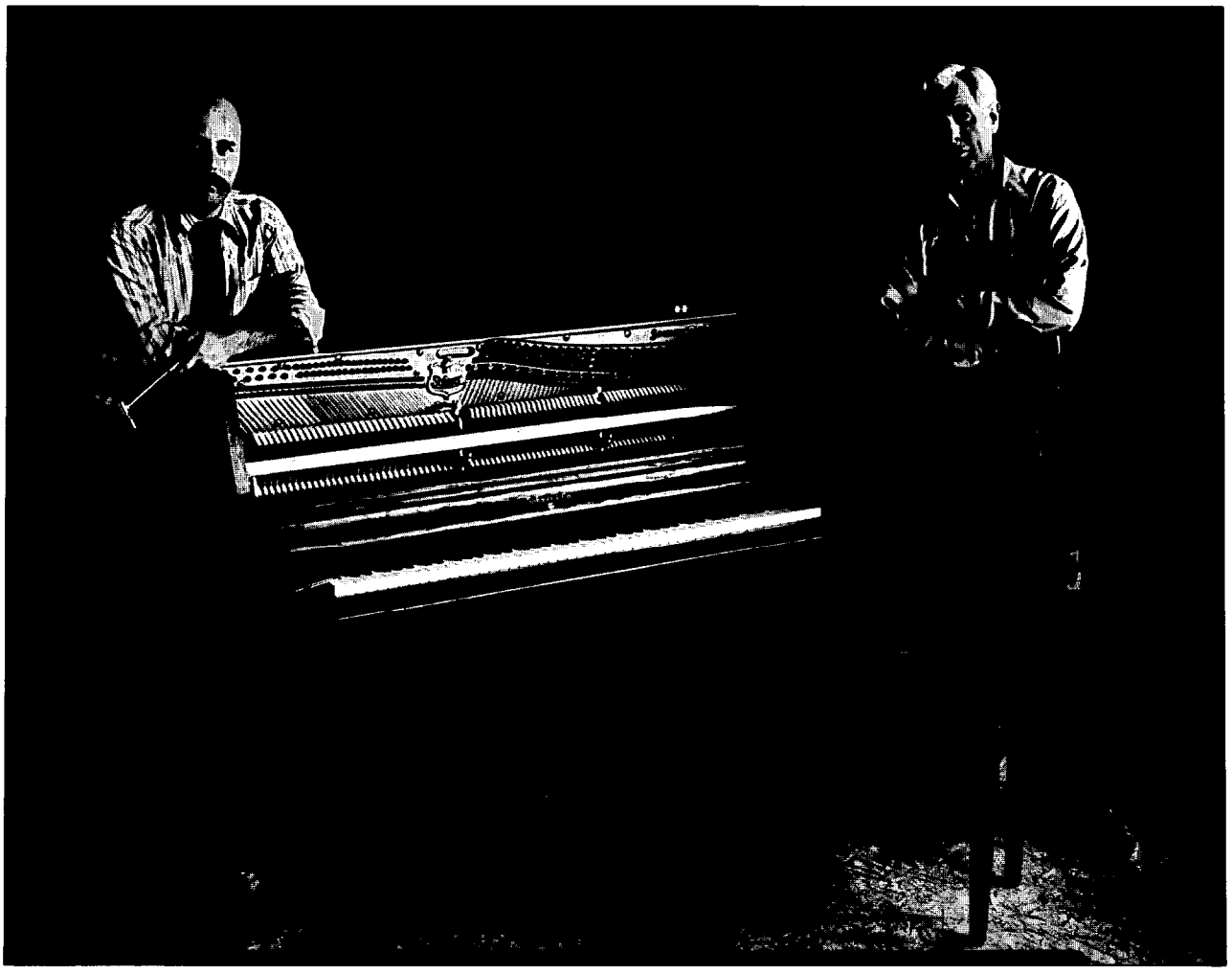
Piano Technicians
Journal
September 1984

Leadership For The Coming Year

We think both performances demand equal attention.



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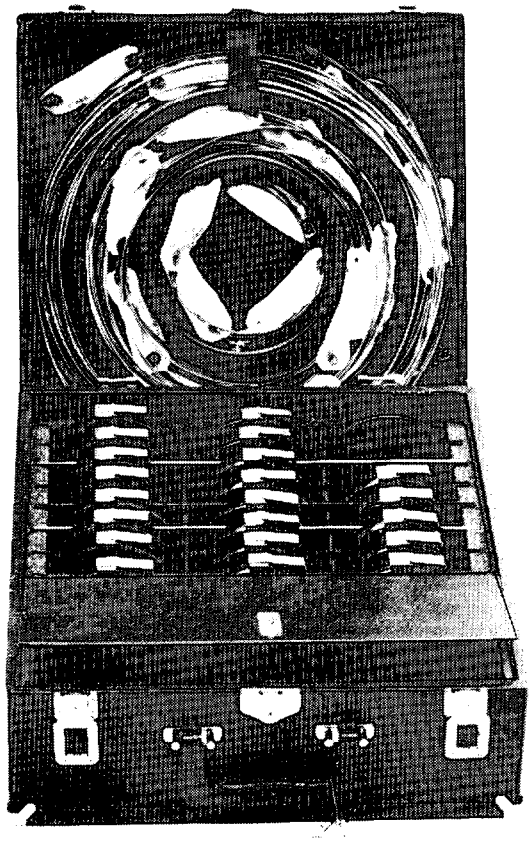

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Piano Technicians Journal
Official Publication of the Piano Technicians Guild

September 1984
Volume 27, Number 9

On the cover:
The Guild's newly elected leaders for 1984-1985 are, standing from left, Nolan Zeringue, SCRVP; William J. Moonan, NERVP; Ernest S. Preuitt, Immediate Past President; Barbara Parks, Executive Director; James F. Ellis, SERVP; Dean Thomas, CERVP; Willem Blees, CWRVP; and James G. Bryant, WRVP. Seated are Marshall B. Hawkins, Vice President; Charles P. Heuther, President, and Ronald L. Berry, Secretary/Treasurer.

PIANO TECHNICIANS JOURNAL (ISSN 0031 9562) is the official monthly publication of the Piano Technicians Guild, Inc., 9140 Ward Parkway, Kansas City, MO 64114. Second class postage paid at Kansas City, MO, US ISSN 0031 9562 foreign and domestic. POSTMASTER: Send address changes to PIANO TECHNICIANS JOURNAL, 9140 Ward Parkway, Kansas City, MO 64114.

Annual subscription price: $85 for one year; $155 for two years; $7.50 per single copy. Piano Technicians Guild members receive the PIANO TECHNICIANS JOURNAL for $45 per year as part of their membership dues.

THE PIANO TECHNICIANS GUILD, INC.
9140 Ward Parkway
Kansas City, MO 64114

Office Hours: (Central Time)
Monday-Friday
8:30 a.m.-5 p.m.

Remember the Foundation!

Donations to the Piano Technicians Foundation may be sent in memory of one who is deceased, or in honor of a person who has been a special inspiration or made a significant contribution to the profession or to the Guild.

Donations may be sent to: ***Piano Technicians Foundation, 9140 Ward Parkway, Kansas City, MO 64114.***

Baldwin

Harold Smith
President

TO OUR PIANO TECHNICIAN FRIENDS:

Baldwin wants to hear your ideas for improvements in our products and services. The latest proof that we do listen is our new Customer Service Certificate, part of our continuing effort to provide the service you need and expect from a piano manufacturer.

The Service Certificate program is simple but very beneficial to both of us. Each purchaser of a new Baldwin piano receives a Certificate worth $40 toward general and preventive maintenance on the piano which we suggest they use between the fourth and eighth months after delivery. Baldwin will reimburse the customer or pay you directly, whichever is decided.

You know, as we do, that action adjustment and regulation, tuning and other checks after the piano has become settled in its environment are very beneficial to all instruments. The Customer Service Certificate is designed to encourage new owners to give their pianos such service. I'm sure you also appreciate this extra stimulus for your business.

While I have this opportunity I would also like to review some of our latest piano innovations which should be of particular interest to you and which reflect what we have heard from you.

We are particularly proud of our new 52" Concert Vertical piano, which you will begin seeing in the field this fall. This piano has many outstanding features found in our grand pianos. The bass strings are equivalent in length to those in Baldwin's 6' 3" grand piano, and the strings for notes 32 and upward are equivalent to those in the Baldwin 7' SF-10 grand. The Concert Vertical uses Baldwin's patented SynchroTone strings for improved clarity of bass tones and Acu-Just Hitch Pins that allow individual string downbearing adjustment. It has a duplex scale, grand piano damper sensitivity, and a sostenuto pedal. The piano has a direct action with full-size parts. Being introduced in this piano is a unique Tone Extender which produces a smooth transition over the break at the tenor and bass bridges.

Our new series of 42½" pianos is another outstanding addition to our vertical piano line. All of these pianos feature Baldwin's famous direct Full-Blow action. This action has full-size parts and a unique key design that goes directly under the action. You'll appreciate the advantages of being able to service these instruments as easily as you do the 45" Hamilton.

You'll also find many improvements inside our pianos. We are now stenciling the key numbers so they are easier to read — an improvement you were certainly justified in asking for. Other changes inhibit corrosion to strings and wires in humid areas. Many of these changes, such as the new hammertone lacquer plate finish, improve the overall appearance of the interior of our vertical pianos so that Baldwin quality is seen as well as heard. An impressive new medallion on the plate symbolizes the attention to detail and pride in their work that Baldwin employees put into each piano and indicates many of the awards the company has received for its designs over the years.

You are welcome to tour any of Baldwin's piano factories — in Trumann or Conway, Arkansas, or in Greenwood, Mississippi. We do request advance notice of your visit. Our Trumann plant, the most modern piano plant in the world, is particularly worthy of a visit. In all of our factories you'll see our very successful Quality Circle programs at work. High employee morale and motivation mean high quality control and product performance.

Our Piano Technical Services Department provides a wide variety of services to help you give our pianos the best possible service. Our comprehensive service manual is in loose-leaf style for easy updating. It's also free for the asking. We sell our high-quality Baldwin-built hammers and pinblocks to you for rebuilding use. We've also granted permission for you to use our patented plate to inner rim mounting system in rebuilding. You probably already know our service representatives. They're consistently being invited to instruct at state, regional and national conventions. I believe our telephone seminars are unique to the industry. In an effort to support local technician groups, we use a slide program and a phone hookup system so our experts can "visit" smaller groups. Our schools are very popular and are always booked well in advance.

All of these programs and product innovations reflect suggestions you have thoughtfully shared with us. Since my career at Baldwin started with responsibility for manufacturing our pianos, I am particularly interested in ideas from your viewpoint. I would personally like to hear from you whenever you have comments about how we can improve our products and services.

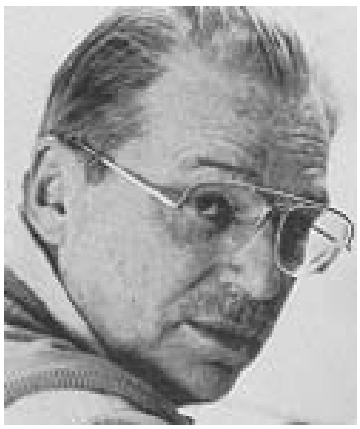
Sincerely,

Harold Smith

Harold S. Smith

P.S. If you would like a complete description of our Customer Service Certificate program including a sample of the Certificate or a piano service manual, just drop me a note. Ask, too, to be added to our mailing list to receive announcements of schools, service manual revisions, and other information that's important to you.

The President's Perspective



Charles P. Huether
President

The Beginning Of A New Cycle

September always seems to me like the beginning of a new year. The end of a time segment and the beginning of a new one is more real to me in September than it is in January. I suppose this has to do with the work cycle, the activity cycle, the business cycle and the cycle of seasons.

Whether or not you feel this changeover as strongly as I do, it is the beginning of our organizational meeting cycle. New officers are taking hold, the cycle of meetings starts after a brief respite over the summer. The cooler weather (sometimes) helps us to develop some of the old energy once more. The pace picks up and the "new year" begins.

It is a good time to take stock. With the beginning of a new meeting cycle, the reasons and the opportunities are more evident and the incentive stronger.

If things are planned in advance, there are few surprises and that is good. Time then can be spent at meetings making sure that there is as full participation in chapter work as possible by as many members as possible. Volunteers are always needed. Be a volunteer, voluntarily, not army style.

September is a good month. Make it worthwhile for yourself and your chapter by giving the Piano Technicians Guild a high priority for the months ahead. Don't sit back and take things as they come. Help them happen. Don't be someone who only draws from the accumulated account of knowledge and benefits which the organization represents. If members only make withdrawals, the account will soon be depleted. Be a depositor. Make sure you put in at least as much as you take out. We may be able to run a government on a regular yearly deficit, but you certainly can't do that in an organization. Keep it in the black.

Many chapters start their September meeting with a well-prepared schedule of programs for the rest of the meeting year. Members are told what to expect and plans are set in motion to involve as many as possible. Requests are sent to Headquarters for program material well in advance of the needed day so there will be no last-minute change needed when a late request receives the reply that the material is not available. This first meeting starts with the excited anticipation of a busy, interesting and worthwhile year of activity.

Crucial to the life of the chapter is the organization of the processing of new applicants. New officers are coached in the process and the chapter is off and running efficiently and in a well-organized manner.

The 'Indy 440' — Everyone A Winner!

As Institute Director Dick Bittinger, Brownstown, Pa., had promised, there was indeed "more in '84."

The 1984 Piano Technicians Guild Convention and Institute July 2-6 in the Hyatt Regency Indianapolis was a week crammed to bursting with classes, exhibits, meetings, social functions and, above all, the camaraderie that has become a hallmark of Guild gatherings.

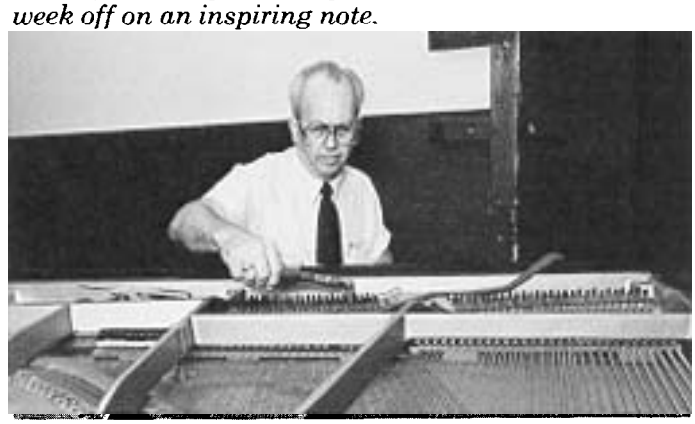
When not renewing old friendships or making new ones, the more than 750 participants in this year's convention and institute could choose from almost 300 hours of classroom instruction from close to 50 instructors. Bittinger, with the help of assistants Ernie Juhn and Ben McKlveen, had put together the largest institute in the Guild's history.

The registration figure of 758 technicians, spouses and visitors from all over the world represented an increase of more than 200 over last year's convention and institute, making this one of the most successful Guild gatherings in recent memory.

From the Sunday morning worship service conducted by Fred O. Rice Sr. of the Indianapolis Chapter to Friday's emotional closing luncheon sparked by Larry Crabb Jr. and his barbershop chorus, it was a week of reaching out, of stretching to new heights, both for the Guild and for the individuals who participated in it. Perhaps an unofficial theme for the convention was sounded by the anonymous author quoted by 1983-84 President Ernie Preuitt in his remarks during the opening ceremony Monday evening:

To laugh — is to risk appearing the fool.
To weep — is to risk appearing sentimental.
To reach out for another — is to risk exposing our true self.
To place your ideas, your dreams, before the crowd — is to risk loss.
To love — is to risk not being loved in return.
To live — is to risk dying.
To hope — is to risk despair.
To try at all — is to risk failure.

Sunday morning's worship service started the week off on an inspiring note.



Institute Director Dick Bittinger also found time to tune a piano before Institute classes began.

The 1984 convention opening session drew a large crowd.

But to risk we must, because the greatest hazard in life is to risk nothing.

The man, the woman, who risks nothing, does nothing, has nothing, is nothing.

Following the opening ceremony in the Regency Ballroom, Preuitt led the way to the official ribbon-cutting. Twenty-five exhibitors, all staunch supporters of the Guild, displayed a wide range of pianos, parts, tools, electronic tuning aids, books, videotapes and other accessories to those who crowded the exhibit area during the breaks between classes. Periodic drawings for prizes donated by exhibitors and other Guild supporters kept the level of interest high.

The class schedule itself began Tuesday morning. Each day's schedule was broken into four hour-and-a-half periods. There was something for everyone, from John Ford's "History of Pianos and Tools" class to audiologist Dr. Jon Shallop's "See What You Hear" to Ruth Ann Jordan's "How To Tune The Not-So-Grand Piano," as well as a wealth of practical and specific technical classes. This year's Institute also featured two special 3 1/2-day rebuilding classes in the Indiana Repertory Theatre across the street from the Hyatt Regency (see related stories) and tuning tutoring forums conducted by Fred Odenheimer and Tony Manna.

A popular addition to the 1984 schedule was a series of "mini-technical" classes moderated by Bob Smit, 1983-84 Northeast Regional Vice President. Each day's session consisted of four 20-minute presentations on a variety of topics, and each played to a packed house.

"I was amazed at how successful the 20-minute classes were," said John Bloch, Denver, who taught the Thursday "Tips on Bridge Repair" mini-technical. "I think they're a good way for someone who is just starting out to get a wide range of knowledge. Every one of them seemed to be full."

Even after attending more than 20 national Institutes, Bloch said he always finds something new each year. "I learned a lot from Wally Brooks ('Rebuilding: It's The Little Things That Count') on how to glue veneer without clamps. And the metals class ('Grinding, Sharpening and Tempering Tools') by Tom Pettit was good too."

Daniel Kidd, Georgetown, Ky., said he found the "Customer Relations" class conducted by Sid Stone of the Golden Gate Chapter particularly valuable. "I got a lot out of most of the classes I attended, but I think Sid especially had some good information."

The Tuesday, Wednesday and Thursday schedules each featured a class in which priority was given to visually impaired technicians. Those classes were "Servicing Teflon Bushings," a Steinway-sponsored class presented by Fred Drasche, Joe Bisceglie and Bill Garlick; "Vertical Regulating," a Wurlitzer-sponsored class by Rick Sletten, Dick Eckburg and Larry Talbot; and "Grand Regulation," conducted by Kimball's Eric Johnson, Ray Reuter and Roger Weisensteiner. A forum for visually impaired technicians was conducted on Friday by Committee Chairman Ken Williams.

Player piano enthusiasts and college and university technicians each had a chance to exchange information in Friday forums and those with a passion for players were treated to a tour of rare and exotic self-

'I Was Speechless And Overcome With Joy...'

Editor's note: Bob Russell, a former president of the Guild, was honored during the convention's banquet with the Guild's highest honor, the Golden Hammer Award. The award was presented by President Ernie Preuitt and William Smith, who crafted the award.

Letter To The Editor:

Over the years as a member of the Guild, I have written many, many letters...somehow this is the hardest one to compose. It is not just another "thank you" letter, but a big THANK YOU!

I have been blessed with good friends, awards and esteem — probably more than I have a right to...yet on July third, the Piano Technicians Guild provided me with my "finest hour," the Golden Hammer Award. I was speechless and overcome with joy.

I would like tothank the committee for selecting me; the leaders who through the years gave of their time so I could learn; and the entire Guild for their friendship and support. I would also like to give a quiet intimissimo thank you to my wife, Ginny, for her support and sharing. Finally, I would like to thank my God for making my life so joyous.

Thank you,
Bob Russell

Attending a board meeting of the International Association of Piano Builders and Technicians were, from left, Dan Evans, Fred Odenheimer, Charles P. Huether, Kazuyuki Ogio, Henry Haino and Andy Nishio.

playing instruments in private Indianapolis collections on Thursday. Thursday's schedule also featured a Teacher Relations Forum in nearby Block's Department Store. That presentation, organized by Teacher Relations Committee Chairman Ruth Brown, also was well-attended.

The hard-working Indianapolis host chapter, headed by Chapter President Guy McKay and Host Committee Chairman Barbara Martin, combined food, friendship and education with a trip to the Paramount Music Palace, an Indianapolis restaurant which boasts one of only 20 Publix No. 1-style Wurlitzer Theatre Organs ever built.

The host chapter also contributed a visual symbol of the convention's "Indy 440" theme by customizing an upright piano with racing slicks, pipes and sound effects. The piano, complete with a crack pit crew, was a highlight of the opening session.

The week had its serious moments as well. Former President Bob Russell, Mayfield Heights, Ohio, received the Guild's highest honor, the Golden Hammer Award, which was painstakingly crafted by William Smith, Seattle. Ralph Kingsbury, Milwaukee, also a former president, was inducted into the Guild's Hall of Fame along with the late Ben Berman of the New York Chapter.

Charles P. Huether, Clifton, N.J., who was elected to lead the Guild for 1984-85, received both the gavel and a Presidential Citation from outgoing President Preuitt. Also honored with a Presidential Citation was *Journal* author Susan Graham for her series of articles, "Shop Talk."

At the Convention Banquet, the Guild honored three of its own with its "Member of Note" awards. This year awards went to John Ford of the New York Chapter and Frank Stopa and Wally Brooks, both of the Connecticut Chapter.

Convention-goers praised the Indianapolis Hyatt for its convenient layout. Several restaurants within the Hyatt complex ranged in quality from fast food upwards, meaning that no one even had to go outside to eat. The host chapter added to the convenience by picking up registrants at the airport and shuttling them downtown.

As the convention drew to a close the focus shifted to Kansas City, site of next year's gathering. A biannual meeting of the International Association of Piano Builders and Technicians will add an international flavor to next year's Convention, which is scheduled for July 1-5 in the Hyatt Regency Kansas City. Those attending the closing luncheon previewed the city's attractions with a film pointing out its heritage of jazz, good food and hospitality.

Next year's Institute Director, Ernie Juhn, declined to drop any hints about the makeup of next year's Institute, but in keeping with the international nature of the gathering, he promised a "world-class" program. After turning over the president's gavel, Preuitt picked up a new challenge, that of the Kansas City Chapter's host committee chairman for 1985. Preuitt, Chapter President Greg Hulme and the members of the Kansas City Chapter will assist in local arrangements for next year's gathering.

With the success of the Indy 440, those planning next year's Convention and Institute will have a hard act to follow.

'Where Would I Be...'

Editor's note: Ralph Kingsbury, shown above with President Preuitt, and Ben Berman were named to the Guild's Hall of Fame, Berman posthumously.

Thanks to Pres. Preuitt and Chairman Willis Snyder and all of my peers for awarding me a place in the Hall of Fame of the Piano Technicians Guild at the Hyatt Regency Hotel during our Convention in Indianapolis.

It is indeed a great honor which I and my family will cherish forever.

On behalf of Ben Berman of the New York Chapter, I would also like to thank the Guild. I knew Ben well for many years, and I know he would be proud also.

Thank you all, and "where would I be without PTG."

Ralph Kingsbury,
Past President

Above, a crew of top mechanics from the Indianapolis Chapter kept the convention humming. Below, Guy McKay and Barbara Martin headed the local effort.

Dr. Jon Shallop — "See What You Hear"

Gary Green — "Upright Dampers And Hammer Application"

Tom Pettit — "Grinding, Sharpening and Tempering Tools"

Otis Oxford — "Upright Piano Service In The Home"

Jack Krefting — "Grand Action Troubleshooting"

Extended Classes Provide In-Depth Instruction

Editor's Note: Among the highlights of the 1984 Indianapolis institute were two expanded classes in the wonderfully ornate Indiana Repertory Theatre across the street from the Hyatt Regency. Here are reports from three participants in those 3 1/2-day sessions.

Bridge Construction — Ed Trefz, John Trefz, Ralph Onesti

We had a great and joyful class working out the complete bridge replacement on an old Bluthner grand. The instructors — their three personalities made a great team — were absolutely first-rate. People with this depth of experience never cloak their subject with a false mystique.

Instead, we were treated to a careful step-by-step exposition of the process, plus two excellent sets of printed instructions. The Trefz family of Philadelphia has a tradition of piano-making going back at least to 1835 and to say we enjoyed their company and each other's as the class progressed, is an understatement. Our two guests from across the world, Tom Liu, president of the Taipei Piano Technicians Association, Taiwan, and Brian Dockrill of Arncliffe, New South Wales, Australia, gave our gathering the same international flavor that permeated the entire convention.

The technical details of bridge construction have been reviewed most recently in Jack Krefting's excellent series of articles in the *Journal*. Here we were introduced to many of the same technical problems in three solid dimensions. There's a difference and, when contemplating this sort of work, do all you can get some "hands-on" experience. We handled a wide variety of tools from a common handsaw down to chisels in all shapes and sizes, scrapers, spokeshaves, routers, drills, clamps, and more, plus a large number of squares, protractors, punches, tracing guides for marking off unisons and many others. We saw how chisels are sharpened and kept that way by frequent stropping. An interesting development is the water stone from Japan which can be more convenient than our traditional oil stones. We drilled some bridge pin holes and used our chisels in making notches. Our teachers stepped in frequently with guidance in handling and moving the drill and chisel and our stance and posture — just as important here as it is in tuning.

Another most interesting topic calls for attention — glue joints. Roughening the surfaces preparatory to gluing them does not obtain the best joint. Instead, the mating surfaces are worked to a very smooth surface — they almost cling together without glue as a couple of polished steel surfaces will. We saw glue joints detectable only by carefully sighting along the length of the piece.

Finally, as Ralph Onesti and his fellow instructors reminded us, this is custom work. Its purpose is not merely to copy the old bridge with its possible errors and deficiencies but, after careful study of the piano, to make *the* bridge that is uniquely ideal for *this*

piano! Many thanks! We appreciate your encouragement and, especially, your high standards of workmanship.

Ian McLuckie, Indiana Chapter

Pinblock Installation And Restringing — Willis Snyder, Lew Herwig, Ken Sloane

Willis Snyder and his wonderland of power tools and gadgets simplified the complex process of rebuilding. The 3 1/2-day class consisted of Willis' meticulous procedures accompanied by Lew Herwig's many years of piano research experience and Ken Sloane as an able assistant.

The class began with a thorough lecture on the acquisition and proper care of tools needed for a well-equipped rebuilding shop, plus a slide presentation of types of pinblock material available, and a review of the teardown of a grand piano. A decision to replace a piano's major components must be preceded by a thorough evaluation of the piano's condition. Aside from the action, consideration must be given to condition and expected remaining life of all wood in the piano, i.e., soundboard, bridges, rim, keybed, etc. Measurements and record-taking were explained in order to properly evaluate the present hammer line, spread action measurement, plate height, bridge placement, bearing, speaking length, etc., so as to rectify possible problems, not duplicate them.

Assisted by an electric crane, the plate removal gave access to the old pinblock for replacement. The new block was fitted to the plate and the piano, then drilled, demonstrating Willis' punch system and pinblock drilling jig. The jig was a unique apparatus that simplified drilling accurately angled holes in order to keep them centered in the plate webbing. A full-perimeter fit of the pinblock to the piano was demonstrated, along with a plate suspension system which was pioneered by the Baldwin Piano Co. A machine bolt was threaded through the plate into the piano's rim to regulate the height of the plate, along with a "Heli-Coil" system for enlarged plate holes. This type of plate suspension system has been found by Willis to be most efficient when replacing soundboards and bridges.

A cagey apparatus of criss-crossed aluminum rails was installed in the piano for use as a bridge location system in order to take measurements for bridge replacement. When Willis replaces a bridge, he uses a vertical grain-oriented bridge without a cap for better sound transmission. He explained his ingenious press for bridge duplication, which is a series of cams and metal rails to reproduce the shape of the old bridge that was used as a model.

We then moved on to cutting the soundboard out of the piano, accompanied by a thorough discussion of when a board must be replaced. Other class discussions included possible modifications to bring out more sustain in the treble area of a piano, soundboard tuning, string bearing angles at the capo bar, the purpose of the rim horn under the treble end of large Steinways and many more subjects too numerous to list.

Only at a Guild National Convention is such a rich learning experience possible.

Kevin and Janet Leary, Cleveland Chapter

Susan Graham, San Francisco, above left, and Charlie Huether, above, received President's Citations from Preuitt. Member of Note Awards went to Wally Brooks, right, John Ford and Frank Stopa. Vivian Brooks accepted Stopa's award.

'This...Guild Is Infectious!'

Editor's Note: Institute Director Dick Bittinger shares this letter from one who attended the Indianapolis Convention and Institute.

Dear Piano People:

The Indy 440 PTG Convention was a marvelous event!

Words cannot express the fellowship I felt associating with you who are opening doors, transcending boundaries and developing love in the hearts of the piano industry.

This Piano Technicians Guild is infectious! The results of these gatherings will reach out into the communities where we live and will be shared and felt by those who have need of professional piano care.

Thank you for letting me share the bountiful abundance of your lives.

Sincerely,

Keith McGavern

The exhibit area was packed after President Preuitt, with encouragement from his wife, Luellyn, cut the ceremonial ribbon.

Lev Natochenny, a graduate of the famed Moscow Conservatory and winner of several international piano competitions, performed at the Thursday Night Banquet. Natochenny appeared courtesy Baldwin Piano and Organ Co.

Auxiliary

President Belva Flegle, right, introduced the Auxiliary's 1983-84 officers during the opening session, from left, Julie Berry, immediate past president; Kathryn Snyder, treasurer; Bert Sierota, corresponding secretary; Helena Thomas, recording secretary, Norma Lamb, second vice president, and Mary Louise Strong, first vice president. Dr. Cory Ser-Vaas, editor and publisher of the Saturday Evening Post, addressed the group and later treated them to a surprise tour of the magazine's offices.

'What A Wonderful Surprise...'

Editor's Note: During the convention closing luncheon, a birthday card for Hannah Grover, last year's Hall of Fame winner, was passed around for the signatures of those present. Secretary-Treasurer Ron Berry recently received this thank-you card from her.

Dear Everyone:

What a wonderful surprise the mail man brought me this morning! Every name on that card brought back a happy memory to me. Isn't it worth living all these years to discover one has such friends all over the country? I would like to write a separate letter to each and every one of you starting with "Do you remember?"

Though I can no longer tune a piano, I can always belong to the Guild, and that is what we all know is worth working for.

I thank you all for just your names on a paper which brought such happiness to me.

With love to you all,

Hannah Grover

Olympic Tuning Tests Technicians' Endurance

With the torchbearer still jogging to the Los Angeles Coliseum, Guild member Ray Reuter, professional products manager for Kimball International Keyboard Division, faced his own Olympic challenge.

Reuter was managing the placement of 84 Kimball grand pianos to be featured in George Gershwin's "Rhapsody in Blue" performed during the opening ceremony. "It was more than an enormous task," Reuter recalled. "Everyone — from our truck drivers who delivered the pianos, to people who installed the grands, to technicians who faced a potential nightmare — was up to the challenge."

Throughout the week prior to the extravaganza, the pianos were stored outside and, although precautions were taken to keep them protected from the elements, Reuter realized it was impossible to keep the pianos on pitch seven straight days.

Reuter spot-tuned some pianos as they arrived and made adjustments to keep others stabilized until final tuning. However, the day before the opening ceremony, the most demanding part of the task dawned.

"Once we had installed the 84 grands, we still had to final-tune them. To do that, five tuners from the Los Angeles area who I had worked with before were hired: Teri Powell, Bob Cloutier, Mark Wisner, Alan Slater and Emily Goya," he said.

Reuter and Powell arrived at 6 a.m. Friday and faced the awesome sight of 84 grand pianos. Reuter commented, "Teri and I used the new Accu-Tuner, a computerized tuning mechanism, to tune one string from bass to treble. We left the unison tuning for the others who were to follow. For the most part, we found the pianos quite stable."

Two hours later, Cloutier, Wisner, Slater and Goya joined the pair of technicians. The group moved steadily forward and observed the pianos were not far out-of-tune. Two reasons were mentioned. The pianos were kept under the Coliseum arches so few were exposed to direct sunlight. The second reason was that each piano was covered with a space blanket — for extra protection.

"The blankets were a new protective idea for me," Reuter said. "and thanks to our Bosendorfer dealer, David Abel, who supplied the tip."

After tuning via an "assembly line" for a couple of hours, they encountered a growing problem. Rehearsals and final construction continued around them with music and pounding hammers filling the air. While the grands were tuned, the Coliseum's risers also were being tested, and several technicians went along for rides as pianos moved through arches and into playing position.

"During rehearsals, the pianos never came through the arches together. It was remarkable when we later watched the video tape to see all 14 platforms move through the arches in unison," Reuter said. "Rumor had it that people worked through the night to perfect this final move that thrilled millions of people in the United States and more throughout the world."

They tuned without a break until noon and counted about 40 fine-sounding Kimball pianos behind them. However a major portion of the job was ahead and then the Los Angeles sun began to heat up the Colisuem. Adding the heat to the noise, the unisons —tuning aurally — began to experience difficulty. But all were affected, and mental fatigue began edging up on them.

Reuter hoped all the pianos would be tuned by 4 p.m. But 5 p.m. ticked by and six technicians were still at work. It was almost 7 p.m. when the last instrument was tuned as well as conditions allowed.

"When we finished," Reuter said, "we covered the 84 grand pianos for one final evening. And as one of the next-day pianists, our effort definitely showed.

"After a week and a half of preparation — moving all those pianos into the Coliseum, rehearsing for four days, plus a marathon tuning session — we were exhausted, but I was pleased with a job well done."

Ray Reuter supervised the tuning and placement of 84 grand pianos for the opening ceremony of the 1984 Summer Olympics in Los Angeles.

Memories Of England, Scotland And Wales

Fred Odenheimer Chairman, International Relations Committee

News item: Fire at the York Minster. Our mind wanders back just a few weeks when we visited this imposing and magnificent gothic edifice. We sincerely hope repairs can be made.

Our British tour was a great success. It is hard to say which was the high point, but there are many wonderful impressions and memories of the countryside with its pure yellow rape fields, stretching sometimes as far as the eye could see; the cities and towns with quaint buildings, many of them hundreds of years old, including some of the hotels where we stayed. The narrow streets where houses out of square seemed to bend forward to have conversations across the alley or just to say good morning or good nicht. It was a trip through mostly smaller towns away from large cities where one could get a feel of the country and its people.

It is hard here to choose just a few items: all the sheep along our way mostly unshorn, the wool of which cannot be used for felting because it is too straight. The ones on Horseshoe Pass in Wales running down the hill for their handout as soon as the coach stopped. Edinburgh, a beautiful city even when it was raining. Stratford-Upon-Avon, Hathaway Cottage and attending a play at the Royal Shakespeare Theatre. The many beautiful cathedrals, minsters and abbeys, gothic, roman and norman as well as a combination of styles. Windermere and the Lake District and our wonderful guide Simona, a well-read actress who would explain every detail and would give us a glimpse into past history. We saw Coventry with its shattered cathedral, a victim of the war begging mankind to come to its senses.

In Hereford, we visited the Royal National College for the Blind and the principal of the Piano Department, Mr. Wilkins, spelled "Wlkns, because the I's are missing." What a wonderful and dedicated man who would have talked to us all through the night. This is a marvelous school with excellent staff and students who want to learn. The instruments in the museum, all in playing condition, and performances by faculty and pupils, and last, but not least, the little piano carved out of a key that was presented to me by Mr. Wilkins and which I will treasure.

The Pianoforte Tuners' Association Convention in Southport, the largest so far with 175 attending, was very successful. It was opened and closed by Mr. Mayor, the official title of a witty and entertaining lady who kept everyone around her bursting with laughter. We all attended classes and learned and made friends. There were visits to Naish Felt and Bentley Pianos, factories we had last seen 10 years ago when economics were a bit brighter. We saw Herrburger Brooks Action factory, Welmar Pianos and finally Bosendorfer and Steinway showrooms in London.

Nor can we forget Reg, our faithful driver who got us everywhere on time, even when on the last day his bus broke down and he flagged down a bus to take us to Canterbury.

We want to give special thanks to Ralph Long for all the hard work he had with arranging trade and school visits and the arrangements for us at the PTA Convention, and the Pianoforte Tuners' Association for all the courtesies extended to us. We sincerely appreciate all the detailed planning by Phelps Travel in Ware.

With our convention in Indianapolis past history, we are looking forward to the International meeting in Kansas City in 1985. Preparations have started and we need the support of everyone in the Guild.

Jobs Of The Future

Bob Russell, Chairman
Economic Affairs Committee

Dr. Marvin Cetron, president of Forecasting International, has written a book which should be of interest to all technicians. Some of his predictions you are probably aware of, but others are sure to cause soul-searching. "By 1990, only one job in five will be held by a factory worker," "Education must be a lifelong process," "Those interested in the arts need not be disillusioned so long as they are willing to be flexible — *a musician may have to learn to use a synthesizer.*"

Dr. Cetron's predictions go on and on, but they are not based on whims. "I'm a futurist, I'm a forecaster," meaning the predictions are made logically, based on interviews with people in industry and business, educators and government agencies, rather than on his own vision of the future.

Piano Technicians must, as businessmen, prepare their future business activities with knowledge and an understanding of the direction of the market place. It seems that we are always *reacting* rather than *acting* in a *positive* way to our business future. Spend some time learning your business as a business. It just might mean survival, more monetary gain, and more work for you.

Piano Technicians Guild Overseas Tours

Dan Evans
Vice Chairman, International Relations Committee

A truly privileged group of Piano Technicians Guild members recently returned from a fantastic tour of England, Scotland and Wales. The focal point was the three-day Convention and Institute of the British Pianoforte Tuners' Association in Southport, England, but the tour was extended to three weeks and included stops in such memorable places as Stonehenge, Salisbury, Plymouth, Bath, Llangollen, Windermere, Edinburgh, York, Coventry, Stratford-Upon-Avon, London and points between.

This was the fifth Guild overseas tour. Each has been acclaimed the *very* best — the trip of a lifetime.

Last year we had two groups traveling in the Orient, each focused on the International Association of Piano Builders and Technicians Convention in Tokyo. Fred Odenheimer led one group, which visited such Japanese cities as Kamakura, Hakone, Nagoya, Hiroshima and Kyoto. The other group, organized by Dan Evans, started in Korea, where members were hosted by Young Chang and Samick Piano Companies. We also met with the Korean Association of Piano Tuners. Many friendships were formed here, and the Association requested membership in the IAPBT. In addition to stops in various Japanese cities, this group joined Fred's party as guest of the Japanese Piano Tuners Association. Yamaha and Kawai Piano Companies exceeded all expectations in entertaining us royally, with sumptious buffets, shows and factory visits.

Twenty-five members then traveled on to Hong Kong and China where we were the (paying) guests of the International Trade Research Institute of the Peoples Republic of China. Here again, we were treated as royalty, with fine banquets, shows, translators, sightseeing the Great Wall, Ming Tombs, the Li River, etc. We visited piano factories in Peking (Hsing Hai Pianos), Shanghai (Nieer Pianos) and Canton (Pearl River Pianos).

Members of the Piano Technicians Guild English tour group pause in front of the Herrburger Brooks factory in Nottingham.

In 1981, a group of Guild members went to Gwatt, Switzerland, to attend the annual meeting of the Europiano organization. Eight European countries were represented, and a delegation came from Japan. We held an organizational meeting of the IAPBT and also visited the Burger-Jacobi Piano Factory in Biel, Switzerland. After this convention, a week was spent touring factories in Germany.

Our first overseas tour was organized by Fred Odenheimer in 1978. Many cities in Japan were visited, and this group attended the Japanese Piano Tuners Association annual meeting in Kyoto, where they were given a VIP greeting.

The first tour sponsored by the Guild Board included visits to England, West Germany, East Germany, Czechoslovakia, Austria and Switzerland. This was in June and July 1979, and lasted five weeks. Some of the outstanding visits were to the Naish Felt Company, first meeting with the officers of the British Pianoforte Tuners Association, Alfred Knight, C. Bechstein, Bluthner in Leipzig, and also the museum there where we were privileged to see and play an original Cristofori Piano, the Petrof Piano Company in Prague (a first time for a tour group, we were told), Bosendorfer's two factories, the Rieger Pipe Organ Company (we had difficulty getting some members to leave), Louis Renner Company's two plants, the Pianomeister Schule in Ludwigsburg, Germany Roslau Piano Wire Works, and the Euterpe Pianoforte factory. These were just some of the highlights. Everywhere we were wined, dined and toured.

Some Guild members have accompanied us on two or three of these tours. Should another be organized, plan to join. It will truly be another tour-of-a-lifetime.

THE TECHNICAL FORUM

Vertical Rebuilding The Multipurpose Tool Contest, What's New, Replacing Grand Backchecks and Reader Comments

Jack Krefting
Technical Editor

Vertical Rebuilding

In this segment we will consider keyboard making which, though not ordinarily part of the rebuilding process, is sometimes necessary because of severe damage or loss. The keys could have been lost in the mail when being sent for recovering, for example, or they could have been in the trunk of a technician's car when a traffic accident occurred, or some such unfortunate circumstance.

We all have seen instances where, because of a leaking pipe, a piano keyboard will twist so badly that it cannot be repaired. In such instances, if the rest of the piano justifies the expense, the keys should be replaced. Some of the information below, including our third illustration, has been lifted directly from the handout of an excellent class on the topic given by Wally Brooks and Frank Stopa. The experience of others is reflected also, including that of our illustrator, Jim Campbell, who makes all his own keyboards for his harpsichords and clavichords.

Basswood and sugar pine have been found to be the best material for keys, so we will select one of these. To make our keyboard blank, we will select clear, straight-grained planks that are narrow enough to be flatsawn all the way across. If necessary, trim off any wood that has a grain tilt of more than about 20 degrees from the horizontal, as bastard-cut keys have a built-in instability. If any of the planks have a general grain direction that is not precisely parallel to the sides of the plank, place them in such a position as to roughly parallel the flare for greater strength. *Figure 1* illustrates that the greater the flare, the more important becomes the matter of grain direction. A key with short grain (grain that is not continuous from one end of the key to the other) will always be weak and excessively flexible, subject to breakage under hard playing. The area of the balance rail pin, a weak spot anyway because of the wood removed, is weaker yet if there is no hardwood key button, plate or shoe. If such a key also has short grain across the balance rail mortise, breakage is inevitable. Simply gluing the key back together won't solve the problem either — the key will break again in another spot unless gussets are glued onto the sides, and there just isn't enough room between keys to add gussets to all of them. Such a keyboard is practically useless in a situation where the instrument is actually played regularly.

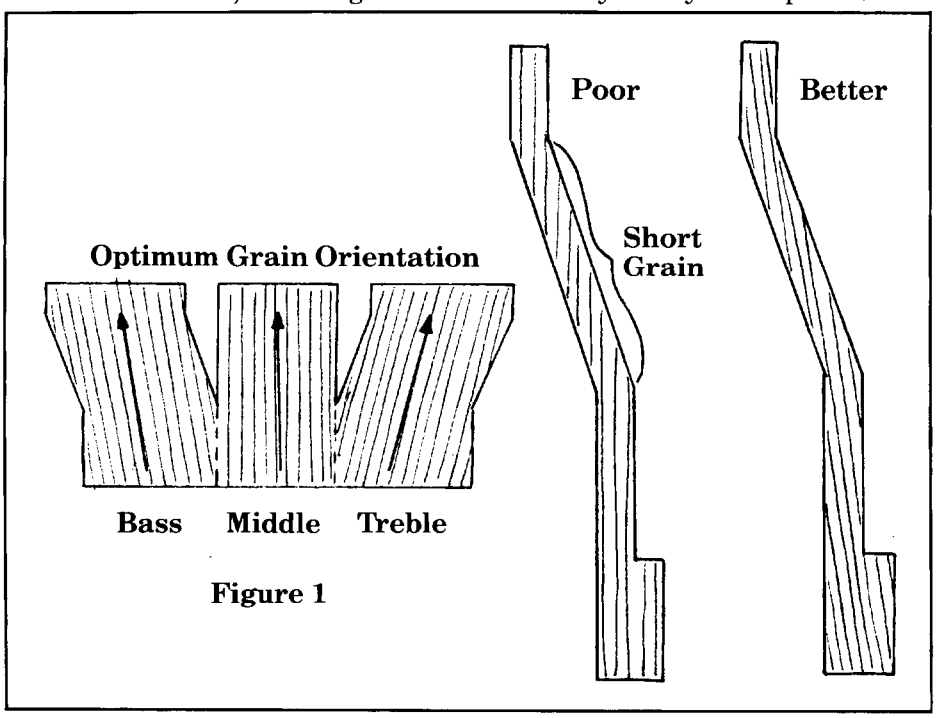


Figure 1

When the glue is dry, the blank can be trimmed to dimension front and back, but should be stored for at least several days (depending on humidity levels) before being planed to thickness. This delay allows the glue moisture to escape before machining, thus avoiding sink lines at the glue joints which could affect the flatness of the keytops later.

Plane the blank to the same thickness as the original and adjust the height of the backs of the keys by removing or adding

wood as required to make the new keyboard fit the piano case and action just as did the original. If the original keyset had a plate or shoe (see *Figure 2*), add this material now also. Use hardwood, preferably maple, and orient the grain so it runs fore and aft, *not* across the keys. This is done by edge-gluing short pieces of wood 1/8 inch or less in thickness into a cross-grained strip about 50 to 52 inches in length, according to the amount of flare at the balance rail. Obviously it is easier to install a shoe than a plate because the former requires no preparatory mortise in the key: but one should not simply add a shoe where none existed before, as this would radically change the key height and lift the keys above their front rail pins. All original dimensions must be duplicated or there will be problems of one sort or another.

Figure 3 shows the general layout of the keys, and we will refer to it periodically. Please note the square-offs, front and back, which mark the beginning and ending of the flared portion of the key. The purpose of the front square-off is obvious, as the playing surface of each key must be straight regardless of the flare. The back square-off serves two purposes. In a direct-blow piano this prevents the wood of one key from touching a neighboring wippen because that back part of the key is all directly below its own wippen rather than crossing another. The other reason for the back square-off is illustrated in *Figure 4*, where we see that for minimum friction and wear at the key button, a straight line drawn from the capstan to the front rail pin should bisect the balance rail pin. This is difficult to accomplish without a back square-off, even though drop-action spinets would otherwise be exempt from this principle. Indeed, many of them are made without the square-off, and the design probably has survived because most spinet buyers do not play heavily enough, or often enough, to wear out their key bushings. Except on pianos with very short keys, where the balance rail must be located immediately behind the keytops, it usually is possible to improve the balance of the keys by moving the balance pin laterally.

Make a scale stick as has been discussed earlier in this series, and lay it on the keyboard blank across what will become the backs of the keys. Mark the center of each capstan hole on the blank and then draw saw kerf lines from the back of the blank to the back square-off point, precisely between capstans. Next, using connected octaves of natural keytops as a pattern, lay out the head scale in pencil. Remember to balance the flare as much as possible (see *Figure 5*) but also remember that if the original keyblocks are to be used without modification, the original position of the head scale must be maintained. Compare the position of the number one capstan with the position (side-to-side) of the front rail pin of the number one key; if the newly laid out head scale matches that of the original keyset, it should work. If it doesn't, you will later have to add wood to one keyblock and shave the other.

The front square-off is 1/8 inch behind the end of the key covering, and the flare will take care of the discrepancy in spacing between the action scale and the head scale. The fore/aft placement of the balance rail must not be changed to try to equalize key bushing wear, desirable as that is, though,

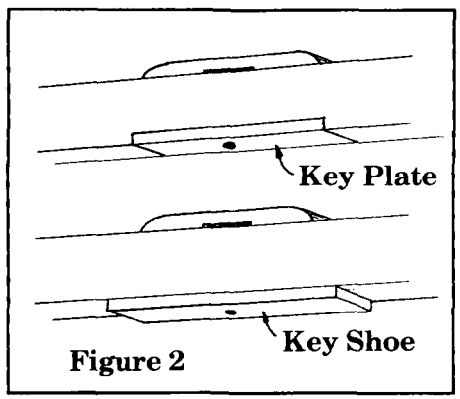


Figure 2

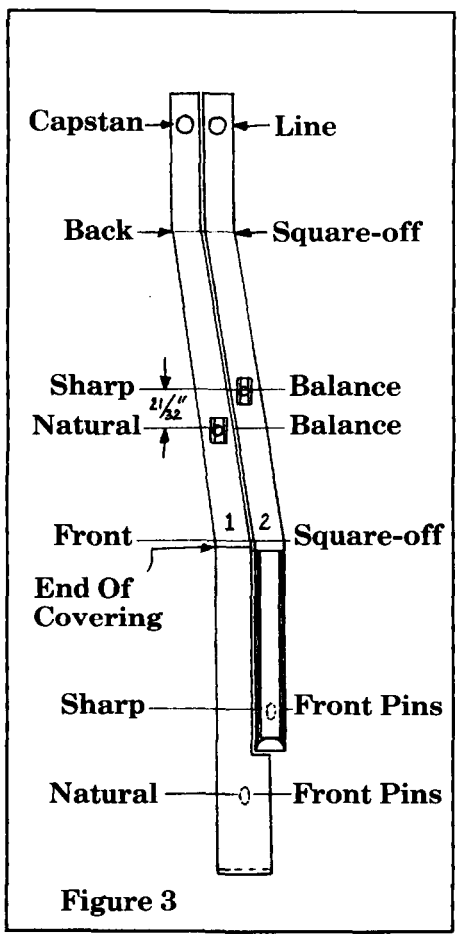


Figure 3

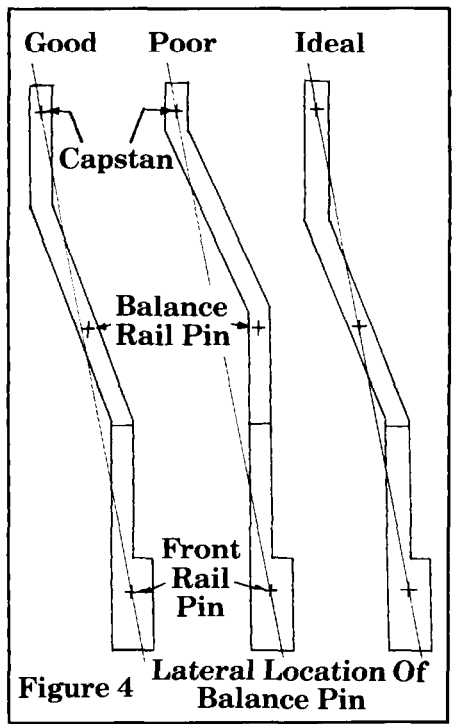


Figure 4

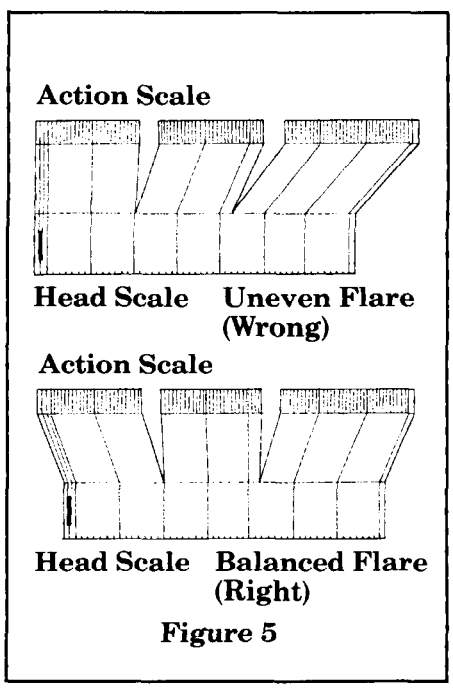


Figure 5

because that would affect the key-stick ratio, wippen lift, damper lift, checking, aftertouch, key dip and action geometry in general. If the keys are relatively short and the flare relatively wide, it will not be possible to place the balance pins in the optimum side-to-side position. In that case, we will have to compromise, like it or not.

When the front and balance rail keypin locations have been marked on the blank, and all keys have been drawn, mark the edge of the number one key down the front and on the underside of the blank. This will allow us to locate the positions of the sharps from underneath when we chisel out their front edges. We must decide at this time whether we will use the original keyframe, because if so, we must plug all original keypin holes with maple plugs. It will not be possible to accurately drill the new keys to match the keypin locations on the old frame, so don't try. Start with a new, undrilled frame or plug the old one. In either case, attach the key blank to the frame with a nail at each end. At some point before the keys are cut apart, they should be numbered, and now is probably as good a time as any to do so. The other operation that should be done in this phase is the chiseling out of sharp fronts as shown in *Figure 6*. This is done mostly from the underside, but a clean, shallow cut from above allows the sharp to separate cleanly. An alternate method which requires less measurement and marking on the bottom of the blank will be discussed presently, as it occurs later in the process.

In *Figure 7* we show the keyset pinned to the keyframe, which is attached to the drill press table at a slight angle for drilling the balance rail holes. After centerpunching each of the prescribed hole locations, drill down through keys and keyframe in one operation, thus assuring good spacing between keys later. Wally Brooks suggests the use of a #28 drill bit for this purpose. A #18 bit is suggested for the front rail pins, which are drilled in similar manner except for the angle, which is now 90 degrees. As before, drill keys and keyframe at once. When all holes are drilled, remove nails and separate the key blank from the frame.

Drill or rout out the front and balance rail holes as shown in *Figure 8* and bush the keys. Drill the capstan holes, glue on the keytops and then cut the heads apart on the bandsaw. At this point, what comes next depends on how the sharps will be cut out; if the fronts were chiseled through as outlined earlier, it is now just a matter of bandsawing the keys apart from the back all the way to the sharp notches. Another method involves bandsawing the entire keyboard into groups of five or seven keys, cutting all the way across the blank between E and F keys, and also between B and C keys. Then each group is sawn from the back to the sharp notch and the front of the sharp is cut out with a coping saw. In either case, after the keys are cut apart the undersides of the notch area should be relieved, either with the bandsaw or a chisel.

The sharp tops can now be installed, together with key buttons, if any, and the wood below the sharp tops should be blackened with black lacquer or shoe dye. The capstans or key forks can be installed next, and the keys are ready for installation.

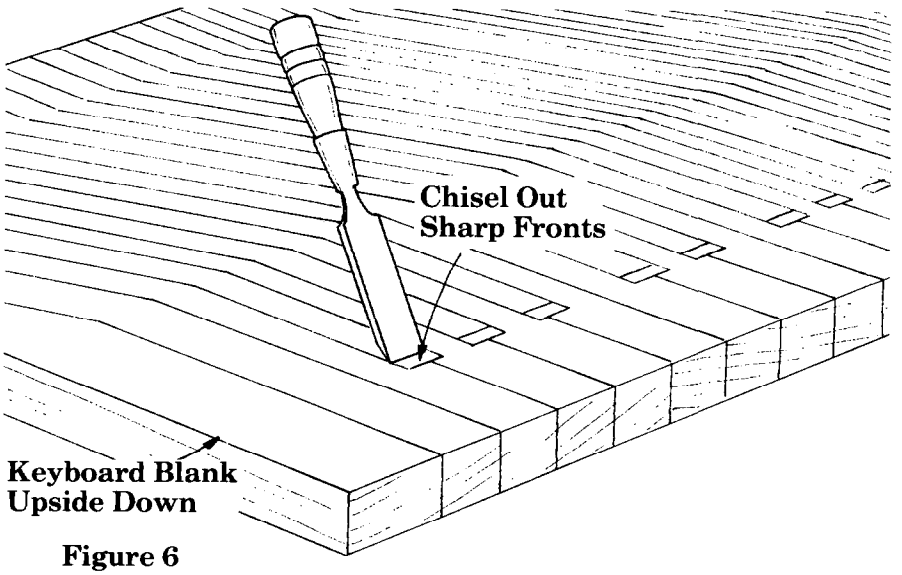


Figure 6

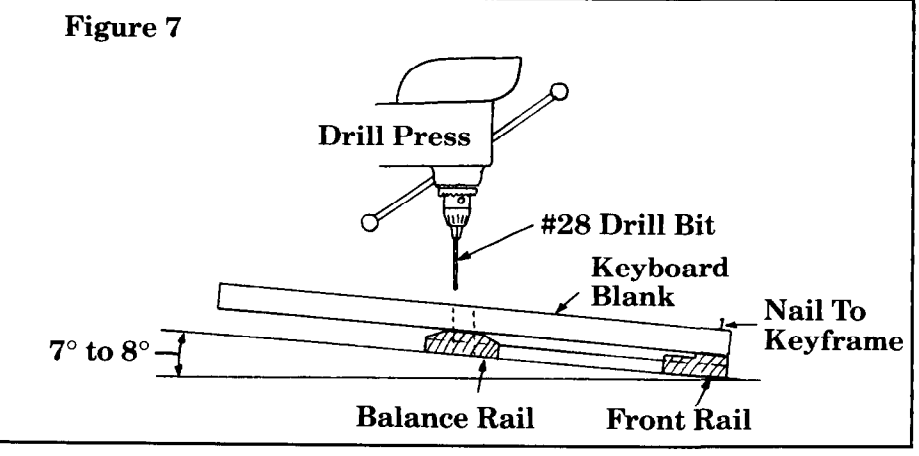


Figure 7

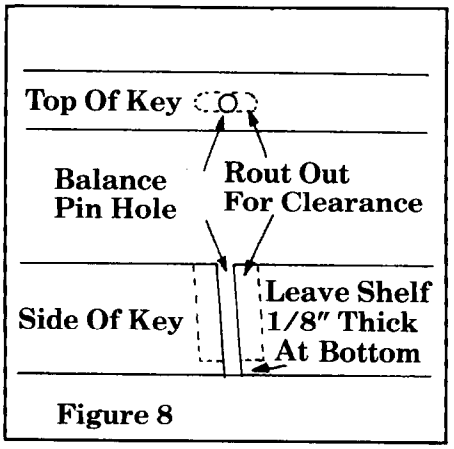


Figure 8

Multipurpose Tool Contest

Robert E. Musser, RTT, of Grand Junction, Colo., shares with us some additional uses for the wire-handled mute we all carry around: *...Its handle can locate screw holes, turn capstan screws and in an emergency can become a hinge pin. It easily pushes back into the rubber to become a mute again.*

What's New?

A new line of technician's tool cases has been developed by Bruce Genck, RTT, of Elk River, Minn. These are made of vinyl covering over a wooden core, with extra-heavy brass-plated steel hardware. The two cases available now are pictured here with tools and supplies, but are sold without them for $145 and $175 respectively. The tool case measures 15 by 10½ by 4 inches, and the stringing case is 16½ by 15 by 6½ inches. The latter has to hold a lot of weight, with space for restringing tools in addition to all the Universals and music wire, so it has a case core ⅜ inch thick.

These cases are built to last a lifetime, as well they should for that kind of money, and they are very neat and professional-looking, specially compared to some of the fishing tackle boxes we've seen around. Available at Schaff.

Replacing Grand Backchecks

Q: *What's the best procedure for replacing grand backchecks? One would think just match the old ones, but what if the new hammer tails or new backchecks are different lengths from the originals? Should backcheck wires be replaced when replacing backchecks? I recently did a Knabe action with the end of the wires in the key not fluted, but flattened into an arrowhead shape. Removal would split the key: the torque of unscrewing old backchecks and screwing on new ones, however, loosened the wires. I finally settled on holding the wire with vise grips while replacing the backchecks. This was slow and tedious and scored the wires. What should I have done?*

Michael Tocquigny, RTT
Spiro, Okla.

A: It usually is best to replace the wires when replacing backchecks because a new bevel will be needed with the new parts and the old wires were already bent, maybe uniformly and maybe not, to the old bevel. Usually if the key splits when the wire is removed it is because the wire was pulled out at a different angle than that of the hole in the key. After measuring the height of the original backchecks, place a dowel or something similar at the base of the wire and pry the wire out with a diagonal cutter as shown in *Figure 9*. the secret is not to try to pry it all the way out with a single bite on the wire, but to keep the wire coming straight out by taking a fresh hold when it starts to go crooked. Two or three bites on each wire will usually do the trick.

Inevitably, especially if the keycaps are short, a few of them will split or pop off during the removal process. Reglue them as required, glue size any oversized holes, and plug and redrill if the caps are really bad. Drive the new backchecks in with wooden mallet so they are the same height as the originals, assuming the hammer tails are the same length as the originals. If not, adjust so that at full dip with the hammer at letoff, the bottom of the hammer tail is 1/32 inch above the top of the backcheck. Fine adjustments can be made, of course, by rotating the head on the wire. When the height is correct, set the bevel (upper bend) space checks to tails, and set checking height (lower end), usually to 5/8 inch from the string on a moderate blow.

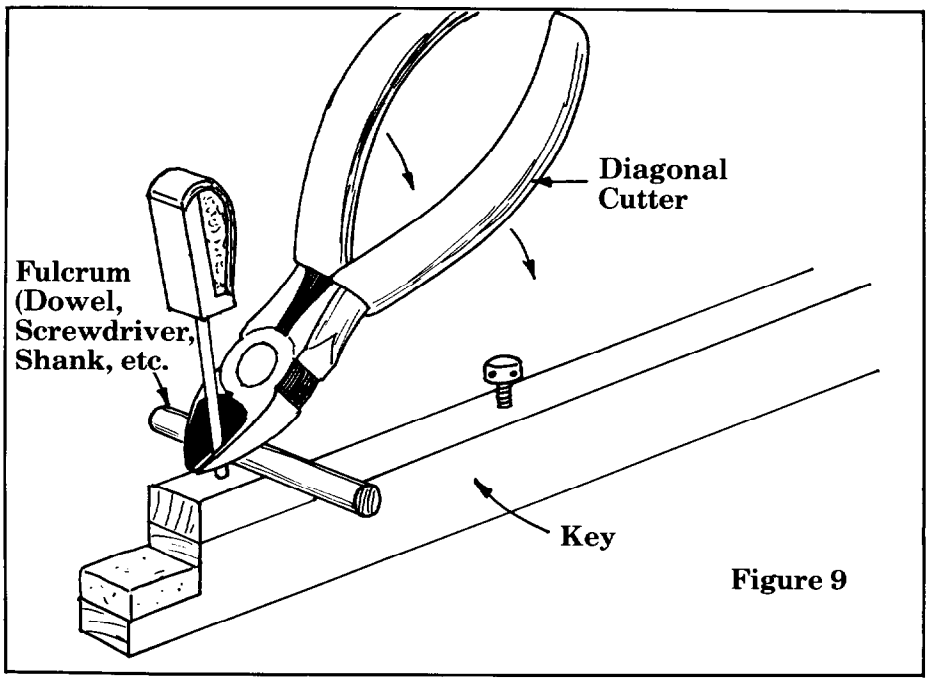


Figure 9

Reader Comment

I enjoyed very much Stephen Brady's article on the history of the grand action, but I was surprised not to see the great French maker Marius listed. In February, 1716, Marius submitted his clavecins a maillets, or harpsichords with hammers, for examination to the French Academie des Sciences, and later that year, they published engraved plans for his instruments (one of which was a vertical). Thus he was at one time very much a competitor with Schroter for claim to the invention of the piano, before Christofori's priority was widely accepted.

This letter is a comment on Steve Grega's problems with key bushing removal on page 10 of the May 1984 Journal. He mentioned animal glue and a type of white glue used on key bushings. I really don't think that he was referring to a piano of recent manufacture that uses the polyvinyl glue, but one in the 50- to 60-year-old vintage. I may be wrong, but I think so. I just rebuilt a 1926 Cable grand that had the very same white-type glue used on the key bushings. Wet or dry heat made the glue rubbery and very hard to remove. I use small wedges made of hammer felt scrap, soak them in water and insert in the key, put a drop or two of water on them every now and then, and after awhile the bushings come out very nicely with no heat at all. I'm sure that this is not news to many of the readers, but thought it would help answer Steve' question. As to the type of glue it is, I have no idea.

Howard Jackson, RTT
North Central Louisiana Chapter

I'd like to make a request for an article (or series of articles) in the Journal. It's something that affects every one of us, and that is how to price our services. Not how much, but the process of pricing our individual repair, tuning, etc., once the individual has decided what he wants to make in a year, say. There could be a variety of approaches. For the person who is primarily a tuner who does small repair, one article that describes the various aspects of the business that he must account for beyond simple tuning — phone time and bill, mailing time and expense, auto expense, etc., etc. And for the rebuilder, a comprehensive article on shop management that will permit one to set one's hourly rate to reflect the total investment of time, rent, tools, and miscellany that make up the whole picture.

The whole picture is something a lot of us lack, I think. I know a gentleman in my own chapter. I regard him as probably our finest craftsman and at the same time probably our worst businessman. It's a real shame that he does not fully enjoy the fruits of his superior labors. Behind him, to a greater or lesser degree, fall many of the rest of us. I think a lot of the members of our trade are not particularly good businessmen.

Those of us who really enjoy what we do and have goals for the growth of our business, our skills, and a better physical plant to do our best work, need such material so that we can best create the future for ourselves that we envision—

Will Truitt, RTT
New Hampshire Chapter

This sounds like an excellent idea — now who will rise to the challenge?

Please send all technical material for publication to me at this address:

Jack Krefting,
Technical Editor, PTJ
c/o Baldwin
1801 Gilbert Ave.
Cincinnati, OH
45202

THE
ECLECTIC'S
NOTEBOOK

Flagpoling And Ratcheting

Christopher S. Robinson
Connecticut Chapter

Someone in a fairly recent issue of the *Journal* used the term "flagpoling" to describe a condition where a tuning pin is loaded, or stressed, in a position either farther forward or farther backward of its natural inclination due to excessive tightness in the pinblock, excessive length before it enters the pinblock, lack of support at the point it passes through the drilled plate hole, or a possible combination of these causes. It is a wonderful term and its author should be awarded a medal for descriptive lexicography.

Generally, the term outlines a series of conditions which produce a piano on which it is very difficult, or sometimes apparently impossible, to achieve a correct tuning. The brand new piano with extremely tight tuning pins is a premier example of this problem.

Another situation which presents an obstacle course for the piano tuner is "squeaky" or "ratchet" strings. When a music wire has accumulated a certain amount of rust or corrosion around its perimeter, and does not wish to pass through its termination and rest points in graceful and gradual increments, it has a tendency to jump in pitch by several Hertz at a time in either an upward or downward direction, depending on how the tuning pin is being moved. All of us have encountered instruments with this condition. The string does not directly "follow" the movement of our tuning hammer, but ratchets upward and downward in increments which are too large for the small adjustments we are trying to achieve.

How do we deal with the problems of flagpoling and ratcheting? Well, in a word, by using our imagination combined with the very definition of the primary tool that we use to do our work. While the techniques about to be demonstrated are both unusual and unorthodox, they offer a tangible solution to the problems of tuning instruments which are structurally sound, but "not tunable" from a control point of view.

Let's begin with the very nomenclature of that essential tool, the tuning hammer. In the years of the primacy of the harpsichord, as well as the early developing fortepiano, the gooseneck tuning lever was unknown. Instrument players, makers and teachers (there were no professional "tuners" at the time) used a T-shaped tool that not only had the requisite slot for twisting the wrest pins, but a double-edged blunt handle specifically designed for driving tuning pins and a hook for forming the twist-loop which was to be found at the hitch-pin end of every individual wire. A fine illustration of this tool can be found in *Three Centuries Of Harpsichord Making* by Frank Hubbard.*

"

How do we deal with the problems of flagpoling and ratcheting? ... by using our imagination combined with the very definition of the primary tool that we use to do our work.

"

Since these early instruments used tuning pins which were not threaded, the usual state of affairs found the pins slowly working their way out of the hole in the wrestplank. Therefore, it was necessary to drive them back into place at regular intervals. In addition the primitive drawn iron wire was highly prone to oxidation and therefore often stuck to the nut, or front (wrestplank) bridge, which was an irregular trapezoidal piece of wood drilled for iron or brass pins. It was quickly discovered that the shock of driving in the tuning pins also broke the rusty-iron-to-wood bond and allowed the instrument to be tuned without excessive string breakage. Thus we have the genesis of the term "tuning hammer."

Aside from the fact that we as piano tuners do not have to deal with escaping tuning pins, the ancient method of breaking the string loose has a great deal to teach us.

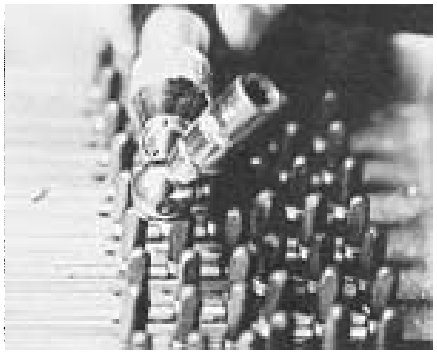
Suppose we are tuning a piano where the tuning pin behavior by itself is just fine. However, the string seems to jump, or ratchet,

* *Harvard University Press*, 1967, Plate XXXII, Figure 27.


1


2


3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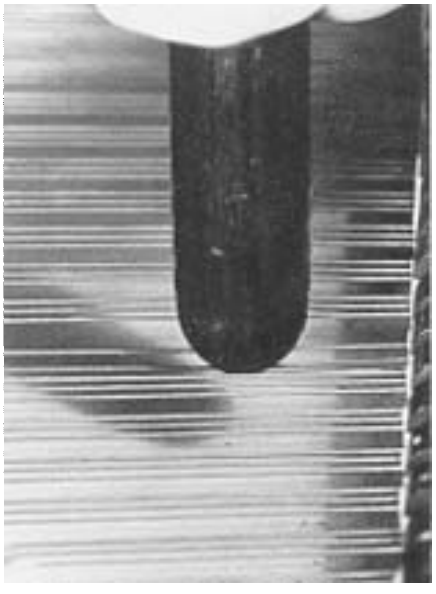

6

through the agraffe at its own pleasure, and in increments which are far beyond the point at which we want it to stay. The technique for handling this conundrum is to twist the tuning pin just the amount that your experience tells you is necessary or the proper adjustment of pitch on the wire to which it is connected. Then, looking carefully at *picture 1*, raise the top of the head of the tuning tool so that the pin may be given a firm, but not violent, blow in the direction of the front of the piano (towards the top, for uprights) as shown in *picture 2*. The idea here is that the tuning pin has been properly *loaded* (stressed) so that under correct circumstances, the wire would be tensioned to the degree necessary to maintain correct pitch. Since the wire will not *follow* the pin, we must encourage it to do so by breaking it loose from the string rests and agraffe. The shock administered by our tuning hammer will provide the required impetus to move the string through its recalcitrant bearing points. This technique also works very well in reverse, as illustrated in *pictures 3* and *4*, for letting *down* pitch on wires that will not follow their tuning pins, and for fine adjustments of intonation where the tuner has overshot when using the initial raising technique.

Now please look at *pictures 5* and *6* for an example of how to handle flagpoling tuning pins, as well as ones that creak and jump. With the pitch of the subject note set slightly *above* the level at which it is desired, the wire itself is gently but resolutely struck with the heel of the tuning hammer at a point toward the middle of the speaking length of the string. Depending on the amount of force used (more than a little is too much!) the pitch of the string may be brought down to the required point. Please note that it is possible, with practice, to tune within 1/2 cent employing the techniques described in this article. Using the heel of your tuning hammer is obviously a method that can be utilized for only one string in any group of three, the other two being tuned *afterward*. But it is possible to use the pin-jabbing technique to control as many individual strings as may be wished. Also, as indicated by *picture 5*, that trick is applicable only to grand pianos. Pin-jabbing is effective and readily appropriate to all pianos.

As with so many of the skills associated with the piano service trades, these approaches must be learned and mastered. The next time a piano with some of the described mechanical tuning problems are encountered, take some time to give the tuning hammer the use of its namesake. Thanks to Ray Zeiner for the fine photographs.

Early Advances In Equal Temperament

Jack Greenfield
Chicago Chapter

Use of Equal Temperament During Baroque Period

Although Zarlino, Salinas and Stevin had determined precise string length ratios for equal temperament by geometrical and mathematical computations before 1600, the development of practical accurate methods for keyboard tuning took several centuries. Unison tuning to the monochord was unsatisfactory.

In Pythagorian tuning with just fifths or 1/4-comma temperaments with just major thirds, the just intervals were easily determined aurally by making them "sonorous" and beatless. Beatless major thirds served as a check on accuracy of 1/4-comma tempered fifths, for example, the tempering in the series C-G-D-A-E to produce beatless CE. In equal temperament, however, with all fifths and major thirds as well as other intervals tempered, it appears that the early tuners knew of no checks for accuracy to verify their judgment in tempering.

Early tuners were aware of the relative size of the fifths and major thirds of Pythagorian, meantone and equal temperament intonations, but the writers of tuning instructions in old documents were vague and inaccurate in indicating the amount of tempering. Typical terms to describe intervals were "a little sharpish," "somewhat flat," "as sharp as ye ear will bear" and others just as indefinite.

The first writer to recommend beat counting for equal temperament was Mersenne. In directions written in 1636, he specified a beat rate of one per second for fifths but did not indicate location on keyboard. It is assumed he was referring to notes in the middle. Seven years later, in 1643, the French instrument maker Jean Denis wrote a book on harpsichord playing which contained instructions for a temperament with all fifths equally lowered slightly but gave no indication of the size of the thirds. If these instructions were meant to include the interval between his final $G^{\#}$ and initial E^{b}, the intonation was equal temperament. Denis' book became fairly popular and was republished in 1650.

The earliest major composers mentioned as probable users of equal temperament by Lindley in "Temperaments," *Grove Dictionary of Music* (1980), were Frescobaldi (1583-1643) and his pupil Froberger (1616-1667). Documents also show that equal temperament was not at all uncommon by the end of the century. A letter by Dr. John Wallis published in the *Philosophical Transactions* of 1658 refers to the practice of tuning organs in equal temperament. In 1702, Sebastien de Brossard, a minor French composer living in Strasbourg who authored books on music, published a dictionary of music in which he commented on the use of equal temperament as one of the established practices.

"Typical terms to describe intervals were "a little sharpish," "somewhat flat," "as sharp as ye ear will bear" and others just as indefinite."

Tuning instructions which can be interpreted as equal temperament written by Godfrey Keller were initially published in 1707. Keller's method was widely circulated, appearing in later books of music instructions published in England by other authors as late as in the 1760s. Keller's directions are another example of inaccuracy. He specified that the fifths be made very flat and the major thirds be made very sharp, an impossibility as we judge interval size today.

Possible Use Of Equal Temperament By Italian Composers

In light of the present views that the well-tempered intonations of Bach and Germany were different, Domenico Scarlatti is considered

the most eminent harpsichordist of the late Baroque period who may have composed for equal temperament. Although Scarlatti was born about a century later, the influence of Frescobaldi's ideas was reflected in Scarlatti's experimentation with chromaticism and new harmonic relationships. Both Frescobaldi and Scarlatti served as organists at St. Peter's in Rome at some time during their careers.

According to Ralph Kirkpatrick's detailed discussion in his biography of the composer, Scarlatti based all the harmonic structures of his later compositions on the principle of equal temperament. Even though the largest number of compositions were written in keys bearing the fewest accidentals, Kirkpatrick reached his conclusion on his analysis of harmonic structure, modulations, tonalities and other characteristics. Scarlatti's choice could also have been determined by selection of the key in which the uneven conformation of the keyboard would be most favorable from the standpoint of fingering and execution.

> "In 1732, Giustini published a set of 12 sonatas, the first known to have been composed for the piano."

Outside of Spain and Portugal, the only other country in which Scarlatti received recognition was England. He had little influence in Italy. There were other, less famous, composers of keyboard music who lived in Italy who may also have used equal or close to equal temperament, judging from the range of chromatic notes in their compositions. Francesco Durante (1684-1755) was a distinguished church composer, teacher and harpsichordist at Naples. Domenico Zipoli (1688-1726) was an organist at a Jesuit church in Rome. Pieces written by these composers and others of the period may be found in some collections of Italian cembalo music now in print.

Another contemporary composer of special interest is Lodovico Giustini of Pistoia, a small town near Florence. In 1732, Giustini published a set of 12 sonatas, the first known to have been composed for the piano. Giustini's music falls within the range of Cristofori's keyboard and since it uses every chromatic note, the possibility is good that the first pianos were tuned in equal temperament.

Interest in equal temperament also was beginning to grow in Germany in spite of the great popularity of well-tempered keyboard tuning. Even Werkmeister, responsible for promoting the principles of well-temperament, became more favorable to equal temperament later in life and declared it an acceptable circulating temperament. Organ builders were slower to accept equal temperament. Gottfried Silberman and many of his contemporaries were opposed, but after the middle of the century later instrument makers began to build organs tuned in equal temperament.

Spread Of Equal Temperament Later In 18th Century

Another step in the advancement of equal temperament was the 1756

publication of a book by Barthold Fritz with instructions for tuning keyboard instruments in equal temperament. Fritz was a clavier-maker in Braunschweig in north-central Germany. Most of his instruments were small inexpensive clavichords sold to non-professional musicians who lived in the country or in small towns were there were no skilled tuners available.

Fritz's directions written for such instrument owners were the first known for equal temperament in which the major third beat rate was used as a check on the tempered fifths. After going from F to A by fifths, the specified beating of FA was "about the rapidity of eighth notes in common time."

Fritz's book was accepted more widely than anticipated and later editions were published in 1757 and 1780. The 1757 edition contained an endorsement by Carl Philippe Emanuel Bach (1714-1788) stating that Fritz's aural method was far more useful than the theoretical methods which required difficult computations.

C.P.E. Bach, the second surviving son of Johann Sebastian, and the most gifted, served as a private accompanist for Frederick the Great in Berlin from 1740 to 1767. He moved to Hamburg later to become general music director of the city's five main churches. More than 400 of his solo pieces and about 50 concertos exist today, many still in manuscript unexplored by contemporary pianists. Besides his musical compositions, he wrote an important book published in 1762 on middle-18th-century style and practice in playing keyboard instruments. He is believed to have had a preference for equal or temperaments close to equal.

In a work published in several editions during the 1770s, a contemporary theorist of C.P.E. Bach, Johann Philipp Kirnberger, who was better known for his well-tempered systems, presented an interesting but complicated method for obtaining equal temperament using only just fifths and major thirds. He showed that the ratio obtained by tuning a series of seven pure fifths and then a major third was an extremely close approximation of the value for a fourth in equal temperament. To illustrate in modern pitch units, $C^{\#}$ obtained by a series of pure fifths is 114 cents above C. Tuning a pure major third (386 cents) higher gives $E^{\#}/F$ at 500 cents, the value in equal temperament.

A few years later, in 1782, Heinrich Philipp Bossler introduced a principle used today in some methods. He obtained his first equal temperament major thirds by division of the octave as C-E-$G^{\#}$-C. He then tuned the other notes as groups of fifths slightly flattened, for example, C-G-D-A-E, to coincide with the first major thirds. However, he did not have full confidence in the human ear alone and recommended tuning to a full set of 12 tuning forks for better accuracy.

CONTINUING
EDUCATION

Leg And Lyre Replacement

Stephen H. Brady, RTT
Mark W. Brady
Seattle Chapter

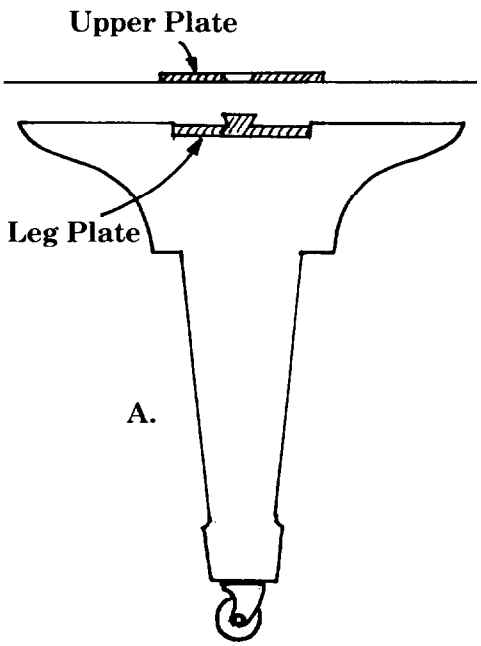
Replacement of legs and pedal lyre on a grand piano is a rarely undertaken job which holds many pitfalls for the unwary technician, but if one is aware of the potential problems and their solutions, the job is well within the capability of the average piano technician.

Recently, we took on the job of replacing a set of legs as well as the lyre on a fraternity house Steinway M which had been pushed part-way through a picture window by some over-enthusiastic frat members. The rear leg was virtually snapped in two, and the pedal lyre was broken off when the lyre top block split along its length. To compound problems, both the broken-off section of the top block and the lyre lock plate were missing, and the front legs were weakened.

Given these circumstances, we decided to replace the lyre and all three legs. We opted to use the existing casters, pedal hardware and leg plates (See *Figure A*), planning to use a new plate on the lyre. We ordered the new legs and lyre directly from Steinway, and included the model and serial number of the piano with our order, rather than ordering "generic" parts from a supply house. Our feeling was that Steinway would send us parts that would be compatible with this 1920-vintage piano, and that we could install them quickly and easily. We were almost right.

The new parts actually varied dimensionally in at least three important respects. First, the front-to-back dimension at the top of each new leg was almost 1/2 inch thicker than on the old legs, rendering the swiveling leg buttons useless. (See *Figure B*). Second, the circular cuts in the leg and lyre tops (intended to accommodate the plates), were approximately 1/16 inch deeper than those in the originals. Apparently, the old plates were slightly thinner but larger in diameter than their modern counterparts. Third, presumably because of this difference in plate diameters between old and new, the screwholes which Steinway had drilled in the leg tops didn't align with the holes in the old plates. The lyre arrived without pre-drilled screwholes.

At this point, we could have decided either to get all new plates;



both for the leg tops and for the underside of the piano (new plates are sold in matching pairs which are ground to interlock properly), or to modify the new legs to accommodate the original plates. We decided on the latter course, primarily because we were working under a tight deadline and couldn't spare the time to order new plates. Having decided to use the old plates, we set about solving the problems related to the dimensional differences mentioned above.

Tackling the problems in reverse order, we solved the third one first by plugging the factory screwholes with glued-in dowels. Before drilling new holes, however, it was necessary to fit the legs to the case, which meant solving problem number two: the plate cutouts were too deep. This dimension is critical because if the plate is buried too deeply in the leg top, the two plates will seize together too early, before the leg is pushed all the way back to its proper position. If the plate is seated too high, the leg will go back to its correct position and the plates will lock, but there will be a gap between leg top and piano bottom, creating not only a cosmetic but a structural defect.

The plate should be installed just below the top surface of the leg (1/64 to 1/32 inch) so as to allow the plates to lock fully while the top of the leg fits snugly against the bottom of the piano. We solved the height problem easily by gluing veneer shims to the bottom of the cutout before tapping the plate in. We planed these shims to the

proper thickness by observing how deep the plate sat in the cutout without shims, then estimating how thick a shim would be needed to bring the plate up to the right height. With the plate tapped in and sitting at the right height, we proceeded to fit the leg to the piano. At this point, the plate was held in the cutout by friction only, due to the very tight fit of the plate edges against the edges of the cutout. After locking the leg in position on the piano, we needed only to twist it slightly to align it squarely with the case (the plate's position within the cutout rotated slightly to record the change), then we gently removed the leg from the case.

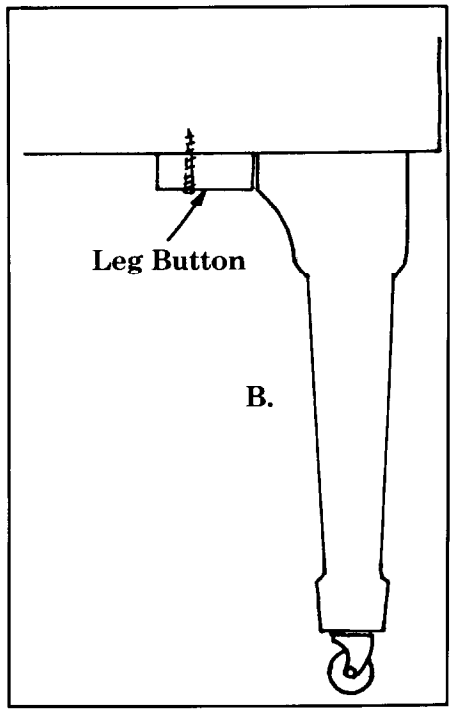
We drilled our pilot holes with the plate in position, then installed the screws, using a little soap as a thread lubricant. With the plates fitted in this manner, we attached the legs to the case, achieving a perfect fit.

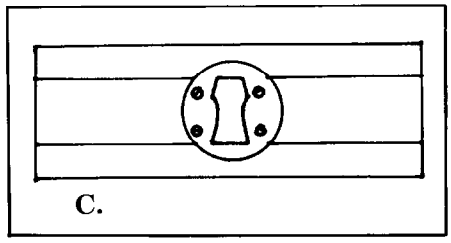
I should mention that between the time we glued dowels in the screwholes and the time that we drilled our new holes, we changed the casters from the old legs to the new. Before doing this job, one should decide whether the old legs are to be saved or not, because although the casters themselves can be popped out easily with a large screwdriver, the metal sockets generally do not come out so easily. In most cases, the sockets are secured by small screws, but still resist removal even after the screws are taken out. If the old legs are going to be thrown away, there obviously is no problem with digging out the sockets, however destructive to the legs it may be. If the legs are to be saved for some reason, new sockets would be a good idea.

The remaining problem with the legs was that the swiveling leg buttons couldn't hold the legs in position because, with the additional thickness of the new leg tops, there was insufficient clearance for the buttons to swing around. Four possible solutions to this problem come quickly to mind: remove wood from the leg button; remove wood from the inner face of the leg top block; mount the leg button slightly farther away from the leg; or drill a new hole for the screw in the leg button itself, changing the pivot point.

We chose option number four, although option three would be just as easy. Options one and two did not appeal to us because of the amount of wood that needed to be removed in this instance, but they might be fine in cases where the discrepancy is smaller.

With the legs solidly in place, our attention turned to the lyre. Here it was necessary to replace both the lyre plate and its female counterpart in the underside of the piano with a matched set of new plates. Again, plugging the screwholes and drilling new ones were necessary operations as we installed the upper plate. The lyre was more difficult to align than the legs were, mainly because the cutout in the lyre top block was much larger in diameter than the plate we had to put into it, so there was no friction fit. We used a very thick epoxy putty (it comes in ribbon form, and is kneaded to mix the two components) to tack the plate in position for fitting. In retrospect, I think a less troublesome method in this kind of situation would be to scribe lines on the lyre top parallel to the front and back edges of the lyre top as shown in *Figure C,* and to do the same on the underside of the piano when installing the upper plate. The plates could then be





Plan on about three hours for a job like this and take the following materials if you're doing the job away from the shop.

1. Electric drill and bits, including some bits larger than quarter-inch.
2. Extension cord with adapter
3. Wood veneer scraps
4. Assorted large wood screws
5. Large screwdriver
6. Extra leg plate sets
7. Epoxy ribbon putty.
8. Tri-square
9. Rubber mallet
10. Supports for piano case when legs are removed (chairs or sawhorses)
11. Saw, chisels, small plane
12. Carpenter's glue (like Titebond) and assorted dowels
13. An assistant (preferably someone with a strong back)
14. A cloth to protect the carpet and furniture in your work area
15. A small vacuum cleaner

installed square to their respective case parts, which should provide a good alignment for the lyre itself.

Finally, the factory sends lyre brace sticks which are on the long side (better than too short!) so these must be cut to fit.

To summarize the procedure for fitting with old plates:

1. Plug existing holes, if any, in new leg tops
2. Install casters
3. Fit plate to proper height, using veneer shims
4. Make sure plate is snug in cutout, ensuring tightness if necessary with veneer shims around perimeter or epoxy putty
5. Install leg, rotating to square with case.
6. Remove leg carefully and drill screwholes through holes in plate.
7. Install screws, tightening firmly and rechecking plate height.
8. Attach leg to piano
9. Alter leg button to work properly with new leg.

HAMMERS AND MUSIC

Profundity And Engagement

Ari Isaac
Toronto Chapter

Before we get our farm boots on, figuratively of course, and head over to the shearing compound, from there to the felt-making plant and then to the hammer-making shop, let us look at the last two standards by which art — 19th-century art in particular — is judged. The two standards are profundity and engagement. They may, for our purposes, be considered as one.

Great art is the universal language of intimate communication. It addresses us on a deeper, more personal level than the casual, the everyday, the mundane or the parochial. It attempts to communicate not only with our minds but with our emotions. Great art, can, therefore, move us, move the direction and intensity of our emotions, given only that we come to it completely open, like children to color. Engagement, for lack of a better term, is the message communicated by a great work of art, the abiding impression a work of art leaves us.

How can a piano or a hammer transmit the profundity or the engagement in a given piece of music? In bridging the mechanical and the artistic, let me use as an example the human vocal cords. It is easy for us to change the timbre of our voice to express an infinite variety of vocal color gradations depending on the weight or importance of what we wish to express. We can easily make our voice sound hollow, throaty, reedy, flat, plaintive, harsh or soothing. We change the timbre of our voice to achieve a desired effect on our listeners.

Consider, now, the hammer in the piano as the pianist's musical equivalent of her or his vocal cords. It should be clear that we will expect from a hammer not merely a range of volume gradations — a straightforward mechanical progression — but a wide range of tone color gradations or a controlled setting in motion of different combinations of string segments concurrent with the activation of the full string length. These tone color gradations or nuances are the building blocks of musical profundity. To be an adequate tool with which to activate the desired combinations of string segments along with the fundamental or full length of the string, the hammer must be built with a capacity for a variable impact; not variable merely in intensity but variable in configuration as a function of applied force.

We cannot expect a variable impact characteristic from a very hard or a very soft hammer; these hammers will exhibit largely invariable or static impact patterns throughout the volume range. In the one case this is because the felt has been hardened to the point of allowing the fibers no flexing upon impact, thus rendering the hammer an inefficient transmitter of energy to the string. In the other, the felt has neither density nor is it under enough tension, so that the hammer acts more like a poor damper than a hammer.

> "Great art is the universal language of intimate communication. It addresses us on a deeper, more personal level than the casual, the everyday, the mundane or the parochial. It attempts to communicate not only with our minds but with our emotions."

In a hammer made to be an efficient tool for the production of tone color gradations, the outer felt layers have to be under maximum tension overlaying a core of highly compressed felt. The impact characteristics such a construction gives the hammer allows for a variable impact pattern as a function of applied force. Up to the volume of mezzoforte, a hammer built in this way will produce tone by the flexing of the outer felt layers. The impact is structured to possess a degree of push rather than consisting only of a sharp rap. The pushing element of the impact is responsible for the production of strong fundamental. A sharp rap by itself cannot adequately move the full string length. Beyond the range of mezzoforte, the flexing of the outer layers is increasingly restricted by the twisted wire or the split cotterpin, causing the underneath core of highly compressed felt to become an increasingly powerful element of the impact structure. Such a hammer functions both as a soft and as a hard hammer: at the low end of the range it has more give, allowing it to function like a soft hammer, at the high end of the range it has much less give, causing it to function like a hard hammer. In between these two extremes such a hammer delivers to the pianist a wide range of tone color gradations so essential for the production of a musical piano tone capable of musical profundity and engagement, in the absence of which the finest qualities of piano music will not be represented.

It's The Little Things That Count!

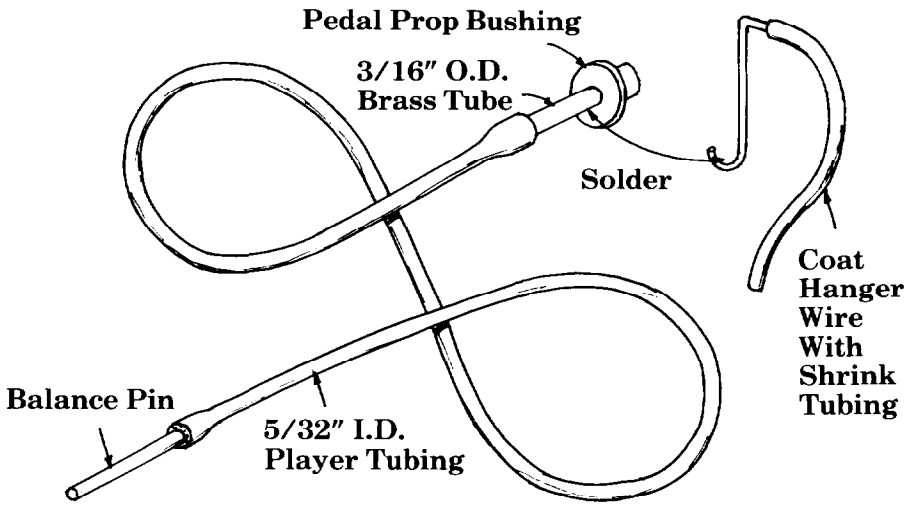
Gerald F. Foye
San Diego Chapter

Here is a device that might be of benefit to some technicians, especially those tool freaks who like to tinker.

The concept is not new, naturally, but compact design is — I call it a "mono-stethoscope." It is useful for tracking down problem sounds in pianos and leaks in player pianos.

The device is very simple except for the ear mounting which is the hardest part and requires trial and error and soldering. However, the device can be used without the ear clip as long as someone else is available to bang on the piano while the technician probes with the listening device. For a one-man operation, the ear clip is required.

Components are simple: a couple of feet of 5/32-inch diameter player tubing, a 3/16-inch brass section of tubing (a player piano nipple or tubing from a hobby store), a pedal prop bushing to fit in the ear, a balance rail pin for a probe and, if you want to go through the difficult part, a section of coat hanger wire for the ear mounting clip with a section of heat-shrink tubing over it for protection. The tubing was purchased at Radio Shack and shrunk with a hair dryer. With rubber components removed, the clip was soldered to the brass tubing.



Coming Events

Date	Event	Site	Contact
Sept. 30-Oct. 2, 1984	South Florida Regional Convention	Ft. Lauderdale	Mort Zack 3210 Holiday Springs Blvd., Apt. 304 Coral Springs, FL 33065
Oct. 5-7, 1984	Ohio State Seminar	Ohio State University	Mark Ritchie 5784 Linworth Rd. Worthington, OH 43085 (614) 436-5907
Oct. 19-21, 1984	Texas State Convention	Waco Hilton Waco, Texas	Martin Wisenbaker 808 Cordell, Houston, Texas 77009
Oct. 26-28, 1984	Central Illinois Seminar	Ramada Inn Champaign, Ill.	Cindy Genta 907 Anderson Urbana, Ill. 61801 (217) 328-2691
Nov. 1-4, 1984	New York State Convention	Ramada Inn Clifton, N.J.	Brad Renstrom 67 N. Greenbush Rd. West Nyack, NY 10994 (914) 358-6995
Nov. 16-18 1984	North Carolina State Convention	Radisson Convention Center, High Point	Anthony Thompson 407 Woodlawn Ave., Greensboro, NC 27401 (919) 274-1922 (919) 274-3407
Jan. 4-5, 1985	Arizona State Seminar	Arizona State University, Tempe	Wirt Harvey 5901 Calle Del Norte Phoenix, AZ 85018 (602)945-8515
Feb. 1-3, 1985	NAMM Winter Market	Anaheim Convention Center, Anaheim, CA	NAMM 5140 Avenida Encinas Carlsbad, Calif. 92008 (619) 438-8001

Each One Reach One

Getting The Organizational Spirit

M. B. Hawkins
Vice President

Did you know that most things we do to advance our organization are likely to advance our own businesses? Likewise, things we do that hurt our organon will tend to hurt our businesses. It cannot be denied that conspicuously successful members display a certain duality in this respect. Their personal careers are avidly pursued at the same time they are carrying the ball for our organization. It looks like they are successful to the degree that they can make these two lines of action coincide. Something like a good, clean unison.

This is a kind of organizational spirit that goes along with the many bits of knowledge we collect when we attend technical meetings, seminars, conventions and other gatherings from which we gain information which is beneficial to us in the daily operation of our individual businesses. It is this type of organizational spirit that we verbalize when we share our enthusiasm for the Piano Technicians Guild with beginners in the business as well as those who are in the business but are non-members.

This series of articles will be a mini-study of how members can further their own success and at the same time do the best possible job for our organization. We will call the series "Getting The Organizational Spirit." We were all individuals before we were members and indeed still are, but it is felt that we will become better members as we broaden our outlook and mature our talents. As we do this we tend to set an excellent example toward which non-members can generate. Our fortunes tend to be tied closely to the organization with which we associate ourselves. We want to identify ourselves more closely with our organization and likewise, help others do the same.

In business, organizations as well as individuals have personalities. That this is true is evident when entering many corporate offices, fast food chains and other companies. To a greater degree, certain small and medium-sized enterprises make themselves different. There is a quality you feel even as you look behind the scenes. In our case one would look behind our logo. What we want to find is what Emerson so well called "the lengthened shadow of one person." You, the individual member.

Next month, we will discuss what an organization should expect from its membership. Until then, let's all work at getting the organizational spirit.

New Members

Registered Technicians

Appleton Chapter
Gallaway, Kent B.
820 Liberty St.
Ripon, WI 54971

Nashville Chapter
Houston, Grant M.
P.O. Box 22332
Nashville, TN 37202

New York City Chapter
DiBenedetto, Thomas K.
445 West 50th St., Apt. 3W
New York, NY 10019

Northwest Indiana Chapter
Gorden, Richard L.
1278 Royal Oaks Drive
Monticello, IN 47960

Oklahoma Chapter
Hast, John T.
3824 Putnam Hts. Blvd.
Oklahoma City, OK 73118

Santa Clara Valley Chapter
Kaplan, Roland
1092 Avondale Street
San Jose, CA 95129

Wichita Chapter
Francis, Stephen A.
317 North Walnut
Eureka, KS 67045

Apprentice

Memphis Chapter
Gossage, Jerry D.
1542 Wells Station Rd.
Memphis, TN 38108

New York City Chapter
Deppe Gregory
5377 Arthur Hill Road
Staten Island, NY 10307

Santa Clara Valley Chapter
Kawato Norio
301 6th Avenue
Menlo Park, CA 94025

Meyer, Carl W.
2107 El Capitan Avenue
Santa Clara, CA 95050

Associate

Madison Chapter
Meagher, Joseph E.
742 Oneida Place
Madison, WI 53711

Memphis Chapter
Slavick, J. Phillip
1546 W. Crestwood
Memphis, TN 38119

Student

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Brewer, Jerry R.
339 Salt Ford Rd.
Lawrenceburg, IN 47025

Nebraska Chapter
Swenson, Joseph A.
920 W. 22nd, #16
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Orange County Chapter
Benjamin, Robert E.
17172 Pacific Coast Highway,
Apt. 102
Huntington Beach, CA 92647

Reclassifications

Registered Technician

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Church, Francie E.

Falls Cities Chapter
Presley, Stephen J.

Philadelphia Chapter
Lyon, Ellen J.

Puget Sound Chapter
Craven, Scott H.
Stocker, David J.

Research Triangle Chapter
Johnston, Christian B.

Santa Clara Valley Chapter
Krag, Mark D.

Member-At-Large
Carter, Eugenia J.

Apprentice

Chicago Chapter
Day, Allan H.

Golden Gate Chapter
Lamm, Catharine
Zaro, Dennis P.

Nebraska Chapter
Beck, Edward H.

Santa Clara Valley Chapter
Graef, Clayton W.
Johnson, Michael L.

South Bay Chapter
Howell, Louanne E.

Three of the six members of the 1983-84 President's Club received pins during the convention banquet in Indianapolis. Shown with 1983-84 President Ernie Preuitt, left, are, from left, Sid Stone, Webb Phillips and Willem Blees. Also in the President's Club for accumulating more than 15 Booster Club points were Rick Baldassin, Stephen R. Geohegan and Christine Lovgren. Eleven members made the Restorer's Club for bringing former members back into the Guild and 154 members made the 1983-84 Boosters Club.

Get The
Organizational Spirit!

Member Recruitment Points
June 1, 1984 — August 1, 1984

	Pts.	Mbrs.		Pts.	Mbrs.
Bessette, Roland	5	1	Lillico, John E.	2	2
Betts, David C.	4	1	Lovgren, Christine	25	6
Blees, Willem	4	1	Macchia, Frank S.	5	1
Bryant, Ken L.	5	1	Matley, Wayne O	6	2
Burton, Robert H.	4	5	Metz, J.A.	4	1
Callahan, James J.	4	1	Pagano, Joseph L.	4	1
Churchill, Kenneth R.	1	1	Palm, Stanley S.	1	1
Doss, Harry W.	4	1	Pearson, Walter T.	5	1
Fox, John D.	5	1	Pierce, James C.	4	1
Geiger, James B.	1	1	Rosenfeld, James I.	5	4
Godfriaux, Stan R.	1	1	Schmitt, Jake E.	5	1
Graham, Susan E.	4	1	Schoppert, Robert L.	5	1
Grossman, Matt	1	1	Sierota, Walt	1	1
Harmon, Clayton C.	1	1	Sloan, Kenneth A.	4	1
Hazzard, Nancy M.	4	1	West, Ivan	4	1
Heismann, Barry	1	1	West, Richard E.	1	1
Hitt, Henry L. Jr.	4	1	Wilkinson, Asa	4	1
Holder, Leopold,	5	1	Winters, Kenneth E.	5	1
Jackson, Stephen S.	1	1	Wisenbaker, Martin G.	1	1
Jorgenson, Les O.	1	1	Yonley, Fred T. Jr.	4	1
Leary, Kevin M.	5	1			

The Auxiliary Exchange

From The President

Another convention of the Piano Technicians Guild is history. We had a registration of 76 spouses! Our program was fun... all the way! One lady told me she had always brought handwork to do, but this year she had not been able to do it at all because she didn't want to miss any of the programs the Auxiliary had planned for her. Another told me she always got caught up on letter writing — and this year, that did not happen. She was very involved in the Auxiliary program. We had a great time. In fact, it was hard to imagine that anything else was going on (like an Institute for the Technicians). We just did our own little mini-convention.

Our new editor, **Ginger (Mrs. James) Bryant** of Sacramento, Calif., will be providing you with many of the highlights of the week and of the Auxiliary program. We hope it will make you want to start planning right away for the convention next July in Kansas City. Would you believe that we already have plans for our table decorations at our installation luncheon? We also have some other things already in the hopper. It will be our *international convention* and will include technicians (and spouses — we hope) from various countries. Our program will be geared to an international theme and will be exciting, we can assure you.

We welcome Ginger as our new editor of the Auxiliary page of the *Journal*. Ginger is well qualified and has been involved with the Piano Technicians Guild for several years. We will be changing the format just slightly and Ginger will welcome your suggestions and your contributions. We want to hear from our members. We want to see our members' names in our Auxiliary section. I was reminded again in Indianapolis of all the great spouses we have! You each are very, very special people and we want you to feel a part of us.

Also, some other good news. Mrs. Ernie (Luellyn) Preuitt of Kansas City has volunteered to do our *Newsletter*. We plan to have two of them out in the coming year. There were none last year because we had no one to take on this project. We will have one to you this fall and one in the spring. Again, let us hear from you. You are our Auxiliary! You are the ones who can make these communications (*Journal* and *Newsletter*) come alive.

Yours for an exciting year,
Belva Flegle
President

Report From Indy

Spouses who attended the Indianapolis National Convention and failed to attend the excellent programs arranged by the local host committee missed out on some interesting and informative presentations.

Baubles, Beads And Magic — Anita Kastle, fashion consultant.

Ms. Kastle developed her program around seven basic questions: Do you (or are you)... like what you see when you catch a glimpse of yourself in the mirror?... pulled together? (Do you refuse to go because you don't have the right thing to wear?)... get full value from your clothes and wear them all?... manipulated by sales clerks or someone close to you?... have a favorite color?... dress for yourself or others?... happy with your figure? (She says no one is!).

She conducted a question-and-answer period concerning accessory problems and encouraged ladies to wear hats and make full use of accessories, pointing out how much clothes are a non-verbal way of communicating. Stressing creativity in accessories, she gave examples such as sewing two scarves of different colors and designs together to make one large one that could be creatively arranged. Avoid being a duplicate of someone else.

She held an "on the spot" fashion show, selecting chic **Barbara Fandrich**, of Sacramento as her model. To conclude, she gave the ladies some tips on what to expect in the way of fashion trends this fall: colored gel in hair... front trouser pleats... wild colors and plaids together (but, put together tastefully)... longer hemlines.

Flower Arranging Par Excellence — Ms. Chris Dillon,

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Editor, Auxiliary Exchange
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Sacramento, CA 95825

floral designer, Indianapolis.

Her program included many tips for keeping flowers fresh, arranging them, and concentrated on flowers readily available from your own garden or that could be purchased inexpensively from a florist. She described the few essential tools for arranging: knife or scissors, pointing out that one should never use serrated edges, and a dry block (oasis) for inserting flowers. The oasis is then saturated with water. She said, "The oasis should be about two inches above the container and the corners cut to provide more usable surfaces."

She demonstrated arrangements and her audience was most impressed at how quickly and easily they could be done. She did seven arrangements and then assembled some of them into one outstanding centerpiece. One popular suggestion was for a use for orchid or other flower corsages instead of putting them in the refrigerator to be discarded later along with the remains of some long-forgotten meal. Simply disassemble the corsage and float the flowers in a small "fish bowl" with marbles or colored stones.

Among her tips on flower arranging: cut flowers at an angle, preferably under water. Put them in water immediately, even as they are cut while gathering them from the garden! Sort flowers according to size for a round arrangement. Strip greenery from flowers before arranging to prevent decay. The greenery can be used as part of five-layered greenery between flowers. Use aspirin or 7-Up in water to fight bacteria to keep flowers fresh longer.

At the end of her program, she presented centerpieces she had made to four ladies whose birthdays came between July 1 and 15. The lucky recipients were: **Alinda Allen,** Rogers, Ark.; **Bea Kurk,** Minneapolis; **Hilda Acheson,** Vancouver, B.C.; and **Dorothea Odenheimer,** Los Angeles.

Installation Luncheon

The annual Installation Luncheon was traditional and lovely. The installing officer was **Judy White** of the Twin Cities Chapter. Taking the oath of office for the coming year were: President **Belva Flegle**, Minneapolis, Minn.; Vice President **Mary Louise Strong**, Rome, Ga.; Recording Secretary **Helena Thomas**, Edinburg, Pa.; Corresponding Secretary **Bert Sierota**, Philadelphia, Pa.; Treasurer **Kathryn Snyder**, Robesonia, Pa.; and Immediate Past President **Julie Berry**, Indianapolis, Ind.

Guild President Ernie Preuitt was the principal speaker. The entertainment was provided by the scintillating "Officers Trio," composed of **Belva Flegle**, **Louise Strong** and **Helena Thomas**, liltingly accompanied by **Ginny Russell**. A sing-along followed.

Attend Those Regional Seminars

Attending regional conventions and seminars can be a most rewarding experience for spouses. Nearly all such Guild functions have excellent auxiliary programs. In future issues, I hope to highlight each and every one if *you* will send me the details. In addition to the Indianapolis convention, I was fortunate to have been able to attend two regionals this year.

The first was the California State Convention aboard the Queen Mary in Long Beach. My impression of this magnificent vessel's conversion to a hotel can be summed up by the old bromide, "It's a lovely place to visit but I wouldn't want to live there." I found, as I'm sure others did, that I was always in the stern when I wanted to be in the bow and visa-versa (and I had the blisters on my hands to prove it). It was, however, a thrilling experience and everyone enjoyed it immensely. Since most of the two days was required to tour the ship itself, it wasn't necessary to leave the "hotel" but we did tour the Spruce Goose housed alongside. This is one instance where the oft-misused word "awesome" is appropriate. Standing below the 320-foot wingspan looking to the cockpit five flights of stairs above, one wonders how it ever got airborne at all. When Howard Hughes made a mistake, he made a big one!

A lovely auxiliary luncheon was held in the Black Lion Room, one of the Queen Mary's private dining rooms in her sailing days. **Virginia Sellars,** from Minneapolis, was the person who traveled the greatest distance to attend.

In the spring, I attended the Pacific Northwest Regional Conference in Vancouver, B.C. — my first trip to this beautiful province. President **Karl Verhnjak** and the members of the Vancouver, B.C. Chapter did everything possible to make our visit there a memorable one. When someone arrived for the tour after the bus had departed, Karl personally drove her the several miles to the bus's first stop. Upon his return, he repeated the trip for a second lady who missed both the bus and Karl's earlier trip. This is above and beyond the call of duty and typifies the graciousness of everyone with whom we came in contact in British Columbia.

Tidings & Tidbits

...Little **Charlie Berry** attended nearly every event and, at 11 weeks, already exhibited signs of brilliance by sleeping through all of the speeches...**Bob** and **Ginny Russell** have had some unusual company in their bed lately. At the Pennsylvania State Convention in Erie, it was a piano put there by persons unknown (but suspected). In Indianapolis, Ginny was reported to have taken the action model she won to bed with her since Bob was cuddling up to his "Golden Hammer"...**Willis Snyder** also got a surprise in Erie. Returning to his room late, he found the door blocked by the most decrepit old upright imaginable and displaying an ornate sign reading "Piano Restoration by Willis Snyder" in beautifully scripted "Olde English."

Please Note:

An editor is defined as one who edits, which, in turn, is defined as altering, adapting or defining something to bring about conformity to a standard. As I undertake to edit this, my first issue of "The Auxiliary Exchange," I find I have nothing to edit. Unless you want to change the name of this section to "The Wit and Wisdom of Ginger Bryant" and/or have it consist mostly of the homemakers section of the Sacramento Bee, PLEASE send me something to edit. An interesting item about your chapter, your impressions of a conference or seminar, an interesting anecdote about a fellow member, etc. These are YOUR pages and only YOU can keep them alive and interesting. I only edit.

Ginger

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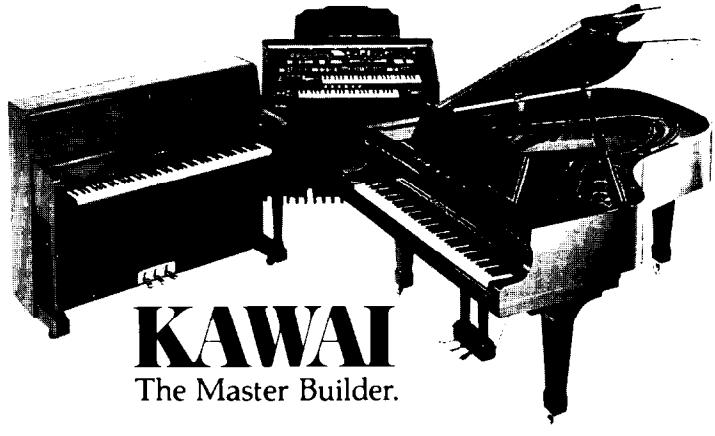

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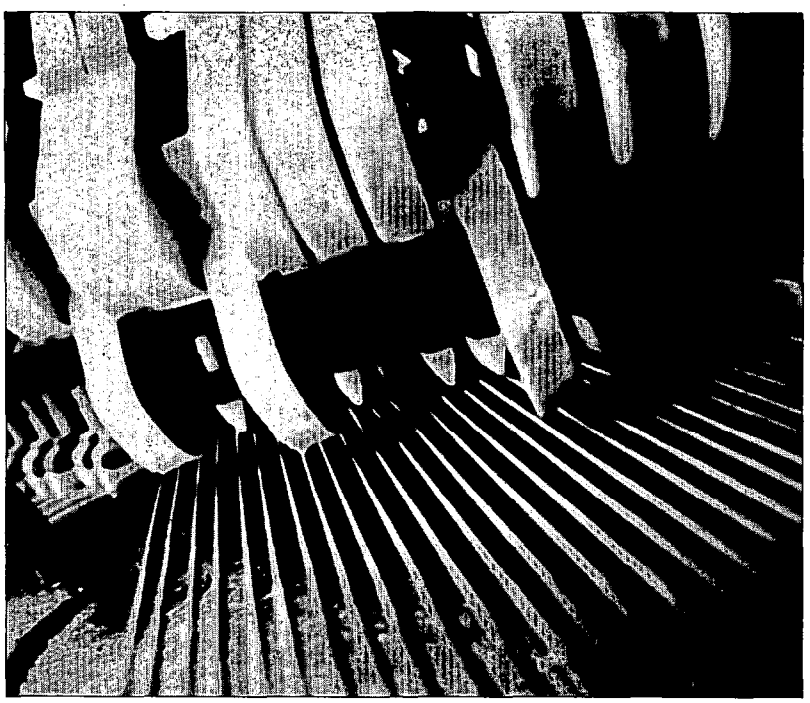

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