounded ends for the bridge pilings actually in the river.[2] Stone # 475R is a conical top, two of which can be used to cover stone #s 470 or 472. These stones, in yellow, were found in the Bridge Set of 1895 (see Chapter V). Also eliminated was stone # 283, which was supplied in both yellow and red. This stone is a small, low pyramid and was used as a cap stone on railing posts. Stone # 35R, which is an uncommon but very useful rectangular stone of 12.5 × 18.75 × 50 mm (½ × ¾ × 2), was also dropped.

Major changes were made in the metal parts. No longer were the bridge roadbeds also used as roof plates, and railings were no longer pressed into service as roof beams.[3] The use of curved bridge trusses as roof rafters was also dropped. In their place, special roof plates, roof beams and beam supports were added to the sets. The beam supports came in three heights -- 50, 75 and 100 mm. By altering the height of the stones on which the beams supports sat, virtually any roof line could be created. The beams (which slid into the shaped tops of the beam supports) came in eight lengths, from 50 mm up to 200 mm.[4] There is even a splice piece which allows two or more beams to be connected together to create longer spans. Five rectangular roof plates were available, in widths of 50 (90 and 115 mm long),



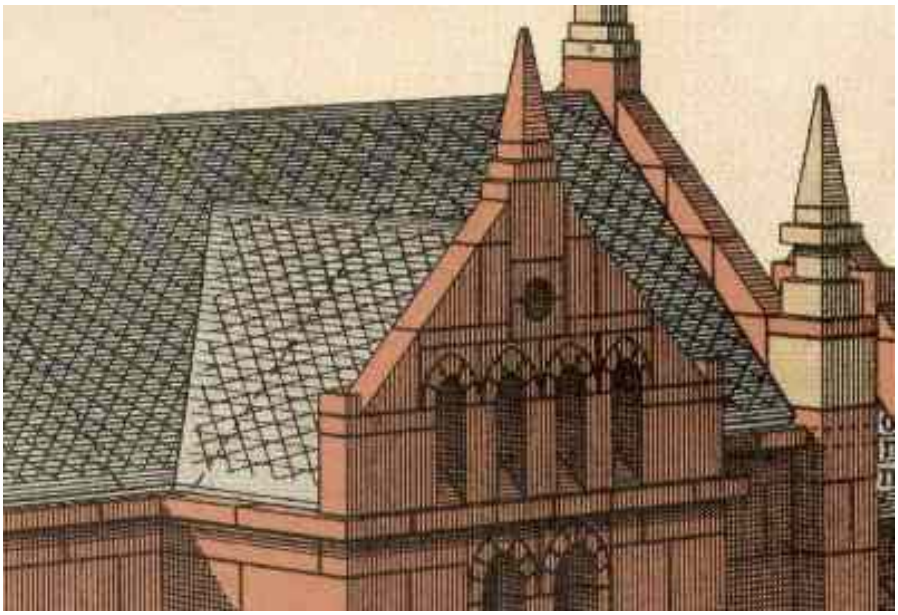
Second Series Metal Parts

The difference between # 60, a roof plate, and # 7, a bridge roadbed which was used in the First Series for roofs as well, is quite clearly shown. Part # 63 is a roof beam support and parts #s 66 and 67 are the beams.



Second Series Metal Roof Beam Construction

62.5 (115 mm long), 75 (90 mm long) and 100 (150 mm long) mm. Again clips (metal part # 65), fully 50 mm long, were used to connect the roof plates into one continuous, large area sheet. To allow a person to build dormers and other such roof connections at right angles, two different types of angled roof plates were put into the larger sets, from Im # 23A up. One type uses angled roof plates on the higher (by 20 mm) part of the roof (with the dormer roof extending into the interior of the building, resulting in plates of trapezoidal shape); the other uses angled parts on the dormer, resulting in a triangular shape plate. Two mirror image parts were needed for each roof intersection. The builder had to design his building's roof slope to be at the angle required by the intersection of these angled roof parts, which greatly limited their utility. Although the roofs do look wonderful in the drawings, they are, in reality, very flimsy and hard to put in place even close to correctly. The beam supports have extremely small feet, making them subject to tipping over, especially when putting on the roof plates.



Roof Detail from book # 27B

Changes were also made in the bridges. Some of the smaller, 106 and 156 mm, bridges were changed, replacing the screw-together parts with a three piece slide together design. A large bridge span, which screwed together in four sections and spanned 400 mm, added interest to the bridge designs. Since the roof plates could no longer be used as bridge parts, Richter added 100 mm wide roadbeds for the larger bridges. The bridges became quite long, well over a meter. The buildings, as a result of the many stones saved by not having to roof the building with stones, were also much larger. But despite the attractive bridges and larger buildings, the sets with metal parts did not prove very popular with stone builders. But this lack of popularity did not prevent Richter from pushing the development of these sets; # 25A, Speyer, is found in the catalog dated September, 1907, and the final set, # 27, Auma, was reached in the spring of 1908. One hundred copies of the building plans for set # 27B, Stade, were printed in December, 1909. Although some have claimed that this set was never actually marketed, the existence of building plans, a box and packing plan (for the stones) together seem to establish that the set was, in fact, available.[5] From 1909 catalog announcement we know that the set would have contained, in addition to 555 stones, 30 metal parts and 8 screws.

In 1907 Richter reworked the smaller sets in this second series of Imperator sets, resulting in a whole new series of sets, the "Nickel Series", being substituted for the Imperator sets. The Imperator name was dropped, and these two series were merged into a single series at the higher numbers. The largest set with the Imperator label was Im # 15, Arlosen, but other larger Imperator sets were advertised in the company's catalogs. **Dr. Meyer-Margreth** suggested the prefix VE, from the German "mit **v**ernickelten **E**isenteilen", meaning "with nickel plated iron parts".[6] The Richter company used the abbreviation **GK** for these new sets.[7] However most Anker collectors find this two letter identifier, "GK", confusing because it is universally used for large caliber, whether stones or sets. The company was moving towards the creation of one seamless program of Anker sets, with odd numbers for sets with metal parts and even numbers for sets without metal parts. Part of this strategy included dropping the KK sets, while still offering KK stones in the COMET and ORION sets. Orders placed for Imperator sets above Im # 15, Arlosen, (starting with # 15A, Soest) were filled with the VE sets.[8] Although Im # 13A has the same Password as VE # 13A -- Soden -- these two sets are not identical. The main changes in the new smaller sets were to make them more like the standard GK-NF sets. These minor changes are in direct contrast to the major changes in both stone content and types of metal parts that characterized the move from the first to the second series of Imperator sets.[9] As will be seen below, the conforming of the stone content of these two series made it possible to create conversion sets which allowed one to transfer quite efficiently from one series to the other. In fact, VE # 5, Althof, is identical to GK-NF # 6, Leipzig, although two pages of the building plans are different. VE # 5, Althof, has no metal parts at all; the only real difference is the advice that the next supplement set is VE # 5A, Saxdorf, not # 6A, Markirch. In contrast, Im # 5, Altona, has 21 metal roof and bridge parts, but 12 fewer stones and inventory differences in 18 stones. Although both Im # 5A, Sayda, and VE # 5A, Saxdorf, have 90 stones, the sets are quite different.[10] Since the two series merged at # 15, Arlosen, sets #s 15A, Soest, 17A, Soldin, and 19A, Solingen, may be found as either Im or VE sets and they are identical. Even though both VE # 13A and Im # 13A have the Password Soden, they are the last sets in these two series and are actually different. The sets smaller than Soden have different Passwords in the two series. From # 21A, Soru, up through # 25A, Speyer, and # 27B, Stade, only the VE versions -- marked **GK** -- were sold, though some of the plans were marked "Im." or "**I**.". Richter knew that customers would be alerted to the change if a new series of Passwords was used, so all of the VE sets have Password beginning with the same letter as the Im. sets have (A, S, D).

In 1908, to increase sales of sets with metal parts, Richter added the (now obsolete) first series Imperator books, as "gratis" books, to the standard GK-NF sets. Of course, many of the designs could not be built without metal parts. By now there was quite a large number of different GK series, and it was quite possible that a person starting with sets from one series might prefer to continue with sets from another series. So conversion sets, often identified by the use of the letter "**U**" for Uebergangskasten (conversion set), were made to facilitate the move to a different series.[11] Conversion sets had been first introduced to convert sets from the AF to the NF series. But the existence of those conversion sets was almost invisible to both the buyer and the retailer. In the AF to NF situation, the AF was being phased out, so all of the supplement sets were simply changed into conversion sets. If someone bought a supplement set, like KK-AF # 20A, instead of ending up with a KK-AF set # 22 the person now had KK-NF set # 9, albeit with an excess of 189 stones. Owners of the larger sets generally look kindly on extra stones, so there probably was little objection.

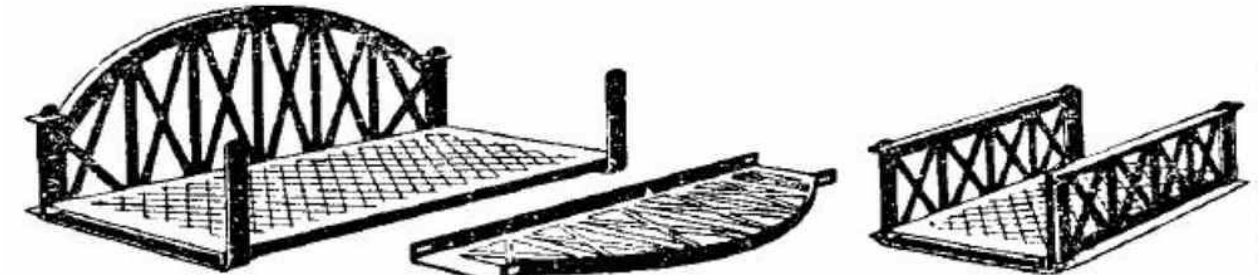
Now the buyer had to be offered a choice. For example, set # 8U, Bielitz, would convert the owner of # 8, Lennep, in the GK-NF series to # 9, Ansbach, in the VE series. Both directions were possible and required conversion sets, with the number indicating the set being converted from. Therefore # 10U, Bierbach, shifted from GK-NF set # 10 to VE # 13, while # 11U, Bilin, shifted VE # 11 to GK-NF set # 12. The larger step when converting to the VE series reflects the fact that the GK-NF sets have more stones due to the space in the boxes taken up by the metal parts. In theory, the conversion sets could go all the way to the top, and the first incarnation of the (perhaps) never issued set # 34D, Postdam, was as a conversion set from # 34, Lyck, to the never produced set VE # 35.[12] Richter had integrated the two series of sets by conversion sets between the two series. The conversion sets also made the GK-Br supplement set concept obsolete. Conversion between the series was quite efficient. Purchase of # 20U, Bochum, with its 378 stones and metal parts, plus a # 20, Lissa, of 1,414 stones resulted in a VE # 27, Auma, which has 1,792 stones. Even at lower levels, # 8U, Bielitz, (96 stones plus metal parts) and # 8, Lennep, (218 stones) resulted in VE # 9, Anklam, with 283 stones and a surplus of only 31 stones. But this neat arrangement did not last long, because a new series of metal parts and associated stones was introduced, and that caused an explosion in the number of conversion sets.

On July 22, 1909, Richter filed in Germany for two patents, one (German # 226,420; USA # 999,466) on a new simplified bridge construction using U shaped braces, the other (German # 227,149; USA # 997,008) for a metal roof which was covered with stone slabs which matched the material of the buildings.[13] The corresponding USA filings were made on August 3, 1909; the patents took about two years to issue in the USA. These patents form the basis of the new "lacquered iron metal parts", which replaced the nickel plated iron parts. This new series got its identifying initials from the stone roof tiles or plates - **DS** for Dach Steine, meaning roof stones. Even the smaller sets without any roof stones are called DS sets. The metal parts were given numbers, starting with # 101, thereby effectively distinguishing them from the nickel plated iron parts which had stopped at # 81. There are 100 lacquered iron parts, up to # 200. Their size is not exactly the same as the nickel plated parts. In particular, the longest under arch support in the nickel plated iron parts is 306 mm, while the DS version is 412 long. But in large measure the plans of the VE series were redrawn for the lacquered iron or DS metal parts. Additional minor modifications to the stone layers in some of the bridge plans was needed because of the height of the under arch part -- from its support to the roadbed. But from DS # 21 on through the end at DS # 29, the designs supplied with the DS sets were actually VE plans, with only the addition of a brief set of instructions on how to use the DS metal parts and roof stones on the plans. Some of the designs cannot support, without modification, the heavy weight of the DS roof stones lying on the metal roof parts. The instructions give no hint that these modifications are necessary, but by that level, any Anker builder would be able to deal with that problem.

The DS sets were introduced as a continuation of the VE (called by Richter GK) sets. The 1910 catalog, which is really only a supplement to the 1909 catalog as the only stone building sets it covers are the new DS sets (both basic and supplement), states that the DS sets were "earlier" (früher) the same sets, with nickel plated iron parts, called in this book VE. Thus the catalog reads for set DS # 9: "**Nr. 9, Erlangen** (früher *Anhalt*)". Although the basic sets maintained this fiction through set # 19 (DS = Eutin; VE = Augsburg), only the supplement sets up through # 5½A are identified as the same as "earlier" sets. Those who could not find the correct supplement in the catalog were advised to send the enclosed post card with their set's number and Password to the factory and they would be advised which of the new sets they should buy.

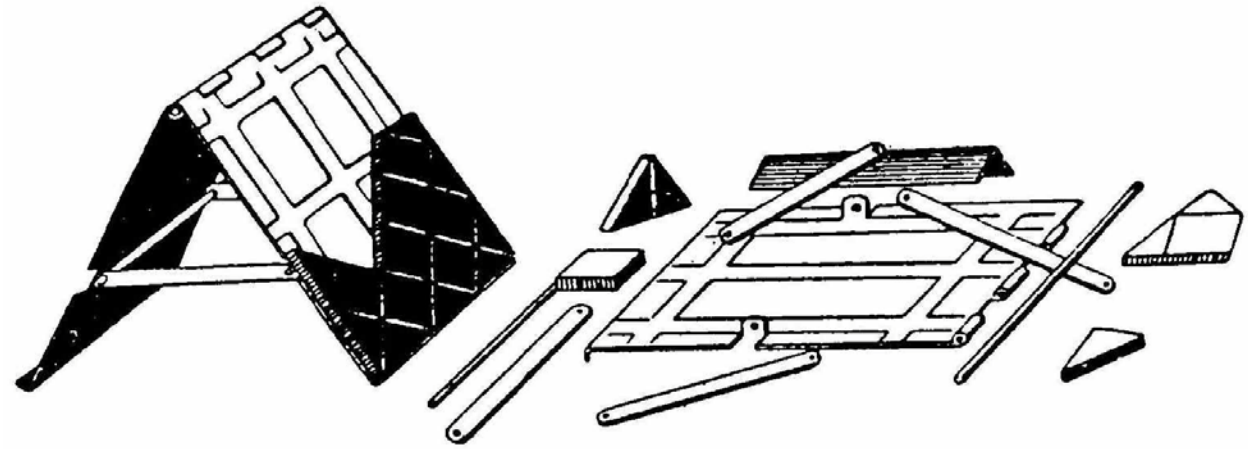
The plan books in even the smaller numbered sets of the GK-NF, VE and DS sets shared many of the same building designs.[14]

The metal bridges were basically five part constructions -- two U brackets (one at each end), two truss supports as sides, one roadbed. Under or lower arch designs also require railing pieces, as the truss support is below the roadbed and does not act as both a bridge support and a railing.



The bridge widths are 50, 62.5 and 87.5 mm. Three bridge lengths, 106 (50 mm wide only), 156 (all three widths) and 206 (all three widths) mm, were made. All of these designs are assembled without screws. The two long bridge spans, 412 mm, are screwed together because the roadbeds and the trusses were supplied in two sections. While the standard width of these long bridges was 87.5 mm, wider roadbeds, of 109.5 mm, were also available, although not part of any set. After all, the widest nickel plated iron bridge is 100 mm wide, so the new metal parts had to be able to make an even wider one.

The DS metal roof parts eliminate the weak construction of the nickel iron series. The new roof plates are joined by a piano wire through hinge-like openings at the peak of the roof. The result is a continuous connection between the two sides of the roof at the peak. About half way down



the roof plates there are cross beams connecting the two sides of the roof, not unlike the actual bracing beams used in wood frame house construction. These beams are also held in place with piano wire. It seems that screws were not very popular. A quite rigid metal roof could be made and put into place. The roof stones placed on these metal plates give the impression of all stone roof construction. Only the peak is unattractive, so V shaped metal covers, painted dull blue-gray to match the roof stones, were added to the sets. In the USA the roof stones were blue-gray (slate gray, which is the standard Anker blue), but sets sold in Europe had two color roof stones, blue-gray on one side and red on the other.[15] The roof stones were assigned numbers in the GK stone catalog, from 653 through 678, in front of the mosaic, game and puzzle stones, which had been given #s 679 through 758 as early as 1904. Only the lower numbers (653 through 662) came in the red/blue combination. The stones from 663 through 678, which are irregular in

shape and have beveled sides to allow construction of the intersecting dormers, are either all blue or all red. The large number of dormer stones is accounted for, in part, because of the need for mirror image (right and left) stones.[16] It should be noted that two of the lower number stones (660 and 661) are not symmetrical, so when made as red/blue combination stones there are two (right and left) versions, a fact not noted in any of the loose stone catalogs. All of the "dormer" stones came in pairs, in the sets always two pairs of each. As noted above, the increased strength of the metal assembly did not offset the weakness of the walls, which had been designed to support only the much lighter nickel plated iron roof parts. The roof assemblies are very unstable; this problem is easily corrected with locking rings on the piano wire rods.

As with the VE series, Richter had a difficult time deciding at what point the metal parts and roof stones should be introduced into the DS series. Up until a few years ago it was generally thought that the addition of metal parts began with set DS # E/3, Emden. The "E/" is intended to distinguish this set, with its 55 stones and one nickel plated iron part (yes, not an error), from DS # 3, Elster, with 55 stones and no metal parts. But in the USA, DS # 1, Eberbach, with 31 stones and two nickel plated iron parts; DS # 1A, Haltern, with 32 stones and 5 lacquered metal parts; DS # 3A, Hameln, with 49 stones and 10 lacquered metal parts to reach a (universal, not just USA) DS # 5, Erfurt, of 101 stones and 15 lacquered metal parts, have been discovered. Note that the nickel plated iron parts are not needed or found in the DS # 5, Erfurt. Confusion developed over whether the odd numbered sets below DS # 5 are part of the DS series or part of the GK-NF series (sets without metal parts). Some GK-NF sets were identified by DS Passwords, like GK-NF # 4½, Erbach, instead of GK-NF # 4½, Leer.[17]

The DS sets were introduced in 1910, the year of Richter's death. As usual, the building and layer plans for these sets poured off Richter's presses. By September the printing of the building plans had reached DS # 15. The building plans for DS # 17 were printed in October; the accompanying layer plans, in November. Richter died in late December and the rate of printing of new DS building plans immediately slowed down. Both the building and layer plans for DS # 19 were delayed only a short time, printed in March 1911. But the plans for DS # 21 were delayed much longer, with the building plans printed in December 1911 and the layer plans in January 1912. Sets above DS # 21 (DS #s 23, 25 and 27) were all supplied with the already printed plans for the corresponding sets in the VE series. Clearly Richter's successors saw no advantage in investing more design department and press time in the sets with metal parts. So it should surprise no one that sets DS # 27, Eytdkuhnen, and VE # 27, Auma, both have the same number of stones, 1,792. The supplement DS # 27B, Giessen, was announced; a few were sold.[18] The stone contents of VE # 27B, Stade, is known, but the contents, both stone and metal, of DS # 27B, Giessen, is still open to speculation.[19] Work had begun on sets DS 31, 33 and 35. As the building plans were being created the stone inventory of each level was being established. The plan book for set # 29 exists in two versions -- one with a VE plan on page 16, the other with a DS version of the same building.

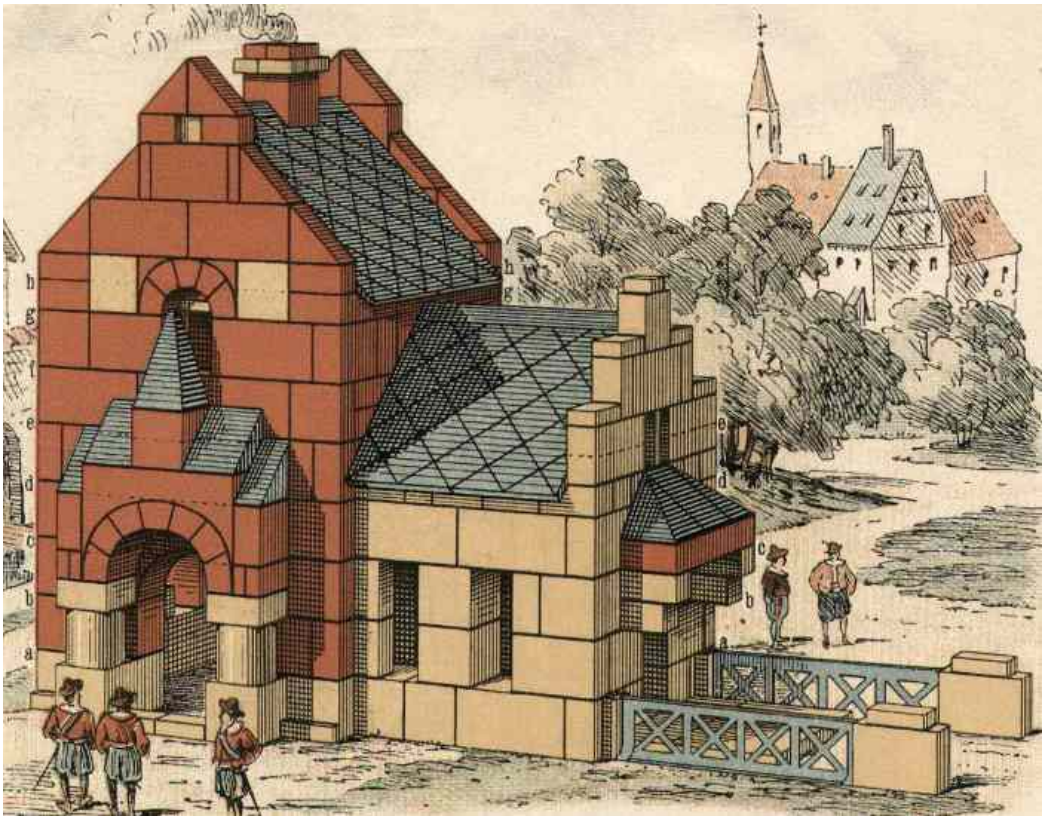
The creation of the DS series of sets lead to an explosion in the number of conversion sets. Of course new conversion sets were needed between the GK-NF and DS series, and conversion sets were needed to allow owners of sets with the now obsolete nickel iron parts to convert to the DS series, but far more conversion sets were created than necessary. At least eight conversion sets which result in set DS # 7, Erlangen, have been positively identified.[20] Two completely different series of conversion sets from GK-NF to DS were made. For example, **Bridge Box** (BB) # 10, Boston, (containing 146 stones, 87 roof stones and 118 metal parts) converts # 10, Liegnitz, to DS # 11, while DS # 10U, Belfort, (174 stones, 101 roof stones, 152 metal parts) converts the

same # 10, Liegnitz, to DS # 13. The Bridge Boxes appear to have been special sets for the USA market; the password cities (Boston, Buffalo, Bangor, Bristol, Bahia, Bolton) are not German. In all, 58 sets have been positively identified as converting sets to or from the DS series. New York even offered conversion stones, from DS to GK-NF; not sets but just some loose stones.[21] Books were printed for the retailer to help him select the correct next-set, whether conversion or supplement. In addition, the company offered sets containing only bridge metal parts[22] (#s 2 through 10 #s 12, 14 and 16 are listed on one price sheet) or roof stones and metal parts (#s 7 through 19; the numbers indicate which DS set provided that selection of metal parts and roof stones). Of course the buyer could also buy from the Loose Stone Catalog.

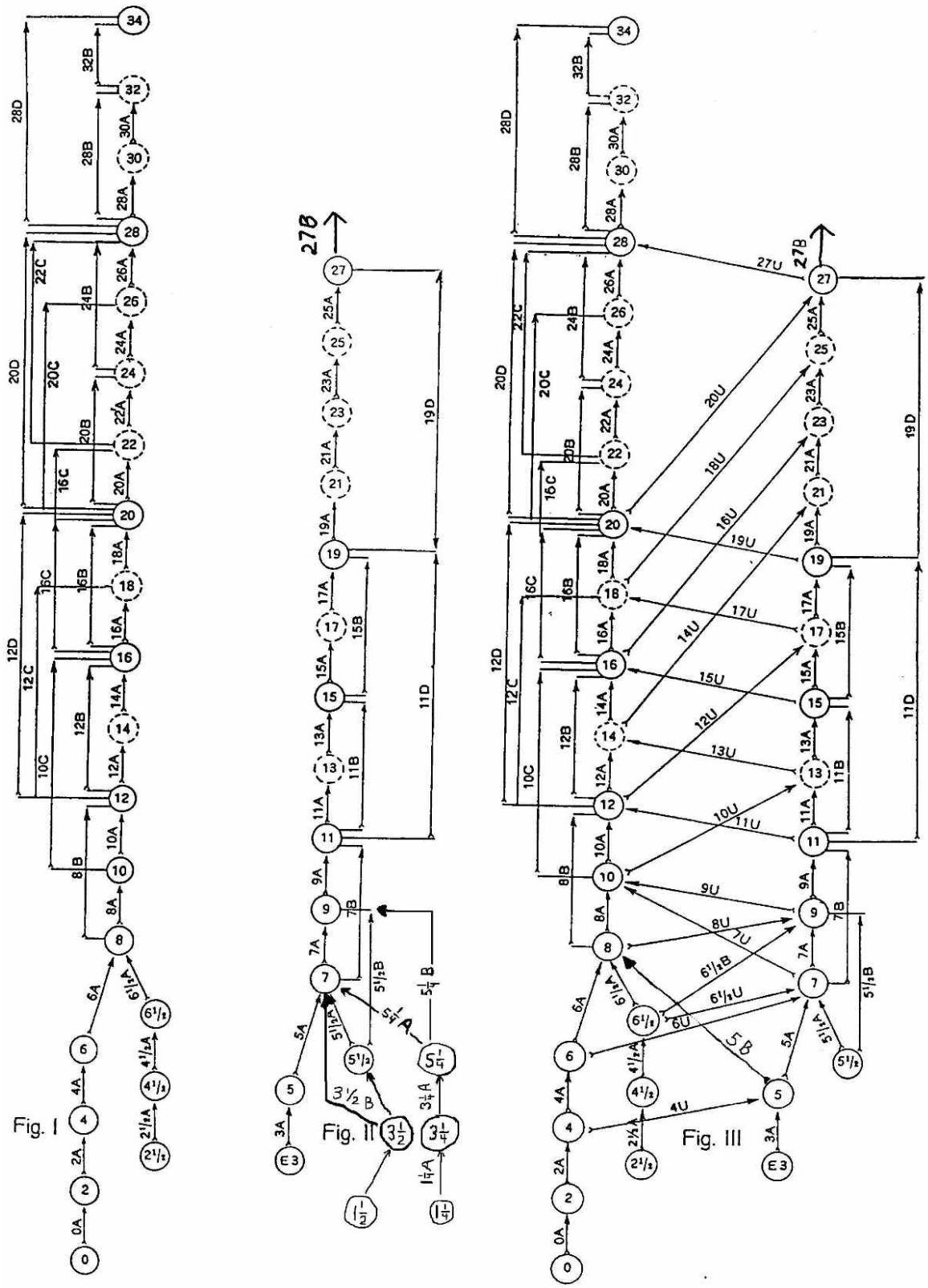
Between Richter's death in December, 1910,[23] and the outbreak of W.W.I (in Europe, therefore 1914) a number of very interesting new series were introduced. It is a matter of debate whether the development of any, some, or all of these sets was begun by Richter. But in any event, there were profound changes in the company's fortunes as a result of Richter's death. So the next chapter, instead of continuing the story of Anker stone building blocks, will cover the period in the company's history from the late 1880s (discontinued at the end of Chapter IV) until today.

A person could always buy individual loose roof stones and metal parts, as well as regular stones, from the company. But in the 1912 catalog, the sets of roof stones and lacquered metal parts were offered for sale. Although the sets were called **Anker Roof Building Sets** (Anker Dachbaukasten) they contained both the bridge and roof metal parts. These sets were needed not only for owners of the GK-NF sets but also for owners of VE and Im sets.

Later, in the 20s, the company put on the market additional sets of bridge parts (Iron Bridge Sets, with Arabic numeral set numbers) to supplement GK-NF sets #s 2 through 10.



A Building with Roof Stones, from the Plans for DS # 9



Anchor Block Supplement System
DS & GK-NF only
(not all of the supplement sets are shown)

XII. F. Ad. Richter & Cie. From 1885

Richter built a major company. The period from 1870 until W.W.I, especially from 1880 until 1900, is known as the Founder Period (Gründerzeit) in Germany. Many of modern Germany's major corporations were started during this time. In the prior decade Germany had developed from a loose confederation of independent states into a major country; Germany was then much larger than it has been at any time since W.W.I. The early history of F. Ad. Richter & Cie. has already been covered in Chapters III and IV, as some background was necessary to an understanding of Richter's acquisition of the technology for making toy stone building blocks.

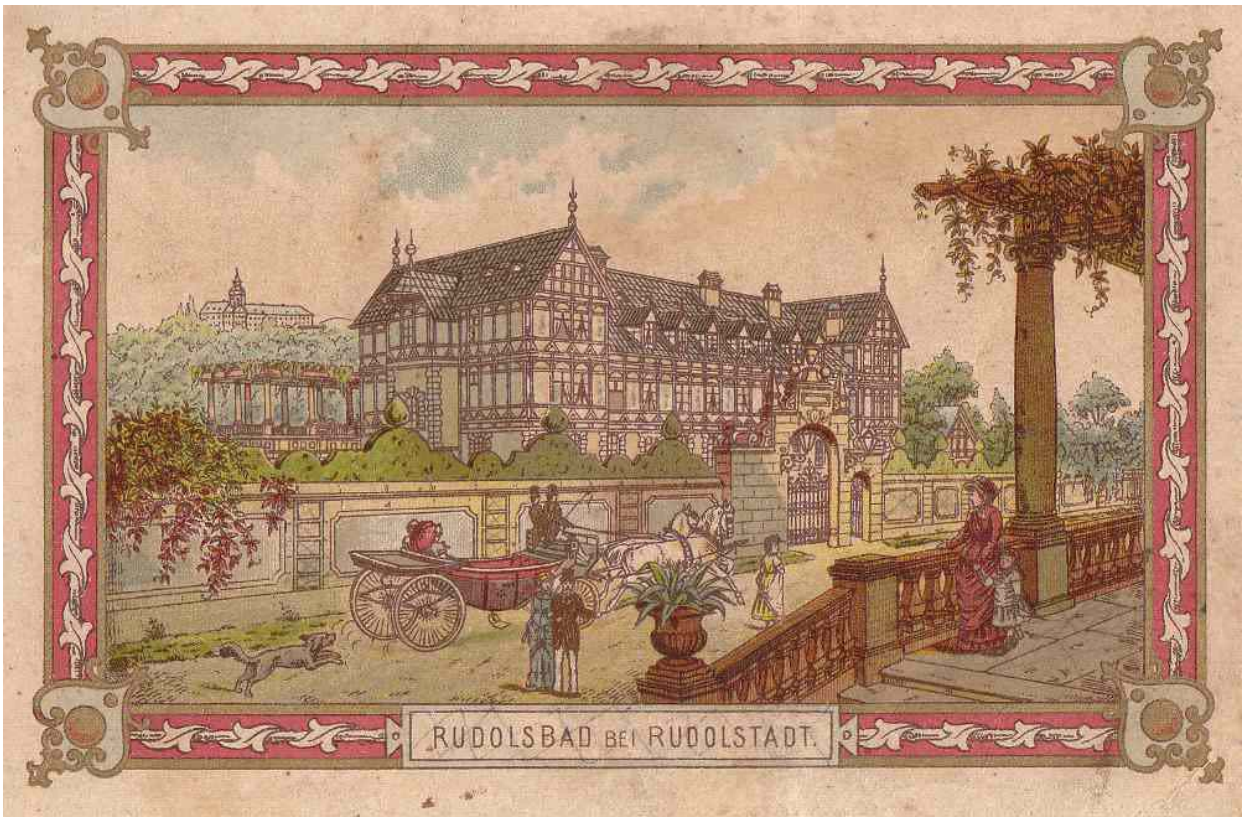
Richter was obviously an extremely capable business executive. He seems to have had little trouble managing a company with multiple factories making diverse products in many different German cities. As we have seen, in addition to these branch operations, by 1880 Richter had established the center of his operations, for legal protection of his patent medicine business, in Rudolstadt, the capital city of the small principality of Schwarzburg-Rudolstadt. The main factory had been built between 1876 and 1878 and was steadily enlarged over the next few decades. Rudolstadt was growing during this period. The first company formation was the Ernst Bohne porcelain factory in 1849. A book printer was registered in 1871, a gas works in 1874, along with several more porcelain factories.

As part of a major plant expansion Richter put up a special building for the manufacture of stone building blocks in 1882. In 1884 he acquired Germany's oldest glass factory, founded in 1570, in Konstein, Bavaria. Except for old customers, Richter devoted all of this factory's output to the manufacture of bottles for his medicines. Richter also established foreign branches to sell his products. It is hard to know when some of these branches were first established, but it seems that the Rotterdam branch was the first, before 1880. Prague was opened in 1880; London, in 1886; New York, Switzerland (Olten) and Vienna, in 1887; Brussels, in 1892; Reims, in 1893; and Russia (St. Petersburg and Sablino) in 1900.[1] Of course his various factories in Germany (Rudolstadt, Leipzig, Berlin, Nürnberg, Konstein) also functioned as sales offices and distribution points. A Paris office was founded but not kept open long.

By 1880 the company's main products were medicines and chocolate (including cocoa and candy). As we know, from its start in 1880, production of stone building blocks was done in Rudolstadt, not Leipzig. Supporting these operations were a printing plant and a cardboard box factory. The factory was greatly expanded in 1882. The largest new building was for the production of chocolate, cocoa and bonbons. In 1884 Richter built a luxury health spa hotel, Rudolsbad. The Rudolsbad building was designed by Professor Walther, who also designed the labels for the boxes of the stone building blocks.

From a modern perspective it is hard to understand the attraction of a luxury hotel as part of an industrial complex. But one must remember that the factory had many services which were not commonly available. Steam, water and electricity were supplied from the central power plant. The steam not only heated the hotel and the hot water (instant) but the baths. In addition to electric lighting, each room had its own telephone. Such amenities were very rare in 1888.[2] To serve the hotel, a large park, Rudolspark, was laid out in the small valley running to the northwest from the main factory site.[3] This park was beautifully and expensively landscaped. Shortly after Richter's death, the company put out a picture book, not in color, of views of Rudolspark. In addition to the Rudolspark there are a number of interesting attractions near Rudolstadt, including the ruin of the Cluny reform monastery Paulinzella[4], the castle ruin

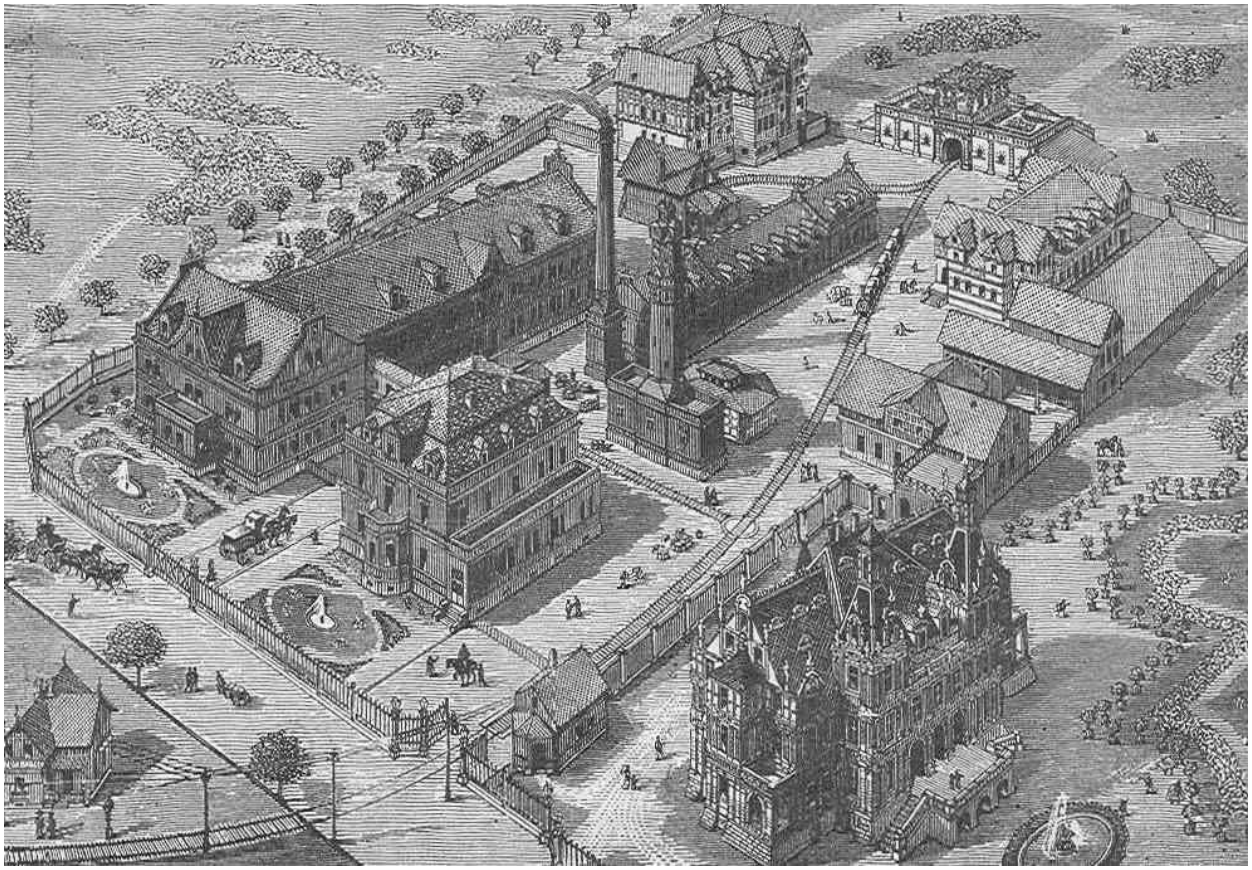
Geifenstein, Heidecksburg, Schwarzburg, and the Thuringian forest, plus the cultural interests of Goethe, Heine, Schiller, Wagner and more.



Clearly Richter believed in his medicines. While Rudolsbad featured all types of cures using the latest medical devices, including X-ray, magnetic and electrical fields and shock, incandescent and arc lamp illumination, it also offered more traditional cures, including Russian and Roman baths, plus a fully equipped exercise room and jogging track. Of course Richter's own medicines were readily available for all ailments. A doctor was available daily for consultations from 9 to 10 in the morning and 3 to 6 in the afternoon. In addition to these health services, the hotel and park offered hiking and lawn tennis. The hotel had its own weather station. The park was laid out with beautiful walks to waterfalls and cascades, boating lakes, plus special carriage roads for those who did not want to walk, picnic locations with full catering and sanitary facilities at hand, flower gardens, etc. And the reader should remember that Rudolstadt was on the main rail line, with Berlin, Halle and Jena to the north and Nuremberg and Munich to the south, and Rudolsbad had its own railway station. Rudolsbad was considered expensive; the cost was M 5 per day, including meals and wine. Of course Richter claimed that despite the great luxury the price was extremely moderate.

In 1888 Richter abandoned his old house and moved into a new villa, designed by Prof. Walther, built next door. His old house was then demolished to make room for a new factory building.

Two major fires at the Rudolstadt factory are recorded; the first one in 1889 does not seem to have affected Anker stone production. The second major fire occurred at the Richter factory on June 12, 1898. The loss of the inventory of printed materials has already been thoroughly covered. Rebuilding was started at once and a new factory across the main road, next to the railroad, was built. Later, this new building was used for stone block production. A comparison



Richter's Rudolstadt Factory

Picture from between 1884 (Rudolsbad built) and 1888 (Villa built).
Rudolsbad is the building in the top center of the picture; the Villa pictured was not built.

of the engravings of the factory in Rudolstadt (in this section and on page 17) will show the increase in the scope of the facility over the years.[5] As the author can testify, the Anker Works looks today very much like the color picture. Rudolsbad is gone (it burned down in 1919) and the upper level arbor of the pergola is missing. But all in all, there have been very few changes.

Richter's first major factory built outside of Rudolstadt was in Hietzing (Vienna); a stone building block factory. The first record of the Vienna factory is the late registration: "since 1882".[6]

Working conditions at the Rudolstadt factory were excellent. The work rooms were steam heated and well lit. The workers used the utility tunnels, also electrically lit, to go between buildings during bad weather. The utility tunnel under the main road made it unnecessary for workers to cross that muddy street. Of course the manufacture of the medicines, chocolate, and stone building blocks, plus the printing and wood finishing operations all produced air pollution. But 1910 was decades before any serious efforts were made to control this type of environmental damage. The fact that the site of the factory, in continuous use for 120 years, is not polluted today speaks for itself, although the author does not doubt that most waste was dumped, untreated, in the Saale River which borders the railroad and Richter's property.

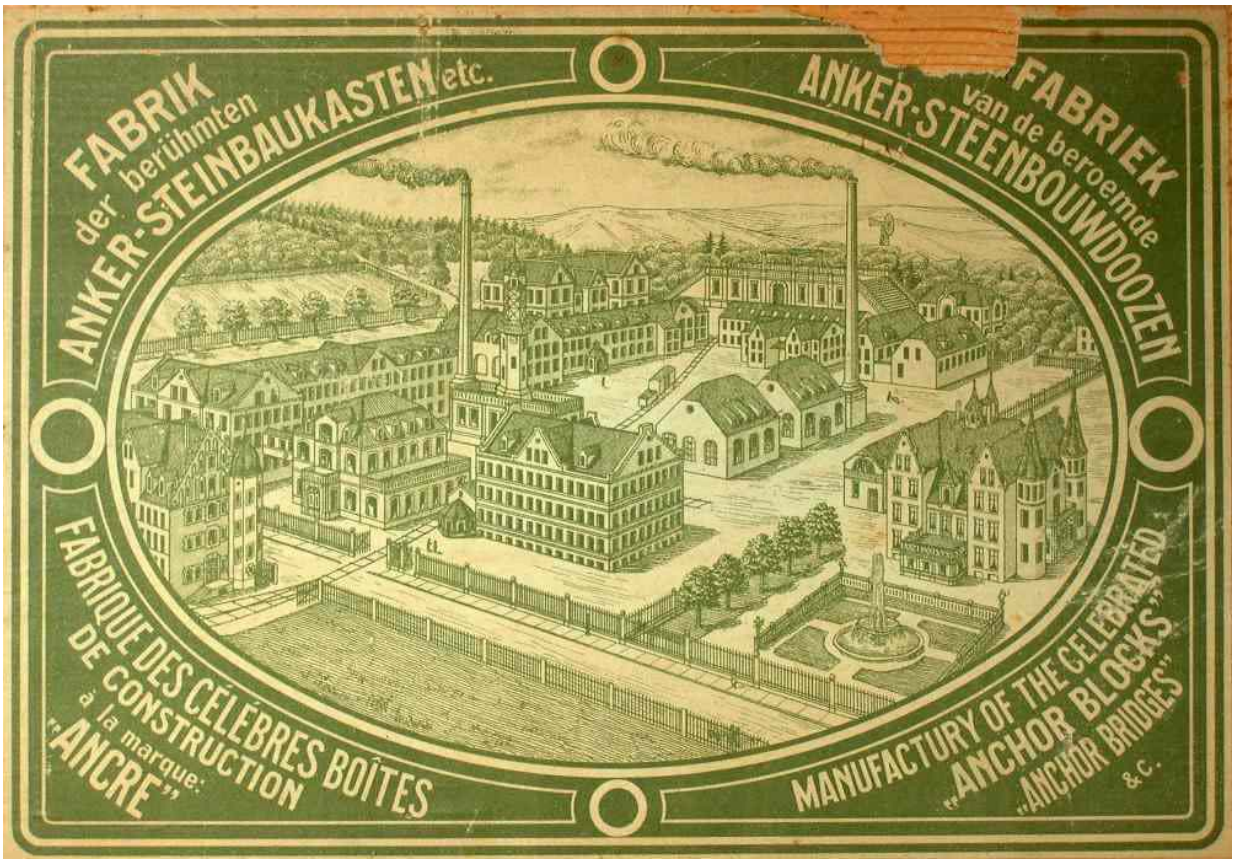
During the period from about 1895 until his death Richter became increasingly interested in his

Richter's Rudolstadt Factory

Picture from between 1888 (construction of the Villa) and 1898 (the fire).
Looking to the northwest; Rudolsbad is drawn larger than in the previous picture.

position in the community. In 1903 he was honored by the city of Rudolstadt for his progressive economic development.[7] By 1906 Richter was employing 562 workers in Rudolstadt, making him the largest employer in the city. He bragged that he paid the highest wages in Schwarzburg-Rudolstadt. Even by today's standards Richter was a fair, even generous, employer. He provided a canteen where the workers took 15 minute "coffee breaks" in the morning and evening. The meals there were subsidized. Richter sponsored a choral society (Arion) for the workers and held an annual picnic in Rudolspark. His (first) wife was very active in charitable work. Workers received full health benefits and retirement pay.[8] On the other hand, there was a job action, which included a printers' strike, against the company in 1891. During the communist (DDR) era, Richter was attacked as a profiteer who ignored his responsibilities to his employees because the benefits were not guaranteed by an insurance company, and thus they were lost when the company had difficulties after W.W.I. But it is hard to believe that the communists really believed that an insurance company, a capitalist institution, would have paid the benefits either.

Not only did the company's businesses proliferate, but they were quite successful. The gramophone and music box business was moved from Leipzig to Rudolstadt in 1894. The reason for this move is unclear. Did Richter have a personal interest in mechanical musical instruments? Better manufacturing facilities in Rudolstadt? Future business prospects for these products? This part of his business soon began to achieve great international acclaim and in that sense was replacing the stone building block sets as the prestige part of the Anker line. The end notes describe this section of the company in more detail than is appropriate for the text of this book.[9]



Richter's Rudolstadt Factory

Picture after 1898 (the fire). Looking to the northwest.
The new building on the near side of the street, on the left, became the stone block factory.

Richter's gramophones won first prizes in the 1900 Chicago and 1904 St. Louis World's Fairs. Richter's chocolate was among the best in Germany, according to the central government's inspection reports.[10] His Anker-Lebkuchen (made in Nuremberg) was the "quality brand".[11] The Leipzig Educational Materials Institute sold toys and games (including steam engines and toy trains -- Richter first demonstrated a toy electric train in 1882 at a fair in Rudolstadt[12]) as well as maps, atlases, globes and supplied school districts with botanical, zoological, mineralogical samples and texts, plus chemistry and physics texts, demonstrations, and sets. His records, gramophones and music boxes (Libellion and Imperator) have already been mentioned as major gold medal award winners at various international fairs and expositions.[13] By 1905 his factory was also producing soaps, both household and toilet, skin oil, flavored honey, pine oil preparations (like wintergreen and bath oil), sarsaparilla and candy. Anker Liqueur was offered for those who were not interested in a health benefit. There seems little evidence that Richter moved his drug business towards ethical drugs and away from over-the-counter remedies.[14] At this time prescription drugs were not very effective, so perhaps his emphasis on herbal extracts was justified. Certainly his medicines were of uniformly high purity and quality. The only question can be about efficacy.[15] One has to admit that the 10% morphine and 5% cocaine, plus the 49% alcohol as well as honey, in Pain Expeller would ‘expel pain’ quite effectively.

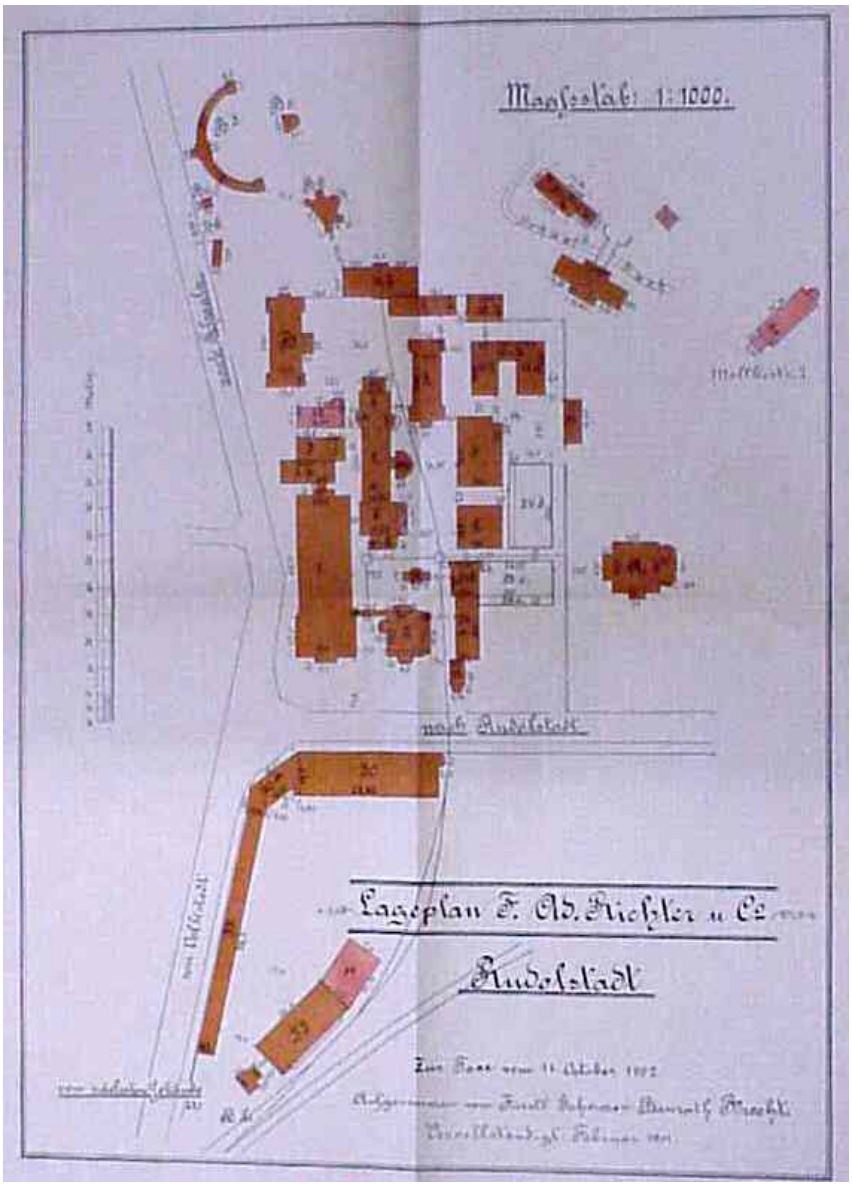
For most of his products, especially chocolates and other "consumables", Richter put out a line of full color advertising cards, not unlike the baseball cards of today. These cards were very

popular at the time and are still popular collectors' items today. The cards were usually in series of six, and came with each purchase. Some series were continued, resulting in several sections of 6 cards each. Of course the object was to induce repeat sales. The author does not know of any cards used to advertize Anker Stone Building Blocks. Imitation postage stamps, as shown, were used.

Richter held the title "Geheimer Kommerzienrat", although he was generally known as "Dr. Richter". Like many titles, this one is hard to translate. "Geheim" translates as private or secret, but "Geheim Rat" means Privy Council. The German government recognized the importance of industrial growth and encouraged the formation of these Commercial Advisory Councils in all cities and towns.[16] There were about 3,000 such councils, with between 16,000 and 17,000 members. The council in Schwarzburg-Rudolstadt had seven members, and Dr. Richter was the chairman.[17] Many of the papers on this council are in the state archive in Heidecksburg, Rudolstadt.[18] Richter, as the owner of Rudolstadt's largest company, was definitely the dominant force on this council, as the minutes of the meetings prove. Although in the last decade of his life Richter was taking an increasingly important role in civic affairs, representing the Germany toy industry at the 1904 St. Louis World's Fair, he did not neglect his company. The company continued to grow and employed 649 workers in Rudolstadt in 1910, the year of Richter's death.[19] By that time, several of Richter's branches were also doing manufacturing -- medicines in Prague and St. Petersburg, stones and musical instruments in Vienna.

Richter's death was a very serious blow to the company. In fact, the fight over his estate doomed F. Ad. Richter & Cie. It is impossible to know how the company would have fared if Richter had lived another fifteen years. Certainly, to be fair to his successors, the combination of W.W.I and the inflation after W.W.I were very difficult times for companies and their directors. While providing great opportunities, these events also demanded major changes in company strategy and great flexibility and ingenuity on the part of management. Certainly Richter's business career shows him to have been a dynamic and creative business thinker. But whether he would have still had these traits, and the personal energy to implement the needed changes during this period, when he would have been in his 70s,

is impossible to tell. But the fact that he remarried in 1901, to a woman more than 20 years his junior, and began a new family, indicates that he was not ready to assume a roll as a retiree.



Map of Rudolstadt Factory, updated to 1911
(updated to use for the estate of F. Ad. Richter)

Richter's estate was valued at 6,323,734.29 Marks; but most of that money was invested in his companies.[20] Over two million was invested in his property in Rudolstadt, including the buildings and the central facilities, like steam and electricity, and only about 10% was in liquid assets, such as cash, bank deposits and commercial paper. The assets invested in his businesses in Rudolstadt (exclusive of the property value already mentioned above) were a) stone building blocks 556,679 M; b) chemical-pharmaceutical, 333,010; c) music works, 421,594; d) chocolate works, 467,028; e) printing and binding plant, 378,983; f) other, including furniture, hotel fixtures, unallocated inventory, etc., 200,474. His assets outside of Rudolstadt totaled 2,677,544 M, including over 668,000 for the Nuremberg Lebkuchen factory, 462,000 for the Konstein glass factory, 449,000 for the St. Petersburg (Salbino) pharmaceutical factory, and 343,000 for the Vienna stone building block factory. A note for the accountants: all assets, including current assets such as cash, accounts receivable and inventory (and less all liabilities), are listed with the various businesses and affiliates. Richter had no significant liabilities offsetting these assets. There is no indication of either annual sales or profit, but the numbers indicate to the author a solid, profitable enterprise.

To understand the demise of the Richter company and the dispute amongst the heirs, it is necessary to know a little about Richter's personal life and family. Richter had married early in life, on November 18, 1869. He was 23 and just starting out in Duisburg.[21] Marie Craemer was young, having been born on December 28, 1849. They had nine children, of whom eight were

alive in 1910.[22] Marie Richter died on January 28, 1901. In October of that same year Richter remarried. His second wife, born Caecilia (Lili) Wolffarth, was 33 years old; Richter's three eldest daughters were 31, 29 and 27. Few will be surprised that the children of Marie, especially the daughters, did not welcome Richter's second wife. Of course the two children of the second wife were both very young at the time of his death. Eva, who lived in the Rudolstadt area until her death on 09/09/2008, was six years old, and her brother was only three months old, when Richter died in 1910. Richter's will, dated just eight days prior to his death, while he was in the cancer clinic in Jena, survives. His second wife did not receive a share of the company, instead she got the proceeds of an insurance policy (details not found yet). The inflation after W.W.I. wiped out all of her money.[23] After the payment of the insurance policy, all of the assets in his estate were combined into a managing company, which was divided as follows: The four daughters of his first wife received 90 shares each; Oskar, Kurt, Eva and Gerhard each received 100 shares; Adolf and Walter received 120 shares each, because they were active in the business. Branches, like the New York office which was incorporated in 1911, were included in the company.[24] Previous gifts and loans to heirs were forgiven. Sale of any asset of the company required approval of 75% of the shares, so the two minor children were bought out in 1911, as Lili (their guardian) held veto power in conjunction with just one other heir. Within one year the shares were reissued equally to the remaining heirs, but Adolf was put in complete charge of the company and the villa, though he paid for the villa's furnishings.

All of the daughters of Marie Richter wanted cash, not shares. They created the Marie Richter Foundation. One of its major projects was the relocation of several Thuringian farm houses to a park along the southern bank of Saale River in Rudolstadt. The Foundation also provided an endowment for their maintenance. The purpose of the project was to preserve the local farm house style before the area modernized it out of existence. But the rest of the 20th century seems to have bypassed Thuringia, especially in this part, so many examples of the local farm house style are still in existence, and in use, today.

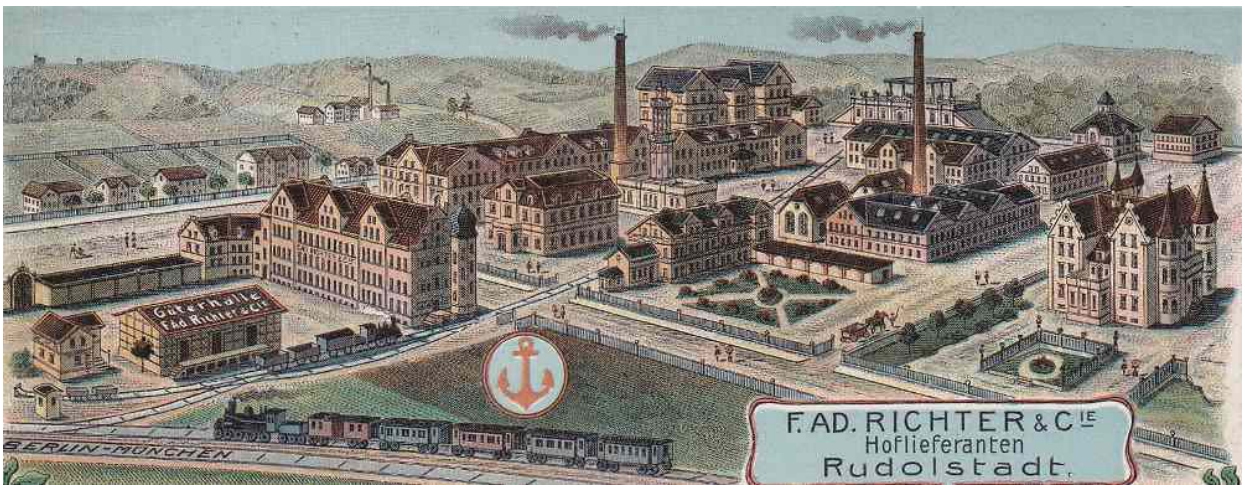
Three of Richter's four sons were active in the company quite soon after Richter's death. Oskar Richter immediately took over the management of the Vienna branch. The building plan department, the R.K.A., was moved to Vienna in 1913. Friedrich Adolf Richter (the son) had been second in command in Rudolstadt under his father and was appointed the first managing director in Richter's will. Walter Richter, who had been in Leipzig, went to Olten, Switzerland, to run that branch. Since so many of the heirs wanted cash immediately, a large amount of money was raised quite quickly between 1911 and 1914. All of the chocolate, music (machines, records and recording), glass (Konstein), Lebkuchen (Nuremberg), publishing (Leipzig) operations of the company were sold. Employment at the Richter factory in Rudolstadt fell from 649 in 1910 to 458 in 1913. Some of the money was invested in developing and tooling a farm tractor, but it was never successful.[25] By 1921, the heirs had lost all of the money, and the company itself.

During W.W.I the plant was used to make artillery shells, hundreds of women stood at rows of lathes turning out these shells. (The reader will remember that the factory had central power. More important for the manufacture of artillery shells was the overhead belt drive system, and a Maxhütte steel mill was also in that area.) Both Rudolsbad and the music building were converted into hospitals.[25] Some of the Richter foreign assets were confiscated -- in the USA during the war and in Russia by the communists after the war. On February 23, 1919, Rudolsbad burned down; I have found no evidence of insurance. By then, the Richter heirs had lost almost all of their money. The post war inflation had certainly wiped out any bank or cash savings,

including Lili's. In 1921 the company was reorganized with 80% going to Alfred Eversbusch, the family's major creditor.[26] Two public companies were formed -- F. Ad. Richter & Co. (A.G.) Chemical Works and F. Ad. Richter & Co. (A.G.) Block Factory. The Richter sons were soon squeezed out of these companies; the Vienna factory was sold (to be torn down for a housing development) in 1931 and Oskar Richter was let go. But Walter Richter owned and ran the branch in Olten, Switzerland, until his death in 1964.[27]

Since the block company was a publicly held (A.G.) stock corporation, a full set of financial statements is currently in the State Archive in Heidecksburg, Rudolstadt. These statements only report the assets and liabilities, not the annual sales volume. Any detailed analysis to the company's operations is well beyond the scope of this book. It is sufficient to state here that over the next thirty years, until nationalized in 1953, the company appears to have broken even in operations, though the assets invested in the company were steadily reduced.

In 1935 the park, which had been associated with the Hotel Rudolsbad, was converted into a military base.[28] Stone manufacture continued until 1940, when it was stopped; shipping of existing inventory continued. In 1948 it was resumed on a small scale, with seven workers. Eversbusch left Rudolstadt for West Germany shortly after the end of the war. In 1953 the company in Rudolstadt was nationalized by the East Germans into a People's Owned Enterprise (VEB). In 1955 an attempt was made to reestablish the Anker Club (see page 115). All known Anker Friends were asked to mail in as many current addresses as possible. Eversbusch sold his interest in the Rudolstadt establishment, including the stone block company, in 1957, to a Dutch company. Also in 1957 a number of East German pharmaceutical companies were consolidated at the Anker works; the stone factory was moved from the Anker Works to a former porcelain factory on the northern edge of Rudolstadt.[29] At the time of this move, an attempt was made to revive the business. The company was converted from a VEB to a VEB(K). The company had a major exhibition at the 1957 Leipzig Spring Fair, showing the Venice by Hans Ludwig (made from two # 34, Lyck, sets), and there was a quite successful reunion in Rudolstadt during the summer of that year. Anker builders and collectors were notified of this meeting by letters mailed to the addresses the company had on file, generally from the late 20s and early 30s. At the 1958 Fair the company featured the Wartburg (the smaller of the two models that Ludwig built), but the 1958 meeting was far less successful and was the last one held. The major reason for the lack of success seems to have been the substitution of a program of communist doctrine

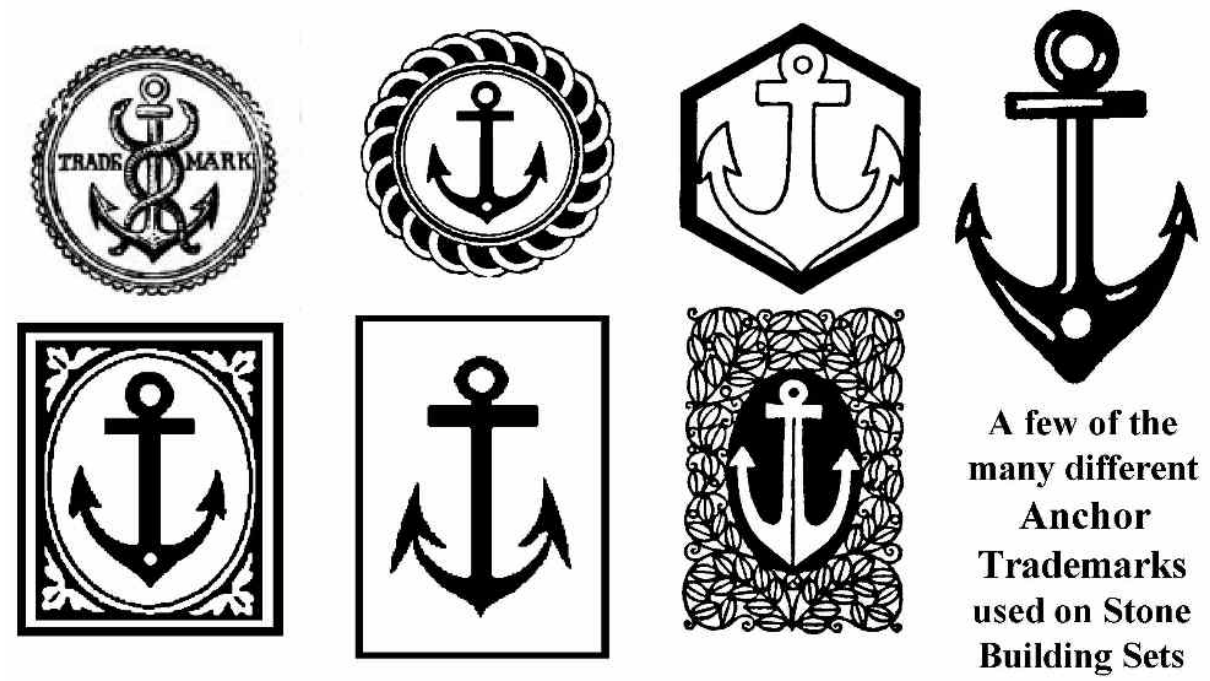


Picture from a "Greetings from" postcard dated 1913.

for the pervious stone block agenda.[30] An additional hindrance was that travel to the DDR, especially for West Germans, was getting increasingly more difficult.

Even though commerce between the DDR and the countries of the West fell rapidly, the stone factory still had 35 workers in 1961. But erratic deliveries, including Christmas shipments which arrived in February, meant that the factory was not able to maintain its market, so it was closed on January 1, 1963, though disposal of inventory continued through that year. Unfortunately no effort was made to save anything of historical value. A number of the finished sets were moved to a company in Bad Blankenburg, and some items found their way from there to the Toy Museum in Sonnenberg. After the factory's closing anyone was allowed to take whatever he wanted; the rest was dumped next to the factory building. Some Dutch collectors drove home with as many stones as their cars could carry. Anker stones, somewhat worse for wear, can still be found in this dump today. Many items of interest to Anker collectors were never moved from the Anker Works in Rudolstadt to Pörztal. These items were not discarded and were seen by me in the Anker Works in 1993. After the Wende, the Ankerpharm, with its Traditions=Kabinett, were sold to Chauvin, and Chauvin sold the Rudolstadt assets, but not the Anker trademark, to Hexal. Hexal started Aeropharm; today it is a very large pharma factory in Rudolstadt. Most, but not all, of the items in the Traditions=Kabinett were given by Hexal to the City Archive and may be seen at that archive in the Old City Hall.

It seems that some of the equipment was not scrapped. Some West German Anker hobbyists tried to obtain the equipment and formulas to continue stone production, but negotiations were not ever finalized. In February, 1967, Dr. Hans Beck of Neckargemünd obtained an offer from the DDR to sell two presses and all of the molds for DM 9,000 ($2,250, at that time), plus another offer to sell the remaining inventory of sets (350 Lilienthal and 100 Lilienthal 2 -- see Chapter XV for information on these sets). No one would come up with the money. The (former VEB) Ton und Kugel (Clay and Ball) GmbH has come up with a manufacturing process for making Anker stones, using a modified linseed oil formula. The author visited this company in 1994, but none of the original equipment was found.[31] The equipment turned up in Rudolstadt in 2003. At present, it is in use at the new factory (see Chapter XVII).



A few of the many different Anchor Trademarks used on Stone Building Sets

XIII. The 100, 200, 300 and 400 Series

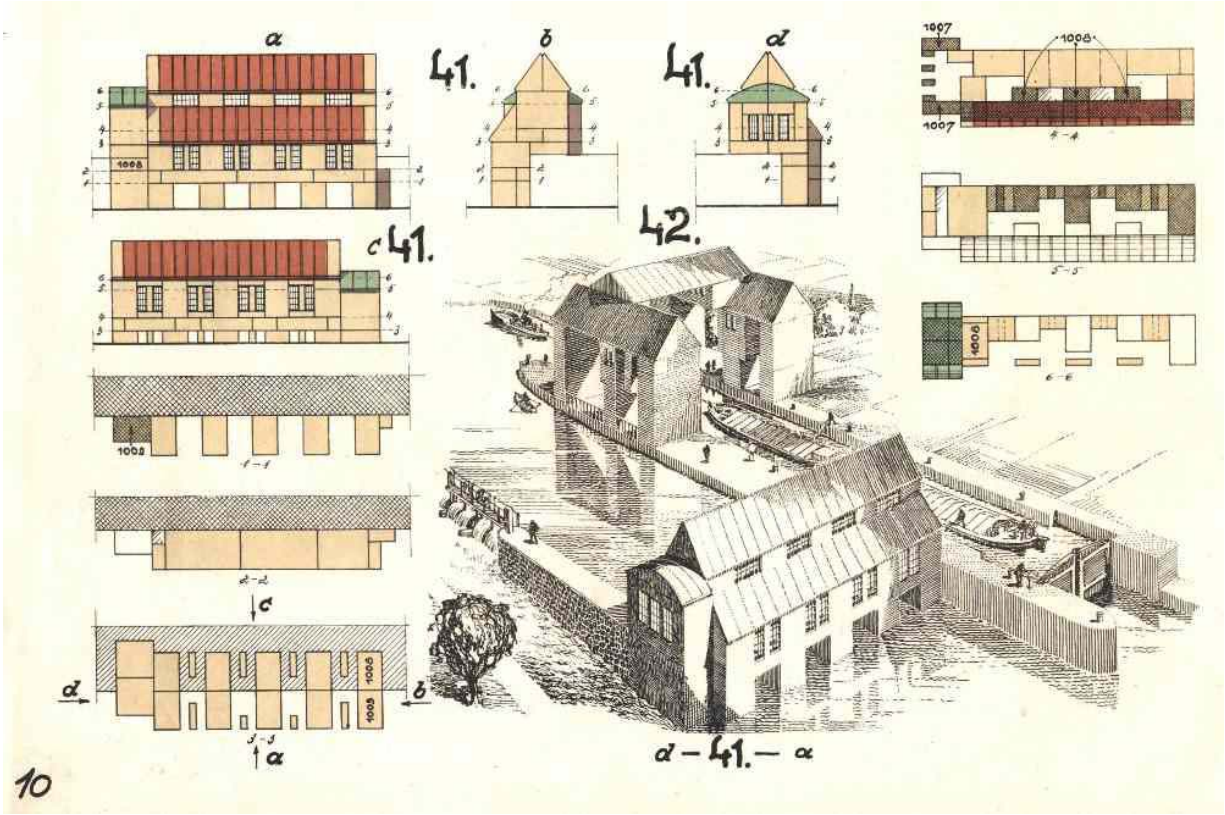
As was related in the previous chapter the Richter company did not do well after Richter's death. But several very interesting series of sets were introduced very shortly after Richter died. It is a matter of speculation whether Richter commissioned the development of these sets or whether they were the result of the efforts of the younger generation. The author is inclined to believe that Richter himself, along with his attempts to combine metal and stones into one set, commissioned three designers to create a new series of sets, independent of the existing GK-NF series. Even though new stone forms were allowed, he seems to have placed two limitations on the developments -- a) the sets must be GK and b) the sets in the various series must be small, that means not larger than the # 12, Lindau. Each designer took a different approach and each chose a different theme. Each designer employed new stone forms. The 100 series, called the **N**eue **R**eihe (New Series), is based on a stone 1 × 1 × 1½ (GK-NF stone # 3). The models are modern (mostly) industrial buildings, a style of architecture which became very popular in the first decade of the 20th century. The 200 series, whose models are American suburban architecture, are supplement sets to several of the most common GK-NF sets. The 300 series does not supplement the GK-NF sets, and its models are based on German suburban, country or farm architecture. The 400 series, clearly not even planned until 1915, uses all gray stones, and its models are based on fortifications from the trench warfare of W.W.I. Because each of the sets in these series has unique three-digit identifying numbers, prefixes such as NR for Neue Reihe are not needed, though NR is often used.

A. The 100 Series, Neue Reihe, NR: Even the 1931 New York catalog calls this series of sets Neue Reihe. Even though the Neue Reihe sets were assigned the 100 numbers, this series was the last of these special series of sets to appear. It came out in 1924. The sets are numbered 102 through 116 and set # 118 was promised but not produced. Set # 118, perhaps in the form of # 116A, may well have been completed but not issued. Various catalogs show designs "built with set # 118" and, of course, the building plan book of set # 116 shows on its last page a building built with set # 118.[1] No supplement sets were marketed, although every larger set has 100% of the stones in smaller sets. This fact, plus the existence of the "decoy" plans for the next level in each of the building plan books, indicates that supplement sets were planned but just not marketed. A set # 116A turned up in 1966, several years after the closing of the factory. It was in the possession of the company's West German distributor, Spielwarenhaus Kurtz (Kurtz Toy Warehouse) in Stuttgart. The packing plan and one building plan (the one shown in the building plan book of set # 116) were hand drawn, not printed. But the stones in this # 116A set are not the ones needed to build all of the # 118 buildings seen in catalogs. Ernst Meyer-Margreth left a hand-written list of the 531 stones in the set # 118, which the author accepts as correct. Because set # 116 contains two large layers of stones, totaling 365, the lack of supplement sets must have been a very serious limitation in marketing of the higher numbered sets. A builder can always use a few extra stones, but rendering obsolete 365 stones to achieve a set of 531 stones[2] is certainly excessive. It seems clear that there was a significant difference between the Neue Reihe sets as designed and the Neue Reihe sets as sold.

Many new, and quite large, stones were needed for these sets. Because the stones are large, and the quantity is small, all of the buildings can be built quite rapidly. There are only 29 rectangular stones shapes in the Neue Reihe. Arch construction is basically three pieces, with two side abutments and a center span. Dual abutments were included, that is abutments which support two arches, either in a straight line or at right angles for a corner. By mixing the abutments and

spans a number of different arches could be created, spanning from 25 mm to 250 mm. It is interesting to note that of the 59 arch stones tooled and sold, only 6 were used through # 116. Set 118 added a seventh arch stone.[3]

One of the most interesting innovations in the Neue Reihe is the plan books. Although set # 102 has just 11 stones it has 53 plans. All of the books feature many more plans than other Anker sets. No. 112 has 71 plans; # 114 has 62. The minimum is 42. Unlike the other Richter building plans, the Neue Reihe plans include color details of the building and a pencil sketch of the building with appropriate background. The design of some buildings, like locks for a river, only becomes clear from this background sketch. Starting at set # 108, not all of the background buildings are provided with construction details. These artist renderings of buildings **can** be built with the set, but the builder must allocate the stones himself. By this technique, the plans carefully lead the builder past his dependence on detailed plans toward free-style building -- the Neue Reihe is the only series which helps a person break free from predesigned plans.



A Neue Reihe Plan from Set # 110, Page 10

Note the two buildings, #s 41 and 42. Detailed drawings are provided only for # 41. But plan # 42 can also be built with this set.

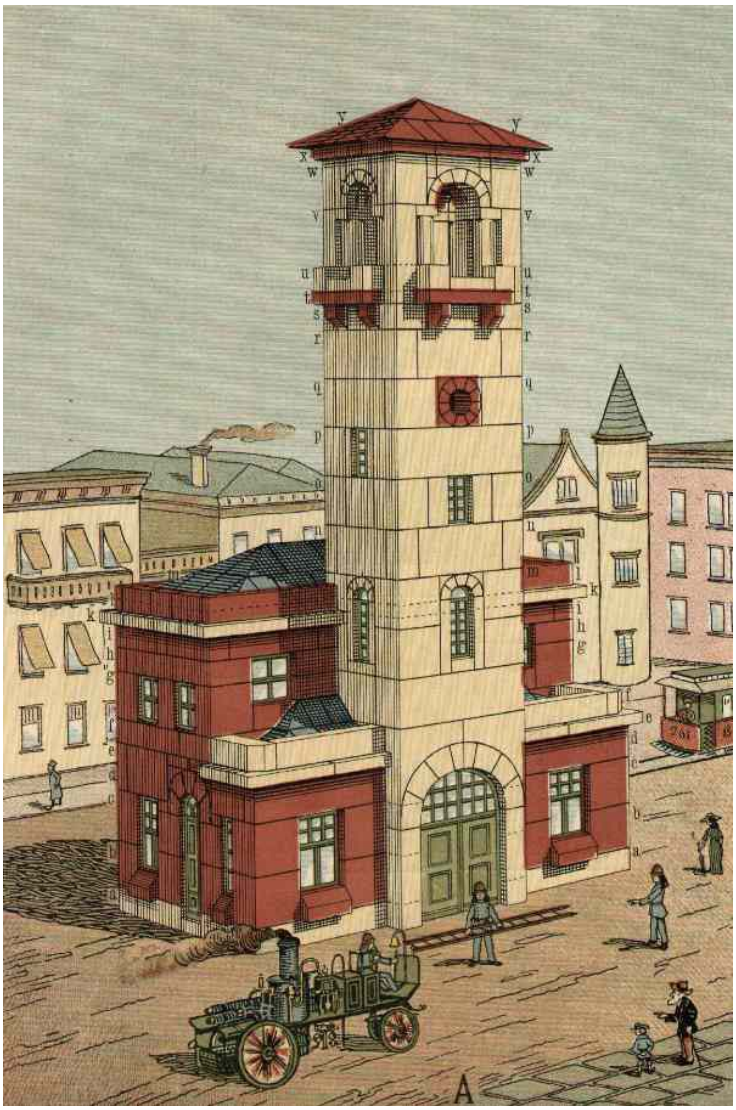
The Neue Reihe sets remained available until the end of the company in 1963. The plans were actually reprinted, not just the covers, during the VEB (DDR) era. Although the old printing plates were used, the poor color registration and the added breaks in the lines of the VEB printings establish that a new press run was made. Undoubtedly the industrial character of the buildings appealed to the East German government authorities.

B. The 200 Series, Modern House Series (Amerikanische Landhäuser): The Modern House sets, which are known in Europe as **American Bungalow** sets, are **supplements** to the GK-NF sets. Three sets were designed, #s 206, 208 and 210. No. 206 is a supplement to set # 6, Leipzig; # 208 supplements sets # 8, Lennep, and # 206; # 210 supplements # 10, Liegnitz, and #s 206 and 208. Thus the full series may be considered as a six layer set -- three layers from the GK-NF and three layers of special sets.[4] In Europe a three layer supplement, # 210C, Washington, was available (from the Vienna factory) during W.W.I. This set was still available after W.W.II, in the European market but was never sold in the USA.

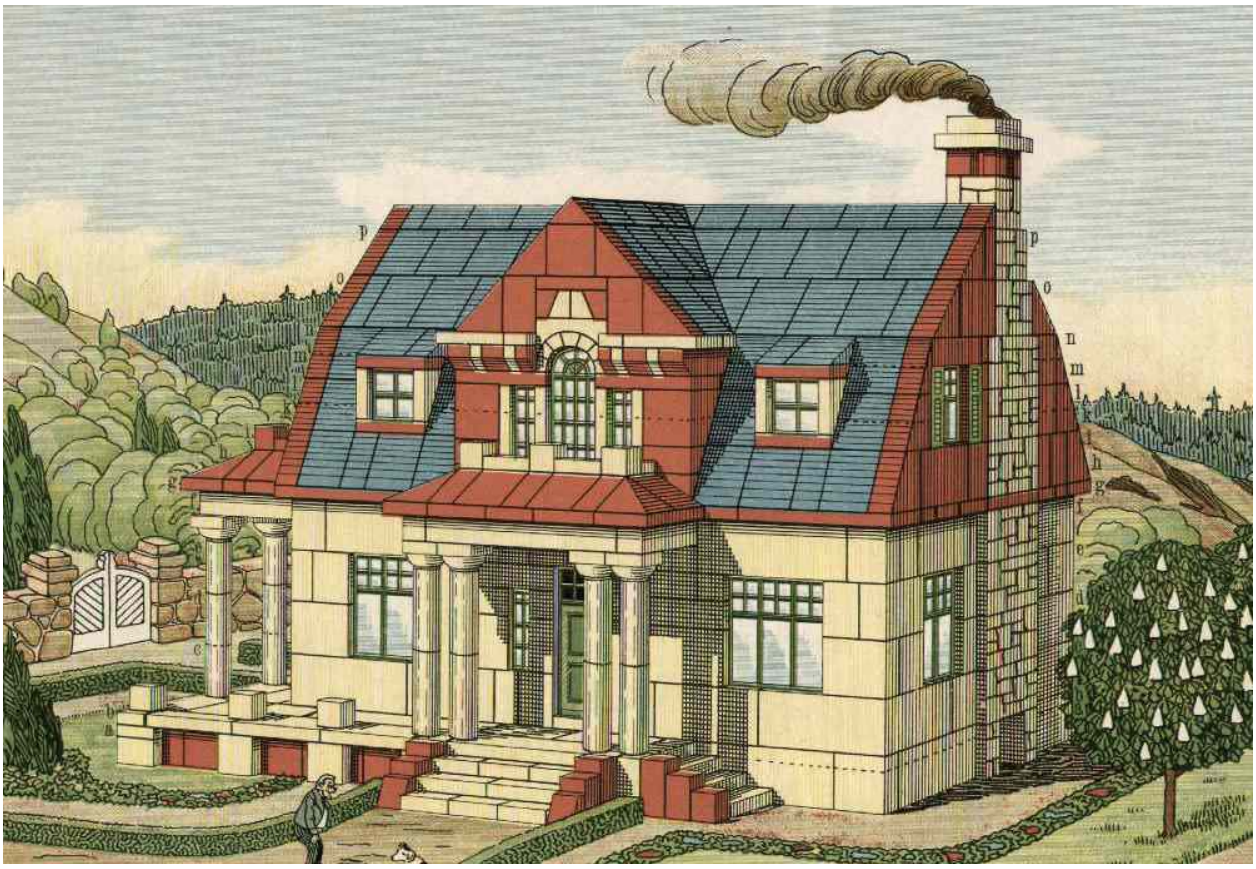
After WW II, the East German VEB blocked out the word "American". The sets were sold as "Bungalow Sets", which is the name used by almost all Europeans today for the Modern House Series or "Amerikanische Landhäuser".

The Modern House Series is based on American suburban architecture. The designs were done by Stephen A. Hurlbut (1875 – 1955), an American. Mr. Hurlbut taught the classics between 1921 and 1947 at St. Albans School, the cathedral school of the Washington (D.C.) National Cathedral. It seems he spent at least the decade before W.W.I in Europe "reading" the classics, studying and working. He spent several years in Rudolstadt at the Richter company designing these sets.[5] The first set of building plans, actually # 210, was printed in June 1911. It was two years later that the plans for the other two sets were printed.[6] Set 206 was sold in the USA during the summer of 1913.[7]

Since set # 210 could not have been completed before sets #s 206 and 208, it seems likely that all of these sets were designed prior to Richter's death. A new style of stones was added for this series. These stones have a pattern of cut stone impressed on their sides. The stones, #s 526 - 535, are used in these sets as chimney and foundation stones. In addition, a few other new stones in this same number range, from 512 to 537, were included in these sets.



Firehouse from the Plans for Set # 208



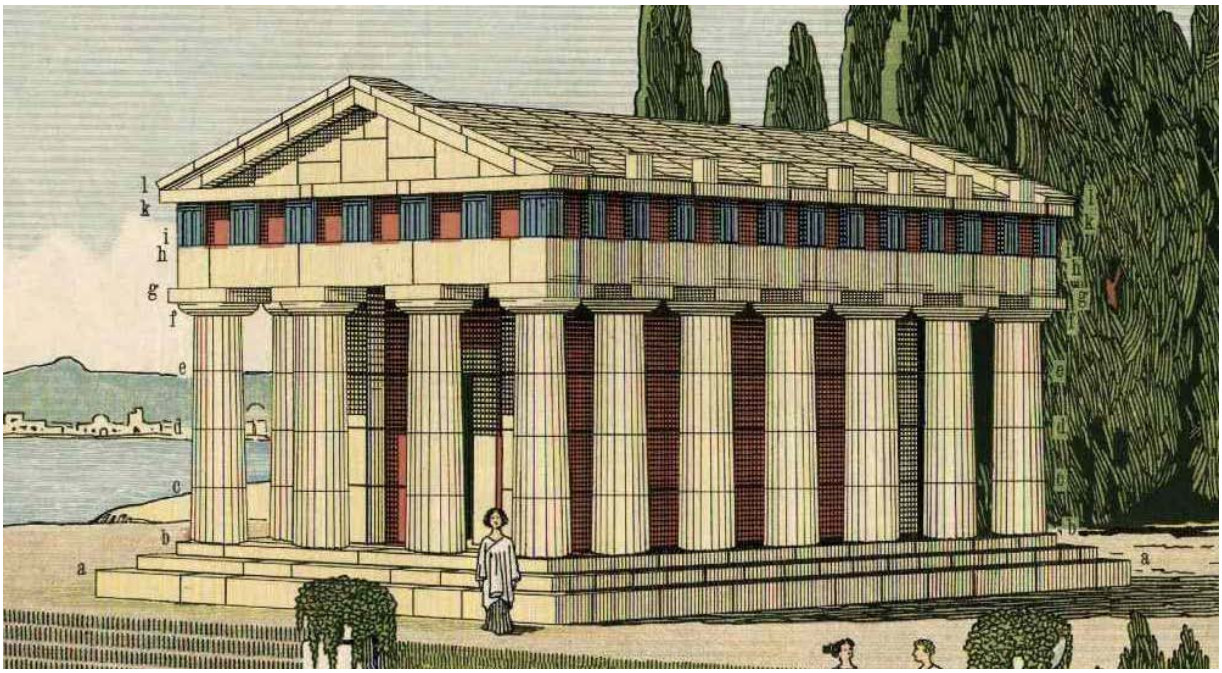
An American Suburban House from the # 200 Series

The architecture of the Modern House designs has been questioned by European Anker builders. Some who have never visited the USA think that the designs are unreal -- pure imagination. The signs on the general store - post office, dry goods, hardware and groceries - are considered to be examples of the many uses the building might serve, but all of them could not possibly be in use at the same time. But even a New Yorker recognizes a general store. The library is a classic Carnegie library. Some Europeans consider the idea of a bell tower in the school building and the fire house to be especially unrealistic. Again any American will have no difficulty recognizing the architecture of these buildings, as well as the residential architecture, which is pure turn of the century suburban architecture, as typically found just outside of all of the larger cities of the northeastern USA.

The backgrounds for these plans are as modern as the architecture. One shows an airplane, less than a decade old at the time the design was drawn. The backgrounds are not in the H. Meyer style, but the new Jugendstil (art nouveau) style current before W.W.I.

Cut out doors and windows were included with each set. The drawings of the buildings illustrate the use of these cut outs. All of the signs for the buildings in set 208 are also provided. The location sign on the railroad station is "Anker Town". The doors and window frames are green and the glass has a blue hue. The background of the signs is a light yellowish green. The quality of the paper and printing is quite definitely "pre-death" Richter, though the printing was done in 1913, based on the printer's mark on the sign sheet of set # 208. The cut out sheets are clearly labeled with the set number. No. 206 came with two sheets; # 208 with two sheets of doors and windows plus the sign sheet; # 210 came with only one small sheet.

One of the great mystery sets of Anker is the **Graecia** set. In the building plan booklet for set # 210 -- printed several years before the plans for the rest of the sets and the 210 layer plans -- the decoy picture is a Greek Temple. The set, Graecia, was offered for sale, $7 in the USA. This set, containing "285 stones plus 96 roof plates", was described as a double layer supplement set to # 12, Lindau. The Modern House Series sets are not employed with this set. The special stones include: "Columns, capitals, triglyphs, metopes, all the forms of the severe and beautiful Doric Order are reproduced with charm and accuracy." The building plans are described as "not only this and other antique Temples, but its stone material is also employed to construct modern buildings with Greek or classical forms, such as Triumphal Arch, Propylaea, Mausoleum, &c." Although the Graecia was never put onto the market it certainly was fully designed in 1911. Careful examination of the single temple on the last page of the # 210 building plan book allowed Dr. Meyer-Margreth to identify all 285 stones.[8] However the caveat is that there are no draftsman errors, and such errors were found in a number of building plans. On the other hand there is a certain "Richter elegance" in using as the decoy picture a building which uses every one of the stones in the set being advertised. Exactly what is meant by "roof plates" has been the subject of debate among Anker enthusiasts for decades. Certainly stones GK-NR #s 476-484 could have been used as "roof plates".[9] These "old" numbers date from about 1895. All of the special stone shapes for the Greek Temple are shown in the Loose Stone Catalog and are well known to Anker builders. Several people, including the author, have built the temple using set # 12 plus the 285 stones in the set. It is not hard to do.



The Greek Temple on Page 16 of the Plans for Set # 210

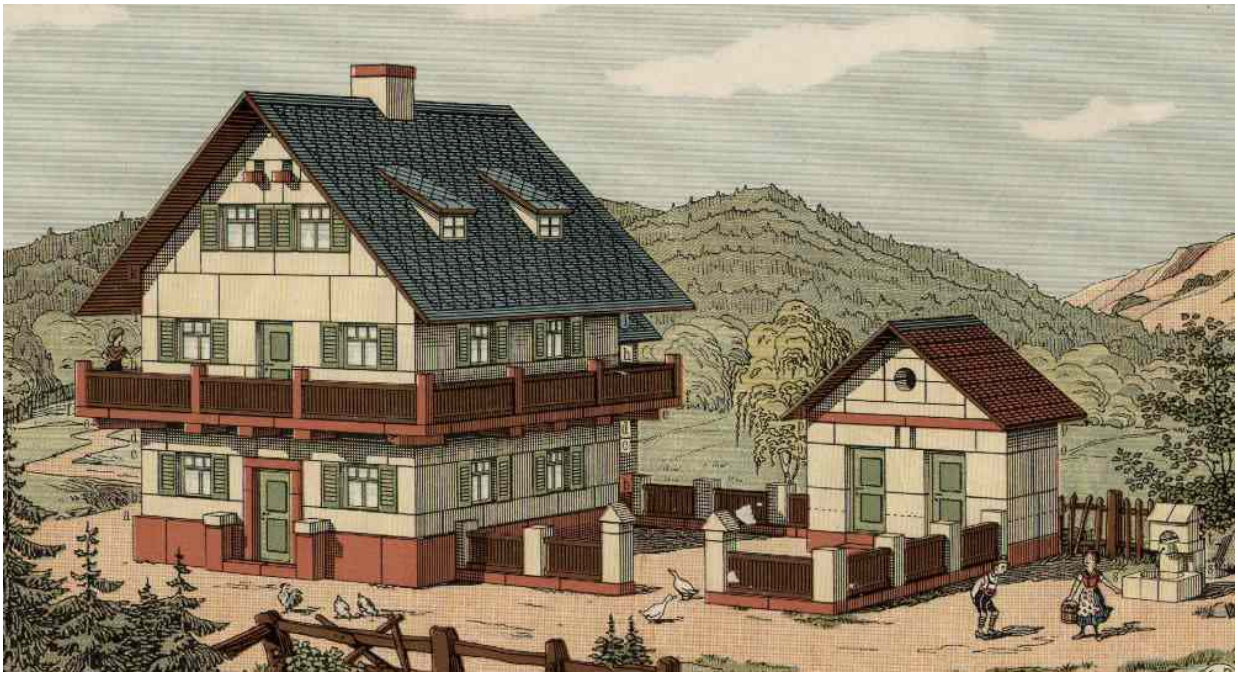
After W.W. I, the Graecia decoy plan brought a lot of requests for the plans and stones to build the Greek Temple. The Richter Company put out a building plan which indicates a wooden roof. The plan also uses Neue Reihe stones, specifically #s 1026 and 1028, which are large plates ¼ cube (6.25 mm) thick and 1½ (37.5 mm) wide. Two versions of this plan are known. They differ by only a few stones in one layer, layer L. Since many of the stones, especially the fluted columns and triglyphs, are not found in any set, the Richter Company made up a special box of

these stones. A list of "special" stones was printed in the Anker Newspaper, (# 19, July 1, 1928).[10] This list is at slight variance with the drawings. For example, the columns in the drawing are stones 542/3/4/5 but the list shows the columns to be stones 541/2/3/4, thinning the diameter of the column by 1 mm. All of the stones in this box are yellow, except for the metopes and tympanium[11] which are red. The stones of the triglyphs should be blue and the tympanium should be yellow. The stones in the special box are the ones in the list.

Of course the question comes up -- are the Neue Reihe stones part of the original design? If one believes that the Neue Reihe -- as the 100 series -- was planned and started along with the 200 and 300 series sets, then it is possible. Stones #s 1026 and 1028 do not appear in any Neue Reihe set. They are, in fact, numbered as if they were after thoughts or not part of the original stone selection. But the stones are logically Neue Reihe, # 1026 being a half-thickness # 1005 and # 1028 being a half thickness #1006. Also these stones make construction of the Greek Temple shown in the building plan booklet # 210 is much easier. It is unlikely that the first design and drawing used any NR stones, but as soon as the Neue Reihe stones were tooled, these very useful plate-like stones would have been used for this Greek Temple.

Eventually a **Classical Set** was put out by the New York office. This set is not properly part of the Modern House Series and will be described in the upcoming chapter on the Richter Company in the USA.

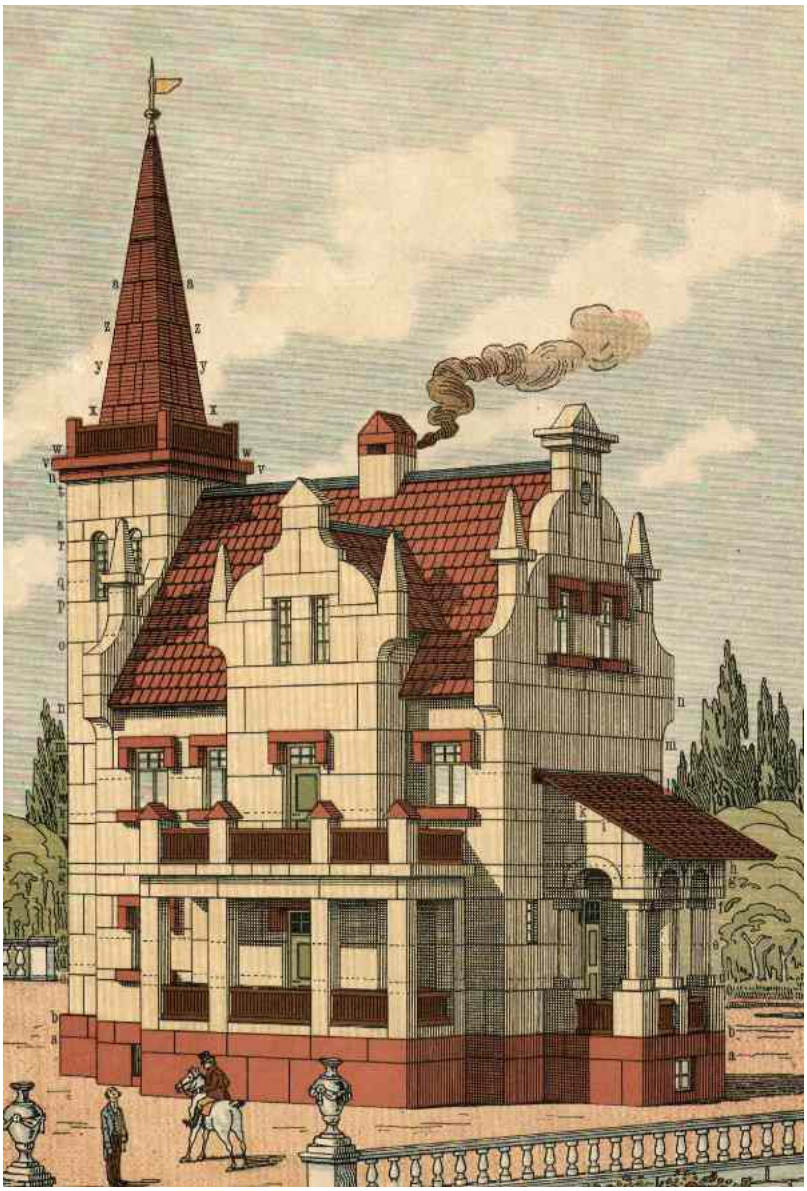
C. The 300 Series, Landhaus (Country House) Series. The Landhaus sets are an individual series -- not supplementing the GK-NF and with basic and supplement sets of their own. But the stones are GK-NF, so the stones of these sets can be used in conjunction with those of other GK sets. These sets include a number of wooden accessories, including roofs, dormers, balcony railings, crosses for the church spires, and even a water wheel for a mill.



Swiss Chalet from Set # 303

Sets #s 301, 301A and 303 were first advertised in the 1912 catalog, but actually came onto the market in 1913.[12] As in the 200 Series, the building plans of sets #s 301 and 303 are basically

suburban architecture, albeit European, and especially German, in style. Only the country mill in set # 303 is even the slightest bit industrial, although several of the backgrounds are rural. Like the 200 Series the middle set, # 303, has some town buildings -- two churches (one of these plans shows a school house and two parish houses), a school, an inn, and the mill. The rest are residential, including a Swiss style chalet. The decoy picture, leading to set # 305, is a luxury villa. It is interesting to note that the front cover of the building plan books of sets #s 301 and 303 show the publisher to be Richter (LEIPZIG Verlag von Richters Verlags-Anstalt); the back cover (actually the same sheet of paper) has the identification of Richter's Press in Rudolstadt (Richters Druckerei, Rudolstadt). The layer plan books indicate Leipzig only. These marks show that not too much importance can be placed on the division, within the Richter Company, credited with the production of a product. Because the 300 Series sets are not supplements to the GK-NF series, the building plan booklet for set # 301 contains five pages of elementary constructions to teach building technique to those builders who did not already own an Anker building set. As a result, this booklet has 20, instead of the usual 16, pages of plans.

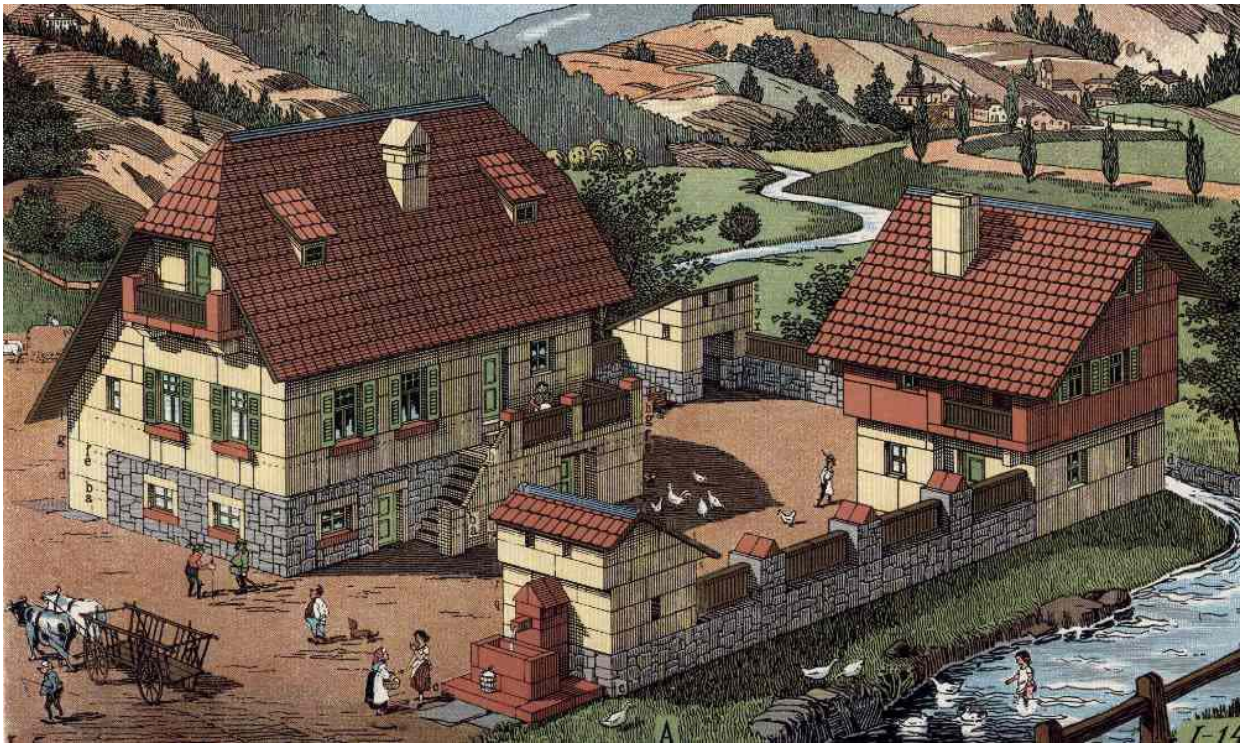


Decoy Picture for # 305, from the Plan Book # 303

Set # 305 (in the form of set # 303A) came out after W.W.I and represents a major break with the earlier sets of this series.[13] The decoy plan shown on the last page of the building plan booklet of set # 303 is **not** included in the plans for set # 305, probably because a different stone assortment was used. The building plans for set # 305 depart quite sharply from the theme of the 200 Series and the earlier sets of the 300 Series. Many dark gray stones, with cut stone patterns (similar, but not identical, to the ones used in the 200 Series), were added to this set. These gray stones are used to form walls and foundations, giving a closed in feeling to all of the designs. As there is no decoy picture, so set # 305 is definitely the end of this series.

Sets #s 301, 301A and 303A have two layers. The boxes are 10 × 14 cubes, larger than the standard Richter GK box. Both sets #s 301 and 301A have one

layer of stones and one layer of accessory parts. For most sets #s 301 and 301A the packing plans for the accessory parts are not correct, as they only include one side of the roof. But originally the sets came with roof parts consisting of two wooden plates connected by a cloth hinge. The result is that the subsequent sets which were supplied with separated wooden roof sections need twice as many individual parts as are shown on the packing plan (and mirror image differences exist). The roof plates are reversible, red on one side and blue on the other. Set # 303 has three layers, the two layers of stones from #s 301 and 301A; the accessory parts are all packed into one layer, all in one box. The set # 305 was generally supplied as sets #s 303 + 303A. But in 2007 a single box version was discovered. It weighs almost 50 pounds (23 kilos), so it is very heavy. The box for set # 303A has a special, chamfered top which quite neatly holds the box of set # 303, giving the combined sets the appearance of a single unit.



Plan from Set # 305

Paper windows and doors were also included with the 300 Series sets. Two sets of these insets were included -- one with green frames just like the 200 Series inset, the other with just the black outlines so that the user could color them himself. The sheets for set # 301 are marked "L.1" and "*X*", where X is the number of the page. The sheets for set # 303 are marked "L. 1a" and those for set # 305 are marked "L.3A". Both the colored and uncolored sheets have the same numbers, so the numbers alone do not let a person know whether or not a sheet is missing. Only the colored sheets were included in set # 305 (303A).

There is no indication that these sets were ever sold in the USA. Certainly the covers include English as one of the languages (German, French, Dutch, English, Danish), but no USA catalog indicates that these sets were imported into the USA.

The **Model Building Set** was also introduced in 1913. This set has already been described in an earlier chapter (V, which covers stones, exhibition buildings and special sets). But it is mentioned here because the introduction of this set is just another proof that one must view 1913 as an important year of innovation for new Anker stone building sets. Needless to say, in geo-political terms, the timing was not very good. It will continue to be the subject of debate as to whether these sets were the product of new management or the last contribution of the management of Richter himself. The author tends to the latter explanation, but there are good arguments on both sides.

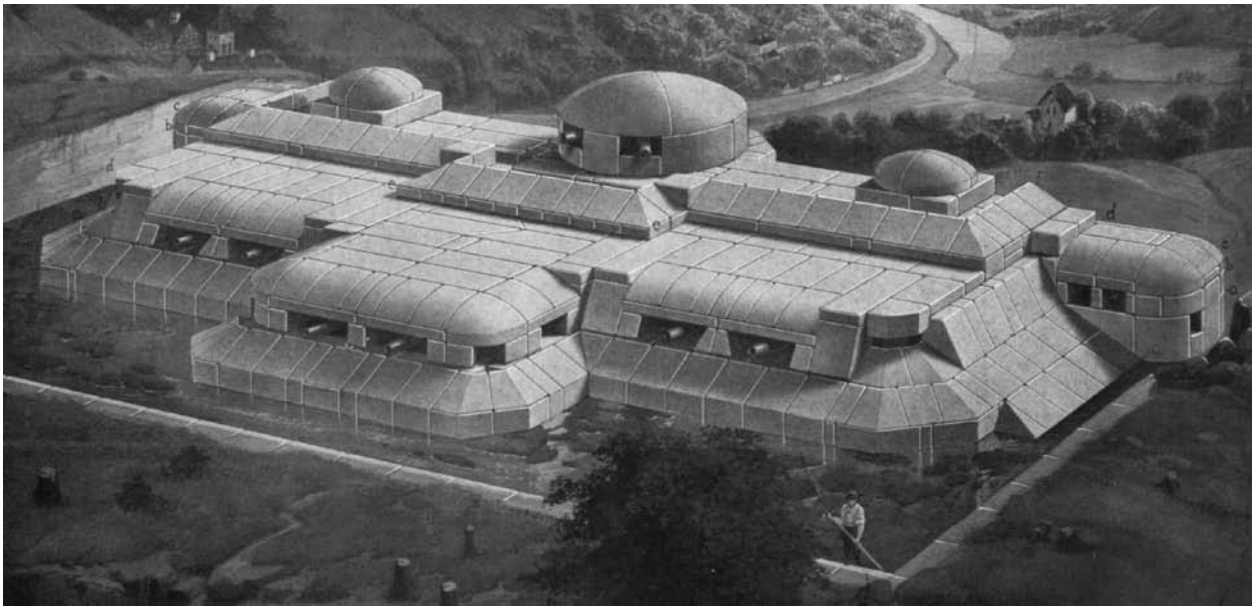
In 1913, the younger F. Ad. Richter patented several designs of stones for new types of stone building sets -- sets in which the stones were held together by various means. None of them is useful in any way. After this final group no new sets or series showed anything close to the same level of innovation -- until the Lufsky designs in the post WW II VEB era. These points argue for the "old management" theory. On the other hand, the company purchased a patent covering an all-metal (no Anker stones) construction set, which does not use screws, and introduced it in competition with Meccano. This set, which is quite nice but very rare, will be discussed in Chapter XVI, which covers other toys of the Richter company. The acquisition of this patent shows that people at the Richter Company in 1913 were actively and intelligently working on expanding and improving the company's line of building sets.

D. The 400 Series, Fortress (Festung) Series. The Fortress series was introduced early in W.W. I. The sets are GK, and initially all of the stones were gray. The first sets put out were #s 402 through 410, with the appropriate single layer supplement sets. Set # 406 is one tray, set # 408 has two trays and set # 410 contains four trays. Of course #s 402 and 404 are less than one tray, like # 2, Lahr, and # 4, Lebus. The building designs are of "modern" fortresses, basically trench warfare fortifications. The increasing power of artillery (which caused about 2/3 of the casualties in W.W. I) quickly rendered these "modern" designs obsolete. But obsolete military designs have always been popular. Certainly castles are not militarily meaningful today, yet they remain among the most common structures built with construction toys.

These sets were made in all three factory locations, Rudolstadt, Vienna and New York. The stones (of all sets) made in Europe during W.W.I have a reputation for poor quality. They expand and burst apart. The problem is caused by the chalk in the stones absorbing moisture and swelling up. After the war the factory claimed that the problems were caused by war time shortages, but close examination of the swelling stones will show that part of the problem is actually large pieces of chalk. The chalk was not ground finely enough and was not thoroughly mixed with the sand and coloring. The shortage of linseed oil also contributed to the quality problem, but it is clear that linseed oil will not protect stones from swelling and breaking apart if the chalk is not a very fine powder and the mixture is not thoroughly mixed. Only if one includes in the term "shortages" a failure of proper process control and attention to detail, is the explanation correct. The result has been that most European Anker hobbyists feel that the stones in the Fortress Sets, especially the wartime gray stones, are inevitably poor quality. Of course the quality of the sets made in the USA did not suffer from any war time problems. The USA Fortress Set stones will be found to be first quality Anker stones. The only Fortress Sets made in the USA were #s 406/08/10. Any buyer of a Fortress Set should check the country of origin marking on the label.

New stone shapes were also used in this series of sets. Of course in a sense all of the stones were new because they were made in gray instead of yellow, blue and red. But two large circular roof

stones were introduced. These circular roof stones cover a 90° arc, so four are required to form the roof. The smaller circular roof is 62.5 mm (2½ cubes) in diameter; the larger one spans 125 mm (5 cubes). It is interesting that these stones are known in all four colors - red, yellow, blue and gray. In addition octagonal roof stones were introduced for the first time. No curved stones with an outer radius of 31.25 mm (1¼ cubes) had been introduced previously, so two such stones (# 548 covering an arc of 60° and # 549 covering 30°) were made for these sets. The new stones for the Fortress Sets are found in the numbering range 548 through 571, just after the fluted columns for the Graecia set and new stones, #s 526 - 537, for the # 200 series sets.[14]



Design from Set # 410

The Fortress Sets underwent considerable evolution over the years. At first the sets came with building plans of trench warfare fortifications and were sold with spring operated cannon which "shot" light paper wads. Two types of cannon were supplied; one made of cast pot metal and the other of sheet metal. Both had the spring firing mechanism. After W.W. I these cannon were discontinued and the space occupied by them was filled with various stones, sometimes columns, which could be used to simulate cannon, or just one stone -- GK-NF # 6G in set # 402. Despite their popularity in Germany during W.W. I, these sets are relatively rare. It seems that both the stone quality and the subject caused an extreme lack of interest in these sets after W.W. I.

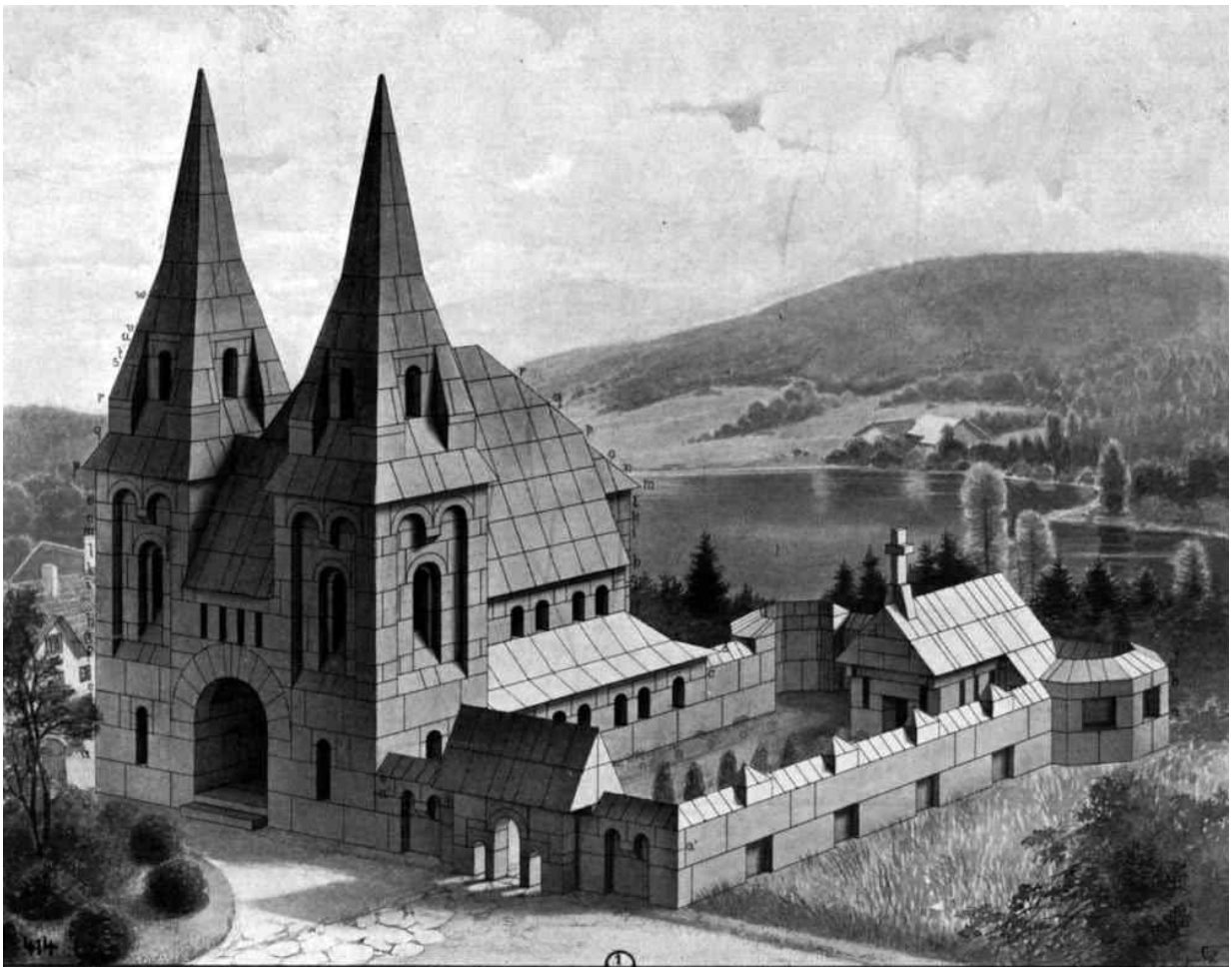
After W.W.I two new sets, #s 412 and 414, were added to the line.[15] The building plan designs were changed from early W.W. I style fortifications into fortified structures of the late Middle Ages, especially churches, such as are often seen today along the Danube, especially east of Vienna. At first, the stones in these sets were also gray, but they were quickly converted to yellow. The early "red roof stone" sets have only yellow stones and the red roof surface was to be created by the builder with paint, which was supplied in the set. Quite soon, however, red stones were substituted, even though they do not look correct at the edges where the roof meets the wall or those locations in the wall which are constructed from roof stones. Although not actually advertised, the sets were also available in yellow and blue stones.[16]

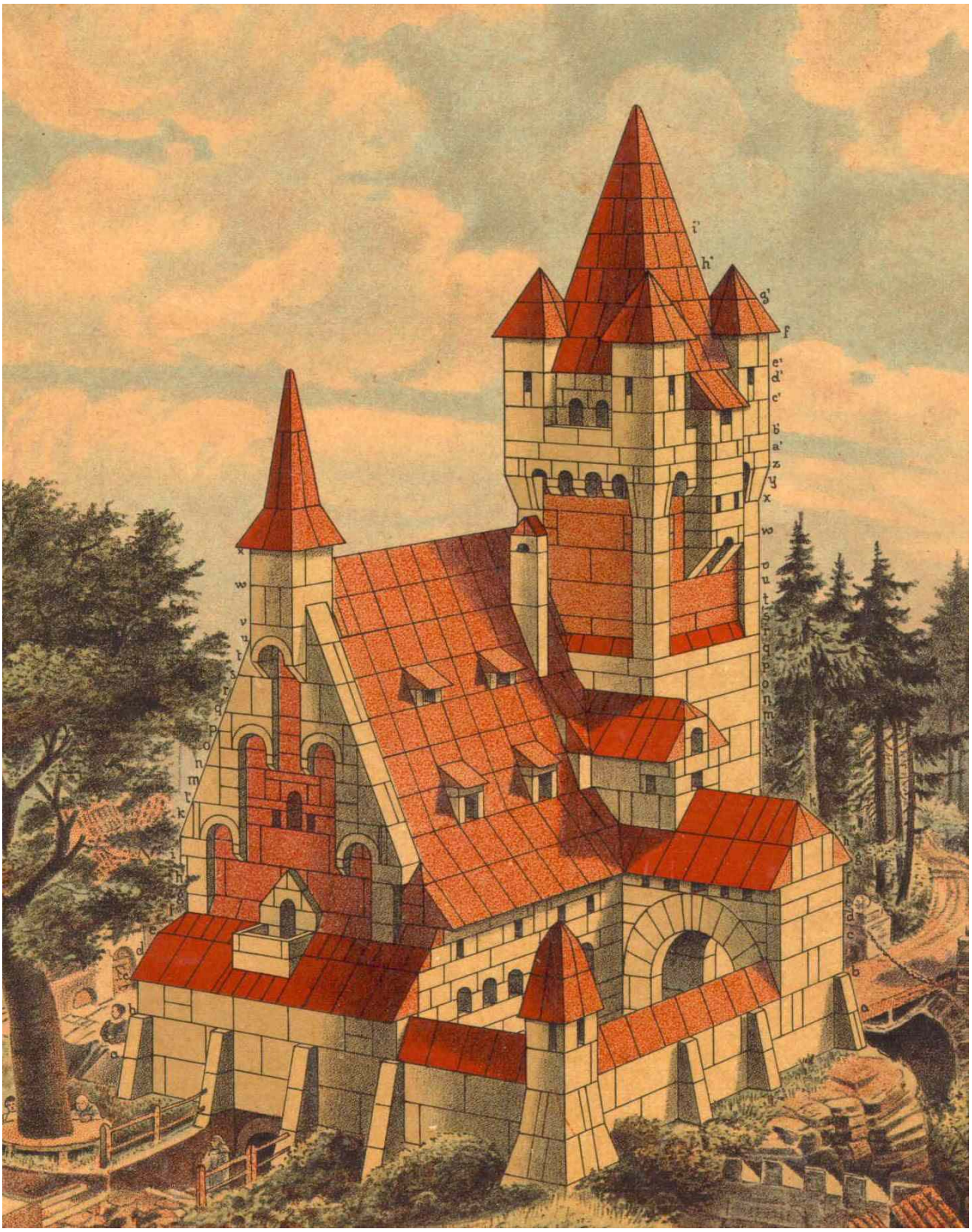
These last two Fortress Sets are quite large. No. 412 has 1,247 stones, almost as many stones as the eight tray # 20, Lissa. No. 414 contains 1,887 stones, almost the size of a GK-NF set # 24.

(There are minor variations in the sets so some # 412s have 1,242 stones and some # 414s have but 1,871 stones.) Of course the supplement sets # 410A and 412A were made. At the same time the smaller sets, #s 402, 402A, 404 and 404A, were dropped from the line. These smaller sets are very rare as a result of the loss of the war-time European sets, the poor quality of the stones, and the lack of USA manufacture.

Of course the supplement sets #s 410A and 412A generally did not contain gray stones so any building made from the all gray stones of set # 410 and the most common set # 410A (yellow and red stones) looks quite odd. The paint, if supplied, could be used to eliminate the red roof problem, but the mixture of field gray and yellow stones is still very unattractive. Since the plans were not printed in color (though some pictures have unrealistic color highlights) the mismatch problem would not have been obvious until construction began. The picture on the next page, from the cover to set # 414, has "idealized" colors. The stone shapes are correct, but the colors do not reflect the contents of the set. However, a builder with a good stone inventory can create this building exactly as shown.

The fortress buildings of the sets through # 410 are quite easy to build. After all, the "storm proof" fortresses are not very high and the pieces are not likely to fall down unless hit very hard. But some of the designs which came with sets #s 412 and 414 are quite difficult to build, generally as a result of the ½ cube (12.5 mm) thick walls found in some of the taller structures.





Plan # 6 from Set # 414
Picture from the cover label of set # 414

XIV. The Richter Company in the U.S.A. UNION Blocks

No reader should feel that the presence of this chapter means that the New York branch, later subsidiary, of F. Ad. Richter & Cie. was more important than the many other branches or had a more interesting history. While it is true that the manager of the New York office was arrested on a trumped up charge during W.W. I, the manager of the Olten (Switzerland) office suffered a similar fate during W.W. II.[1] But the American market was uniquely important to the Richter Company, as has been demonstrated already in several chapters by the many special sets and cover labels produced only for the USA. In addition, world events produced a quite complete documentary history of this office, and its (indirect) sale to A. C. Gilbert, which meant that after W.W. I, in the USA, "Anker" blocks were not "Richter" and "Richter" blocks were not "Anker".

The exact date of the opening of the New York office is not known. The Loose Stone Catalogs which were printed in 1885 and 1886 only mention offices in Rudolstadt, Nuremberg, Vienna and Rotterdam. The earliest dated publication (known to the author) which makes note of a New York office, at 310 Broadway, is June 1887.[2] The New York company's stationary in 1918 had in its heading "Established 1887".

For many years the office was only a sales and liaison office. In 1904 A. Paul Fricke was put in charge of the office. It is not known whether he came from Germany or was a native American; but he was a US citizen in 1918. Fricke operated the office as a profit center and his compensation included both a salary and a bonus which was based on a percentage of the net profit. After Richter's death at the end of 1910, the New York office was incorporated (June 9, 1911) with the stock being divided equally between the eight children of Richter's first wife. Sometime between May 1911 and January 1912 the company moved from its location on Pearl Street to a loft at 74-80 Washington Street. It seems that manufacturing of both medicines and building stones was started after this move, probably shortly after the start of W.W.I in Europe, that is in 1914 or 1915. The 1910 recipe book in the Anker Works in Rudolstadt has both the recipe for processing linseed oil and a special recipe for linseed oil for New York (Firnis für Bausteine New Yorker). The 1910 date is on the inside cover, this recipe was entered some time <u>after</u> that date; the 1910 recipe book is a continuation of the 1902 recipe book. No mention is made of USA manufacturing in the New York catalog of 1915 and the earliest date found on a "Made in U.S.A." box is 1916. Summarized profit and loss statements are available for the years 1914 through 1918, but they do not show when manufacturing in New York started because the factory portion of the financial report is lumped together with imported products, as "cost of goods sold". Sales of blocks dropped suddenly from $69,000 in 1914 to $31,000 in 1915,

probably the result of the problems of importing sets. By 1916, USA manufacturing had helped sales increase to $38,000. On the positive side, medicine sales grew from $81,000 in 1914 to $123,000 in 1917. During this entire time the company was profitable. In 1918 the company had six manufacturing employees working in the medicine department and thirteen in the building block department. The company paid dividends to the stockholders every year. In early 1917 the company paid the unusually large dividend of $50,000, probably in contemplation of the USA assets being frozen by the American government. In fact, the government did try, unsuccessfully, to recapture this money from the bank accounts of the Richter heirs. As of January 1917, Fricke's salary was increased from $5,000 per year, plus a bonus of 9% of the net profits of the preceding year, to $12,000 plus the same 9% bonus. Gilbert, of Erector set fame, wanted to eliminate competition from the Richter Company in the construction toy business, so he lobbied aggressively to have the New York company, which was now manufacturing in the USA, confiscated by the US government.

On April 18, 1918, the company was identified by the Alien Property Custodian as being German owned so it was eligible to be taken over. The Alien Property Custodian was responsible for the USA assets of German citizens. Most of the assets were only to be held for the duration and returned, less expenses, to the original German owners after the war. How these assets were handled, except for the Richter Company, is beyond the scope of this book, but it will probably surprise no one to learn that appointments to directorships of these companies was a major source of political patronage and "legal" graft. On April 22nd, W. B. Sawyer and Paul R. Towne were selected as directors of the Richter Company by the Alien Property Custodian. The company was notified of this decision on May 23rd. Fricke objected and refused to vote these new directors onto the Board of Directors. They ("they" are not identified) must have been prepared for his objections because on May 25th Fricke was arrested as a traitor. As the auditor's report states, he "subsequently became involved with Jeremiah O'Leary in seditious plots and was taken in. (He was) charged by the Federal authorities and thereupon resigned as a director and president." With Fricke out of the way Sawyer took over as president, with a salary of $6,000 per year, Towne became a vice president at $3,000 p.a. and the original sales manager, Mortimer Witt, was increased from $2080 per year ($40 per week) to $3,000 a year. Towne, an attorney, also billed the company for legal work. To run the company Charles E. West was hired as General Manager. Although sales rose from $158,504 to $160,871, profits dropped from $36,506 to $9,766. There were many added expenses, especially professional fees from lawyers, auditors and accountants. On December 13, 1918, a new auditor commented that "the salaries being paid as above mentioned are rather excessive, especially in view of the fact that the profits in 1917 were only about $7,500, although in former years the profits had ranged around $30,000."[4]

The new auditor had been appointed because the Richter Company had been put on the list of companies critical to Germany's ability to wage war, and thus to be sold and not returned to the German owners as most alien property was. Of course, the proceeds of the sale, again less expenses, were to be paid to the German owners after the war. The basis of the selection of the Richter Company had been developed by Gilbert. He reasoned that Germany had so many successful engineers and scientists because their educational toys taught the necessary skills at an early age. Thus educational toys were critical to a nation's war making potential, and the USA production of such toys must not be in the hands of potential enemies. The announcement of this classification was made on November 9, 1918, the last working day before the armistice was made effective.

On January 13, 1919, A. Mitchell Palmer, Alien Property Custodian, ordered Joseph F. Guffey, the Director of the Bureau of Sales of the Alien Property Custodian, to offer the company (all of the common stock) for sale (by sealed bid) at the company's headquarters at 74-80 Washington Street, New York, at 3 o'clock on Saturday, February 25th, 1919. The offering memorandum provided to the potential bidders showed balance sheet net assets of $153,987 as of the end of 1918. One of the final acts of the Alien Property Custodian's management was to convert most of the cash into $35,000 in Liberty bonds. The company was sold to George U. Tompers, 326 Broadway, for $155,000. The next highest bid was $154,000. Tompers divided up the company and sold the toy division to Gilbert. Great efforts were made to make sure that Tompers was not making the purchase for Germans. Tompers underwent an extensive investigation by the Bureau of Investigation, which issued a 38 page report supplemented by seven letters of personal recommendation. As an example of how thorough the investigation was, Tompers was examined under oath twice because his company, Tower Manufacturing Company, makers of stationary and dyes, had shipped some ink stands and ash trays to Tampico on a Wardline steamship, and Wardline steamers "had carried a great deal of shipping in violation of the Trading With the Enemy Act." But the investigation concluded that Tompers was only "one of many using Wardline".

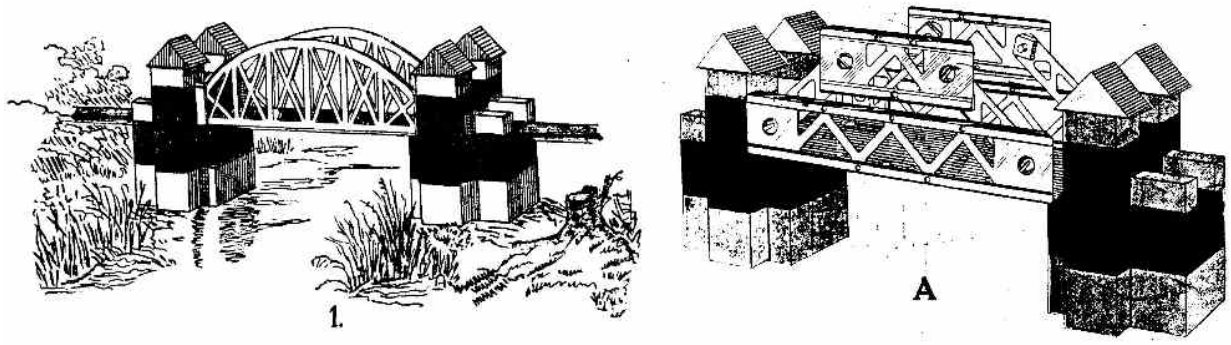
Of special Anker block interest is the detailed inventory of the equipment in the New York factory. Highlights of items found in the block department include: 134 copper plates and electrotypes (for b/w printing), assorted sizes, $150.00; 222 copper color plates and electrotypes, $ 1,100.00; 3 mixing machines, $1,434.00; 1 wood mixing bin and sifter, $45.00; 1 10 H.P. electric motor and pulleys with six leather belts, $550.00; 3 portable ovens - one 200 × 122 × 84 cm (78¾" × 48" × 33"), two 160 × 117 × 84 cm (63" × 46" × 33"), $900.00; 90 iron trays and 42 wooden bins, $73.00; 110 steel forms and moulds, $5,466.00; 9 hand machine presses (working), $2,025.00; 2 machine presses (out of order), $100.00; plus many other items like drying racks and work benches. To give some idea of the valuations these items are mentioned as a reference: 1 Libellion Music Box, $3.00; 1 ladder, 10 ft., $1.50; 1 shovel, $ .50.

As mentioned above, when the company had been incorporated in 1911 the stock was divided evenly among eight of Richter's heirs: Adolph Richter, Dr. Kurt Richter, Dr. Walter Richter, Mrs. Lina von Roeder (by 1917, Mrs. Balzer) - all of Rudolstadt; Mrs. Clara Zoeth and Mrs. Else Kempe - both of Nuremberg; Dr. Johanna Richter of Berlin, and Dr. Oskar Richter of Vienna. These owners were to get the net proceeds of this sale. In 1922, seven of the original stockholders petitioned the US government for their money. Although each stockholder was entitled to $19,375.00 (plus interest), these seven received only $9,900 after deductions. The U.S. government withheld $10,000 each as a bond. Dr. Walter Richter, who did not join the other seven in 1922, applied in 1924 and received $19,107.18. Further petitions by the first seven were "investigated", but the bonds have never been released.

The following sets were made in the USA and sold during W.W. I: **DS** #s 1 (Eberbach), 3 (Eisenach), 5 (Erfurt) and 7 (Erlangen), plus #s 1A, 3A and 5A; **GK-NF** sets #s 4 (Raft), 6 (Rank), 8 (Rate), 10 (Ray) and 12 (Reason), plus #s 4A, 6A, 8A and 10A; **Anker Bridge Supplement** sets #s 4 (Babel) and 6 (Bamberg); **Fortress** sets #s 404 (Falcon), 406 (Fairfax), 408 (Faribault) and 410 (Farragut), but not the supplement sets in this series. The Meteor games (#s 1, 2, 3, 4, 7) were also made in New York as was the Anchor Puzzle, which had a wholesale price of 25 cents. Profits from sales of stone sets had been depressed in 1917 because "new editions (of the plan books) had to be printed which necessitated the getting of new plates costing

approximately $1,000." and "A large amount of printed matter, aggregating $1,500 in value, had to be discarded since the outbreak of the war." (for the USA, in 1917)

Gilbert Anker Blocks: Gilbert entered the USA stone building block market with this acquisition. Initially he simply pasted "The A. C. Gilbert Company, Blatchley Ave, New Haven, Conn. U.S.A." over the old Richter Washington Street address. Later he renumbered the sets and added Erector set parts in place of Richter metal parts in the DS sets. Unfortunately, the substitution created quite grotesque bridges.



Richter's Anchor Bridge **Gilbert's Anchor Bridge**

The Same Bridge

In 1922 the Anker sets were dropped from the Gilbert line and added to the line of the La Velle Mfg. Company (Gilbert's girls' toy company; named after his brother's wife) of New Haven, Connecticut, as "Original Anchor blocks". The Anchor set I have is an all stone set, but the bridge supplement sets with original Richter metal parts were also offered for sale. La Velle Anchor sets are found in catalogs from 1922 until 1929 and are very rare.

After W.W.II, the Gilbert Company reintroduced Anchor blocks. Both the stones and sets were entirely new. The stones are based on a true inch (25.4 mm) cube and have very smooth surfaces -- too smooth to build with. The brochures mention this new "marble-like" texture as an advantage. The steeples and chimney parts are hollow molded plastic; the roofs are paper. The only Richter input left was the Anchor name. These stones did not sell well. Although the sets are not common today, they are so unattractive that no collector or builder will buy more than one -- and that one just to say he has an example. The U.S. Patent & Trademark Office declared the Anker trademark abandoned in 1957. With the author's help, the trademarks Anchor and Anker were registered in the USA by the new factory in Rudolstadt in the 1990s.

Richter "Anker" Blocks: The Richter Company had lost all its trademarks, including the names Anchor, Anker, and Comet, in the USA. The copyrights were put into the public domain. Fricke, out of jail, was granted by the company the sole distributorship in the USA. He began at once to rebuild the stone building block business of the Richter Company. The first sets were sold without any brand name, just as Stone Blocks. Many Anker sets found in America, especially the larger sets, came in wooden boxes without any brand identification.[5] The name and address on these plans is A. PAUL FRICKE, 50 Union Square, New York, N.Y. Soon the business was incorporated as the Block House, Inc. The Richter Company's desire for success in the American market was greater than ever. Germany's economy had been shattered by the war, and its money was virtually worthless. The hard currency coming in from USA stones sales was

most welcome. In Rudolstadt every effort was made to rebuild the USA business. The KK ORION sets (see Chapter X.) were introduced to replace the COMET sets. The factory printed up special labels and building plan book covers. A new catalog was produced in the USA in 1922. UNION, from the address, was adopted as the new trademark.

Fricke faced major problems rebuilding distribution. In the USA, a strong anti-German sentiment had been created by a media campaign of unprecedented proportions. The mood of the nation had been changed from isolationist at the time of the November 1916 presidential election to a declaration of war in March 1917.[6] The anti-German propaganda continued after W.W. I, if for no other reason than American business did not want to face any German competition while their recent acquisitions of German brand names and factories were being put to profitable use. Fricke found that department stores, like John Wannamaker's, and high-end toy stores, like F. A. O. Schwartz, refused to carry his German stone blocks. So he turned to the one group he could depend on, Anker builders.[7] These people were offered dealerships.[8] These "dealers" then made sales on a local basis to people who already knew of, or had heard of, these stone building blocks and some of the local stores stocked the more common sets.

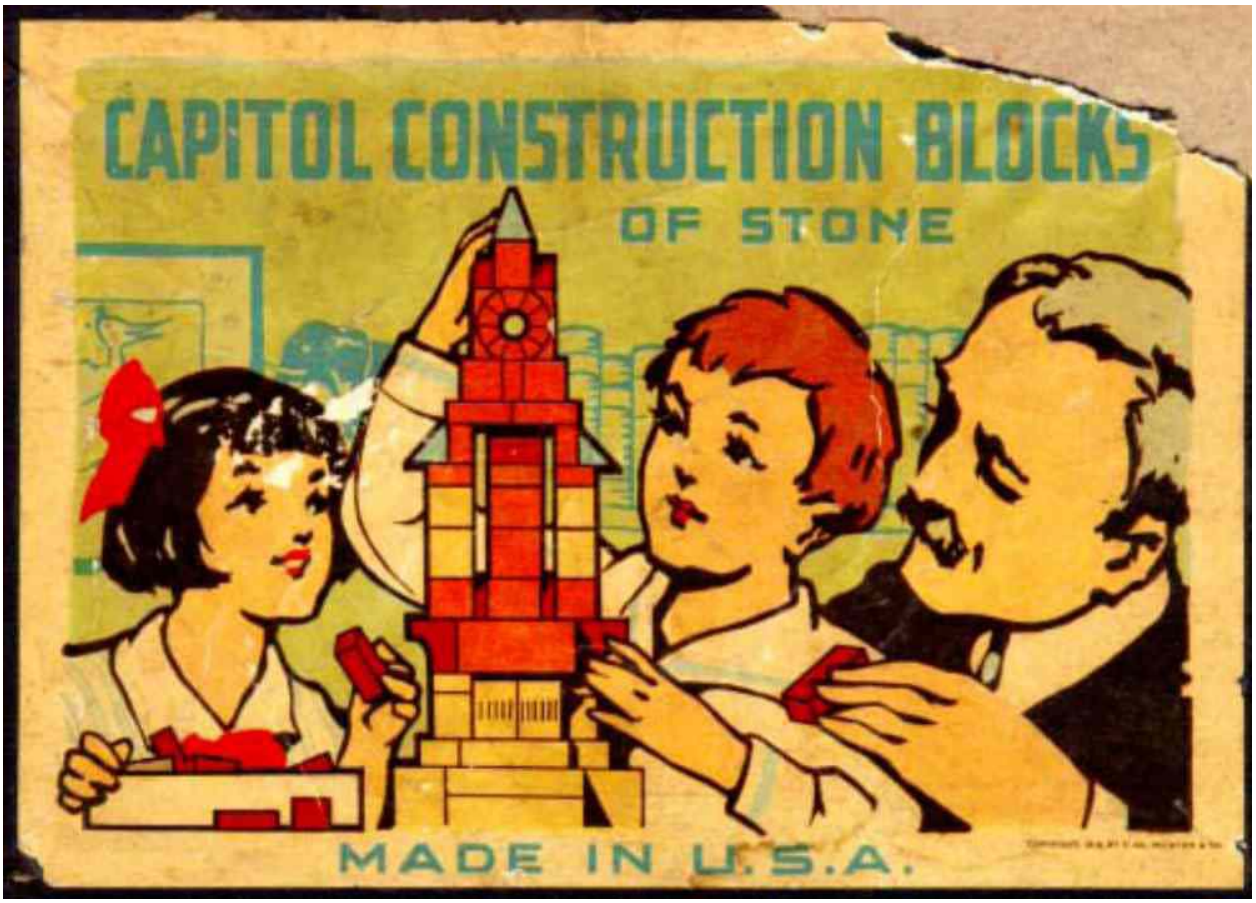
Of course the Richter Company had real advantages over its new "Anker" competition in the USA. The Gilbert was able to make only the smaller sets. Although they were more popular and sold in higher volume than the larger sets, most Anker builders already had these small sets and wanted the larger ones. Undoubtedly people who knew about the pre-war Richter Anker sets would recommend the sets made by Richter, not those from Gilbert. Slowly Fricke rebuilt the business. Richter sets began to reappear in department and toy stores. By the 1930s, F.A.O. Schwartz was carrying the Richter line of stone building sets again.

To spur the market with the established Anker builders, the New York company even created a new set. The failure of the company to put the Graecia set into production was brought to mind every time a set # 210 was sold. On page 16 of the building plan book is the picture of the Greek temple. Requests for that set continued to come in. To satisfy this demand, the **Classical Set** was developed and marketed by Fricke in 1932. Instead of being a supplement to set # 12, Lindau, it is a supplement to # 20, Lissa. And the set is quite large, containing 1,232 stones instead of the 285 planned for the Graecia set. The choice of colors was also different, only yellow stones and blue roof stones are found in the Classical Set. The announcement said that "The stones are all white (sic) and blue, as various experiments indicated that more dramatic effects were obtained with these two colors." Eighty six of the stone shapes were "new ones, that is they are not found in the regular sets". But all of the shapes were old, in that they had been in the Loose Stone Catalog for over two decades. The announcement contained just three designs, a Greek Temple ("of pure Greek design"), a Dresden Church ("an example of 18th century architecture") and a Monumental Park Gate ("a modern conception. It shows the influence of the Greek style on modern architecture."). More plans were promised, one every six months or so. If these plans were forthcoming, they are not known to the author. Certainly with the large number of stones available (2,646) it is not difficult to create many other buildings, both in the true classical and the Greek Revival styles. The set came in three double trays, plus another tray holding the plans, and cost $45. Each tray was large, consisting of two sections each of which holds two standard 8 × 12 trays. The building plans themselves are blue prints, as are the packing plans and a list of the stones in the set. Four of these sets have been found in the USA. When the existence of the set was announced in Europe at a meeting of the Club of Anker Friends, the news was met with skepticism. But the validity of this set is now quite widely

accepted. One particularly interesting feature of the Classical Set is the use of half layers, 12.5 mm, and walls of ¾ thickness. The basic stone of the set is a GK-NF # 36 -- ½ × ¾ × 1½. The # 488 beams are wooden, as they were in the AF era.

In the 30s Fricke's son-in-law, Henry Messerschmidt of Brooklyn, used Anker blocks to build a model of the Parthenon. This model was widely praised, featured in the 1931 New York catalog and exhibited at the Brooklyn Museum. It is probable that he designed the Classical Set.

World War II killed the Richter stone business in the USA. The Block House had to find another business, importing Swiss toys. It is no longer in business. No effort was made to revive the Anker stone building set business after the war. The author visited the Block House in the early 1970s. The stone inventory had been sold and the cabinets which held the trays of loose stones had been discarded. Only a # 6, Leipzig, remained as a souvenir of their former business.



The Cover from a Special USA Made Stone Building Set by Richter
in the lower right hand corner it reads:
"COPYRIGHT 1916, BY F. AD. RICHTER & CO."

Capitol sets were produced and sold in at least three sizes. The plans were b/w half tones; the color of the stones is shown by the shading. Capitol sets are very rare.

XV. The Post-Richter Era

The Anker Club and Magazine, the Neue Serie and the VEB Designs

In many ways the problems caused by the death of F. Ad. Richter in late 1910, and the events of the decade of W.W.I, combined to end the Golden Age of Anker Stone Building Blocks. Today the period from 1880 until W.W.I is thought of as the classical period of German toys, but with Anker stones it is impossible to separate out effects of the end of an era and Richter's death. Between 1911 and W.W.I (and on until 1921) Richter's sons operated the business. As we have seen in the three previous chapters, some Anker stone development was continued, or initiated, during this brief period. A number of new building sets, which were based on Anker stones, were developed. These stone building sets have been covered in Chapter XIII. Other toys, such as wooden building blocks, games and puzzles, will be covered in Chapter XVI. In addition, new marketing efforts were begun to strengthen the teen age and adult market.

The Anker Club and Magazine: In the 1913 catalog (136 - 25) the formation of the Richter Anker Stone Building Set Club (Richters Anker-Steinbaukasten-Verein; R.A.V.) was announced. The 1912 catalog makes no mention of this club at all. Club members received membership cards and the membership list was to be published annually in the price list. Members of the club would be kept advised of developments in Anker stones by letter or through the Anker Newspaper (Anker Zeitung), which was really a magazine. The first listing of members, in this 1913 catalog, has 50 builders, with membership card # 1 belonging to S. A. Hurlbut, M.A. of New York, U.S.A. All of the other members were from Germany. The members were ranked in three categories -- Master (Meister), Journeyman or Fellow (Geselle) and Apprentice (Lehrling). As might be expected, there were a great number of Masters, 41, with but one Journeymen and eight Apprentices. The first issue of the Anker Newspaper, a 16 page (plus cover) magazine, is dated April 1, 1913. Three issues a year were promised. But due to problems in the company and the war, the next issue did not appear until June or July of 1919.[1] The first issue of the magazine announced the sets #s 301 and 303, as well as the new chimney stone shapes used in the 200 series sets and the fluted columns and capitals for the Graecia set.[2] The first issue also promised that the next issue would describe the invention and development of the building stones, and that the history would be put out later as a book.

By 1915 the club had grown to 128 members. The war had caused Hurlbut's card number to be changed from # 1 to # 44, with Bernhard Keilich, of Berlin, being moved from # 44 to # 1. All other card numbers were unchanged. In the two years, none of the original Journeymen and Apprentices had advanced in rank. The 1915 (157 15) New York catalog includes a major promotion of the American equivalent of the German club, the Amateur Architect's League (A.A.L.). The building contest in 1914 was so successful that it was made an annual event. First prize was $30.00 worth of Anker blocks.[3] Application blanks for the A.A.L. were included in every box of Anker stones. No newspaper was promised, but members received an A.A.L. button. Membership was free. No similar contest was mentioned in the 1915 German catalog, so it would appear that the contest innovation was the creation of Fricke in the New York office.

In 1912 (126 **L** 6) a London Richter catalog was printed featuring the Richter puzzles and games; the German language equivalent was printed a year later (138 - 10) and the first Anker magazine featured the puzzles in over three full pages of color. The blocks themselves only got one page of color. As the former sales manager of the VEB company told the author, the puzzles were particularly high profit products.

Considering the new building sets (whether the programs had been started by Richter or not), the Anker Club and magazine, and the new emphasis on games and puzzles (which products will be described in the next chapter) and the new non-stone building sets (also to be described in the next chapter) it is clear that the new management was making a sincere effort to build up any business, like toys and stone building blocks, which had not been sold. A supplement with the membership list of R.A.V. was included with the second issue of the Anker Newspaper. This list is quite long, with 1,229 members in the Rudolstadt Main Branch (Stammhaus Rudolstadt) and another 474 members of the Vienna Branch (Mitglieder des R.K.-V. der Filiale Wien). Within the first 50 members, not much movement had taken place in the intervening ten years. Only one of the Apprentices, Richard Kempe Jr. of Nuremberg, was promoted to Journeyman and Paul Weber of Montabaur was demoted from Master to Apprentice. The new rank of Grand Master (Ober-Meister; O.-Meister) had been created, with Richard Möller, a member of the R.K.A., of Vienna being the only Grand Master of the original 50. A lower Master rank, Junior Master (Jungmeister; J.-Meister) and a higher Master rank, Honored Master (Ehrenmeister; E.-Meister) are also seen in the list. Promotions were earned by sending in designs created by the builder. The list also contains the announcement of awards (prizes and honorable mentions) in a building contest, which had been based on the two single layer sets, # 6, Leipzig and DS # 5, Erfurt, as sections Ia and Ib, and the two double layer sets # 8, Lennep, and DS # 7, Erlangen, as sections IIa and IIb. It seems that the company had adapted the contest idea from Fricke's New York branch. This second issue is the most interesting one to Anker collectors because it kept the promise of providing a history of Anker stones. Unfortunately this history is not very accurate and glorifies Richter's part in the development of the stones, but it is still a useful source if used selectively.[4]

Not just older Anker builders became Masters. Erwin Gebert of Salzburg, Austria, became a Master at the age of 14 and a Grand Master at 16. In his first year, Gebert had an illness which left him deaf. From the age of five his passion was Anker building. Gebert's collection is currently in the Toy Museum in Salzburg.

Starting with this second issue of the Anker Newspaper, the magazine was published with increasing regularity until the last issue, combined #s 20/21, in December 1928.[5] Much of the emphasis was on the club, the members' ranks and the contests. The categories in the contests were expanded to create more interest. Remarkably little space is devoted to advertising the sets, especially considering the magazine was free. But new sets were introduced in the magazine, so issue # 5, October, 1922, announced the long overdue set # 303A, Castrop, finishing up the Country House series. Other sets, like the all metal building set formerly called Imperator and now called the **Anker Metal Building Set** (Anker=Metall=Baukasten), were reintroduced. Local groups, from such cities as Stuttgart and Berlin, were formed and began to report on their activities.[6] Only in April of 1925, more than a decade after its introduction in the USA, did the Anker Newspaper announce the "new" sets of the 200 series. Very few North American names are found in these magazines -- Chapais of St. Hyazinthe, Quebec, Jay Dana, Prof. of Engineering at NCSU, Raleigh, and Welke of Brooklyn.

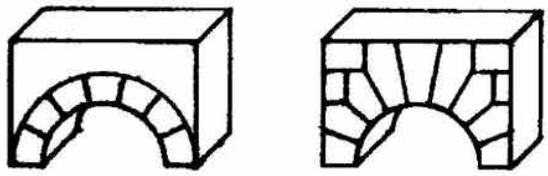
By the October 1927 issue (# 16) it was clear that there was a major problem with the R.A.V. and its Anker Newspaper. The magazine was free and there was no way to remove disinterested R.A.V. members from the subscription roles. So in this issue an announcement was made that those who did not contact the company to the contrary would remain under the old subscription only through the rest of the year, and thus would not get the four issues in 1928.[7] Those who

wanted to continue their subscription were expected to pay dues of ***RM*** 1.25 (1.50 outside of Germany) by the end of March 1928. Subscribers would receive a new R.A.V. badge. The spring 1928 issue (#18) changed the arrangement to allow the Austrian members to subscribe in Vienna for S. 2.50. It is not known how many people actually sent in the money. The last issue, # 20/21, asked for the same dues for 1929. The next issue never arrived.

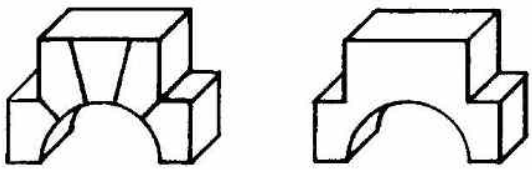
In December 1930 a new "Anker Magazine", successor to the "Anker Newspaper", was put out. Only one issue appeared. Then another, monthly, successor was printed in October 1931, "The Stone Building Set" (Der Steinbaukasten), which was intended to cover model railroad trains, ships, tin soldiers as well as Anker stones. The name was changed in July, 1933, to "Toys and Teaching Materials" (Spielzeug und Lehrmittel) and it was incorporated into the magazine "The Steadfast Tin Soldier" (Der Standhafte Zinnsoldat) in April 1934. By this time Anker stones had so fallen out of style that there were advertisements for stones at 1/3 of the price list. The Anker era had ended until after WW II, though sets were still available from the factory.

The Neue Serie: Immediately after the end of W.W.I new supplies of building plans were printed as needed. The inventory of many of the building plan books for the lower numbered sets, such as # 4, Lebus, and # 6, Leipzig, had been depleted during the war. These new printings, as well as all done subsequently, used much poorer quality paper. These first post W.W.I printings are on properly finished white paper, but it is thin and acidic. This paper tends to age badly, becoming brittle. The printing itself is not as good, with poor registration of the colors and inks that are pale and off color. Quite soon the printing technique itself was changed from the earlier lithography to rotogravure (like comic books or the Sunday comics) and the paper was reduced to almost newspaper quality.

In 1923 it was decided that the sets needed to be modernized. The building plans of the GK-NF series sets contained many buildings and monuments of the German Empire -- 1880 through W.W.I. This style of architecture was out of fashion in the early 1920s. In addition to changing the building designs, it was decided to also modify the arch stones. The round, or Romanesque, arches (Gothic arches are not found in GK-NF sets until # 18A, Metz, or # 20, Lissa.) were the only stones changed. The groove patterns were changed and, in the larger arches, specifically #s 95, 97, 98, and 100 through 105, sections were removed to allow sturdier integrating of the stones into walls. The changes made in arch # 98 are shown below.



The Original GK-NF Arch # 98



The New NS Arch # 98a

The stones were identified by the (small) letter after the stone number. The largest arch, # 95 and its half thickness version #97, required two mirror image NS versions, so these were identified as "a" and "b". The smallest NS arches, #s 108 through 115 (no 111a is known), are the same shapes as the GK-NF versions, only the groove pattern was changed. These new arches did not prove to be a total success. The arches tend to break at the narrow section. Attempts were made to strengthen the new arch stones by incorporating a metal arc at this weak point. The strength increase was very small, if any at all. In addition, some buyers complained that

these new stones did not integrate well into their collections. In New York only the NS basic sets were available, all supplement sets were from the older GK-NF series. Quite quickly the company, or its representatives, started to offer the older GK-NF sets as alternatives, and the factory even made up lots of the required GK-NF arches as replacement stones. In December 1928, in the 17th issue of the Anker Newspaper, it was announced that the two series (GK-NF and NS) were being marketed "side by side" (nebeneinander). Amazing as it may seem, the Neue Serie was not announced in the Anker magazine, although some of the pictured buildings had been constructed with the new "a" arches.

The 17th issue, which announced the NS arches, also mentioned that the new forms were found in sets 2 through 10, but starting with 10A the older arch shapes were standard. No mention was made of the new groove patterns in the smaller arches GK-NF stone #s 108 through 115. The new building plans were described and compared. The "a" arches not appearing in any set (#s 97a, 97b, 103a, 104a and 105a) were also mentioned, along with the appropriate filler stones. In fact, all of the arches between 95 and 115 came in "a" forms, except for #s 96, 99, 106, 107 and 111. It would not surprise the author if these exceptions were eventually discovered in "a" arch designs, as they are all only thickness variations of the one cube thick arches #s 95, 98, 105 and 108, all of which are found as "a" arches.

Because the arch stones are frequently used in place of regular stones, being placed on their sides, not all of the older GK-NF building designs can be built with the corresponding NS set. In like manner, many of the NS building designs cannot be built with the corresponding GK-NF sets. Two problems existed in this case. Not only did the new arch shape cause problems, but also the NS sets had more stones, which were stored in the open corners left in the arches. NS sets #s 0, 2, 2½, 4, 4½, 6, 6½, 8 and 10, plus the supplement sets up through, are known. In 1991 the packing plan for NS # 10A was discovered, but this set never seems to have made it onto the market. The two layer NS supplement set # 8B, Parey, is known, but it has a standard GK-NF #10A layer. The packing plan for set NS # 10A calls for NS arches and 10 additional filler stones.[8] NS # 10, Liegnitz, has 22 more stones than NF # 10, Liegnitz. Although no NS versions of the DS sets were made, NS bridge building plans were drawn and supplied with the supplementary bridge sets LE (Lacquered Iron) #s 2, 4, 6, 8 and 10.[9]

The building plan designs were much more modern. Of course there are castles and churches, but the designs of the 1880 were replaced with up to date buildings. It is a matter of taste whether one feels the NS designs are an improvement. The plan books of the larger sets contain some of the basic beginner's buildings of the small sets, which allowed the company to stop the practice of supplying all of the books, starting with set # 2, with the larger sets. For this reason these books have more than the usual 16 pages of building plans.

The backgrounds do not have the fine details of those drawn by Meyer, although it is clear that some attempts were made along the same lines.

We know that it was the intention to extend the modernization much further than set # 10. In addition to the packing plan for NS # 10A, mentioned above, a number of price lists from the early 1920s have illustrations of NS buildings built with sets as high as NS # 20. Comparison of these illustrations with the building plan books from the NS actually marketed will show that **all** of these NS plans were decoy plans found in the plan books of the previous set.

A unique set, small and of minor importance, was introduced in the early 20s. The stones are based on a 12.5 mm cube; thus the set is GK not KK. The set is 3 inches by 4 inches, or 6 × 8

cubes of the ½ size stones, containing 38 stones. The building plans are five sheets of paper, four small and one large. The name of the set was "**Heinzelmännchen**", meaning elf, brownie and leprechaun. The box cover and the plans all have the elf motif. Neither Richter nor Anker are found on the set, although the set is found in the 1925 catalog and most of the price lists from the 1920s. It is not found in the USA catalogs, however. The ORION sets, already described, served the same marketing purpose (see Chapter X). Of course the set was cheap, even less than a GK-NF set # 0. But, like all of the very small sets, it was not very useful, and the stones are too small for little children to play with. Today the set would probably be illegal, due to the choking hazard such small stones present. After W.W.II the VEB company reintroduced this set as "**Der Kleine Gernegroß**" - **The Small, LIKE Large**. Completely new building plans, in black and white, were supplied. The packing plan, also black and white, was changed, although the stone selection was not. Both versions of this set have black and white packing plans, but the color plans of the "Heinzelmännchen" makes the color of each of the stones in the set unambiguous.

Although W.W.II interrupted stone production in 1940, several sets of building plans were reprinted in that year. The financial statements of the company, as well as correspondence, show that stone sales, from inventory, were being made all through the war.

The VEB Era (Lufsky) Designs: The history of the company during this period has been described in Chapter XII, but the new sets have not. The first new sets introduced during the VEB era were small boxes of accessories which had come in some of the earlier sets. The **Holz-Gartenzäune** (Wooden Garden Fences) contained the wooden balcony parts from the # 300 (Country House; Landhaus) sets. The other accessory sets, like the iron bridge parts and the glass windows and doors, were also continued by the VEB.

A new line of sets was added for model railroad hobbyists. The **Tunnel & Portal** building sets provided arch stones as well as stones with imitation masonry, like those supplied with set # 305. These parts could be used to improve the looks of tunnel entrances. Although the shapes of these stones were not new, their thickness, 6.25 mm, and their color, gray, were new. The Tunnel and Portal sets were followed up in 1955 by two large (about 500 stones, a box the size of a GK-NF # 8) sets for the construction of buildings in a model train layout (**Anker-Modell-Steinbaukasten für die Eisenbahn-Spur OO** [or] **O**). The reader should keep in mind that, in the mid 50s, plastic models were not available. The two gauges are equivalent to HO and O gauge in the USA. It was intended that the stones of these sets would be permanently glued, rebuilding was not anticipated. Because the basic cube of 25 mm is very large when compared to a model railroad train, the HO gauge buildings are generally not over three or four layers high. Many of the stones have the masonry pattern of the stones found in set #305, although the color is yellow, not gray. The masonry patterns give the impression of smaller buildings. Considering how few stones are needed for these small buildings, quite a few could be built with the contents of one set. In addition to these two sets for the construction of railroad buildings, a smaller (the size of a GK-NF # 4) roof stone supplement set was also marketed. The roof stones were the red and green stones from the Neue Reihe sets. It seems that these model railroad accessory sets were not very popular; they were dropped from the line by the late 50s.

In 1957 a new set, **Lilienthal**, was created in honor of the originator of the Anker stone formula. Of course Gustav Lilienthal was a perfect hero for the communist regime; they cultivated an image of him as a poor working man who had been cheated by the dirty capitalist Richter. This set is the size of a GK-NF # 4, but contains 154 stones, about three times as many as that GK-NF

set. The building plans are three sheets, printed on both sides for a total of six designs. The buildings are large when compared to those for a GK-NF # 4, or even for a # 6. But the plans are not definitive, leaving many options and choices of stones to the builder. It will be a very smart child who, without previous Anker building experience, can build even one of these plans without serious difficulties. In contrast, an interested, but inexperienced, 6 year old can build most of the designs in a GK-NF set # 6 without any help. The set and the building plans were designed by Hermann Kalbe of the Central Institute for Educational Materials (Zentral Institut für Lehrmittel) in Berlin.

By 1956 Karl Lufsky, of Berlin, had become the designer for the VEB Anker Stone Building Set Factory. Lufsky was born in 1906 and received his first Anker set four years later. He became an Apprentice in the R.A.V. on November 2, 1921 and had achieved the rank of Young Master by August 25, 1922. On December 19, 1923 Karl Lufsky became a Grand Master. Lufsky regularly submitted designs to the R.A.V. contests and was the Third Board Member of the Berlin Working Group in 1926. Let no one doubt that Lufsky was a very talented Anker builder. He started out to become an architect but changed to civil engineering, specializing in hydraulics and handling of ground and run-off water. Lufsky, of course, knew about the NS designs for sets #s 2 (& 2½), 4 (& 4½), 6 (& 6½), 8 and 10. He thought that they were very good job.[10] Lufsky was upset that the NS plans stopped at NS # 10; he felt the plans for the larger sets were not produced because it was more difficult to create modern designs for these sets without altering the selection of stones in the sets. Although Lufsky did not work for the Richter company (before or during W.W.II), he did submit, as a volunteer in the 1902s, designs continuing the modernization (the NS) of the designs past NS # 10.[11] He designed eight buildings each for NS #s 12, 14, 16 and 18, thinking that the company would continue with the standard 16 page design book. The company used his plans, but the many errors in the printed plans are not Lufsky's fault. The plans were redrawn in Rudolstadt and Lufsky did not have an opportunity to check the results. Comparison of the drawings found in Lufsky's estate with the NS drawings proves this assertion.[12] Lufsky found the creation of modern designs for NS #s 16 and 18 quite challenging, so these drawings, as sent to the company, were not in perspective.

After the war, Lufsky continued to provide designs for the company. One of the first jobs that Lufsky did for the VEB company was to build an exhibition building, the Märkisch Museum. In 1958 Lufsky was elevated to the status of a "deserving technician of the people" (verdienten Techniker des Volkes). He promised to join the company as their chief of design. But instead of moving to Rudolstadt, Lufsky was thinking of moving to West Berlin. Even before the Berlin Wall, it was not easy to travel between East and West Berlin. Lufsky and his wife crossed the border as often as they could, sometimes three or four times a day, always with small bags of valuable items, like clothes, china, kitchen utensils, books, and, of course, Anker blocks. The blocks were heavy, so most had to be left behind. Fearing reprisals, Lufsky's son also escaped by breaking through a check-point in a 5 ton truck driven at high speed. On the truck were the rest of Lufsky's stones! Of course Lufsky's relocation to West Berlin ended his cooperation with the VEB company in Rudolstadt. So the 1958 Rudolstadt meeting of Anker Friends (see Chapter XII) took place without the new chief designer.

Several sets, in addition to the building plans NS #s 12 through 18, were designed by Lufsky. Lufsky insisted that a new selection of stones would be needed for him to create building designs for NS # 18A. The problem was that GK-NF set # 18A introduces Gothic arches into the GK-NF series.[13] Gothic arches have no place in Lufsky's modern designs, so he persuaded the

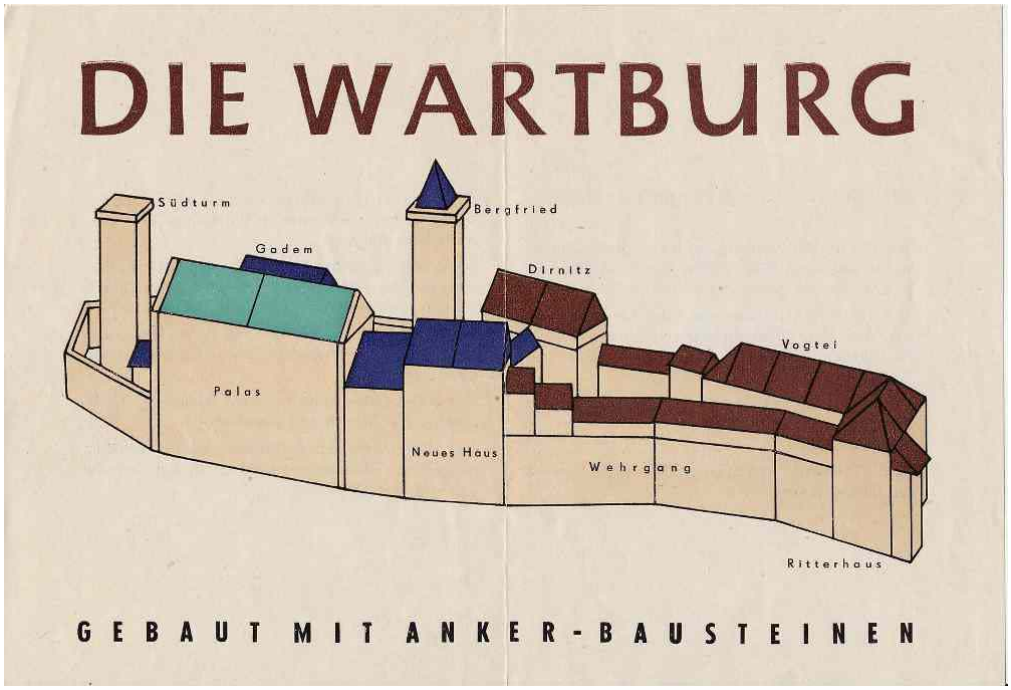
factory to allow him to create a new set NS # 18A, which set even included new stones. This set was never marketed, though Lufsky had one.[14] The factory had decided to stop the NS series at # 20 (including the Lufsky # 18A) and to switch development to a classical Greek set -- it seems that requests for the Graecia set continued to arrive in Rudolstadt.[15] Lufsky designed the set **Lilienthal 2** and redesigned the contents of the set **Lilienthal**, although the building plans were not changed. The Lilienthal 2 set is two layer set, the size of GK-NF # 8. Like the Lilienthal, the Lilienthal 2 set has many more stones than the equivalent sized GK-NF set, 523 vs. 218. Red cardboard roofs were supplied. The designs of the buildings are very good and extremely large, considering the size of this set. They are quite difficult to build.

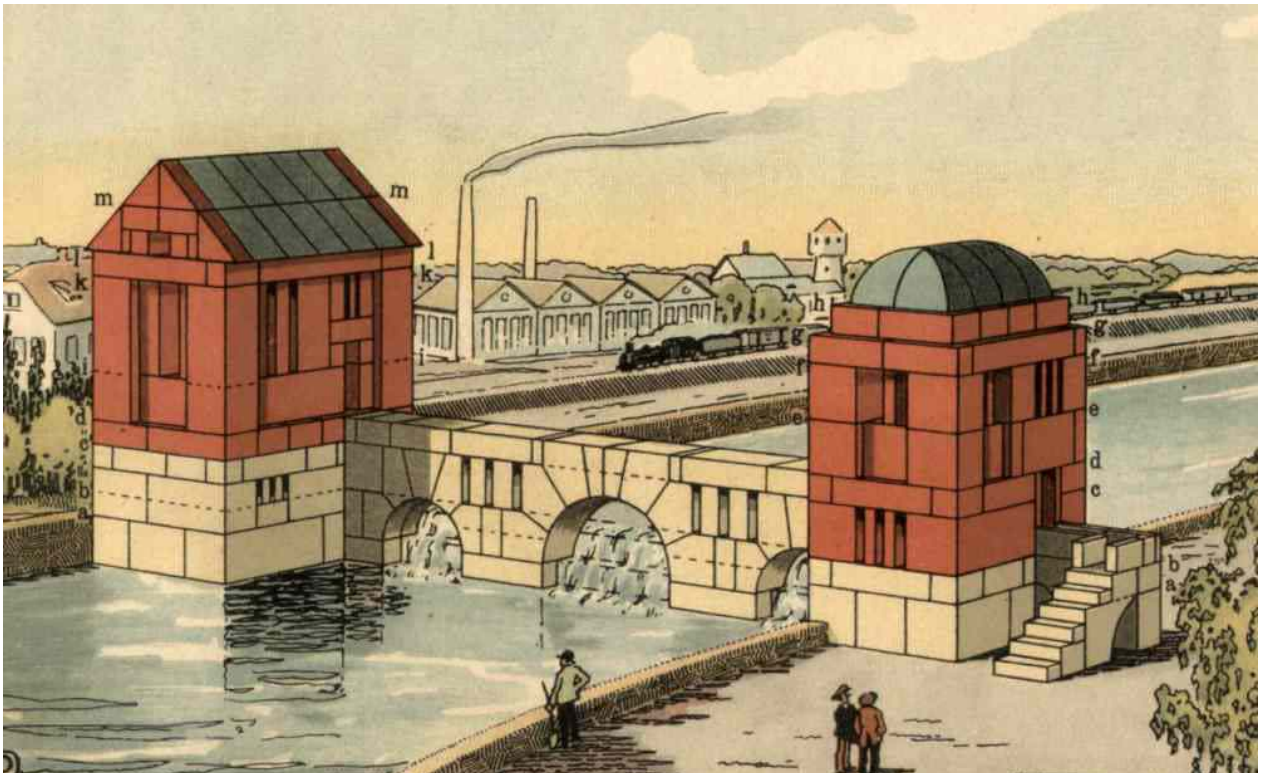
The communist educators also created a set, **Pioneer,** which contains a number of relatively large stones, mostly the standard cube, GK-NF stone # 1. No packing plan for this set is known, and it is believed that the stone selection may have varied from set to set.[16] The educators thought that this set would be perfect for young children. The plans are simple, with stones stacked vertically, without the interlocking of Anker or brick construction. The roofs were red cardboard. The set was not successful. To correct the poor construction technique this set taught, a water soluble glue was "invented". A larger set, **Jungtechniker** (possibly as a supplement to Pioneer), was planned but never made.

Except for Lufsky's efforts there was little development of sets in the VEB era. But the continuation of the accessory sets provided many Anker collectors with interesting and valuable items which might have been either lost, or never received, when the builder was young.

The Mason’s Model Building Set (Maurer Modellbaukasten) has already been described at the end of Chapter V. The plan book for this set was a VEB development.

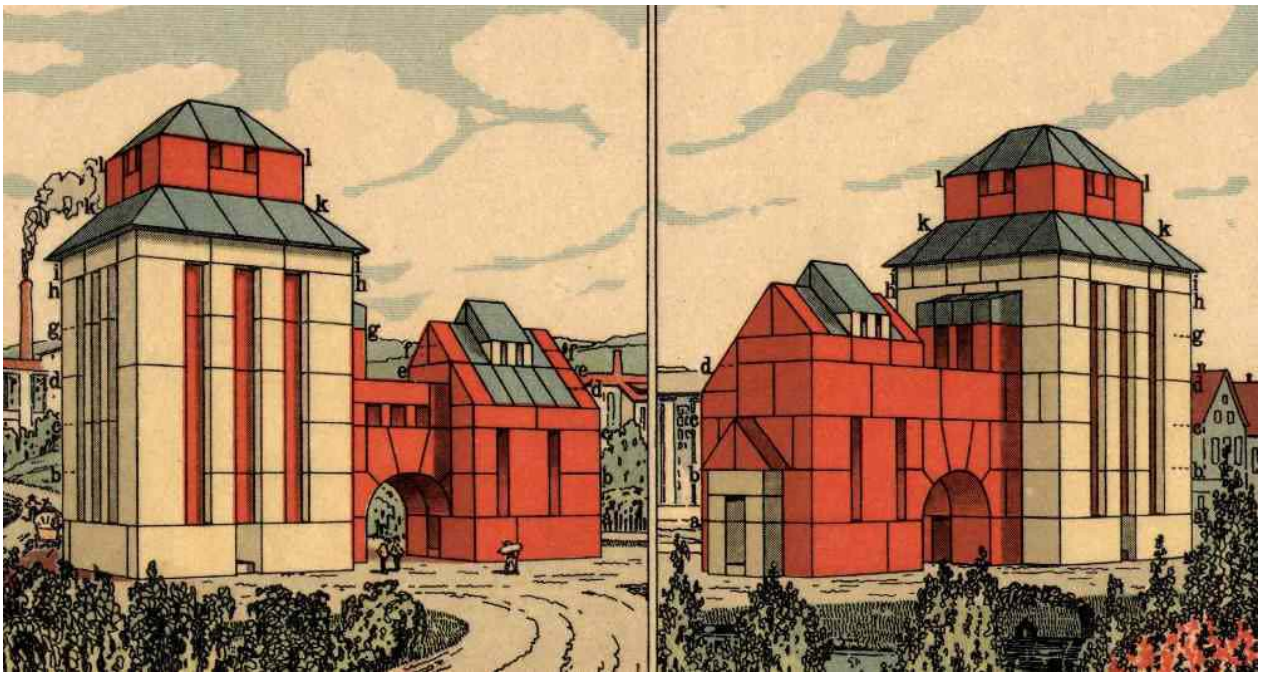
In 1960, a special set, The Wartburg (Die Wartburg), was created as a souvenir for sale in the shop at the Wartburg in Eisenach. The set did not come with a packing plan. The building plans consist of a drawing (the same as the box label), three layer plans, and a ground-plan, plus a sheet describing the buildings. The set came in a box for set # 4 and contains 105 stones.





Neue Serie Plans

Water Power Station from # 10 (Above) Grain Silo from # 8 (Below)



XVI. Puzzles, Games, Wooden Blocks, All Metal Building Sets and Odd Stone Building Sets

Puzzles, Games and Mosaic Sets: The Richter games originated before the stone building block sets. The "laying tablet" (Täfelchenlegen) pieces were originally made at the Leipzig Teaching Materials Institute (Lehrmittel-Anstalt) and were part of The New Kindergarten (Neuer Kindergarten) this series of magazines and educational toys.[1] The laying pieces were originally made of colored clay or terra-cotta, but as soon as the building stone formula was acquired this material was used for the games as well as the stones. Although these sets were originally intended for use by girls, who were to use them to make attractive patterns, it quickly became clear that stones such as these could also be used to make beautiful floors for the Anker stone buildings.[2] Mosaic Sets were created for the specific purpose of making floors for Anker buildings. The difference between the stones of the Mosaic Sets and the laying tablet games is small but important.[3] The Laying Tablet Sets were listed separately in catalogs after the Mosaic Sets were introduced, but <u>both types of sets were called Mosaic Sets in the VEB era</u>. The quantity, shape and color of the stones are the same in the KK and GK Mosaic Sets, only the size has been scaled. In general, however, the colors of the Laying Tablet Set and Mosaic Set pieces are brighter than those of the building stones. The 10 differently shaped Laying Tablet pieces are shown in the 1885 Loose Stone Catalog, all being available in six colors -- yellow, red, blue, black, green and gray.[4] On the back of that catalog is a picture of the contents of a mosaic set.

The mosaic and tablet laying sets were changed in 1892, shortly before the NF sets were introduced. Both types of sets became series, with basic and supplement sets. The two GK parallelograms (not used in sets) and a smaller 30/60/90 triangle were added to the tablet selection. Sets of mosaic and tablet stones continued to be available from the company until it was closed in 1963. White (**W**) and brown (**Bn**) were added to the color selection of yellow (**G**), red (**R**), blue (**B**), black (**S**), green (**V** or **Gn**), and gray (**Gr**), bringing the total to eight. The GK mosaic stones and the laying tablet stones (#s 679 - 691) are grouped in the loose stone catalog; the CVA Stone Catalog identifies the three Mosaic stones. The KK mosaic stones were given stone numbers 692 through 694, in the **GK** series of stone numbers.

The first of the puzzles, the ancient Chinese Tangram, is included in the 1890 catalog, along with the comment that it was being prepared for marketing. The 1891 catalog includes the original puzzle, called the **ANKER PUZZLE** in English and **Kopfzerbrecher**, literally head cracker but colloquially it refers to a difficult mental problem, and three others. By 1895, the line of puzzles had been expanded to 11, plus the **Richter's "Anker" Social Game**, which contains a Bingo like board with 100 spaces and 90 numbered wooden disks, four sets of five cards and four identical (large 11 × 11 cm, with 16 pieces) puzzles. The cards are printed on both sides. On one side of the cards there is a puzzle solution with numbers on the location of each stone. As the numbers are called the stones are to be placed on the puzzle solution. The first one to complete the puzzle is the winner. On the other side of the cards are puzzle problems to be solved. It is not clear whether these puzzles were for players not in the Bingo game or part of a competitive game. The Social Game was marketed for only about two years and is extremely rare today.[5] By 1899 there were 17 puzzles.[6] By the 30s there were about 50 puzzles of various types, as will be described below. All of these puzzles are dissection puzzles -- that is, flat figures (such as a square, circle, oval, etc.) cut into various pieces. This type of puzzle exists in hundreds of variations which differ in the degree of complexity and elegance. A discussion of

puzzles, even Richter's Anker puzzles, is beyond the scope of this book. The interested reader is referred to several excellent books on puzzles by Jerry Slocum.[7]

The stones for the puzzles are easy to distinguish from the regular Anker building stones, as well as mosaic and laying tablet stone, because the puzzle stones have a unique thickness -- 8 mm. Early puzzle stones were all red (except for the gray and black stones of the Star Puzzle) and were given the stones for stone numbers 701 through 761 in the Loose Stone Catalog. Three puzzle stones, #s 702 (a triangle 35.35 × 35.35 × 50 mm), 703 (a parallelogram with sides of 25 and 35.35 mm and an angle of 45°), and 718 (a trapezoid with two parallel edges of 35.35 and 17.67 mm, connected at one end by a perpendicular edge of 17.67 mm and at the other by a 45° edge which is 25 mm), were also made in the standard thickness of 6.25 mm. The thinner stones are typically identified by the suffix "a", such as #718a. The reason for these three stones is that smaller versions of three puzzles were created and called **Piccolo**. These versions were thinner as well as smaller. Where possible the correct 6.25 mm thick stones in the Loose Stone Catalog were used, but these three stones had to be created. During W.W.I (1915-16) the puzzles **Zoo** and the **Trench Puzzle** (Schützengraben=Geduldspiel) were issued simultaneously in the 6.25 mm thickness. The stones were identical; the only difference was the plans. In a similar vein, there are two odd laying pieces, # 680a (which is a square 18.75 mm on a side, instead of the 17.67 of the mosaic stone # 680) and # 682a (which is a 45/45/90 right triangle with sides of 18.75 mm instead of the 17.67 of the mosaic stone # 682). Both of these "a" stones exist in the GK-NF selection of stones, but the fact that they exist in all of the bright laying stone colors justifies the "a" identification.

Richter expanded his line of games, and by 1903 he had added the "round mosaic games" **Saturn** and **Meteor**. The Meteor game consists of a black board with partially pierced holes or indents and a collection of brilliantly colored marbles. By placing the marbles on the indents, the designs found in the accompanying book can be reproduced. Nine different sizes of Meteor games were made, from # 1 with 72 marbles in four colors to # 11 with 2 boards and 1200 marbles in six colors. The Saturn game uses small stone cylinders which have a little hollow on one side and a corresponding projection on the other.[8] These pieces, unlike the marbles, can be stacked to produce a three dimensional effect, like "the effects of elaborate carvings or of sculptured designs in relief".[9] Richter received a patent on the stones in 1902.[10]

Richter always advertised a few of his other products, and especially related products, in his building stone catalogs. For this reason the development of the game and puzzle line can be followed quite accurately. Development of a record of the history of other Richter products, like medicines, music boxes, gramophones and recordings, requires examination of the catalogs for those product lines.

The acquisition of the Keller Brothers factory in Rudolstadt in 1910 brought Richter another game, **Karola (Carola)**, which is similar to the Meteor game, except the stones are cubes with a single cross stitch pattern on one side. Placing the stones next to each other, in a cardboard or wooden frame, produces the look of embroidery patterns. Six sets, with between 165 and 1,058 stones, were on the market by 1912.[11] There is no way of telling whether the addition of this Keller product to the Richter line would have been done by Richter, had he been alive in 1912. In general, however, it is hard to find examples of stone building products which Richter acquired and then sold under his own name and brand.

The earliest known catalog of just games and puzzles, separate from the building stones, is 1912. There are both German and (British) English versions. Of course these catalogs date from more

than a year after Richter's death. The Anker Puzzle was the only puzzle or game made at the company's New York factory during W.W.I.

The new management, Richter's sons, attempted to increase the company's line of non-stone building block toys. The Karola is mentioned in the previous paragraph. They also added the three versions of the small puzzle Piccolo.[12] The 1915 catalog offers the Trench Puzzle and four **Vexier-Mosaik** puzzles. These puzzles are sort of a combination of the laying games (mosaic and tablet laying) and the puzzles. The stones are in two colors, one on each side. So reproducing the figures in the design book is not at all straight forward because the stone of the color and shape needed may have been used in another location with its other side exposed. These same stones can also be used to create decorative floors for regular Anker block buildings. The Vexier-Mosaik stones were given stone numbers 762 through 845. Each color combination received its own number and, of course, the two colors often required mirror image stones. In 1916 a black/yellow Vexier-Mosaic was introduced by the Austrian factory, and the Zoo and the Trench puzzles were introduced as well.

At this same time, between Richter's death and W.W.I, two other dual color stones were introduced. The roof stones of the DS series were made in two colors; red on one side and blue on the other (see Chapter XI). A catalog claimed that dual color arches were made for Stephen Hurlbut's St. Agnes Church (see Chapter V), but doubts exist. Perhaps the red was painted on arches. There are examples from the VEB era of painting a second color on stones, including puzzle and mosaic stones; the early stones were actually made from two different colored layers.

The company continued to add puzzles after W.W.I. In 1919 the company added Mah Jong sets, in varying levels of quality and packaging ranging from cardboard boxes to luxurious leather cases.[13] The regular puzzle line was increased from 17 to 36. Many special puzzles, like the Star Puzzle and the Vexier-Mosaik, were added to the line, including the Funny Animals (Lustige Tiere), Fairy Tales Figures (Märchenbilder), Max and Moritz (humorous story characters from 1865 in Germany, which got the company into problems, so it was renamed Peter and Paul), the Flower Game, Eight Corners (Achteck), etc. Many of these puzzles include dual colored stones.

The puzzle line was successful and profitable right through the VEB era. In Europe, these same puzzles are back on the market today, though made of plastic or cardboard instead of stone.

Wood Building Sets: Sets of wooden blocks were also added to the Anker line after Richter's death. The wood block set concept got off to a shaky start in the 1913 (German language) catalog. An Anker Wood Building Set was offered. The concept is quite confused; it is the author's experience that any attempt to explain a confused concept only convinces the reader that it is the author who is confused, so the catalog description is quoted in full:

"For Our Young Anker - Friends!

"The Anker-Stone-Building-Set-Uncle from Rudolstadt speaks:

"Do you play willingly with Anker-Steinbaukasten? Are you happy with the buildings which have been created by your hands from the building plan book?

"Have you not often, perhaps quite often, laid aside the building plan book and built according to your imagination -- a stable with cows, a bowling alley, an airplane hangar?

"Have you not found that the most very beautiful things were invented by you with empty match boxes, with the twine rolls from your mother, with an old cigar box, -- always together with your Anker - stones?

"I want to help you with this; I want to give you the opportunity to become even more than up to now an independent building artist!

"So today I bring you the

Anker - Wood - Set,

which together with every Anker Stone Building set from # 4A on up allows you to build virtually anything that you want to!

"You will find in this set wood pieces, which are provided according to certain thoroughly tested principles with pegs and clamps and incisions, so that you can now build strong, solid, transportable houses and can fill them in with Anker stones.

"You will find in this half-timbering-set no building plan book, for you yourself are your own architect! There are only few pictures for you to see, pictures which should excite you to do similar designs and show you how varied buildings can be with this new set. Thereby the most extensive scope is left to your creativity. If you have difficulties, -- mother will surely help! All sorts of things which are available everywhere can be used by you, and all types of toys, which you already have, can give you the inspiration for a certain building.

"If you have, for example, some small cows and sheep, then you can build a stable or even a whole farm. For your toy soldiers a most beautiful fort or barracks can be constructed. If Santa Claus has brought you however lions, elephants and monkeys, then you can build with the help of these sets, by adding wire, wonderful cages or even a whole menagerie.

"As the examples show, in addition to what is contained in the sets themselves, one can get excellent service as building material the cardboard which serves as packing around the set. This slate and brick paper you can cut up for your roof; for your bay window just paste it with flour paste onto cardboard, -- finished! If your father has just received his wine shipment, ask him for the straw wrappings on the bottles, then build a Lower Saxony farmhouse, as shown in the cover picture. It looks beautiful when covered with the bottle straw, cut from cardboard horse heads for the gables, put a stork nest on the wheel formed from a broken toy, then make the stork from white wax and red matches, etc. You see, by making changes you can never fail! The pictures show you many things which are put together with such small items and make the building complete or help embellish it. You will recognize them easily and will get inspirations from them, as well as other small resources, which you have, on how to remodel any charming toy.

"The wood parts are not expensive, -- so therefore you will want to enlarge your buildings more; concerning the edifices to which you are inspired by the set, you can order for yourself the wood pieces which you need, according to the numbers on the list in this set, from your toy dealers.

"And now, children, get to it!" --[14]

This first set was the only one which attempted to combine wood and stone building blocks. The set is not found in the 1915 catalog.

The 1925 catalog offers three groups of wood block sets. Three **Baby** sets, #s 0, 1 and 2, were made. The first two sets have wooden cubes only -- 9 and 16 respectively. The third holds 24 wooden pieces in seven rectangular shapes, not unlike the stone blocks. A set of brightly lacquered wooden blocks, **Youth Enjoyment** (Jugendfreude), contains 9 cubes, 6 half cubes, 4 rectangles and 3 balls. Then the **Little Village** (Dörfel) set contains large painted wooden blocks, which are decorated with doors, windows, roof patterns, etc. Other wooden block sets were developed in the 20s, including mechanically operating versions with toothed rings of metal which could be slipped over wooden wheels to form gears. None of these wooden sets are compatible with the Anker stone building sets.

The "Dörfel" concept was also used to create stone building sets -- **Richter's Art Model Building Sets** (Richters Künstler-Modell-Baukasten). Two sizes were made. The smaller set is named Citizen's Home (**Bürgerheim**) and has 81 stones. The stones are large, the roofs are painted and have paper windows and doors permanently attached to the stones.[15] It must be clearly noted that the stones in the Bürgerheim and Liebe Heimat sets are interchangeable and, the stones are incompatible with either GK or KK Anker stones. The Bürgerheim sets were available in three color combinations -- # I, light yellow walls and red roofs; # II, gray-yellow walls and red roofs; # III, yellow-gray walls and red roofs. The larger set is called Dear Homeland (**Liebe Heimat**) and contains 142 stones. The Liebe Heimat set was available in four different color combinations -- # 1, yellow walls and blue-gray roofs; # 2, dark gray walls and red-brown roofs; # 3, red walls and green roofs; # 4 light yellow walls and brown roofs. A special supplement set of cupolas (**Turmhelmen**) was available, with regular and church cupolas, for the Liebe Heimat sets. These sets had to be ordered as, for example, "Supplement for Liebe Heimat 2". Individual cupolas were available through the Loose Stone Catalog and these stones were popular with Anker builders who never used these Art Model Building Sets. These sets were designed and patented by Albert Bosslet; the company licensed the patent on very unfavorable terms.

Wood block building sets were rapidly added to the line in the late 20s. The change in ownership of the Richter Company had lead to many changes. Catalogs were dropped in favor of price lists. Development of stone building sets stopped and a line of wood building sets was created. These sets are called Anker Universal Building Sets (Anker-Universal-Baukasten); they were copies of the 1913 Austrian Matador sets. The basic and supplement system was followed. There were two styles of sets, uncolored and colored. The uncolored series sets had nine basic and six supplement sets.[16] The colored series was similar, but somewhat smaller and included toothed gears.[17] The largest uncolored set, # 7, weighed 3.7 kilo and cost M.22, while the largest colored set, # 26, weighed 2.38 kilo and cost M.13. There were supplemental sets of toothed wheels (gears) for both series.[18] Two additional sets of accessories including toothed gears and regular parts were available for the uncolored series -- Gearbox Gear Set (Zahnrad-Getriebekasten, # ZG) and Assembly Gear Set (Zahnrad-Montagekasten, # ZM). The shafts (Stäbchen-Packungen, #s 1 [95 mm], 2 [195 mm] and 3 [300 mm]) were the same for the uncolored and colored sets. Within a few years these wood block sets were getting equal billing -- Richter's Anker Building Sets of Stone and Wood.

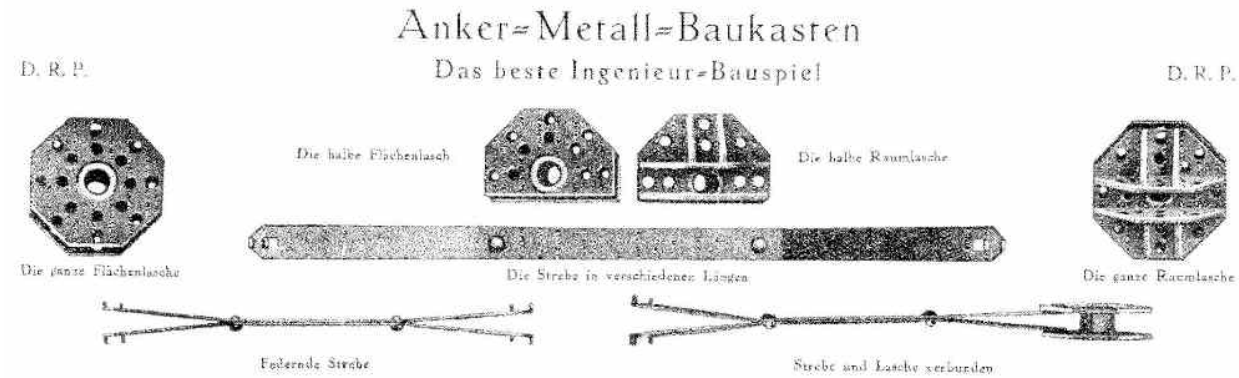
In New York, the office was independently run by Fricke, and the wood building sets were never a part of the product line, although the puzzles were. The uncolored wood sets were revived in the VEB era.

Label from a Wood Building Set

Smithy, Built from an Anker Universal Building Set

All-Metal Building Sets: There are two basic types of Anker all metal building sets. One type is a unique concept for an Erector Set (or Meccano) type toy without screws and the other is derived from the metal bridge parts of the DS sets (see Chapter XI). They were both created at about the same time, shortly after Richter's death.

By 1913 the all-metal building set concept must have been presenting some competition to the Anker stone building sets. Meccano filed a patent on his building sets in 1901; both Gilbert and Meccano were selling all metal building sets by 1910. So the company acquired the patent on a design of an all-metal building set from Frans Hendrichs of Berlin-Schöneberg.[19] The concept of these construction sets is very interesting from two points of view. First, the set does not have any of the screws which make assembly of a Meccano or Erector model so irksome. Second the parts have the look, and much of the theory, of actual structural steel, such as fish plates (Lasche) and beams (Strebe).



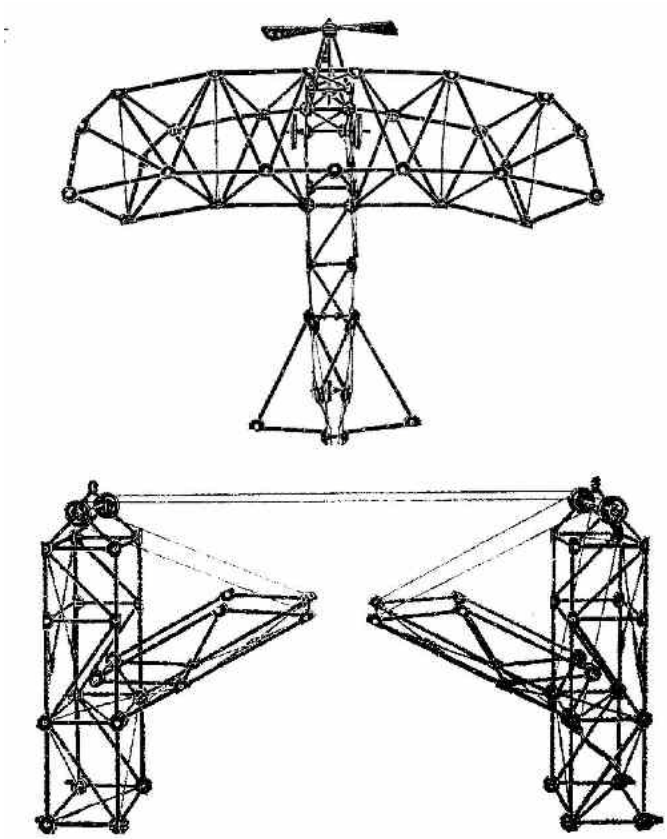
The Main Metal Parts of the Anchor Metal Building Set

Beams came in five lengths.

The sets were introduced in 1914 under the name **Imperator**, but they were offered in neither the German nor USA 1915 catalogs. During W.W.I (173-15), the name was changed to **Anker**

Metal Building Sets. There are four basic sets, #s 0, I, II and III (or 0, 1, 2, 3 -- the author has only seen sets and books with Roman numerals), containing 62, 97, 168 and 295 construction parts respectively. The three supplement sets (0A, 1A and 2A) contain the expected quantities of parts (35, 71 and 127). The sets are found in the 1925 catalog, as well as the Vienna 1925 price list, and the 1928 price list, but by the 1931 price list (# 60) the sets are no longer offered. These sets are extremely rare today.

The Anker Newspaper, issue # 6 of May, 1923, has an article on the Anker Metal Building Sets. The sets are not described, although the building system is, and pictures are given of set # 2 as well as constructions made from this set. In the "overview" of the Anker line in issue # 4 these sets are not mentioned, although the Iron Bridge Sets are mentioned. No further mention is made of the Metal Building Sets until issue # 11, September 1925, which has pictures of a giant exhibition model of the Main Railroad Station in Leipzig (Leipziger Hauptbahnhof). This model was exhibited at the German Transportation Exhibition (Deutsche Verkehrs-ausstellung) in Munich from mid October, 1925. The model was 10 × 12 feet (3 × 3½ m) and the four large bays for the eight tracks were covered by arched roofs made with the iron parts from the Anker Metal Building Sets. This exhibition model is one of the largest and most beautiful buildings made by the company. It makes extensive use of the Neue Reihe stones for the roof of the building.

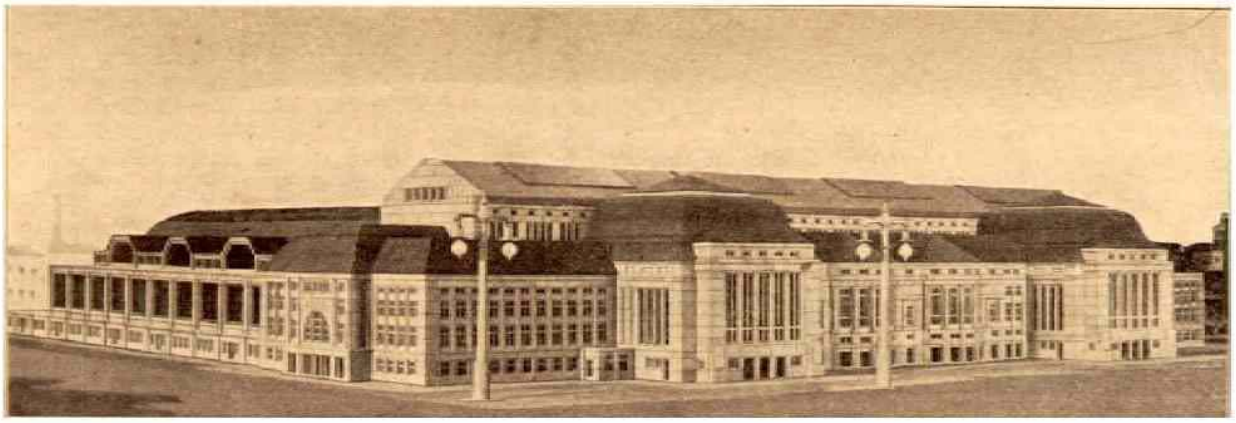


Models Built with Anchor Building Set # II

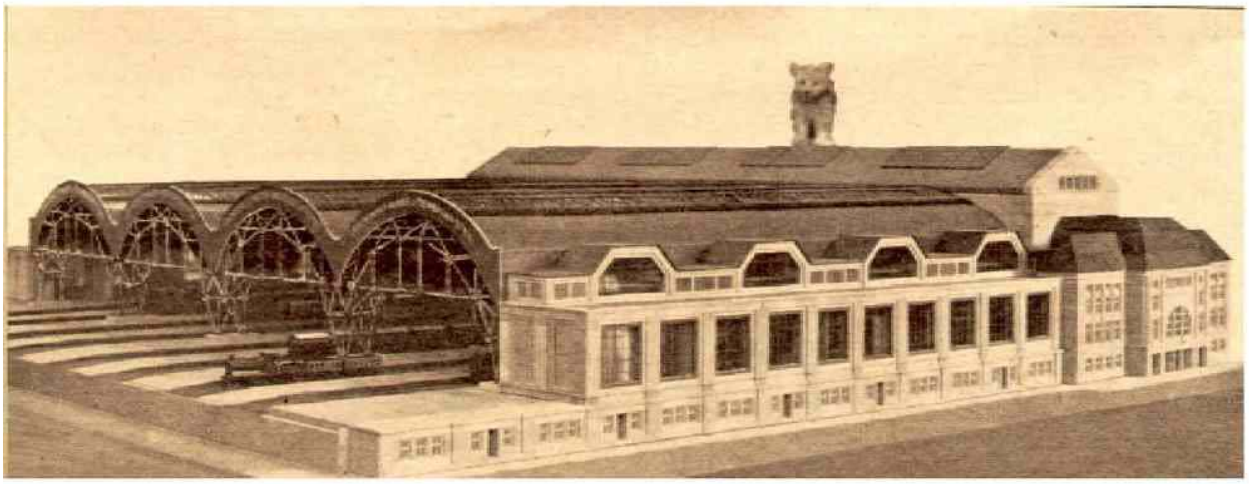
Although the same issue of the Anker Newspaper promised that the next issue would include "in words and pictures" the "3 meter high antenna made from iron parts of the Metal Building Set, attached to a radio transmitter", no further mention (other than inclusion in the Christmas, 1926, price list) of these metal building sets is made.[20] These sets were made with either brass or steel parts, which are not interchangeable. The model of the Leipzig railroad station (picture on the next page) illustrates quite beautifully how well the Anker metal and stone building sets could be integrated, but, with this one exception, it seems they never were.[21]

Other all-metal building sets, which seemed to be obviously useful as accessories to Anker stone building blocks, were marketed by the Richter Company during WWI (1917). These sets, the **Iron Bridge Sets**, were created from parts similar to the DS sets. The first sets to be introduced are identified by the Roman numerals used in the set numbers. The sets, numbers I, II and III, plus the supplement sets IA and IIA[22], consist of metal parts to make bridges which are all 3½ inches (87.5 mm) wide. These sets were not intended to be used as supplements to the Anker

stone building sets. The first mention of these sets is found in the Anker Newspaper, # 4, of May, 1922. The article states specifically that "a combination of these sets with the stone building sets is not possible."[23] Of course this statement is absurd. The very same sort of metal parts are found in the DS series of sets. By 1925 the company was suggesting that the bridge



(Front Above) **Leipzig Main Railroad Station** (Rear Below)



supports could be made from any appropriate material, such as stone building blocks, wooden blocks or even loose sand.[24] The plans gave exact dimensions for the pillars, and the dimensions were the traditional (GK) Anker stone dimensions. The plans even provided information as to the necessary quantities of Anker stones, by GK-NF stone number, needed to build each style of bridge pillar or abutment. The stones were offered in yellow, red and field gray.

The Arabic numeral series is really a supplement to the GK-NF series of sets. The numbers correspond to the GK-NF sets for which the bridge part supplement is appropriate. Numbers LE[25] 2, 4, 6, 8 and 10 are known to have been sold, but the 1928 price list also offers #s 12, 14 and 16. Not even the five parts in LE 2 correspond to the selection of bridge parts in a DS set. Building plans, employing the "a-arch" stones of the NS, were provided. After W.W.II, the company resumed the sale of these metal supplement sets. In addition, small sets of metal parts, not the same parts as the Roman numeral series, were also assembled and sold. In these sets it is

mentioned that bridges can be constructed using wood or sand, instead of Anker stones, as supports.

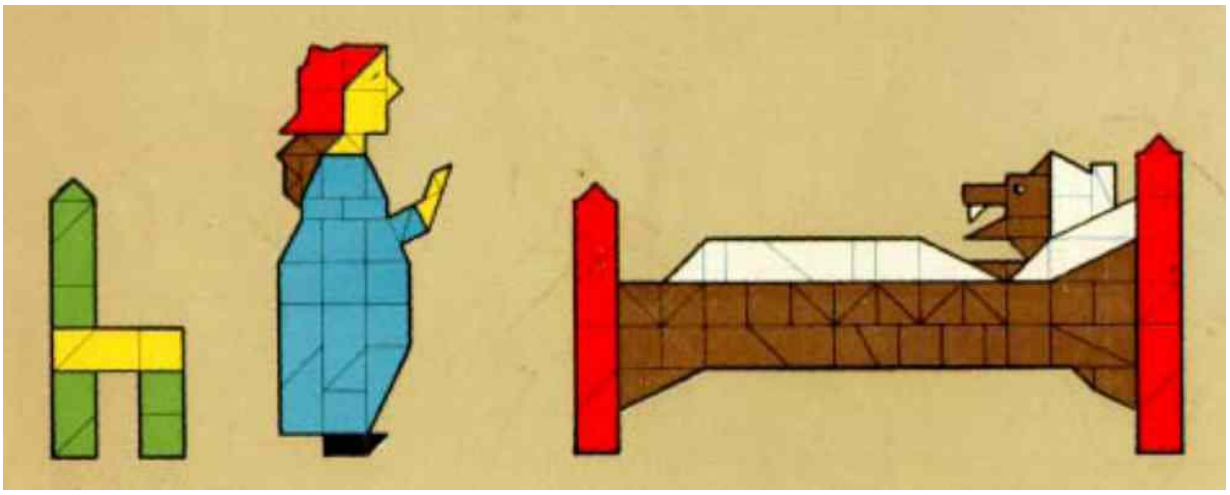
Another series of supplement sets provided the roof stones and the lacquered iron parts for both bridges and DS roof construction. The sets, numbered D[26]7 through 19, contain the same roof stone and metal (both roof and bridge) parts as the DS sets of the same number. These sets came with the corresponding DS plan books.[27]

During the 20s other toys, such as a mountain tram[28], were sold by the Richter Company. But as these sets have nothing to do with Anker blocks, they are not covered in this book.

Finally, further mention must be made of the **Accessory Figures** which were available for the many Anker building sets.[29] Eight sets of crèche figures were sold, as well as over a hundred sets of figures as backgrounds for the Anker stone buildings. The figures are not made of stone, but clay or papier-mâché, and then painted. In addition to these figures, sets of glass and metal windows and doors were sold, as were metal spire tips (lightning rods), wooden clocks, wooden window insets for Gothic arches and rosette windows, potted flowers[30], and trees and bushes. For some building plans, special parts were sold as extras. Sets of iron bars were made for the zoo cages. For the manger designs: Metal stalls, hay racks and flues for an illuminating candle were available. All of these accessories were in addition to the paper figures included in each set.

It is not known whether the accessory figures were made by the Richter Company or bought from local sources. Good arguments can be made on either side. But in that Richter almost always chose to make those products he could, buying from others only when absolutely necessary. The figures were introduced at the greatest rate in the 1880s and 1890s; it seems likely that the figures were made by one of the Richter companies, even if not at the Rudolstadt factory.

Unfortunately, these accessory figures are very rare today. There is nothing which identifies a figure itself as Richter or Anker. Of course, if the figures are found in the original Richter box, then their identification is easier. But it is still not certain. Other figures may have been added or substituted over the years.



A Plan from the Fairy Tale Puzzle

Cover Label from a Täfelchenlegen Set of the Alte Folge Era

Label for Anker Metal Building Set II

XVII. Final Comments and Anker Today

Today, 2014, Richter's Anker Blocks are the province of collectors, most of whom are also builders, and are back at retail in Germany. The new factory, founded in 1994, is now in a KG (partnership) owned by Gerhard Gollnest and Fritz Rüdiger Kiesel, who also own Gollnest & Kiesel KG, known as GoKi, in Güster, Germany. As will be described later in this chapter, GoKi is making great progress in reintroducing Anker blocks to children, and their parents, in Germany. But, this book is for Anker collectors and builders, so up first is information on the older Anker blocks.

The author continues to hear of children who are lucky enough to have parents who know about Anker stone building blocks. Even in the electronic/computer age, Anker blocks provide these children with all of the benefits promised by Richter over a hundred years ago.

The number on the GK-NF sets is a good guide to the best **first** set for a youngster. Set # 6, Leipzig, is just right for a five or six year old; # 8, Lennep will be right for a seven or eight year old. In like manner # 10, Liegnitz, and # 12, Lindau, are correct for their numerical age group, though 12 years old is almost too old to create a childhood interest in Anker. The rate at which a child's set should be supplemented depends, of course, on the child's interest and ability. It is not unheard of for an eight year old to be building with set # 16, Linnich; being fully capable of building all of the design in the Richter building plans and even creating designs of his (or her -- remember Richter always emphasized that the Anker blocks were as interesting to girls as to boys) own. As the reader will see below, the current cost of the lower numbered sets is not prohibitive.

Club of Anker Friends: For adults there are several good sources of Anker information and interaction. By far the best source is the international **Club of Anker Friends** (Club van Ankervrienden, or CVA). The CVA is Dutch, but it also has members from many other countries, such as Germany, Switzerland, Austria and the USA. It holds meetings twice a year and publishes quarterly a magazine under the singularly uninspired name of Communications Paper (Mededelingenblad, or MLB) of the CVA. The cost of a subscription is included in the annual dues, about **€** 40 (US $ 55). The author serves as the USA contact for the CVA.[1]

Contributions to the MLB are printed in the language of the author (German, English or Dutch), but the full MLB is available in German and English. In addition to the usual reports and meeting news expected in any MLB, every issue of the magazine seems to include at least one article showing an "exhibition quality" building constructed by a CVA member. And, of course, the MLB also contains news of newly discovered sets, catalogs, and parts. Buy and Sell advertisements may be placed free by CVA members, and at a very nominal cost by non-members. Often included in this section of the MLB are offers by the CVA Stone Market. These advertisements, along with auction prices, a good guide to the current value of Anker blocks. This subject is covered below.

A few Anker enthusiasts make new stones -- not by the old formula but using one of the modern epoxy binders. The cost, and labor, of producing this type of stone is too high for any volume production, but rare stones, and new stones (not included in the original Richter Anker stone selection), may be produced in reasonable numbers. Others create new stones by cutting old stones into new shapes and thicknesses. These blocks and techniques have been thoroughly described in MLB articles.

The CVA provides a number of important services to Anker collectors. Its **Archive**, which is on-line at http://www.ankerstein.ch/archiv, contains thousands of items. Today almost all Anker information is available on the Internet. The web sites are subject to rapid change, although the Endnotes do give some, but not all, of the more important locations.[2] Most web sites have links to other Anker web sites and search engines may find others.

A **Stone Catalog**, available to CVA members only, has been published. This catalog contains all of the original Richter items (stones, metal parts, wooden parts, puzzle and game stones, etc.), some of which have only been discovered recently, plus it assigns numbers to and catalogs any newly discovered Anker stones and new stones created by the modern Anker factory, as well as assigning numbers to the new stones created by Anker hobbyists. In addition the catalog has tables giving the contents of all documented Anker sets.

The CVA has organized exhibitions at museums. An exhibition during the fall of 1994 was in the Richter Villa in Rudolstadt.

Anker House Foundation: In 1989 an attempt was made to start a museum, and Stone Market, dedicated to Anker stone building sets. The Museum was opened in Alphen a/d Rijn in 1991. It was unusual in that, in addition to displays, there is a large table at which visitors may build with Anker blocks.[3] Its Stone Market made it possible for visitors to buy sets (antique sets; not the reproductions which most museums sell) of their own. The Stone Market maintained an inventory and sells both individual stones and full sets. The foundation published the Anker House News (AHN). Despite an endowment of more than one million Dutch guilders, this foundation did not survive; it ceased to exist in 1996. In 1994 the museum collection was moved to the Toy Museum in Oosterhout (NB).

Value: From the sources mentioned above one can make a reasonable estimate of the value of Anker building stones, whether loose or in a set. This discussion of Anker stone value requires the recognition that there are several categories of lots (groups) of stones, and the difference between these types of lots produces a major difference in prices. The various prices are quite similar to the difference between the buying and selling prices of manufacturers and retailers.

Consider the following classifications and the relative values the author feels are close to fair (today -- 2014) for each:

1) A large lot of loose stones, such as any Anker builder might own. Some stones will be grade 1 but others are grade 4. The stones are not arranged into sets, but undoubtedly many sets can be made up from them. The value of these stones is about 30¢ per stone, with no added payment for any boxes, plans, documentation, etc. An antique dealer should feel quite confident that he can easily sell the blocks for this amount. To make a profit he must pay less. The author considers five stones for a dollar to be a "good buy".[4]

Also in this category are incomplete sets at auction or an average, "not especially interesting" lot of loose stones in average condition.

2) Sets at auction. Now condition comes into play, so the example being used is a set in grade[5] 2 (used but quite good condition), including the box, packing plan, and building plan books for that set - a #20, Lissa, should contain **all** of the books for sets #s 2, 4, 6, 8, 10, etc. up to 20. The set #18A, Metz, should only have the building and layer plan books for set # 20 (18A).

But an auction, such as ebay, offers sets at the seller's (not the buyer's) convenience and the sets for sale are the ones the seller, not the buyer, has selected. For these reasons, auction prices are not as high as regular retail prices. The value of complete sets is about 60¢ per stone. This amount is a good "bottom" selling price for a dealer to put on his inventory. Thus set # 6, Leipzig, with its 105 quite common stones, is worth $60. Into this category one might also put a lot of unusually nice stones, nice due to their excellent condition, rarity, and/or desirability.

3) Sets bought by number. Again condition is an important consideration. As opposed to # 2 above, these sets are being ordered by the buyer and at the buyer's convenience, just like a retail selling price. A store which has most of the sets on hand can command a higher price than a store with a small inventory. Perhaps one does not want a DS #27, just the sets in a DS # 19D, or maybe just # 32B, Posen, or set # 303A. A store which offers the "complete line" attracts buyers who will pay prices close to "high retail".

The value of "sets to order" is about US$ 1.00 per stone, or the "retail price". No one needs to seek out the well stocked retailer to buy a #6, Leipzig, and one can shop at a number of poorly stocked retailers in the hope of finding any particular set at a bargain price, but a fully stocked retailer can charge the full "retail price" for all but the most common sets. The difference for the buyer is whether he enjoys "shopping", as opposed to "buying".

4) Specific loose stones. It is hard to give a "price per stone" which is meaningful to a buyer looking for a specific stone, but the seller can look at averages - a GK-NF stone # 1G will sell for well below the average but a GK-NF stone # 95G is worth considerably more than the average. This average price is "high retail", or US$ 2.00 per stone. Of course some stones will sell for US$ 20.00 or more; others may bring less than 20¢. Even GK-NF stone # 212G, which is not nearly so common as one might think, will be an eight or ten dollar stone in grade 1 or 2. The sale of individual stones demands a large inventory, much of which will turn over quite slowly.

It is important to note that many people do not have any idea of the value of Anker building sets. Great bargains are still quite common. The author knows of two purchases in 1992 of a # 34, Lyck, for just under $2,000 -- about 50¢ a stone for this very large and reasonably rare set. In another case, fully half of the purchase price was recouped by the sale of just one rare supplement, # 26A, Mulda. Examples of such lucky buys are evidence of the seller's ignorance or impatience, not of Anker stone value. But more often than seeing a set underpriced, the author finds sets are overpriced, like a #6, Leipzig, grade 3 stones (also incomplete), but priced at $200; often the dealer offers it at the "special" price of $130. These dealers are not amused when the author tells them that the set is worth less than $40. It is not unusual to find a dealer offering a set at four or five times its real value. One wonders what they paid!

Money can be made by the purchase of loose stones, incomplete sets, empty boxes and plan books. A person who assembles these components into sets is adding real value and should make, and is entitled to make, a profit.

The tables on the next few pages show the likely high retail prices (Madison Avenue retail) between knowledgeable customers. All prices are based on Grade 2 and include all building plan books and boxes. Adjust for grade: grade 1 = 125%; grade 3 = 75%; grade 4 = 25% to 37.5 %.

GK-NF

Set	Price	Set	Price	Set	Price	Set	Price
6	$60	12	$280	20	$850	28A	$300
6A	$70	12A	$120	20A	$240	30A	$300
8	$130	14A	$140	22A	$240	32B	$500
8A	$75	16	$520	24A	$250	34	$3,000
10	$200	16A	$140	26A	$400	Great	
10A	$90	18A	$220	28	$1,900	Castle	$2,500

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KK-NF

Set	Price	Set	Price	Set	Price
5	$40	9A	$60	15A	$150
5A	$45	11	$190	17A	$200
7	$80	11A	$100	19A	$400
7A	$55	13A	$100	21	$1,100

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DS
(with metal parts and roof stones)

Set	Price	Set	Price	Set	Price
E3	$40	9A	$175	17A	$250
3A	$40	11	$325	19A	$400
5	$75	11A	$150	21A	$$430
5A	$55	13A	$150	23A	$500
7	$120	15	$600	25A	$800
7A	$80	15A	$250	27	$3,000

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Neue Reihe

Set	Price	Set	Price	Set	Price	Set	Price
102	$60	106	$100	110	$200	114	$500
104	$$80	108	$150	112	$300	116	$1,000

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Modern House and Country House Sets

Set	Price	Set	Price	Set	Price
206	$250	301	$200	301A	$150
208	$300	303	$350	303A	$250
210	$300	305	$600		

****

Fortress Sets

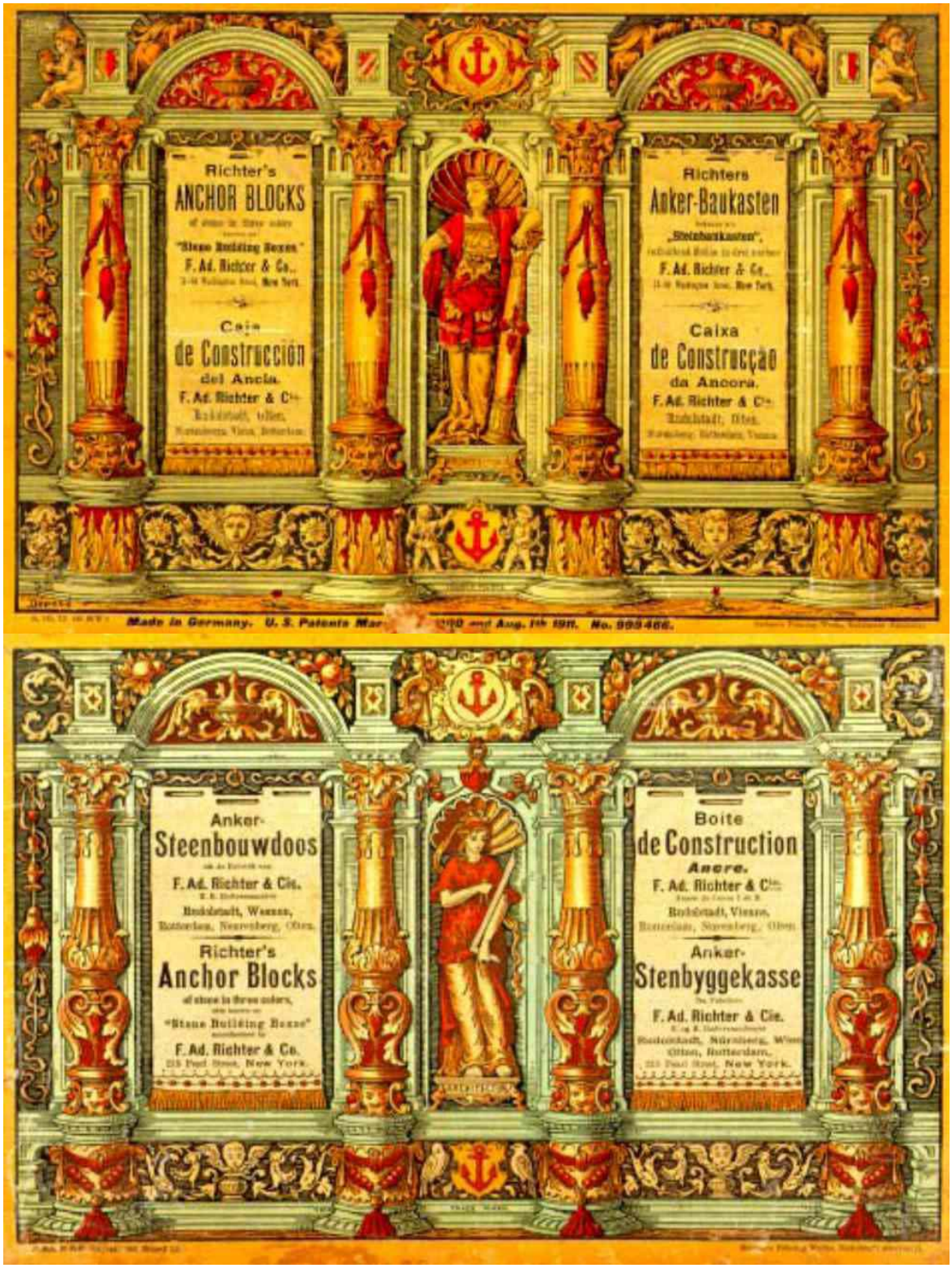
Set	Price	Set	Price	Set	Price
402	$60	406	$200	410	$800
402A	$60	406A	$200	410A	$600
404	$100	408	$400	412A	$600
404A	$120	408A	$400	414	$2,000

A Look into the Future: There are strong indications that the time is right for a revival of Anker stone building sets. Shortly after the Wende (unification of East and West Germany) plans were made to resume manufacturing of Anker sets in Rudolstadt. There were sound reasons to believe that Anker could be made into a profitable toy company. Revival toys were big business. The (now French) Meccano Company's success in marketing their sets in the USA under the Erector trademark portended a similar success for Anker stone building sets. In three years (1991 - 1993) the annual sales of Erector Sets grew to over 500,000 Erector sets a year.

By 1994 set # 6, Leipzig, was unveiled at the CVA meeting in the Richter Villa in Rudolstadt. Manufacturing has continued, with multiple changes in ownership and never making a profit. Money was invested in tooling, printing of plan books, etc., but none of the leadership understood the modern toy market. Ownership was confused because the rights to manufacture Anker stones, and the trademark, were not owned by the factory. After more than ten years, that dual ownership arrangement was corrected. But that correction did not yield profits; knowing how to market toys was needed. Then Gerhard Gollnest and Fritz Rüdiger Kiesel (G-K) bought the company, keeping it a partnership and not combining it with their very successful toy company, Gollnest & Kiesel KG. The G-K plan was clear; turn the Anker product line into a profitable company. But G-K did not put GoKi at risk. (It is beyond the scope of this book to cover why this arrangement by G-K would not protect GoKi from Anker creditors in the USA, but it does in Germany.)

G-K has spent three years, and surely millions of euros, in its efforts to make Anker profitable. A new product line, The New Stone Era (Die Neue Steinzeit), is attracting new customers. For the first time there is hope that the new Anker factory will survive.

Over the years the new Anker factory has expanded the sets being made. The entire GK-NF series, plus the Large Castle (Große Burg) are being made again, as are the NS arches. A lot of the old tooling has been found, as have some of the presses. Of course loose stones can be purchased. All of the building plans have been redrawn using computer drafting programs.



Two Versions of the Standard Set Label

Sharp eyes will find many differences. The author has identified at least seven different variations, not counting the languages. There does not seem to have been any orderly changeover from one style to another, except for phasing out of the squirrel trademark.

END NOTES

Chapter I

[1] This book has a large number of End Notes. The author will take this opportunity to introduce them to the reader. The correct quote is "Après nous le déluge." (After us, the deluge.); it is generally attributed to a reply by Jeanne Antoinette Poisson, Marquise de Pompadour (Madame de Pompadour) to Louis XV on November 5, 1757, after the defeat of the French and Austrian Armies by Frederick the Great in the battle of Rossbach. Others attribute it to Louis XV himself. In fact it was, at the time, a well known, and old, French proverb.

In addition to references, the author often uses End Notes to provide, as above, more detail than many people are interested in reading.

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Chapter II

[1] Hofius, Kurt, "Patent Medicine Manufacturing and Marketing in Duisburg: the Entrepreneur Friedrich Adolph Richter", Duisburg Forschungen, City Archive of Duisburg, vol. 35, p 187, Walter Braun Press, Duisburg, 1987.

[2] Richter Company, Patent Building Bricks, Lehrmittel-Anstalt (Dr. Oskar Schneider), Leipzig, 1886. German, English, Dutch, French, Danish, Polish, Czech, Hungarian, Russian, Spanish, Italian, Portuguese, Romanian.

[3] The packing plans supplied with the sets, however, did not show the stone numbers for the first few years, at least through the summer of 1886.

[4] Over the years the Loose Stone Catalog had many different names: Patent Building Bricks (Lose Patent-Bausteine) in 1885; The Art of Architecture (Das Bauen) in 1890; The Art of Architecture in Miniature (Baukunst im Kleinen) from 1898 through 1963. Since the name The Art of Architecture in Miniature does not seem to correctly convey the idea of a catalog of stone shapes, along with accessory parts, the author has chosen the title **Loose Stone Catalog** to identify these catalogs of the company.

[5] These prices are taken from the Richter catalogs, not calculated from exchange rates.

[6] This model was been moved to the Richter Villa in Rudolstadt; it is now in storage at Heidecksburg.

[7] After 1890, there were two different KK-AF sets # 20, so the true merger of the two KK-AF series was at set # 22. This change was made to allow an additional step between KK-AF # set 12 and KK-AF set # 22.

[8] Some Anker collectors have objected to this statement because loss of the blocks from a basic set will make the larger set incomplete. True; but on the other hand, most interested builders accumulate an excess of the more common stones, and less interested builders will not object to the loss of a small portion of their inventory.

[9] At this point the reader is introduced to the additional identifying words used by the Richter Company to help differentiate between sets. These words, both Telegraph Words and Passwords, will be described later. It is sufficient here to note that they are needed to identify the many different sets which often happen to carry the same identifying number.

[10] Richter Company, The Toy the Child likes best!, Dr. Richter's Publishing Office, New York, 1891. p13

[11] Richter Company, The Great Educational Toy and Pastime: Richter's "Anker Blocks", 1900. pp. 1-4

[12] President Grover Cleveland wrote on January 22, 1893, just before the beginning of his second term (1893-1897): "My little daughter has already begun an enjoyment of your Stone Building Blocks which will increase as months are added to her life.

Yours sincerely,

Grover Cleveland"

[13] Gilbert, A. C., The Man Who Lives in Paradise, Rinehart & Company, 1952. p 162

[14] A concept actively promoted by Gilbert. The documentation is found in the National Archives, Suitland Reference Branch, Washington, D.C., Stack 4, Corporate Management Case Files 1914 - 1934, Boxes 234 & 235.

[15] Born, Max, My Life, The Memories of a Nobel Prize Winner, München, 1976. pp. 55/6. This translation, like most translations quoted in this book, was done by the author of this book.

[16] Developed by the East German (nationalized or VEB) company in the late 50s.

[17] The first London agent was William Payne & Son, 14, 16, & 17 High Holborn, London WC, and by 1912 (or earlier) the new agent was W. Seelig & Co., 19 Fore Street, London EC (after W.W.I Seelig's address was 23 White Street, Moorfields, London EC2).

[18] Brosterman, Norman, Potential Architecture, Canadian Center for Architecture, Montreal, 1991. p 8

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Chapter III

[1] Rockstein, Margitta, Friedrich-Fröbel-Museum, State Museum Heidecksburg, Rudolstadt, 1989, ISBN: 3-910013-06-6. p. 5

[2] Rockstein, pp. 12 – 16

[3] Hofius, pp. 183/4 The original German: "Ein unfehlbares Mittel, reich zu werden, verrät an jedermann gegen vorherige Einsendung von einem Taler, Richter" and "Mach's ebenso, Richter".

[4] "Imported goods" is a correct, but poor description. Because Germany had not unified yet, merchandise from other of the small independent states was considered "imported", as were items made on farms and sold, or traded, to shop keepers like Richter.

[5] These names stand out quite well in the middle of German language text.

[6] Hofius, p 185

[7] Hofius, p 185

[8] Hofius, p 194

[9] Hauer, Jan, "Anker Archeology", Magazine of the Club of Anker Friends, Sassenheim, Netherlands, 1989. p 139

[10] "Damebrett Steine", or draught-board stones, are mentioned in the 1919 "Anker Zeitung", or Anker Magazine, issue 2, page 2. The author has no knowledge of this product, other than this one mention in the magazine.

[11] U.S. Trademark Registration # 14,785; registered October 4, 1887.

[12] de Jonge, Frans, "The Oldest Set of Richter in the Open Air Museum?", Magazine of the Club of Anker Friends, Sassenheim, Netherlands, 1989. pp. 182/3

[13] Hofius, p 196

[14] Reichardt, Hans J., Noschika, Annette, et al., Gustav Lilienthal 1849 - 1933, Stapp Press, Berlin, 1989, ISBN: 3-87776-902-0. p 56

[15] State Archive of Berlin (Landesarchiv Berlin), Rep. 200, Estate of G. Lilienthal, # 33/1. This page and an earlier design give some indication of the history of the New Kindergarten magazine and sets, plus the squirrel trademark. An earlier design, item 33/3, carries (unchanged) the name The Kindergarten (Der Kindergarten) and Georgens' name, but neither the squirrel trademark nor the Richter company name. The second design (pictured in this book) has the squirrel trademark over the Richter company identification, and the name has been changed to New (Neuer) from The (Der). Other changes, which were incorporated in the final design, are shown in Lilienthal's hand. The author speculates that Georgens conceived of the idea of this magazine and its line of toys and did the preliminary design work with G. Lilienthal. Some agreement was made between Georgens and Richter (but not including Lilienthal) to put the sets and magazine into production as a Richter product, carrying Georgens name as creator and guiding spirit.

[16] Reichardt, p. 62

[17] U.S. Patent # 233,780. Composition Toy Building-Block. Issued to: Otto Lilienthal and Gustav Lilienthal of Berlin, Prussia. Assigned to F. Ad. Richter of Rudolstadt, Germany. Filed September 18, 1880; issued October 26, 1880.

[18] Reichardt, p. 18. Note: all references can be traced back to the book: Halle, Gerhard, Otto Lilienthal, Düsseldorf, 1956, page 31. One should keep in mind that Gerhard Halle is Gustav Lilienthal's son-in-law.

[19] Reichardt, p 69

[20] Schwipps, Werner, Lilienthal, Berlin, 1979. p 99. "die Bauvorlagen Stück für Stück selbst entworfen und gezeichnet hat." (the building plans were personally designed and drawn one by one.)

[21] The Rudolstadt Newspaper (Landeszeitung Rudolstadt), July 15, 1928, states that the first building plans were drawn by a Rudolstadt native, H. Taubert, and that they were converted to wood engravings by H. Riesche.

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Chapter IV

[1] Several Dutch Anker friends have pointed out that "Kindertuin" is not a Dutch word. Mr. Hauer reports that at first this type of institution was called "Fröbelschool" (plural: scholen). Later the name was "Kleuterschool" (Kleuter: small child, like toddler, tot, kid, nipper). However "Kind" means child in Dutch and "Kinder-" is the 'connective form'. "Tuin" means garden. "Kindertuin" is the only example known to the author in which the Richter Company's language skills slipped so badly as to make up a word. It is especially surprising when one remembers that the company had had an office in Rotterdam for a number of years before this set was marketed.

[2] The difference between KK and GK stones is described in the second chapter, **Anker Stones -- An Overview**. Since it was the GK stones which became so popular, some writers who wish to stress the contribution of the Lilienthal brothers attribute the GK stone size to them also.

[3] And as will be seen later in this chapter, the stones produced for the second Lilienthal effort were also KK.

[4] Rudolstadt Newspaper (Schwarzburg-Rudolstädtische Landeszeitung), 12/21/1880.

[5] Landeszeitung Rudolstadt, July 15, 1928

[6] (See next page.)

[7] Printer's marks are notations of the printing history set in type. They are often put on printed materials such as catalogs, even today. The printer's marks generally give the date of the press run and the quantity, and often other information, such as the source or use. One Richter example, from the first New York catalog, is 8706 **A** 60, which means that 60,000 catalogs were printed in June, 1887, for the American market. The “0” was quickly eliminated, as 888 **A** 100 shows. The need for more catalogs so quickly is an interesting indication of the potential of the American market.

[8] Set # 1 was the oldest box; # 0 has the same contents as # 1, but was a later (and cheaper) edition, packed in an attractive cardboard box and quite similar to the AF sets.

[9] Set # 9 is two times set # 7, less 2 × # 1R and 2 × # 4G.

[10] Thus perhaps the same as KK-AF sets #s 9 and 9A.

6 cont.

This cover label design was used on both late "Das Bauen" and early Alte Folge sets.

[11] Georgens sets #s 0, 1, 3, 7 (two versions?) 9, 11, 12, 13, and 25 have been reported, as shown below.

Number	Contents	Box Material	Notes
0.00	43.00	cardboard	cheap edition
1.00	43.00	wood	expensive edition
3.00	80.00	wood	English edition, label shown on the previous page
7.00	76 (?)	wood	incomplete, no packing plan
7.00	83.00	wood	
9.00	162.00	wood	two layers, twice # 7, less 2 × 1R and 2 × 4G
11.00	87.00	wood	packing plan marked "11, 13"
12.00	173.00	wood	one layer, almost identical to KK-AF # 12
13.00	174 (?)	?	presumably twice # 11
20.00			
24.00			
25.00			Reported by Dr. Meyer-Margreth as equal to # 20 + # 24

[12] The use of the name "Das Bauen" on the early Alte Folge sets is also a good example of Richter's tendency to use up the inventory of obsolete labels. Care must be taken to avoid being misled by the presence of an old (not set-specific) label on a set. To fulfill catalog orders Richter may have shipped Alte Folge sets with Das Bauen labels.

[13] Annual Report for 1883 of the Schwarzburg-Rudolstadt Factory Inspection Office, Archives of Schwarzburg-Rudolstadt, Heidecksburg, Rudolstadt, 1883.

[14] In the catalogs one finds that set # 20 cost 12.50 marks. By subtracting the cost of the loose stones (8.75) and the books (1.80) one can calculate the cost of the wooden box to have been 1.95 marks, or 15.6%. But cost calculations of this type are hardly ever meaningful.

[15] Stade, Heinz, Rudolstadt, Verlagshaus Thüringen, Erfurt, 1991. ISBN: 3-86087-015-7 p 49. An "elle" is the distance from the elbow to the end of the fingers.

[16] The "basic block" of the Alte Folge is 0.5 × 1 × 2 times the basic dimension, the same ratio as a European brick. Thus the basic block, stone # 1, in KK-AF is 10 × 20 × 40 mm, and in GK-AF it is 12.5 × 25 × 50 mm. In the later NF period the basic block, also stone # 1, is a cube of the basic dimension; thus 20 × 20 × 20 and 25 × 25 × 25 mm.

[17] According to Schwipps, the person who complained was Fritz Voss.

[18] Most references give the date of Richter's death as December 25th. The catalog printed in October 1911 starts with: "On the 25th of December of the previous year, the founder of our company, the Home Commercial Advisor Dr. Friedrich Adolf Richter died." But his obituary, printed in the Illustrated Newspaper of Leipzig, January 5, 1911, issue # 3522, vol. 136, pp. 14 and 22, and written by I. I. Weber, said that Richter died on December 22nd. "On the first of the Christmas holidays died in Jena ...". But the facts are: Richter's death was registered in Jena on December 27, 1910, as death # 878. Richter died at 9:00 PM, December 25, 1910 at the Privatklinik Herford, zu Jena, Am Steiger 4.

[19] "Ein Gang durch die Geschäftsräume des Hauses F. Ad. Richter & Cie.", Richters Verlag-Anstalt, Leipzig, 1906. pp. 26 - 27. There are older editions in German, Dutch, and English. The Dutch printer's mark reads: 933 **H** 5, so 5000 were printed.

[20] The author had known that some Anker stones dissolve in water, leaving just a pile of sand and coloring, while most stones are not harmed. The Sorel cement formula seems to explain these different stones.

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Chapter V

[1] van Hulten, Peter L.M., "Address at the Opening of the Anker Exhibit in Madurodam", Journal of the Club of Anker Friends, Den Haag, Netherlands, Vol. 12 # 3, page 92, 1991.

[2] Richter advertisement, undated but contains an endorsement dated July 22, 1897.

[3] Only Richter's gramophones and music boxes won gold medals. The reader may see references to gold medals won at the St. Louis World's Fair. Richter was not scrupulous about limiting a gold medal's mention to the product, or product line, which had won it. He considered the medals to have been won by the company and to be applicable to all of the company's products.

[4] Meyer-Margreth, Ernst, "History of the Anker Stone Building Sets", Contributions on German Folk-Art and Antiquities, Vol. 17, Hamburg, 1978. pp. 103 - 126 and plates 96 -105.

[5] The catalogs claim that only 1810 stones are included in the set. Since no sample of the set, or the set's packing plan is known, one cannot be sure what the correct number is.

[6] Except for the special order deluxe chests, the largest original Richter box the author has seen holds five of these double trays. It is 19.5" × 15" × 7" (495 × 380 × 180 mm) and weighs over 50 kilo (110 lbs.). Recently, a factory original Anker building stone chest was found with the collection of the late Carl Vieth. The chest is, in cm, 128 (H) × 55 (W) × 42 (D) (50.4 × 21.7 × 16.5 inches) and it holds 20 of the double trays that the Large Castle and Large Fortress sets came in. When filled, it would weight 450 lbs!

[7] This interesting series of sets, the Imperator all metal building sets, was introduced in 1913. They are described in Chapter XVI of this book. Also found in that chapter are pictures of the model of the Leipzig Main Railroad Station.

[8] Anker Zeitung, No. 1, April 1, 1913, page 9.

[9] Henry Messerschmidt was the son-in-law of the owner of the Block House, Inc., A. Paul Fricke. The Block House was the USA distributor of Anker stones after W.W.I.

[10] Before the Wende it was in the Deutsches Landhaus, 90 Stresemannstraße, in the lobby.

[11] USA Patents: 513,532 (1/30/94); 518,329 (4/17/94); 519,737 (5/15/94); 532,585 (1/15/95); 533,495 (2/5/95); 551,789 (12/24/95); 552,303 (12/31/95); 560,283 (5/19/96); 560,540 (5/19/96); 580,955 (4/20/97); 605,135 (6/7/98); 649,356 (5/8/00); 667,576 (2/5/01); 740,925 (10/6/03); 740,926 (10/6/03); 748,653 (1/5/04); 755,939 (3/24/04).

Additional non-block related USA Patents Granted to F. Ad. Richter, as Inventor: Fortune Telling Apparatus: 631,671 & 631,672 & 631,673 (all 8/22/99)

The author had doubts whether Richter himself was the "true inventor" of these patented ideas.

[12] Frank Hornby, the inventor of Meccano, filed for a patent in 1901 and made his first set in the same year. The set consisted of nine different parts. By 1904 seven more parts were added for a drive system (worm gear, pulleys, pinions, spur gear, contrate gear, etc.). The line totaled three sets. By 1906 the Meccano system had 39 different parts, and there were five sets. In 1909 the metal parts, manuals and sets were revised to their present forms. But the Keller brothers, Rudolstadt, were producing metal and stone bridge sets as early as 1891, so it cannot be said that Richter "introduced" metal building sets.

[13]

Toy Related Patents Held by the Richter Company

Inventor	German #; Date[1]	USA #; Date[1]	Notes & Products
F. Ad. Richter[2] Lilienthal, O. & G.	13,770; 10/8/1880	233,780; 10/26/1880	German Patent Revoked 10/1/1887; Stone Toy Blocks
Otto Lilienthal	30,903; 8/7/1884		automated production
G. Lilienthal	41,233; 11/7/1886	335,707; 2/9/1886	new stone formula
Julius Weiss	67,599; 7/20/1892		Metal construction toy
Julius Weiss	76,747; 2/20/1894		Bridge of 1895
Leopold Gleichmar		644.765; 3/6/00	new stone formula
F. Ad. Richter	133,728; 2/24/01	684,100; 10/8/01	Nickel-Iron Bridge Parts
F. Ad. Richter	135,510; 1/3/02	706,689; 8/12/02	Stones for Saturn Game
August Schütze		709,685; 9/23/02	not used, toy train
August Schütze		741,982; 10/20/03	not used, rolling stock
F. Ad. Richter	166,740; 3/7/05	834,935; 11/6/06	Roofs for Nickel-Iron Sets
August Schütze		819,812; 5/8/05	not used, rolling stock
F. Ad. Richter	226,420; 7/22/09	999,466; 8/1/11	Lacquered Iron Bridge Parts
F. Ad. Richter	227,149; 7/22/09	997,008; 7/4/11	Dach Stein Roofs
F. Ad. Richter		1,015,342; 1/23/12	Iron COMET, filed 2/2/09
Franz Hendrichs	251,187; 2/17/12		All Metal Imperator Sets
Richter & Cie.	271,676; 3/9/13		not used, all metal set
Richter & Cie.	281,079; 6/6/13		not used, stones connected
Richter & Cie.	281,278; 11/16/13		not used, all metal set

[1] Dates (patent in effect) shown in the USA format (M/D/Y). Note: German patents were effective as of filing date; USA patents, as of the issue date.

[2] Richter in Germany as the owner; the Lilienthals in the USA as the "true inventors".

[14] The **Model Building Set** (Modell-Baukasten) should not be confused with the **Artists' Model Building Sets** (Künstler-Modell-Baukasten), which were introduced shortly after W.W.I.

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Chapter VI

[1] Weber worked for the Richter Art Department until his death on September 12, 1907.

[2] See note 21 for Chapter III.

[3] Whether Rische was the designer or only the engraver is not known.

[4] Meyer worked for the Richter Art Department until his death on January 21, 1912.

[5] Comparison of wholesale and retail in company brochures shows that, in general, Richter's pricing gave the retailers a margin of 46.7% (buy for $8, sell for $15).

[6] Just try to buy specific loose blocks from Lego.

[7] During this early period of the AF series, several different cover labels were used, including some of the older "The Building" labels.

[8] German, English, Dutch, French, Spanish, Portuguese, Italian, Danish, Romanian, Hungarian, Czech, Polish, Russian. Later Richter printings can also be found in Slovakian, Bulgarian, Serbian, Croatian, Slovenian, Albanian, Greek, Turkish, Ukrainian, Ruthenian, Arabic, Swedish, Norwegian.

[9] The Loose Stone Catalog, which used the name “Das Bauen”, should not be confused with the Georgens era sets of the same name.

[10] Richter, Architectural Plans, set # 5, first book, fourth edition, Leipziger Lehrmittel-Anstalt von Dr. Oskar Schneider, Leipzig ,1889. pp. inside and rear covers.

[11] The alert reader will have noticed the "8 wooden beams". Stone beams break easily if they are used to support great weights, such as roofs. Wooden beams were introduced because, despite the other problems of wood, it does not break as easily.

[12] Despite the large printing indicated by the printer's mark (883 - 3) only two of these albums are known. One was owned by Dr. Meyer-Margreth, then Walter Plett, then his widow, now it is lost; the other, by Gerhart Bruckmann.

[13] There is a basic logic to the numbering system from the manufacturer's point of view, but not any from the point of view of the customer. The numbers were assigned in rotation, with numbers being given to one set in each series, in order, as shown below:

Alte Folge Set Numbers through Set # 19

	Set Numbers					
Level	First	Second	Third	Fourth	Fifth	Sixth
KK	1	4	8	12	-	-
	2	5	9	13	-	-
GK	3	6	10	14	16	18
	-	7	11	15	17	19

From this numbering sequence a theory has been developed that the original plan called for two series of KK and one series of GK sets (#s 1 through 6) and the second series of GK sets was added when it was determined that the GK sets were more popular. It seems more

probable to the author that Richter decided that there would be no market for two such small GK sets and so he started the second GK series at the second level (#s 4, 5, 6, 7). Also the lack of a fifth and sixth level KK sets has been ascribed to market feedback. But it is hard for the author to believe that these KK series were both introduced and modified all in the same year. Also one must remember the later KK-AF sets, starting with # 20.

14 German, English, Dutch, French, Danish, Polish, Czech and Hungarian all had their own telegraph words. The French telegraph words were used for Spanish, Portuguese, Italian, Romanian and Russian. A few of the USA and UK telegraph words are different.

15 The author has seen a book for the KK-AF set # 22 (899 **A** 5). The book was the same as the standard book, even the cover, except that there was no warning and it stated that the stones are covered by the USA patent. Perhaps Richter wanted to be sure that the notice of the patent, still valid in the USA, was included in sets sold in the U.S.A. But then why not also in the GK sets?

16 "**Supplement Set # 21A**,

"to be used with the Anker Stone Building Sets # 18C or 19A, Alte Folge.

"Due to the large fire on the 12 of June of this year the completed plan books, and also most of the printing plates and drawings for them, have been destroyed. We are therefore not in a position to deliver the supplement set # 21A with the Alte Folge plan book. So that, however, the owners of the Anker Stone Building Set # 21, Alte Folge, can nevertheless receive a fitting supplement set, we have newly assembled one such and with it they are transported to the more favorable Neue Folge.

"This conversion set # 21A, Alte Folge, which comes with the Neue Folge plan book, costs: M 17,00."

Rudolstadt, the 15th of July, 1898.

F. Ad. Richter & Cie."

17 "**The Conversion Set**

"**# 21A Alte Folge,**

"which was to accompany this plan book, was destroyed in the large fire of the 12th of June, 1898, in which all newly printed pages and assembled plan books (and in part also their printing plates and drawings) were lost, so that one must convert to the Neue Folge. This book of the Neue Folge is already more favorable for the building artist.

"Because of the great fire and the resulting necessity of changing the contents of the set, the building of the last page of the old plan book cannot be executed exactly according to the plans. The building artist must make some changes, which ought not to be too difficult for him.

"Likewise the construction of the building on page 1 should not cause the builder any difficulty, even though the front view is missing, because the layer plans for this beautiful building have been executed very precisely. Nevertheless, any one who desires to have the front view will find it in the book # 18, which is sent, post paid, to the builder for M. 2.25. The book # 18 Neue Folge contains very beautifully buildings, so that the building artist's acquisition of the book can be warmly recommended.

"When making the purchase of the next supplement set one should request explicitly the Anker-Steinbaukasten # 20A Neue Folge, Telegraph Word: Schneeball, since this is the only supplement which fits."

(no date known, but certainly after 1898 [because in 1898, the year would have been given as "of this year", and not as "1898".])

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Chapter VII

[1] Neue Folge Tablet Laying sets are advertised in the 1892 U.K. catalog.

[2] Niels Gottlob (Danish, 1928-1992) was this generation's expert on stone shapes. In 1990 he wrote an introduction to the 7th edition of the Stone Catalog (not used) which describes the numbering of the GK-NF stones. The relevant sections of this introduction, which appeared in full in the MLB of the CVA, vol. 13, pp. 63& 64, is reproduced here:

There are only few official sources to the correct numbering of the Anker Building bricks. The factory has published stone lists in many editions and the numbering has been fairly consistent. There was a change of the Nos. 1001 through 1010 to Nos. 901 through 910 because the "Neue Reihe" was introduced starting with No. 1001. This change did not cause any real trouble because none of the stones concerned were ever contained in any box on the market.

Then, in "Anker Zeitung", No. 19 of July 1st, 1928, a special offer appeared on page 108.

More than twenty thousand stones were for sale, and, as the magazine said, "they are stones from our stone list, but manufactured in special dimensions." The magazine also stated that the stones were made for an exhibition building model. (The Fünfhauser Kirche", no picture known.) The special dimensions were indicated by letters a, b, c, and d, but in a very haphazard way, so it is to be suspected that it was never the intention to actually introduce them in the stone list. It was simply an understandable attempt to get rid of some surplus material.

There can be no doubt that many other stones were manufactured by Richter, probably even to private customers' personal wishes, because many more stones than those shown in the official lists and the above special offer have appeared throughout the years and have been shown to the editors of this catalogue. When reasonably sure that such stones were of original Richter make, they were introduced in the catalogue, usually using a suffix if they were just standard stones with one unusual dimension, most often an unlisted thickness. However, one thing is quite certain: we shall never know about <u>all</u> the different stones actually manufactured by Richter throughout the years of the factory's existence. But it is the aim of the editors to find as many as possible.

The official catalogue shows many gaps in the numbering sequence. One can only guess at the reason and shall probably never know for sure. The first gap appears after No. 550 where only a few numbers are used until the octagonal roof stones start from No. 614. Again there are gaps from 642 to 652, from 796 to 805, from 856 to 875, and from 911 to 949.

Then in 1988, at the April meeting of the CVA in Alphen an den Rijn, AV Burghard Probst showed a catalogue made in handwriting and hand drawing by the late Karl Lufsky, in which

almost all the gaps were filled. There were only two gaps left, viz. from 587 to 591 and from 922 (or 928†) to 949. Now, Karl Lufsky surely collaborated with the Richter factory on box 18A, "Neue Serie", and his catalogue must therefore be considered to carry some authenticity. Anyway, for want of anything better and in honor to the great work done by Karl Lufsky, the editors have decided to base the future catalogs on Karl Lufsky's excellent handiwork.

This involves no changes for all the ordinary stones, but for the rare ones several changes have been necessary. A study of the Lufsky collection shows that not all of the special stones have been made according to the usual manufacturing process. However, even the Richter factory used unconventional methods when they supplied the cut roof stones for the "Grosse Burg" and the "Grosse Festung" (Nos. 584, 587 and 588 in the present catalogue), and for a long period made all long beams of wood.

For stones <u>not</u> made by using the original factory process it cannot be decided with authority if they are made by Richter or by somebody else.

Such doubts exist for the following numbers: 556* - 559*, 562*, 563*, 565*, 572* - 579*, 580, 585, 586, 652*, 857 - 869, 915 - 917, 921, 929, 930*, and 949. Parts marked with an asterisk are probably only found made of wood; indeed, the four of No. 652 in the Lufsky collection <u>are</u> made of wood.

All other stones are, to the best knowledge of the editors, made by the Richter factory, taking it for granted that the special offer of July, 1928, are all stones made at the factory.

A few more comments are necessary. There were stones in the Lufsky catalogue that were beyond understanding. They were cut from the 278 series and could, when properly paired, form concave and convex corners, but all angles and dimensions created by the cutting were wholly outside all standard dimensions. They have not been included in the catalogue. The stones 863 - 866, which serve at least one definite (if sophisticated) purpose, had very peculiar dimensions. They have been included, but with "natural" dimensions. Four stones, Nos. 857, 861, 867 and 916 appeared single, without the matching stones to form pairs. The missing stones have been introduced causing a slight rearrangement of the numbering.

And now a final confession. Deep in the hearts of the editors there is a definite feeling that Karl Lufsky did make some of the stones in his catalogue himself; now, nobody could rightfully claim that only those people, who just happened to be employed by the Richter factory, could invent new and useful stone forms. Enthusiastic builders, and Karl Lufsky would certainly range among them, would be far more likely to find really useful new forms. At the factory everybody had to bear in mind that there was a business angle to all the activities, everything invented and put into production had to yield some profit. Well, perhaps not everything - a well-working business must always experiment and run some risks, but a balance had to be found, and in the end the overall net result had to be a profit, of course.

So, taking it for granted that at least some of the stones in the Lufsky catalogue are made by himself, and that perhaps some of the stone forms earlier presented as original Richter may also really be private inventions, even if manufactured to order by Richter (e.g. Nos. 84A,

† Nos. 922 through 927 simply indicated Nos. 22 - 25, 487 and 488 made of wood.

85A, 925), a few stones have been introduced which are known to be private inventions: No. 869, which is a fourth of No. 235, and two of which would obviate the curious ornament on the low rise roof on the Large Castle loggia; No. 921, which is used on the apse of the Large Cathedral; No. 929, a comfort to the many owners of broken spires - put on top of each other, one upside down, they form splendid balusters; and No. 949 making an octagonal cupola possible.

[3] The set KK-NF # 3½ does not need to be labeled as a set, as does KK-NF set # 2, because there is no possibility of confusion between a set and a stone. The same is true of such sets as GK-NF # 2½ and the sets of other series, like DS # 2, Im # 2 or GK-Br # 2.

[4] These widths are the result of the fact that the sides of a 45°×45°×90° right triangle are 0.707 (or $\sqrt{2} \div 2$) times the hypotenuse. These stones have an irregular (not a factor of 1/8th) length. The same can be said of 213 – 217 and lead to the "regular" stones 457 – 461. For example, a distance of 50 mm along the side of a building, but at 45°, would be 70.7 mm. Standard stones would reduce this dimension by 50 mm to 20.7 (20.66) mm. For a proper fit, new stones were needed; 7/8ths, or 21.875 mm, is not close enough. But the approximation that $(\sqrt{2} \div 2) \times 7 = 5$ (instead of 4.95 -- a 1% error) is close enough for construction with Anker stones.

[5] The mosaic and game stones are not correctly identified in the Loose Stone Catalogs and some of the dimensions given are in error. Because mosaic floors are laid as diamonds, the fundamental dimension of these stones is $\frac{1}{2}\sqrt{2}$ times the standard dimension. Thus the real GK mosaic stones are #s 680 (a square 17.68 mm on a side, diagonal of 25 mm), 682 and 683. The KK mosaic stones are #s 692 (14.14 mm on a side, not 15 as shown in the catalog), 693 (also 14.14 mm on a side) and 694 (correctly dimensioned).

[6] "By the end of 1910, at the earliest, the supplement set # 34D will be available in a strong, finely sanded and varnished wood box with sliding cover and metal corners. Size: 440 : 320 : 170 mm. It will contain in four insert trays with nickel plated metal handles: 220 Anker building stones, 374 finely nickel plated iron bridge and roof construction parts, 166 nickel plated screws and a screwdriver. Furthermore: plan book # 35 and a folder with the cross-section drawings, for each building a ground plan outline in full size and a builder's packing plan for all of the stones of set # 35. The already partially completed tall buildings and bridges for the books # 29, 31, 33 and 35 are just grand and will even delight the building artist who has been spoiled by the beautiful buildings of book # 34.

"Since due to the quite extraordinary difficulties which are part of the construction of the large splendid buildings it is, unfortunately, impossible for us to put out as books those already finished buildings from books # 29 to 35, and seeing that the inquiries about the supplement set # 34D become ever more lively, so we have decided to deliver first of all the set with the large, new plan book # 27. The plans for high buildings and bridges contained in this book are much larger than the buildings in book # 34 as a consequence of the patented iron roof construction parts and therefore this book will also fully satisfy the owners of set # 34.

"The set # 34D with the stone contents, the patented iron parts and the copybook # 27 indicated, plus the layer book, will be put on the market at the price of M. 48.50. The owners of this supplement set will later only need to buy the above-mentioned books and layer folders when they appear. The next plan book, # 29, will probably be available in June 1909.

The full packing plan can only be delivered with the plan book # 35. We believe we may be allowed to warmly recommend to you the acquisition of the set # 34D with the plan book # 27.

"If you happen to own in addition to the set # 34 one or more of our Anker Bridge Sets, then we ask you, before making the purchase of the set # 34D, to get in contact with us since in this case some of the contents of the set can be omitted.

F. Ad. Richter Cie., Rudolstadt.

0811 – 500“

From the above, and the existence of a few of the plans from books #s 31 through 35, questions have arisen as to whether maybe GK-NF # 34D was offered for sale. One (VE) 34D has been found, from the Meyer-Margreth – Plett collection. Are some sets which their owners believe to be VE # 27 B in actuality # 34D, as the above would seem to imply? Did owners of GK-NF set # 34 have the opportunity to buy this set, with just the book # 27, and perhaps later book # 29 also? Set VE # 27B and the books for both VE 29 and DS 29 (the roof construction in the view on page 16 differs) have been found. This book could be purchased direct from the factory just before W.W.I., but by then set VE # 27B was obsolete. The set DS # 27B, Giessen, is also known.

7 The printer's marks being referred to are found on the first page of the plans, not the cover of the booklet. Covers, which also have printer's marks, were printed in various languages for specific markets. The press runs of these covers were smaller and their printer's marks are less useful to the Anker collector.

8 Use as the year seems to have been limited to some annual press runs of catalogs.

9 The author has not examined enough of the other plan books, KK-NF and both AF sizes, to make an estimate of their production.

10 Unfortunately, high acid paper was used for a number of the Alte Folge plan books, especially the ones from the early 1880s, as well as plans printed between the start of W.W.I and the end of the VEB era. These plans are very delicate and easily damaged.

11 These oak chests have doors in the front, or a vertical sliding front. The trays of stones are individually supported in the chest, and the trays may be removed by sliding them out the front opening.

12 All of these Large Castle sets in chests were found in the USA.

13 A few supplement sets have empty trays, which were also counted towards the supplement letter.

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Chapter VIII

1 Thomas Edison patented the phonograph in 1878, so within twenty years Richter was a major user of his invention. The author speculates that, in view of this fact, Edison's endorsement of the stone building sets is not so surprising.

2 See endnote 11 for Chapter V for the list of patent numbers.

[3] German patent 133,728, filed February 24, 1901. US patent dated October 8, 1901, # 684,100. Printer's marks from April, 1901 (014 **I** 20).

[4] At this point the author is tempted to quote Anna Russell's comment on Der Ring des Nibelungen: "I'm not making this up, you know." # 1 has already been used as a KK-AF set, a KK-AF stone, a GK-AF stone, a KK-NF set, a KK-NF stone, a GK-NF stone, and a KK bridge set supplement. Now it is used to identify metal parts. But the reader should not relax, # 1 (and many other numbers) will be used as a "positive" identifier several more times. Thankfully the company eventually noted that a Roman numeral "I" is detectably different from the Arabic numeral "1".

[5] The numbers GK-Br 28A and 34A are not official Richter numbers, but made up by the author. However, these would have been the logical sets, fitting nicely with the three box division of a GK-NF set # 34 -- GK-NF sets #s 20, 20D and 28D.

[6] The "Anchor Bridges" identification continued to be used in the USA for the second series of GK-Br supplement sets, but the pictures were the same as for the European sets.

[7] The printer's mark on an Imperator set # 6 (018 **Nord** 1) shows that packing plans, in addition to books, were printed several years before the sets were introduced.

[8] This statement is true for the even numbered GK-Br and even numbered Imperator sets, as well as for the odd numbered KK-Br sets, as there were no KK Imperator sets made. But the second series of Imperator and VE sets all had odd numbers, and they did, indeed, share plan books. (See note 14 for Chapter XI.)

[9] The name **Anchor Bridges** was used in the USA for the both the first and second series of GK-Br supplement sets; **Anchor Blocks** was used for this stand-alone series of sets and later for the second series of Imperator sets. It is incorrect to use "**A-B**" as the identifying abbreviation of the "Anchor Bridges" sets.

[10] Some KK-NF sets do have English language code words, but these sets were made for the U.K., not the USA.

[11] One set, with a "New York scene" cover label but the packing plan on the inside of the cover, has the identification Imperator # 6 and a very early (018) date. It is most likely that this date is not indicative of the date of introduction of the A - B series, as the outer label is marked "Copyright 1902". Since the Imperator # 6 and the A - B # 5 had the same contents and packing plan, there was no reason why the company should not have used the European inner label on a USA box.

[12] The author's favorite American plan is a cavalry fort in the West. The Indians are peacefully camped on the parade ground inside the fort. The soldiers are standing guard outside, protecting the Indians from some unseen danger.

[13] Some Anker scholars believe they have identified two different series of KK-Br sets, like the two GK-Br series. In fact, this identification is the result of confusing the change from Telegraph Words to Passwords with a new series of sets.

[14] Metal parts #s 56 through 79.

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Chapter IX

[1] The most confusing example is the **Br** supplement sets. The GK-Br sets were changed just as the Password system was introduced. The result was that the first series of GK-Br sets has Telegraph Words, but not Passwords; the second series of GK-Br sets, which are different from the first series in many respects, have Passwords but not Telegraph Words. The KK-Br sets were never changed and have both Telegraph Words and Passwords. The result has been to believe that the lesser known KK-Br sets changed in step with the better known GK-Br sets.

[2] Danish catalog 1910 **D** 10, from October, 1900.

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Chapter X

[1] It is the author's opinion that Richter acquired the Keller Brothers company only because of his status as the most important businessman in Rudolstadt. To have allowed the closing of the Keller factory, which made basically the same product as Richter, would have been seen as anti-Rudolstadt. At least one of the Keller brothers continued to work, for Richter, after the purchase. The reader will remember that they had worked for Richter in the early 1880s, in his stone factory, prior to starting up their own company.

[2] The Trademark Book in the Anker Factory in Rudolstadt (in 1992, now in the archives at the Old City Hall, Rudolstadt) shows that the first use of the trademark "Comet Baukasten" is "8,VII,93", or July 8, 1893. The same book indicates that "Komet" was first used on "12,V,96" and was registered in Germany (# 16,445) on 11,XI,1904. The German trademark register shows the dates for # 16445 (for Komet) to be the application on July 18, 1895 and the registration on May 12, 1896. The use was for "games and toys, except for those of rubber and metal, in particular stone building sets." (Spiele und Spielwaren, ausgenommen solche aus Gummi und Metall, insbesondere Steinbaukasten.)

[3] The Anker puzzles, as well as other toys outside the scope of Anker blocks, will be covered in Chapter XVI.

[4] The German trademark register shows that registration for ORION was applied for on March 7, 1902, and granted on May 5, 1902. While the business was listed as "stone block factory" (Steinbaukastenfabrik), the goods covered were the games of the Richter Company, with the building sets almost an afterthought. (Kugelspiele, Mosaikspiele, und sonstige Legespiele aller Art, Brettspiele, Baukästen.)

[5] ORION 2 has 36 stones but the USA catalog says 35 and the German catalog 37; ORION 3 has 47 stones, just as in the USA catalog, but the German catalog states 55; ORION 5 has 81 stones but the USA catalog says 80 and the German 86 (the same as COMET 5). ORION 7 has 117 stones as the German states. An ORION 6 has not been found, but the German catalog says it should have 98 stones.

[6] The Trademark Book in the "Traditions=Kabinett" in the Anker Works in Rudolstadt shows the first use as "TURUL" on September 13, 1912.

[7] The Trademark Book shows registrations in the following languages: Italian, Greek, Serbian, Bulgarian, Ruthenish, Croatian, Bohemian-Slovenish, Polish, Hungarian, Albanian, Romanian, and Turkish.

* * * * * * * *

Chapter XI

[1] The USA 1905 catalog -- 059 **NY** 17,5 -- gives no indication that a change was to be made. Therefore one may conclude that the 1905 Christmas sales were based on the first series of metal sets. Richter certainly knew that the best time to change a product line is when the down-stream inventories are at a minimum.

[2] Stones are generally identified by number. Since the GK stones are by far the most common, the prefix GK-NF is understood and not used unless there is the possibility of confusion with GK-AF or KK stones. The color may be shown by a letter suffix, with B meaning blue (blau), R meaning red (rot), and G meaning yellow (gelb). Stones were occasionally made in other colors with S meaning black (schwartz), Gn or V meaning green (grün), Gr meaning gray (grau), Br meaning brown (braun), and W meaning white (weiss). Richter established the use of small letter suffixes to identify variations from the standard stone and capital letters for colors. Thus the arch stone # 98a is a variation of the regular # 98. To eliminate the possibility of confusion with, say, # 208b, the Club of Anker Friends agreed in 1993 to use capital letters for colors, just as Richter did in his Loose Stone Catalog. This agreement is in contrast to the more common use of small letters for both colors and stone variations. For example, is a stone # 208b a blue # 208 (more likely) or is it the second variation of # 208 with no color designation? Since the use of capital letters is so new to most present-day Anker scholars, the reader should always be alert for confusion between colors and variations.

[3] German patent # 166,740, filed March 7, 1905. USA patent 834,935.

[4] The lengths are 50, 62.5, 75, 100, 125, 150, 175 and 200 mm.

[5] See note 6 for Chapter VII. The 1909 German language catalog offered the set for M. 38.--, as did the 1910 Retailer's Price List.

[6] The abbreviation "NS" is used for the Neue Serie.

[7] Richter was establishing that, in the large caliber (GK), odd numbered sets came with metal parts and even numbered sets had only stones. There was no need to further identify the "with metal parts" sets, other than note that they were "GK". The odd and even numbered series were to be co-equal.

[8] The author has tried to use "best source" information. In general, in declining order, they are 1) examination of the sets or packing plans, 2) catalogs, 3) secondary source information from Anker scholars. In this case, the author has chosen Mr. R. Butz's (Zürich) information over the catalog references, as Mr. Butz is the foremost authority on the nickel plated iron sets and is very seldom wrong about his identification of sets.

[9] A comparison, for example, of the building plan books from the sets Im # 9, Ansbach, (inner cover **Im 9**: 0510 - 3) and VE # 9, Anklam, (inner cover **GK 9**: 0810 **Nord** 2) will show that 11 of the 17 pages are identical. See note 14.

[10] Stones in Sets Im # 5A, Sayda, and VE # 5A, Saxdorf:

Stone #	Im 5A	VE 5A	Dif.	Stone #	Im 5A	VE 5A	Dif.	Stone #	Im 5A	VE 5A	Dif.
1G	6	10	4	1R	2	2	-	3G	4	2	(2)
3R	4	4	-	4G	2	2	-	4R	2	2	-
5R	-	2	2	15G	2	-	(2)	15R	4	2	(2)
17G	-	2	2	17R	4	4	-	19G	2	2	-
19R	2	6	4	21R	-	2	2	31G	6	6	-
31R	6	6	-	38G	4	4	-	38R	-	4	4
58G	2	2	-	66G	-	2	2	69G	8	3	(5)
69R	4	8	4	72G	-	4	4	79G	4	4	-
98R	1	1	-	101G	1	-	(1)	102G	1	-	(1)
108R	2	-	(2)	110R	2	-	(2)	208B	2	-	(2)
210R	4	4	-	210B	4	-	(4)	212B	4	-	(4)
288B	1	-	(1)	Totals					90	90	-

[11] The chart at the end of this chapter shows the conversion set relationships in NF sets.

[12] See note 6 for Chapter VII. The factory did supply the # 34D set, without the full sets of plans, as promised in that 1908 announcement.

[13] The roofs look a little like the stone covered roofs used for exhibition models as early as 1885. Needless to say, there has been some confusion -- generally causing people to date early exhibition models as being built after 1910. The other explanation, that this new metal series had existed as a development in the factory for 25 years while the company tried all of the other designs of supplementary metal parts, is too absurd to even contemplate.

[14] This development led to even more informative printer's marks. For example the inner cover of the building plan book from VE # 5 shows the printer's mark: "**G K 5** 093 -- 6 z. T. 085", which means that these plans for set GK (VE) # 5 were printed in March 1909 and that "in part" (z. T. = zum Teil) the plans were taken from the GK-NF book # 6, which was printed in May, 1908.

(See the chart on the next page.)

[15] The dual color, blue/red, roof stones were introduced in May 1913, so the very first sets had all-blue stones. When production of dual color stones was stopped is not known, but DS sets made after WW II (from the VEB era) were only available with all-blue stones.

[16] The mirror image stones are not paired in the numbering, but are arranged in two "folded" numbered sets. The folded pairs are 663-670, 664-669, 665-668, 666-667 and 671-678, 672-677, 673-676, 674-675.

[17] Sets which fall into this questionable area are DS #s (GK-NF #s) 1 (2), Eger; 1¼, Eisfeld; 1½ (2½), Elbing; 3 (4), Elster; 3¼, Ems; 3½ (4½), Erbach; 1A (2A), Haag; 1¼A, Hagen; 1½A (2½A), Halle. Note that the passwords are definitely in the DS series of words.

14 cont.

A Comparison of the Plans for Sets Im, VE, and DS # 9
(identical plans are shown in **bold type**)

Page #	Im # 9	VE # 9	DS # 9
1	**Turkish Triumphal Arch**	**Turkish Triumphal Arch**	**Turkish Triumphal Arch**
2	Tram Station	**Villa, front and back**	**Villa, front and back**
3	**Italian Town Gate**	**Italian Town Gate**	**Italian Town Gate**
4	**Convent Church, Front**	**Convent Church, Front**	**Convent Church, Front**
5	Rear of the Same Church	**Town Gate**	**Town Gate**
6	Viaduct	**Town Bridge**	**Town Bridge**
7	Bridge over a River	**Railroad Bridge**	**Railroad Bridge**
8	**Bavarian Village Church**	**Bavarian Village Church**	**Bavarian Village Church**
9	**Small Hunting Castle**	**Small Hunting Castle**	**Small Hunting Castle**
10	**Abbey Portal**	**Abbey Portal**	**Abbey Portal**
11	**Gymnasium**	**Gymnasium**	**Gymnasium**
12	Viaduct	**German Guardhouse**	**German Guardhouse**
13	**Park Bridge**	**Park Bridge**	Frontier Station
14	**Mediæval Police Station**	**Mediæval Police Station**	**Mediæval Police Station**
15	**Old Saxon Throne**	**Old Saxon Throne**	**Old Saxon Throne**
16	**Parish Church**	**Parish Church**	**Parish Church**
17	Foot Bridge	**Large Bridge**	**Large Bridge**

18 There exists a hand drawn supplementary sheet with the changes necessary to convert the VE # 29 plan book designs to DS metal parts and the roof tiles. That drawing shows that 20 roof stones were supplied. The factory did supply at least one set DS # 27B, which exists today in factory-new, still in factory wrapping paper. The packing plan has not been examined. This set includes the large under-arch bridge (metal 187 – 190, plus the accessory parts) even though it is no additional metal parts are required to build the DS 29 designs.

19 There is no reason to believe that there would have been any difference in the stone inventory of sets VE # 27B and DS # 27B. Also see the previous note regarding the roof stones.

20 Conversion sets resulting in set DS # 7, Erlangen, include **5U**, **Babitz**, from DS # 5 and VE # 5; **Im 5U**, **Baden**, from set Im 5, Im 4A, GK-Br 4A; **DS 5¼U**, **Babstadt**, from VE 5¼; **DS 5½U**, **Backnang**, from VE 5½; **Im 5½U**, **Balingen**, from Im 5½; **DS 6U**, **Bamberg**, from GK-NF # 6, VE # 5 and Im # 6A; **DS 6½U**, **Bantin**, from GK-NF # 6½, Lemberg; **DS 6½U**, **Barop**, from GK-NF # 6½, Liesnig. In addition, the packing plans for two different sets marked 5A NY, both leading to DS # 7, and the packing plan for a different set DS 6U, also leading to DS # 7, were found in the Anker factory by the author in 1992. There was no indication of the sets being converted from, except cryptic notations, such as that the NY sets had been temporary sets for New York.

21 These lots of conversion stones converted DS 5 to GK-NF 6 (4 stones for 15¢ plus postage), DS 7 to GK-NF 8, DS 9 to GK-NF 8, DS 11 to GK-NF 10, DS 13 to GK-NF 12, DS 15 to GK-NF 14, DS 17 to GK-NF 16, DS 19 to GK-NF 18. For each of these DS sets there was also a regular conversion set to the GK-NF series offered by the New York office.

[22] These sets, identified by Arabic numerals should not be confused with the Iron Bridge Sets, which were identified by Roman numerals (I, II, III, IA, and IIA).

[23] The generally agreed on date is December 25, 1910; his obituary states he died on December 22nd. His death registration proves that December 25, 1910, is correct.

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Chapter XII

[1] It can be established that the offices were open by these dates; some of the offices may opened earlier.

[2] It is hard to know exactly when these various amenities were added, but most of them are described in a 1893 company brochure. Rudolstadt began electrification in 1911; Heidecksburg still did not have electricity in 1990.

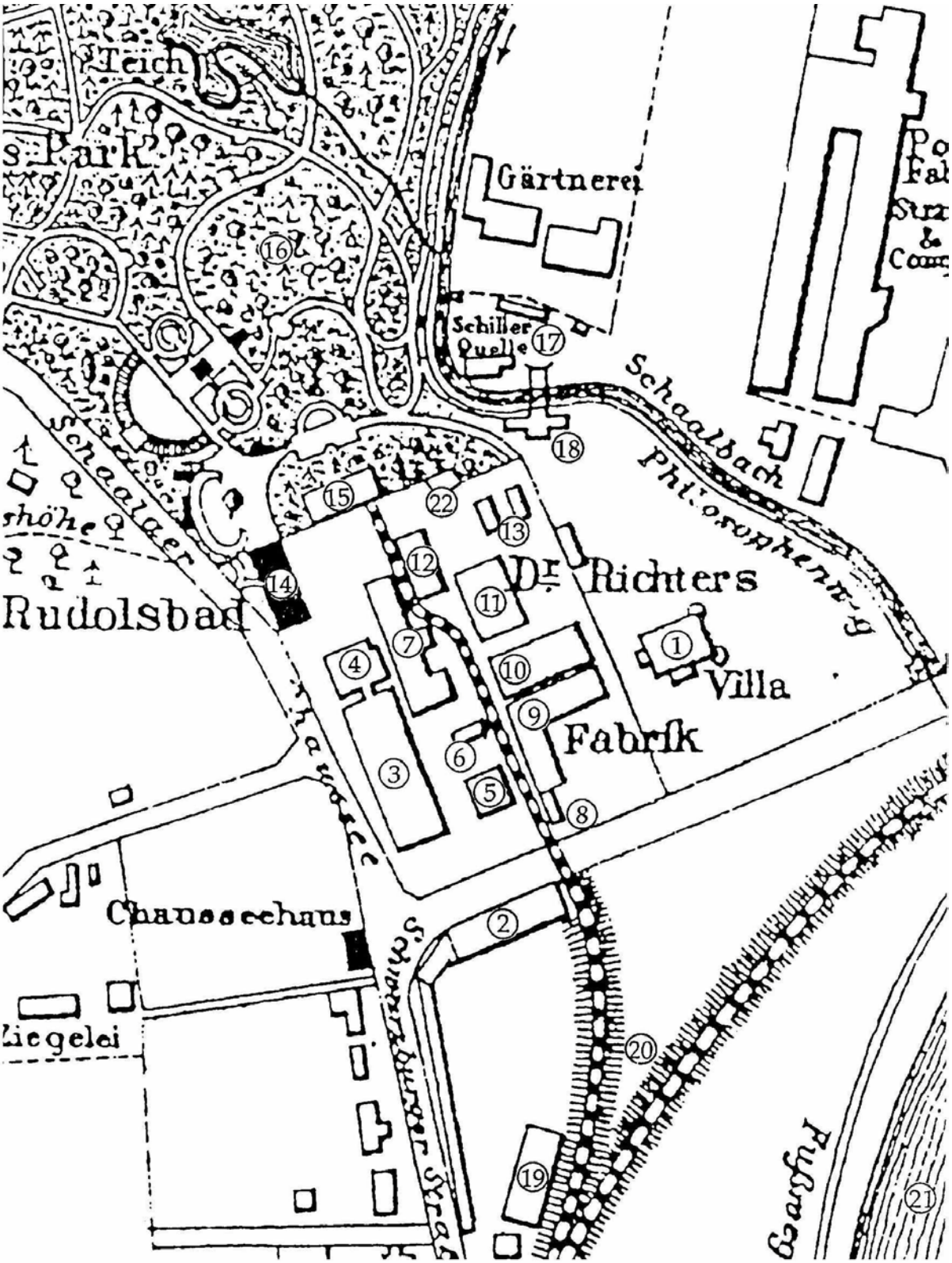
[3] This park became a military base in the 30s and was used after WW II as the main Russian armor base in the southern part of the DDR.

[4] Paulinzella is still there. It is probably the best currently existing example of Cluny reform church architecture of the 1100-1125 period. The location is so isolated that the setting is very much like it was when the land was given to the church in 1096. This isolation, and the reformation, has meant that no modifications or modernizations were done after construction and the building was not extensively used as a quarry for stone. But the area is so beautiful that now (1994), with reunification, many new houses are being built.

[5] When making a comparison of the engravings with each other and the map, one must keep in mind that engravings are not photographs, so there can be errors, omissions and artistically inspired alterations. The map shown on the next page, from 1909, will allow the reader to identify the buildings.

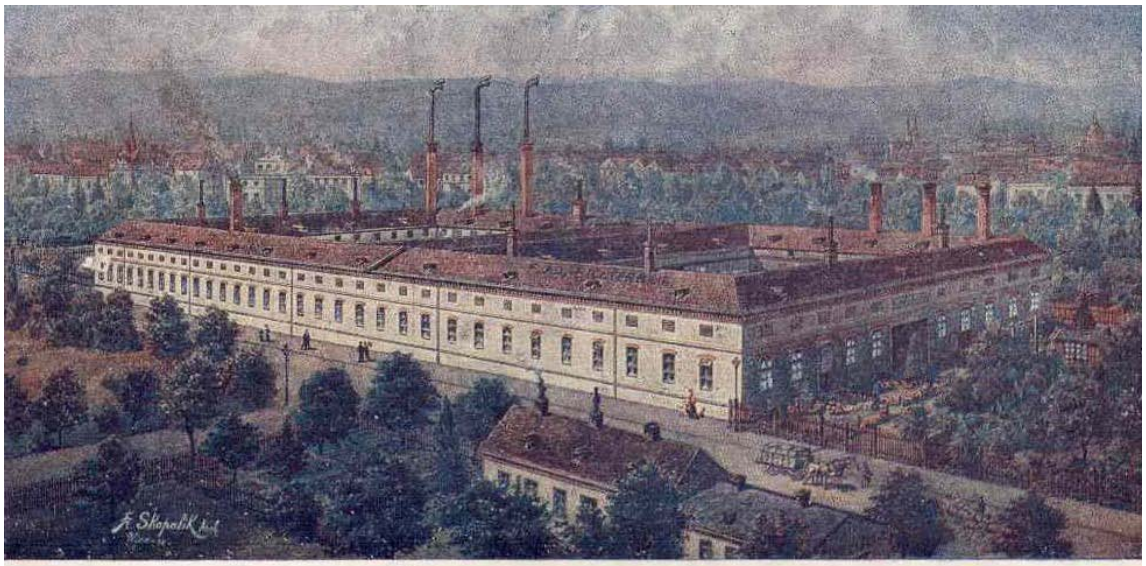
Building Use in 1909

1.	Richter Villa	12.	Printing Plant
2.	Stone Factory	13.	Residence of Employees
3.	Soap & Chocolate Factories	14.	Rudolsbad Hotel
4.	Box Factory & Furniture Manufacture	15.	Pergola
5.	Administration	16.	Rudolspark
6.	Water Tower	17.	Schiller Spring
7.	Medical Products Factory	18.	Gardener's Residence
8.	Entrance with Gate Keeper's Box	19.	Railroad Station
9.	Kitchen & Restaurant	20.	Railroad Siding
10.	Music Factory	21.	Saale River
11.	Steam Engine and Generator Plant	22.	Original Stone Factory, in 1882



Richter's Rudolstadt Anchor Works in 1909

6



Ansicht der Fabrik in Wien, XIII. Eitelbergergasse 6—14.

7 Landeszeitung Rudolstadt, July 15, 1928

8 Richter Company, A Tour of the Company, 1906.

9 The music business can be divided into two sections -- music boxes and gramophones, both with their appropriate music. (Trade names in bold type.)

Music boxes: The company made two different types of music boxes: the Libellion and the Imperator.

Libellion: The name "Libellion" was known before Richter began, actually acquired, his music box business. Libellion was already in use by Zollner in Leipzig in 1890. Also in 1890 there a company named Thorst & Richter, on Bayersche Straße 81 in Leipzig made a "musical mechanism with steel sounding tongues". Richter was not a relative F. Ad. Richter of Anker fame. Thorst & Richter exhibited at the New Year Fair two "proof" models of a new mechanical music works. Gustav Oswald Thorst took action against the company and Franz Otto Doss also challenged the management of the company, with the result that Gottlob Ernst Werner took over and renamed the company "Leipzig Music Works Libellion, Schutzhold & Werner". The company failed in 1893 or 1894 and was taken over by the "Leipzig Educational Materials Institution" (Lehrmittel-Anstalt). The “Firma Leipziger Lehrmittel-Anstalt von Dr. Oskar Schneider” was founded in 1877. In 1880 Schneider left the company and by 1882 only one person, Dr. Tietz, was left. He sold the company to Richter at the end of 1882 and quit. Richter transferred his “Central Verlag” into his Lehrmittel-Anstalt. The Lehrmittel-Anstalt bought the Libellion rights and then transferred its fabrication to Rudolstadt. It should be noted here that a Verlag is a publisher; a Druckerei is a printer. They are separate operations; there is no indication that Richter ever had a printing operation in Leipzig.

In Rudolstadt the Libellion used as a music source a long, cardboard, steel-hinged sheet, which looks like a book when folded up. The Libellion was redesigned and then exhibited at the Saxony-Thuringian Industry and Trade Show in Leipzig in 1897. The new Libellion was

well received, as shown by the critique of Paul de Wit in the Newspaper for Instrument Construction and gold medals won in Chicago (1893), Paris (1900) and St. Louis (1904).

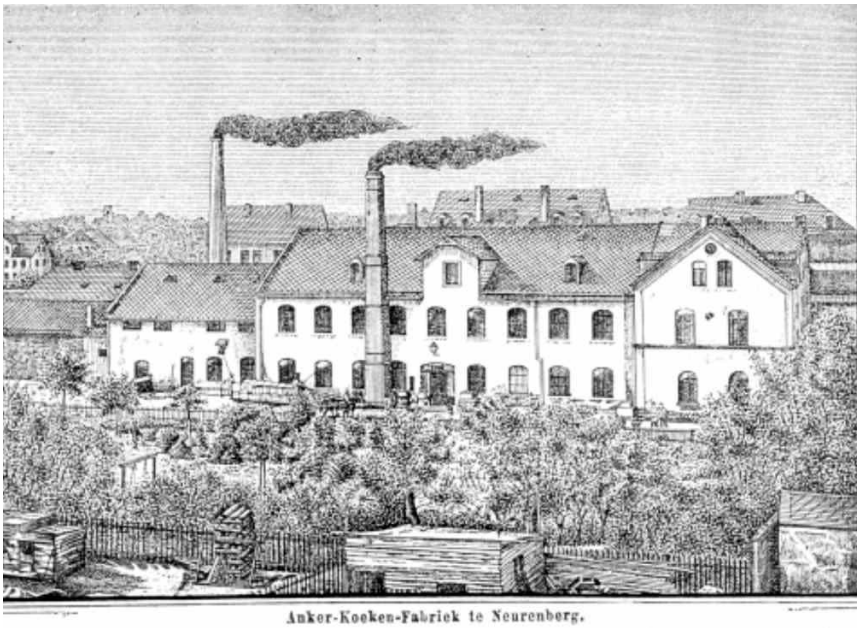
Imperator: The date of origin of this model is not known. But it certainly existed in 1898, when the Newspaper for Instrument Construction reviewed Richter's exhibition at the Leipzig Easter Fair. Instead of the books it used a circular metal plate. It received high praise for its beautiful sound, good arrangement and beautiful form. Both table and floor models were offered.

Gramophones: The 1910 catalog lists five models: **Mellophone**, **Colophon (Kalophon)**, **Imperator**, **Mikado** and **Verophone**.

The last known Anker (Rudolstadt) models were given names famous in music -- Beethoven, Verdi, Amati, and Mozart are known. There may be others. These new gramophones had an internal horn, in contrast to the usual external horn. In 1913 the gramophone business was sold to a new combine named Deutsche Gramophone. The Anker brand gramophones without horns created a great sensation at the 1913 Leipzig Spring Fair. The manufacture of Anker gramophones was moved to Dippoldiswalde, where it was moved into the building of a bankrupt cabinet maker. (Along with the music box company Kaliope.) The Anker recording studio in Berlin was included in this sale. The factory was in Dippoldiswalde; the studio and offices, in Berlin. The location of the manufacturing of phonograph records and music box metal disks and Libellion "books" is unknown. Needles were sold under the Caesar and Anker brands; the sound reproducing heads were sold under the names Comet and Anker. Gramophone records were made in great quantities, both under the Anker label and a number of different private labels. Richter advertised heavily that buyers should look for the Anker trademark, thus working against his own private label customers.

[10] This division was also sold by Richter's heirs between 1911 and 1913. It was moved by the buyers to Dresden.

[11] Sold by Richter's heirs to Seims in 1912; land and buildings sold to him in 1914. Not moved from Untere Baustraße 13, Nuremberg. Today, Seims is part of Schöller ice cream.



Anker-Koeken-Fabriek te Neurenberg.

[12] This electric train was not a Richter development; it was obtained from a Nuremberg toy company. The local newspaper account describes this toy train, which was a featured exhibit. One might wonder why Richter did not acquire this toy electric train line.

[13] During the last few years of Richter's life the Anker records and gramophones were displacing the stone building blocks as the company's prestige product line.

[14] Many products have made this transition, including Benedictine and Coca-Cola.

[15] Anker Pain Expeller is featured in the Deutsches Museum in Munich as one of the three major German advances in medicines of the 19th century. And examination of the recipes by a noted German pharmacologist, Dr. Frölich of Hannover, in 1992, established that Richter's medicines contained a number of active ingredients.

[16] The councils were called "Handelskammer", which correctly translates into Chamber of Commerce. These chambers of commerce were oriented towards the major industrial firms, rather than local retailers, as in the USA.

[17] These councils were started in 1895. The Rudolstadt Chamber of Commerce (Handelskammer) was authorized by Günther, Fürst zu (Prince of) Schwarzburg, on March 22, 1901, and the chamber was created on October 15, 1901. Seven members were appointed -- three from Rudolstadt, two from Stadtilm, one each from Bad Blankenburg and Ansbach. At the first meeting, held on December 28, 1901, Richter was made chairman. On April 2, 1902, Günther confirmed the Chamber of Commerce of the Principality (Die Handelskammer des Fürstenthums Schwarzburg-Rudolstadt).

[18] The state archive is the archive of the old principality of Schwarzburg-Rudolstadt and is housed in the prince's castle, Heidecksburg. This archive is distinct from the archives of the City of Rudolstadt and the County (Kreis) of Rudolstadt.

[19] "There were a total of 2,000 factory workers in Rudolstadt in 1910." Unbehaun, Lutz; Schönes altes Rudolstadt (Beautiful Old Rudolstadt); Hain Verlag, Rudolstadt, 1994; ISBN: 3-930215-06-3.

[20] The inventory list belonging to Oskar Richter has survived. The list was made for the Principality of Schwarzburg-Rudolstadt by the accountant for the Chamber of Commerce. It was published in the Rudolstädter Heimathefte, vol. 36, #s 3/4 and 5/6, March and May, 1990, and reprinted in the AHN # 4, pp 23 - 32, June 1989. (English translation exists.)

[21] For more information on Richter's early life see Chapters III and IV.

[22]

Richter

Name	Date of Birth	Died
Friedrich Adolf Richter	12/12/1846	12/25/1910

Wives

Name	Date of Birth	Married	Died	Children
Marie Craemer	12/28/1849	11/18/1869	1/28/1901	9
Caecilia (Lilli) Wolffarth	5/11/1868	10/3/1901	4/25/1948	2

Children

Name	Date and Place of Birth	Age and residence at Richter's death in 1910	Notes	Children (known)
Children of Richter's first wife				
Clara	10/23/1870 Duisburg	40 Nürnberg	Married Ernst Zoeth (born 1862) in 1889. Died 10/14/1956	3
Cordine Margarete Louise (Lina)	5/15/1872 Durisburg	38 Rudolstadt	Married Bernhard Freiherr Röder von Diesburg (born 1855) in 1912; remarried by 1917 to Otto Balzer. Died 1/15/1949	1
Friedrich Adolf (Dolf)	11/9/1873 Luxembourg	37 Rudolstadt	Married Emma von Necker (born Bender but widowed) in 1912. Died 8/28/1943	1
Johanna (Hänse)	12/26/1874 Nürnberg	36 Berlin	not married, Ph.D. in Sanskrit. Died 9/26/1946	---
Oskar	11/9/1876 Nürnberg	34 Halensee bei Berlin	Married Margarete Weise (born 1885) in 1904. Died 9/27/1951	3
Adele	2/3/1878 Nürnberg	---	Died on 12/6/1878	---
Else	3/17/1879 Rudolstadt	31 Nürnberg	Married Karl Kempe (1879) in 1905 died ca. 1960	3
Walter	2/28/1880 Rudolstadt	30 Leipzig	Married; Ph.D.; died 12/29/1964 in Olten	---
Kurt	5/15/1882 Rudolstadt	28 Naumburg	Married Sofie Franke (born 1890) in 1911; Dr. of Law. Died 4/27/1945	3
Children of Richter's second wife (both born in Rudolstadt)				
Eva	1/11/1904	6 Rudolstadt	Never married Died 09.09.2008	---
Hans Gerhard	9/11/1910	1 Rudolstadt	Married Ruth Rappke. Died 4/25/1945	3

[23] Conversation with children of Clara, Else and Oskar in 1994 during the Stone Building Set Exhibition at the Richter Villa in Rudolstadt.

[24] A whole chapter (XIV) is devoted to the New York office.

[25] "Fifty Years of Richter's Factory in Rudolstadt"; Landeszeitung Rudolstadt, July 15, 1928.

[26] The whole company was reorganized on August 16, 1921. The old company, F. Ad. Richter & Cie, was divided into four companies, including two stock (A.G.) companies, so examination of the details of just the Stone Block Company does not give a true picture of the financial situation of the heirs or the company prior to the reorganization. Also, during 1921, Germany's currency was undergoing a major inflation. The total value of M 7,133,615 was converted into 485,843 new "Gold Marks". The full stone block business was relocated

in Stone Block Factory, which was the building across the street (Schwarzburger Chaussee), which building was valued at M 200,171. Inventory and machinery was valued at M 200,779 and other "property of the Richter siblings" (Geschwistern Richter) at M 566,786. In exchange, the heirs received 1000 of the 3,750 shares, valued at M 1,000 each. Each of seven heirs (Clara, Lina, Dolf, Johanna, Else, Kurt and Oskar, but not Walter who, in 1919, had traded his shares in company for ownership of the Olten branch and the right to sell Anker products in Switzerland and France. Note that Walter also did not participate with the others in their 1922 attempt to recover their money from the sale, by the U.S. government during W.W.I, of the New York office. See Chapter XIV.) received 123 shares and the company F. Ad. Richter & Cie received 139. The Corporation Pfalz in Speyer (A. Eversbusch) received 2,375 and "Firma Edwin Degen GmbH, Berlin" got 375 (in exchange for the M 375,000 owed by the Richter company). In 1921, the company paid a 4% dividend plus a 6% "super" dividend. At the first annual meeting on April 8, 1922 the stock was expanded to 7,500 shares. Eversbusch bought 1,000 and the Bank for Commerce and Industry's branch in Ludwigshafen (Bank für Handel und Industrie, Niederlassung Ludwigshafen a. Rh.) bought 2,750, on August 1, 1922, at a 10% premium. Sales (Erlöse) were generally not reported in the Annual Reports, only changes in the balance sheet. But in 1925 sales totaled RM 327,660; in 1926, RM 415,584; in 1927, RM 335,002.

[27] During W.W.II he was accused, by his wife, of stealing gold he had buried in the garden of her house. He spent several years in prison before it was learned that she had made the whole story up. In the 50s, Walter Richter, who had been out of jail for a number of years, based on doubt, got his conviction reversed. This case, one of the most publicized cases of judicial error in Switzerland, was well reported in the Swiss press. Particular reference is made to the 1955 summer issues of "Wir Brückenbauer", a weekly magazine put out by the Migros retail chain.

[28] Rudolstadt Home Magazine (Rudolstädter Heimathefte) Vol. 17, # 9/10, 1971.

[29] The address is Pörztal 5, rented and rent paid by the VEB chemical company. The building is still there, as is the dump into which all of the stones and other materials were discarded in 1963. Molds from the earlier china factory are also in this dump.

[30] A several page report on this meeting was sent to those Anker Friends who attended the 1957 meeting but did not attend the 1958 meeting. From this report we know who the speakers were and what they chose to speak about.

[31] Ton und Kugel GmbH is in Sachsenbrunn, a small village a few miles northeast of Eisfeld. There were people living in Rudolstadt, like Erwin Lutz (purchasing agent) and his wife (who worked in the stone factory) who knew the recipe and how to make stones. They were never asked for information, though their existence was well known. Why???

* * * * * * * *

Chapter XIII

[1] The picture section of the Austrian price list # 1, good until March 1, 1925, has on page 1 the cover label of the Neue Reihe sets. Page 2 of the same section pictures nine Neue Reihe designs, one each from sets #s 110, 114 and 116, two from # 112, three from # 118 and a picture of some building stones of the Neue Reihe. Two other NR # 118 designs are pictured in catalogs, for a total of 5.

[2] The quantity of 531 is taken from the 1925 catalog. (Two different # 116 sets examined have 363 and 367 stones -- a difference is four # 1021 stones. The 1931 New York catalog states 367 to be correct.) Thus the increase in the number of stones over set # 116 is just 166 stones. It seems set 118 was to be a two layer set with one layer the same as 114.

[3] The arch numbers 1101, 1102, 1104, 1105, 1106 and 1107 were the ones used. Numbers 1102 and 1107 are arches and #s 1101, 1104, 1105, 1106 are all abutments with 1105 being a corner and 1106 being a center abutment. Set 118 adds stone # 1103, a longer arch.

[4] A special building plan book, # 206A, was also produced in 1913, about eight months after the plans for # 206 and two months after the plans for # 208. If this book was not part of the original plan, but an afterthought, the timing shows that it was done before W.W.I so that Hurlbut was probably the designer. The # 206A book requires the use of sets # 206 and # 8, Lennep. Thus 206A is **not** a set; it is a building plan book. All of the # 206A books of plans found to date have been in the USA and with USA covers.

[5] The first mention of "Hurlbut" is in the USA 1888 catalog. It includes a letter from Mrs. G. H. Hurlbut of Belvidere, IL, which praises Anker sets and mentions how her sons had built with the sets for seven years.

[6] The printing history of the 200 series building plans shows the hesitation and confusion surrounding the decision to put these sets on the market. The table gives the printing dates (month/year) of the building plans.

Set #	206	206A	208	210	206 & 208	206 & 208 & 210
Building Plans	10/12	6/13	4/13	6/11	----	----
Layer Plans	----	----	8/13	4/14	----	----
Packing Plans	6/13	----	4/13	???	6/13	11/13

[7] The author's father received a set # 206 for his birthday in August, 1913.

[8] 4×2G, 2×10G, 4×13G, 2×15G, 4×18G, 4×22G, 8×35G, 4×36G, 4×45G, 36×47R, 4×58G, 8×66G, 3×79G, 8×477G, 4×481G, 10×506G, 6×510G, 12×512G, 4×513G, 4×514G, 18×542G, 18×543G, 18×544G, 18×545G, 4×902G, 2×956G, 2×957G, 6×958G, 6×959G, 2×960G, 2×961G 18×993G, 4×999B, 32×1000B.

[9] If the stone numbers cited are, in fact, "roof plates", the temple design uses 66, of the 96 in the set.

[10] For more information on the Anker Newspaper (Anker Zeitung) and the Anker Club (Richters Anker-Steinbaukasten-Verein) see Chapter XV.

[11] The tympanium is the triangular section of wall at each end of the temple's roof. The whole triangle, including the cornices, is called the pediment, while the area enclosed by the cornices is the tympanium. The tympanium was usually carved and/or decoratively painted.

12 The printing history of the sets of the Landhaus (# 300) Series:

Set #	301	303	305
Booklet Cover for Building Plans	11/12	1/13	8/22
Building Plans	7/13	11/12	----
Booklet Cover for Layer Plans	----	2/13	8/22
Layer Plans	7/13	1/13	----
Packing Plans	1-2/13	2/13	----

13 Set # 303A came out in 1922.

14 The author does not want to put too much emphasis on the numbering of stones. Certainly the numbering is arbitrary, but stones are grouped by both logical extension and use in sets. For example, stones #s 504 through 521 are simple rectangular stones, but with an odd dimension. No. 504 is 25 × 25 mm in cross section but 43.75 mm (1¼ cube) long. Thus #504 fits between stones #s 3 and 4 in a "by dimension" arrangement. The obviousness of a stone of this size to the Richter architects is proven by the existence of stone # 16 (½ × 1 × 1¾) between stones # 15 (½ × 1 × 2) and # 17 (½ × 1 × 1½). Stones #s 505 through 509 are 25 × 62.5 mm (1 × 2½) in varying thicknesses up to 25 mm (# 505), 18.75 (# 506), 12.5 (# 507), 9.375 (# 508) and 6.25 mm (# 509). Stones in this group are found in the 200, 300 and 400 series sets. These stones can be very useful in construction, but any requirement for a large number is generally an indication of an error in construction.

15 The printer's mark on the side label of set # 412A, Freistadt, is "187 - 0,5", which is July 1918, and thus before the end of W.W.I. But one label does not prove that the whole set was on the market in 1918. The February 1919 catalog lists these sets through # 412A. A catalog with the printer's mark 173-15 includes #s 410A and 412.

16 Thus the four colors in which the quarter circle roof stones came are accounted for. Initially gray, then yellow (to be painted), and then red or blue in the two color sets.

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Chapter XIV

1 See note # 24 for Chapter XII.

2 From the printer's marks the chronology of office moves has been established:

Address	From	To
310 Broadway	6/1887	3/1892
17 Warren Street	3/1892	8/1894
215 Pearl Street	6/1895	5/1911
74-80 Washington Street	1/1912	3/1919

The gaps, August 1894 to June 1895 and May 1911 to January 1912, may be narrowed as new printings come to light.

4 $30,190 in 1914, $33,023 in 1915, $36,506 in 1916.

5 The USA label shows a "three generation" family (father, mother, grandfather, son and daughter) building together; the set is titled STONE BLOCKS, with the additional notation "of absorbing interest to adults as well as children". Later, the smaller sets have a "UNION BUILDING BLOCKS" label, with the same picture and other wording. The building was made with dual color arches and cannot be reconstructed with any known Anker blocks. Quite frequently the label on the inside of the cover is an "Anchor" brand label.

6 Wilson ran for re-election on the platform that he had kept the USA out of the war.

7 As a marketing technique, in 1914, Fricke had started the Amateur Architect's League, which is described in some detail in Chapter XV. Since all purchasers of Anker stones had received an invitation to join this group at no cost, Fricke had developed a list of Anker builders, from which he could solicit dealers.

8 Even as late as 1939, any builder who ordered direct from the Block House was offered a "dealership", and dealer discounts.

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Chapter XV

1 The second, third and fourth issues of the Anker Zeitung are undated, but their publication dates have been discovered in other printed works of the company. Issue 3 was put out in May, 1921, and issue 4 in May, 1922. The magazine was published in German only.

2 Stone numbers 526 through 547 were announced in the first issue of the Anker Zeitung.

3 GK-NF sets #s 6, 12, 20, 28 and 34 cost $2.00, $9.00, $23.00, $48.00 and $81.00 respectively. The Large Castle supplement set cost $40.00 and DS # 19 cost $26.00. Second and third prizes were $15.00 worth of blocks; fourth through seventh prizes $ 7.50; eighth through 17th $3.00; 18th through 37th $2.00.

4 Gustav Lilienthal and others have seized on this issue of the Anker Zeitung to back up their assertion that Richter claimed to have invented the stones, thus denying Lilienthal of the credit due him. The author finds it hard to blame Richter for an article written almost a decade after his death. This same issue is the source of the wrong date for the factory fire in 1898.

5

Issue	Date	Issue	Date	Issue	Date	Issue	Date
1	4/1913	7	6/1924	13	12/1926	19	7/1928
2	7/1919	8	Fall 1924	14	4/1927	20/21	12/1928
3	5/1921	9	12/1924	15	7/1927		
4	5/1922	10	4/1925	16	10/1927		
5	10/1922	11	9/1925	17	12/1927		
6	5/1923	12	12/1925	18	4/1928		

Anker Magazine (Anker Magazin), (# 22) December 1930

The Stone Building Sets (Der Steinbaukasten) # 23 (10/1931) - # 42/43 (May/June 1933)

Toys and Teaching Materials (Spielzeug und Lehrmittel) # 44 (July 1933) - #53 (April 1934)

[6] By 1925 there were local groups in Allenstein, Berlin, Dresden, Halberstadt, Jena, Ludwigslust, Munich, Saarbrüchen, Stuttgart and Zittau. Plus the two headquarters in Rudolstadt and Vienna.

[7] Only two issues were published in 1928.

[8] Two # 19R and eight # 31G, which would bring the number of filler stones to 32 in a "true" NS # 12 set and would require 22 filler stones in a "true" NS #8B.

[9] These LE sets, identified with Arabic numerals, should not be confused with the sets of the Roman numeral LE (lacquered iron) series or the VEB Iron Bridge sets. Brochures from about 1925 show DS bridges built with NS stones.

[10] "Bei den kleineren Kästen ist dies (die restlos veralteten Vorlagen zu modernisieren) gelungen, ohne den Steininhalt der alten Stammreihe (2-34) zu verändern, und es ist erstaunlich, was in dieser Hinsicht geleistet worden ist." -- "For these smaller sets this (the modernization of the completely obsolete plans) was successful, without changing the stone contents of the basic series (GK-NF sets #s 2 through 34), and it is astonishing, in hind sight, what was done." From Lufsky's correspondence with a retired teacher and Anker builder Mr. Göritz, Erlangen. They never met but corresponded for years in the 60s.

[11] Obviously Lufsky did not know about the NS plans for these sets already in the hands of the factory. It should be noted that Lufsky was not the only Anker builder who developed plans to continue the Neue Serie. G. H. Bolhuis of the Netherlands created 30 designs for NS # 12, and others for the # 34, Lyck. Bolhuis attempted to sell these plans, without success, to the factory after W.W.II.

[12] We are fortunate to have Lufsky's papers, which includes some correspondence and all of the designs, eight of each, for NS #s 12 through 18. Copies of the papers are in the C.V.A. Archive in the Netherlands.

[13] There is no doubt that excellent buildings can be designed for the contents of the original sets. A Dutch builder, G. H. Bolhuis, submitted a whole new group of designs for the # 34, Lyck. He was informed by the factory that, although his designs were excellent, the decision had been made to change the contents of the sets above # 18A.

[14] From the papers in Lufsky's estate, the contents of his redesigned NS # 18A and the building plans are known. Most noteworthy are the inclusion of many thin (1/8 cube; 3.125 mm) blue stones, which were used to eliminate the yellow or red lines which are often seen in Anker building roofs. The new factory made a limited (due to the inclusion of four old stones # 282) production run of this set.

[15] Lufsky wrote of his regret that he, in the West, could not participate in the development of this set. It seems that the existence of the Classical Set in New York was unknown to the either the VEB company or Lufsky.

[16] Although the packing plan is not known, Lufsky recorded in his hand drawn stone catalog those stones he said were found in the Pioneer set. The total of these stones will not

completely fill the box; these stones occupy 182 of the 192 cubes in the box. Also a "factory-fresh" Pioneer set has been examined and the packing recorded. That set did **not** come with a packing plan. It should be noted that the stones in both sets are sufficient to build the designs in the plans. The stones # 897G can be substituted for stones # 879G.

Stones in the VEB Set "Pioneer", per Lufsky

Stone #	Quant.	Stone #	Quant.	Stone #	Quant.	Stone #	Quant.	Stone #	Quant.
1G	32	15G	16	19G	98	26G	32	28G	16
31G	24	34G	16	38G	24	69G	32	210G	24
897G	32								

Stones in the VEB Set "Pioneer", per examination of a set

Stone #	Quant.	Stone #	Quant.	Stone #	Quant.	Stone #	Quant.	Stone #	Quant.
1G	32	15G	19	19G	100	26G	32	28G	18
31G	24	34G	16	38G	24	69G	28	86G	2
210G	24	220G	2	879G	26	897G	6	1 tube of cement	

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Chapter XVI

[1] See Chapter III for details on the early (Richter) history of this type of game.

[2] The 1888 USA Anker Catalog states, regarding Anker Tablet Laying: "The designs of the book accompanying each box represents many pretty figures such as stars, rosettes, crosses &c. which may be formed with these tablets, and which owing to their harmoniously arranged colors have a beautiful appearance. Tablet Laying is not only an interesting occupation, but also a highly educational one for all children above four years of age, more especially for girls. It cultivates their sense of beauty and affords plenty of scope for the exercise of their ingenuity, as they can construct innumerable patterns of their own invention besides those shown in the designs."

[3] Because the mosaic floors are laid in diamond patterns, the main difference between the stones in the Mosaic Sets and the Täfelchenlegen Sets is that the mosaic square stones have "standard" Anker dimensions (25 mm for GK and 20 mm for KK) on the diagonal, not on the side. Thus the sides of mosaic square stones are $\frac{1}{2}\sqrt{2} \times$ a "standard" measurement -- 17.67 mm for GK and 14.14 mm for KK squares. Squares from Laying Tablet Sets have "standard" dimensions on their sides. Mosaic Sets included only rectangular and 45° × 45° × 90° triangular stones while the laying tablet sets also had 60° × 60° × 60° equilateral triangles, 30° × 60° × 90° triangles and parallelograms which are the equivalent of two equilateral triangles. The Mosaic Sets came in KK and GK, while only GK Laying Tablet Sets are known. Sets based on 18.75 mm squares are often incorrectly identified as KK sets.

[4] The stones were identified by number with a "T" for (Täfelchenlegen) and a capital letter for color. Thus the first stone listed is # 1TG, a yellow stone 25 × 25 × 6.25 mm (the

exact same as GK-NF stone # 62G, or GK-AF stone # 59G, as it is identified in this catalog). Mosaic Set stones came in four colors -- red, yellow, blue and black.

[5] The special Puzzles and Pastimes catalogs, printed in 1912 and 1913, contain suggestions on how to conduct "Puzzle Parties", but there was no revival of the Social Game.

[6] Puzzle # 9 was originally named CROSS BREAKER (Kreuzzerbrecher) but was quickly renamed CROSS PUZZLE (Kreuzspiel).

[7] Slocum, Jerry and Botermans, Jack; **Puzzles Old and New**; Plenery Publications International bv, De Meern, the Netherlands, 1986. ISBN: 0-295-96350-6.

Slocum, Jerry; **The Tangram Book**; Sterling Publishing Co., Inc, New York, 2001. ISBN: 1-4027-0413-5.

Slocum, Jerry; **The Anker Puzzle Book**; The Slocum Puzzle Foundation, Beverly Hills, 2012. ISBN: 978-1-890980-09-2.

[8] Stone numbers 695, 696 and 759. The stone numbers 697 through 700 are textured stones, from some (at present) unknown game. These stones first appeared in the 1914 Loose Stone Catalog.

[9] Richter's Puzzles and Pastimes, F. Ad. Richter & Co., Rudolstadt, Germany, 1912.

[10] German Patent # 135,510. USA Patent # 706,689

[11] Karola sets had numbers like 301, 302, 303 and 304. Of course the Karola sets are not related in any way to the Country House (Landhaus) building sets, which are also numbered 301, 303 and 305.

[12] The Piccolo puzzles are not actually new puzzles, but are re-issues of the larger versions. The size is reduced by $\frac{1}{2}\times\sqrt{2}$ (.7071). Piccolo T1 is the same as # 13 "The Tormentor" (Der Quälgeist); Piccolo T2 is the same as # 12 "Pythagoras"; Piccolo T3 is the same as # 8 "The Anker Puzzle" (Kopfzerbrecher) except that the parallelogram stone, # 703, in the Anker Puzzle is replaced with two triangular stones, # 721, in the Piccolo.

[13] Mah Jong sets were priced from M. 0.65 to over M. 100. The company put out a special Mah Jong set price list.

[14] Anker Wood Set. Password: **Holz** M.8 (From pages 31 & 33, Richter Catalog, 136-25)

[15] These stones are based on a 30 mm cube, thus not really compatible with either the 25 mm GK or the 20 mm KK stones.

[16] Basic sets #s 00, 0, 1, 2, 3, 4, 5, 6, 7; supplement sets #s 1a, 2a, 3a, 4a, 5a, 6a.

[17] Basic sets #s 20, 21, 22, 23, 24, 25, 26; supplement sets #s 20a, 21a, 22a, 23a, 24a, 25a.

[18] For the uncolored series, #s ZR 0, ZR 1, ZR 2, ZR 3, ZR 4; for the colored series, #s ZR 10, ZR 11, ZR 12, ZR 13, ZR 14.

[19] German Patent # 251,187, filed on February 17, 1912, and issued on September 27, 1912. The Richter Company filed another patent on a modification to this patent. This new patent, # 271,676, was filed on March 9, 1913, and issued on March 17, 1914, but this

modification was not used in the Richter all-metal construction sets. British patent # 3646/13; USA patent 801,005a.

[20] "in Wort und Bild in der nächsten Anker=Zeitung" and "unsere 3 Meter hohen Antennen aus Eisenteilen des Metallbaukastens, angeschlossen an den Radio=Fernverkehr!"

[21] Several Anker builders, who are also Meccano builders, have made beautiful bridges of the combined materials.

[22] The choice of these Roman numerals could lead of confusion with the Anker Metal Building Sets, which also used the same numbers -- 0, I, II and III, plus 0A, IA and IIA.

[23] "Eine Verbindung dieser Kästen mit Steinbaukästen is nicht möglich."

[24] "er fügt sich jedem Baumaterial: den Ankersteinen, den Holzklötzchen..."

[25] For Lacquered Iron.

[26] For roof (Dach)

[27] Although the DS stones were packed in their own cardboard boxes in the DS sets, there is no indication that these boxes of roof stones were offered for sale as a separate item. Of course a person who ordered the loose DS stones in set # 7 would undoubtedly have received the stones in this custom package.

[28] Berg-u. Tal-Schleifenbahn für Garten und Haus

[29] Ausstattungs-Figuren

[30] Blumen in Töpfen

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Chapter XVII

[1] The best way to contact the Club van Ankervrienden is by e-mail. The CVA has standardized the e-mail addresses of its officers so that changes in personnel will not impact contacts:

Chairman (Hans Walstra)	voorzitter@clubvanankervrienden.nl
Treasurer (Wim Lely)	geld@clubvanankervrienden.nl
1st Secretary (Arend Segaar)	bestuur@clubvanankervrienden.nl
Membership Secretary (Reijnold v.d. Poel)	info@clubvanankervrienden.nl
Archive (Ad van Selms)	archief@clubvanankervrienden.nl
MLB Editor (Hans Cornelissen)	mlb@clubvanankervrienden.nl

The First Secretary is comfortable fluent in Dutch, German, French and English. The USA contact is George F. Hardy, 6 Deer Path Road, Palmyra, VA, 22963, **USA,** tel.: (434) 589 8752; Internet: georgeh@ankerstein.org. There are many Internet web sites devoted to Anker information, including http://www.ankerstein.org/. This web site, like most Anker web sites, contains links to many other Anker web sites.

[2] CVA-Archive; Attn: Ad van Selms; Rigolettostraat 49; NL-2555 VN 's-Gravenhage; **NETHERLANDS**. (Native Dutch, excellent German and English) The archive itself is at Rigolettostraat 28; NL-2555 VS 's-Gravenhage; **NETHERLANDS**. Tel: 070 212 04 86

[3] At first, only a child's sized table was provided, but, due to the number of adults who squeezed themselves up to this low table, a second adult height table was added.

[4] The author recently turned down an opportunity to buy "like new" stones at 10 for a dollar. Why? Because every single one of the stones was extremely common stone; there was not even one interesting, rare or unusual stone. The offer might have been attractive to someone who was making up the most common sets, but not a builder/collector.

[5] The common 1 through 4 scale: Grade 1: like new. Grade 2: used but in very good condition; Grade 3: has had hard use (many stones with quite rounded corners, some of the more delicate stones broken and glued); Grade 4: poor condition (stones missing or containing stones made in Europe during W.W.I). In general the scale of prices is 125% for grade 1; 100% for grade 2; 75% for grade 3; 30% (or less) for grade 4.

[6] Due to their limited retail distribution, the author keeps a few of the new Anker sets and puzzles on hand for sale to people who cannot find them locally. The sale of these sets is not a business and no credit cards can be accepted. Profits, if any, go to the CVA. You can contact the author as shown above in note 1 of this section. Prices are found on: http://ankerstein.org/html/NEW.HTM

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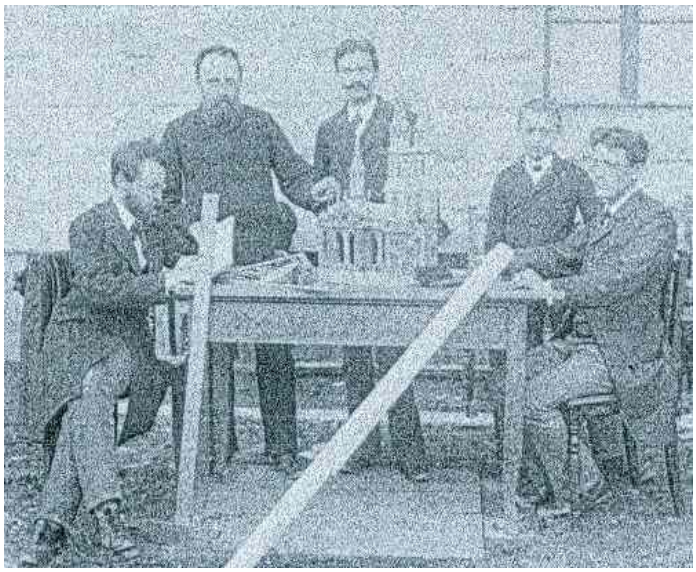
Photographs & Pictures

1886 - Management Team

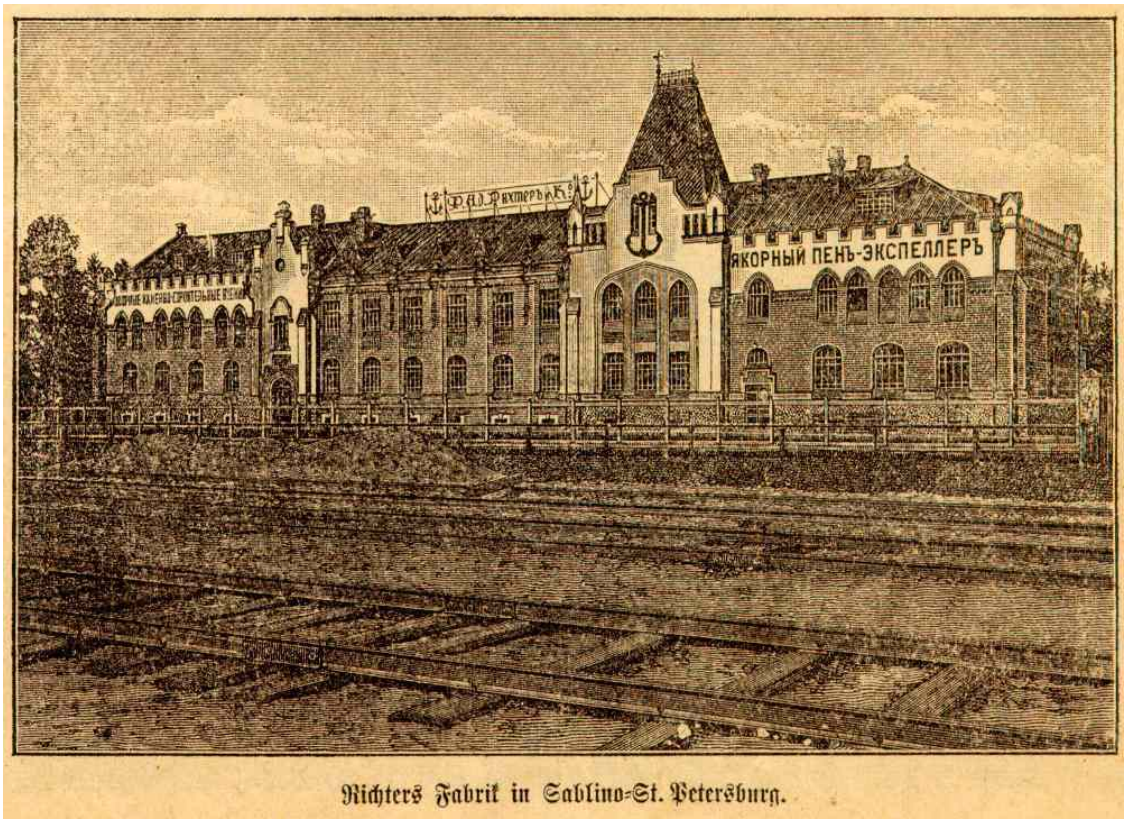


1886 - Richters Kunst Anstalt

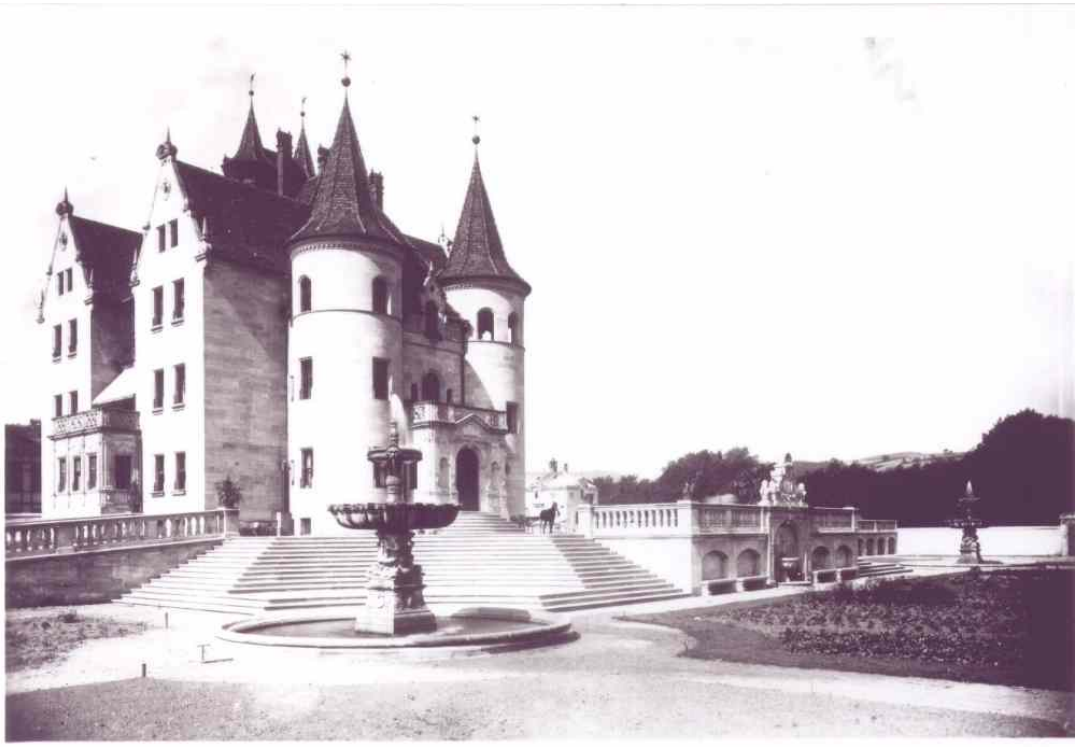
ca. 1889 - Richter's Family

1905 - Richter's Family

Pörztal Factory



Richters Fabrik in Sablino-St. Petersburg.



Richter Villa (when new)

Anker Factory - 2010 - Breitscheidstraße 95, Rudolstadt

Passwords and Telegraph Words

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183	KK-NF #A	KK-NF single layer Supplement Sets
184	KK-NF #B,C,D	KK-NF multiple layer Supplement Sets
185	KK-Br #(A)	KK-Br Bridge Supplement Sets
186 - 187	GK-AF #	GK-AF Basic Sets
188 - 189	GK-AF #A	GK-AF Supplement Sets and Conversion Sets
190 - 191	GK-NF #	GK-NF Basic Sets
192 - 193	GK-NF #A	GK-NF single layer Supplement Sets
194	GK-NF #B,C,D	GK-NF multiple layer Supplement Sets
195	GK-Br #(A)	GK-Br Bridge Supplement Sets -- First Series
196	GK-Br #(A)	GK-Br Bridge Supplement Sets -- Second Series
197	Im #	Imperator GK Bridge Sets, First Series
198	Im #A	Imperator Supplement Sets, First Series
199	A-B #(A)	USA GK (Imperator type) Bridge Sets
200	Im #	Imperator GK Bridge Sets, Second Series
201	Im #A	Imperator single layer Supplement Sets -- Second Ser.
202	Im #B,C,D	Imperator multiple layer Supplement Sets
203	VE #	Nickel Plated Iron Series Sets
204	VE #A	Nickel Plated Iron Series single layer Supplement Sets
205	VE #B,C,D	Nickel Plated Iron Series multiple layer Supplements
206	DS #	Lacquered Metal Parts and Roof Stones, Basic sets
207	DS #A	Lacquered Metal and Roof Stones, single layer Supp.
208	DS #B,D	Lacquered Metal and Roof Stones, multi layer Supp.
209	NS #(A,B)	Neue Serie -- sets with "a-arches"
210 - 212		Converstion Sets
213	LE #(A)	Lacquered Iron Sets
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216	4##(A)	Fortress Series Sets
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219	Mo #(A)	GK and KK Mosaic Basic and Supplement Sets
220 - 224		Puzzles, Wood Sets, Games, Etc.
225 - 228		Accessory Figures, Crèche, AF and NF

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Telegraph Words
KK-AF
Basic Sets

Set #[1]		Stones	German	English	Dutch	French	Danish	Polish	Czech	Hungarian
0		18	Abel	Adore	Abel				Abel	
	1	30	Abfahrt	Arm	Vertrek				Arch	
2		34	Album	Bow	Album				Baba	
	4	51 or 2	Apfel	Dark	Appel				Bez	
5		63	Arche	Ear	Ark				Bot	
	8	92	Band	Harm	Band				Buk	
9		119	Baum	Ice	Boom				Cep	
	12[2]	182	Birke	Man	Berk				Dar	
13		259	Blatt	Nap	Blad				Den	
	12A*	311	---	---	---					
20		449	Igel	Wit	Egel	Chine			Dýka	
	20*	461	-----	-----	-----				Džbán	
22		720	Isar	Complex	Isar	Harz				
24		956	Isartor	Velvet	Isarpoort					
26		1,199	-----	Vessel	-----					

[1] Set numbers are divided into the two different series of sets. They merge at # 22.

[2] The deluxe version is # 31, Dattel (German), Van (English), Dadel (Dutch).

* These two sets were introduced in 1890 to even out the jump from set # 12, Birke, to set # 22, Isar.

Passwords and Telegraph Words

KK Supplement and Conversion Sets

Note: The Supplement and Conversion Sets are *not* the same sets.

Set #	S • C[1]	To	Telegraph Words								
			German	U.S.A.[2]	U.K.	Dutch	French[3]	Danish	Polish	Czech	Hungarian
0A	S = 22	2•	Ebach	Advance	Advance	Beek				Hlásny	
1A	S = 33	4•	Eber	Armful	Armful	Ever				Hlava	
2A	S = 40	5•	Edda	Bowler	Bowler	Edda	Hesse			Hoch	
4A	45•66	8•5	Erz	Darkness	Darkness	Erts	Inde			Hora	
5A	56•66	9•5	Fackel	Earring	Earring	Fakkel	Japon			Horst	
8A	90•168	12•7	Feder	Harmless	Harmless	Pen	Liban			Hřib	
9A	140•151	13•7	Fischer	Ironical	Ironical	Mooi	Londres			Hrot	
12A[4]*	129•117	12A•7	Forst	Mission	Mansion	Vorst	Metz			Husovský	
12A[5]	S = 266 or 7	20•	Form	Mantle		Vrij					
12C[6]*	150•166	20•9	Förster	Mint	Marvel	Vorstin	Meule			Husinec	
13A	190•209	20•9	Franz	Napkin	Napkin	Frans	Meuse			Hvězdéř	
13B	S = 461	22•	Knabe	Fact	Fact	Knaap					
20A	271•140	22•9	Greif	Witness	Walnut	Zijde	Parma			Jih	
20B	S = 507	24•	Konkav	Concave		Concaaf					
20C*	258•135	22•9	Greifbar	Whisper	Whistle	Hond	Disque			Jíní	
22A	236•181	24•11	Griechenland		Strawberry	Griekenland	Grèce			Jiskia	
24A	243•165	26•13	Grimm		Struggle	Grim	Lille			Jitro	
26A	C = 172	•17	Grimmbart			Meteoor	Transition			Jméno	

1	"S • C" means that **different** sets with the same identification were sold as **S**upplement sets, remaining within the AF series, and **C**onversion sets, which resulted in a NF set. Note the different number of stones and the different resulting sets.
2	The USA adopted the UK Telegraph Words in 1892.
3	The French Telegraph Word was also used for Russian, Spanish, Italian and Portuguese.
4	This supplement set results in the basic set # 12A, no Telegraph Word.
5	This supplement set results in set # 20, Igel, not the set # 20, no Telegraph Word, in the same series.
6	This supplement set converts the basic set # 12A, no Telegraph Word, to set # 20, no Telegraph Word, in the same series.

* These three supplement sets were introduced in 1890 to even out the jump from set # 12, Birke, to set # 22, Isar.

Passwords and Telegraph Words
KK-NF
Basic Sets

Set #	Stones	Password	Telegraph Words							
			German	English	Dutch	French[1]	Danish	Polish	Czech	Hungarian
0	23	-----	Rabe	Rabbit	Kaaiman	Cable			Rab	
1	30	Lage	Rabenfeder	Race	Kaap	Cachet	Daddelpalme		Rábí	
3	65	Lauben	Raddampfer	Radish	Kaasmes	Cage	Damspil		Rada	
3½[2]	68		Radieschen		Kaaswinkel	Cabot			Rádce	
5	116	Lehrte	Rapsfeld	Raisin	Kachel	Calcul	Delphin		Radost	
7	259	Lemgo	Ratsheer	Raspberry	Kalkoen	Camp	Depot		Ráj	
9	400	Liebau	Rebstock		Kansel	Canne	Dessert		Rajka	
11	583	Limburg	Reichsfahne		Kaplaars	Caporal	Diadem		Rákos	
13	751	-----	Reiherfalk		Karavaan	Carnet	Dialect		Rakušan	
15	932	Lingen	Reisfeld		Karwei	Casino	Diamant		Rampouch	
17	1,142	-----	Reitbahn		Katrol	Cave	Diamantring		Ranec	
19	1,320	Linz	Rembrandt		Keet	Cerf	Digel		Rašelince	
21	1,534	-----	-----							

[1] The French Telegraph Word was also used for Russian, Spanish, Italian and Portuguese.

[2] 3½ contains 3 pieces of nickel plated iron, one # 1 and two # 2.

KK - NF

single layer

Supplement Sets

Set #	Password	Stones	Telegraph Wrods							
			German	English	Dutch	French[1]	Danish	Polish	Czech	Hungarian
0A		19	Saale	Sable	Maan	Pache			Sáček	
1A[2]	Mainz	37	Sage	Saddle	Maandag	Page			Sad	
3A	Malmedy	56	Sandberg	Saffron	Maaswerk	Paix	Facultet	Sadbya	Sádelnice	Sajtár
5A	Marburg	143	Sänger	Salad	Machtspreuk	Palme	Fajance	Sadzawka	Salaš	Saláta
7A	Marten	141	Saumpferd	Salt	Magneet	Paon	Falk	Sakwa	Samospráva	Sámfa
9A	Meerane	183	Schach	Sardine	Markpaal	Paroi			Samouk	
11A	Meissen	168	Schild	Savour	Marmer	Patin	Farver	Salwa	Saně	Sarj
13A	Melle	181	Schilfgras	Scale	Mast	Pavé	Fasaneri	Samolub	Sazeč	Sárkány
15A	Meppen	210	Schlossberg	Sceptre	Matgoud	Pensée	Fersken	Sandomirka	Sbor	Saru
17A	Merzig	178	Schlossuhr	Sculler	Meelzeef	Perle	Fidibus	Sardonik	Sedlák	Sáska
19A[3]	Milspe	214	Schnee	Scythe	Meestoof	Pétrin	Figenblad	Satyra	Sedmihlásek	Sav

[1] The French Telegraph Word was also used for Russian, Spanish, Italian and Portuguese.

[2] 1A came, for a time, with three pieces of nickel plated iron metal, one # 1 and two # 2, and plan book Imp 3 .

[3] This set also included 32 iron roof (not bridge) parts.

Passwords and Telegraph Words

KK-NF

multiple layer
Supplement Sets

Set #	through	Stones	Password	Telegraph Words							
				German	English	Dutch	French[1]	Danish	Polish	Czech	Hungarian
7B	9A	324	Parchim	Tafelglas		Paal	Sable			Tábor	
9C	13A	532	Pasewalk	Tagebuch		Pacha	Sagaie			Tanečnik	
11B	13A	349	Passau	Tanz		Pakhuis	Saisson			Tekutina	
11C	15A	559	Pegau	Tanzbär		Paknaald	Salle			Téleso	
11D	17A	737	Pegnitz	Tanzbein		Palet	Salut			Tělocvična	
15B	17A	388	Penig	Taucher		Paneel	Sanau			Tetiva	

[1] The French Telegraph Word was also used for Russian, Spanish, Italian and Portuguese.

* * * * *

KK-Imperator

single layer supplement sets

(These sets were never sold.)

Set #	Stones	Metal	Password	Telegraph Words							
				German	English	Dutch	French[1]	Danish	Polish	Czech	Hungarian
1A				Stacket	Silver	Moer	Poirier				
3A				Stammtisch	Simulation	Moerbei	Poitrine				

[1] The French Telegraph Word was also used for Russian, Spanish, Italian and Portuguese.

Passwords and Telegraph Words

KK-Br

Bridge (supplement) Sets

Set #	Password	Supplement to set	Stones	Metal[1]	Telegraph Words							
					German	English	Dutch	French[2]	Danish	Polish	Czech	Hung.
3	Barby	KK 3	38	18 + ? + 16	Bachforelle	Bachelor	Baal	Bachelier	Baad		Bajkář	
5	Bautzen	KK 5	81	36 + ? + 32	Backfisch	Bailiff	Bad	Bagatelle	Baldachin		Basník	
7*	Belgard	KK 7	135	54 + ? + 44[3]	Backstube	Balance	Bagger	Balance	Ballon	Benetis	Běhoun	
9	Berent	KK 9	235	80 + ? + 44	Balken	Bargain	Bajonet	Ballotage	Barkskib		Beseda	
11	Berlin	KK 11	315 (311)	118 + ? + 44	Ballschuh	Basement	Bakboord	Banane	Basar		Bleskovec	
3A	Raguhn	KK 5 + Br 3	43	18 + 16 + 16	Rosenbusch	Rhyme	Kleefstof	Congé			Roura	
5A	Rastatt	KK 7 + Br 5	54	22 + 4 + 12	Rosenfarbe	Rice	Kleigrond	Conseil	Drinværk	Robotnik	Rovina	
7A*	Ratingen	KK 9 + Br 7	100	22 + 8 + 4[4]	Rosenstock	Riddle	Klemhaak	Conser-vation	Dronning	Rodzina	Ručej	Rözse
9A	Remagen	KK 11 + Br 9	97	38 + 0 + 34	Rotbuche	Rightness	Klikspaan	Contri-bution	Drosselstær	Rola	Rukáv	
11A		???	?	?	Rotholz	Rivage	Klimop	Coquille	Drue	Rondel		

[1] Metal parts + clamps + screws. And one screwdriver. Clips (Klammern) not always mentioned in catalogs or included in all sets.

[2] The French Telegraph Word was also used for Russian, Spanish, Italian and Portuguese.

[3] Inner label marked "Rev." and "0112 **UNIV.** 1" indicates 54 metal parts and 8 clips.

[4] Packing plan states 22 metal parts and 4 clips.

* Sets examined for details.

Telegraph Words

GK-AF

Basic Sets

Set #[1]		Stones	German	English	Dutch	French	Danish	Polish	Czech	Hungarian
3		28	Andenken	Cat	Gedachtenis				Barák	
6		53	Aufsatz	Fig	Opzetten				Brůna	
	7	65	Auge	Gold	Oog				Brus	
10		107	Berg	Kid	Berg				Ceta	
	11[2]	124	Bild	Law	Beeld				Clum	
14		226	Blitz	Old	Bliksem	Brisgau			Dělo	
	15[3]	308	Blume	Pass	Bloem	Brissac			Děva	
16		402	Brause	Quart	Bruisching	Cadix			Dolek	
	17[4]	554	Buche	Real	Beuk	Candie			Dub	
18[5]		653	Buchsbaum	Sun	Palmhout	Cannes			Dům	
	19[6]	881	Burgvogt	Turk	Burchtvoogd	Ceylan			Dvůr	
18A[7]		982			Maan					
21		1,202	Ilm	Steam	Ilm				Dým	
23[8]		1,549	Isartal	Vacation	Isar-dal					
23[9]		1,924	Italien	Victory	Italie				Eliška	
25[10]		1,932	Italien	Victory	Italie					
27		2,321	Burg	Villa	Burcht					

[1] The set #s are divided into the two series of sets. The two series merge at set # 21.

[2] The deluxe set is # 30, Busch (German), Upwards (English), Gestruik (Dutch).

[3] The deluxe set is # 32, Delta (German), Wall (English), Delta (Dutch).

[4]	The deluxe set is # 33, Denkmal (German), Yard (English), Zuil (Dutch).
[5]	The deluxe set is # 34, Dolde (German), Zinc (English), Zink (Dutch).
[6]	The deluxe set is # 35, Dorn (German), Zeal (English), Doorn (Dutch).
[7]	This set was introduced in 1891 to reduce the jump from set # 18, Buchsbaum, to # 21, Ilm.
[8]	This set was introduced in 1892 to reduce the jump from set # 19, Burgvogt, to # 23, Italien.
[9]	The deluxe set is # 36, Lanze (German), Zebra (English).
[10]	This set is a reissue of # 23, Italien, with 8 more stones, allowing room for # 23, Isartal.

Passwords and Telegraph Words

GK Supplement and Conversion Sets

Note: Supplement and Conversion Sets are *not* the same sets.

Set #	S • C[1]	To	Pass-word	Telegraph Words								
				German	U.S.A.[2]	U.K.	Dutch	French[3]	Danish	Polish	Czech	Hung.
3A	S = 28	6•		Eifer	Catling	Catling	IJver	Hongrie			Hon	
6A	54•59	10•6		Falke	Figure	Figure	Valk	Java			Housle	
7A	59•53	11•6		Fass	Goldwire	Goldwire	Vat	Leipsic			Hrad	
10A	119•124	14•8		Flachs	Kidnap	Kidnap	Vlas	Lyon			Hůl	
11A	184•213	15•10		Fluss	Lawyer	Lawyer	Vloed	Malte			Hus	
14A	176•122	16•10		Freiheit	Oldish	Oldish	Vrijheid	Milan			Hvozd	
14B	S = 425	18•		Karl	Fairy	Fairy	Karel					
15A	246•198	17•12		Frohsinn	Passion	Passion	Lust	Morat			Chmel	
15B[4]	S = 573	19•		Keil	Fancier	Fancier	Pijl					
16A	249•344	18•14		Geduld	Quarterly	Quarterly	Geduld	Munster			Chrám	
16B	S = 800	21•		Kiefer	Favorite	Favorite	Kok					
17A	327•256	19•14		Glocke	Reality	Reality	Klok	Nancy			Chýž	
17B[5]	S = 995	23•		Kiefernwald	Fondness	Fondness	Doorn					
17B[6]	S = 1370	25•		Koch	Fondness	Fondness	Doorn					
18A	329•374	18A[7]•16		Glut	Sunrise	Salmon	Gleuf	Naples			Jaroslav	
18A	S = 551	21•		Glück	Sunday	Sunday	Zondag					
18B[8]	S = 1273	25•		Köln	Forecast	Forecast	Keulen					
18C[9]	233•240	21•16		Graf	Sunset	Sensation	Graaf	Cri			Jarovít	
19A	321•308	21•16		Granit	Turkey	Turkey	Turkije	Nuremberg			Jas	

19B[10]	S = 1043[11]	25•		König	Fortifier	Fortifier	Koning					
21A	347•541	23•20		Grieche	Steampipe	Steampipe	Grond	Sol			Jirish	
21A	S = 722	25•		Grund	Steampipe	Steampipe	Grond				Jinoch	
23A	383•533	25•22		Griff	Stronghold	Stronghold	Greep	Mexique			Jinoch	
25A	389•494	27•24		Grille		Study	Gruis	Liege			Jizba	
27A	C = 952	•30		Grotte			Grot	Fusion			Junák	

[1] "S • C" means that **different** sets with the same identification were sold as **S**upplement sets, remaining within the AF series, and **C**onversion sets, which resulted in a NF set. Note the different number of stones and the different resulting sets.

[2] The USA changed to the UK Telegraph Words in 1892.

[3] The French Telegraph Word was also used for Russian, Spanish, Italian and Portuguese.

[4] The deluxe set # 32B Kühn (German), Franklin (English), Koel (Dutch).

[5] This set was introduced to reduce the step between # 17, Buche, and # 23, Italien.

[6] The deluxe set # 33B, Kugel (German), Fraternise (English, but spelled with an "s"), Kogel (Dutch).

[7] A basic set, not a supplement.

[8] The deluxe set # 34B, Kunst (German), Freedom (English), Kunst (Dutch).

[9] This supplement set converts the basic set # 18A, Maan, to # 21, Ilm.

[10] The deluxe set # 35B, Kühnheit (German), Frisky (English), Kapsel (Dutch).

[11] This set was increased to 1051 stones to accomidate the move of # 23, Italien, to # 25, Italien, which included an increase of 8 stones.

Passwords and Telegraph Words

GK-NF ---- Basic Sets

Set #	Stones	Password	Telegraph Words							
			German	English[1]	Dutch	French[2]	Danish	Polish	Czech	Hungarian
P (0)	19/23	Laaske	Rabe	Rabbit	Kaaiman		Daddel			
0*	19	Edlitz								
2	30	Lahr	Rad	Racket	Kaart	Cadre	Dambræt			
2*	25 or 28	Eger							Racek	
2½*	45	Elbing								
4*	47 or 55	Elster								
4	47	Lebus	Raps	Raft	Kaatsbaan	Caillou	Debat		Rádlo	
4½	53	Leer	Rapsblüte	Rain	Kaatsspel	Caisson	Debutant			
4½*	82	Erbach							Radnice	
6	105	Leipzig	Rathaus	Rank	Kalklicht	Camée	Demokrat		Rafička	
6½	140	Leisnig	Ratsfeld		Kalkmortel	Caméléon			Rachot	
6½	146	Lemberg								
8	218	Lennep	Rebhuhn	Rate	Kamer	Canal	Deputation		Rajrad	
10	334	Liegnitz	Reichsapfel	Ray	Kantoor	Canon	Diacon		Rak	
12	499	Lindau	Reichskrone	Reason	Kapok	Carat	Diagonal		Rakovník	
14[3]	705		Reimkunst	Record	Kardoes	Carpe	Dialog		Rameno	
16	919	Linnich	Reisvogel	Reed	Kastanje	Casque	Diamantgrube		Rána	
18[4]	1,184		Reitpferd	Reform	Keerpunt	Centre	Diameter		Ranhojič	
20	1,414	Lissa	Rennbahn	Regard	Kegel	Cerise	Digter		Ratolest	
22[5]	1,714		Renntier	Regent	Kelder	Charbon				
24[6]	1,985		Reinfahrt	Regulator	Kerfbank	Chemin				
26[7]	2,290		Rheinschiff	Reindeer	Ketelsteen	Cil				

28[8]	2,581	Luckau	Ringelmöve	Reliance	Keuken	Cirque	Dolman		Rahlík	
30[9]	2,927		Ritterburg	Remark		Cloche				
32[10]	3,173		Robinson	Reply		Clou				
34[11]	3,848	Lyck	Roggenkorn	Resource	Kijkglas	Coeur	Donau		Rosa	

[1] The English Telegraph Words were never replaced by the Passwords in the USA.

[2] The French Telegraph Words were also used for Russian, Spanish, Italian and Portuguese.

[3] Consists of boxes #s 12 and 12A.

[4] Consists of boxes #s 12 and 12C.

[5] Consists of boxes #s 20 and 20A.

[6] Consists of boxes #s 20 and 20B.

[7] Consists of boxes #s 20 and 20C.

[8] Consists of boxes #s 20 and 20D.

[9] Consists of boxes #s 20, 20D and 28A.

[10] Consists of boxes #s 20, 20D and 28B.

[11] Consists of boxes #s 20, 20D and 28D.

* **These sets may be also listed as part of the DS series, which only added metal parts from DS E/3 or DS 3A, except for the USA DS sets.**

Passwords and Telegraph Words

GK-NF

Single layer Supplement Sets

Set #	Stones	Password	Telegraph Words							
			German	English[1]	Dutch	French[2]	Danish	Polish	Czech	Hungarian
PA 0A	17	Mahlow	Saale	Sable	Maan	Pacha				
0A*	17	Haida								
2A	26	Malchin	Sand	Safety	Maandroos	Paille	Factor	Sadownik	Sadař	Sajit
2A*	32	Haag								
2½A*	43	Halle								
4A	65	Mannheim	Sanduhr	Sail	Maatstaf	Palais	Fadebur	Sadza	Sádra	Salak
4½A	71	Mark								
6A	113	Markirch	Sängerin	Saloon	Madelief	Panier	Fakkel	Saganek	Samohláska	Sám
6½A	86	Marne								
8A	116	Mayen	Saumtier	Sandwich	Markgraaf	Parc	Fane	Sala	Samotář	Sáncz
10A	165	Mehlis	Schachspiel	Satin	Markt	Paroisse	Fartøi	Salopa	Samovar	Sarcz
12A	206	Meldorf	Schildwache	Saw	Masker	Pâtre	Fasan	Samogloska	Sanice	Sarju
14A	214	Memel	Schilfvogel	Scate	Mastbosch	Pelle	Feepallads	Samotnik	Sběrna	Sarló
16A	265	Merseburg	Schlosshof	Science	Meeldraad	Pente	Ferskenblomst	Sanna	Sedadlo	Sas
18A[3]	230	Metz	Schlüssel	Sculptor	Meerkat	Persil	Figen	Sarkazm	Sedlo	Sátor
20A	300	Minden	Schneeball	Seagull	Meetbrief	Phare	Finale	Scena	Sedmikrása	Savó
22A	271	Misdroy	Schnitterin	Season	Meibloem	Phoque	Finkehøg	Ściana	Selka	Seprü
24A	305	Mogilno	Schwan	Seed	Meloen	Pigeon	Fixstjerne	Sekret	Semeno	Seregély
26A	291	Mulda	Seebär	Sense	Meubelu	Pinceau	Fjederbusk	Sekunda	Senař	Serleg

28A	346	Muskau	Seegras	Sergeant	Mierik	Pique	Fjeldtind	Seler	Setba	Sin
30A	246	Mylau	Seeschlange	Service	Mijngas	Plage	Flaggermus	Sentyment	Schránka	Sipka
32A[4]				Shaft	Mikpunt					

[1] The English Telegraph Words were never replaced by the Passwords in the USA.

[2] The French Telegraph Words were also used for Russian, Spanish, Italian and Portuguese.

[3] The same set offered with an extra layer for easier packing -- called 18A, Meuselbach and 18B, Piesau (Textbuch).

[4] Planned, but not produced. Found in the U.K. 1899 catalog.

* These sets are also found in the DS series, which only added metal parts from DS E/3 or DS 3A, except for the USA DS sets.

Passwords and Telegraph Words
GK-NF
Multi-Layer
Supplement Sets

Set #	Stones	Password	Telegraph Words							
			German	English[1]	Dutch	French[2]	Danish	Polish	Czech	Hungarian
8B	281	Parey	Tafelwein	Tableau	Paalworm	Sachet	Hamster		Tabule	
10C	585	Pasing	Talisman	Talisman	Pagaai	Saindoux	Harlekin		Tatry	
12B	420	Peine	Taube	Terrier	Palmboom	Sandale	Hasselnød		Tepna	
12C	685	Peitz	Taubenfeder	Thank	Palmtak	Sanglier	Haveplante		Terč	
12D	915	Pelplin	Taubenpost	Tide	Pandspel	Saphir	Havmaage		Tesař	
16B[3]	495	Pforzen	Teppich	Title	Panser	Sceau	Heltekvad		Tetřev	
16C	795	Prag				Scala				
20B	571	Pillau	Thal	Tone	Parkiet		Herberg		Těžítko	
20C	876	Pinne	Thalfluss	Torch	Paspoort		Herkules		Tchoř	
20D	1,167	Pirna	Thalweg	Tortoise	Pauk	Sciure	Hertug	Trawa	Tkadlec	Teknö
22C	867	Pressburg								
24B	596	Plauen	Thatkraft	Tower	Pedaal		Hindu		Tkanice	
28B	592	Pless	Thee	Triplet	Peer		Hirsekorn		Tlakoměr	
28D	1,267	Polzin	Theebrett	Tribut(e)	Peilschaal	Secret	Hornugle		Troska	
32B	675	Posen	Theerose	Trumpet	Peilstok	Segment	Hyldeblomst	Tryumf	Trpaslík	Tető
34D[4]	220	Potsdam								

[1] The English Telegraph Words were never replaced by the Passwords in the USA.

[2] The French Telegraph Words were also used for Russian, Spanish, Italian and Portuguese.

[3] The same set, but with one more layer for easier packing -- called 16B, Pilkallen, and 16C, Pforzheim (Terrasse).

[4] In the German 1912 and 1915 catalogs. Added 374 nickel plated iron parts and 166 screws to convertert to set # 35.

Telegraph Words

GK-Br

Bridge Sets -- First Series

Note: These sets are all Supplement Sets.

Bridge parts, no Roof parts

Set #	Supplement to	Stones	Metal[1]	German	English	Dutch	French[2]	Danish	Polish	Czech	Hung.
4	GK 4	40	24 + 16 + 16	Bachstelze	Baggage	Baan	Bagage	Baand		Balič	
6	GK 6	95	40 + 16 + 28	Backofen[3]	Bakery	Badkuip	Baguette	Balkan		Bašta	
8	GK 8	199	74 + 40 + 48[4]	Badeplatz[5]	Banker	Bagijn	Baleine	Bank	Beton	Bělboh	
10	GK 10	266	115 + 44 + 70	Ballanzug	Baronet	Bak	Balustrade	Basalt		Birkut	
12	GK 12	330	148 + 44 + 84	Bambusrohr	Basket	Baker	Bandoulière	Basker		Bočan	
4A	GK 6 + Br 4	55	16 + 0 + 12	Rosendorn	Ribbon	Kleefstof	Connaissance			Rouška	
6A	GK 8 + Br 6	104	34 +24 + 20	Rosenholz	Richness	Kleinood	Conséquence	Drone	Rodak	Rovnač	
8A	GK 10 + Br 8	67	41 + 4 + 22	Rosenduft	Rigging	Klep	Consulat	Drossel	Rogal	Ruka	Rubin
10A	GK 12 + Br 10	65	33 + 0 + 14	Rotfink	Ring	Klimaat	Conversion		Rud	Rukojet	
12A	GK 14 + Br 12	88	66 + 0 + 20	Rotkäppchen	Rivality	Klinker	Corail	Druebær			
18A[6]	???	?	?	Rückblick							

[1] Metal parts + clips + screws. And one screwdriver. Clips (Klammern) not always mentioned in catalogs or included in all sets.

[2] The French Telegraph Words were also used for Russian, Spanish, Italian and Portuguese.

[3] Set had "Bakery" as the German "Telegraph Word", and came with a USA label. No clips.

[4] Inner label is marked "Rev." and "0111 **UNIV. 5"** and lists the metal parts as 74 + 20 clips + 38 screws.

[5] One set had the German "Telegraph Word" Banker and came with a USA label; the other set had the German "Telegraph Word" Badeplatz and came with a European label, which showed the English "Telegraph Word" to be Banker.

[6] Set # 18A, Rückblick, was never marketed.

Passwords
GK-Br

Bridge Sets -- Second Series

Note: These sets are all Supplement Sets.
Bridge and Roof Parts

Set #	Password	Supplement to	Stones	Metal[1]	English
4	Barmen	GK 4	49	21 + 0	Barmen
6	Bebra	GK 6, 6½	84	51 + 12	Bebra
8	Belzig	GK 8	209	101 + 44	Belzig
10	Bergen	GK 10	288	150 + 64	Bergen
12	Bernau	GK 12	392	197 + 80	Bernau
20	Bernburg	GK 20	530	282 + 130	
					VE Books
4A	Ranis	GK 6 + Br 4	39	30 + 12	
6A	Ratibor	GK 8 + Br 6	125	50 + 32	
8A	Rees	GK 10 + Br 8	79	49 + 20	13 & 15
10A	Remilly	GK 12 + Br 10	104	47 + 16	17 & 19
12A	Rendsburg	GK 14 + Br 12	45	36 + 32	21
14A	Reppen	GK 16 + Br 12,12A	91	22 + 8	23
16A	Rheda	GK 18 + Br 12, 12A, 14A	0	12 + 0	25
18A	Rheine	GK 20 + Br 12, 12A, 14A, 16A	0	20 + 12	27

[1] Bridge and Roof parts + screws. Screwdriver as needed.

Telegraph Words

Im -- unknown Series (190?, but before 10/1903)
(Nickel Plated Iron)

Imperator Bridge Sets (GK)

Basic Sets										
Set #	Stones	Metal[1]	German	English	Dutch	French	Danish	Polish	Czech	Hungarian
2			Ideekreis							
4			Iltispelz							
6	87	24 + 16	Impfschein							
8	193	57 + 20	Inkasso							
10	285	91 + 20	Infant							
12	398	115 + 40	Inschrift							
14[2]	486	160 + 40								
Supplement Sets										
2A	19	4 + 0	Stahlwerk			Poisson	Flod	Sierp		
4A	56	13 + 0	Stapel							
6A	96	33 + 4	Staubwolke	Sirup	Moesketel	Ponton	Flygel	Sklad		
8A	102	34 + 0	Stehpult							
8B			Dämmerung	Eccentric		Factionnaire	Najde	Parol	Cedris	Ujonic
10A	113	24 + 20								
12A	85	45 + 0								

[1] Bridge parts + clamps + screws plus a screwdriver. Early sets did not contain clamps, but they were added to later sets.

[2] Existed only as Im # 12 plus 12A, not as a cataloged set.

Passwords and Telegraph Words

Im (Nickel Plated Iron) Imperator Bridge Sets (GK) -- First Series

A-B (Nickel Plated Iron) USA Bridge Sets (1904 - 1906)

Basic Sets					
Europe[1] -- Imperator (**Im**)				USA -- Anchor Blocks (**A-B**)	
Set #	Telegraph word	Stones	Metal[2]	Set #	Telegraph word
0	Adagio	17	1 + 0 + 0		
2	Agenda	32	3 + 2 + 0	1	Ignorance
4	Album	50	5 + 4 + 0	3	Image
4½	Algebra	52	7 + 2 + 0		
6	Aluminium	87	24 + 16 + 16	5	Impatience
6½	Amarant	94	31 + 20 + 16		
8	Ananas	200	40 + 18 + 28	7	Importance
10	Architect	301	54 + 22 + 28	9	Impression
12	Argument	414	78 + 40 + 48	11	Inaction
Supplement Sets					
0A	Sabina	23	2 + 2 + 0		
2A	Salamander	19	2 + 2 + 0	1A	Salamander
4A	Senator	40	24 + 16 + 16	3A	Senator
6A	Spectrum	113	16 + 2 + 12	5A	Spectrum
8A	Sultan	101	14 + 4 + 0	7A	Sultan
10A	Sylvide	113	24 + 18 + 20	9A	Sylvide
12A[3]	Symbol	85	45	11A	Symbol
14A[3]	Talbot				
Conversions Sets (to Imperator, second series)					
				next supplement	
0A	Sacha				
2A	Sagard				
4A	Satrup			Im 5A, Sayda	
6A	Sayn			Im 7A, Sebnitz	
8A	Seeburg			Im 9A, Sieben	
10A	Siegmar				
12A	Sinzig			Im or Ve 13A, Soden	

[1] The French, German and English catalogs all use the same telegraph words.

[2] Bridge parts + clamps = screws, plus a screwdriver.

[3] The next supplement set is VE 13A, Soden. Talbot was planned but not made.

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Passwords

Im -- Second Series (1906 - 1910)

(Nickel Plated Iron)

Imperator Bridge Sets (GK)

Set	Password	Stones	Metal[1]	German	English[2]
1	Adorf	23 (30)	1 + 0 + 0	Adagio	Bingen[3]
3	Ahaus	39	2 + 0 + 0	Albatros	
3½	Aken	52	5 + 2 + 0	Almanach	Bitburg[4]
5	Altona	93	21 + 0 + 0	Amethyst	Bonn
5½	Alzey	118	32 + 0 + 0	Apollo	
7	Amberg	245	50 + 0 + 12	Arena	Borbeck[5]
9	Ansbach	276	76 + 0 + 28	Armada	Borna
11	Apolda	422	101 + 0 + 44	Astronom	Brandis
15	Arolsen	606	145 + 0 + 64		Breslau
19[6]	Augsburg	884	196 + 0 + 80		Brilon

[1] Bridge parts + clips + screws, plus one screwdriver.

[2] In a "079 **NY** 18" English language catalog. Set # 7 examined.

[3] Bingen is identical to Im, first series, # 2 -- 32 stones and 3 + 2+ 0 metal.

[4] Bitburg is numbered 3, but same as # 3½, Aken.

[5] Borbeck has only183 blocks and USA label

[6] Existed only as VE # 19, Augsburg.

Passwords

Im (Nickel Plated Iron)

Imperator Bridge (single layer) Supplement Sets (GK) -- Second Edition

Merged into the VE series at the higher numbers

Set	Password	Supplement to	Next supplement	Stones	Metal[1]	German[2]	English[3]
1A	Sagan	Im 1	Im 3A, Sassnitz	22 (16)	1 + 0	Sabina	Kabel
3A	Sassnitz	Im 3, 3¼, 3½, 1A	Im 5A, Sayda	56	21 + 0	Sanskrit	Kalk
5A	Sayda	Im 5, 5½, 3A, 4A	Im 7A, Sebnitz	90	29 + 12	Serenade	Kamin
7A	Sebnitz	Im 7, 5A, 6A	Im 9A, Siegen	93	26 + 16	Stenograph	Kappeln
9A	Siegen	Im 9, 7A, 8A	Im 11A, Simmern	146	25 + 16	Stephan	Karow
11A	Simmern	Im 11, 9A	Im 13A, Soden	77	24 + 10	Syndikat	Kehl
13A[4]	Soden	Im 11A, 12A	Im 15A, Soest	109	20 + 10		Kempen
15A[5]	Soest	Im 15, 13A	Im17A, Soldin	148	23 + 12		Kiel
17A[6]	Soldin	Im 15A	Im 19A, Solingen	128	24 + 4		Kleeth
19A[7]	Solingen	Im 19, 17A	VE 21A, Sorau	191	36 + 32		

[1] Bridge & roof parts + screws. Plus one screw-driver. Clips (Klammern) not reliable mentioned, so not included here.

[2] Although the "German" Telegraph Words look English and the "English" ones look German, the listing is correct.

[3] In a "079 **NY** 18" English language catalog. Sets #s 7, 7A, and 9A have been examined.

[4] Im 13A, Soden, is not exactly the same as VE 13A, Soden.

[5] Orders for Im # 15A, Soest, were filled with VE # 15A, Soest.

[6] Orders for Im # 17A, Soldin, were filled with VE # 17A, Soldin.

[7] Orders for Im # 19A, Solingen, were filled with VE # 19A, Solingen.

Passwords

Im -- Second Series

(Nickel Plated Iron)

Imperator Bridge (multiple layer) Supplement Sets (GK)

Set	Password	Supplement to	Next supplement	Stones	Metal[1]	Telegraph Word
7B	Danzig	Im 7	Im 11B, Demmin	238	51 + 32	
9C	Darmstadt	Im 9	Im 15B, Detmold	329	73 + 36	David[2]
11B	Demmin	Im 11, 7B	Im 15B, Detmold, or VE 15B, Detmold	186[3]	48 + 20	
11D	Dessau	Im 11, 7B	Im 19D, Dillingen, or VE 19D, Diekirch	432	95 + 36	
15B	Detmold[4]	Im 15, 11B	Im 19B, Deutz, or VE 19B, Deutz	276	47 + 16	

[1] Bridge and roof parts + screws.

[2] This Telegraph Word was used for all languages.

[3] German catalog dated 1908 says 156 stones -- probably a misprint. The 1909 catalog states 186 stones.

[4] Im 15B, Detmold, is the same as VE 15B, Detmold.

Note: The second Im series and the VE series are very similar, and were merged in the higher numbers. Actually sets above Im # 15 were VE sets.

Passwords

VE Series (1907 - 1910)

(Nickel Plated Iron)

Nickel Plated Iron Bridge Sets (GK) -- Merged into Imperator, Second Edition

Set	Password	Stones	Metal[1]	English	Notes:
1	Achim	25	0 + 0		
1¼	Adria	37	0 + 0		
1½	Agram	45	0 + 0		
3	Ahlbeck	55	0 + 0		
E3	Aken	52	5 + 0		
3¼	Ahlen	59	0 + 0		
3½	Alfeld	82	0 + 0		
5[2]	Althof	105	0 + 0		Same as GK-NF # 6, Leipzig
5¼	Altwasser	112	21 + 0		
5½	Altwein	135	21 + 0		
7	Anhalt	195	34 + 0		
9	Anklam	283	81 + 28		Im # 9 + 2×69r, 4×70g, 1×503r
11	Arnsberg	429	106 + 44		Im # 11 + 2×69r, 4×70g, 1×503r
15	Arlosen	617	155 + 66		
19	Augsburg	893	202 + 82		
27	Auma	1,792	292 + 134		

[1] Bridge and roof parts + screws, plus one screwdriver if needed.

[2] Identical to GK-NF # 6, Leipzig.

Passwords

VE (Nickel Plated Iron)

Nickel Plated Iron Bridge (single layer) Supplement Sets (GK) (1907 - 1910)

Set	Password	Supplement to	Next supplement	Stones	Metal[1]	English	
1A	Saal	VE 1, Achim	VE 3A, Salza	32	0 + 0		
1¼A	Saalfeld	VE 1¼, Adria	VE 3¼A, Salzburg	26	0 + 0		
1½A	Sachsen	VE 1½, Agram	VE 3½,Satkau	43	0 + 0		
3A	Salza	VE 3, 1A	VE 5A, Saxdorf	59	0 + 0		
3¼A	Salzburg	VE 3¼, 1¼A	VE 5¼A, Schwerin	53	21 + 0		
3½A	Satkau	VE 3½, 1½A	VE 5½A, Schwerte	53	21 + 0		
5A	Saxdorf	VE 5, 3A	VE 7A, Sembach	90	34 + 0		not the same as Im 5A[2]
5¼A	Schwerin	VE 5¼, 3¼A	VE 7A, Sembach	83	13 + 0		
5½A	Schwerte	VE5½, 3½A	VE 7A, Sembach	60	13 + 0		
7A	Sembach	VE7, 5A, 5¼A, 5½A	VE 9A, Semlin	88	47 + 28		
9A	Semlin	VE 9, 7A	VE 11A, Siegburg	146	25 + 16		
11A	Siegburg	VE 11, 9A, 7B	VE 13A, Soden	77	28 + 12		
13A	Soden	VE 13, 11A	VE 15A, Soest	111	21 + 10		
15A	Soest	VE 15, 13A, 11B	VE 17A, Soldin	148	23 + 12		
17A	Soldin	VE 17, 15A	VE 19A, Solingen	128	24 + 4		
19A	Solingen	VE 19, 17A, 15B, 11D	VE 21A, Sorau	191	36 + 32		
21A	Sorau	VE 19A	VE 23A, Spandau	204	22 + 8		
23A	Spandau	VE 21A, 19B	VE 25A, Speyer	263	12 + 0		
25A	Speyer	VE 23A	VE 27B, Stade	241	20 + 12		

[1] Bridge & roof parts + screws. Plus one screw-driver. Clips (Klammern) not reliably mentioned, so not included here.

[2] This set was also sold as a conversion set (Übergangskasten) from GK-NF # 6.

Passwords

VE (Nickel Plated Iron)

Nickel Plated Iron Bridge (multiple layer) Supplement Sets (GK) (1907 - 1910)

Set	Password	Supplement to	Next supplement	Stones	Metal[1]	English
5B	Schwelm	VE 5, 3A	VE 9A, Semlin	178	81 + 28	
5¼B	Dahlem	VE 5¼, 3¼A	VE 9A, Semlin	171	60 + 28	
5½B	Dambach	VE 5½, 3½A	VE 9A, Semlin	148	60 + 28	
7B	Darfeld	VE 7, 5a, 5¼A, 5½A	VE 11B, Delsberg	234	73 + 44	
11B	Delsberg	VE 11, 9A, 7B	VE 15B, Detmold	188	49 + 22	
11D	Demitz	VE 11, 9A, 7B	VE 19D, Diekirch	464	96 + 38	
15B	Detmold	VE 15, 13A, 11B	VE 19B, Deutz	276	47 + 16	
19B	Deutz	VE 19, 17A, 15B, 11D	VE 23B, Dirschau	395	58 + 40	
19B*	Deutz	Im 19, Im 15B	VE 23B, Doberan	393	58 + 40	
19D	Diekirch	VE 19, 17A, 15B, 11D	VE 27B, Stade	899	90 + 52	
19D*	Dillingen	Im 19, Im 15B	VE 27B, Stade	897	105 + 40	
23B	Dirschau	VE 23, 21A, 19B	VE 27B, Stade	504	32 + 12	
23B*	Doberan	VE 19B, Dillingen	VE 27B, Stade	504	44 + 0	
27B	Stade[2]	VE 27, 25A, 23B, 19D	VE 29B, Stambul	555	30 + 8	
29B	Stambul	VE 27B	VE 31B, Stargard			
31B	Stargard	VE 29B	VE 33B, Stendal			
33B	Stendal	VE 31B	----			

[1] Bridge & roof parts + screws. Plus one screw-driver. Clips (Klammern) not reliable mentioned, so not included here.

[2] Set # 27B was also listed as "Giessen" in the DS series. The set probably never appeared. The building plans were sold, alone, possibly with set # 27B and possibly with set # 34D, which may have been available on special order.

* **Advertised in the 1907 catalog. Probably never appeared on the market.**

Passwords
DS Series (1910 - 1963)
(Colored Lacquered Iron and Roof Stones)

Set	Password	Stones	Roof Stones	Metal	English	Notes
1 (2)	Eger*	25	0	0		
1		31	0	2	Eberbach	sold in USA only
1¼	Eisfeld*	37	0	0		
1½ (2½)	Elbing*	45	0	0		
3 (4)	Elster*	55	0	0		
E/3	Emden	55	0	5		
3		52	0	5	Eisenach	sold in USA only
3¼	Ems*	59	0	0		
3½ (4½)	Erbach*	82	0	0		
5	Erfurt	101	0	15	Erfurt	
5¼	Erkelenz	112	0	15		
5½	Erkner	135	0	15		
7	Erlangen	196	42	37	Erlangen	
9	Erpel	283	62	70	Erpel	
11	Essen	429	87	118	Essen	
15	Esslingen	618	124	184	Esslingen	
19	Eutin	893	148	219 or 223	Eutin	
27	Eydtkuhnen	1,792	261	357	Eydtkuhnen	

* **These sets have no metal parts. Sets DS 3, 3¼ and 3½ can use the supplement set GK-NF 4A to obtain GK-NF 6. These sets may be also considered part of the GK-NF series of sets.**

Passwords

DS (Colored Lacquered Iron Parts and Roof Stones) Single layer Supplement Sets (GK)

Set	Password	Supplement to	Next supplement	Stones	Roof Stones	Metal	English
1A (2A)	Haag*	DS 1, Eger	DS 3A, Hamburg	32	0	0	
1A		DS 1, Eberbach	3A	32	0	5	Haltern
1¼A	Hagen*	DS 1¼, Eisfeld	DS 3¼, Hamm	26	0	0	
1½A (2½A)	Halle*	DS 1½, Ebling	DS 3½A, Hanau	43	0	0	
3A	Hamburg	DS 3, E/3, 1A	DS 5A, Hannover	51	0	15	
3A		DS 3, Eisenach: DS1A, Haltern	DS 5A, Hannover	49	0	10	Hameln
3¼A	Hamm	DS 3¼, 1¼A	DS 5¼, Haspe	53	0	15	
3½A	Hanau	DS 3½, 1½A	DS 5½A, Herborn	53	0	15	
5A	Hannover	DS 5, 3A	DS7A, Herford	95	42	22	Hannover
5¼A	Haspe	DS 5¼, 3¼A	DS7A, Herford	83	42	22	
5½A	Herborn	DS 5½, 3½A	DS7A, Herford	60	42	22	
7A	Herford	DS 7, (3½ B, 5A, 5¼A, 5½A), 5U Baden, 5½U Balingen, 6U Bamberg, 6½U Barop	DS 9A Herne	87	20	33	Herford
9A	Herne	DS9, 7A, 7U Barth, 7U Basdorf, 8U Basel	DS 11A Hersfeld	146	25	48	Herne
11A	Hersfeld	DS 11, 9A	DS 13A, Herzberg	78	14	34	Hersfeld
13A	Herzberg	DS 11A, 10U Belfort	DS 15A, Hessen	111	23	32	Herzberg
15A	Hessen	DS 15, 13A	DS 17A, Holland	151	0	8	Hessen
17A	Holland	DS 15A, 12U Bern	DS 19A, Holten	124	24	25	Holland
19A	Holten	DS 19, 17A	DS 21A, Holzdorf	193	17	24	
21A	Holzdorf	DS 19A, Holten	DS 23A Homberg	204	28	48	
23A	Homberg	DS 21A, Holzdorf	DS 25A, Husum	261	34	35	
25A	Husum	DS 23A, Homberg	DS 27B, Giessen	241	34	26	

* **These sets have no metal parts. They may be also considered part of the GK-NF series of sets.**

Passwords

DS (Colored Lacquered Iron Parts and Roof Stones)

Multi layer Supplement Sets (GK)

Set	Password	Supplement to	Next supplement	Stones	Roof Stones	Metal	English
3½B	Gaarden	DS 3½	DS 7A	114	42	37	
5¼B	Garda	DS 5¼	DS 9A	171	62	55	
5½B	Garding	DS 5½	DS 9A	148	62	55	
7B	Gastein	DS 7	DS 11B	233	45	81	
11B	Gastorf	DS 11	DS 15B	189	37	66	
11D	Geldern	DS 11	DS 19A	464	61	101	
15B	Genf	DS 15	DS 19A	275	24	35	
19D	Gera	DS 19	DS 27B	899	113	1,361	
27B[1]	Giessen	DS 25A, Husum	-----	555 (?)	20 (?)	?	

[1] Set # 27B was never put on the market, but may have been available on special order direct from the factory.

Passwords

Neue Serie Sets -- GK-NF sets with "a-arches" (1924 to 1963)

Set	Password	Stones	Filler Stones	English
0	Edlitz	19	0	
2	Eger	30	0	
2½	Elbing	47	2	
4	Elster	57	2	Raft
4½	Erbach	84	2	
6	Leipzig	109	4	Rank
6½	Lemberg	152	6	
8	Lennep	228	10	Rate
10	Liegnitz	356	22	Ray
All sets above NS # 10 are the same as the GK-NF sets, except for the groove pattern in some arch stones. The total stone count continues to reflect the 22 filler stones due to the "a-arches" in the sets up through NS # 10.				
0A	Haida	17	0	No NS supplement sets were sold in the U.S.A. All supplement sets sold in the U.S.A. were actually GK-NF sets.
2A	Malchin	30	4 (?)	
2½A	Halle	43	0	
4A	Mannheim	67	2	
4½A	Mark	75	4	
6A	Markirch	119	6	
6½A	Marne	90	4	
8A	Mayen	128	12	
8B	Parey	293	12	

Passwords
Conversion Sets

Set #	Password	Stones	Roof Stones	Metal[1]	From	To	Next Supplement
DS 3A	Salzhof	63	0	15	Im 3, 3½	DS 5	DS 5A
GK-NF 4A	Mannheim	65	0	0	DS E/3	GK-NF 6	GK-NF 6A
DS 4U	Babel	58	0	15	GK-NF 4, 4½	DS 5	DS 5A
5-6	----	4	0	0	DS 5	GK-NF 6	GK-NF 6A
5B	Schwerin				DS 5, VE 5	GK-NF 8	GK-NF 8A
5U	Magdeburg				DS 5	GK-NF 8	GK-NF 8A
Im 5U	Babitz				VE 5	DS	
Im 5U	Baden	103	42	37	Im 5, Im 4A, GK-Br 4	DS 7	DS 7A
5A NY		127	42	37	Im 5, DS 5	DS 7	DS 7A
DS 5¼U	Babstadt	84	42	37	VE 5¼	DS 7	DS 7A
DS 5½U	Backnang	61	42	37	VE 5½	DS 7	DS 7A
Im 5½U	Balingen	90	42	37	Im 5½	DS 7	DS 7A
DS 6U	Bamberg	91	42	37	VE 5, Im 6A	DS 7	DS 7A
DS 6½B	Pankow	142	62	70	GK-NF 6½	DS 9	DS 9A
DS 6½U	Bantin	55	42	37	GK-NF 6½, Lemberg	DS 7	DS 7A
DS 6½U	Barop	79	42	37	GK-NF 6½, Liesnig	DS 7	DS 7A
7-8	----	?	0	0	DS 7	GK-NF 8	GK-NF 8A
Im 7U	Barth	100	62	70	Im 7	DS 9	DS 9A
DS 7U	Basdorf	88	62	70	VE 7, GK-Br 6	DS 9	DS 9A
7U	Beuthen				DS 7	GK-NF 8	GK-NF 8A
7U	Maxfield	162	0	0	VE 7, DS 7	GK-NF 10	GK-NF 10A
DS 8U	Basel	96	62	70	GK-NF 8	DS 9	DS 9A

Conversion Sets 2							
Set #	Password	Stones	Roof Stones	Metal	From	To	Next Supplement
8U	Bielitz	96	0	82 + 28	GK-NF 8	VE 9	VE 9A
9-8	----	?	0	0	DS 9	GK-NF 8	GK-NF 8A
DS 9U	Beckum	153	87	118	VE 9, Im 9	DS 11	DS 11A
GK 9U	Bielau	107	0	0	Im 9, DS 9	GK-NF 10	GK-NF 10A
BB 10	Boston	146	87	118	GK-NF 10	DS 11	DS 11A
DS 10U	Belfort	179	101	152	GK-NF 10,	DS 11A	DS 13A
10U	Bierbach	174	0	135 + 56	GK-NF 10	VE 11A	VE 13A
11-10	----	?	0	0	DS 11	GK-NF 10	GK-NF 10A
11U	Bendorf	78	101	152	Im 11, VE 11, GK-Br 8	DS 11A	DS 13A
GK 11U	Bilin	170	0	0	Im 11, DS 11	GK-NF 12	GK-NF 12A
BB 12[2]	Buffalo	113	101	152	GK-NF 12	DS 11A	DS 13A
DS 12U	Bern	299	124	192	GK-NF 12	DS 15A	DS 17A
12U	Bilsdorf	295		179 + 78	GK-NF 12	VE 15A	VE 17A
13-12	----	?	0	0	DS 13	GK-NF 12	GK-NF 12A
DS 13U	Berneck	111	124	184	VE 11A, Im 11A	DS 15	DS 15A
13U	Bimbach	279	0	0	DS 13	GK-NF 12A	GK-NF 14A
BB 14	Bangor	?	124	184	GK-NF 14	DS 15	DS 15A
DS 14U	Bertrich	382	165	248	GK-NF 12A	DS 19A	DS 21A
14U	Birstein	379	0	239 + 114	GK-NF 12A	VE 19A	VE 21A
15-14	----	?	0	0	DS 15	GK-NF 14	GK-NF 14A
15U	Bethel	151	124	192	VE 15, Im 13A, GK-Br 10	DS 15A	DS 17A
15U	Binde	384	0	0	DS 15	GK-NF 16	GK-NF 16A
BB 16	Bristol	?	0	0	GK-NF 16	DS 15A	DS 17A
DS 16U	Biebrich	375	193	296	GK-NF 16	DS 21A	DS 23A

Conversion Sets -- continued							
Set #	Password	Stones	Roof Stones	Metal	From	To	Next Supplement
16U	Bitsch	373		261 + 122	GK-NF 14A	VE 21A	VE 23A
17-16	----	?	0	0	DS 17	GK-NF 16	GK-NF 16A
DS 17U	Bielefeld	124	148	219	VE 15A, Im 15A	DS 19	DS 19A
17U	Bingen[3]	500	0	0	DS 15A	GK-NF 18	GK-NF 18A
BB 18	Bahia	?	148	219	GK-NF 18	DS 19	DS 19A
DS 18U	Blomberg	364		273 + 122	GK-NF 16A	VE 23A	VE 25A
18U	Bocholt	364	193	296	GK-NF 16	DS 23A	DS 25A
19-18	----	?	0	0	DS 19	GK-NF 18	GK-NF 18A
19U	Binsdorf	622	0	0	DS 19	GK-NF 20	GK-NF 20A
19U	Boppard	193	165	244	VE 19, Im 17A, GK-Br 12	DS 19A	DS 21A
BB 20	Bolton	?	165	244	GK-NF 20	DS 19A	DS 21A
20U	Bochum	378		293 + 130	GK-NF 20	VE 27	VE 27B
DS 20U	Borkum	378	261	357	GK-NF 20	DS 25A	DS 27B
DS 21U	Borna	206	193	296	VE 19A, Im 19A	DS 21A	DS 23A
23U	Borstorf	266	227	331	VE 21A	DS 23A	DS 25A
DS 25U	Borsum	241	261	357	VE 23A	DS 25A	DS 27B
27U	Bismark	885	0	0	DS 25A	GK-NF 28	GK-NF 28A
DS 27U	Bottrop				VE 27, 25A	DS 27B	-----
34D[4]	Potsdam	220	0	374 + 166	GK-NF 34	VE 35	-----

[1] If to VE, then Bridge and Roof parts + screws and Screwdriver included. If to DS, then lacquered iron parts.

[2] BB 12, Buffalo, contains an extra tray for rapid repacking.

[3] The password Bingen is used for set # 19U on a packing plan found by the author in the Anchor factory in 1992.

[4] Set # 34D was never put on the market.

* **The "Transfer Stones" were not given set numbers or passwords. The numbers shown were found in a building plan book.**

LE (Colored Lacquered Iron Parts -- No Stones)
Supplement Sets to GK-NF (1910 - 1963)

Set	Password	Supplement to	Metal	Flat	Over-arch	Under-arch	English	Bridge Width
2		NS # 2 (2½)	5	1				49.5
4		NS # 4 (4½)	5		1		Babel	49.5
6		NS # 6 (6½)	15	2	1		Bamberg	49.5
8		NS # 8	23	-	1	2		62.5
10		NS # 10	25	2	3			62.5

****

LE (Colored Lacquered Iron Parts -- No Stones)
Not Supplement Sets

Set	Password	Supplement to	Metal	Flat	Over-arch	Under-arch	English	Bridge width
I	Zeitz	---	15	2	1			87.5
II	Zara	---	48	4	2	2		87.5
III	Zerbst	---	74	4	2	3		87.5
IA	Zeulenroda	I, Zeitz	33	2	1	2		87.5
IIA	Ziegenhain	II, Zara	26	0	1	1		87.5

Passwords
Roof Stones and Lacquered Iron Parts

Set	Password	Roof Stones	Metal	English
7	Feldberg	42	37	
9	Feldkirch	62	70	
11	Flensburg	87	118	
13	Florenz	101	152	
15	Forbach	124	184	
17	Forst	124	192	
19	Franken	148	219	

****

Neue Reihe

Set	Password	Stones	English
102	Peking	11	Peking
104	Madrid	25	Madrid
106	Moskau	43	Moskow
108	New York	71	New York
110	London	109	London
112	Rom	167	Rome
114	Sidney	239	Sidney
116	Stockholm	367	Stockholm
118	Tokio	531	Tokyo

Passwords
Modern House (American Bungalow) Sets

Set	Name	Password	Supplement to	Stones	English
206	Bungalow	Kleinstadt	GK-NF 6[1]	251	Bungalow
208	Suburban	Vorstadt	GK-NF 8 + 206	265	Suburb
210	Country Home	Gartenstadt	GK-NF 10 + 206 + 208	279	Country
210C		Washington	GK-NF 10	795	

[1] Plan book 206A was available. It called for GK-NF set # 8 as the set to be supplemented.

****

Passwords

German Country House (Landhaus) Sets

Set	Password	Supplement to	Stones	Ridge-plates	railings	wood roofs	other[1]	English
301	Celle		182	24 or 25	3	10	0 + 0 + 0	
303	Coblenz		436	40	22	17	1 + 2 + 9	
305	Crefeld		836 or 842	46	22	29	1 + 2 + 9	
301A	Cassel	301	254 or 259	15	19	7	1 + 2 + 9	
303A	Castrop	303	406[2]	6	0	12		

[1] Others are water wheel + crosses + dormers

[2] The pre-WW I set # 303A was planned as a smaller supplement with 243 stones.

Passwords
Fortress Series (191? - 1963)
Basic and supplement Sets

Set	Password	Stones	# of Cannon	English	Cost in Marks in 3/17
402	Falkenau	38	4		3
404	Feldberg	88	6	Falcon	5
406	Fiume	192	6	Fairfax	9
408	Finkenwald	397 or 399	6	Faribault	12
410	Franzensfeste	783	6	Farragut	24
412	Felixdorf	1,247	6*		40
414	Frankenburg	1,887	6*		
402A	Fachingen	50	2		3
404A	Fürstental	104		Fenway	5
406A	Fischbach	207		Flagstaff	9
408A	Fünfkirchen	384		Flushing	13
410A	Fieberbrunn	459			18
412A	Freistadt	629			
* Only for a short time in 1918 - 1919.					

Passwords

Art Model Building Sets

Set	Roof Color	Block color	Password	Stones	English
1	red	light yellow	Bürgerheim I	81	
1	red	grey-yellow	Bürgerheim II	81	
1	red	yellow-grey	Bürgerheim III	81	
2	blue-grey	yellow	Liebe Heimat I	142	Blue Bird
2	brick red	dark grey	Liebe Heimat II	142	Sandy
2	green	red	Liebe Heimat III	142	Green Gables
2	brown	light yellow	Liebe Heimat IV	142	Buster Brown

****

Imperator
The Anchor Engineer
All Metal Building Sets

Set	Metal Parts	Password	English
0	62		
I	97		
II	168		
III	295		
0A	35		
IA	71		
IIA	127		

Passwords and Telegraph Words

Anchor Tablet Laying Täfelchenlegen

AF*

Set #	Stones	Shapes & Colors	German	English	Dutch	French	Danish	Polish	Czech	Hungarian
1	82	3 + 6								
2	134	5 + 6								

NF*

Set #	Password	Supplement to	Stones & Colors	German	English	Dutch	French	Danish	Polish	Czech	Hung.
1	Nagold		85 - 4	Lager	Garden		As	Maage		Komár	
2	Nakel		171 - 5	Lagerbaum	Generous		Abus	Makrel		Komín	
3	Namslau		307 - 5	Lagerbier	Gigantic		Accés	Mandel		Komnata	
4	Nassau		410 - 5	Lagerbuch	Gossip		Age	Marmor		Komoň	
6	Nauen		648 - 5	Lagerfass	Guardian		Arme	Matador		Komůrka	
1A	Nebra	1	91 - 5	Lagergeld	Hammer	Legermacht		Melodi		Komže	
2A	Neheim	2	131 - 5	Lagerhaus	Hero	Legerplaats		Mercur		Koňák	
3A	Neisse	3	108 - 5	Lagerholz	Hint	Legerschaar		Meridian		Končíř	
4A	Neuburg	4	104 - 5	Lagerhütte	Home	Legerstede		Merskum		Konec	
5A	Neudorf	4A	138 - 5	Lagerkorn	Hunter	Legertent		Model		Konev	
2B	Neumark	2	239 - 5	Lagerobst	Intention		Bord	Motto	Lamus		
4B	Neumühle	4	238 - 5	Lagerplatz	Ivory			Museum			

* **The NF sets were issued as early as 1892. But as these sets are not part of the Stone Building Set series, the AF and NF designations have little meaaning.**

Passwords and Telegraph Words
Anchor Mosaic Sets
Mosaikspiel

AF

Set	Size	Stones[1] & Colors	German	English	Dutch	French	Danish	Czech
1	KK	510 - 4	Land	Mercury		Mer	Musik	Láce
2	GK	510 - 4	Landmann	Cupid		Mois	Myrte	Lán

[1] Early sets had 508 stones, but was increased to 510 to make floors in GK-AF set # 23, Italien.

NF
(also introduced by 1892)

Set	Password	Supplement to	Size	Stones & Colors	English
1	Neurode		KK	278 - 4	
2[1]	Neuss		GK	278 - 4	
3	Neuteich		KK	547 - 4	
4[2]	Neviges		GK	547 - 4	
1A	Neusalz	Neurode	KK	269 - 4	
2A	Neuwied	Neuss	GK	269 - 4	

[1] Enough for all plans up through GK-NF # 34.

[2] Needed for the plans shown in the metal series sets, incuding GK-Br.

****

Passwords and Telegraph Words

Round Mosaic Game „Saturn."

Set	Password	Size	German	English	Dutch	French	Danish
2	Nothberg	310 × 220 × 55					

****

Ball Mosaic Game „Meteor."

Set	Password	Size	Balls	Colors	German	English	Dutch	French	Danish
1	Nidda	150 × 150 × 22	72	4					
2	Nienburg	180 × 180 × 22	96	4					
3	Niesky	210 × 210 × 25	144	4					
4	Nimkau	245 × 245 × 25	216	4					
5	Noldau	255 × 255 × 40	216	4					
6	Norburg	215 × 215 × 55	300	4					
7	Norden	310 × 220 × 55	300	6					
9	Nortorf	350 × 250 × 55	600	6					
11	Nossen	355 × 260 × 60	1,200	6					

****

Karola

Set #	Password	Stones	English	
0		165		
1		233		
2		337		
3		449		
4		579		
5		1,058		

****

Vexier-Mosaik Puzzles

Set #	Password	# of Stones		Notes
1		18		
2		28		
3		52		
4		44		a "political" puzzle in a luxury box.

****

Social Game
(Gesellschaftsspiel)

Set	Telegraph Word
Anker I	Landgraf
Anker II	Landhaus

Passwords Puzzles

#[1]	German Name	Password[2]	Stones	Problems[3]	Dutch Name	French Name	English Name
1	Alle Neune	Gedern	9	141	Alle Negen	Les Neuf	The Nine
2	Der Blitzableiter	Gansheim	7	140	Bliksemafleider	Le Paratonnerre	Lightning Conductor
3	Ei des Columbus	Gatow	9	111	Ei van Columbus	L'Œuf de Colomb	The Columbian Puzzle
4	Der Geduldprüfer	Gebenbach	8	114	De Geduldtoetser	Le Brave-Patience	The Patience Prover
5	Der Grillentöter	Gassen	7	108	De Grillenverdrijver	Le Chasse-Ennui	The Trouble-Killer
6	Herzrätsel		9	98	Hartraadsel	Problème du Cœur	Heart Puzzle
7	Kobold	Gehlberg	7	143	De Kabouter	Le Lutin	The Goblin/Kobold
8	Kopfzerbrecher	Gabelbach	7	195	Steenraadselspel	Le Casse Tête-Persan	The Anchor Puzzle The Union Puzzle
9	Kreisrätsel	Gadebusch	10	121	Kransraadsel Cirkelraadsel	Le Problème du Cercle	Circular Puzzle
10	Kreuzzerbrecher Kreuzspiel	Gambach	7	149	Kruisraadsel	Le Problème du Croix	Cross Puzzle
11	Nicht zu hitzig	Gaussig	8	89	Zachtjes aan	Halte-là	Not Too Hasty
12	Pythagoras	Gaildorf	7	197	Pythagoras	Pythagore	Pythagoras
13	Der Quälgeist	Gaggenau	8	174	De Kwelgeest	Le Taquin	The Tormentor
14	Ruhig Blut	Geilsheim	10	136	Langzaam gaat zeker	Tout doux	Be Quiet
15	Sphinx	Geldern	7	135	De Sphinx	Le Sphinx	The Sphinx
16[4]	Das Wunder-Ei		9	106	Het Wonderei	L'Œuf magique	Magic Egg
17	Der Zornbrecher	Garmisch	7	113	De Toornstiller	L'Apaise-Colère	The Wrath Breaker
18	Archimedes		8				
19	Ende gut, alles gut		8				
20	Pass auf		10				
21	Eile mit Weile		10				

22	Sorgenbrecher		8			Special Table of Telegraph Words [2]	
23	Kopernikus		9			Name	Telegraph Word
24	Pyramide		8			Kopfzerbrecher	Korb
25	Nur Mut		12			Kreisrätsel	Koralle
26	Böse Sieben		7			Quälgeist	Koran
27	Ritze Ratze		8			Kreuzspiel	Korn
28	Frisch gewagt		9			Ei des Columbus	Kornblume
29	Zeitvertreiber		8			Grillentöter	Kornland
30	Zepplin		8			Zornbrecher	Kornsieb
31	Kieblitz-Ei		8			Blitzableiter	Kornblau
32	Wer wagt gewinnt		8			Nicht zu hitzig	Kornrolle
33	Für kluge Leute		8			Geduldprüfer	Kornschiff
34	Hexenmeister		8			Kobold	Kobold
35	Teufelchen		9			Sphinx	Kolkrabe
36	Heureka		8			Alle Neune	Kochkunst
	Zoologischer Garten[5]		15			Ruhig Blut	Kohlmeise
	Lustige Tiere		76			Sternrätsel	Kornak
	Märchenbilder		128				
	Max und Moritz		60				
	Sternrätsel	Giessen	48		Het Sterraadsel	Le Problème de l'Etoile	The Star Puzzle
	Das Blumenrätsel		36				The Flower Puzzle

[1] Other unnumbered puzzles include: Gift Pack I (consists of #s 24, 28, 31 & 32); Gift Pack II (Der Pfeifenraucher); Picco I, II & III (or Piccolo T1, T2 & T3); Lasca; Anker-Spiel or Gesellschafts-Spiel "Anker" (Richter's Social Game "Anchor").

[2] Puzzles with Passwords also had, earlier, Telegraph Words.

[3] Some of the problems are combination problems, requiring two different puzzles to solve.

[4] Actually the same puzzle as # 3, but the problems are mostly birds.

[5] During W.W.I, the same puzzle was called Schützengraben and came with military styled puzzle designs.

Wood Set (Anker-Holzkasten)

Set #	Password	Wooden Pieces	Notes:
	Holz		In the German 1913 (136-25) catalog
I		23	"Dörfel" Wood Building Set
II		44	"Dörfel" Wood Building Set

****

Wood Constructiuon Sets
Universal

Plain		Colored		Supplemental Sets of Gears		Additional Supplements
Basic	Supplement	Basic	Supplement	Plain Added Gears	Colored Added Gears	
OO				ZR 0	ZR 10	Gear Box Set # ZG
O		20	20a	ZR 1	ZR 11	
1	1a	21	21a	ZR 2	ZR 12	Gear Assembly Set #ZM
2	2a	22	22a	ZR 3	ZR 13	
3	3a	23	23a	ZR 4	ZR 14	Rods (Stäbchen) #s 1, 2, 3
4	4a	24	24a			
5	5a	25	25a			
6	6a	26				
7						

Telegraph Words

AF Crèche Accessory Figures

Set #	Telegraph Words	For set	Number of figures	Cost in Marks
13A	Magdalena	KK - 13	40 - paper	3.5
13B	Marcus	KK - 13	30 - papier-mâché	5
14A	Maria	GK - 14	40 - paper	3.75
14B	Martha	GK - 14	30 - papier-mâché	6.5
17	Matthäus	GK - 17	36 - papier-mâché	9
18	Missionär	---	47 - papier-mâché	
19	Mission	---	42 - papier-mâché	
20	Nazareth	---	38 - papier-mâché	

AF Accessory Figures

Set #	Telegraph Words	For these Plans
1	Obdach	5^{I}, p 8; 8^{I}, p 1; 9^{I}, p 12
2	Obelisk	$2A^{I}$, p 5; $3A^{I}$, p 4; 10^{I}, p 3; 13^{II}, p 2
3	Oberamt	6^{II}, 7
4	Obhut	22^{II}, p 15
5	Oblate	18^{II}, p 3
6	Obrigkeit	20^{I}, p 6 (2nd edition)
7	Obstbaum	$2A^{I}$, p 2; $3A^{I}$, p 12; 9^{I}, p 1; 13^{II}, p 6
8	Occident	10^{II}, p 14; $12A^{I}$, p 3; 15^{II}, p 2
9	Ocean	16^{I}, p 7
10	Ocker	21^{I}, p 4
11	Octave	11^{II}, p 24
12	Oden	12^{II}, 10
13	Odin	20^{I}, p 7 (2nd edition)
14	Odysseus	$18A^{I}$, p 5
15	Ofen	16^{I}, 4; 19^{II}, 6
16	Offenheit	18^{II}, p 6
17	Offerte	$18A^{I}$, p 2
18	Offizier	19^{II}, p 2
19	Oheim	20^{I}, p 1 (2nd edition)

Continued		
Set #	**Telegraph Words**	**For these Plans**
20	Ohr	22^{I}, p 8 (2nd edition)
21	Ohnmacht	$12A^{I}$, p 14
22	Oekonon	$18A^{I}$, p 6
23	Oel	19^{II}, p 1
24	Olive	18^{I}, p 4 (2nd edition)
25	Olymp	22^{I}, p 10 (2nd edition)
26	Omen	22^{I}, p 9 (2nd edition)
27	Oper	$12A^{I}$, p 15
28	Opium	18^{II}, p 13
29	Optik	$18A^{I}$, p 4
30	Orange	19^{II}, p 2
31	Ordnung	19^{II}, p 5
32	Orchis	22^{I}, p 12 (2nd edition)
33	Orgel	17^{I}, p 10
34	Orient	20^{I}, p 10 (2nd edition)
35	Ostern	6^{I} (2nd edition), pp 5, 9, 11, 13
36	Otter	5^{I}, p 7
37	Ozon	18^{I}, p 7 (2nd edition); 22^{I}, 14 (2nd edition)
38	Oxyd	8^{I}, p 8
39	Orakel	9^{I}, 15; 10^{I}, p 5; 12^{II}, p 12; 13^{II}, p 8; 19^{II}, p 11
40	Orchester	11^{II}, p 4
41	Osman	20^{I}, p 8 (2nd edition)
60		23, p 4 -5
61		23, p 6 - 7
62		23, p 10 - 11
63		23, p 3
67		27^{I}, pp 6 - 7

NF Accessory Figures

Set #	Telegraph Words	For these Plans
1	Pfriemen	10, p1
2	Pfropfries	10, p3
3	Pfundbirne	11, p 1
4	Pfundstück	11, pp 8 - 9
5	Phänomen	11, pp 12 - 13
6	Phantasie	12, p 15
7	Pharisäer	14, p 3
8	Pharao	8, p 2
9	Philister	9, p 11
10	Philolog	14, pp 5 - 6
11	Phlegma	16, pp 6 - 7
12	Phönix	12, p 2
13	Phosphor	16, pp 10 - 11
14	Phrasenhaft	17, pp 2 - 3
15	Physiker	15, pp 14 - 15
16	Pianist	16, pp 14 - 15
17	Picknick	17, pp 4 - 5
18	Piepvogel	17, pp 8 - 9
19	Pietät	19, pp 14 - 15
20	Pikant	18, pp 4 - 5
21	Pilger	18, pp 6 - 7
22	Pilgerstab	22, pp 4 - 5
23	Pilot	18, pp 13
24	Pilzgift	19, pp 2 - 3
25	Pincette	20, p 3
26	Pinsel	20, pp 6 - 7
27	Pinselstrich	20, pp 14 - 15
28	Pirolruf	26, pp 4 - 5
29	Pirschhund	30, pp 12 - 13
30	Pistole	30, pp 14 - 15

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