Issue No. 7
April, 2001

CAROUSEL ORGAN

The Official Journal of the
Carousel Organ Association of America (COAA)
Devoted to enjoying, preserving and sharing knowledge of all outdoor mechanical musical instruments, including band, fair and street organs, calliopes, and hand-cranked organs of all sizes.

Inside this issue:

Editor/Publisher — Ron Bopp
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Limonaire or Lemonade?

Rick Cooley & Arthur Prinsen

Fifteen years before I began collecting musical boxes, band organs, crank organs, etc., I was an "A" student in my college French class. In 1968, my first mechanical music collecting began with a player piano which was in terrible condition. Within six months, my wife and I had restored the player, inside and out. When finished, it sounded great. Over the following ten years, I became much more familiar with mechanical music and the fantastic instruments produced during the 19th and 20th centuries. I learned that makers such as Seeburg, Wurlitzer, Frati, Losche, Blessing, Nicole, Mermod, and many others, produced a wide variety of wonderful instruments. But when I first heard the name "Limonaire," I dusted off my "rusty" college French and decided the correct meaning was "lemonade," so perhaps a French "lemonade stand?"

In 1979 my family and I had the opportunity to travel throughout Europe with a one-week stay in Paris, France. We were typical tourists who visited the Louvre, Sacra Coeur, Napoleon's Tomb, the Arch du Triumph and, of course, the Eiffel Tower. Our two teenage sons immediately went to the very top while my wife and I were satisfied to stop one level below. As my knuckles turned white while gripping the outer rail, I tried to enjoy the magnificent view, the beautiful city of Paris. As I finally began to relax, I heard bright, sweet music throughout the tower coming from below. If it had come from above, I would have been convinced that I had "died on the tower and gone to heaven." Since it was coming from below, I prayed that I had not died, for that direction was not my first choice after death.

As my family and I descended the Tower, the beautiful music became much "brighter" but was still very "European" and sweet. As we exited the elevator, it was there that we saw and heard our first French "lemonade stand," a magnificent 56-key Limonaire organ. (**Figure 1**). This organ, with its great arrangements, did not have the strident sounds of some large pipe organs or the "heavy," militaristic sound of a Bruder.

. . . continued on page 3

The President Speaks . . .

Boy it has been a long winter! We, in Northern Ohio, have been infected with a case of cabin fever. And, the only cure is organ rallies! The COAA has four great rallies planned for 2001. The first is scheduled for Dutch Village in Holland, Michigan on June 22-24, 2001. You will receive a mailing from Joan and me in the near future on this fun rally. Then, we travel to Eastern Indiana in late July (July 27-28) for a repeat rally at Bear Creek Village, Bear Creek.

Our third and fourth rallies will be in August, which will give every COAA member chanch to attend at least one rally this season and perhaps more. Dan Wilke has promised a great time in Jamestown, NY, on August 24-26, 2001. The next week the Chamber of Commerce is sponsoring a COAA rally in Gallipolis, OH.

I invite every COAA member to take advantage of the rallies. Even if you don't bring an organ, come and meet some of your COAA members and officers. Enjoy the "Happiest Music on Earth." Find out what it's all about!

Terry

From the Editor's Loft . . .

We continue to have a number of excellent articles sent in for the *Carousel Organ*. Three new contributors, Rick Cooley, Yousuf Wilson and Richard Weisenberger have submitted really great and diverse topics for this issue. And, we have chance to finish up Howard Wyman's informative article on the building of a Wurlitzer Style 105 band organ as well as enjoy some new material from Matthew Caulfield and Fred Dahlinger. As always, I invite all of our COAA membership to think about sending me something for the *Carousel Organ.* Remember, the interest of the COAA lies in not just large fairground organs but also with the small street organ (whether old or new) and the calliope.

The membership continues to grow and the number of contributors to the *Carousel Organ* continues to grow. All of this material that comes from the contributors makes my job one of the *fun-est* jobs to work on. We have quite a selection of material for the July, 2001 issue so I hope that every COAA member will send in his (or her) dues to Marge Waters so that they can enjoy reading the great work that has been submitted.

Ron

Letters to the Editor . . .

Mike Kitner

I was sorry to hear of Mike Kitner's untimely passing. The world of mechanical music has lost an extremely talented craftsman, friend, and just plain nice guy. Mike was willing to discuss technical problems and offer freely of his knowledge and other resources to myself and I am sure many others countless times. He will truly be missed, but his accomplishments will play on for many future generations

Dick Lokemoen
Merrill, WI

(*We all agree with you, Dick—a detailed article regarding the life and work of Mike Kitner is coming in a future issue of the* ***Carousel Organ****—Ed*)

Custom Built Calliope

I have enclosed a photograph of our "custom built" calliope that I made in my shop using specifications as for a Tangley 43 note unit.

A MIDI keyboard is in the console by which the calliope can be hand-played, but mostly we play it with a disk in the Yamaha disk drive (MDF2) through a Devtronix processor and output board.

The pipes are mounted directly on top of the air pressure box with the valves inside operated by pull rods connected to 24-volt solenoids underneath the box. I have another air reservoir below and connected to the upper in which is mounted a standard industrial vacuum motor for the one pound-per-square-inch air pressure required.

George Chisholm
Greeley, CO

(*Thanks for the story,, George—for those members interested in building a calliope we have a great article coming in the next issue of the* ***Carousel Organ****—Ed*)

Hooghuys Article

The facade on Hooghuys organ LH670 (Fig. 15) is from a Model 79, 48-keyless Wilhelm Bruder Sons organ. One of this type exists in the U. S. and another is in the U. K. There may also be others in Europe.

The facade of Mike Kitner's Hooghuys (Fig. 16) came from a Gavioli. That on the Becquart/Kopp Hooghuys LH315 (Fig. 17) may be styled after, or taken from a Gasparini. The Barlow/Screeton organ is illustrated on page 196 of Fred Fried's *Pictorial History of the Carousel*. Other surviving Hooghuys organs are illustrated in FOPS organ publications that are no longer in print, or in other European organ journals and books.

Fred Dahlinger
Baraboo, WI

. . . continued from page 1 (***Limonaire Or Lemonade?***)

Figure 1. The author admiring a 56-key Limonaire, Paris, 1979.

The Limonaire, like Guy Lombardo's dance band of the 1940s, was producing "the sweetest music this side of heaven." Even the small key frame with only 56 keys produced a very full sound from the cardboard books of typically Parisian melodies. As I was finally dragged away by my family, the Limonaire was playing *Under the Bridges of Paris*. At that point, I was convinced that we would add a large Limonaire organ to our collection, "someday."

Since I knew little about the French Limonaire organs, I began to review available references on this wonderful-sounding instrument. The comprehensive mechanical music historical references available today make it impossible to summarize Limonaire's history without repeating facts previously published. As a philosopher once said, "there is nothing new under the sun." During my studies of the Limonaire organ I realized that this organ, although not well known in the United States, was once very popular in Europe.

As I contacted various "authorities" on the Limonaire, I received the following from Arthur Prinsen, Belgium, known around the world for his wonderful organ book-music arrangements. He provided a 1960's never-before published letter from the daughter of the founder of the Limonaire factory, as follows:

> "The Limonaire family was originally from Baskian, a Province between France and Spain. Antoine Limonaire was a piano repairman. Some of the family members eventually married girls from Paris where they (all) became residents. Antoine lived on the Rue Des Petits, Champs No.20. It was a rather large house for that period. After the war of 1870 (Antoine, by then, had passed away), Camille Limonaire, Antoine's son, went to work with his brother in the factory. Camille was an excellent musician. Every day when he went to work, he would pass an organ grinder playing his wonderful music in the street. One day, the organ broke down and the organ grinder asked Camille if he could repair it. Camille was only a piano specialist but promised to try to repair the organ. He was successful. It was at this point that Camille decided to start building barrel organs. The Limonaire family soon became the most famous organ builders in France. Their well known address was Avenue Daumesnil, Paris."

A summary of information in other references enlightened me even further. The Limonaire Organ Company was established in 1840 and initially produced only barrel-operated street organs. Later, they produced barrel orchestrions and band (fair) organs when the operations were moved to Paris. With the invention of the key frame and music book by Anselme Gavioli in 1892, organ businesses flourished. The Limonaire Company of Paris, France changed their wonderful organs and other instruments to use this new book music format.

Around the beginning of the 20th century, business problems and bad decisions plagued many of the organ builders of the day. For example, Gavioli attempted to market "at least one dozen" Residence Pipe Organs with 101 keys (90 keys from book music and 11 keys from the built-in keyboard). Only two of these instruments were ever produced, i.e., a prototype and one production instrument, both measuring over 12-1/2 feet high and 7 feet wide. Alas, the market was not ready for these high-quality, high-cost instruments, so no more were ever produced (the prototype is now in the author's collection; the first production instrument, based on the prototype, remains with the Gavioli family in Europe).

Gavioli then reorganized and emerged as "Gavioli et Cie," continuing to produce some of the finest band and fairground organs in the world. However, the demand for one-of-a-kind instruments sharply increased production costs and reduced profits for all organ builders, including Gavioli and Limonaire. Even so, at the 1900 Paris World's Fair, Limonaire displayed their model "1900" which was too elaborate and expensive for the market (**Figure 2**).

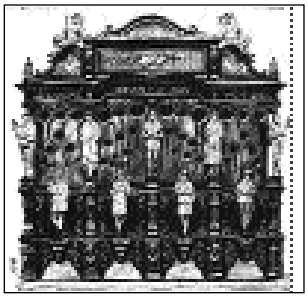


Figure 2. The Limonaire model 1900.

However, the model 1900 was successfully used for publicity and to enhance the image of the company until it was ultimately sold to a traveling carousel owner. In 1965, after years of neglect and surviving two world wars, it was purchased and restored by a Gavioli family relative. World War I created hardships for all organ builders and Limonaire temporarily closed their factory in 1918. Later, the Limonaire factory reopened and produced many more wonderful instruments in the 1920s.

My interest in the "sweet" sounding Limonaire organ was renewed about five years ago when I recalled my first encounter with one at the base of the Eiffel Tower. As I searched for information on the availability of these wonderful instruments, I again contacted Arthur Prinsen of Schoten, Belgium, for assistance. A review of any book music for European mechanical musical instruments reveals, among a few others, the world-renowned music arrangements of Arthur Prinsen. My listing suggested that Arthur is responsible for a considerable amount of all the book music arrangements produced in the past 50 years.

After making initial contact with Mr. Prinsen in my quest for a "large Limonaire," he informed me that many of the original organs had survived and could be found throughout Europe. Obviously, the Limonaire has not become as "popular" in the United States as other makers such as Bruder, Frati, Gasparini, etc. In addition, export laws throughout the world are increasingly "tough" as various countries seek to slow the departure of these "national art treasures" to other countries.

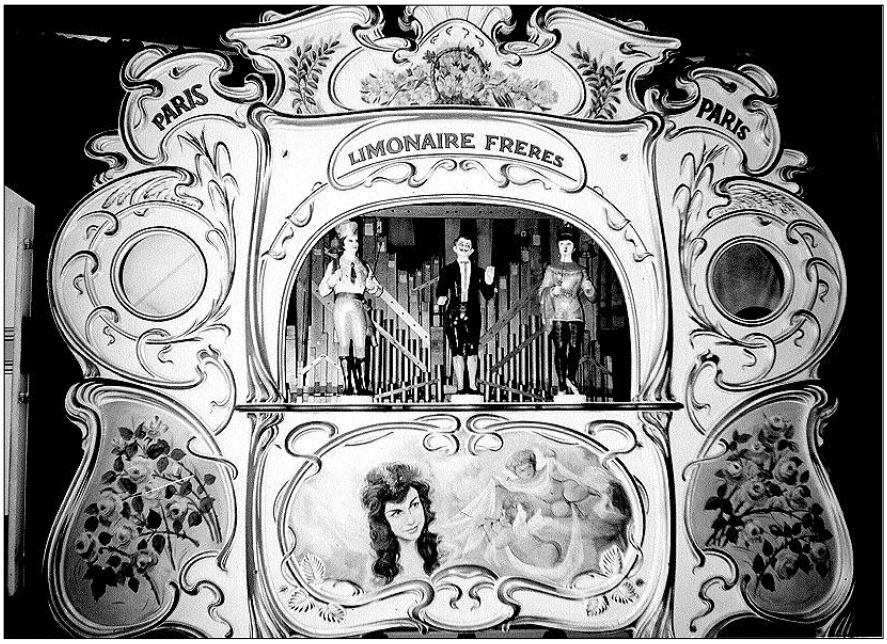


Figure 3. 60-key Limonaire from the Prinsen collection.

After months of negotiation, Arthur realized that we were looking for the best available Limonaire book-reading instrument. From his private collection, he eventually sold us a perfectly-restored instrument, a 60-key organ with an animated conductor and two beautiful bell ringers (**Figure 3**).

The instrument measures over 9 feet high, 10 feet wide and about 5 feet deep with the following key scale:

- 5 Basses, double
- 6 Reed Trombones
- 8 Accompaniment, double
- 14 Melody
- 10 Melody Flutes (24 melody - clarinets + violins + prestants-flutes double)
- 11 Counter Melody (Reed Saxophone)
- 1 Bass Drum
- 2 Snare Drum
- 1 Bandmaster
- 1 Triangle
- 1 Bell Ringers (2)
- 1 Wind Key

The Limonaire had an intricate system of blowers that originally operated at 220 volts and 50 cycles. Surprisingly, at my request these were successfully converted to 110 volts and 60 cycles in a Canadian electrical shop and work very well. When the key frame pulleys were resized to compensate for the increased speed caused by the 60-cycle voltage, the Limonaire became the centerpiece of our organ collection. We now have our very own French "lemonade stand."

Arthur Prinsen

Arthur Prinsen was born in Antwerp, Belgium in 1933. At age nine he began private accordion lessons and soon mastered the instrument. At age 12, Arthur attended the prestigious Musical Academy of Europe to expand his musical abilities. By age 16 he was playing a variety of instruments in local bands, i.e., saxophone, Hammond organ and the Vibratone. In addition, this multi-talented musician played with many different dance orchestras as well as for radio broadcasts and studio recording sessions. Although very busy with his performance schedule, Arthur managed to attend a technical school to further hone his musical and business skills.

By 1958, Arthur had started his own shop for building/restoring organs for collectors around the world. Arthur's wife's uncle Arthur Bursens (of the world-famous Bursens organ builders) shared his detailed knowledge of the organ building business with Arthur. In addition, Arthur worked with various other organ builders, such as Leon DeCap, to perfect his organ building and restoration skills. To supplement this knowledge, Arthur also studied arranging under the skillful master Urbain Van Wichelen. In 1985, Arthur sharply reduced his schedule to concentrate on his "first love," arranging, which he describes as his "real profession."

Arthur has been extremely busy during his entire career. However, business has slowed a bit with the advent and acceptance of MIDI digital systems, which are being installed in many mechanical music instruments. Although "semi-retired," Arthur currently has several years of work ahead of him with repairs, restorations, book music production, arranging, etc. Without his faithful wife, Paula, it would be difficult to complete the many orders he has received from collectors around the world. Arthur continues to have a role in the quality/quantity of mechanical music arrangements that millions enjoy today.

Figure 4. 49-key Limonaire.

Historical Province: The Limonaire factory only produced three of the 60-key organs. The one in our collection was built in 1923 for a European "Fairground family."

It was used in and around Paris until the beginning of World War II. For safekeeping, it was moved to a warehouse in France where it remained untouched for 25 years. In 1965, it was acquired by the Lame family who used it with a large carousel to the delight of children, particularly in the vicinity of Bretagne, France.

Figure 5. 89-key limonaire

Figure 6. 45-key Limonaire Jazz Band-O-Phone.

The organ had been restored and kept in magnificent, original condition when, in 1992, it was acquired at auction by Arthur Prinsen. The organ was again carefully restored to "new" condition in France. Over 300 meters of music was then provided by Arthur. The organ was acquired by the author in the spring of 2000 and sent by ship's container to the United States.

I dusted off my rusty college French dictionary and decided the correct meaning was "Lemonade"

Other available Limonaire instruments "found" during the search, include the following:

Figure 4. 49-key Limonaire
Figure 5. 89-key Limonaire
Figure 6. 45-key Limonaire Jazz Band-O-Phone

Acknowledgements:

The author gratefully acknowledges the contributions made by co-author Arthur Prinsen of Belgium, Ronald Schmuck of Canada, Joseph Schumacher of the USA and others. This article could not have been written without their valuable assistance.

Rick Cooley has a love of mechanical music, and along with his wife Betty, have a representative collection of instruments including band and fair organs as well as circus calliopes.

Building a Wurlitzer 105 Band Organ
— Part III —

Howard Wyman

[*Howard Wyman has presented a step-by-step approach to the building of one of Wurlitzer's most common band organs, the Style 105. The first two chapters of this fascinating story may be found in issues No. 5 & 6. This current article represents the final installment — Ed.*]

The Pneumatic Chest

Let us take a look at the process by which a hole in the paper roll causes a pipe to play. A simplified diagram, **Figure 38**, is used to demonstrate. The vacuum that is generated by the bellows described in the previous section is applied to the pneumatic chest. On this chest is mounted a valve block for each note in the organ scale. A small amount of vacuum is passed through a tube from each valve block to the corresponding hole in the tracker bar. As the roll passes from the top spool down over the tracker bar to the bottom spool a hole in the paper roll crossing over one of the holes in the tracker bar will allow air at atmospheric pressure to pass through the tube to the corresponding valve. This causes the valve to operate and allow vacuum to go to the small pneumatic bellows mounted on the deck of the pneumatic chest. When the pneumatic is sucked shut it depresses a rod on the windchest causing the pallet valve to open and send wind through the channel for that note and to any pipe or pipes mounted on that channel.

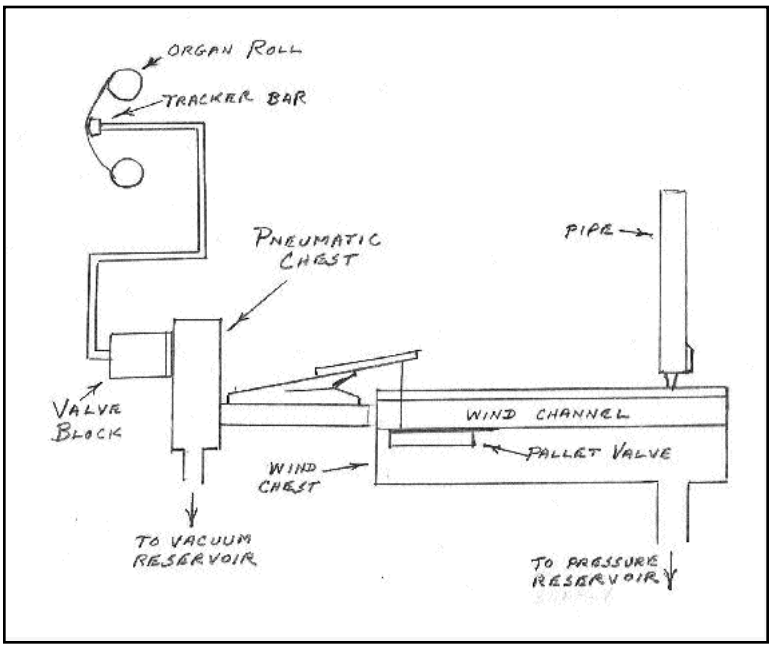


Figure 38. A diagram revealing the necessary components by which a hole in the paper roll causes a pipe to play.

Before beginning construction of the pneumatic chest it is necessary to determine what valve blocks will be used. The dimensions in the Stanoszek plans are for Wurlitzer unit valve blocks just like the ones originally used by the Wurlitzer Company in the original band organs. If one is going to use another type of valve block it will be necessary to adjust the dimensions for that particular type. New Wurlitzer type valves are available from a couple of sources. Another type of valve that several builders have used is a valve block made from plastic commonly called the "Doyle Lane" valve. I believe that these valves are available from Doyle Lane or from the Player Piano Co. The height of these valves is greater than the Wurlitzer valves and so the vertical dimensions of the mounting surface on the pneumatic chest must be increased to make room for them. The horizontal dimensions stay the same.

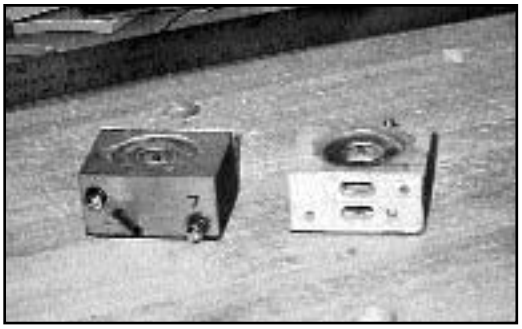


Figure 39. A front and back view of two restored Wurlitzer valve blocks

I toyed with the idea of making my own valve blocks. A set of drawings for the Wurlitzer style valve is sold by Player Piano Co. I built a couple for practice and was successful although it looked like a job that would take some time. Of course most of the work on the organ had been time consuming so this would not necessarily be any different. Fortunately I was talking to a friend who does a lot of restoration and construction of mechanical musical instruments and he asked, "How many valves do you need?" He gave me a box full of old Wurlitzer valves. The only catch was that they all needed to be rebuilt, but then that would be easier than building them from scratch. I had rebuilt quite a few valves in the past while restoring several player pianos so I was pretty much familiar with the process. **Figure 39** shows a front and back view of two restored valve blocks. In the view on the left one can see the brass nipple sticking out at an angle that the tube from the tracker bar attaches to. You can also see the two mounting screws which are used to attach the valve block to the chest. There is a small coil spring under the head of each screw. This serves to hold the block firmly airtight against the chest when the wood swells or shrinks in changing humidity. In the right hand view the lower oval shaped opening is the pathway for the constant vacuum from the pneumatic chest to the valve. The upper opening goes to a passageway in the chest which goes to the small pneumatic bel-

lows which operates the pallet valve in the wind chest. A leather gasket is placed between the valve block and the pneumatic chest in order to make an airtight seal.

Figure 40. A view of the three rows of valves mounted on the pneumatic chest.

The vertical board to which the valves are mounted is made up of two or three layers. The method I used was to start with a board for the side that faces the front of the organ. I then glued wood strips to that to form the channels for the vacuum which goes to the bottom openings of all the valves. The third layer was then glued on top of that forming the back surface of the chest. After all of the holes have been drilled for the air passages to the valve blocks and also to the deck board with the pneumatics, all of these internal passages should be sealed to make them airtight. I covered all of the openings on the front and back of the chest with masking tape, then with the chest upside down I poured shellac into the drill holes in the bottom of the chest. After making sure that the sealant has run all through the chest the shellac is poured out, the masking tape is removed, and the chest is allowed to dry. The same should be done to the passages in the deck board. The deck is attached to the chest with long screws through the chest and into the deck. Care should be taken to drill the screw holes in between the channels in the chest. Flat head screws should be used because some of them will be partially under a valve.

In **Figure 40** one can see the three rows of valves mounted on the pneumatic chest and the chest mounted in the organ. The tips of the fingers on the small pneumatic bellows are just barely visible beyond the top edge of the chest. **Figure 41** was taken after the shelf for the spool frame was mounted in the cabinet. The organ is now ready for a final tuning and then to play a roll, without drums and cymbal of course. A few minor adjustments had to be made, but it would be hard to describe the exhilaration I felt when the strains of *The Blue Danube* echoed through the workshop. Now to add the percussion.

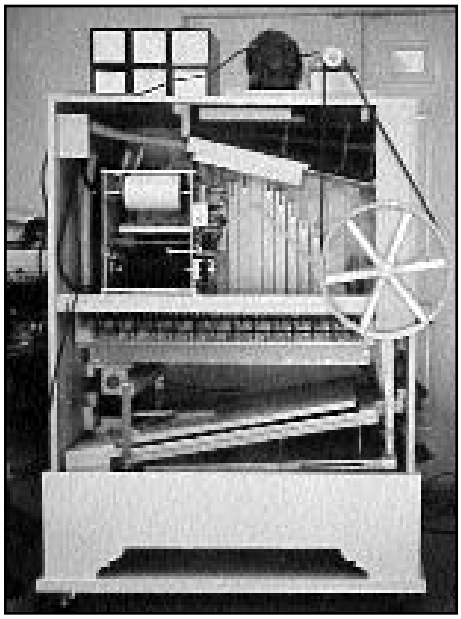


Figure 41. The completed organ (sans percussion) ready for play.

Percussion:

As I mentioned early in this article, the only difference in the Wurlitzer Style 104 and Style 105 is the percussion. At this point our organ is configured like a Style 104 and as such sounds just fine. However, the pneumatic mechanisms that are used to strike the drums are intriguing enough that I felt compelled to build them. Also, I have noticed that when I demonstrate the organ most people seem to enjoy watching the drum beaters in operation.

. . . it would be hard to describe the exhilaration I felt when the strains of "The Blue Danube" echoed through the workshop!

The snare drum and cymbal were fairly easy to obtain. However, the bass drum was a problem. Most present day bass drums are much deeper. I finally found an old bass drum that was close to the right size that a local music store owner had in the back room. According to Bill Black the original bass drums were about 20 inches in diameter and 10 inches deep. The only drum that I could find that was even close to those dimensions was 22 inches in diameter and 8 inches deep. Not only that, it looked like a real basket case. After I restored it about the only original part left was the drum shell. I installed new hardware, new rings and new heads. As for the shell, I obtained some thin maple veneer which I glued around the shell. After it was stained and varnished and all the new hardware added it looked pretty good.

The snare drum beater works on vacuum. It can be seen in **Figure 42**. There are two beaters which are attached to pneumatic bellows and in between the pneumatics one can see two unit valve blocks just like the ones used on the pneumatic chest

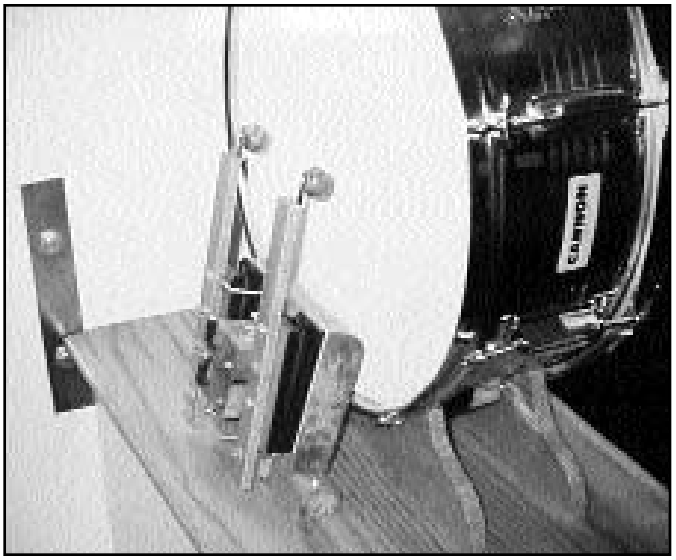


Figure 42. The snare beater mechanism.

inside the organ. When vacuum is applied it passes through one of the valves and causes the pneumatic closest to the organ to start collapsing which moves the attached beater toward the drum. As this is occurring the lower end of the beater lifts a pallet valve which causes the first valve to shut off and the other one to turn on which in turn cuts off the vacuum to the first pneumatic and causes it to go to the pneumatic farthest from the organ. This causes the beater attached to that pneumatic to move toward the drum and in the meantime the original beater is moving back away from the drum. Also, when the second valve turns on it sends a vacuum signal through a channel in the mechanism to the first valve which causes that valve to turn on and the second valve to cut off. Then the whole process begins all over again. All of this occurs quite rapidly and when vacuum is applied to the mechanism continuously it sounds like a drum "roll." A very short hole in the music roll on the other hand will cause just one tap on the drum because the vacuum is cut off before the second beater has time to hit the drum.

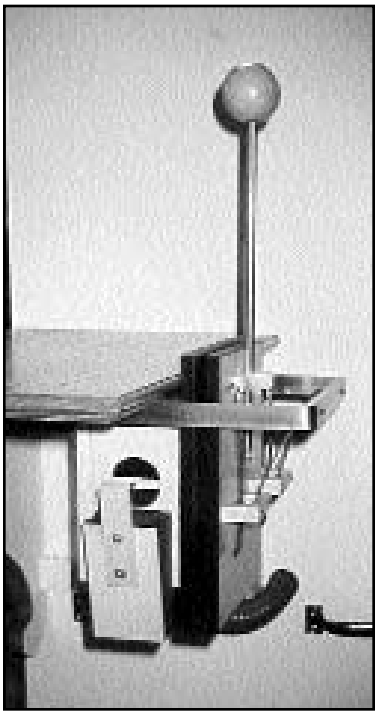


Figure 43. The bass drum beater mechanism.

The bass drum beater works quite differently. The bass drum beating mechanism is shown in **Figure 43**. When the organ is turned on, pressure from the pressure reservoir is sent through the large hose seen just to the left of the handle. This hose is attached to the box mounted beneath the drum shelf. The round opening seen in the side of the box is closed at this point by a leather covered valve seat on the inside. The pressure passes through an opening in the back of the box into the bellows to which the beater is attached causing the bellows to inflate against the two springs shown and moving the beater back away from the drum. It stays like this until a short hole in the music roll operates a unit valve inside the organ which sends a vacuum "trigger" signal through a smaller hose to the pneumatic on the side of the mechanism. When this pneumatic collapses, its arm pushes on a shaft which moves the valve seat away from the round opening in the side. At the other end of this shaft is a valve which closes off the pressure supply to the box at the same time, and so the pressure in the beater pneumatic escapes through the hole allowing the pneumatic to be forced shut by the springs. The force of the springs causes the beater to strike the drum with a fair amount of force.

There is no hole in the music roll dedicated to the cymbal. . . it is triggered by the perforation for the bass drum.

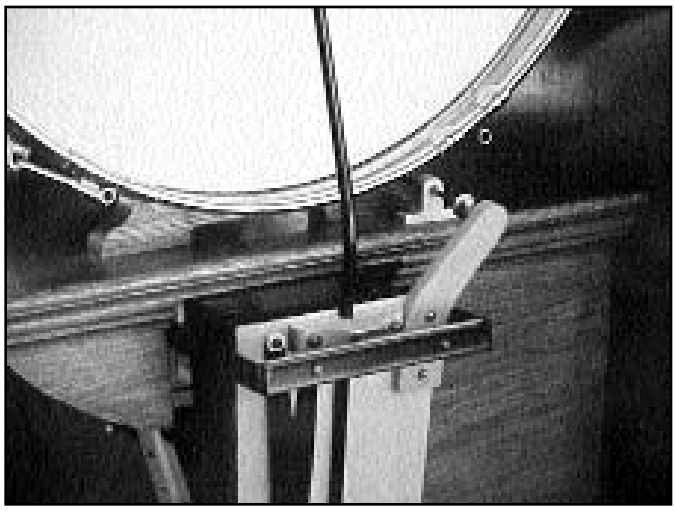


Figure 44. A mechanism for striking the cymbal—note the wooden "ear" on the right of the pneumatic posed ready to strike a brass rod.

And finally, we come to the cymbal. Apparently some of the Style 105 organs had the cymbal mounted at the center of the top and it had its own beater mechanism. Others had the cymbal mounted in front of the bass drum and the beater was tied in with the bass drum beater. There is no hole in the music roll dedicated to the cymbal and so in either case it is triggered by the perforation for the bass drum and strikes simultaneously with the bass drum.

Figures 44 & 45 were taken of another organ at a band organ rally in Indiana and were the pictures that I used as a model when making my own cymbal beater. Later I got a chance to get a close look at an original Wurlitzer band organ and was pleased to see that the cymbal mechanism looked very much like the one in these pictures. In **Figure 44** one can see a wooden arm attached to the upper corner of the beater pneumatic. When the pneumatic collapses this arm strikes the end of a brass rod which passes through to the front of the drum shelf.

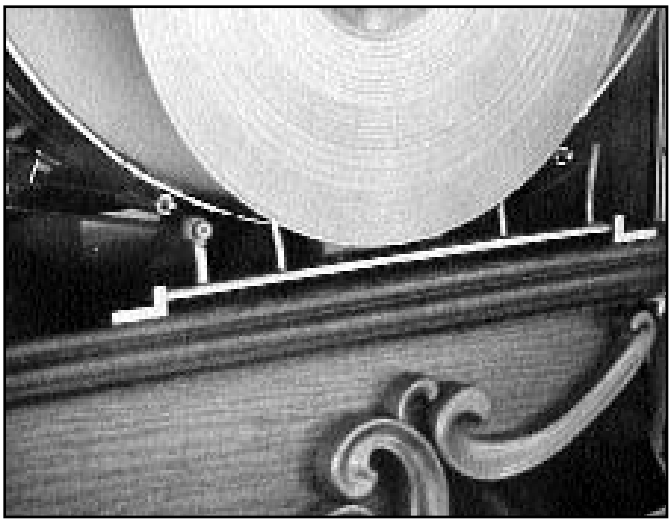


Figure 45. A front view of the cymbal mechanism seen in Figure 44. The brass rod pushes the beater forward to strike the cymbal from behind.

In **Figure 45** it can be seen that the other end of this rod is attached to an arm near the left end of the larger brass rod running across the front of the shelf. Near the right end of this rod is another arm with a spring attached. Not seen in the photograph is a brass rod bent into a circular shape just slightly smaller in diameter than the cymbal and resting behind the cymbal. The spring at the right end causes this circular rod to be held back away from the cymbal. When the bass drum beater pneumatic collapses and the beater strikes the drum, at the same time the wooden arm strikes the rod and pushes it forward rotating the rod to which the circular rod behind the cymbal is attached. This causes the circular rod to strike the cymbal. The forward end of the push rod is threaded where it passes through the hole in the arm. A hard leather nut is screwed onto the rod behind the arm and another in front of the arm. This provides an adjustment for the striker mechanism.

Having reached this point in the construction I have to admit that I spent more time listening to the organ than working on it. But, there was still work to be done.

The Finishing Touches

The decorating of the organ case is determined by the builder's taste. At the band organ rallies that I have had the pleasure to attend, I have seen several home-built Style 105s and each one is different. The basic shape is similar but the ornamentation varies. However, I know of at least one organ being built in which the case will be more like the early Style 125 organ. The top half is open at the front and halfway back on the sides with a column at each front corner supporting the top.

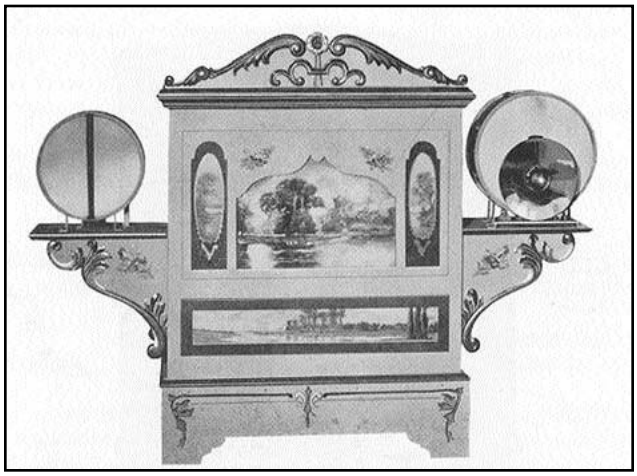


Figure 46. A 1920s catalog illustration of Wurlitzer Style 105 Military Band Organ.

For my organ I kept pretty close to the design shown in an illustration that Wurlitzer used in their catalogs. An example is shown in **Figure 46**. Fortunately I had purchased the carved trim for the drum wings at the mart at a band organ rally, however I wasn't certain what I would do about the carving on the top of the front. Finally, using some carving tools and a rotary tool I did the carving myself. It looks OK if you don't look too closely. I carved these pieces out of oak. The crown molding around the top of the case, the tops of the drum wings, and the molding around the top of the base are also oak. All of these parts were stained golden oak. Before attaching these pieces I painted the large areas of the case an ivory color. I wanted a fairly smooth finish like one would obtain by spray painting, but not only did I not own the equipment for spray painting I also did not have a very large space in which to work. At the home improvement store I found a small foam roller that is normally used for trim work and this is what I used to apply the paint. It worked quite well.

Having reached this point in the construction I have to admit that I spent more time listening to the organ than working on it.

The "finished" organ is shown in **Figure 47.** I have put the word finished in quotation marks because I consider the organ still a work in progress. I plan to use imitation gold leaf to add some pin striping to the base and around the openings in the front. Also some painted flowers would probably look nice in certain areas but I really haven't decided what I want yet. In the meantime I am quite happy to just sit back and listen to the music. I spent many hours building this organ but I can truly say that it was a "labor of love."

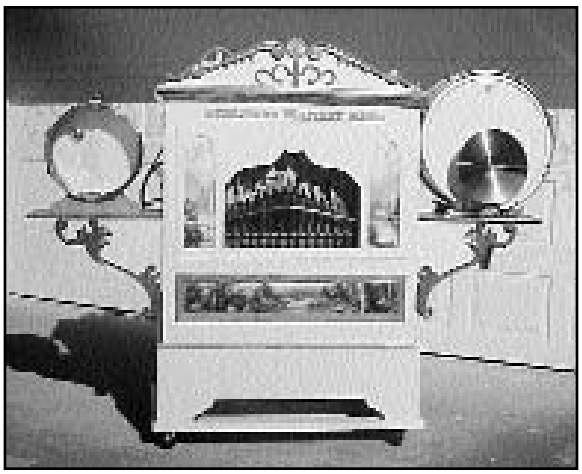


Figure 47. The "finished" Wurlitzer Style 105 organ.

Thanks to Bruce Zubee, Bill Black and Howard Wyman who have been running this article as a multi-part installment on the Carousels.com website (http://www.carousels.com/index.html). Flue Pipe Acoustics

After wrapping up this project Howard felt that he would like to work on something smaller. He has now begun construction of a 36-key crank organ using plans he obtained from Huismuziek in The Netherlands. Howard also reports that he has become somewhat proficient in reading Dutch.

Flue Pipe Acoustics

(The Physics behind the Sound of Flutes, Organ Pipes and Whistles)

Richard J. Weisenberger

Between 1974-1978 I was doing independent research on the effects of cutup (the cutup is the height of a pipe's mouth—the distance between the lower and upper lip).and scaling on flue organ pipes as to the effect on operating pressure and acoustical output.

Organ Pipes

I found there were direct correlations among these parameters; the operating pressure being directly related to the square of the change in cutup ratio if the scaling is held constant and the operating pressure likewise being directly related to the square of the change in scaling if the cutup ratio is held constant.

Also, the acoustical output power of any pipe, prior to overblowing, is directly related to the fourth power of the change in cutup ratio with a pipe of a given scale and also directly related to the fourth power of the change in scale with a pipe of a given cutup ratio.

Thus, doubling the cutup of a pipe would result in one which would require four times the operating pressure and produce 16 times the output (a 12 dB increase), prior to the onset of overblowing (provided that the mouth area did not exceed the pipe's cross-sectional area). The same holds true if doubling the scaling of a pipe with a given cutup ratio.

I had thus discovered a kind of "Ohm's Law" for flue pipe design, which produced easily verifiable and highly repeatable results. A basic knowledge of the physics involved in flue pipe design is the basis for any further scientific investigation in the field of flue pipe acoustics necessary to relate cause with effect. This was an important first step, as it enabled me to be able to accurately predict the operating pressure and acoustical output capability of virtually any pipe design using open toed voicing.

Of course, coning in the toes will increase the operating pressure and reduce the output of ANY pipe at a given operating pressure.

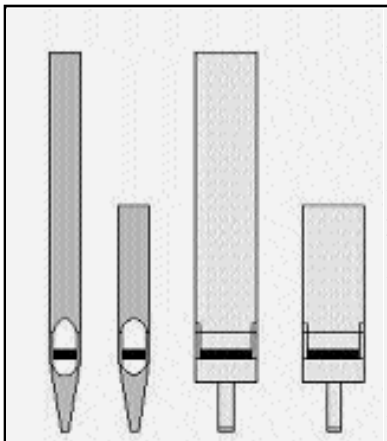


Figure 1. Stopped pipes will require exactly 1/2 the working length, using the same cutups, to produce equal output to their open counterparts at a given operating pressure in terms of both frequency and acoustical power. Their differences lie in their lack of even order harmonic radiation

Steam Calliope Whistles

The next step was to use these formulas to design everything ranging from the softest flutes to whistles which resembled those on the old steam locomotives. The result was that it was possible to design whistles of high output which did not require the customary high pressures found on steam locomotives and steamboat calliopes. I was able to design whistles which resembled steam calliope whistles which would produce outputs as high as 110 dB at 100 ft (140 dB at 1 meter) operating on as little as 15 PSI, rather than the usual 150 PSI.

I found that the acoustical output of a whistle is much more dependent upon the flow rate rather than the actual operating pressure, thus if you use a relatively large air slot width of 1/16" and large diameter inlet, whose area exceeds the slot area, you could get the required flow rate at relatively low pressure. Thus, the operating efficiency of a whistle could be greatly increased over that of the traditional high pressure steam whistle. Also, you gain nothing by making the mouth area larger than the whistle's cross-sectional area other than allow high pressure operation without overblowing. You do not get more output.

It makes sense! The whistles designed to be used on locomotives and steamboats HAD to be designed to accommodate the high pressures, since the engines required high pressure in order to be able to produce a useful amount of output. The whistles did not, but would overblow unless they were designed to accommodate the high pressure.

This led to the next stage. How would one go about increasing the output capability of a whistle beyond that of traditional steam whistle designs? It's true that an output of 110 dB at 100 ft. (140 dB at 1 meter) is nothing to sneeze at, but there are mechanical sirens used for warning communities with outputs as high as 135 dB at 100 ft. How would one design a whistle to compete with a siren in terms of overall output and efficiency?

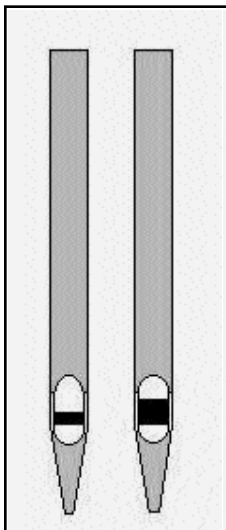


Figure 2. The effect of the cutup on a pipe's performance is very dramatic. The operating pressure will relate to the SQUARE of the change in the cutup and the acoustical power output will be related to the 4th power of the change in the cutup, all other factors being equal.

As an example, provided that the mouth area does not exceed the pipe's cross-sectional area, doubling the cutup will QUADRUPLE the pipe's operating pressure, prior to the onset of overblowing! The increase in output will be 12dB, which is a full 16 times the output of the pipe of lower cutup!

In addition, the air flow to the doubled cutup pipe will also be doubled and the blower power required will eight times that of the lower cutup pipe. Since the higher cutup pipe produces 16 times the output using eight times the blower power, its efficiency is double that of the former.

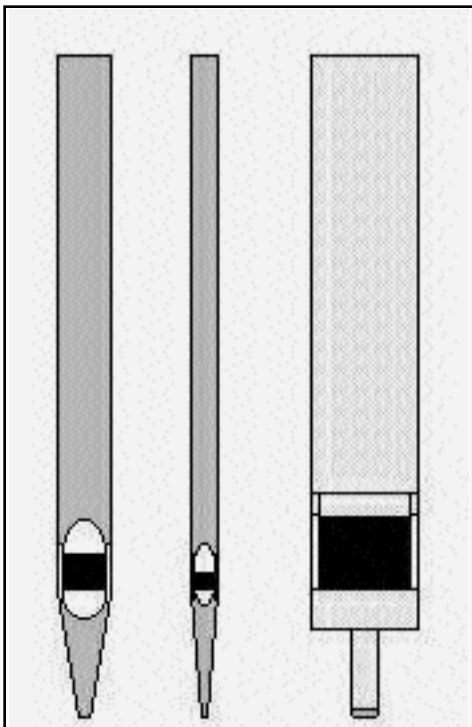


Figure 3. The dramatic effect of pipe scales have long ben known to organ builders. Of course the larger scales are capable of much greater outputs when using the same cutup RATIOS, as the larger scales permit much greater cutup HEIGHTS, without the mouth area exceeding the pipe's cross-sectional area.

With the cutup RATIO being constant (as is often the case) the acoustical power output will be related to the 4th power of the change in the scale of the pipe.

As an example, each time a pipe's scale (with a given cutup ratio) is doubled, the pipe's output will be increased by 12 dB or 16 times! To keep the smaller scales from overblowing at a given pressure, the toe hole areas are reduced to restrict the air flow.

As is always the case, the larger scales will produce the mellower tones, regardless of the cutup.

Toroidal Whistle

This led to my designing the toroidal whistle. Think of a Toroidal whistle as a large phased array of about 30 high output steam whistles all sounding the same frequency. It looked good in theory and when the prototype was tested I achieved an incredible output of 125 dB at 100 ft. (155 dB at 1 meter)! The whistle was about the size and shape of a small automobile tire, required 1,800 CFM at a low 15 PSI and produced 430 Hz at an awesome level. The test was performed in a remote corner of the Greater Cincinnati International Airport in July of 1982. The tests were audible over parts of Erlanger, Florence, Hebron, Elsmere and Ft. Mitchell, KY as well as in Delhi, OH.

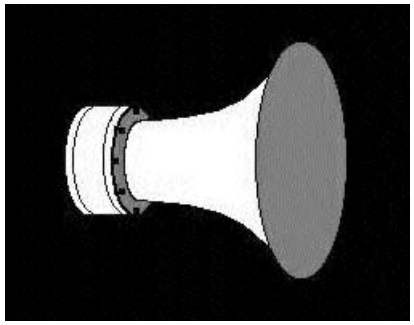


Figure 4. The Toroidal whistle.

I found that because most of the whistle's output was at fundamental frequency, rather than in the harmonics, there was not as much loss due to atmospheric absorption as in a siren of equal near field dB rating. We were still producing a level of 76 dB at a distance of 2 miles on axis from the test site! A siren rated at 125 dB at 100 ft. has a typical 70 dB radius of only 4500 ft. This design resulted in U.S. Patent #4,429,656, which can be searched by number on the IBM Patent Server website.

Still, this design was a full 10 dB short of that of the loudest warning sirens.

The next step was to design a Toroidal whistle specifically to operate in the manner of a compression driver in a horn loaded speaker. With all of the output of a Toroidal whistle driving a suitable horn, an output to equal that of the loudest warning siren was no longer out of the question.

This resulted in U.S. Patent #4,686,928, which can be searched by number on the IBM Patent Server website.

In this design, an INVERTED Toroidal whistle is used to drive a horn with a directivity index of 13 dB or so. Since an inverted toroidal whistle is blown from the INNER edge, rather than from the outer edge of the toroid, as is the case in the earlier patent, this design uses 25% less air flow and due to horn loading, produces an extra 10 dB on axis (135 dB at 100 ft). Thus a 420 Hz whistle of this type will use only 1,350 CFM at 15 PSI. Under ideal conditions the 70 dB radius of a 420 Hz whistle of this type will extend up to 4 miles!

Since the air can be furnished by a 100 HP single stage rotary screw compressor, this is more coverage/HP than the best siren available.

Except for the extreme sound level, the sound is very similar to that of a standard cylindrical calliope whistle, or even that of a stopped flute. With this accomplishment it is time the Guinness record for the world's loudest musical performance is taken away from the rock concert circuit and restored to an all acoustical instrument.

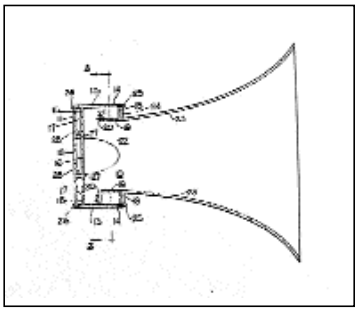


Figure 4. The patent drawing of the Toroidal whistle. The abstract reads: *A single-tone inverted toroidal whistle for producing a uni-directional output of about 135 decibels at 100 feet on axis at a frequency of about 420 hertz. A hollow cylinder having a closed base end is combined with a toroidal body to provide an annular sound chamber the working length of which determines the wavelength of sound generated by passage of air or steam under pressure through an annular slit formed in the interior of the cylinder and impinging against a spaced tapered lip on the inner cylindrical wall of the toroidal body.*

My intention is not to deafen anyone, as I would not advocate such an instrument as my proposed Dynawhistle calliope in a stadium crowed with people, but in an inaccesable spot such as atop a bridge pier or similar structure, or on a bluff overlooking a city, where the sound reaching the people would be at a reasonable level. The best distance to hear such an instrument would be from 0.5 to 2.0 miles (with an audible range extending to 20 miles or so).

C:\WINDOWS\Desktop\Weisenberger Stuff\Flue Pipes Acoustics.htm
or http://home.switchboard.com/fluepipeacoustics

Richard Weisenberger has been granted several patents on flue organ pipes and whistles. He received his degree in electronics and is currently a TV broadcast engineer. He has written for the ATOS journal, *Theatre Organ*, and has published the journal of the Air Horn and Steam Whistle Enthusiasts, *Horn and Whistle* from 1988 through 1994.

How Wurlitzer Rolls Are Made

Matthew Caulfield

An interesting piece of working history is the Wurlitzer perforator no. 12 (**Figure 1**) as it now operates at the Herschell Carrousel Factory Museum in North Tonawanda, New York. A band organ tune begins by being marked out in pencil on a cardboard master, one tune per master. The blank raw master cardboard was first run through the master marker, a special machine which punched tractor-feed sprocket holes into its left and right edges and inked onto its surface the 75 tracks that were used for the 75 holes in a style 165 roll. The same stock was used for arranging style 125 and style 150 rolls, except that only the first 45 and 54 tracks, respectively, were used. The first step was for the arranger to rule off the master with horizontal pencil lines marking the length of each measure of music. Then he (unlike music box music arrangers, most organ music arrangers were men) would mark out the position and length of the note perforations, using the inked tracks to guide him in positioning the notes within the measures.

Figure 1. Wurlitzer perforator #12 at the Herschell Carrousel Factory Museum.

. . . unlike music box music arrangers, most organ music arrangers were men!

It is clear from blue-pencil notations and numberings on the masters that the arranger did not mark out separately each of the repeats that occurred in a tune. If a verse or a chorus was to be repeated somewhere along in the tune, he would number the first instance of the verse or the chorus, marking its beginning and end, and wherever its repeat would occur, he would leave that many measures blank and show by noting its number there where the repeat should be copied in (also noting any variation in register or accompanying percussion). That suggests that a lower-paid or less-skilled person was assigned the work of actually making the master by using a mallet and punches of assorted length to punch the slots into the cardboard by which the master controlled the perforator. Wurlitzer masters were made on a 3-to-1 scale vertically; that is, while the hole columns were horizontally spaced in the master exactly the same as on the finished roll (.1227" on-center spacing), the holes in the masters were vertically three times as long as they would be in the rolls produced from the master.

Figure 2. A group of Style 150 master rolls.

When completed, the master was stamped with three numbers: the first being the number of the roll on which the tune was to appear; the second indicating the tune's position on that roll; and the third being the nominal number of holes in the tracker bar for the roll, as a kind of shorthand for the roll style: style 125 rolls were "43"; 150 rolls, "46"; and 165 rolls, "69"—even though in each case there were more tracker holes than those code numbers would suggest. In addition, the title of the tune and sometimes other data were added in a bold hand. Unfortunately, the one bit of information which we would love to have, the arranger's name, was never given until J. William Tussing's stamp began appearing on masters of the late 1930s. On some rolls of the period Walter Wurl takes credit for the hole punching, although he was clearly not their arranger.

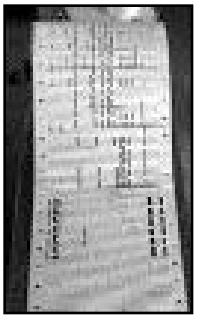


Figure 3. The Style 165 master for *Our Liberty.*

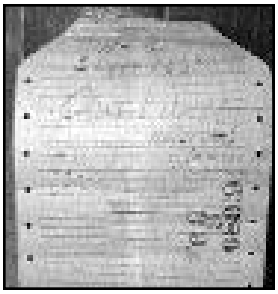


Figure 4. The leader of the master in Figure 3, *Our Liberty*.

The three pictures above and to the left show a group of style 150 masters (**Figure 2**), followed by two views of the style 165 master for the march, *Our Liberty*. The opening measures of the tune (**Figure 3**) and (rotated 180 degrees so that you can read the inscriptions) the leader are of the same master (**Figure 4**).

Next is a view of the Wurlitzer paper slitter, which cut the long rolls supplied from the paper mill down to exact music roll size (**Figure 5**). Following that is a picture of a rack of blank paper ready to be fed into the perforator, many layers at once (**Figure 6**). It is difficult to tell from the picture of the Wurlitzer roll department how many copies each perforator was capable of punching at one time, but Play-Rite's Acme perforator makes 16-18 copies per run.

Figure 5. The Wurlitzer paper slitter, used to cut the long rolls into exact width for any particular roll.

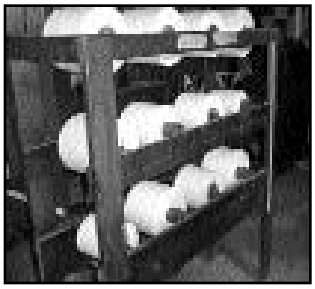


Figure 6. Twelve rolls of blank paper on the paper rack

To operate the perforator the master roll is placed on the topmost of the three wooden rollers shown (shown in **Figure 7**). It is then threaded under the second wooden roller (the one to its right just above the steel drum) and then over and around the steel drum, a better view of which is shown below, in a clockwise direction. Coming out under the steel drum it is then wound onto the third (take-up) wooden roller, barely visible behind its attached drive pulley. Then when the requisite layers of blank roll paper are threaded from the paper roll rack into the perforator to pass under the punching dies, the perforator is ready for operation.

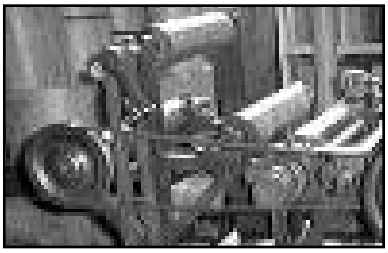


Figure 7. The wooden rollers of the Wurlitzer perforator.

Studying **Figure 8** and the text below may help in understanding how the master is read and how that controls the punching operation of the perforator. Shown above is the steel drum over which the master paper is pulled by the clockwise rotation of the tractor-feed cogs at the edges of the drum. The cardinal point to remember is that the steel drum itself does not turn. Only the two tractor-feed wheels turn; the drum simply acts as a backing for the master. Pointing directly at the drum, at the three-o'clock position, are the 75 indexing rods which are free—in the absence of any interfering master cardboard—to slip into 75 corresponding holes bored into the drum. Whether or not an indexing rod slips into the drum depends on whether or not there is a hole in the master for that particular indexing rod to go through at a given moment. The indexing rods are pivoted and linked to a set of 75 interposers which ride between the punching ram of the perforator and the 75 punch pins which the ram drives into the layers of roll paper on each rotation of the perforator drive shaft, whenever an interposer is moved into the correct position by its indexing rod.

Figure 8. The shiny steel drum over which the paper flows.

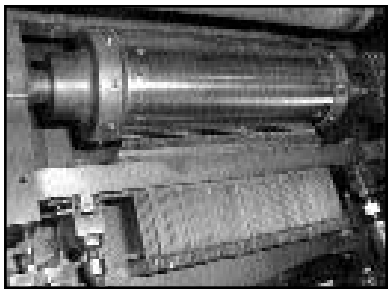


Figure 9. The relationship of the steel drum and the indexing rods.

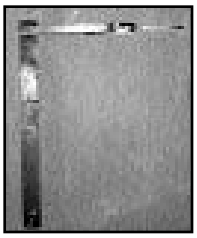


Figure 10. Illustrated here is the indexing rod and its linkage.

Part of the linkage between indexing rods and interposers can be seen in **Figure 9**, and the indexing rod, with its linkage, in **Figure 10**.

Next is an interposer and its associated punch pin (**Figure 11**). At the foot of the interposer linkage is a small knob which locks into the L-shaped opening in the right end of the interposer and allows the indexing rod, pivoting on the hole drilled in the midpoint of the linkage, to move the interposer horizontally with respect to the head of the punch pin. If the slot in the interposer is centered over the punch pin head, the punch pin is not driven into the layers of roll paper when the ram descends. But if the solid section of the interposer is over the punch pin head at the moment the ram descends, the punch pin is driven into the paper, thereby duplicating the presence of the corresponding hole in the master which is controlling the punching operation.

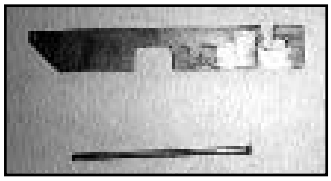


Figure 11. An interposer and its associated punch pin.

In **Figure 12** is pictured the punch-driving ram, showing in the foreground the springs which pull the interposers back into non-punching position after each punching cycle of the perforator. In this photo the drum over which the master rides is visible at the top of the picture, beyond the ram crankshaft. Although it cannot be seen well in this photograph, the ram is connected to the shaft above it by two elliptical bearings, which causes the ram to move up and down by a distance of less than a half inch but sufficient to drive the punches through the roll-paper layers and into the bedplate below and then to lift them on the up stroke.

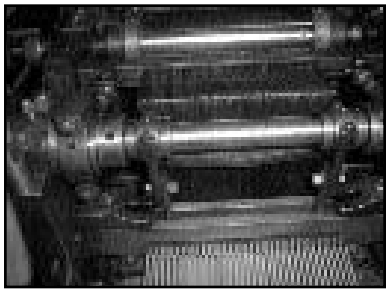


Figure 12. The punch-driven ram with the drum above.

Each cycle of the perforator causes these sequential actions:

- the indexing rods are drawn back, so none protrude through holes in the master into the steel drum;
- this causes the interposers to return to non-punching position;
- the ram lifts all punches out of the paper layers;
- then the master advances by one increment and the roll-paper layer advances by an increment approximately one-third as large;
- then the indexing rods are let go forward to either rest on the master cardboard or to protrude through one of the holes in it;

- •the interposers corresponding to any indexing rods that now protrude into the steel drum are thereby shifted to punch position;
- •and finally, the ram descends to drive those punch pins and rises again, pulling them out of the paper layer.

That is the end of one cycle, and the machine goes on to repeat the cycle over and over until a tune is complete. Then the operator rewinds the master and selects the correct master for the next tune on the roll.

The layers of roll paper are drawn through the perforator to pass under the punching dies by a tractor-feed mechanism which is shown in the next pictures (**Figures 13 & 14**).The layers of roll paper pass from left to right between the upper and the lower tractor halves to be gripped by rubber strips on the wooden slats, when a slat from the bottom tractor half comes around to press tightly against its mating slat from the top half of the tractor. On each cycle of the perforator the tractor is geared to advance the paper the necessary increment in relation to the three-times-as-great increment of the master advance.

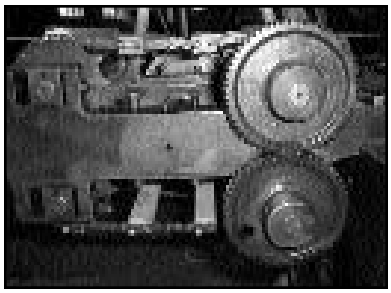


Figure 13. The tractor-feed mechanism.

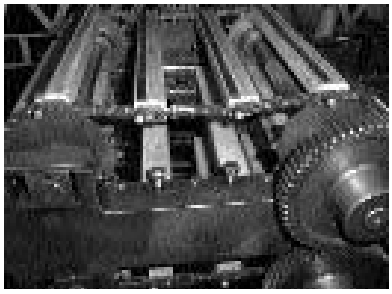


Figure 14. The wooden slats and their rubber strips used to grip the paper to pass it through the perforator.

An ingenious feature built into the Wurlitzer perforators is the automatic tempo compensation!

An ingenious feature built into the Wurlitzer perforators is the automatic tempo compensation. If the tractor pulled at a constant increment from the punching of tune 1 of a roll to the punching of tune 10 of the roll, the result would be, when the roll was played on an organ, a constant acceleration in the tempo of the tunes on the roll, due to the increasing diameter of the organ's take-up spool, as the roll paper moves during play from the roll being played to the take-up spool. This effect occurs in the playing of any music roll such as a player piano roll, but the tempo increase is so slight in a short roll as to be virtually undetectable. But on long 10-tune band organ rolls, the acceleration would be very noticeable—and objectionable—unless it were compensated for. The compensation could have been built into the masters by making the perforations in a master for a tune intended to be put at or near the end of a roll proportionately longer than the perforations in a master for a tune intended to go towards the beginning of a roll.

Wurlitzer chose not to do that, probably because it would have required more calculation on the part of its arrangers and also would have meant that the tune order could not be shifted around for various production purposes. What Wurlitzer did was to add a very long worm or screw gear between the arm that drives the tractor gear and the tractor gear itself so that, as the perforator goes through the hundreds of thousands of cycles required to punch out a ten-tune roll, the advance increment of the tractor is being increased by a very tiny amount at each cycle (**Figure 15**). Thus, as the perforating process moves from tune 1 to tune 10, the perforations, though of constant size in the masters, are continually growing longer in the rolls being produced. Therefore, when played, though the speed of the roll paper across the tracker bar is constantly increasing, the tune tempo remains constant because the perforations have been made longer to exactly offset the paper speed increase. This picture shows the tempo compensation gearing on the Wurlitzer perforator.

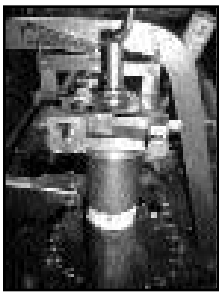


Figure 15. The gear mechanism used to compensate for roll speed

How does it work? The explanation below (with illustrations of the various parts of the gearing shown in **Figure 15** to study as a particular part's operation or purpose is explained) may answer that question. But nothing is as helpful as a visit to the museum to watch the perforator in action.

Figure 16. A ratchet wheel which moves the tractor.

The part shown in **Figure 16** is the ratchet wheel which moves the tractor each time the cylinder, which is attached to and extends upward from the ratchet wheel, is pushed to the right by the arm (seen in **Figure 17**) which extends horizontally from the cylinder, just above the arrow on the white tape. The cylinder contains a long screw or worm gear, the purpose of which is explained next.

Figure 17. The arm which pushes the rachet wheel in Figure 16.

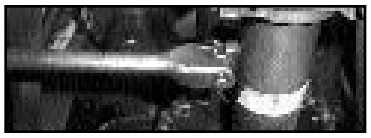


Figure 18 (below). The worm gear.

This view of the top of the cylinder containing the long screw (**Figure 18**) shows the worm gear which turns the screw a small amount at each cycle of the perforator. As the long screw is turned, the horizontal push rod, which rides on the screw through a slot inside of the cylinder running from top to bottom, is gradually moved lower in its position relative to the cylinder, becoming closer to the ratchet wheel each time. The closer the push rod is to the ratchet wheel, the more the ratchet wheel turns each time it is pushed, and the farther the tractor pulls the paper layer through the perforator on each cycle.

Figure 19. The handle used to reset the screw and gear mechanism to start a new roll-punching operation.

When setting up the perforator to begin a new roll at tune 1, the perforator operator uses the handle at the top of the cylinder to manually turn the screw back to starting position (**Figure 19**), so that the push rod is moved in the direction of the arrow on the white tape, back to the top of the cylinder. This creates the smallest advance increment for the tractor. By the time the perforator is punching out tune ten, the push rod has automatically been screwed down to its lowest point, creating the maximum tractor advance as the roll approaches its end.

As you can see, it takes a mechanical engineer to completely understand the mechanism of Wurlitzer roll reproduction. Hopefully, with the text and photos above, members of the band organ community will be able to at least grasp some of the fundamentals intended by Wurlitzer.

For more Wurlitzer roll information see Matthew's web site at: http://wurlitzer-rolls.com/pdetails.html

Matthew Caulfield, a frequent contributor to the *Carousel Organ*, has studied the Wurlitzer Style 165 Military Band Organ as well as the rollography associated with Wurlitzer manufacturing business.

Current *ebay* Activity

A survey of recent activity on the internet auction service, *ebay*,has surfaced some interesting items. The first item (**Figure 1**) was a beaded purse with a bearded organ organ grinder, dog and children. The purse was noted to be made of small beads (18 per inch) with a braided silk cord for a handle and measured 5 1/2" by 8". This item brought a sum of $450.00 (2 bids).

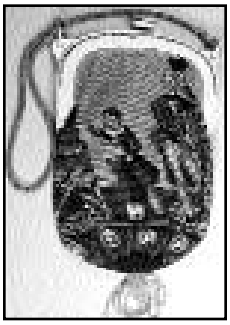


Figure 1. A beaded purse with organ grinder.

A second item (**Figure 2**) was an original oil painting on canvas (8" X 10") which was signed by a H. Richter. It was described as being "done masterfully . . . of an organ grinder holding the turn crank in his hand. Note the bird eating lunch, next to the plate of coins. . . great European genre piece." The asking price was $770.00 and no bids were made.

Figure 2. An oil painting of an organ grinder.

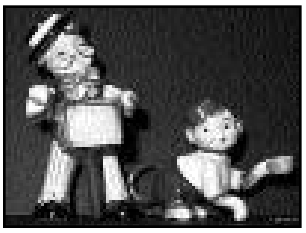


Figure 3. A set of salt and pepper shakers.

Next is a set of organ grinder and monkey salt and pepper shakers (**Figure 3**). Advertised to be in excellent condition, this set sits 4 3/4" tall. Estimated to have been made in the 1950s each unit still contained its hardened rubber stopper. The bidding started at $19.99 and ended at $39.00.

Last is a Bursens Dance Organ (**Figure 4**). Estimated to have been made "around the late 30's to early 40's" this organ was described to be nine feet tall and 10 feet long with over 200 wooden pipes. The organ was reported as being restored by Arthur Bursens 20 years previously. There were 14 bids and a bid of $17,600 was obtained but this did not meet the reserve.

Figure 4. An Arthur Bursens Dance Organ complete with over 200 wooden pipes.

2001-2002 Membership Dues

COAA members—your 2001-2002 membership dues are now due for the July, 2001 through June, 2002 COAA calender year. Dues will remain the same this year (even though the postage rate hikes have been significant) at $15.00 for our US and Canadian members and $24.00 for our overseas members. Renew your dues now (address below) and enjoy the benefits of:

- •continued subscription to the ***Carousel Organ***, the official journal of the Carousel Organ Association of America
- •saving your organization (and secretary) time and money in sending out renewal notices
- •keeping abreast of upcoming COAA (and other) band organ rallies

Send your $15.00 dues ($24.00 overseas) to:

Marge Waters
7552 Beach Road
Wadsworth, OH 44281

Questions about your membership?
email Marge at WaWaters2@aol.com

The "Lost" Merry-Go-Round Company

Yousuf Wilson

We've all heard of and envied the discovery of nickelodeons and violanos, "art case" pianos, carousel horses, band organs, etc, etc. by ecstatic collectors. Others, including myself, have made similar and sometimes more amazing discoveries, but only in our dreams. Hey, you never know! Well, this is a story of a "new" carousel organ.

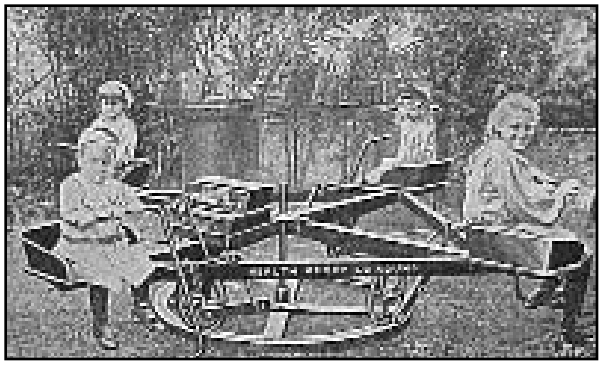
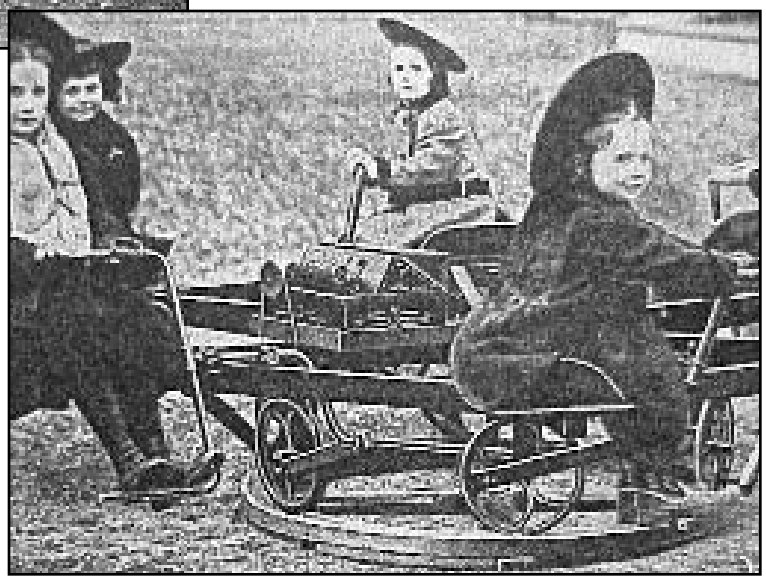


Figure 1. A feature photo in the Health Merry-Go-Round catalog show their popular four-seat model.

When returning home from a band organ rally at the Kansas State Fair put on by the Heart of America AMICA chapter, I stopped at the "Brass Armadillo" antique mall. In one aisle with hundreds of items in view, a piece of paper, half hidden, caught my eye. From ten feet away, the words "Merry-go-round" stood out. The paper turned out to be a freight export bill of lading (**Figure 5**) for "One (1) Health Merry-go-round and music rolls, boxed" to be shipped from Quincy, IL to the port of New York, and thence by steamer to F. M. Antunez, San Juan, Puerto Rico. The date was June 20, 1908. With my curiosity growing, I returned home with the bill of lading. Like most collectors, the history of the instruments, manufacturers, music, etc. is as intriguing as the material items themselves. By the time I got home, I was at the "have-to-know" stage, especially about the "music rolls."

Figure 2 above reveals a six-seat Health Merry-Go-Round. Figure 3 (right) is a closeup of Figure 2 and show the roller organ in place, powered by a belt from the wheel below which traverses the round rail as the unit circles.

When a search of my reference books turned up nothing, I gave Ron Bopp a call. He seemed surprised and wondered why I had called him; but since he had just come out with *The American Carousel Organ* book and had obviously done extensive research, he seemed the one to contact. I was right. When researching the Smithsonian archives, Ron and wife Mary Jo came across an advertising card from the *Health Merry-Go-Round* Company. Ron informed me this was evidently a child's merry-go-round; and the organ was a cob organ. Since the gross weight of the boxed merry-go-round on the bill of lading was 986 lbs., I had already come to the conclusion this was not an ordinary size carousel.



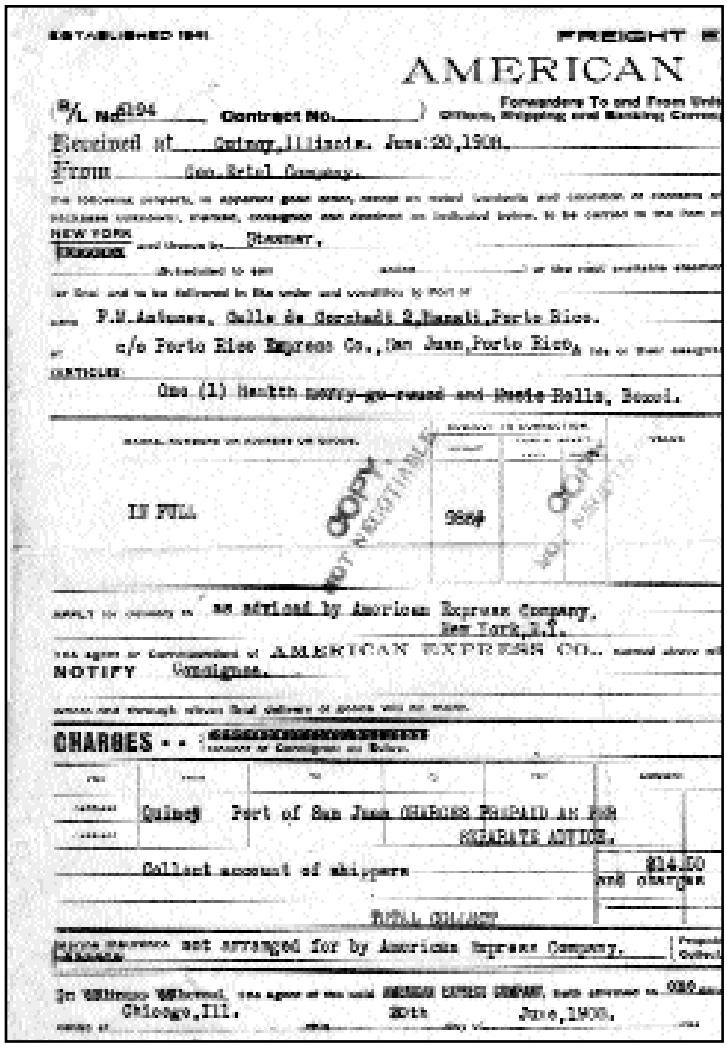
New Orleans, LA, Feb. 8, 1907

GENTLEMAN—In behalf of my sisters and brothers, I send this little letter to you, telling you and all that we enjoy the Health Merry-Go-Round more than words can express. When our little Friends come over they don't want to go home; all we hear is, let us have one more ride. My little brother can work it just as good as I can; he is only two and a half years old and I am eleven years old. We have all the time some of our playmates coming over to get on the Merry-Go-Round; they think that there is nothing better than the Merry-Go Round.

Will close, hoping other little children will enjoy the Merry-Go-Round as we do. We remain,

Your little friends,
VERA HAKENJOS
LOUIS HAKENJOS
HELEN HAKENJOS
LEOLA HAKENJOS
ADOLPH HAKENJOS

Figure 4. The testimonial letter accompany figure 1. Is the girl on the right (in Figure 1) Vera, the writer of the above letter?



ESTABLISHED 1841 FREIGHT

AMERICAN

Forwarders To and From Ports

B/L No. 6194 Contract No.

Received at Quincy, Illinois, June 20, 1900.

From Geo. Ertel Company.

NEW YORK

P.M. Antunez, Calle de Cerchadi 2, Hanati, Porto Rico.

c/o Porto Rico Express Co., San Juan, Porto Rico.

One (1) Health merry-go-round and Steele Rolls, Boxed.

IN FULL

COPY NOT NEGOTIABLE

as advised by American Express Company. New York, N.Y.

AMERICAN EXPRESS CO.

NOTIFY Consignee.

CHARGES

Quincy Port of San Juan CHARGES PREPAID AS PER SEPARATE ADVICE.

Collect account of shippers $14.50 and charges

not arranged for by American Express Company.

Chicago, Ill. 20th June, 1900.

Figure 5. A portion of the bill of lading for Mr. F. M. Antunez of Porto Rico. Note the listing of the "Music Rolls" along with the "Health merry-go-round." $14.50 freight charges for shipping 986 pounds!

Still, it was intriguing; and Quincy was only an hour and a half pleasant drive along the Mississippi. So my wife and I decided to fill in the missing facts. A stop at the Quincy Public Library and a search of their historical archives revealed that the Health Merry-Go-Round Company (Quincy, Illinois) was part of the George Ertel Manufacturing Company.

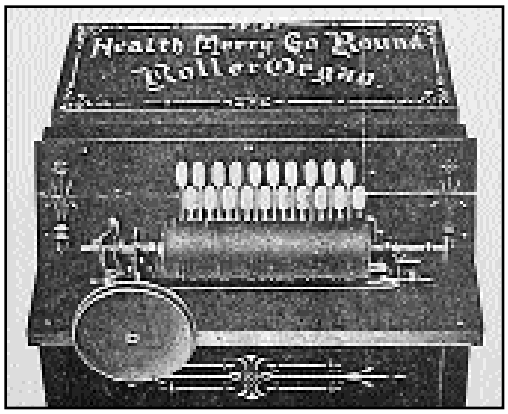


Figure 6. The organ, similar if not identical to a Gem Roller Organ, clearly carries the markings of the *Health Merry-Go-Round Roller Organ*.

In the early 1860s, George Ertel, then of nearby Liberty, IL, invented a hay baling press, an important item in a mostly agricultural nation. To be close to rail and river transportation, he moved to Quincy in 1868. With the manufacturing of his hay baler and later a complete line of incubators and brooders (used to hatch eggs and care for young fowl) his enterprise greatly expanded, and George Ertel became a leading citizen of Quincy.

Figure 7. An example of a six-seat Health Merry-Go-Round, complete with a candy-striped canopy. Again the organ can be seen just to the left of center.

In 1902, George Ertel died, and his son, Charles, took over the business. It was Charles who introduced the Health Merry-go-round line shortly thereafter. A patent was issued May 1, 1906 (and a second, describing the organ, was issued on Jan 15, 1907—**Figures 8 & 9**) by George B. McKinney. The patent covered a well-built children's Merry-Go-Round powered by the riders pulling and pushing on a lever with hands and feet (**Figures 1-3, & 7**). The health benefits were extolled; and later doctor's testimony was presented in advertising.

. . . a search of the historical archives (Quincy Public Library) revealed that the Health Merry-Go-Round Company was part of the George Ertel Manufacturing Company.

Our next stop was the Quincy Historical Society, which was housed in a two-story building next to a historical house where tours were conducted. In the upstairs room, where there were boxes of donated items sitting about (one containing several pre 1900 revolvers), we were allowed to examine the Ertel material. A wooden box contained large (approximately 8" x 10") glass negatives of Ertel Company farm equipment and other items, evidently used in advertising. In what has to be one of the few remaining pockets of small town trust, we were allowed to handle and examine these items and cautioned only to be careful with the glass negatives.

We hit the "jackpot" when a folder of paper items contained a catalog of Health Merry-Go-Round products. The catalog listed endorsements (**Figure 4**), buyers, etc. of their products. It's interesting that children's health and welfare was a successful sales pitch in 1900. From a picture in the catalog, the "organ" can be identified as a Gem roller organ. (Bowers' *Encyclopedia of Automatic Musical Instruments*, Page 754). The organ crank was replaced by a pulley and connected by belt to one of the wheels (**Figures 6 & 9**).

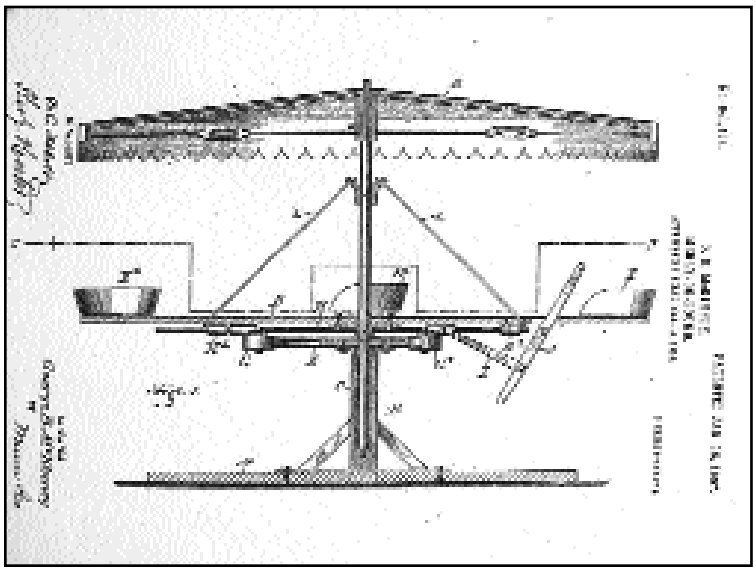


Figure 8. A patent drawing (#841,424, patented Jan. 15, 1907) details the four seat "Merry-Go-Round." In the patent he notes: *The object of the invention is to provide a new and improved merry-go-round arranged to allow one or more of the passengers to readily propel the merry-go-round without requiring undue physical exertion on the part of the operators.*

The catalog list of "some of our customers" contains around 350 names and was probably printed in 1908, the last endorsements being dated the spring of 1908. The list of names contains bank and company presidents, doctors, and lawyers, but not the name of F. M. Antunes of Puerto Rico. When his 986 pound box (probably containing the top of the line 12-seater) was shipped June 20, 1908, it may have been too late to be included in the catalog.

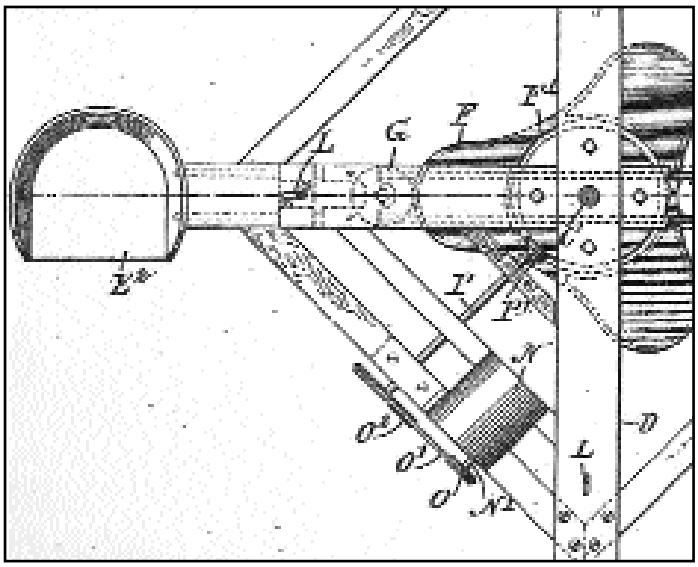


Figure 9. A description of the above organ "N" in U.S. Patent #842,424 reads as follows: *An organ **N**, mounted on the platform **D** and traveling around with the same, is actuated automatically from the fixed cam, and for this purpose the following arrangement is made: A driving-shaft **N¹** is provided with a pulley **O**, connected by a belt **O¹** with a pulley **O²**, secured on a shaft **P**, journaled in suitable bearings arranged on the platform **D**. On the inner end of the shaft **P** is secured a friction-wheel **P¹** in engagement with an annular track **F¹**, formed in the fixed cam **F**, so that when the platform **D** is rotated, as before explained, it is evident that the friction wheel **P¹** rolls off on the fixed track **F¹**, and consequently a rotary motion is given to the shaft **P**, which by the pulleys **O O²** and belt **O¹** is transmitted to the driving-shaft **N¹** of the organ **N.***

Was I disappointed in our finds? Not really. Researching an emigrant German family who, through inventiveness, perseverance, and belief in the "American Dream" made good, was enough reward in itself. Besides, one of the buildings George Ertel built in 1896 was later remodeled and converted into the Bijou Theater. Who knows what's hidden behind a false wall or in a basement corner? Maybe someday I'll look into that.

Organ Information

A brochure description of the organ notes that: *THE ORGAN, which is one of the enjoyable features of the Merry-Go-Round, is a full grown instrument. It is nearly two feet long, by a foot high, has a good strong bellows and is an instrument that can be heard. It is very durably built. Of course it should not be left out of doors in rainy weather, because organs are put together with more or less glue, particularly the bellows parts. However, if ordinary care is observed, the organ is one that will last for a very long time. The music rolls are durable and will be found very satisfactory.*

A belt is attached to one of the wheels of the Health Merry-Go-Round and the other end fastened around a small wheel which operates the organ. Thus the faster the Merry-Go-Round the more spirited the music.

In a letter dated Oct. 28, 1907, Thos. Jasper (Secretary) wrote to the Manager of Sacandaga Park, Gloversville, NY, and among other claims of the Health Merry-Go-Round stated that *The organ, which goes with every machine, is an added delight for the children, making it just like the big Merry-Go-Rounds. Could more be said? We send three music rolls, and others can be had at slight cost.*

Yousuf Wilson is a reformed carpenter and cabinet maker who, for the past 25 years, has made his living restoring foot pumper and reproducing pianos. He is now involved in building the second of "his and hers" street organs using Wurlitzer 125 rolls.

A Pioneer Hooghuys and A "Major League" Mortier

Fred Dahlinger, Jr.

This is the story of several interesting band organs. It is also an example of what can transpire when a historian patiently pursues information for fifteen years and seeks answers for questions. The researcher goes about the task of gathering facts, observations and evidence that will ultimately be brought together to create a better understanding of history. Sometimes the search takes paths and turns that were not anticipated. At other times, a multitude of "facts" are available that remain disconnected until such time as a crucial bit of information serves to connect seemingly disparate parts into a unified whole. Theories that were once thought to be possible are discarded when they no longer fit new discoveries. All of the above happened with this story. The final chapter has not yet been written, so this account is something of a work in progress and additions are welcome.

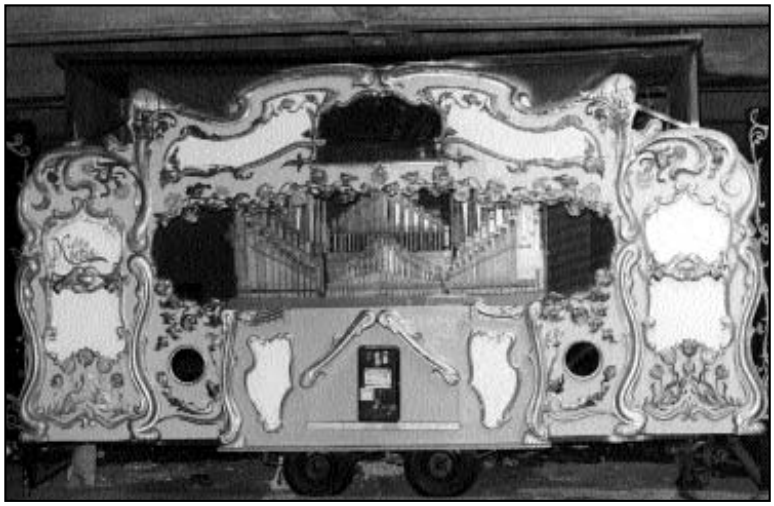


Figure 1. The heritage of a Hooghuys organ was hardly discernable when visitors gazed upon this presentation at Underground Atlanta in the 1970s. (All photos from the author's collection unless stated)

Our search for band organ history commenced with a visit to the late Dan Slack's collection in the early 1980s and the examination of photographs that he had collected. Among them was a print showing an organ identified as a 101-key Mortier. It was once featured in the Underground Atlanta attraction in the Georgia city of the same name (**Figure 1**). It looked very unusual for a Mortier, with art nouveau styled carved ornamentation in lieu of the usual "classic" or art deco styled details that one typically associates with that marquee. There were also gaps on the front that were surely once filled by other decorative elements. Perhaps the most drastic alteration was the presence of a coin box on the facade, to collect coins for playing the organ from site visitors.

Another trip to Dan's Fremont, Ohio playground led to the discovery of a second photograph showing a gentleman identified as Lee Edwards standing in front of the organ. It revealed a much more complete arrangement of the facade (**Figure 2**). This was the first time that the entire front was seen, yet there were still unanswered questions. Was the covered opening in the upper part of the facade where the belly pipes had once been located? What had happened to those cello pipes that were in the side chests? Knowing that any number of organs have been altered for a variety of reasons, it appeared that there was much more to learn about this organ.

Figure 2. Some idea as to the imposing facade that once graced the organ was evident in this photograph, showing Lee Edwards displaying on of the 101-key books for the Mortier.

Dan traveled across the country, both for business reasons and to seek out new instruments. One trip, in search of a Gavioli, took him to the Kensett, Iowa home of Tom Fretty, the well-known dealer and collector. Knowing of my interest in organ history, Dan usually photographed anything that looked interesting or unusual. In addition to the Gavioli, he photographed a Mortier that Tom had for sale (**Figure 3**). Though by this time the facade had suffered further alteration and the organ was playing 165 Wurlitzer rolls, it was still recognizable as the Atlanta organ. An inquiry to Tom yielded only a serial number, 971, that mandated further investigation. The Mortier chassis was later dated by knowledgeable authorities as before 1925. The date originated from the organ's lack of jazz-flutes,

Figure 3. The present configuration of the organ was attained in the late 1970s, and is shown as such in this early-1980s view taken at Tom Fretty's place.

which I was told were introduced in the mid-1920s. The original ownership and subsequent history of Mortier 971 was unknown to even the specialists that document Mortier organs.

activity caused it to erupt in (**into?** music. The postcard said that the organ came from the Musical Museum & Arcade at Underground Atlanta So there it was, the Mortier with the unusual facade, the only band organ, to the writer's knowledge, to ever be a fixture and part of a national sports franchise. Why, it was a "major league organ." It was a story that definitely needed to be told, some day.

Figure 5. Recognition of the original organ as a Hooghuys was facilitated by the discovery of this diminutive copy print, which could have been taken in either Europe or the U.S.

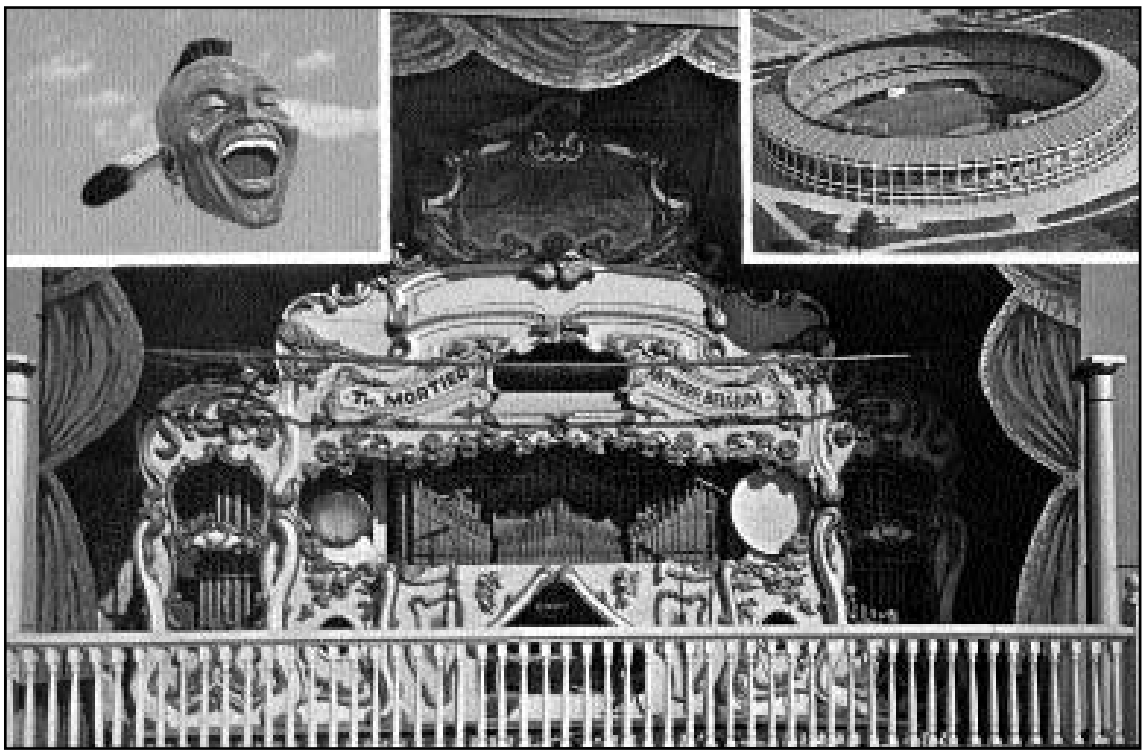


Figure 4. It would have been a rare ballpark spectator that knew what type of boom box was located behind the right field fence. What did Hank Aaron think of the musical serenades?

The piece of the puzzle that served as the key to unlock the mystery turned up in the form of a small copy print, partially overexposed, yet showing the organ in such a way that the features were generally discernable and unmistakable (**Figure 5**). Painted upon the facade was "L. Hooghuys, Grammont." It revealed the probable origin of the front, but the pipework that could be seen was certainly unlike that in the Mortier organ behind the surviving facade. It looked like an entirely different organ, perhaps an original Hooghuys instrument. They were not known to have been imported to the United States until after the hobby interest in organs commenced in the 1960s. If Mortier had not simply placed one of his own organs behind the facade, perhaps he extensively rebuilt the Hooghuys, substantially altering it from a fairground instrument to one suited for dance hall usage.

The final puzzle piece gained from the Slack collection was in the form of a postcard (**Figure 4**). It showed the organ positioned behind the right outfield fence of the Atlanta Braves baseball stadium, "backing up Hank Aaron" as the card caption put it. I imagined that a home run or other significant game

In 1986 the writer had the pleasure to journey to Europe and meet some of the great personalities of the European band organ world. It is impossible to replicate that trip today because most of those visited are now deceased, including Heinrich Voigt; Carl Frei, Jr.; Gijs Perlee; and others. For this story, the important man was Romain Charles Hooghuys (1901-1989). Here was the chance to ask the grandson of the maker about the organ. He pronounced his name "oo-guys," or at least that is what I heard. He could speak English well, but my explanation for why I wanted to record his pronunciation of his family name for history escaped him. In the matter of the name he was self-effacing; but when it came to the organs bearing the family name, there he was quite proud.

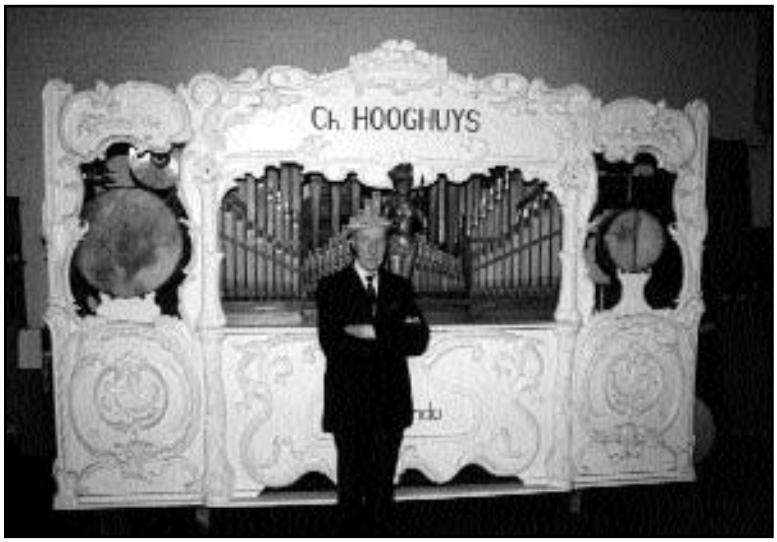


Figure 6. R. Charles struck a rather stiff pose in front of a great sounding organ, his "Crescendo," in 1986. Photo: Neil Smith

Through the courtesies of Gus Mathot and his delightful wife, Lillien, R. Charles met us at the Het Boudewijnpark indoor complex in Brugges, Belgium where he had three Hooghuys organs for us to see and hear. The fact that there was a youthful fashion show scheduled at almost the same time as our visit did not matter to him at all. He had friends that had come all the way from America to see his family's heritage. A delightful time was spent watching him play the organs, a beret on his head, the cigar that was clenched in his teeth occasionally bobbing up and down in time with the music. He focused intently and very seriously on the key frame, literally by force of personality defying that there be anything less than perfect operation.

That is the way it was; perfect. First was the 80-key fair organ (**Figure 6**), LH552 "Crescendo," followed by the LH 518 72-key "Senior."[1] Each was played several times to demonstrate the capability of the instrument or a special arrangement. The arrival of the guests for the fashion show, the placement of temporary walls on the stage in front of the LH605, the 97/100-key "Condor" and other actions all meant that the recital would come to an end after a just few tunes on that great dance organ.

Figure 7. Cus Mathot is listening closely to a fine point being made by R. Charles Hooghuys. Dan Slack, on the left, and the author, on the right, awaited their turn to ask about organ matters. Photo: Neil Smith

The playing yielded to the sharing of a few glasses of good Belgian beer and the exchanging of stories and perspectives on life (**Figure 7**). R. Charles wanted to talk American politics, but obviously we wanted to talk organs. Dan learned much about the history of his 58-key Hooghuys organ, CH 670, and asked about others that he desired.[2] When my turn came, I showed R. Charles the diminutive photograph of the Hooghuys organ. Yes, he recognized it from decades before! Unfortunately, all that he could recall was that it was exported to the United States, between the two world wars he thought, to the area of Boston, Massachusetts. That was all he could remember, but he told me to write to him for more information. The return to America and other activities placed the inquiry on the back burner and the exchange never took place.

Our European visit continued with an afternoon audience with Gus, who revealed to us a large archive of Hooghuys factory photographs. There, resplendent in factory freshness and completeness, was an organ that, for all practical purposes, was a twin to the "American" Hooghuys (**Figure 8**). The only major difference between the two organs, beyond paint schemes and some facade details, was in the figures on the shelf. The factory view organ had a central female equestrienne presenting the two circus liberty horses or ponies, one standing up on either side of her. The "American" Hooghuys had a male equestrian in her stead. Instrument-wise, the visible pipework brought to mind another Hooghuys organ that we had seen recently, the "Crescendo." Gus happened to have an extra print of the factory view that he kindly shared with me.[3]

It was sad day when we learned in 1989 that R. Charles Hooghuys had died as the result of injuries he received in an automobile mishap. He was on a bicycle when we approached the organ hall in 1986; our van had passed him as we motored to the place where we were to meet. He was quite amazing, even at age 85. I composed a letter of condolence to his youngest son, Marc Hooghuys, which resulted in the initiation of a correspondence of mutual benefit concerning Hooghuys organs. From Marc I learned that he had succeeded in buying

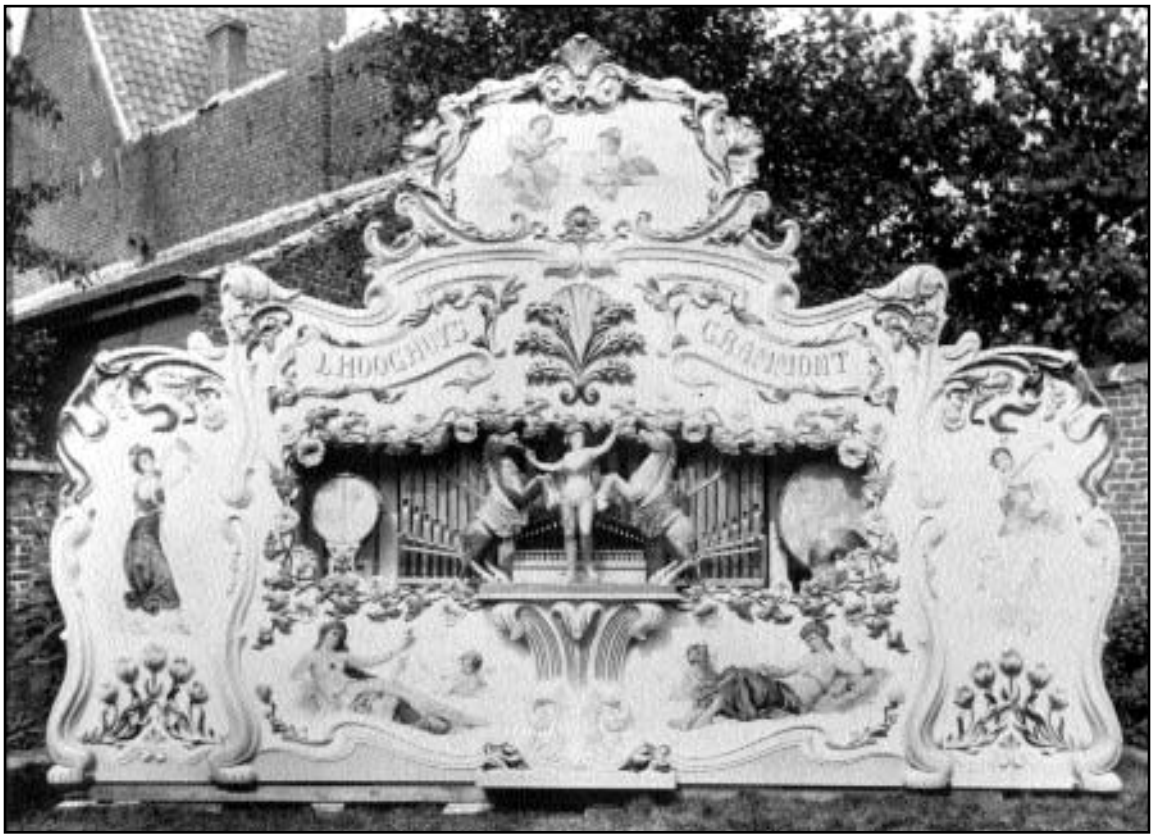


Figure 8. A twin to the "American" Hooghuys was this fine machine, shown after completion at the Louis Hooghuys shop circa 1908. Photo: Gus Mathot

the "Crescendo," which he re-christened "Albatros." In one of the exchanges I naturally asked about the "American" Hooghuys. Marc replied with a photocopy of the original scale stick for the organ. It revealed the 73-key layout of the organ that had been assigned serial number LH555. It was similar to the original organ that had become the "Crescendo" that R. Charles had played for us in 1986. It also had an inscription that read "Nr 555 is de 73 toets van Kerschieter in Amerika USA." Unfortunately, Marc knew nothing further of the name Kerschieter. Too bad that we had not known of the name earlier and asked R. Charles about it.

Surprisingly, about the same time these discoveries were taking place the three original facade figures from the "American" Hooghuys organ "surfaced." (**Figure 9**). They were once owned by Walt Bellm, who reportedly sold them at auction in September 1986. Vince Marcone, a Daytona Beach, Florida collector, paid between $4500 and $5250 for them, winning out over another bidder, possibly from Rochester, New York. He later offered them at private sale for $5600 and they were sold, perhaps this time to the Rochester area. They were offered for sale again in December 1989, for $15,000, by carousel figure dealers Ken and Barb Weaver of Spring City, Pennsylvania. The assembly was described as "Circus Carving," and in "old paint," which appears to have been accurate in a sense. A consignment sale of which they were part took place on October 20, 1990, at the New England Carousel Museum. On February 3, 1993 they sold again at auction in Tampa, Florida, for about $7425, including the 10% buyers premium. They have remained in the same private hands since that transaction. Though uncertain of the vintage, the paint that they bear is old, perhaps original. They may be all that survives from this pioneer "American" Hooghuys.[4]

Figure 9. Three finely carved figures originally adorned the facade of the "American" Hooghuys. One suspects that they were inspired by a favorite act at the circus.

Tom Fretty subsequently sold the 101-key Mortier and it disappeared from notice until Bill Nunn of Hamel, Minnesota brought it to a rally. I had the pleasure to meet Bill in 1999 and gave him some

insight on the heritage of his organ facade, at least as far as I understood it at the time. Interested to learn more, I subsequently shared with him some of the documents that I had gathered. It spurred him to learn more. When I saw Bill again on August 26, 2000, not only did he show me the Hooghuys facade and the Mortier that backed it (**Figure 10**), he also revealed that he had bought an original Hooghuys organ. He told me that he also thought that he knew the location of the original organ from behind his Hooghuys facade. Finally, I thought, all of the missing pieces were, literally, falling into place.The publication of a history of the Hooghuys family and commentary on some of their band organs in *Carousel Organ* issue number 6 suggested that the time had arrived to tell the story of these interesting Hooghuys organs. What follows is the history of these instruments, as best as we have been able to discover and arrange it. Learning about the history of the organs continued literally until the day came to submit this paper for publication.

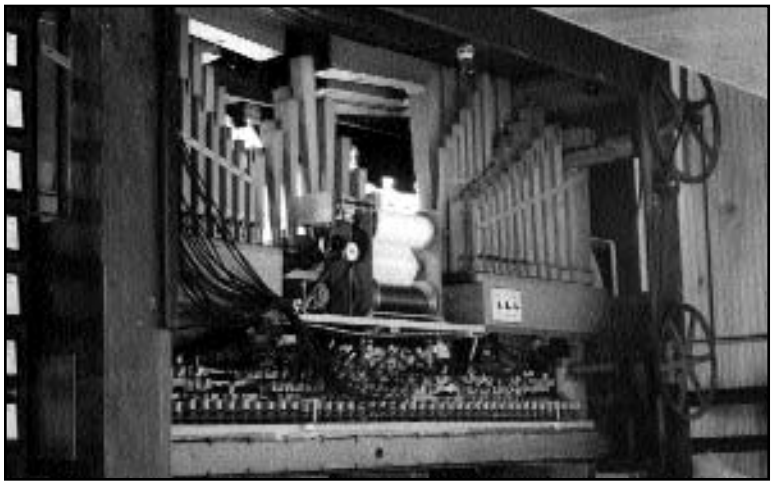


Figure 10. This is the back of Mortier 971, showing the Wurlitzer roll frame and valve stack. The open arrangement makes explaining the operation of the organ to a novice quite easy.

Louis Francois Hooghuys (1856-1924) constructed the "American" Hooghuys organ in his Grammont, Belgium factory. His story, and that of his other organ building relations, has been told previously by others. We need note here only that he commenced work in the field of mechanical organs in 1880 and continued at it without interruption through 1914, when World War I started. There was a hiatus until sometime about 1918 when work was resumed. After his death, two incomplete organs were acquired and finished by his son Charles Francois Hooghuys (1878-1951). The output of the firm included hand organs, military style trumpet organs, fair organs and dance organs. His organs were very highly regarded, with western Belgium particularly fond of the instruments.[5]

Two listings of Louis Hooghuys work numbers exist, a combined one for organ repair and new organ work and another for cylinder arranging commissions.[6] In the period covered by the organ entries, January 18, 1895 to October 24, 1907, there are 254 organ listings. Only 52 entries, twenty percent, in a period spanning nearly twelve years, were for new and rebuild work on Hooghuys-built organs. All other entries documented work on other makes of organs. Though he was a very competent builder in his own right, exposure to these many different organs undoubtedly enhanced his knowledge of other makers methods, voicing styles and technical details. They may have influenced the design of organs of his own construction.

In the ledger entries there are just 23 new Hooghuys organs noted between 1895 and 1907, an average of about two per year. The limited output, as compared to other factories, partially explains why they were never exported to overseas buyers. Continental showmen, eager to own a prized Hooghuys organ, could readily consume all of the output from the shop. The earliest Hooghuys book organ listed, in June 1900, was a rebuild of a cylinder organ. The first entirely new book organ, having 53-keys, was constructed in 1901. With one exception in 1902, beginning that year all subsequent new organs were book-operated. The book organs listed had from 53 to 92 keys. We know that Hooghuys book organs with as many as 97 or 98 keys were manufactured later. Unfortunately, it is not known how early Hooghuys implemented the concept of automatic registers to control various ranks of pipes, or how early the famous fast keyframe action was developed. Its invention may have been a means to both circumvent the patent coverage granted to other manufacturers and to enable musical arrangements to be played on Hooghuys organs that were not possible on other organs.

Louis Hooghuys also did a thriving business in the repair, rebuilding and alteration of organs made by other manufacturers, including the marking of cylinders. The cylinder organs continued to be serviced for years after their format fell from favor. In some cases they were converted to book operation. The Hooghuys cylinder organs listed in the ledger entries ranged from 57 to 115 keys in size. Many were likely of the military band disposition with brass pipe resonators, as opposed to the orchestral type fair organs and dance organs with wooden pipework that gained popularity after the turn of the century.

Rebuilds were given their own factory number sequence, from 294 to 528. One must clearly differentiate new organ serial numbers from factory ledger repair numbers to avoid confusing the two series. It's been done in this paper by appending the "LH" prefix on serial numbers.

The limited output, as compared to other factories, partially explains why they were never exported to overseas buyers.

From the factory ledger number system, it can be determined that the new organs made between 1895 and 1907 were probably the 51st to 74th constructed by the firm. Number 66 was inexplicably skipped. The numbers 51 to 74 are in chronological sequence and stand out from the repair work entries. Hooghuys did not apply serial numbers for new organs consecutively. The 51st new organ listed was assigned serial number LH275 while the 74th was given LH547.

In some cases the jump in serial numbers was as little as two, such as from LH275 to LH277. At other times the gap was one hundred and fifty-four numbers, as from LH346 to LH500. Such non-sequential numbering makes dating other segments of the Hooghuys output a somewhat uncertain prospect. Knowing the above data, the Crescendo/Albatros, serial number LH552, must have been made in late 1907 or the first half of 1908. With a gap of only five numbers to the last newly built organ in the ledger, it was likely one of, if not the very next new instrument manufactured. LH555, just three higher, followed almost immediately, if not simultaneously.

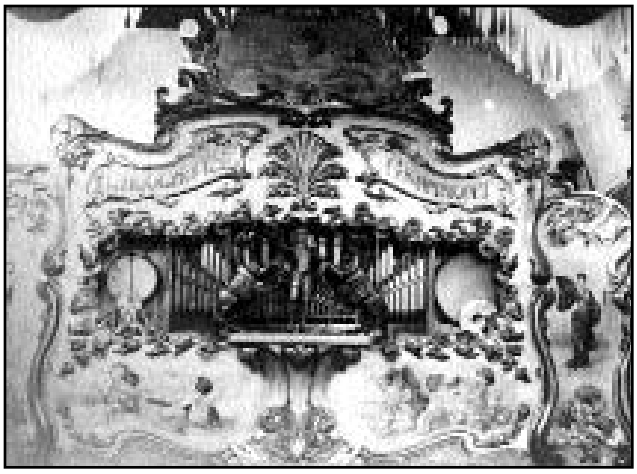


Figure 11. A third 72-key organ with a facade like that on LH555 was its predecessor, H552. This is how the "Crescendo" looked in its original arrangement.

Photo: Marc Hooghuys and Bjorn Isebaert

Connecting LH552 and LH555 together were their facades.[7] Both had essentially the same front design, including three central carved figures on the shelf. They were in the form of a male equestrian flanked by standing horses. Even the paintings that adorned their flat spaces were essentially identical (**Figure 11**). They also shared a particular carving detail, a closed loop swirl near the top edge of the wings, which differentiates them from the other two later examples of the same design, the factory photo organ and the facade on Mortier 971. Their front design was an extension and next generation of the configuration that had decorated at least two previous Hooghuys organs, LH530 and LH547. The former is a 57-key machine presently owned by Boz Oram in England while the latter is a 92-key organ in France. Both were fabricated immediately prior to the first 72/73 key organs (**Figure 12**).

In his best years, Louis Hooghuys appears to have made two organs in the early part of the year and two in the latter part. These two, LH552 and LH555, would have been the first of the 72/73-key scale fair organs fabricated by the firm, likely in early 1908. R. Charles Hooghuys told the writer that LH552 was built in 1910, a reasonably close approximation to the actual date. He also stated that it was built by his father, Charles Francois Hooghuys (1878-1951), which is not totally accurate in one sense. His father may have actually built it, but the work would have been conducted in his grandfather's workshop and bore his name.Another surviving Hooghuys organ, "De Witte Merel," LH585 has been identified as a 1912 machine, which appears to be about right. LH 595 and LH605 have both been dated as 1910 by other writers, but we suspect they are likely closer to 1913. There is a workman's personal note about World War I inscribed inside LH620 that includes the date August 18, 1914, fixing a point in time for its manufacture. LH625 and what became LH670 were started before the First World War but were not completed until after the conflict, providing a line of demarcation between 1914 and when production recommenced afterwards. The serial numbers of surviving Hooghuys organs suggest that the firm later staggered serial numbers by fives, beginning at 580 or 585, jumping from 585 to 590, and so on, to the final number of 670. It is so highly unusual that only Hooghuys organs ending with a "5" exist after serial number 585 that this is the only conclusion that can be reached.

The scale of the "American" Hooghuys organ, according to the copy of the original scale stick supplied by Marc Hooghuys, included: eight bass notes (F, G, A, A#, B, C, D and E, 58-65); eleven accompaniment notes (G, A, A#, B, C, C#, D, D#, E, F, F#, 47-57); nineteen baritone notes (C to F#, chromatic, 28-46); and twenty-two melody notes (G to D chromatic, E, F, 5-26). There were registers for what is though to be a triangle or perhaps loudness (Timbre, 27), Violin (72), oboe (Hautbois, 71), Flageolet (70), large harmonic flute (Grosse flute hamonique, 69), Saxophones (68), baritone (Baryton, 67), and trombones (Bombardon, 4). Other keys were for bass drum (Grosse caisse, 66), two for the snare drum (Tambour, 1 and 3), a cancel key (Cliche, 73) and a special action to lower all keyframe keys, another unique Hooghuys feature (ferme, 2).

Despite fifteen years of researching in both public and private collections, and having asked literally dozens of knowledgeable people, the writer has yet to discover any "on site" photographs or documentation that confirm a pre-World War II Boston-area ownership of the "American" Hooghuys. Inquiries about Boston organs, including those gathered by the pioneering Revere Beach organ aficionado Louis Bopp, proved fruitless. At best we know only what R. Charles stated, that it came to the States between the two world conflicts and to the Boston area. Significantly, it would have been the only Hooghuys band organ ever exported to the United States for use by an outdoor showman. The relatively wide and tall facade may have proved unsuited for placement within the center circle of certain carousel platforms. Perhaps parts of the facade were deleted so that it could be placed within a ride, to keep it away from the hands and fin-

Figure 12. The arrangement of the 72/73-key Hooghuys facades was derived from previous organs made by the firm. Here is LH547, a slightly larger 92-key organ

Photo: Marc Hooghuys and Bjorn Isebaert

gers of the inquisitive. This could explain the vintage photograph of it sans top pieces. But, there is just no available, confirming evidence of an "American" Hooghuys before, or after, the war available at this time.

The identity of the showman that commissioned the organ is unknown. It is possible that Kerschieter was the name of the person for whom it was constructed, but confirmation is lacking. He could also be the last owner before the organ went to America. Most Hooghuys owners developed long-term bonds with their organs, with ownership marked by decades and not simply years. This may have resulted from the custom-made, personal approach that Louis Hooghuys applied to show organ manufacture. His methods were akin to other commercial enterprises where the product was custom tailored to the precise wants and desires of the buyer, and satisfied under the direct supervision of the builder.

A recent e-mail to a friend Dutch elicited a response that we initially thought could explain some of the mystery surrounding the American Hooghuys, but, alas, it does not make the connection completely. The late Leonard Grymonprez penned a two-part article about his organ-owning great-grandfather. Henri De Keerschieter (?-1919, yes, a slightly different spelling) entered the organ business in the early 1900s, after he moved from West Flanders to Ghent with his twelve year-old daughter, Celina. He owned and operated a small bar in the city and kept cattle on the side. Prospering, he relocated to larger quarters and rented out rooms. Someone gave him an organ at this time, in poor condition. An alcoholic organ repairman named "Jantje Cornand" arrived looking for a room and stayed, repairing what has been identified as a very early Marenghi (or perhaps a Gavioli) organ for De Keerschieter. Shortly thereafter he had the opportunity to acquire three more organs at a very good price, eventually selling just one of them for more than he had paid for the three. This laid the foundation for his organ business, which totaled 32 machines at the time of his passing. Meanwhile, his daughter Celina married Henri Grymonprez (?-1911). They had a son, Oscar (1904-), who played in his grandfather's organ warehouse as a child and is alive as this is written. He later had a son, Leonard (1932-1988). Together they did a good export business, supplying many organs and orchestrions to American collectors in the 1960s and 1970s.

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In 1914 Celina Grymonprez married one Gustaaf van Halter, who had returned to Europe from Chicago. They inherited and carried on De Keerschieter's organ business, also inheriting a large sum of money. Oscar and his stepfather did not get along and Oscar left the family trade and went to work for Theofiel Mortier. Then for a short period of time he worked for Pierre Verbeeck, who went bankrupt, which caused Oscar to go into business for himself. He also worked in the family business. By 1960 he and his son Leonard sold over 160 organs, the makes enumerated by Leonard in his story including Hooghuys. All of this raises an interesting possibility. Could Oscar Grymonprez have possibly arranged for the sale and shipment of one of his grandfather's Hooghuys organs to an American buyer? At this time, we cannot confirm that De Keerschieter was the owner of the "American Hooghuys." Though the Grymonprez family later sold many organs to American collectors, nothing is known of their pre-World War II export business. The connection remains possible, but the necessary corroborating facts and photographs have yet to be discovered. The possibility that the Grymonprez family may have been involved with the organ was given another step backwards when Oscar recently advised that neither his grandfather nor his father ever owned a Hooghuys.[8] Hopefully the Kerschieter name and its relationship to the "American" Hooghuys will be resolved some day.

There is another Hooghuys organ, or more correctly, a Hooghuys facade, that can first be documented in American collector ownership in the late 1960s. It is the facade of the "major league" Mortier that initially sparked this inquiry. The facade is a "quadruplet" to the LH552 "Crescendo/Albatros," the LH555 "American" Hooghuys and the factory photo organ with the equestrienne figure. Differences in the carvings on the facades of the four organs indicate that there were at least four examples of this 72/73-key organ design, testimony to its popularity among showmen.

Dorothy Hagwood, widow of the late Leslie E. Hagwood (1937-1996), an attorney of Meridian, Mississippi, advised the writer that Hagwood personally imported the organ from Belgium. An unidentified contemporary clipping supplied by Mrs. Hagwood stated that he found it in a leaky warehouse in Antwerp (Anvers), Belgium and transported it to America. He named it "Queen Maudine" in honor of his first wife. To gain adequate knowledge of how to rebuild his mechanical musical instruments, Hagwood essentially apprenticed himself to Atlanta collector and rebuilder Hugh Starr for about a year at no salary. To support himself, Hagwood worked as a manager and projectionist at various area theaters, including the imposing Atlanta Fox, calling upon the experiences that he had as a youth working in a local Meridian theater.

At the time of Hagwood's ownership the organ was clearly described as a 101-key Mortier. The observation is significant. Unless Hagwood himself made a change, which is doubtful, it is clear that someone in Europe had taken a Hooghuys facade and consolidated it with a 101-key Mortier dance organ. Openings were cut into the side wings of the Hooghuys facade, but the work was done in a stylish manner by a skilled craftsman. Delicate vine and flower carvings were made and applied to surround the new openings, matching the original decorative

treatment of the facade. When the medical bills for his first wife's illness proved an unbearable burden, Hagwood was forced to sell the organ. He sold it to Lee Edwards, owner of the Musical Museum at Underground Atlanta. Their facility presented a variety of mechanical music forms to visitors to the trendy new attraction. Some of the displayed items were the property of Hugh Starr.

Underground Atlanta was and still is located in the old business district of Atlanta, nearby to the site of the old Union Station (1871-1930). The underground designation came about as the result of a street change in which ten blocks of commercial streets were elevated one floor, leaving the original first floor entrances "underground." Atlanta's Civic Design Commission decided to revitalize the derelict delivery area with a treatment that created something of the flavor of a Victorian era French Quarter or Gas Light Square. It opened on April 8, 1969 and peaked in 1972 with 70 businesses and 3.5 million visitors. Recession and crime caused a rapid decline. A takeover by the Metropolitan Area Rapid Transit Authority could not stem the downfall, with the final enterprise closing in February 1982. A revised, expanded and reportedly more sophisticated Underground Atlanta was opened by the Rouse Company in about 1989, but as of late it has also had its share of challenges.

By the spring of 1971 Edwards submitted an idea to Atlanta Braves management to place the Mortier in Atlanta Stadium, which had opened in 1965. The Braves management was reportedly inspired to embrace the offer by the antics of the Montreal ball club's organist, who excited spectators with his wild acts. Braves public relations man Bob Hope thought that they could do even better with the big organ. They planned a new, musical atmosphere for Braves stadium. There was a vision of automatic figures, twirling pom-poms and flashing strobe lights to add to the spectacle. It was thought that the organ would emit a "road runner" like "beep-beep" sound when the Braves ace base runner, Ralph Garr, would steal a base. They even spoke of a "name the organ" contest to enthuse fans over the new addition, with the repertoire being augmented to include *Home of the Brave*, *The Hammer* and *Take Me Out to the Ball Game*, with *Happy days are Here Again* sounded whenever someone hit a home run. Edwards, characterized as a long term Braves fan, expressed concern about "those long Aaron blasts" and expected that a screen would have to be erected to protect the organ.[9] The organ was mounted on a trailer and promoted as the "Mighty Mortier," according to a postcard issued in 1973. Edwards' father played the organ when it was displayed at the ballpark. We don't know "Hammer-in" Hank Aaron's opinion of the Belgian music that came forth, but reportedly batters tried to aim fly balls at the organ during batting practice.

Exactly how long the organ remained a feature at the ballpark no one seems to recall, but it presumably remained a few seasons before the novelty wore thin. The owners returned the organ to Underground Atlanta, where it was one of the most popular features. They also did spot and extended dates with it, one of the latter being recorded at Atlanta's suburban Springdale Plaza shopping facility. The Mortier was probably the most popular attraction at the Musical Museum until it closed in late 1976. Exactly when and how the organ left Atlanta no one can recall, the closure and dispersal of assets being obscured at this time.

Constant playing of the organ while at Underground Atlanta took its toll on the cardboard books that came with the organ. Replacement books were available from Europe but they were not cheap. At some time during the Edwards ownership the Mortier organ was modified to play Wurlitzer 165 rolls, a concession to finances and the type of day to day operation experienced at Underground Atlanta. Fortunately, the key frame remained with it through subsequent ownership changes, but the books were worn out and disposed of when the organ was still in Atlanta. During this time other components were removed and lost. The top panels were removed from the Hooghuys facade in Atlanta and their whereabouts are now unknown. The facade was further altered through the deletion of carved ornamentation.

By 1981 the Mortier organ with its altered Hooghuys facade was in the possession of Tom Fretty, who retained Floyd Taylor (?-1981) of Kansas City, Kansas to rebuild it. The side wings of the facade and the Mortier side chests were no longer with the organ. Probably they were discarded in Atlanta, as the pipework was no longer needed for the 165-scale roll operation.[10] Tom Fretty still had possession of the organ in 1988. He subsequently sold it to Bob Blase, an eastern collector. Following Blase's passing, the organ was sold to Bill Nunn by one of the owner's relatives in the Minnesota area. Bill acquired the large trailer that once hauled Jim Wells' Wurlitzer 180 band organ and placed the Mortier/Hooghuys in it, and now takes it to rallies and other events (**Figure 13**). He has since acquired a complete and original Hooghuys 71-key dance organ, LH620. Interestingly, it took the personal intervention of R. Charles Hooghuys to re-unite that instrument with its original facade, after the chassis was exported to the U. S.

Figure 13. The Mortier and its Hooghuys facade travel in style in this first class trailer. A Wurlitzer 125 or other show artifacts usually accompany the organ on its trips.

Sometime in the 1970s, Lee Edwards sold a large organ to Charles Walker, Atlanta's resident carousel doyenne and

preservation advocate. Recent communication with Walker indicated that the serial number 525 is on the organ, which is about 92-key size. Because of the identified serial number, it cannot be the "American" Hooghuys, LH555. Its existence confuses the story because it was in the hands of Edwards, who also happened to own a Mortier with a Hooghuys facade with a European provenance. It is believed that Edwards acquired this organ from Ron Stuckey, owner of Stone Mountain Antiques. Walker describes the organ as having been thoroughly wet at one time, with pipes delaminated into many pieces. The main case has side chests and there is evidence to suggest the one time presence of a xylophone and possibly an accordion. Overall the organ is in poor condition and needing a thorough restoration. No books are with the organ and the pump and chests have yet to be opened for internal documentation. Perhaps some of the mystery will be resolved when that information is available.

Marc Hooghuys and Bjorn Isebaert have indicated that the Walker organ is a Hooghuys by their inclusion of it on their listing of extant Hooghuys organs. It is stated that a number 525 Hooghuys organ of 92-keys appeared in the records of R. Charles Hooghuys, adding merit to the listing. Our only difficulty with the identification is that a Hooghuys serial number LH525 should have appeared in the works ledger. One does not, leaving the situation without an explanation. This may be a 92-key Hooghuys organ that was once owned and restored by Oscar Grymonprez.

What started out as a simple inquiry about a single organ branched out into a trans-Atlantic study that discovered four very similar Hooghuys organs of circa 1908 vintage, a fifth organ of possible Hooghuys provenance and a circa 1925 Mortier organ. When we set out on the investigation it was thought that the facade on Mortier 971 would turn out to be that of the "American Hooghuys" LH555 and that the Walker instrument would be the long lost chassis. It does not appear that this is possible. Our hope is that the missing elements of LH555 do survive somewhere and may eventually be brought back together to make a complete example of a very fine Hooghuys organ. The same success in reunification is desired for the owner of LH552, Marc Hooghuys, caretaker of the proud heritage of Hooghuys organs.

The author is grateful to the following people who contributed their knowledge to making this account a better story: Lee Edwards, Tom Fretty, Dorothy Hagwood, Marc Hooghuys, Bjorn Isebaert, Hanneke Kelly, Tom Meijer, Bill Nunn, Richard J. Reynolds III, Dr. Hans van Oost and Charles Walker.

Notes

1. The writer adopted Marc Hooghuys' "LH" prefix to designate manufacture of the organ by Louis Hooghuys and not another member of the family.

2. Though Dan's organ was and has always been called a 57-key Hooghuys in the U. S., indeed, the original scale stick shows 58 keys, one extra key for castanets.

3. This view, and a number of additional Hooghuys factory photos, with subsequent notage, have recently been printed in the Kring van Draaiorgelvrieden's journal, Het Pierement, volumes XLIV-XLV.

4. Carousel News & Trader, December 1989, page 34; January 1991, page 27, photo in lower left corner; April 1993, page 56.

5. For further information on the Hooghuys family and their organs, see "Louis Francois Hooghuys" in Stephane Godfroid, Muziek Instrumentenbouw te Geraardsbergen van de 15 de eeuw tot heden (Geraardsbergen, 1986), pages 68-109; Bjorn Isebaert and Marc Hooghuys, *Hooghuys--The History of the Family and of the Company*, Carousel Organ, No. 6, pages 1, 3-12; D. G. Karlsohn, *Enkele beschouwingen over het vroegere orgelbedrijf Hooghuys*, Het Pierement, VI, 1 (April 1959), pages 3-5; Ted Bowman, *Repairing a Flemish Dance Organ*, Music Box, V, 5, (Summer 1972), pages 233-239; *Hooghuys, Geslacht van orgelmakers in het Brugse*, Het Pierement, XXII, 3 (Fall 1975), pages 43-45; *Hooghuys*, Het Pierement, XXIII, 1 (Spring 1976), page 2; *Louis Hooghuys* Music Box, VIII, 1 (Spring 1977), pages 12-13; and A. M. Broeke, *57-toets Hooghuys Orgels*, Het Pierement, XXVII, 1 (Januari 1980), pages 4-8.

6. Both listings are transcribed and printed in Godfroid. The ledger(s) are now thought to be in the possession of one of R. Charles Hooghuys' sons.

7. The original facade for LH552 survives in the hands of showman Jean-Baptiste Rorive, who at one time used it with a carousel.

8. See Oscar Grymonprez, *De geschiedenis van mijn overgrootvader Henri De Heerschieter . . .* (sic) Het Pierement, VII, 2 (July 1960) pages 11-15 and VII, 3 (Oktober 1960, pages 5-7. The writer is indebted to Dr. Hans van Oost for this citation. Bjorn Isebaert kindly spoke with Oscar Grymonprez twice on behalf of this article.

9. Ron Hudspeth, *Braves Sign Swinger, 80*, The Atlanta Journal, March 11, 1971, page 2-D.

10. Andrea Stewart, *This man combines history and music*, The Kansan, October 1, 1981, rpt., MBSI News Bulletin Number 45 (March 1982), pages 13-14. Taylor claimed ownership of the organ in the article, a statement recently disputed by Tom Fretty.

Fred Dahlinger, a frequent contributor to the *Carousel Organ*, has recently finished his third book (about circus show trains of various types). He continues to do original research on many aspects of American band organ history.

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Meet Your Member

Our musical hobby began in 1985 with the auction purchase of a somewhat less-than-perfect Wurlitzer Style 105 military band organ. As I unpacked the beautiful orange and green carnival painted organ, my wife Norma exclaimed, *You bought that—what is it?*

After two years of bothering a number of people who knew what they were doing, we finally got the organ to make a few squawks and, after a final tuning, we were off to our first rally with our "Masterpiece."

Don and Norma Redd enjoy showing off their Wurlitzer 125 band organ (housed in a Wurlitzer 153 style case).

A few years later we purchased a Wurlitzer Style 125 military band organ that was in worse shape than the first organ. In a couple of years, however, we turned it into the instrument pictured above.

We have enjoyed the organ rallies (MBSI, ABOA and COAA) and are looking forward to attending many more. We have found to really appreciate the rallies you have to host a rally to understand the work and problems that go along with it.

Additionally we find that the members of the organ fraternity are most helpful with problems that come up with the organs (sometimes neglecting their own playing time to get another member playing).

We went on the Bumbling Bruder trip to Europe two years ago and saw some of the organs that are in collections there. It really makes you green with envy—they were just absolutely beautiful.

Come visit us in Larue, Ohio!

Mid-America (MBSI) Band Organ Rally

This year's Mid-Am rally should really be fun! On Thursday, July 19, 2001, you will have chance to visit the Circus Hall of Fame which includes a steam calliope concert; exotic animal performance plus the Big Top Circus. After supper, members can visit Hope and Frank Rider's open house.

On Friday the band organ rally will held through historic downtown Wabash and the Honeywell Center until 5:00 p.m. A roast beef buffet at the Honeywell Center will be followed by a ride to the Peru Circus (which includes a 50-piece circus band).

On Saturday, members can either 1) play their organ in Wabash or 2) watch or 3) participate in the Peru Circus Parade (the second largest parade in Indiana). In the afternoon the rally continues in Wabash which will be followed by a 2 ¼ hour mart with a cash bar and then, a banquet with Tim Trager's *Great Dorset Steam Fair* presentation.

Rally chairpeople, Hope and Frank, hope that you can come and enjoy some "Hoosier Hospitality." Mid-Am members will receive information in the mail. Others, desiring to attend, should contact Frank Rider at 219-563-5030 or fmhrider@comteck.com

2001 Organ Rally Dates

Event	Location	Contact Person	Date
Mid-America (MBSI) Monkey Organ Rally	Downtown Mall Kalamazoo, Michigan	Bob Cantine 517-857-3681	June 1 & 2, 2001
COAA Rally #1	Dutch Village Holland, Michigan	Terry Haughawout 419-454-3671	June 22-24, 2001
Mid-America (MBSI) Band Organ Rally	Honeywell Center Wabash, Indiana	Frank Rider 219-563-5030	July 19-21, 2001
COAA Rally #2	Bear Creek Village Bear Creek, Indiana	Terry Haughawout 419-454-3671	July 27-28, 2001
Heart of America (AMICA) Band Organ Rally	Crescent Hotel Eureka Springs, AR	Marty Roenigk 800-671-6333	Aug 17-18, 2001
COAA Rally #3	Jamestown, NY	Dan Wilke 716-825-7266	Aug 24-26, 2001
COAA Rally #4	Delta Queen Gallipolis, OH	Chamber of Commerce	Aug 31-Sept. 1, 2001