

Learning From The Serial Numbers: Gebrueder Bruder Organ Manufacturing

Fred Dahlinger, Jr. Copyright 2001

Most manufacturers of durable capital goods and machinery routinely apply serial numbers and dates to their products. The identification marks preserve the sequence in which items were manufactured; document the time the item was built; define the features incorporated; perhaps reveal the original and subsequent owners; and also serve to understand modifications made in later years. Most American and European band organ manufacturers affixed serial numbers to their instruments and thereby provided a means for contemporary researchers to understand the evolution of their designs and manufacturing. Notably for builders in the heyday of band organs, the numbers also enabled the maker to determine the scale of the instrument, in the event new barrels, books or rolls were to be supplied.

Unfortunately, few band organ factory records survive that connect serial numbers with specific instruments, original owners or known dates of construction. Lacking those primary reference documents, organ manufacturing ledgers, repair invoices, sale and shipping documents, the instruments themselves and organ owners and restorers all serve as sources of serial number information. The interested and patient researcher compiles a miscellaneous gathering of numbers, dates and related data, waiting until a critical mass of information is available before drawing conclusions.

This incomplete resource is often difficult to interpret with assurance. For example, some builders did not apply sequential numbers, but applied them at irregular intervals. Parts from one organ may have been used in the repair of another and maintenance job identifications may have been applied after the original number was assigned. There are also other pitfalls for the unwary historian. Some parts and pattern numbers have been mistakenly identified as serial numbers. Perhaps one of the

more challenging elements is the rationalization of dates and other oral tradition type information that has been handed down about various organs or manufacturers, much of which conflicts with newly acquired documentation. The ancient adage “old stories die hard” applies when radically altering generally accepted organ history.



Figure 1. The one known example of the “Military Orchestra Selection,” was built in the stepped-case design and had the keyframe perpendicular to the front. The keyframe was a beautiful set of castings, with “GB” cast into the top member.

Photo: Mike Kitner (circa 1986, author's collection).

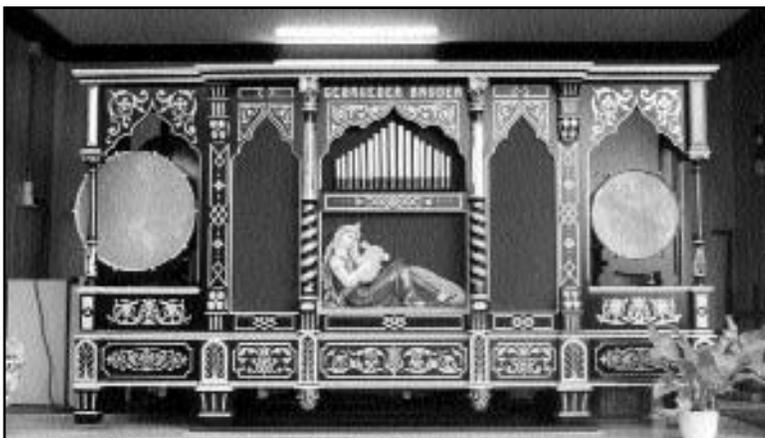


Figure 2. This fine-sounding instrument was originally a barrel-operated organ that was converted to rolls. Owned by Gebr. Kuindersma of Holland, it now plays Model 36 Ruth books. Ebonized facades with gold trim were quite common before the turn of the century. The drum wings were retrofitted.

Photo: Author (1999).

Serial numbers can be found in different locations on organs. A few makers applied printed paper cards on the back side of organ chests, onto which the serial number was inked. Others stamped the number in a special place on the casework or painted it on the back of the valve chest cover. In most German organs, the best place to look for it is on the flats of the pump crankshaft throws. One maker even stamped their model number on the crankshaft flats. You can also find them on the front face of chest risers, between trumpet chest holes and other so-called “secret” locations that do not readily beckon the eye. The modification of some organs, especially the retrofitting of blowers that precipitated the removal of the pump crankshaft, or the failure of a crankshaft and its subsequent replacement, has literally deprived some organs of their identity.

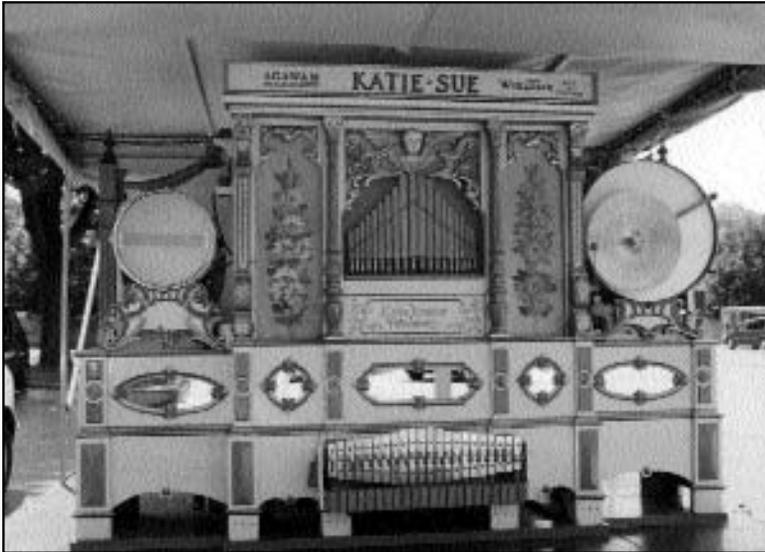


Figure 3. Peter H. Hallock is the owner of #4864, a 56-key instrument that has been converted to a roll system. Wisely, all of the barrel mechanism has been preserved. Photo: Author (2000).

Manufacturing dates are sometimes found inside valve chests. In one make the builder of the pump usually inserted his name on a piece of paper, along with a date that presumably denoted his involvement with the piece. One manufacturer's listing of tunes supplied with their organs survives, marked with the dates that they were furnished. In another case shipping lists exist that connect serial numbers with the customer's name and address. Unfortunately, the serial numbers applied to that maker's organs frequently did not survive the passage of time, making connection of the artifact to the archival record a difficult proposition.

To the best of the writer's knowledge, no primary resource of Gebrueder Bruder manufacturing survives. As with many defunct firms in product lines that did not endure, the records were presumably thrown away when the work ceased or the

principals lost interest in the personal maintenance of them. We've not uncovered all that there is to learn about Gebrueder Bruder serial numbers; however, there is now a body of information available that can be shared with others to advance general knowledge of these prized instruments from Waldkirch, Germany. For some styles of Gebrueder Bruder instruments there is a profusion of known serial numbers. For others, there are no existing examples of the model and no reference to their serial numbers has been located in surviving literature.

. . . in written German the lead word Gebrueder would have no "e", but a "u" with an umlaut—ü . . .

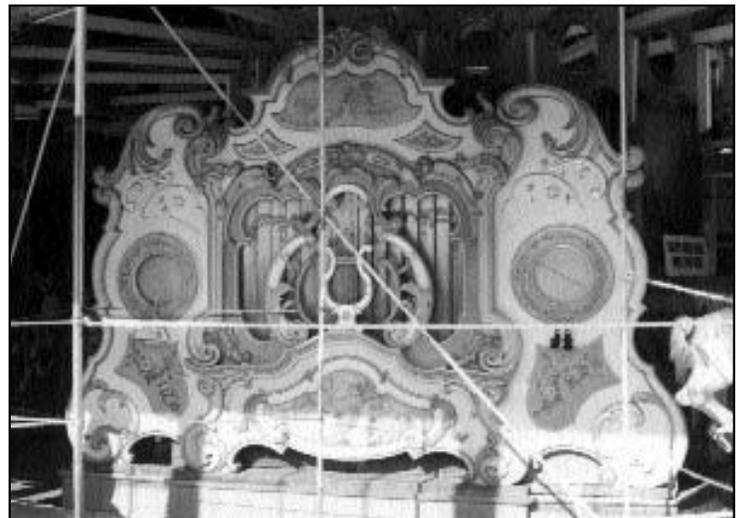


Figure 5 (above). This organ was in the news recently because of the death of its dedicated operator Michael Salzstein. The Elite Orchestra Apollo organ plays on the B & B Carousel in Coney Island, the last of many Bruders to entertain patrons at the one time amusement Mecca. Photo: Author.



Figure 4. This long term showman's organ only recently came to the United States from Germany. It is now part of the Milhous collection. It is an 80-key-less, Model 104 Bruder. Recently conserved and restored, it exemplifies the finest of Gebrueder Bruder organs. Photo: Joan Haughwout.

When translated into English, the family name "Bruder" means "Brother." The firm's name, literally interpreted, means "Brother Brothers." Taking a famous American example, Ringling Brothers, and translating it back to the German would make it "Gebrueder Ringling." It is incorrect to refer to the firm as "Gebrueder," though it has been done both in the past and in the present by English speaking people. That identification alone could mean Gebrueder Bruder, Gebrueder Richter, Gebrueder Riemer, Gebrueder Wellershaus and others, all of whom were European band organ builders. Though in written German the lead word Gebrueder would have no "e", but a "u" with an umlaut (double dot over the vowel—ü), in this paper we have chosen to use the easier English approximation, namely "ue."

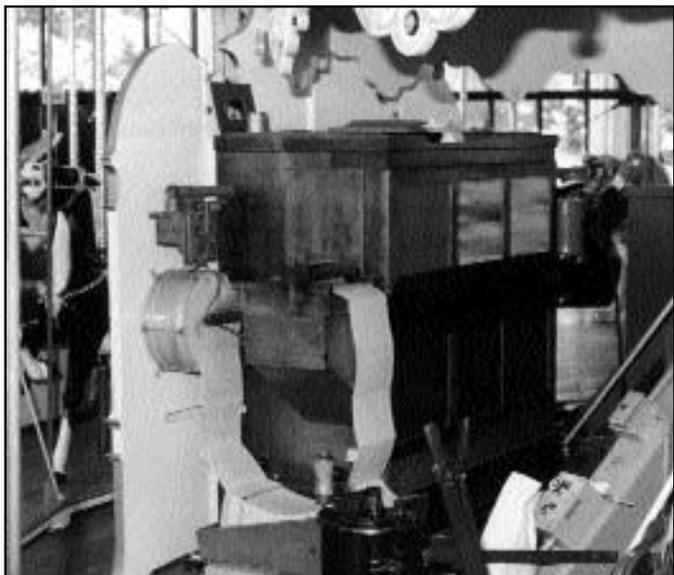


Figure 6. This style 107 depicts the most commonly encountered form of keyframe arrangement, with the tracker bar parallel to the front of the organ. It plays on the carousel in Golden Gate Park, San Francisco, California. Photo: the late Dan Slack (author's collection).

Research by others indicates that Gebrueder Bruder was founded in 1864 and closed in 1933. During those seven decades the principals included two of the sons and several grandsons and great-grandsons of Ignaz Bruder I, the founder of the Waldkirch, Germany, tradition of show organ manufacturing. During their heyday, Gebrueder Bruder was the most prolific German builder and exporter of band organs. Their agents in the United States included Ernst Boecker, Charles W. Parker, the Berni Organ Company, William F. Mangels and others.

Many good examples of Gebrueder Bruder hand organs, barrel organs and medium to large size band organs can be seen and heard in the United States in our time. A number of great organs from the instrument's heyday in the United States thankfully survive. Some of those that we enjoy today were imported recently by hobbyists and dealers in the past three decades.



Figure 7. The later style of roll-operated style 107 Gebrueder Bruder had a case that was jammed with quality pipework. This is number 5371, with the roll box on the right side. Photo: Ron Yost.

A few small and several large Gebrueder Bruder organs await restoration here, ready to reveal their characteristic Gebrueder Bruder tonality. Unfortunately, one notable example of a unique Gebrueder Bruder instrument built specially for the American market, the 94-keyless "Military-Symphony-Orchestra "Selection"" model (Figure 1), departed America for its country of origin over a decade ago and must now be seen and heard in Bruchsal, Germany.

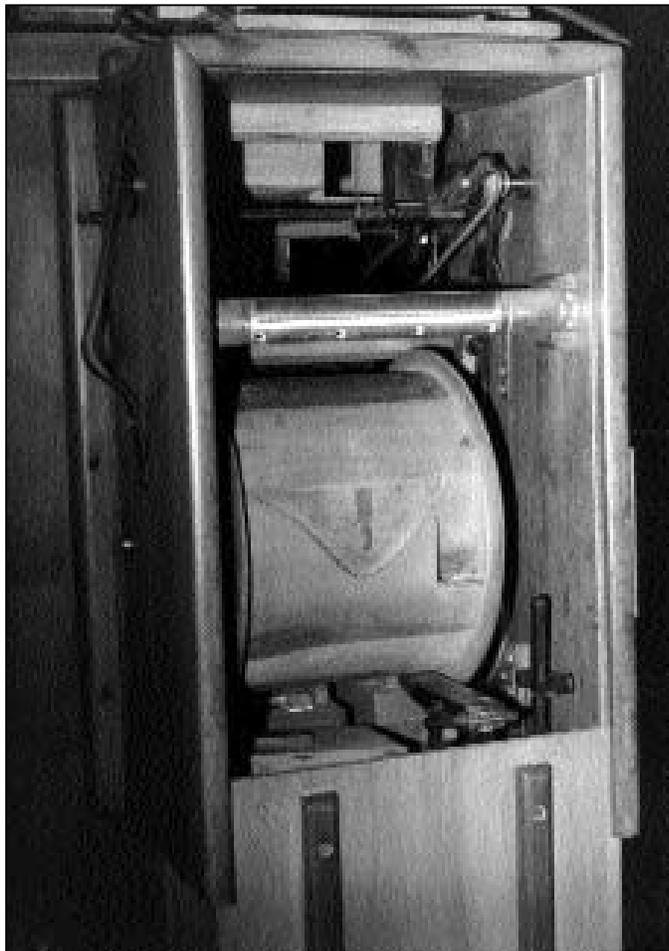


Figure 8. The Gebrueder Bruder roll-playing system had a large take up barrel that minimized tempo changes in the music as it accumulated the paper. This one is on number 5371, owned by Jerry Doring.

Photo: Ron Yost.

Our compilation of known Gebrueder Bruder serial numbers ranges from 2578 to 5632, or 3,055 presumed orders. The lower number is likely not the first Gebrueder Bruder number; however, we don't know if they started at 1 or some intermediate number. Many manufacturers intentionally start a new series at a number other than one, for a variety of reasons. The quantity of known numbers is about 60, or between one and two-percent of the firm's total output. That number is probably scientifically insignificant, but the data is still adequate to draw some general observations.

In our listing of Gebrueder Bruder serial numbers there are several instances of consecutive numbers. These include 5083 and 5084; 5260 and 5261; 5289 and 5290; 5330 and 5331; 5336 and 5337; and 5413 and 5414. The conclusion that we would

draw from these paired numbers is that the Bruder factory probably assigned their serial numbers consecutively, or nearly so. One organ, 4829, was also assigned a later number, 5079. It is thought that this was a repair or modification entry. If that is the case, Gebrueder Bruder serial numbers represent a combination of both new orders and rebuild work. We have yet to see any Gebrueder Bruder organs with a 5500 series number, but perhaps there is one extant in Europe.



Figure 9. A rarely encountered organ is the Model 100. This factory photograph clearly shows different pipework than that found in the more common Model 107. An example of this organ exists in the U. S. Photo: Stefan Fleck.

no knowledge of its date of manufacture, but it was made after Gebrueder Bruder had commenced the making of book organs. Manipulation of available dates, serial numbers and manufacturing rates would suggest a date of late 1905 to early 1906.

Although it appears that Gebrueder Bruder, like other manufacturers, did not interrupt their serial number assignments as a result of the change from barrel to book operation, a few words about that change are pertinent to understanding their output. A. Ruth & Son, another

Gebrueder Bruder barrel organs were identified by model numbers that ranged from as low as 1 to as high as 72, with key sizes ranging from 24 to 107 keys. The lowest Gebrueder Bruder serial number that we have seen is 2578. It was found on a large hand organ that was owned by an organ agency in Mexico. Another early number, 3281, applied to a 30-key Harmonipan, was found in the scale book of Amerintroduccan arranger Max Schilling. A 33-key hand organ in the United States at this time is 4560.

Waldkirch organ builder, commenced their manufacture of keyless book organs in 1900. Ruth, along with Gebrueder Bruder and other German makers, continued to build barrel organs and new barrels, and to service older organs until their own new methods of organ operation were devised. Shedding

Serial numbers climbed higher as production continued. There is a 57-key barrel organ in Holland, number 4807. It is likely a Model 63. The lowest band organized and type instrument serial number that we've encountered is 4864, applied to a 56-key barrel organ (Figure 3). It could be a Model 67, or less likely, the earlier 56-key Model 26. The organ has attached side wings with drums. Unfortunately, there is



Figure 10. This elegant organ is a Model 103, 67-keyless Gebrueder Bruder. It bore the date March 12, 1914, inside the pump when last rebuilt. Photo: Neil Smith.

of the old style of organ making did not occur overnight. It is possible that Bruder may have delayed the construction of their first book organ a few years. Gebrueder Bruder appears to have commenced book organ manufacture by mid-1904, based on the mathematical manipulation of the earliest known Bruder book organ serial number and production data to be presented later, but it could have been earlier.

The reader should remember that it was several years after the introduction of the book and key system by Gavioli before any form of keyless book scheme was introduced by the German organ makers. The barrel playing systems were both precise and reliable, the technology being hundreds of years old and quite adequate to perform the musical selections then being arranged. It took time to change the commitment from one system to another, both by the builders and the showmen, who were understandably uncomfortable with “progress.” There was an equally long period to develop a reliable control technology that could cope with all sorts of service problems once the organ left the factory. It took some time for each manufacturer to develop their own unique valve apparatus and to perfect it for field operations.

Book organs made in the first decade of the twentieth century by Gebrueder Bruder continued to have a step in the upper half of the back of the case, as was common in larger barrel organs. This facilitated access to the book path, which initially traversed through the case of the organ, from left to right. The tracker bar was positioned at a right angle to the front of the machine. The arrangement flowed from the barrel configuration, but presented problems. Books were loaded on the left side of the case but exited on the right. That meant the heavy music crates had to be manhandled, across the width of the organ, back to the start position.

Anyone that has moved a case of large organ music can appreciate that struggle. The through the case design also presented problems for continuous playing. Books could not be looped through the keyframe unless they were to be more or less permanently in place in a cradle that ran under the floor supporting the machine.

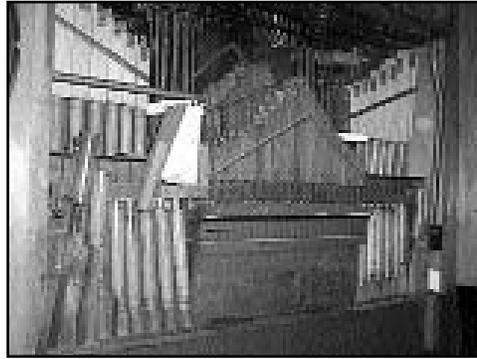


Figure 11. Anyone familiar with the layout of pipes in the Wurlitzer 165 will see many similarities with this interior view of Gebrueder Bruder #5073, now located in Australia.

Digital photo: Terry Lloyd.

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Both problems were eliminated with a simple solution. The tracker bar was placed in its own wooden housing. The assembly was turned 90-degrees to the former position and attached to the left side of the case. In this way the music was fed in one side of the key frame and exited the other. It was a simple matter to shift the spent crate back to the play position. Music could go towards the front of the organ or the back, depending upon the choice of the builder. We don't know when Gebrueder Bruder changed their tracker bar position, but Ruth did not adopt the improvement until 1908, possibly after the passing of Adolf Ruth, Sr.

The stepped-back case common to larger barrel organs was also abandoned in favor of a full rectangular box, which was easier to make. There was no longer a need to have a maintenance cover over the barrel. The full box designs were stronger, increased covered space for more pipework and perhaps improved the acoustics. The change may have come on Gebrueder Bruder organs between 1905 and 1910.

With the list of serial numbers in hand, we can now commence to understand when certain models of Gebrueder Bruder book organs were made. The “first” and “last” of any particular model cannot, at this time, be known with exactness. We offer the current examples simply as the earliest or latest known at this time. Nor is it possible to state with absolute certainty whether one style or another was made first, despite it being offered in a cata-

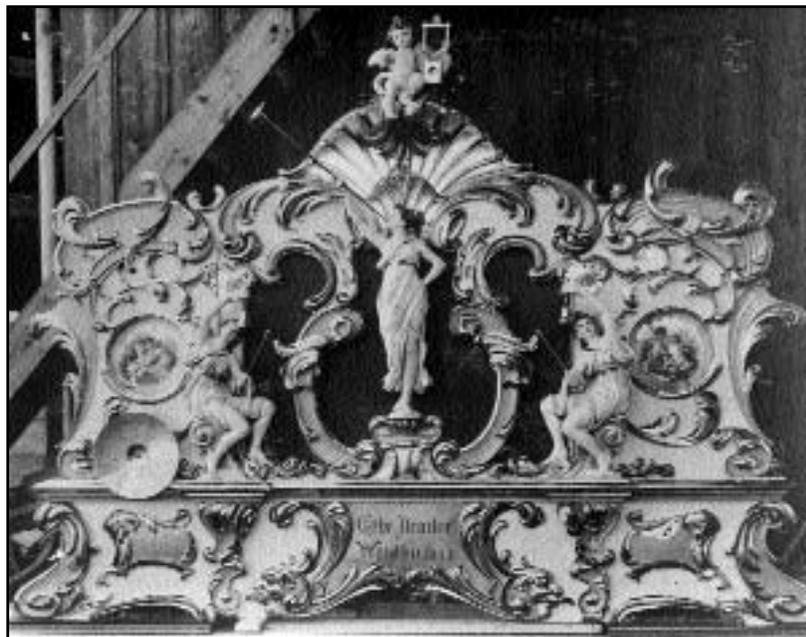


Figure 12. A fine example of the “Sirene” Bruder is this organ, shown in a factory photograph taken before shipment to Italy. A similar instrument exists in Germany today, #5195. Photo: Stefan Fleck.

log or other promotional setting, or being a lower model number. Fortunately, the data for book organs is more rational than for barrel organs because they were made later and more of them survive in unadulterated condition.



Figure 13. The only example of the "Universum" in America is #5245, rebuilt by Carl Frei. It was owned by fam. J. Murer-Brunner before being brought here for Gooding Amusements.

Photo: the late Dan Slack (author's collection).

Gebrueder Bruder commenced a new series of model numbers when they introduced their book organs. They eventually spanned from 100/100a to 111, with 101, 102 and 110 excluded. There is no knowledge at this time whether they designed the entire series at once, or if they started with the smallest organ and worked upward, or commenced with a medium-sized design. It would not be unusual if Gebrueder Bruder proposed a variety of designs and then "sold" a customer on buying one, the latter never knowing that they were getting the first production model.

Gebrueder Bruder also implemented a model name system, with the title presumably to inspire some attitude towards the glorious quality of the music and visual appearance to be provided by the instrument. These were usually two parts, the most popular being the "Elite Orchestra- 'Apollo.'" Others were the "Symphony Orchestra Organ 'Terpsichore,'" the "Symphony Orchestra Organ 'Pompadour'" and the "Traveling Orchestra Work 'Jubilaem.'"



Figure 14. Very few Style 109 Gebrueder Bruder organs were constructed. This one, #5386, a 66-keyless roll player presented by Arno Tacke, has been dated 1928 by others.

Photo: Dirk Feenstra (1995).

The lowest known Gebrueder Bruder book organ serial number is 4825, a 59-keyless Model 106 organ. Close by is number 4829, another Model 106 that also has the number 5079 in it, perhaps representing later factory repair work. The books flow through the case of this organ. The highest known number for a Model 106 is 5121.

The lowest serial number 80-keyless, Model 104 organ was the one owned by the late Mike Kitner. It bears number 4909. In this instrument the music passes through the case of the organ, from one end to the other. Mangels imported more of this size Bruder than other except for the later Model 107, and it's possible that this particular organ was one of his sales. If the model styles were designated in rising number order, we would eventually expect to locate a Model 104 with a serial number lower than 4825. Serial number 4950 appears to be another Model 104 organ, as it lacks the more costly brass trumpets. The latter number is the highest known for a Model 104. A model 104 is shown in **Figure 4**.

Serial numbers 5065 and 5218 are both 80-keyless and incorporate brass trumpets in their pipe complements. They may have been sold as Model 104 organs, but they could also have been offered as examples of one of the name-model organs, such as "Elite Orchestra- 'Apollo.'" The technical specification of the named organs is ambiguous, presumably to enable the maker and showman to negotiate the various features of the special commission

The Model 107, 52-keyless Gebrueder Bruder was likely the most popular book organ ever designed. The earliest known example carries serial number 4941. The date 1908 has been applied to it in one source and number manipulation would suggest that to be reasonably accurate. The highest known serial number for a Model 107, or for any Gebrueder Bruder known to the author, is 5632. Of the 60-some Gebrueder Bruder serial numbers known to the writer, two-thirds of them are 52-keyless organs. The high proportion is likely witness to both the original

popularity of the organ and the appreciation they have received in later years.

The 107 was a powerful organ in a compact package, at an attractive price (**Figure 6**). The model underwent several evolutions through its long existence, including changes in the pipework and playing system. At least three different complements of pipework have been seen in various 107s. Organ 5110 has a limited array of pipes while 5371 (**Figures 7 & 16**) has an enhanced complement of pipework found in the larger 107s.

A roll-playing system, employing a durable paper wound up on a large diameter take-up drum to minimize tempo change, was also implemented (**Figure 8**). Book-operated 52ers were numbered as high as 5356. The lowest serial number for an original roll-operated Bruder is 5353, while the highest was 5632. Clearly, showmen embraced the roll-operated organ as soon as it was introduced. An unusual feature found on some Model 107 organs, a mechanism to play the snare drum while the roll is rewinding, is found on serial number 5336. August Berni imported 5013 while Mangels is known to have brought over 5110 and 5172.

A cousin to the Model 107 is the Model 100 (**Figure 9**). Playing on the same scale, this organ has saxophones in lieu of trumpets in the counter-melody. An instrument of this type in the United States bears serial number 5005. Another thought to have been destroyed was 5255.

The 67-keyless design was assigned Model number 103 (**Figure 10**). The lowest serial number known so far is 5084. Inside the pump of this organ was a penciled date, March 14, 1912, giving one of the few indisputable dates for a Gebrueder Bruder serial number. The organ was furnished with a Mangels portable carousel and is now owned by Joe Hilferty.

Gebrueder Bruder made "Elite Orchestra-'Apollo'" organs in several formats. The lowest known number on such an organ is 5041. One of 69-keyless size in Australia is number 5073 (**Figure 11**). The 65-keyless design may have served as the basis for the Wurlitzer 165 instrument, which was introduced in 1914 (**Figure 5**). Another Apollo machine may be 5203, the original scale of which was likely 65 or 69-keyless. This instrument has a facade very similar to a Wurlitzer 165.

An example of the Gebrueder Bruder "Symphony Orchestra Organ 'Sirene'" is serial number 5195 (**Figure 12**). It is presently a double roll-playing, 67-keyless instrument, but whether it was originally fitted with a roll player is unknown. Given the lower serial number (compared to 5353, the lowest known serial number for an original roll-playing organ), likely it was initially built as a book instrument.

The Model 108 represented a move towards a smaller, compact organ design. An example of this organ known to the author, called the "Universum" in Bruder catalogs, is 5245 (**Figure 13**). Another survives in Great Britain and

once belonged to the late E. Hatfield, but the serial number is unknown. It appears that there may be at least two more Universum model organs on the continent.

One example of a 66-keyless roll operated organ is known to the writer, number 5386, dated by others as circa 1928 (**Figure 14**). This was Model 109.

Four Model 111 43-keyless examples are known to exist. They are numbers 5404 (**Figure 15**), 5414, 5454 and 5467. They were of the type advertised as "Airophon" by Gebrueder Bruder and represent some of the last instruments

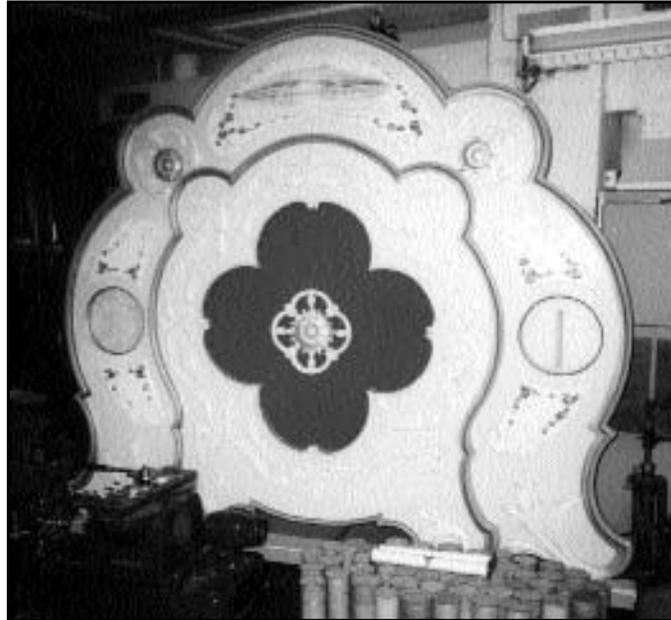


Figure 15. An unusual facade stands before the Model 111 "Airophon" style organ that bears serial number 5404. Now owned by Durward Center, it awaits final painting. It may have been with Julius Maissen's airplane ride in Switzerland in 1931.

Photo: Durwood Center.

Wernet (Waldkircher Verlag, 1984, page 109) reveals that Gebrueder Bruder produced: 100 large and small organs in 1880; 27 instruments in 1888; 30 in 1891; and 35 in 1913.

The 65-keyless design may have served as the basis for the Wurlitzer 165 instrument, which was introduced in 1914.

With these production statistics and two dated serial numbers, some well-known Gebrueder Bruder organs in the United States that otherwise lack year of manufacture can be tentatively assigned dates.

Though the model and keyless size of the organ are unknown, Gebrueder Bruder number 5083 was sold by C. W. Parker in the United States in 1913. An organ noted above, 5084, had a date inside the pump of March 14, 1912. We would surmise that the Parker-sold organ was likely completed in 1912 and then exported to the United States and

sold the following year. Things did not move as fast then as they do today. The next organ, 5084, would likely have been completed in the spring of 1912. At the time, the Bruder factory was making nearly three organs per month, or one on average in less than a week and a half. Serial number 5267, a Model 107 organ owned by the museum in Utrecht, Holland, had been dated as 1915, but in their most recent collection guide it was re-dated as 1920.

Our analysis would suggest approximate dates of manufacture for the following organs in America.

5013, a Model 107, 52-keyless organ imported by August Berni and now at Knoebel's Grove amusement park in Pennsylvania. Date: spring 1910

5065, an 80-keyless instrument, possibly an "Elite Orchestra 'Apollo Model,'" at the House on the Rock, Spring Green, Wisconsin, originally furnished by Mangels to a Canadian customer. Date: mid-1911

5110, a Model 107, at the late Dave Stiffler's Music House in Acme, Michigan, sold by Mangels as a "Columbia" organ. Roy Haning and Neal White, who sold the organ to Stiffler, reportedly purchased it from a Wildwood, New Jersey amusement facility. Date: late 1912

5131, a Model 107, a long term American-owned organ, owned by Frank Rider. Date: fall 1913

5151, a Model 107, the facade of which is on Terry Haughwout's Model 79 Wilhelm Bruder Sons organ. Date: late 1913/early 1914

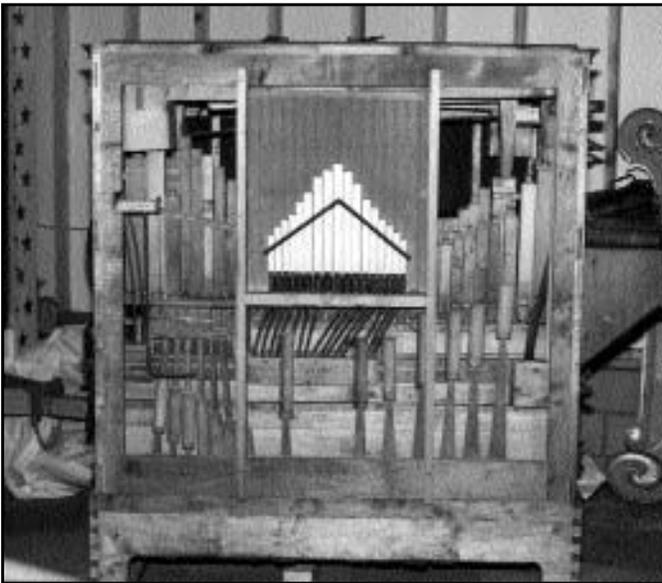


Figure 16. This frontal view of #5172 shows one piping arrangement found in Model 107 Bruders. The serial number is painted on the front of the chest, in two places.

Photo: the late Dan Slack (author's collection).

5172, a Model 107, sold by Mangels, a different "Columbia" style organ and now at Seaport Village, San Diego, CA (Figure 16). Date: late 1914 or 1915, unless delayed by onset of World War I to circa 1919. The organ's operator and care giver, Bruce Pier, advised that the organ pump has Waldkirch newspapers in it from the winter of 1914. It appears that organ production, as indicated by serial number assignment, had slowed as a result of the war, adding about six months to the delivery time. The organ could have been started before the declaration of war in August 1914 and not completed until after the Armistice was signed in November 1918. Ruth appears to have totally interrupted their production 1915-1918, and presumably other manufacturers were similarly impacted.

5203, a 67(?)keyless organ originally, and because of the facade style thought to be an "Elite Orchestra-'Apollo'" style organ, was in this country on the Stubbmann brothers carousel, Coney Island. It's now owned by Jerry Doring. Date: circa 1916, or possibly delayed until after the war. Shipments to and from the United States from Germany, as well as to England, were not stopped until war was declared between Germany and the U. S. in April 1917. The organ now has a duplex roll frame, one side playing Wurlitzer 165 rolls and the other the 66-key B. A. B. Organ Company rolls.

5245, a Model 108 "Universum" style machine, expanded by Carl Frei, later exported to the U. S. and now owned by Howard Sanford. Date: about 1918, likely after the Armistice.

5259, a Model 107, imported within the past four decades with a Dutch carousel and operated by Cliff Gray. The organ now features an Alfred Bruder facade. Date: likely after World War I, perhaps 1919-1920

5260, a Model 107 sold originally by Mangels and recently brought back to the lower 48 states from Alaska by Bill Nunn. Date: likely after World War I, probably 1919-1920

5289, another Model 107, owned by Ron Bopp. Date: circa 1920-1921

With few dates to work with, most of the above analysis was based on mathematical manipulation. Any additions, corrections or discussion of the data based on "hard" information is welcome.

The author would be pleased to hear from any organ owners, rebuilders or researchers that could add to the available list of serial numbers of any make of organ. Our thanks is extended to those proprietors, restorers and others who have been willing to make their information available for this analysis.

Fred Dahlinger is the Director of Collections and Research at the Circus World Museum in Baraboo, Wisconsin. His responsibilities include managing the archival collections, eight National Historic Landmark structures in Ringlingville and the small artifacts collections.