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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.

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Joyland Louie

Matthew Caulfield

"Joyland Louie" is the Wurlitzer style 160 band organ playing at Joyland Amusement Park in Wichita, Kansas. It sits near the park entrance, across from the carousel, in an open-front building of its own (**Figure 1**). A railing in front protects Louie from busy fingers, and the rear of the building has a screened opening so that patrons can see the pipework and other innards. The style 160, or "Mammoth," was the largest of Wurlitzer's early, barrel or paper-roll operated band organs (**Figure 2**). Joyland Louie has been much modified from its original state and now plays the style 165 roll, but it is the sole surviving example of what everyone agrees was a genuine Wurlitzer Mammoth. A like organ with a similar complement of pipes, though not necessarily a true Mammoth, is in the collection of Donald Neilson.

Figure 1 *Joyland Louie* — the Wurlitzer Style 160 (Mammoth) band organ complete with animated clown.

. . . continued on page 3

The President Speaks . . .

The 2000 COAA rally season has sadly come to an end. The LaSuer rally was the highlight of the year for Joan and I. Putting old iron and carousel organs together makes a unique setting and all involved enjoyed it very much. We were all thanked many times by the public for bringing the organs and asked if we were coming back soon. A special thanks to Ralph and Carl Schultz for putting the rally together—it was excellent.

The 2001 rally season is shaping up nicely and we have three rally sites we are working on. I will be giving you more information in the next issue of the *Carousel Organ* as to places and dates.

I would like to again thank all the members that supported the rallies this year—it was great fun. A special thanks go to our members that hosted the rallies—it is people like you that will take the extra time so the rest of us can enjoy the hobby we love so much!

Thanks for the memories . . . Terry

From the Editor's Loft . . .

GREAT GUNS AFIRE! Yes, the *Carousel Organ* is going Great Guns Afire. More and more great articles come in all the time. This issue marks the first two-part series, *Building a Wurlitzer 105* by Howard Wyman. Running for several months on the web, this issue and issue #6 will present the entire process of building one of Wurlitzer's more popular band organs.

As you will read below, the COAA is one of many organizations involved with the IFFMO and this will serve, in the future, to allow Angelo and I to present even more interesting articles for the membership. Contact either Mike Barnhart, Tom McAuley (or new representative to the IFFMO) or myself for more information about the future of the IFFMO.

We have the chance to report on many rallies, and in the future, will reserve space for COAA rallies as first preference. While rally reports are interesting, they do not take advantage of the the educational value of the *Carousel Organ*. The editorial officers plan to present as much technical, historical and other interesting organ information as possible.

WHY NOT WRITE AN ARTICLE? Well, why not? I will be glad to assist any member with writing or photographic help of any subject that would be of interest. Upcoming articles include a look into the personal history of the one man responsible for band organ rallies in the United States; a neat observation of a large Limonaire Freres organ; interesting information on various calliopes, and more. You are welcome to contribute to this exciting body of information. . . .

Ron

The International Forum of Mechanical Musical Organizations (IFMMO)

Michael A. Barnhart

The proposition of the IFMMO is to establish a dialog for the coordination and cooperation of activities of the many, 30 plus, world wide associations involved in automatic/mechanical music. The challenge to the IFMMO proposition is the multidimensional diversities of mechanical music associations.

The factors in favor of the IFMMO are that, in the world of collectibles, mechanical music has a limited following and the related associations have common goals. Due to the limited availability and expense of instruments and collectible material, individual associations have small and dispersed memberships. This leads to a limited availability of new members and stagnant memberships. Even though no two associations share the exact same interest, every association has overlapping interest within their memberships and share the following common goals that can be pursued through the IFMMO on a larger scale than any one association by itself:

An Internet website incorporating a bulletin-board type operation can be established to provide easy and equal access to one representative for each participating association. An IFMMO website proposal was prepared by Mike Barnhart and AMICA Webmaster Terry Smythe and agreed upon by the AMICA Board.

The COAA has appointed Tom McAuley as the COAA Representative to the IFMMO (TMcAuley@webtv.net).

A complete discussion of the IFFMO may be obtained fromTom, Mike Barnhart (m.a.barnhart@worldnet.att.net) or Ron Bopp (bopp@rectec.net)

Figure 2. The Wurlitzer Style 160 or "Mammoth" military band organ as pictured in an early 1912 Wurlitzer catalog.

As a companion to the Mammoth, Wurlitzer also marketed the style 155, or "Monster," band organ for those wanting a slightly smaller machine (**Figure 3**). There are three surviving examples of the Monster. The one in Bill Black's collection plays its original style 155 roll, but is missing its original case (Carousel Organ, #2). The Monster on the Burlington, Colorado, carousel is intact with its elaborate leaded-glass case front. When new it played the same 155 roll as Black's organ, but Wurlitzer later converted it—as happened to many organs—to play the 165 roll. As part of Burlington's historically-faithful stewardship of its carousel and organ, a re-conversion to the style 155 roll was completed in recent months by renowned restorer Art Reblitz. A third Monster, without case, unrestored and not playing original rolls, is owned by Gordon Forcier.

COAA editor Ron Bopp's book The American Carousel Organ contains complete specifications for the Mammoth, as well as more information about Wurlitzer's early organs than can be found anywhere else, so I will repeat just a few statistics to give an idea of the Mammoth's nature (**Tables 1 & 2**). Its approximate dimensions were 10 x 10 x 4 feet, with 122 keys (compared with 75 keys in the Wurlitzer 165, 100 keys in the Monster and 112 keys in the Wurlitzer 180 introduced in 1922). It had three windchests with a total of 8 stops, containing a total of 486 pipes, with bass and snare drums and cymbal.

Figure 3. The Wurlitzer Style 155 ("Monster") military band organ. Note the leaded glass in front of the brass trumpets and trombones.

Both the Mammoth and the Monster were probably originally designed to be played by pinned barrel; the complicated and awkward modifications made to the Burlington Monster to accommodate roll operation in its original manufacture are proof of this. But factory catalog photos of both Mammoth and Monster models clearly show a roll mechanism in their front sides. Interestingly, the Monster uses the standard 10-to-the-inch hole spacing of its deKleist ancestor; but the Mammoth uses Wurlitzer's standard .1227" hole spacing.

Comparison of Dimensions of Large Wurlitzer (& deKleist) Organs

Make and Style Organ	Number of Keys	Height	Width	Depth
deKleist 28A	100	9'6"	8"	3'
Wurlitzer 155	100	6'10½"	8'8¾"	3'3¼"
Wurlitzer 160	122	10'4"	10'6"	4'6"
Wurlitzer 180	112	10'8"	18'8"	5'

Table 1. Dimensions of Large Wurlitzer and deKleist Organs (from *The American Carousel Organ*).

INSTRUMENTATION

120 Violins.
29 Violoncellos.
29 Bass Violins.
30 Clarionets.
40 Piccolos.
40 Flutes.
13 Brass Trombones.
27 Brass Trumpets.
148 Accompaniment Pipes.

Table 2. Instrumentation of the Wurlitzer Mammoth as presented in an early 1912 Wurlitzer catalog.

Ron Bopp (p. 86) says this about Joyland Louie:

> During the 1920s and 1930s this organ entertained dancers and skaters in Arkansas City [i.e. in Coffeyville, according to Harold Ottaway; not the mansion of the same name in Arkansas City], Kansas, where it was located on the 3rd floor of the Brown Mansion. The organ was placed between the dance room and the skating rink. During World War II the brass pipes were removed for the war effort. At some point it was converted by Wurlitzer to play the style 165 roll. Today efforts are being made to restore the organ by re-placing the original pipework.

Joyland Amusement Park is now owned by Stanley Nelson, purchased in 1972 from the Ottaway family, brothers Harold and Herbert, who had opened the park June 12, 1949. Harold Ottaway, now 82 years old, remembers clearly the details of acquiring Joyland Louie for his new park. In 1947 the Ottaway brothers were contacted by Jess Gibbs, an organ man in

Parsons, Kansas, about an old band organ owned by the Brown estate in Coffeyville, 40 miles southwest of Parsons. It had stood unused in the old Brown Mansion (**Figure 4**) since its closing in the depression years. Harold, Herbert, and Jess made the trip to Coffeyville to see the organ. Harold remembers Ms. Brown describing the mansion's heyday and demise. In the 1920s people came in droves to the spa that occupied the mansion's basement, the dining room and lodgings on the first and second floors, and the ballroom and skating rink on the top floor, where the mansion's Wurlitzer Mammoth provided music. In the horse-and-buggy age, the spa attracted a captive audience and the mansion prospered. With the advent of the automobile people who came for the spa often went elsewhere for their dining, lodging, and entertainment. Eventually, the mansion closed and the Mammoth stood unused and perhaps forgotten up on the third floor. Today the Brown Mansion is open again to visitors. See its website at (http://www.terraworld.net/cville/brown.htm) for an illustrated description of the mansion.

Figure 4. Brown mansion as seen today in Coffeyville, Kansas.
Photo credit: Coffeyville Chamber of Commerce

The Ottaways bought the Wurlitzer Mammoth "as is" from the Brown estate for what Harold remembers as being "around $350, certainly not more than $500." They had it moved to Jess Gibbs' shop in Parsons, where Jess put it into playing order. Mice seemed to have feasted on the glue joints in the organ during the decade or so it sat silent. Harold recalls that the organ had no brass pipes in it when they acquired it in 1947 (which fits with the report of the brass going to the 1941-1945 war effort), but he does not remember it lacking anything musically. It came with a number of Wurlitzer 165 rolls, suggesting that the conversion to that system by Wurlitzer for the Browns or for an earlier owner, if any.

One of the distinguishing features of the Joyland Mammoth —and the source of the organ's name—is the animated clown figure, "Joyland Louie," who sits in front of the organ at a keyboard and appears to be playing the organ. Louie was an addition by the Ottaways. As an offshoot of their park operation the Ottaways developed a train ride and other amusement devices. So both as park operators and ride manufacturers, the Ottaways were members of the National Association of Amusement Parks, Pools, and Beaches, which held an annual trade show/convention in Chicago. At one of these shows, the Ottaways were intrigued by the lively and high quality animated figures being sold there as amusement devices. So they bought the clown figure for $750 and had him installed at a dummy keyboard in front of the organ. Thus was born Joyland Louie, though Harold doesn't remember today who gave him that name or why. Louie's movements are random and not tied to the organ roll; but people have been fooled into thinking Louie is a pretty talented mechanical organist.

Eventually Jess Gibbs moved to Wichita and continued to maintain Joyland Louie, the organ, until his death. Since selling the park to the Nelson family, Harold has lost track of organ developments, though he still remembers clearly and fondly how Louie could belt out marches such as E.T. Paull's "Ben Hur Chariot Race." And Harold, at 82, has not lost his interest in old mechanical machines. He still travels to Canada and occasionally to England to enjoy the tractor and steam engine meets that he can't find enough of in this country.

Today, under the watchful eye of Stan and Margaret Nelson, who are in their mid-70s, a new generation runs Joyland and maintains its trademark organ, Joyland Louie. Damien Mays has taken over the work of Jess Gibbs, with the assistance of Gordon Ramsay. At some time in the past the organ was converted to blower operation, swell shutters were added to the front of the organ, and the organ's original percussion (bass drum, snare drum, and cymbal) were expanded to include wood block, castanets, tambourine, and triangle, all visible in front of the swell shutters to the left and right of Louie's keyboard. Californian Alan Erb was instrumental in starting the re-installation of the organ's missing brass pipework, though the trombone rank is yet to be completed.

The park owns some original green-paper Wurlitzer 165 rolls as well as a number of recuts of original rolls, and the rolls are changed daily for the benefit of the public. I believe tapes are available from the park, Joyland Amusement Park, 2801 South Hillside, Wichita, KS 67216 (phone 316-684-0179).

This article is based on written and oral communications from Nancy Strattan, Les Lovesee, Harold Ottaway, Stanley Nelson, Alan Erb, and Art Reblitz, as well on as data from Ron Bopp's book. My special thanks to Nancy, without whose on-site help, I would still be much in the dark about Joyland Louie. And to the Ottaway and Nelson families for preserving this unique treasure of Americana.

Reference: *The American Carousel Organ—an Illustrated Encyclopedia*, Ron Bopp, 1998.

Matthew Caulfield is a regular contributor of selections to the *Carousel Organ*. Matthew and his wife, Bitten, reside in Rochester, New York.

Ozwald "Ozzie" Wurdeman
A Lifetime Love of Mechanical Music

Ron Bopp

The lifetime and history of Oswald (Ozzie—as his friends and associates knew him) Wurdeman spanned a time from selling and maintaining coin-operated pianos (the Western Electric brand) as well as the Mills Novelty Violino Virtuoso, new in the 1920s, to restoring and preserving the same coin-operated pianos and band organs for the collecting trade in the 1960s. Ozzie Wurdeman was born in 1901 and died in 1972. His father, Ed Wurdeman, took over the Mills Violino franchise in Minneapolis, Minnesota, in 1921 and opened the "Electric Violin Company" which was located at 824 Marquette Avenue in Minneapolis, (**Figure 1**). Ozzie was factory-trained and did the service work for the new business.

Figure 1. Art, Ozzie and Ed Wurdeman in the office of the Electric Violin Company, circa 1920s.

During the 1920s the Electric Violin Company had about 300 violinos playing in the Minneapolis area. In 1928 Ozzie married his wife Edna. As time went on (and with a booming business) the company took on Western Electric coin-operated pianos. In 1928, when the phonograph became the rage, they also handled Western Electric coin-operated phonographs (at this time the business name was changed to the "Electric Music Company"). The business was big enough that it required the use of four trucks.

The Electric Music Company provided rolls, in addition, for use on the coin-operated pianos. Preservation of these rolls was not foremost in the minds of the Electric Music Company, as Dave Bowers recounted:

> I remember that Ozzie also used to tell about rolls—he used to sell rolls for different types of coin pianos and he encouraged customers to destroy their rolls. He said Well, you don't want to have the same rolls over and over again. You don't want to just keep them on hand, so throw them out or we'll throw them out for you. This, of course, was a popular philosophy through the coin piano trade. But its interesting to contemplate the many thousands of nickleodeon rolls that went through Ozzie's hands.

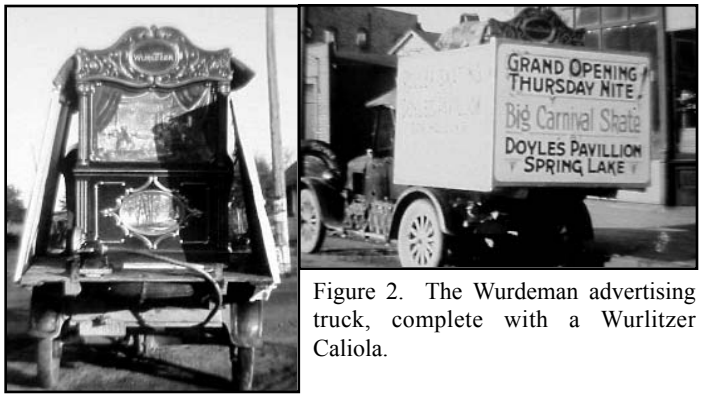

Figure 2. The Wurdeman advertising truck, complete with a Wurlitzer Caliola.

When the depression hit, the family moved their business to south Minneapolis at 818 W. Lake Street, which was near Ed Wurdeman's home. This was an older building with lower rent—away from the downtown area. They tried to survive, but in the process ended up losing everything. The instruments were too big to store and they couldn't afford to pay the rent on the buildings for storage. Subsequently, Ozzie would remove all of the metal parts and sell them to the local scrap dealer for money for groceries. The wooden cases made excellent fuel for heating the house.

After the depression, when things (financially) started to pick up, Ozzie started fixing band organs for the local carnivals. This wasn't real profitable because the carnival owners were usually broke—especially if they had a rainy season. It was at this time that Ozzie decided to take on the Wurlitzer dealership—buying and selling band organs, Caliolas and rolls (**Figures 2 - 4**). He also started selling Tangley Calliopes. Being closely associated with roller rinks (because of the musical machines), Ozzie had a chance to get involved with the skates themselves (repairs) which then led to him developing a machine for grinding the skate wheels to make them even again. He made and sold these to the local skating rinks. All the while he still continued to work on band organs.

Figure 3. An example of a band organ put on location by Ozzie Wurdeman. This is either a very plain Wurlitzer style or a re-worked deKleist band organ.

Off a Reporter's Cuff
D.A.W.
November 6, 1934
Minneapolis Star

Now that the howling is all over, we can refer the noisy politicians to Mr. Oswald Wurdeman, of 1061 Central Avenue NE, who will do a good, workmanlike job of overhauling, repairing and tuning their vocal equipment . . . reasonable . . .

*Mr. Wurdeman is, by profession, a calliope and band wagon (*band organ - R.B.*) tuner. And a very good one, too. In fact, he is the only professional calliope or band wagon tuner in the northwest . . . We can think of no more fitting person for most of the politicians to call upon . . .*

You might be inclined to sniff at the calliope and band wagon tuning profession. But laugh this off: while all other businesses have been down in the dog pit, the calliope and band wagon tuning profession has been going great guns this year . . . Steam calliopes haven't been so hot-but band wagons and regular calliopes-Wow! There never has been a season like it!

"I've been going every minute this year," Mr. Wurdeman told us last night. "I'll bet I've tune every band wagon and calliope in the northeast . . . Well anyway, it seems that way."

The reason for it is the unusual weather. The big dust storms early this summer may have been heck on the farmer. But to Mr. Wurdeman, they were a blessing. The dust, you see, gets down in a calliope's throat and makes it gasp for breath and sort of rattle. And the only thing an operator can do is to bring it in to get it tuned . . And, as we said before, Mr. Wurdeman is the only calliope cleaner and tuner in the northwest.

Then the heat wave: it may have sent the farmer howling to the Great White Father in Washington, and ruined the Great White Father's corn reduction program, too . . . but the heat wave was duck soup to Mr. Wurdeman . . it warps the pipes.

Then the heavy rains in the past two months: It may have been floods to the rest of you mugs, but It meant cracked reeds and moisture heavy flageolets to Mr. Wurdeman.

Altogether, a very good season indeed . . . *There are about 50 more or less, calliopes and band wagons left in the northwest. They've been on the downbeat for the past decade, but in the last two or three years interest in them has picked up again. Advertising trucks are responsible for most of the renewed interest. But the public is going for merry-go-rounds more this year. And every merry-go-round has a band wagon in it! And every band wagon must be tuned . . .*

Few citizens know it, but that suave, polished, worldly gentleman of the equally suave joy-spot, the Hollyhocks Inn—we refer to Mr. Jack Pfeiffer—is the proud owner of a merry-go-round, band wagon and all (But that's a different yarn).

The difference between a band wagon and a calliope is this: A band wagon has pipes that make noises like trombones, trumpets, saxophones, and all the other instruments in a band . . . while a calliope just puffs away in one style, gulping in compressed air or steam and spitting out guttural snorts and hoots, with a complete indifference to the effect is having on its audience . . . Steam calliopes are almost extinct. Compressed air does the business with less effort and less machinery-and less chance that it will blow up on a G chord.

Mr. Wurdeman doesn't rely entirely on calliope tuning for his living. He also sells and rents calliopes. He rented one to the Community Fund the other day. He sold one to an unsuspecting gentleman here for the Shrine convention. He rents a lot to politicians . . .

Mr. Wurdeman also is a dealer in hand organs and hurdy-gurdies—although he admits this is mostly a gesture. He hasn't sold a hand organ for years, and only rents one out now and then for a party, or such. . Minneapolis hasn't had a hand-organ operator, with a monkey, for about 12 years. The last hand-organ Mr. Wurdeman can remember belonged to an Italian gentleman whose name he can't recall just now, but who lived up on Johnson Street, NE. It was mounted on a two-wheel cart and pulled by a horse. The Italian gentleman's horse danced for the crowds while the Italian gentleman ground out such tunes as Alexander's Ragtime Band. He did most of his business in Minneapolis' Little Italy. But finally even the Italians got tired of it. The owner died. His son became a grocer. The thing is still stored in a garage on Johnson Street, for all Mr. Wurdeman knows . . . Mr. Wurdeman does sell a few hand organs to the eastern trade, however . .

A few people around the northwest really love calliope music. Lenny Burton, for instance. He's register of deeds at Fairmont, Minn. He bought a new one a couple of years ago and plays it for his own amusement . . . Harry Wilcox, the Minneapolis manufacturer, has had one in his basement for a long time, to play for his friends. He hasn't brought it in to have it tunes for quite a while, though, so Mr. Wurdeman isn't so sure Mr. Wilcox still has it . .

Don't think life is just a song for Mr. Wurdeman, though. He has his troubles . . . he started out tuning mechanical pianos and gradually worked up to calliopes, taking over the trade of the late Mr. Weinhold when he died . . . right then is trouble started. He located his first shop on Lake Street, but there was a rooming house upstairs. And every time Mr. Wurdeman would sound his "A", to tune a calliope, the landlady would come storming downstairs and the whole neighborhood would come running to complain about the racket . . .

So Mr. Wurdeman moved his shop way out on Adams Street NE . . . but once more luck beset him. Calliope tuning, for some reason, is indescribably fascinating to children. Every day, scores of children would gather around Oswald''s shop and stand, listening in open-mouthed awe, to the fearful shrieks and moans and unearthly howls emitted by the out-of-tune calliopes, as Mr. Wurdeman nursed them back to health . . . Well, it seems there were a lot of children in the neighborhood, and their parents could never get them to come home to dinner on time-so fascinating was the calliope tuner's shop . . . so the neighbors passed around a petition asking Mr. Wurdeman to move . . . He did . . .

Now Mr. Wurdeman has solved the whole thing. His shop at 1061 Central Avenue NE is ideally located for calliope tuning. It hangs in mid-air, squarely over the Great Northern railroad tracks, beside the Central Avenue Bridge. Here he can hoot to his heart's desire . . . the only trouble is that, now and then, a freight train chugs by under his shop and the engineer blows the whistle . . it's apt to throw Mr. Wurdeman off key . . .

"It's a good enough business" Mr. Wurdeman summed it up to us . . . "The only thing, its kind of hard on your ears" . . .

Ozzie's success as a businessman in mechanical music was promoted by an interesting article (above) in a Minneapolis newspaper, *The Minneapolis Star* , dated November 6, 1934 in which reporter D.A.W. noted:

> You might be inclined to sniff at the calliope and band wagon [band organ—R.B.] tuning profession. But laugh this off: while all other businesses have been down in the dog pit, the calliope and band wagon tuning profession has been great guns this year . . . Steam Calliopes haven't been so hot—but band wagons and regular calliopes—wow! Mr. Wurdeman told us last night "I'll bet I've tuned every band wagon and calliope in the Northwest . . .well, anyway, it seems that way."

During the time from 1940 to 1953 he kept band organs going for local carnivals as well as working for a local slot machine operator (illegally) who had slots in small road houses

around the city. During this "tour of duty" he also worked for a pinball operator in Minneapolis until 1953.

Figure 4. Ozzie Wurdeman's band organ and calliope store located on the corner of Broadway and Central Ave N.E. in Minneapolis, MN.

In 1953, Charlie Bovey, a Minnesota native, was restoring the town of Virginia City, Montana (the state's second territorial capitol). Located on Alder Gulch, it sprung up after gold was discovered in 1863. Mr. Bovey had bought an old coin-operated piano for his saloon and found one of Ed Wurdeman's business cards inside. The number was called and he was informed that Ed Wurdeman had passed away in 1945, but his son, Ozzie, was around and he should be contacted. The contact was made and this was the beginning of a second career—restoring and servicing coin-operated pianos and band organs.

Ozzie and Edna celebrated their 25th wedding anniversary in Virginia City restoring pianos and organs (and for the next 19 summers as well). While Ozzie maintained the instruments in Virginia City (and newly-constructed Nevada City) Edna manned the variety store—a location loaded with arcade machines, and even a Seeburg G orchestrion.

Collectors from all over the United States would come out to visit him and see the fine collection that was being assembled—at that time it was one of the largest collections in the country. With Ozzie as an ever-present serviceman, everything was kept in playing condition. One of the prize pieces was the Wurlitzer theater organ in which Ozzie had put a player mechanism using an "O" roll. Harvey Roehl remembered this instrument and the tale behind it in a phone interview with the author:

> Behind the enclosure over there is a Wurlitzer theater organ which was all set up to play on "O" rolls. It didn't exactly sound like a theater organ when played that way but it amused the tourists very greatly. It had a quarter slot on it and the tourists could listen to the thing and watch all of the drums and traps operate and Ozzie had it rigged up in such a way that when it had completed a quarter's worth of music all of the traps would play in sequence. The drums would beat and the triangle would clang and the castanettes would wiggle, and so on. It was quite a thing! [Popular demand resulted in a long-play record entitled Organs and Orchestrions from Historic Virgina and Nevada Cities, Montana—R.B.]

Reflections on the Bovey Collection
Art Reblitz

One of the attractions in Virginia City is the Opera House, where fine, authentic Victorian melodramas and musical revues are performed each summer. The first season that I worked there, the orchestra pit had flooded and frozen during the preceding winter, leaving the bottom twelve inches or so of the large Cremona photoplayer (see photo below) encased in a big block of ice. My job was to get it playing again during the last week of rehearsals before opening day. Completing the job in the barely thawed pit in the unheated building was only made possible by one of those noisy, smelly outdoor kerosene heaters. With the help of the curator, John Ellingsen, we got the photoplayer fixed well enough to be played manually by the end of the dress rehearsal the night before the opening performance.

Ozzie Wurdeman and his family had spent the whole summer each year maintaining the collection, but I only had time to spend two or three weeks there annually. From the first visit, I decided not to work on the dozens of arcade machines, but instead focused my time on the 40 or so automatic pianos and organs. This gave me time each year to tune them as necessary and to provide enough servicing and repairs to keep them in presentable playing condition for another season.

Charlie Bovey and his wife Sue founded the Bovey Restorations in 1943. After Charlie passed away in 1978 funds for music machine maintenance became even more limited than they had been. In 1980, I built my present shop and hired several employees. The requirements of managing new employees made it temporarily impossible to spend weeks at a time away from my shop, and I stopped making the annual service trip to Virginia City. John Ellingsen, the curator who worked very hard to arrange for the purchase of the Bovey Restorations by the state of Montana several years ago, together with a few other people unknown to me, have taken care of the instruments since then.

One of the greatest antiques that Charlie and Sue ever owned was the spectacular Eden Palais Salon Carousel, which is now in the Sanfilippo Collection. It was set up in a large combine shed on the Bovey's ranch in Great Falls, Montana. The Boveys rarely showed it to anyone, due to their concerns over security. After I worked for them for several years, they invited me to see it.

Although I had collected musical scales for automatic instruments since the 1960s, it was this collection, together with an equally large group of German orchestrion scales from Eugene DeRoy of Belgium that I acquired through Dave Bowers, which gave me the idea to write *Treasures of Mechanical Music* with Dave in 1981. While I still have Xerox copies of all the B.A.B. scales, the originals mysteriously vanished from Virginia City after Charlie willed them to me, but before I had a chance to pick them up. Hopefully, they will show up again sometime in the future. It will be interesting to learn who has been taking care of them for all these years.

From *Bovey Collection in Virginia & Nevada Cities, MT*
by Art Reblitz, MMD Archives July 30, 2000

Figure 5. Tom Wurdeman working on the Cremona photoplayer in the 1960s.

Figure 6. The Wurdeman Music Hall was located in Nevada City,

Many of the pianos and organs were located in the Bale of Hay Saloon in Virginia City. Others were found in a Nevada City Music Hall (**Figure 6**) including a 89-key Gavioli which was converted by Ozzie to play paper rolls; a large Marenghi organ with an original unpainted front and one of six Wurlitzer Style 180 military band organs. All in all, nearly 140 pianos and organs were ready for the drop of a coin.

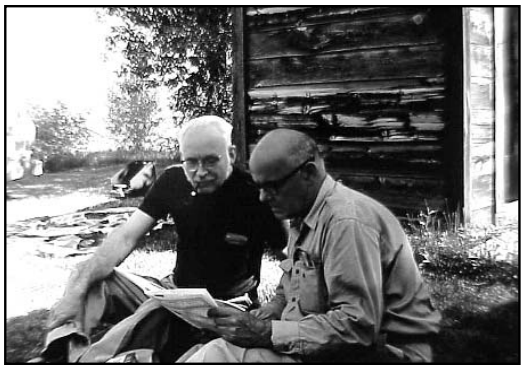

Figure 9. Ozzie Wurdeman and Charlie Bovey together at Virginia City, Montana.

In 1958, Charlie and Ozzie went to New York where Charlie had purchased the B.A.B. Organ Company. In the interview I had with Harvey Roehl in 1987, Harvey remembered:

> *He had gone with Charlie Bovey, who at one time had been state Senator in Montana, to New York and had purchased the contents of the B.A.B. Company and the Molinari business in the Bronx. They just moved the whole thing out there to be in Virginia City.*

Figure 7. The church in Virginia City that housed Ozzie's workshop.

One of the items found in the move was an Acme Roll Perforating Machine which B.A.B. used for cutting rolls. This remained in Ozzie's possession for years until sold in the 1980s.

Tim Trager Remembers Virginia City

Somewhere along the line, the Boveys discovered mechanical music. I believe that the discovery was probably related to the coin operated pianos sold throughout Montana by the Butte Piano Company of Butte, Montana. The vast amount of mining activity in Montana resulted in many saloons and houses of affordable affection, which were the prime market for coin pianos and orchestrions.

The Bovey's discovered Ozzie Wurdeman of Minneapolis, who was a former Violano distributor (see photo above). (By the way, the Boveys had their roots in Minneapolis/St. Paul.) Ozzie began spending his summers in Virginia City working on the music machines. Ozzie also exposed the Boveys to other pioneer collectors such as the Klavestads of Shakopee, Minnesota, and Paul and Laura Eakins.

Ozzie also got the Boveys into the Excelsior Amusement Park in Minneapolis, where they purchased the penny arcade games and a Cremona "J". Later on Charlie bought the B.A.B. Organ Company of Brooklyn, along with the Molinari Organ Company, and moved everything to Montana. This purchase was a treasure trove of mechanical music! It included a number of fairground organs as well as all the shop equipment, including a perforator, barrel pinning equipment, and the book punching machinery.

These instruments and equipment were displayed in Nevada City. Ozzie Wurdeman took the perforator to Minneapolis to recut organ rolls. I first visited Virginia City and Nevada City in 1964 as a very small child. I can still remember the electric thrill of listening to the large Gavioli at the back of the log music hall, as well as the Seeburg G in the Bale of Hay Saloon! When everything was working well the place was an enthusiasts dream! Our family visited each summer for the next 11 years. During that time we got to know the Boveys. Those visits are fondly remembered.

After Charlie and Sue passed away their son, Ford Bovey, inherited everything. Estate taxes took the cash necessary to subsidize Virginia City and Nevada City. Auctions and private sales were considered. The curator, Nevada City resident and vintage printer John Ellingsen, started a push to save the collection. Eventually the State of Montana purchased the majority of the collection. Ford did keep a number of items including the items in the Kruse auction.

The State of Montana now owns the fair organs which are displayed in the Nevada City music hall. They also own the B.A.B master rolls and the Molinari organ shop, as well as a number of nickelodeons. The inventory book listing the items which the State of Montana purchased is nearly two inches thick! The State plans on restoring the instruments and considers each one a treasure.

Courtesy *Ford Bovey Estate Auction & Charles Bovey*
by Tim Trager, MMD Archives — July 25, 2000

Figure 8. B.A.B. masters filed away for future use in the upstairs of the Molinari Building.

Upon arrival the contents of the Molinari factory were stored in the church in Virginia City (**Figure 7**). Resembling a trip to the end of the rainbow for today's collectors, the church was filled to the brim with at least eight complete organs and parts for many others. Later, the factory was recreated in a separate building in Nevada City. Upstairs were kept the B.A.B. masters (**Figure 8**) as well as the pinning machine used for barrel-operated organs. Numerous parts were also cataloged and stored in their place in this building.

Figure 10. Ozzie working with the many organ parts from the Molinary factory.

Ozzie's reputation as a piano and organ technician as well as a monument of a person was widely acclaimed, and in 1969 an article entitled "The Music Man of Alder Gulch" from the *Great Falls Tribune* noted:

> As a technician, Wurdeman is a perfectionist and undisputed expert in his field. As a person, he has the dignity and striking appearance of a musician of the old school. On summer evenings in Virginia City he can usually be seen at the Wells Fargo dining room where a glass-fronted nickelodeon containing two violins plays delicately and liltingly for the diners, or later, he may be seen with friends at a table in a dimly lighted room at the Bale of Hay Saloon, quietly listening to the nostalgic strains of Roses of Picardy that flow from a grand old Coinola Reproduco.

In the late 1950s, Paul Eakins, of Sikeston, Missouri, heard about Ozzie Wurdeman and soon Ozzie was going down to Sikeston to work on instruments in the Gay Nineties Village. Ozzie had done a lot of work in the 1960s and 1970s, both in Sikeston, and at the Gay Nineties Melody Museum in St. Louis.

Ozzie had three sons but only one, Tom, took interest in the business. Tom had helped his dad work on things since he could walk. He used to help Ozzie work on the pinball machines while he was in school and he spent many a night helping him hook up wall boxes for the jukeboxes. Working with his dad gave Tom chance to gain experience in mechanical musical instrument repair as well as help with the chore of maintaining the large volume of work in Virginia City and Nevada City.

What kind of man was Ozzie Wurdeman—a person who had spent an entire lifetime working and enjoying mechanical pianos and organs? In my conversation with Harvey Roehl he reminisced about Ozzie and said:

> He went to his quarters and he dug out all of his literature that he had on music machines. He had quite a stack of it and he let me borrow the whole kaboodle, which I felt was pretty generous for a complete stranger to have done. He let us bring it all home and we had it photographed—a lot of that material found its way into the early edition of *Player Piano Treasury*.

Ozzie Wurdeman was a person that we would all love to know, as Dave Bowers reminisces:

> He was a quiet, soft-spoken man. I don't recall hearing him shout or lose his good nature. He tended to be soft-spoken and gentle.

Ozzie Wurdeman passed away on December 8, 1973, after 45 years of marriage to Edna and many more to his profession. His death occurred before many of us had our feet wet as far as an interest in mechanical musical instruments but his impact on the field of collecting and restoring has been enormous.

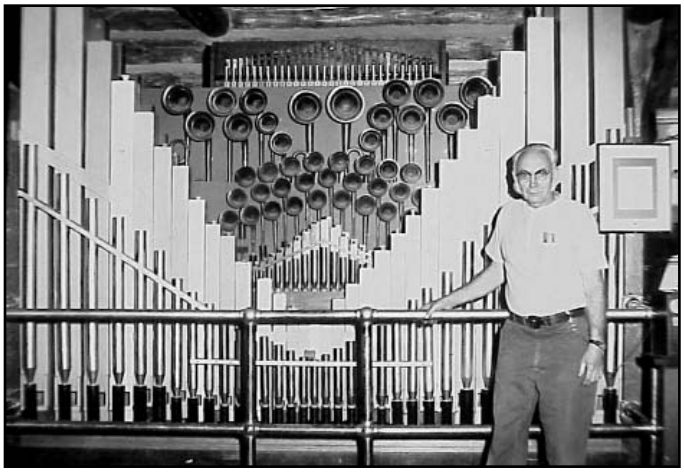

Figure 11. Ozzie tuned and maintained the Wurlitzer 180 band organ in the Bovey collection.

Virginia City, Montana

Gold and silver was discovered in Alder Gulch in 1863 by five prospectors. Within a year nearly 10,000 people inhabited the 11 mile long gulch. Virginia City was the Montana Territory's capital from 1864 to 1875. By the late 1800s gold mining was gone and Helena, MT became the capital. The town remained, however, surviving the usual fires and, because of the dry climate, the ravages of bugs and rot.

According to reports of the time between $30,000,000 and $100,000,000 in gold and silver ore were mined from Alder Gulch by 1928.

In the late 1940s the Gold Medal Flour heir, Charles Bovey, came to town, bought the town and furnished the town with antiquities complementing the era of the 1800s. In 1961 Virginia City was designated a National Historic Landmark and in 1976 was nominated to the National Register of Historic Places.

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Ron Bopp is currently Editor of the *Carousel Organ* and has enjoyed outdoor mechanical organs and calliopes for over thirty years.

Building a Wurlitzer 105 Band Organ

Howard Wyman

Why did I build a band organ? Well, the simple answer would be that I had a desire to own one and buying one can be an expensive proposition. But more important for me was the idea of creating a band organ from basic materials and the sense of accomplishment that would bring. I had restored a number of player pianos and a player reed organ but this project would be different in that I would be starting from "scratch". Actually I had something smaller in mind. For several years I had considered building a street organ or monkey organ but could not find suitable plans. Then about three years ago I learned that plans were available for a replica of a Wurlitzer 105 band organ. I obtained a set of the plans and after studying them for a few days I said, "I can do that." There were a couple of items such as the crankshaft and roll frame that were probably beyond my metalworking abilities but it was my understanding that there were some individuals out there that could provide those items!

Starting the project it seemed to me that the most critical items would be the pipes. It would be extremely frustrating to build the case, bellows, etc. first and then find out that one could not build a pipe that worked. So based on that I decided to build a few smaller pipes just to see if I could. I started with one of the smaller stopped flutes from the melody section. In **Figure 1** these would be the small pipes at the right. The large pipe to the left is approximately four feet long, which will give you some idea of the size of the other pipes. After assembling the pipe I tested it by blowing with my mouth, not really the way to test pipes but I will have more to say about that later. To my amazement it actually made a sound, and a pleasant sound at that. This was encouraging. I put together five more pipes in that section. I was able to tune them to the proper pitch using an electronic guitar tuner as a guide. However, the only source of wind I had was my own breath and that is not a controllable or constant pressure. Organ pipes are voiced and tuned to operate at a specific air pressure. If the pressure is increased the pitch will also rise. If the pressure is decreased the pitch of the note will drop. If I were to continue it would be necessary to have some sort of test box to provide a constant source of air pressure and a valve for turning it on and off. I should mention at this point that after successfully constructing a few small pipes I decided to try something larger and ended up building the largest pipe in the organ, the four foot bass G pipe at the left in the picture below.

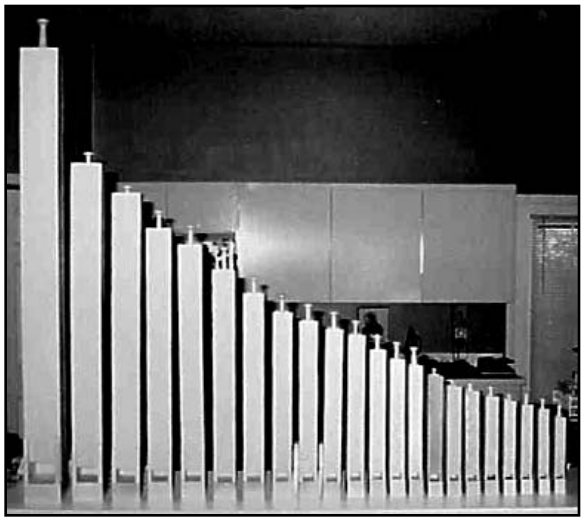


Figure 1. The 22 flue pipes which will later be installed beneath the floor of the organ.

Windchest

I considered building a test box for voicing and tuning each pipe as I constructed them, but opted instead to go ahead with the wind chest. The pipe feet sit in the wind chest and inside the chest there is a valve for each note, therefore it could be used for testing without having to build a separate test fixture. For an air supply I purchased a blower box from the Player Piano Company in Wichita, Kansas. The blower box has a motor speed control so that it can be adjusted to provide the correct amount of pressure, in this case 8 inches of water. In pounds per square inch this would be less than one psi. An organ does not require a very high pressure but does need a fair volume of air.

Figure 2. The windchest before adding risers for the pipes.

Parts of the organ that need to be airtight, such as the wind chest, are usually made of a dense, low porosity wood. Maple is an excellent choice for this application. In addition it is a strong wood not prone to splitting. **Figure 2** shows the beginnings of the chest. If you look closely you can see holes drilled in the top of the chest for the various pipes. In reality the pipe feet do not fit directly into these holes. In **Figure 3** one can see that the tapered pipe feet actually fit into tapered holes in a board which sits above the openings in the chest. Sandwiched in between is a slider with matching holes. This slider can be moved lengthwise so the holes do not line up and thus cut off the air to that set of pipes. **Figure 4** shows the underside of the wind chest at this point in its construction. It is divided into channels, one for each of the 41 notes.

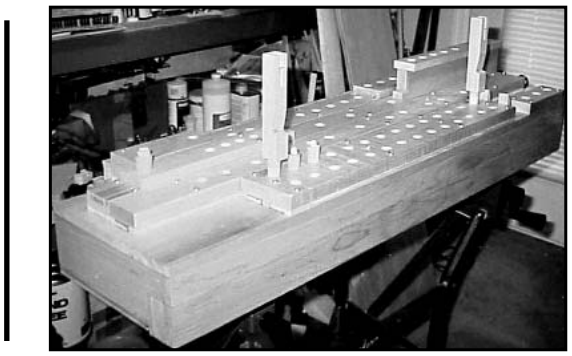


Figure 3. The windchest now with risers in place for the pipes.

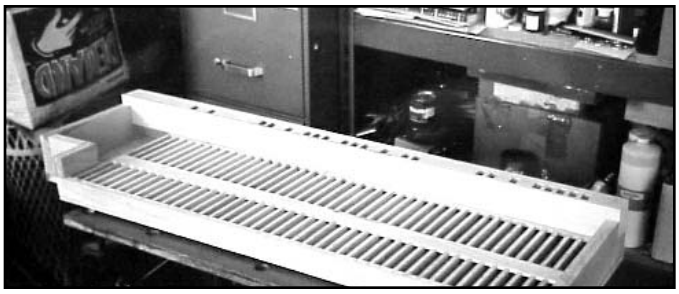


Figure 4. The windchest as seen from the bottom (before the pallet valves are installed).

These channels line up with the openings for the pipes in the top of the chest. At the far side can be seen openings through which air flows from a channel, through a connecting duct down to one of the pipes which are mounted in the lower part of the organ. The wooden strip across the channels provides a place to attach the hinges of the pallet valves, one for each channel. **Figure 5** shows the pallet valves with their leather hinges glued into place. The remaining open area of the channels is covered with an airtight cloth normally used to cover small bellows. This can be seen as the red area behind the pallet valves. In the next section I will go into a little more detail about the pallet valves.

Figure 5. The pallet valves installed in the wind chest.

The pallet valves are the valves which open to allow the air to flow to a certain pipe or pipes. The lower part of the windchest receives the pressurized air from the bellows. The upper part of the windchest is divided into 41 channels, one for each note. In between there is a pallet valve for each channel. When a valve is opened by the player mechanism it allows the air from the lower part of the chest to flow into that particular channel and to the pipe or pipes that are connected to that channel. Each pallet valve must make an airtight seal when it is closed and that is accomplished by facing each valve with a suede-surfaced leather backed with felt. The most efficient way of doing this is to cut a strip of felt whose width is equal to the length of the wooden pallet valve and whose length is slightly greater than the sum of the widths of all of the valves. Then cut a piece of leather the same length but about 3/4-inch wider. Glue the two together with one of the long edges aligned. Then, with the felt side up, glue the wooden valves side by side onto the felt. After the glue has set, you can run a single edge razor blade between the valves and cut them apart. The extra leather tail at the end of each valve serves as the hinge. **Figure 6** shows the leather hinges glued in place. In this photograph you can also see the springs that hold the valves in the closed position as well as the guide pins which keep the valves from moving sideways. The springs are made of piano wire.

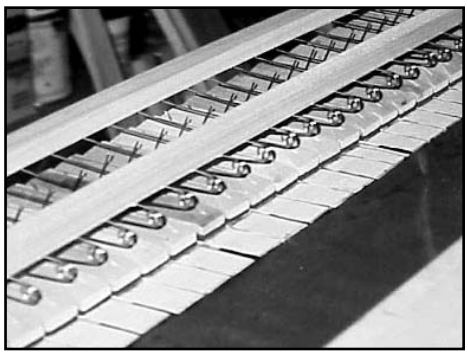


Figure 6. Pallet valves with return springs installed.

The Wurlitzer 105 Band Organ plays the Wurlitzer Style 125 roll which will play 41 notes plus snare drum and bass drum. The 41 notes include 14 melody, 13 counter melody, 9 accompaniment, and 5 bass. One note may sound several pipes and so the organ has 97 pipes. For example, in the melody section there are four ranks of pipes, melody flutes, violins, piccolos, and flageolets. To illustrate, let us say we open the valve for the melody note of C. Four pipes will sound simultaneously, all tuned to C but each with a different timbre or sound quality. In the accompaniment section each note will play two pipes, a flute pipe and a cello pipe. In the bass each note plays two pipes, a bourdon and a cello pipe. The counter melody has only one pipe per note, a trumpet pipe.

Figure 3 shows the windchest in the upright position. In this photograph one can see the openings for the pipe feet. Also it may be seen that some of the pipes fit on risers above the chest. Each pipe foot is tapered and fits into a tapered hole. This provides an airtight fit. I used a small lathe to make the tapered feet, but I was not certain how to go about making the tapered holes. Here is the solution I finally came up with. On the lathe I turned a tapered piece similar to a pipe foot but with a sort of shaft at the large end which I could lock into the chuck on the drill press. I then cut a piece of sandpaper which I glued around the taper. The most difficult part was figuring out the curved shape which would wrap around the taper. Then I drilled each of the holes for a pipe foot with a straight drill but made it slightly undersized. Then I used the taper with the sandpaper to shape it to the correct size. I am certain others can think of a better method, but it worked for me.

Flageolet Pipes

At the beginning of this project I built a few flute pipes primarily to see if I had the ability to build a pipe that would make a proper sound. My reasoning was that if I couldn't build a decent sounding pipe then there was no point in proceeding with the rest of the project. After building about five stopped flutes, I went on to the construction of the wind chest as I have described earlier. With that done, it was time to return to the making of pipes.

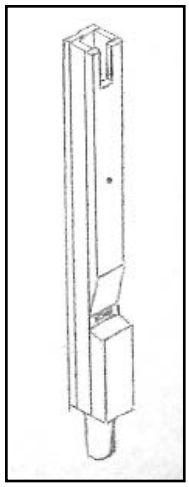
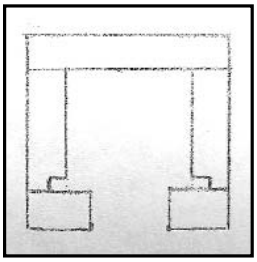


Figure 7. A drawing of a flageolet pipe.

I decided to build the set of 14 melody flageolets next. As it turns out this may not have been the wisest choice since I had more problems with this set of pipes that I did with any of the others. **Figure 7** is a sketch of a typical flageolet. It is of similar construction to an open flute with the addition of a nodal hole at about the midpoint of its length. The frequency at which a pipe sounds is determined by its length. The effect of the nodal hole is to cause the pipe to sound an octave higher than it would for that length but without the hole. The slot at the top of the pipe is for tuning. A brass plate in this slot is moved up or down to tune the pipe to the desired frequency by effectively changing the apparent length of the pipe. At first I was uncertain how this plate should be configured so that it could be adjusted. The method I finally used was to employ a small router to cut a rabbet in the front edge of the pipe sides before gluing on the front. The depth of this



rabbet should be the same as the thickness of the brass plate. **Figure 8** is a drawing looking down at the top of the pipe. It can be seen that after the front of the pipe is attached a groove is formed on each side of the pipe for the brass plate to slide into.

Figure 8. A drawing of the top of the pipe showing the groove for the tuning slide.

The first step in building a pipe of this type is to cut a piece of maple with the dimensions of the inside width and depth of the pipe. This will be used for the block. It should be long enough to make the block plus one or two pieces to be used as spacers when gluing the pipe together. The spacers will insure that the inside dimensions are consistent throughout the length of the pipe. After the glue sets they will be removed. Next the sides of the pipe are glued to the block. I made the sidepieces a little bit wide and when I glued them on I made certain they were flush with the front edge of the block. After the glue set I planed the excess from the rear edge of each side until it was also flush with the block. Next the back was glued on. I also made this piece slightly wide and after the glue was set it was planed until it formed a smooth joint with the sides. Before attaching the front of the pipe it is necessary to cut the chamfer which will be just above the mouth of the assembled pipe. I experimented with several methods of doing this and the method I had the most success with is as follows. Using a pencil, I marked the top and bottom of the chamfer. Turn the board over and mark the bottom of the chamfer on that side also, then using a sharp knife cut across the board on this line. This will give a clean edge to the bottom of the chamfer as the material is cut away (there is a very good description of the construction of wood pipes in "The Art of Organ Building" by George Ashdown Audsley, Chapter 34—Iwould recommend reading it before beginning construction of any wooden pipes). Next, on the edge of the front board of the pipe I drew a line from the upper edge of the chamfer at the front of the board to the lower edge of the chamfer on the rear of the board. This showed the angle of the chamfer. I then clamped the board face-up into a drill press vise. I aligned the marks on the edge of the board with the top edge of the jaws of the vise. I then put a 1/4-inch router bit in the chuck of the drill press and adjusted the speed to the highest setting. I could then remove material by sliding the vise across the drill press table. Since the speed of the drill press, even at its highest setting, was still much less than the speed of a typical router I could only make shallow cuts, therefore it was necessary to make a series of shallow cuts in order to remove enough material. When I got close to the desired result, I finished shaping the chamfer by hand. I made some home made files by cutting strips of wood and gluing various grades of sandpaper onto them. These are handy not only for the final shaping of the chamfer, but also the filing of the windway in the block.

After the chamfer is shaped the front can be glued on the pipe. Next the windway is formed by filing the front of the block at approximately the same angle as the chamfer. While filing, periodically lay the cap on the front and measure the windway slot with a feeler gauge. Before gluing on the cap, I would place the pipe on the windchest, adjust the wind pressure to the proper setting, and while the pipe was sounding I would move the cap up and down a small amount until I got the desired tone. I would then mark that position so the cap could be glued on accurately.

I mentioned earlier that this set of pipes gave me more problems that any of the others. The main problem was "overblowing" in that the pipe was not stable at its fundamental frequency but would break into a tone an octave higher. I finally solved this problem by making the wind hole in the foot of the pipe slightly smaller than called for in the plans. The completed set of flageolet pipes is shown mounted on the wind chest in **Figure 9**.

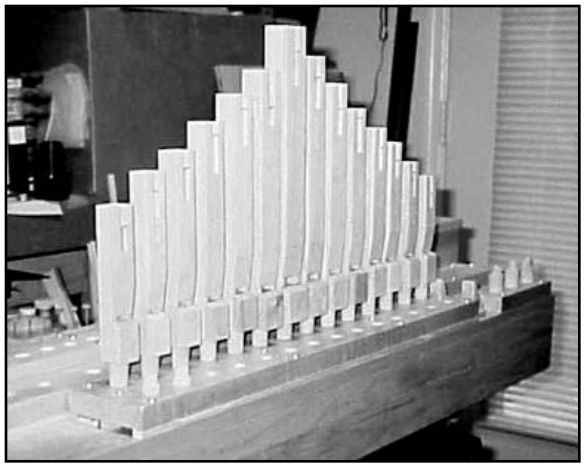


Figure 9. The flageolet rank installed on the windchest.

Piccolo Pipes

After completing the flageolet rank, I decided to tackle the piccolos. In the Wurlitzer 104/105 plans that I am using the specifications are shown for brass piccolo pipes. A little research revealed that the early models of this organ had brass piccolos but the later models had wooden piccolos. In the early model which had a cabinet made of varnished oak the front was open and the piccolos could be seen, however in the late model which had a painted cabinet with more ornamentation the pipes were hidden behind a screen with a landscape painted on it. This cleared up a question for me. Thinking that both models used the brass piccolos, I could not understand how the screen could be put in front of the pipes. The bases of the brass piccolos project forward slightly past the front of the cabinet and would interfere with the painted screen. However, by using wooden piccolos the flatter fronts of the pipes would allow room for the screen. I learned about this while trying to decide which style of cabinet I wanted to use, oak or painted. One thing that I was sure of, I wanted the front to have an opening through which some of the pipes could be seen and the brass piccolos would look very good in that location.

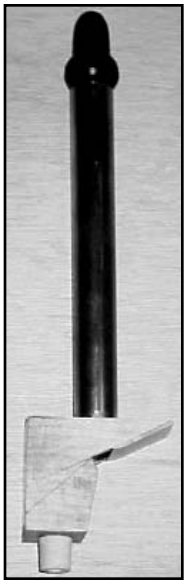


Figure 10. A side view of the piccolo pipe.

A side view of one of the piccolo pipes is shown in **Figure 10**. It is transversely blown in a manner similar to an orchestral flute or piccolo. The air enters the opening in the foot and flows through a slit which directs it across the open bottom of the brass tube, much like when one blows across the top of a bottle. An exploded view is shown in **Figure 11**.

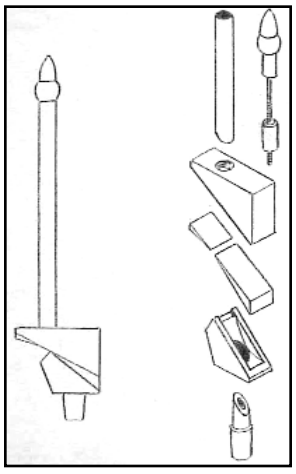


Figure 11. An exploded view of the piccolo pipe.

Several diameters of tubing are required, the largest diameter being used for the pipe with the lowest pitch. I tried to find the tubing locally, but the only supplier I found only sold ten-foot lengths. Finally, I found a couple of catalog firms which would sell the tubing in 12 inch and 36 inch lengths (if anyone would like the names of these suppliers send me an e-mail and I will reply with the information). In at least one case, the diameter specified in the plans was not available, but a size very close to it was. I figured that the slight difference would not be a problem.

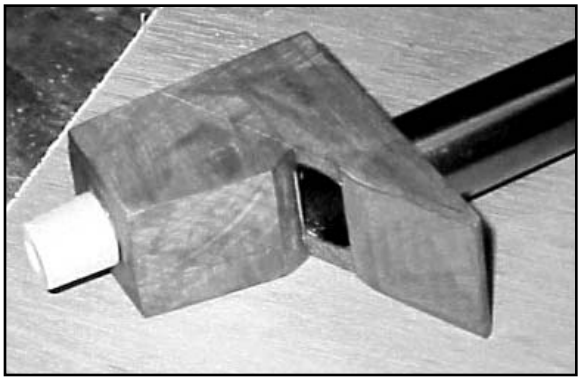


Figure 12. The base of the piccolo pipe showing the windway.

For the wooden base, I used maple. A view of the base can be seen in **Figure 12**. There are some interesting angles involved and I first envisioned cutting long strips with the proper angles and then sawing them to width. This would work since all of the bases have the same dimensions other than the width as viewed from the front of the organ. However, the method that ultimately worked the best for me was to cut a block of wood of the proper width for a particular pipe and large enough for all the pieces of the base. I then laid out the dimensions on the side of the block allowing space for the saw blade cut between the pieces of the base. The band saw I used only makes about a 1/32 inch cut. After cutting the pieces apart on the band saw only a light sanding was required to make the pieces fit together snugly. The next step was to drill the hole in the bottom for the pipe foot and then drill the hole in the top piece for the brass tube. I then placed the tube through the hole and carefully sawed it off even with the bottom of the hole so that the angle of the bottom of the tube matched that of the wooden piece. Using a small drill, I drilled a hole through the longer side of the tube into the wood and then drove in a small brass nail to hold the tube in place.

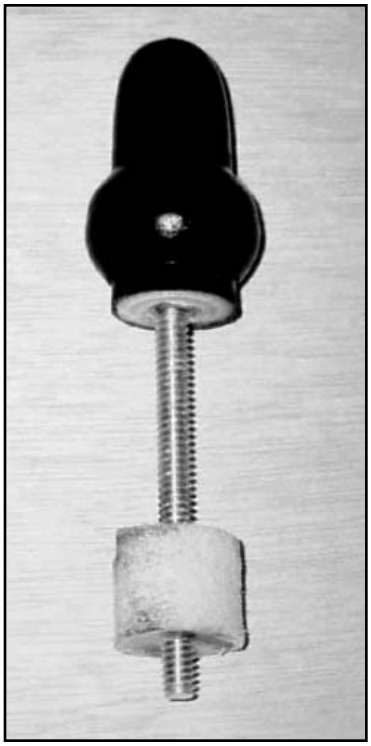


Figure 13. A detailed photo of the tuning plug for the piccolo pipe.

The next step was to file the slit or windway into the upper edge of the bottom piece. For this task I made up several narrow strips of wood with various grades of sandpaper glued on. It is necessary to file a while, then place the wedge which fits on the top of this piece in place and while holding them together use a feeler gauge to measure the depth of the slit. This procedure is repeated until the correct depth is reached.

The piccolo is a stopped pipe. The stopper is a wooden cylinder covered with soft leather which is sized to fit snugly into the brass tube, **Figure 13**. The pipe is tuned to proper pitch by sliding this plug up or down inside the tube. An ornamental wooden piece, frequently called an acorn, fits into the top of the tube. A shoulder on the acorn sits on the upper edge of the tube. Fixed into this acorn is a threaded rod which extends down into the tube. The leather-covered plug has a threaded hole through its center, which screws onto this threaded rod. By rotating the acorn one way or the other, the plug is moved up or down in the tube causing the pitch to drop or rise. I used a small lathe to turn the acorns, making all of the dimensions smaller as the diameter of the various pipes decreased.

After assembling all of these parts, the final step is to attach the thin piece of wood which fits up under the front of the top piece, the rear edge of which partially covers the opening in the bottom of the tube. I placed the pipe in the windchest and with the pressure adjusted to the correct reading I slid this thin piece slightly forward and back until I obtained a good solid clear tone from the pipe. I marked this location and then glued the piece on. Then I tested the pipe again to make sure I had it in the right place.

Figure 14 shows the piccolos in place on the windchest with the flageolets directly behind them.

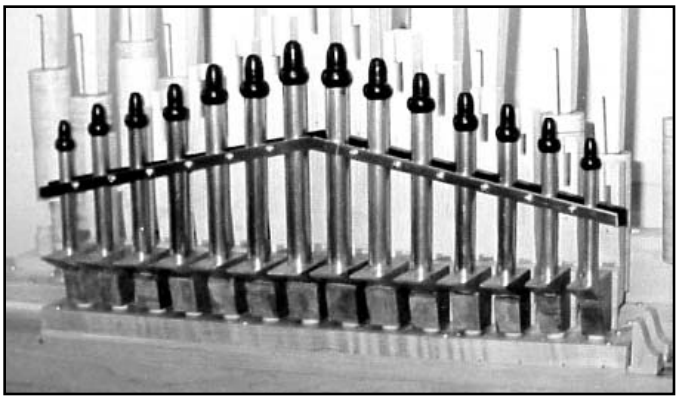


Figure 14. The complete rank of piccolos installed on the windchest.

Trumpet Pipes

The Wurlitzer 105 band organ has a rank of 13 trumpet pipes. Some of the other styles of Wurlitzer band organs used brass trumpets but in the case of the style 105 the trumpets are made of wood. **Figure 15** shows a completed trumpet. At times the trumpets play the melody along with the other melody pipes and at other times the trumpets play a countermelody. They can also at times carry the melody. A brass reed assembly produces the sound. This consists of a brass tube or shallot, which is closed at one end and an opening, is cut in the side. A thin strip of brass, or tongue, covers the opening in the shallot. This assembly is housed in a larger wooden cylinder known as the boot. Air from the wind chest enters the boot at the lower end through a foot which fits into a hole in the wind chest. A stopper, known as a block, fits tightly into the upper end. In some cases this block was made of lead, but in my case I used wood. Two holes are drilled through the block. The open end of the brass shallot fits into the underside of the larger of the two holes.

Figure 15. The wooden trumpet pipe.

The shallot and tongue are held in the block by means of a small wooden wedge, but the lower end of the tongue is free to vibrate. In **Figure 16** the brass shallot can be seen at the lower center. The tongue is to the right of the shallot and the wooden wedge can be seen between the tongue and shallot. At the left is the boot with pipe foot and in the upper right is the block. Additional blocks can be seen at the top of the photograph. A tuning wire passes through the smaller hole in the block. The lower end of the tuning wire is bent up at an acute angle so that presses on the tongue. Raising and lowering the wire changes the length of the tongue, which is free to vibrate permitting tuning to the desired pitch. A resonator fits tightly into the upper end of the larger hole in the block above the shallot. In **Figure 15** the resonator is the tapered portion at the top. And, in Figure 16, one can also see the cylindrical boot and at the bottom the foot which fits into the wind chest. The tuning wire can be seen protruding from the top of the boot in front of the resonator. **Figure 17** shows the shallot and tongue installed in the block and held in place by the wooden wedge. In this photograph one can visualize how the length of the free portion of the tongue is adjusted by sliding the tuning wire up or down.

Figure 16. Components of the trumpet pipe.

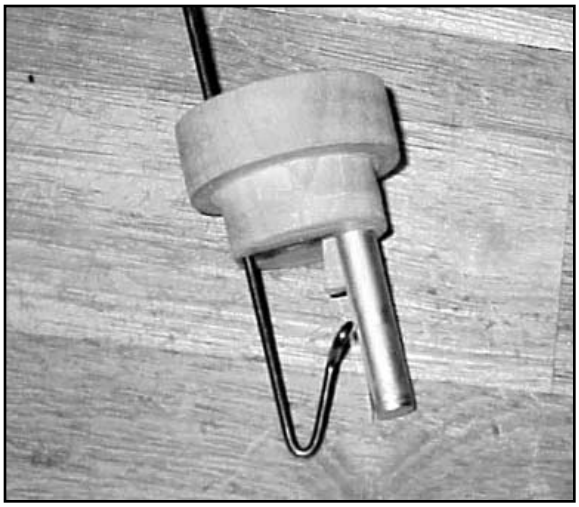


Figure 17. Tongue, shallot, and tuning wire installed in the block of the trumpet pipe.

The tongue is curved slightly away from the opening in the shallot. When air enters the boot the flow of air causes the tongue to vibrate against the shallot and sets the column of air in the resonator into sympathetic vibration. The resonator amplifies certain parts of the sound and helps to make the note more audible and give it its characteristic timbre.

If the builder is a fairly skilled metal worker he could make his own shallots and tongues. The dimensions originally used by Wurlitzer are given in the plans. However, since I consider myself more of a wood worker than metal worker I opted to purchase them from a company which supplies materials and parts for the organ industry. They also furnished the tuning wires. These have the hook formed at the end, which fits against the tongue, and are straight at the other end. After the wire is inserted up through the hole in the block a 90-degree bend is put into the upper end to give the person tuning the pipe something to grip. The shallots should be polished before installing. This was done by placing a sheet of very fine sandpaper on a smooth surface such as a drill press table and rubbing the flat area on the side of the shallot with the opening until it is smooth and shiny. The tongues as furnished by the supplier are perfectly flat and so must be given a slight curve. One end of the tongue is clamped onto a smooth flat surface and using a round metal bar about 1/2-inch in diameter, the bar is rolled from near the clamped end toward the free end. This is repeated until the end of the tongue is raised 1/32 to 1/16 inch above the surface. If the gap at the end of the tongue when installed is too small the trumpet will be too quiet. If the gap is too large the pipe will never speak.

I used a small woodturning lathe to turn the boots, blocks, and pipe feet. A forstner drill bit was used to hollow out the boot. Another small foot was made which is fitted to the bottom of the resonator and which fits into the hole in the block above the reed assembly.

In addition to tuning the reed with the tuning wire, the resonator must be cut to the proper length. All the resonators should initially be made an inch or so longer than the specified length. The wind pressure is adjusted to the specified value and then the tuning wire is adjusted until the pipe sounds the correct pitch. However, if the resonator is too far from being the correct resonant length, the pipe may not speak at all, or may fly off to some other pitch before the reed reaches the correct pitch. In this case, a little is trimmed from the large end of the resonator. All of the resonators have basically the same angle of taper, so a jig should be made to hold the resonator while it is being run through the saw. The resonator is trimmed in small increments and tested again after each cut. In the plans it is recommended that the resonator be shortened until laying two fingers over the open end no longer causes the tone to fly off, or change pitch. I tried another method, which I believe is a reliable indicator of resonance. Based on my training in electronics and years of being a ham radio operator it seemed to me that the resonator could be tuned in the same way that a dipole antenna is tuned to resonance. If one considers the reed assembly to be the transmitter and the resonator to be akin to an antenna, then with the resonator in place once would tune the reed to the pitch that gave the fullest, strongest tone. That would be the pitch at which the resonator is resonant. The pitch is then determined and it will likely be lower than the desired pitch due to the resonator still being too long. The resonator would be trimmed by a small amount and the procedure repeated. This time the pitch should have moved closer to the desired pitch. This would be repeated until a good strong tone is achieved at the desired pitch. I believe that this method gives one a better idea of how close he is getting to the resonant length.

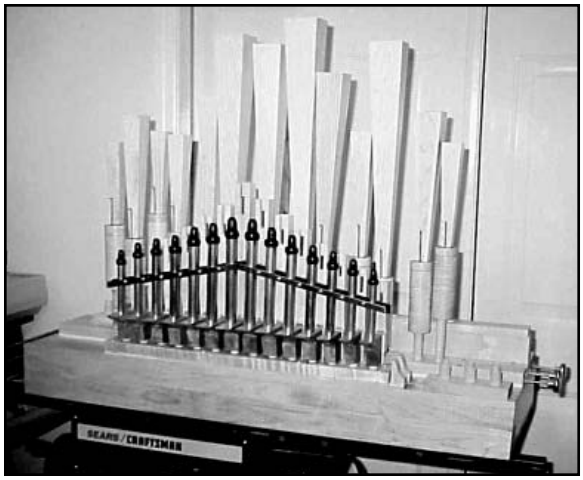


Figure 18. Trumpets installed on the wind chest behind the piccolos and flageolets.

Tuning the trumpets takes a little more time than the other pipes in the organ. One other caution: you might be tempted to try a trumpet pipe by blowing into the foot—this is not recommended. The high moisture content of your breath is not beneficial to the metal parts. Finally, a view of the trumpet pipes installed in the wind chest can be seen in **Figure 18**. In this photograph the piccolos are in the front row, the flageolets in the second, and the trumpets behind that.

Flute Pipes

At the outset of this project I constructed a few flute pipes and when I gained some confidence in my ability to build pipes I moved on to the flageolets, piccolos, and trumpets. Now I decided it was time to finish up the remaining flutes. A large number of the 97 pipes in the organ are stopped flutes, 28 to be exact. In large pipe organs such as church and theater organs there is usually a stop called the diapason. This is a rank of pipes, which encompasses the full range of the organ. In the Wurlitzer 105 the stopped flutes could almost be called the diapason since they range from the lowest note in the bass to the highest note in the melody. All 28 stopped flutes are shown in **Figure 19**. At the left is the bass G pipe followed by the other four bass pipes. The next nine pipes are the accompaniment flutes and to the right of that are the 14 melody flutes. One can see in the picture that the six pipes on the far right have feet for insertion into the top of the windchest. The other 22 pipes are mounted underneath the floor of the organ and so the openings for the air to enter are at the bottom rear of the pipes. I should also point out that some of these pipes are too long to fit inside the case as they are shown. The five bass pipes and the longest accompaniment

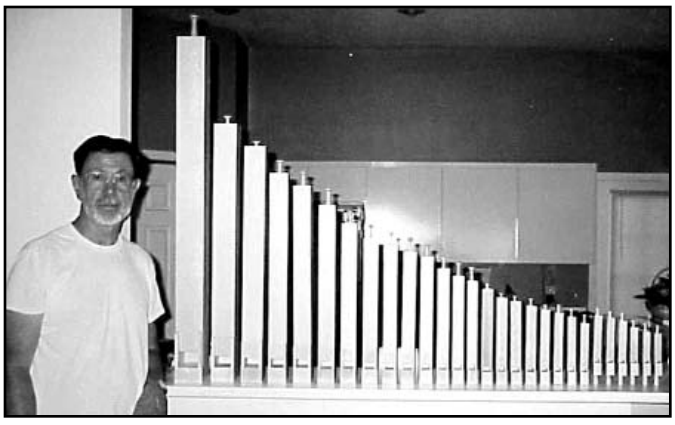


Figure 19. The author with the complete set of 28 flute pipes.

pipe will have to be mitered to fit into the organ. According to organ builders with more experience than me, closed pipes such as these can have a 90-degree miter without affecting the tone. However an open pipe should be mitered with two 45-degree bends.

Mitering Open and Closed Pipes — an Explanation

The sound is produced by the vibration, or oscillation, of the column of air inside the pipe. In an open pipe the mode of vibration is such that there is a node, or point at which the column is not vibrating, at the mid-point of the length of the pipe. When the end of the pipe is closed the node is at the closed end. According to Audsley in his book, "The Art of Organ-Building", mitering a pipe at a point near the nodal point will have an adverse effect on the performance. Since the closed pipe has its node at the end the position of the miter is not critical. An open pipe should not be mitered near its mid-point since that is the location of the node. Audsley states that mitering should be avoided if at all possible, but if it is necessary then the curve should be gradual. He goes on to say that one should never use a 90-degree miter, however Wurlitzer used it in the original and so I followed their example.

In order to miter a pipe with a 90-degree bend one cuts the pipe through at a 45-degree angle then by rotating the upper section of the pipe 180 degrees, it should fit together with the upper part at a 90 degree angle to the lower part. The length of the pipe at the longitudinal centerline is still the same so if the pipe was tuned to the proper pitch before mitering it should still be very close to the correct pitch. In order to make the miter joint stronger I cut slots in the edges of the front and back boards where they were to be glued together and glued thin splines into these slots.

The actual construction of the flutes is similar to the method I described above for the flageolets. The differences are that the flageolets are open pipes with a tuning slide whereas the flutes are closed pipes and are tuned by a move able plug at the end of the pipe. Also, the chamfer on the flageolets extends completely across the face whereas the chamfer on the flutes is only as wide as the inside width of the pipe. When making the maple piece from which the block will be cut it should be long enough for the block plus a tuning stopper. Also allow enough to make a couple of spacers to hold the proper dimensions as the pipe is being glued together. Assembling the pipe walls to the block is performed in the same manner as described for the flageolets. Before the front is glued on, the chamfer and cup up for the mouth should be formed. The method for forming the chamfer was described earlier in the section on building the flageolets. As I mentioned earlier, the chamfer on the flageolets extends across the full width of the face of the pipe. However, the chamfer on the flutes is only as wide as the inside width of the pipe. In order to do this, I made up a wooden jig for the drill press table which has a fixed fence on one side and an adjustable fence on the other. The jig is fastened down to the table so that the stationary fence limits the sideways travel of the vise to determine where one side of the chamfer will be and then the adjustable fence is set to the point which will determine the other side of the chamfer.

After the chamfer and cup up for the mouth are formed the front can be glued onto the pipe. Next the windway is formed by filing the front of the block at approximately the same angle as the chamfer. Periodically lay the cap on the front and measure the windway with a feeler gauge.

The next step was to make the tuning plug. The plug is covered on the bottom and sides with a suede type of leather in order to make an

airtight seal. The wooden piece for the block must be trimmed so that after the leather is glued on it fits snugly into the pipe. However, it must not be so tight that it cannot be moved up and down to tune the pipe to the correct pitch. For the handles for the tuning plugs I used the ready made pieces called shaker pegs, which are available at most craft stores. I was able to find these in three sizes and in the photograph you can see the largest protruding from the top of the large bass G on the left and the smallest on the melody flutes at the far right.

Finally, the caps are glued onto the face of the blocks. Before actually gluing the cap on, set the air pressure to the correct level and move the cap up and down slightly to find the best tone. Mark that spot and glue or screw the cap in place.

Next I will discuss the construction of the violin and cello pipes and that will complete the pipe work.

Violin-cello Pipes

So far we have built flute pipes, piccolos, flageolets and trumpet pipes. The remaining pipes in the organ, although in different ranks, are all of the type that make a "string" sound. That is, they are known as either violin or cello pipes and are made to be somewhat imitative of those orchestral instruments. This is achieved in a couple of ways. If you were to look at the cross section of a flute pipe it would be nearly square. The width across the face of the pipe would be about the same as the depth from front to back. However, in the violin and cello pipes the scale is small in comparison to the flute pipes. That is to say, the width is somewhat narrow when compared to the depth for a flute pipe of similar pitch. In addition, a device known as a harmonic brake is added at the mouth of the pipe. The characteristic tone of an instrument is determined by the number of harmonics and their relative strength. The tone of the orchestral violin consists of the fundamental plus a generous supply of harmonics both odd and even and in order to make an organ pipe with a violin-like tone, it is necessary to create these harmonics. The narrow cross-section encourages the formation of harmonics but also makes the pipe unstable, causing it to overblow. That is where the harmonic bridge comes into play. The most common type used in band organs is known as a "frein harmonique", a device patented by Gavioli in 1876. It consists of an adjustable metal plate the lower end of which is screwed to the cap of the pipe below the mouth. The plate is curved so that the edge of the other end lies close to the mouth of the pipe. This prevents overblowing by controlling the wind current at the mouth of the pipe. The frein harmonique can be seen in **Figure 20 and 21**. The larger, lower pitched pipes have a slightly different harmonic brake, which is made of wood that is attached across the mouth of the pipe. **Figure 22** shows the wooden harmonic brakes on the bass cello pipes for pitches C, E, and F. The photograph is a little misleading because all three pipes are butted up against each other and it looks as though the brake is one long piece. However, there is a separate brake for each of the pipes.

Figure 20. The violin pipe.

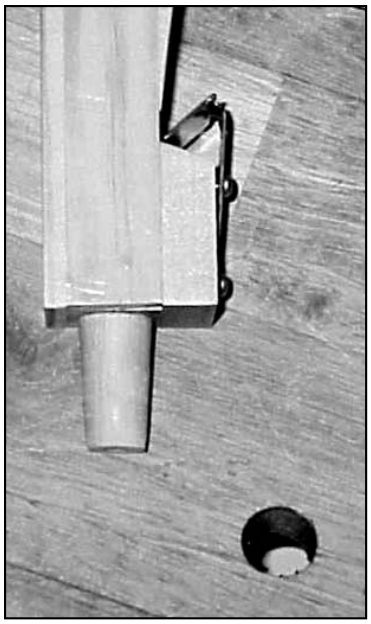


Figure 21. A view of the *frein harmonique.*

In the Wurlitzer 105 there are 28 pipes of this type, 14 melody violins, 9 cello accompaniment, and 5 bass cellos. It might be appropriate to mention at this time that the melody violins and accompaniment cellos are mounted in the organ with their mouths facing the rear of the organ. In the case of the accompaniment pipes this probably serves the purpose of keeping the volume level below that of the melody. In addition, for both ranks it makes the pipes somewhat easier to tune by reaching in from the rear of the organ to adjust the tuning slide. Construction is basically the same as that for the flageolets however there is no nodal hole in the violins and cellos. The tuning slide is fitted into slots in the same way as in the flageolets. Here is the procedure I used for voicing the violins. After the windway has been filed to the correct gap I fitted the pipe without the frein into an opening in the windchest and adjusted the pressure to the correct level. While sounding the pipe I adjusted the cap up and down slightly to achieve a good solid tone. At this point the pipe will most likely have a pitch an octave above the desired pitch. I then glued the cap in this position and then attached the frein to the cap and while the pipe was sounding the position of the frein was adjusted by sliding it up and down in its slotted screw holes and also in and out by turning the upper screw clockwise or counterclockwise. A position should be found which causes the frequency or pitch of the pipe to drop back down to the proper note and also produce a violin-like tone. The bass cellos are voiced similarly except that the wooden harmonic brakes of course can only be moved up or down and not in or out. The bass cellos serve to augment the bass bourdons. The bourdons are closed flute pipes, and as such have only the fundamental and odd numbered harmonics. The bass cellos are basically the same length but are open pipes and so create a fundamental one octave higher than the bourdon plus many odd and even harmonics. The combination of the two played together has a much richer quality than the bourdon alone.

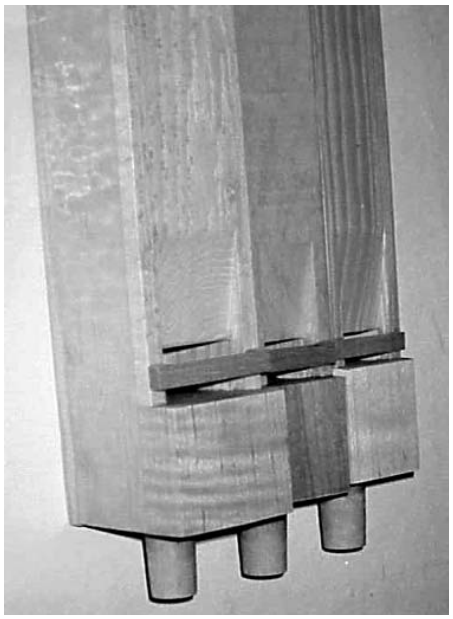


Figure 22. A set of three cello pipes — note the wooden harmonic brakes.

In the plans I used, the drawings, which indicate the mitering of the bass cello pipes, were somewhat confusing. I hope that the photographs I am showing here will help to clear up some of that confusion. In **Figure 23** the pipe on the left is the C bass cello, the one in the center is the E bass cello, and the one on the right is the F bass cello. When mounted in the organ the mouths of these pipes face the rear of the organ. This is further illustrated in **Figure 24**. This photograph also shows the melody violins on the right with their mouths facing the rear of the windchest and just to the left of that the accompaniment cellos can be seen. Also note the positions of the tuning slides. For the E pipe in the center the tuning slot will need to be in the backside of the pipe before mitering in order for it to end up in the position shown. For the C pipe, the tuning slot will need to be in the right side of the pipe before mitering. I also found that the dimensions given for the spacing between holes for the pipe feet for these three pipes put the holes too close together to be able to fit the pipes in without interference between them and I had to remake the riser that these pipes fit into.

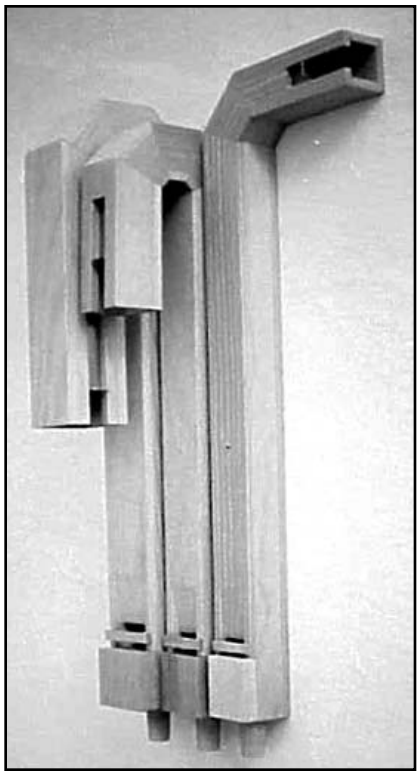


Figure 23. The C, E and F bass cellos.

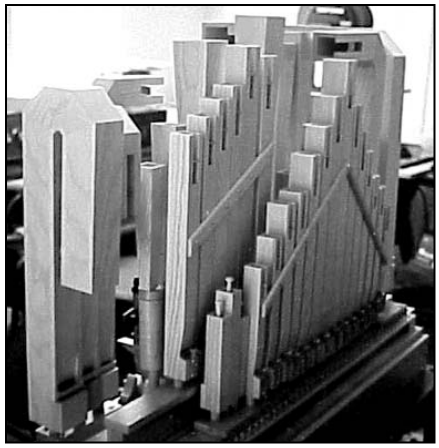


Figure 24. The rear view of the windchest showing the melody violins at the right.

Figure 25 shows the G bass cello with its mouth pointed toward the left side of the organ. One can see in this picture that as the pipe rises from the windchest it is mitered toward the front of the organ and then in **Figure 26** one can see how it is then mitered so that it extends across the top front of the organ. The D bass cello can be seen next to the G bass cello with its mitered top. The G bass cello will not fit into the case if the dimensions given in the plan are used. Fortunately I realized this before I mitered the pipe and was able to calculate the dimensions that would work. And finally, the windchest with its pipes in place is shown in **Figure 27**.

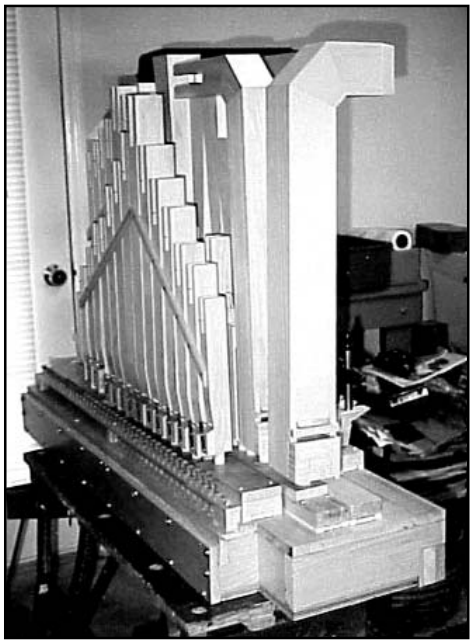


Figure 25. The left end of the windchest.

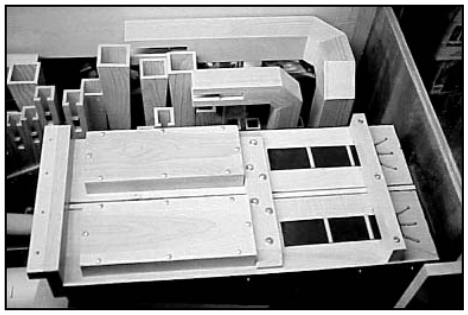


Figure 26. The bass cello pipes G and D as seen from above.

Figure 27. The completed windchest with all of the pipes installed.

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). Part II will be published in the next issue of the *Carousel Organ.*

Howard Wyman is an electrical engineer retired from the Army Night Vision and Electro-Optics Laboratory at Ft. Belvoir, Virginia, and now living near Tampa, Florida. He has had a long time interest in mechanical music but became really involved with the acquisition of a non-working player in 1989. He is also a ham radio operator with call sign, W9BVD.

Reflections on Harvey N. Roehl

Bob Conant

My wife, Cheri, and I first met Harvey and Marion Roehl in 1972 at a tour of their mechanical music collection that had been arranged by a mutual friend. I remember being impressed, not only with their wonderful music machines, but also with Harvey's keyboard expertise. At several points on the tour, Harvey would belt out a few bars of some familiar tune just to show that underneath all the mechanisms were real pianos that could be played just like any ordinary piano. During the lower level room tour, a tune was started playing on the Pianolin, usually a rag. At the same time, across the room, Harvey played the same tune note for note on the keyboard of a Seeburg E. Later in the tour, Harvey accompanied a silent movie on their Style 25 American Photoplayer, enhancing the action on the screen with appropriate music and sound effects. I was enthralled by the sights and sounds of the instruments but, most importantly, I made a new friend that night and, over the years, Harvey Roehl was to demonstrate that friendship many times. This was typical of Harvey as he made friends with almost everyone he met. He befriended and then mentored hundreds of newcomers to the hobby, encouraging them in collecting and restoring instruments and then in sharing these instruments with other people.

Figure 1. Harvey and Marion Roehl.

Harvey and Marion started to collect mechanical musical instruments in the late 40s and early 50s. (I must include Marion because, for over 52 years, they were partners in marriage, business, travel and the friendships they made and shared, **Figure 1**). At the time they started, they could find almost nothing in print that covered the mechanical music hobby. Harvey, therefore, gathered material he had accumulated and wrote *Player Piano Treasury* and later, *Keys to a Musical Past*. He published these himself, as they were not of interest to any mainline book publisher. This was the start of the Vestal Press which went on, for over 35 years, to publish major books in the field of mechanical music and to reprint sales and service information on many different machines. They also offered these publications by mail order along with recordings of band organs, player pianos and music boxes and a whole raft of "nifty" items related to mechanical music, railroads, steam engines and the like. The Vestal Press educated a whole generation of enthusiasts and provided them with the material they needed to collect and restore these machines. During this time Harvey was making friends and contacts all over the world and the office at the Vestal Press often became like Grand Central Station as the phone rang and visitors dropped in with great frequency.

When the Roehls finally retired from the Vestal Press, they continued to make and sell a fine line of audio-cassettes and CDs of the mechanical music machines in their own collection. *Marion Roehl Recordings* featured player pianos, music boxes, instruments for accompanying silent movies, band organs and the calliope that they owned.

Figure 2. Harvey manually playing the calliope, as he often did.

Harvey and Marion both loved carousels and the accompanying band organ music. They were frequent attendees of the MBSI, AMICA, ABOA and COAA band organ rallies and, although their former Ringling Brothers Circus Tangley CA-43 Calliaphone was fully capable of playing rolls, Harvey loved to sit at the keyboard and play it by hand (**Figure 2)**. He always thought that it was more interesting to the public to dress the part and put on a show. One of Harvey's greatest thrills was when he played the steam calliope on the Mississippi River boat, Delta Queen (**Figure 3**).

Figure 3. On the Delta Queen river boat, Harvey had chance to play the steam calliope.

The Roehls also had two monkey organs that they often brought to the rallies. The first is a Fratti barrel organ of 27 keys

and the second a Molinari with 20 notes. Mike Kitner has restored both and the cases rebuilt by George Melnyk and feature magnificent marquetry by the late Jack Garside. For many years the Roehls have owned a Wurlitzer 146B band organ with a completely original façade. The organ was fully restored mechanically and is featured on a number of the *Marion Roehl Recordings* tapes and CDs.

Figure 4. Harvey, proudly making a point about his 57-key Gavioli fairground organ.

A focal point of the Roehl collection was their 57-key Gavioli fairground organ (**Figure 4**). This was found in very complete and original shape and was fully restored to magnificent condition. It had a bandmaster in the form of an orchestra conductor dressed in formal tux with tails. They called him Arturo Agard, a reference to the conductor of our local BC Pops orchestra. For a long time, Harvey didn't record this instrument because of the limited book music available for it. Then George Melnyk designed and built a fixture that attached to the key frame and operated the organ keys without making any changes to the organ at all. This fixture was connected to a computer and allowed MIDI files to be played directly on the organ. Harvey then contracted to have Tom Meijer of The Netherlands arrange a number of tunes for the Gavioli including one of Harvey's favorites, *The Dodge Brothers March* (of automobile fame) written by Victor Herbert in the 1920s. These songs were recorded and the CD was marketed.

Figure 5. Harvey, the elf, playing a Deagan Unifon in a Christmas parade.

Harvey was one of a rare breed; he was an engineer who had a wonderful command of the English language. It is a sign of a language expert when they can make jokes by twisting the rules of grammar and spelling. Hence, the name Roehl, which rhymes with rail, resulted in a motor home with the name "Roehl Road Car" spelled out on the side. It also made sense when one realizes that another of Harvey's interests was railroading, both full size and models.

One of Harvey's favorite pastimes was finding misspellings and mis-usages in signs and texts. He would then photograph them and give slide shows that told their own humorous story. Another thing he loved to do was write limericks. He would write them anytime and anywhere, often on the back of a napkin at dinner. Many of these are lost forever but a few have been published. The following is a fitting close to this article for the *Carousel Organ* and is taken from *A Carousel Of Limericks* by Harvey Roehl, illustrated by Pat Hyman and published and copywrited by The Vestal Press in 1986.

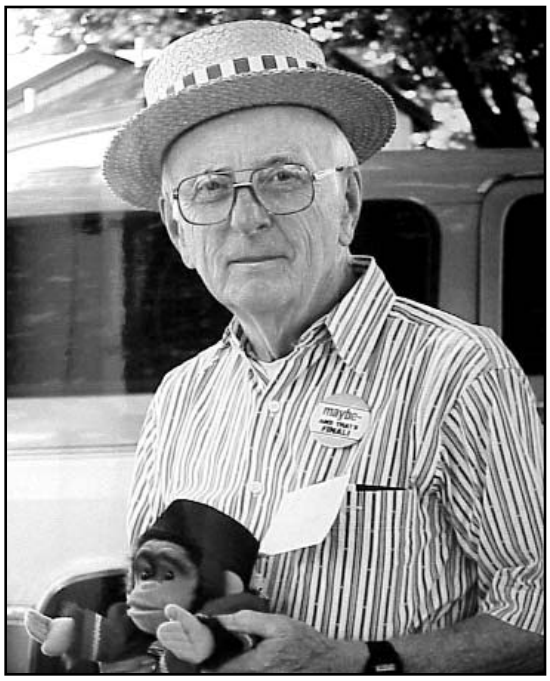


Figure 6. Harvey Roehl — one last look at a pioneer of fostering and maintaining the collector's interest in outdoor mechanical music.

The lions and tigers go 'round
to that wonderful carousel sound.
Kids ride them all day
to hear the band organ play
while great fun and laughter
abound.

Harvey Northrup Roehl passed away on June 21, 2000, at the age of 76. We will miss him very much.

COAA Directory Information

The COAA has grown over the past two years and in order to provide information for members a yearly Directory has been planned. Gary Stevenson is putting together this information and needs help from every member. Necessary information includes: Name(s), address, phone and fax numbers as well as email address, and also up to three listings of outdoor mechanical musical instruments. Please mail (or email) this information to Gary at 801 Eichelberger, St. Louis, MO. 63111 or gstevens@dtd1.slps.k12.mo.us

Joseph Raffin Celebrates 40th Anniversary

Tom Griffith

Visitors from all over Europe and the United States converged on Orgelbau Raffin located in Uberlingen, Germany, on June 2nd and 3rd to celebrate with Joseph Raffin his 40th Year Anniversary in business. Visitors, other than those from Germany, were from Holland, Norway, Switzerland and Hal O'Rourke (Raffin's American representative) and myself from the United States.

Figure 1. Jan and Angeline Abels' Dutch organ, *De Admiraal*, is a 56-key Cor Perlee organ.

Visitors were somewhat incongruously greeted by a Dutch band organ owned by Jan and Angeline Abels of Holland outside the entrance to the Orgelbau Raffin (**Figure 1**); however, Mr. Raffin soon began the festivities by relating his company's history and introducing his family and employees. He related how, after completing his master training in Ludwigsburg and successfully completing his master examination in Stuttgart, he set up business in 1960 and with his brother-in-law began to produce boats, small furniture and kitchen cabinets. Subsequently, the necessary equipment was acquired for building church organs and organ parts were delivered to domestic and foreign organ builders.

Early in the 1970s he was prevailed upon to restore a barrel organ which initiated his interest in developing and building small organs. His initial efforts resulted in the production of 13 organs in 1977. Today Raffin organs range from the small 20-note mini pipe organ with 20 wooden and 10 metal pipes to large 31-note concert trumpet organs which can accommodate up to 124 wooden, reed and metal pipes. In 1988, recognition of his contributions resulted in Mr. Raffin being awarded the "Oscar Europe" at ceremonies held in Rome, Italy.

Figure 2. Joseph Raffin (left) and his son-in-law, Rafael Ensinger, playing "Michaela."

An observant listener could see Mr. Raffin was making his presentation from notes prepared and written on a 20-note roll. The presentation included, from time-to-time, pieces played on a variety of Raffin organs. One such piece was the synchronous playing (duet) of "Michaela" with Rafael Ensinger, one of his sons-in-law now associated with the business (**Figure 2**).

Figure 3. Joseph Raffin playing his new "Country Organ." This is a 68-note organ with 401 pipes and 15 registers.

After relating the Orgelbau's business history, guests were led to a basement room where the latest Raffin creation, a 68 note, 15 register, 401 pipe drehorgel was unveiled (**Figures 3 & 4**). Later this instrument was jokingly referred to as a "Country Organ." Rolls were hand cranked with air for the pipes is provided by an electric blower and registers electrically controlled. Mr. Raffin played several pieces demonstrating the organ's capability, ending with the ubiquitous "Alt Kameraden" played with the style, spirit, gusto and excitement only he can provide.

Figure 4. A rear view of the "Country Organ."

Other Raffin innovations and developments were presented during the day. One was the much-rumored digital music system. Indeed, it exists and is now offered on all Raffin products other than the 20-note mini. The system is uniquely designed and installed to permit either conventional rolls or digital music to be played on the same instrument. Digital music is available from Raffin utilizing a cartridge encoded by them or may be input via a MIDI port. Another development was the announcement that a very limited number of 20-note reed organs will be produced in the near future to further commemorate the 40th anniversary. This model was the first produced by Raffin and discontinued several years ago. While only a few are in the United States, they are very popular in Europe and England and can still be seen at rallies there. It was observed only 12 cases had been constructed and set aside for this production run.

Tom Griffith is street organ enthusiast who not only plays but also has built his own 31-note street organ.

Grand Opening of Cafesjian's Carousel (PTC #33) Como Park, St. Paul

June 3, 2000, was an important date for Minnesota carousel lovers. That's when the Philadelphia Toboggan Company carousel #33, Cafesjian's Carousel (named after its benefactor, Gerard Cafesjian) celebrated its grand opening in St. Paul's Como Park. After losing its former site at the Minnesota State Fairgrounds in 1989, the 1914 carousel has traveled a bumpy road to reach its new destination just three quarters of a mile from its original home. The carousel is unique in the world because, for the 75 years it was a the state fair, it was never ridden more than 12 days per year!

The related highlight of this event was the inauguration of the Wurlitzer 153 band organ (**Figure 1**) which has been expertly restored over the past six years by MBSI and COAA member Mike Merrick. Joining in the festivities were members of the MBSI Snowbelt Chapter and COAA, who brought their band organs and music boxes to the park. Eight band organs were placed in nearby locations to draw visitors towards the carousel building (**Figure 2**). Other chapter members demonstrated their music boxes inside the neighboring turn-of-the century completely restored horticultural conservatory.

Figure1. The Wurlitzer Style 153 band organ in the center of Cafesjian's Carousel.

Figure 2. Caught riding the carousel were Gina Rulli (middle) and Angelo Rulli (right).

When it was learned that the state fair board refused to extend the lease for the carousel, it was decided that it would be broken up and sold at auction. A local non-profit community organization, Our Fair Carousel, Inc., was formed to raise the necessary $1.3 million to buy the ride in its entirety and keep it in Minnesota. A major donation of $600,000 by local businessman Gerard Cafesjian made the purchase possible, and the carousel was named in his honor. The carousel was moved to an indoor park in downtown St. Paul, but by 1996 business had declined, and the ride was forced to close.

Because the carousel ran less than two weeks a year during the state fair, it had very little actual use. Some serious damage had occurred during a fire in 1939, when the band organ was destroyed and some of the horses as well as parts of the frame were damaged. Volunteers worked to restore the frame to its original appearance by carefully removing the paint that had been applied over the years. The scenes on the rounding boards, which had been painted after the fire, needed to be repainted, but through research, artists were able to create what is believed to be a very close replication of the originals.

A band organ was also needed, and a search was undertaken to find just the right machine. Finally one was located in Connecticut, and board member Mike Merrick traveled to Hartford to see it. It was a basket case - just barely played and had no bells or registers. But Mike could appreciate the possibilities, the organ was purchased, and Mike spent the next six years rebuilding it in his basement in his spare time. To see it and hear it today is a joy to behold.

This fully restored Wurlitzer 153 is believed to have been built in the early 1920s. The low serial number is a clue that it may have been an early import from Bruder and used by Wurlitzer as a basis for the design of the 153s. In addition, the design of the facade is of German origin. Mike often brings to many rallies the perfectly restored Artizan band organ that he co-owns with Tracy Tolzmann.

Perhaps the greatest challenge in restoring the horses was to discover the original colors that were damaged in the 1939 fire; the outside (the "romance side") of those horses had burned away all the paint. By carefully inspecting the plain sides of the horses, they could determine with assurance how to complete the decorative trappings. A high point of the grand opening day was the unveiling of the last two restored horses. Cafesjian's Carousel is one of only two remaining carousels with the original paint and one of only 150 antique wooden carousels remaining in this country. It is truly a treasure!

Figure 3. Bill Nunn's original 101-key Mortier fair organ which now plays Wurlitzer 165 music. This spectacular organ has over 350 pipes and sports a Hooghuys facade.

Listening to the magnificent Wurlitzer as one rode the ponies of this treasure reminded all who were there of the importance of history, and of having fun while creating yet more memories.

Francy Reitz

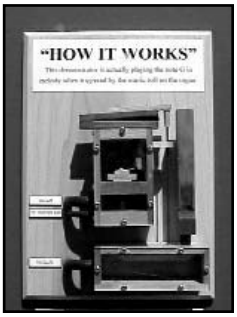


Figure 4. Tracy Tolzman and Mike Merrick have attached an excellent teaching device next to their Ruth/Artizan fairground organ showing how organ pipes play from a note on the paper roll.

COAA Organ Rally
Dutch Village, Holland, MI

The second Carousel Organ Association of America Organ Rally of the year was held at Dutch Village in Holland, Michigan, on June 23 & 24. Dutch Village is a quaint replica of what a small village in the Netherlands would have been many years ago. Three generations of the Harry Nelis family have built the village into a first-class attraction. The Nelis family has been in America since 1920.

In the 1930s, Holland began the Tulip Festival and many tourists visited and bought their flower bulbs. In the 1950s, the Nelis' little village grew, one building at a time, of the architecture the senior Nelis remembered in his homeland. By 1964 Dutch Village became a popular tourist attraction. One of the appeals is the authentic atmosphere, including the staff wearing period Dutch clothing.

Figure 1. The *Golden Angel*, an 89-key Carl Frei Dutch street organ with its permanent protective structure.

In 1967 the Nelis' imported an 89-key Carl Frei book-operated organ, known as *The Golden Angel* (originally built in 1880, in Germany). This organ played on the streets of Holland (**Figure 1**). Harry Nelis II related the problems he and his son had picking up the organ in New York and then going through Canadian customs and eventually reaching its new Michigan home. Many MBSI members (including my husband Frank and I) danced to the organ at Mid-Am's second Organ Rally 24 years ago (**Figure 2**).

Figure 2. Hope and Frank Rider dancing to the music of *The Golden Angel*.

As the COAA organ owners arrived Friday, Kevin and Mike Vanderbosch greeted them and helped place the large organs far enough apart so the sound would be pleasing. Monkey organ owners roamed throughout the Village and Dave and Cathy Kannenan set up their book-operated Pell just outside the entrance to greet visitors.

Although tulip season was past the colorful splash of summer, flowers complimented the organs at all angles. Chimes rang out periodically and one simply crossed the narrow canal to feel transported into the past. "Villagers" in vintage dress brought about interactive "Dutch" scenes and skits. It was easy to imagine being in wonderful Holland in the springtime.

The COAA members' organs stopped at intervals to allow the visitors to watch the "Klompen" dancers kick high to the cadence of The Golden Angel. Groups gathered to watch wooden shoes (Klompens) fashioned from blocks of wood, an age-old Dutch custom.

Figure 3. Another Dutch Street organ residing in Dutch Village is *De Tiet*.

One could wander over to the carousel and see the steeds prance to the music of the village's smaller street organ, *De Tiet*, also imported from Europe (**Figure 3**). An interesting oil painting on the rounding board of the carousel depicted *The Golden Angel*, while still in the Netherlands, being wheeled across the cobblestone streets.

Late Saturday afternoon awards were presented as visitors had voted for their favorite small and large COAA organ. Hal and Donna Estrey won in the smaller organ category with their Raffin trumpet organ and winsome toy monkey. John Leonard won with his "bowler" hat, charm and large North Tonawanda style 173 Military Band Organ.

Figure 4. Jim Welty's Artizan A-2 made a striking appearance at the rally.

Saturday evening we were given a dinner in the former "Queens Inn" by the Dutch Village staff. President Terry Haughawout thanked those who traveled long distances to attend. Among those mentioned were

Figure 5. Tom Evensaw, Bob Cantine and Dave Rohe enjoy the sounds of a Raffin street organ.

Cliff and Robbie Gray, Texas; Kansans' Tom McAuley and Billie and Leonard Railsback; Dave and Pat Rohe, New Jersey; new member Tom Evensaw, Pennsylvania; John Leonard and John Ashworth, Canada; and Russ and Connie Nichols, Missouri.

Hope Rider

Bear Creek COAA Rally and the DeCap Legacy

The vacation village of Bear Creek, Indiana, deep in the heart of Amish colonies, was not known to most COAA members before the "1st Annual Organ Rally" held there July 28-30. The site is about 30 miles south of Fort Wayne, Indiana, and includes a combination of amusement park, restaurants, theater, old-time village, mini-train, vintage car collection and the corporate offices of Richard's Restaurants, all of which are owned by Don Strong, a recent mechanical music enthusiast and new member of COAA.

Don has amassed an impressive array of instruments in just three years, including several orchestrions and crank organs and, recently, the magnificent Th. Mortier 101-key organ which is incorporated into the presentations at the theater. His newest acquisition is an Alan Pell 65-key band organ, custom-made with 365 pipes and voiced in the classic Dutch tradition. It operates on the MIDI system and is the first Pell organ of this size to come to America.

The rally started on Friday and included 73 attendees, 11 large band organs and 18 crank organs. After playing for the crowds all day Friday, that night we gathered as guests of the host for a presentation entitled "Back to the 50s," featuring the music and times of that well-remembered era, and starring the Mortier organ, which operates on MIDI and is incorporated into the script of the stage presentation. (See related article about Frank Decap).

Saturday was devoted to organ playing and was capped with a banquet for all attendees, again courtesy of member Don Strong. A brief business meeting was held with a report that the membership is at 270 and the *Carousel Organ* published by Ron Bopp is taking its place as a valuable and impressive publication devoted to the hobby. The members voted to return to Bear Creek next year. A decision that is well supported by the great time offered this year.

Frank DeCap Continues the Legacy

Frank DeCap is unique in the world of mechanical organs because his surname is connected to the glory days of European organs Frank and his brother Tony are heirs to the only name existing today from those days of street and fair-organ building. Frank and his wife Rita were guests of Don Strong, owner of Bear Creek Farm, near Bryant, Indiana, for the COAA rally July 28-30. Frank was on hand to convert the magnificent Th. Mortier 101-key organ once owned by Franklin and Margaret Corya and now installed in the Goodtimes Theater at Bear Creek (**Figure 1 & 2**)

Figure 1. Rita and Frank DeCap in front of Don Strong's 101-key Mortier dance organ.

Frank descends from three generations of organ builders. His grandfather Frans and three brothers, Levin, Leon and Camille, started Gebruder De Cap in Antwerp, Belgium, in 1902. Frans was born to a musical family as his father was a farmer who also played and repaired accordions. When he married he stopped traveling and began to make and repair mechanical organs. Frans and his brothers started and owned Gebruder DeCap until 1934, when Frans decided to start his own firm in Herentals, Belgium, while his brothers continued to operate the Antwerp factory. Leon and Camiel stayed with the firm until 1955 and Levin was there until 1969. The name of that firm was Gebrouders Decap Antwerpen. Camiel's daughter, Martha, had one son, Roger Mostmans, who is now the sole heir and leading the company (see issue #4 of the *Carousel Organ*). Frans died in 1972 and his son Francois (Frank's father) assumed control of the operation. In 1993 Frank, then 36 years old, with his brother Tony took over the factory.

The DeCap family has been in continuous business since 1902, including two world wars. During WWII it was a great challenges for anyone in Europe to be in business (much less stay alive!) and organ builders were no exception. In 1940, the Nazis took over the DeCap factories and converted the machinery to wartime production. Fortunately, they would occasionally leave for other conquests and this offered the chance for DeCap to make or repair organs until the Nazis returned. Procuring materials was extremely difficult during these times and were it not for close family friends, it would have been impossible to make or repair anything. What's amazing is that none of the DeCap brothers worked for other organ firms before starting their own. Historically, those who started their own firms first worked for an established organ-making firm and then struck out on their own.

Figure 2. Frank Decap working on the new MIDI system installed on the Mortier.

When asked about the controversy surrounding the conversion of book-operated organs to the MIDI system, Frank replied that his grandfather always said: "you must improve every day." Frank believes his grandfather would support MIDI; and it's no surprise that Frank's father Francois is still at the factory every day and believes that whatever improvements are made, so long as they preserve the authenticity of the organ, and allow it's sound to remain true, are to be encouraged.

Frank said that if his grandfather and uncles were alive today, they would strive to be successful and would insist on moving with the times. While this was his first trip to the United States, he promised it will not be his last.

For Frank and his brother Tony are the last remaining of the many makers who once graced the world with wonderful mechanical organs.

Angelo Rulli

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Great American Midway Band Organ Celebration

Over 20 members of the AMICA Heart of America Chapter met in Kinsley, Kansas, May 19-20, to participate in the Great American Midway Band Organ Rally. Four large organs and seven smaller cart organs were present for the celebration. Kinsley, at one time, was winter home of as many as three carnivals and is currently the location of the National Carnival Heritage Center and Museum. Several community events were associated with the celebration and rally including the Heyn double-decker carousel.

Figure 1. A Perlee Dutch street organ owned by Blaine Thomas was displayed by Galen Bird

The Heyn, in operation for many years in Tivoli Park in Germany, is being restored for display and operation. Bruce White, internationally known artist and carver of carousel horses and a resident of Kinsley, exhibited several horses he has carved to replace those missing from the Heyn and demonstrated the process by which he constructs them. Artist Borislav Pernaovic, who has been employed to restore the carousel's panels and other artwork, described the historical research and process of their restoration. Films featured at the film festival were Charlie Chan at the Circus, The Greatest Show on Earth and The Big Circus.

Chapter members gathered Friday evening for a Kansas barbeque after which they visited the studio of Jerry Weaver, creator of Native American ceremonial drums. Jerry explained the spiritual nature of ceremonial drums. It is believed each tree has a unique spirit that is passed down to the drum. He demonstrated several of the drums and the ritual associated with playing them. Saturday morning HOA members were out on the street playing their organs. Chapter Chapter members then gathered at Prairie Oak Farms, with a farmhouse dating back to the 1800s that has been refurbished and features imported 300-year old French paneling and cabinetry which lead to its description as "The Chateau on the Prairie. Something kind of nice about discussing chapter business and upcoming organ rallies surrounded by 17th Century European elegance.

Figure 2. Joseph Wilson of St. Louis proudly discusses his new 43-key organ.

In commemoration of the rally Carol Griffith held a drawing for one of her porcelain fairy dolls, which was won by Mary Ellen and Ron Connor.

Tom Griffith

Do you have something for the *Carousel Organ?*

All items (of interest to our readers) are welcome for inclusion in one of the forthcoming issues of the *Carousel Organ*. Please submit photos, articles, newspaper clippings, or what-have-you to Ron Bopp, 55801 E 365, Jay, OK 74346 or by email: bopp@rectec.net.
Phone: 918-786-4988 Fax: 918-786-8049

Meet Your Member

Cliff and I were introduced to the "Happiest Music on Earth" by Dan Slack, who invited us to the Mid-Am Band Organ Rally in Fremont, Ohio, in 1983. We did not own a band organ but we went and I was absolutely mesmerized.

In 1975 Cliff was the Command Surgeon for the Air Force Logistic Command and we had recently purchased a player piano that worked weakly. I found Larry Givens' book on rebuilding player pianos and the *Piano Doctor* was born. We had 81 Players before Cliff died. After retiring from the Air Force, and then medicine, this became his vocation. The highlight of his life was rebuilding our 125 Military Band Organ, The only way I could get a band organ was to find one in pieces and I did! Cliff really wanted a calliope and in 1986 he got a Miner's Tangley calliope. While visiting Rob (our son, who is also an organ buff and in the Air Force) in Germany we met Herr Raffin and both of us became Raffin owners, cart and all. And we have enjoyed all of them!

Mary Pollock with her well-traveled Wurlitzer Style 125 Military Band Organ.

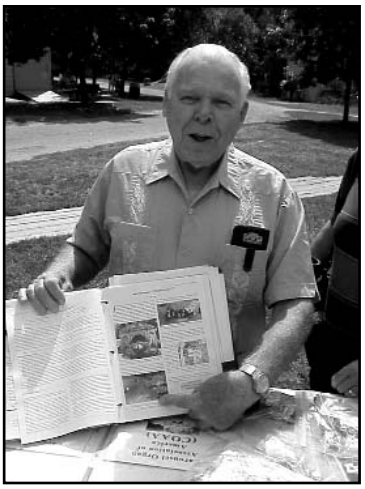
After Cliff died, I wanted to continue playing the instruments and frankly I Did Not Know What I Did Not Know but I just hooked the trailer on the car and look off for the rallies. John [Flint], Ron [Bopp], and Terry [Haughawout] can tell you many funny stories about my goofs with the band organ, I really think that they thought I would go away but when I showed up in Pittsburgh for the organ rally in my red wagon they knew I was here to stay!

I hasten to add that without their support and that of Nan, Mary Jo, and Joan and Terry's ability to restore the band organ, I would not be the gal who will go almost anywhere with band organ, red wagon, calliope, or Raffin to play this wonderful music, and I might add, it's always an adventure.

Het Snotneusje Revisited!

While tending my Gebr. Bruder organ at the recent Mid-Am (MBSI) rally in Flint, MI, I was interrupted by this pleasant, elderly gentleman from Holland. It seems that Evert Romein (right) was one of the spectators that hid behind the Dutch organ, Het Snotneusje (see Figure 3, page 3 of Issue No. 3 of the *Carousel Organ)*. Many memories flooded into this brief moment and it was quite fortuitous that we had chance to meet. In the accompanying photo he points out where he was during the machine gun fire.

Ron Bopp



Organ Rally Dates

Event	Location	Contact Person	Date
Gateway Chapter (AMICA) Monkey Organ Rally	The Missouri Botanical Garden St Louis, Missouri	Cynthia Craig 314-771-1244	Oct. 13-15, 2000
First 2001 COAA Rally	Dutch Village Holland, Michigan	Terry Haughawout 419-454-3671	Jun. 22-24, 2001
Second 2001 COAA Rally	Bear Creek Village Bear Creek, Indiana	Terry Haughawout 419-454-3671	July, 2001