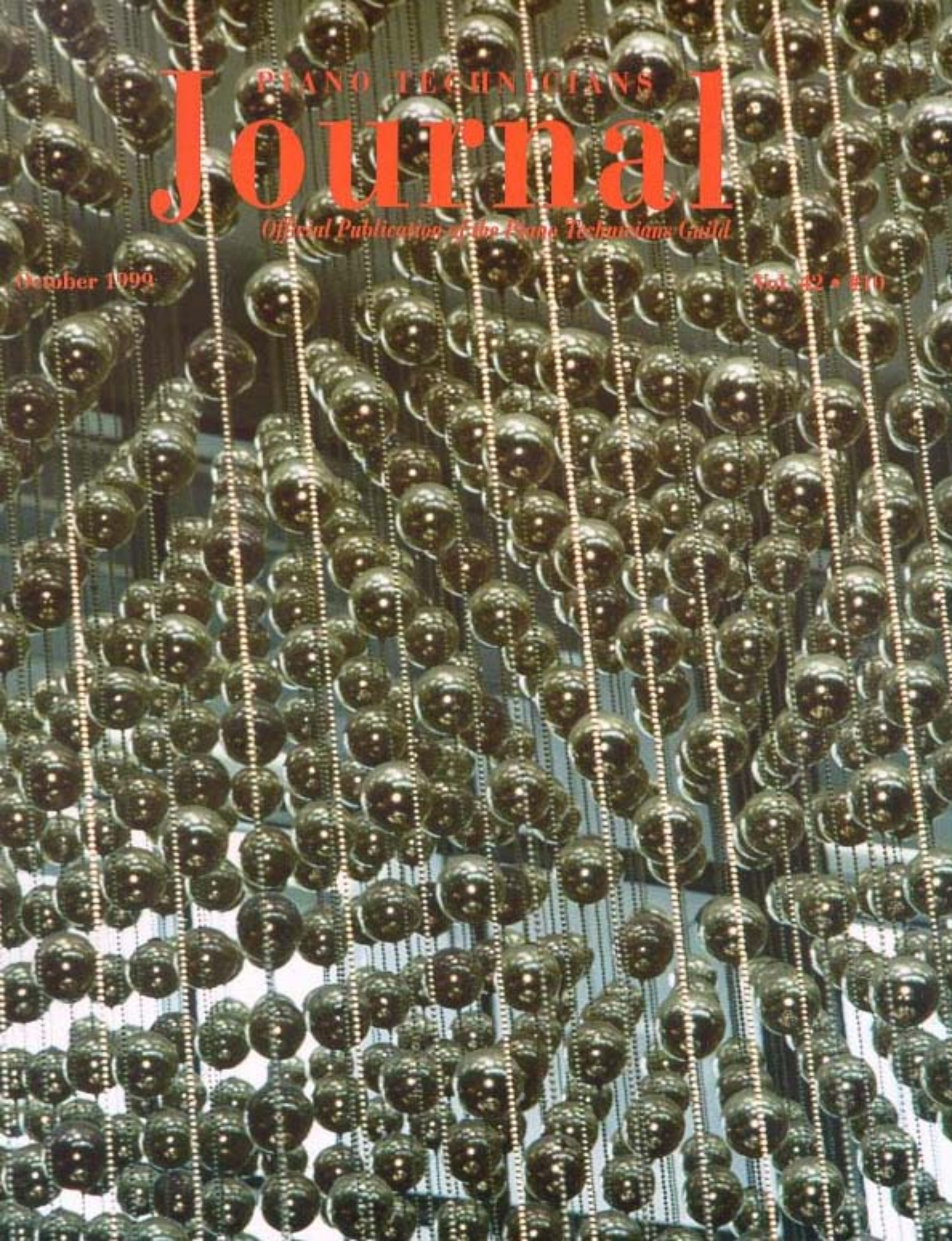

PIANO TECHNICIANS

Journal

Official Publication of the Piano Technicians Guild

October 1999 Vol. 42 • #10

PIANO TECHNICIANS
Journal

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EDITORIAL PERSPECTIVE

Staying With It

Piano technicians are not immune from burnout. I was reminded of this recently when my old friend Jay appeared at my door. Formerly a fine piano technician, Jay left the field a few years ago to return to school and now enjoys a career in business management consulting. In talking with him, I discovered the reason for his early exit from the tuning business. "I tuned 20 pianos a week for about 14 years," he said. "It got to where I just couldn't face the daily grind anymore." It reminded me of the maxim coined by another friend of mine that "each tuner is born with a lifetime maximum number of piano tunings and when your quota is reached, you burn out." I think he placed the number at about 15,000 depending on the individual.

Certainly, the causes of tuner burnout are many and varied, but one common one is the sameness of doing nothing but tuning day in and day out. Many successful piano technicians manage to avoid this trap by mixing in some shopwork with the tuning. Tuning, for instance, on Mondays, Wednesdays and Fridays, while working in the shop on Tuesdays and Thursdays, seems like one very nice arrangement to me. Some technicians have made up for a lack of the shopwork needed for this kind of arrangement by developing skill in certain jobs for the trade, like rebushing or recovering keys.

Steve Brady, RPT
Journal Editor

It's also possible to keep your cumulative number of tunings building at a slower rate by doing fewer tunings per day, say two or three instead of four or five. The truly great thing about being self-employed is that we have a great deal of control over such things as scheduling and fee schedules. The trick is finding the combination of number of tunings vs. tuning fees that works for us. A smaller number of tunings at a higher fee per tuning seems more attractive to me than a higher number of tunings at a lower fee. As Jay put it, "If I could have somehow charged a high enough fee to make a good living on only two tunings a day, I think I could have stayed in the business. That way, I could spend the time I like to spend with each client and each piano. It would be so rewarding."

Another way to reduce the number of tunings per day or week is to supplement tuning income with sales of piano accessories such as benches, lamps, caster cups and humidity control systems.

What worked for me in 1975 would definitely not work for me today. For several years I, too, pursued the 20-tuning week with some success. In addition, I did shopwork many evenings. Eventually it became clear that I couldn't keep this up forever so I looked for ways of recalculating the equation and varying the mix.

It's important for all of us to figure out exactly what it is that we love about our work and to find ways of increasing that pleasurable component. Is it doing nifty repairs, or beautiful rebuilding work or just the joy of hearing a good tuning materialize? Or is it the people you work for? Says my friend Jay, "My favorite part of the piano business was interacting with the people who owned the pianos. Now, my job is all about people; I used to tune pianos, but now I 'tune' groups of people." Although Jay found it necessary to leave the profession in order to regain his equilibrium and job satisfaction, it doesn't have to be that way for everyone. I think that if a tuner can make adjustments to his or her career along the way, the field of piano technology can remain satisfying and enjoyable for a lifetime.

Please submit tuning and technical articles, queries, tips, etc., to me:
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Fax: 1-206-285-7610
E-Mail: sbrady@u.washington.edu

FEATURES

COLUMNS & COMMENTS

DEPARTMENTS

IN ADDITION

COVER ART

The hanging sculpture on the front of this month's cover graces the lobby of the Hyatt Regency Crown Center Hotel, site of the 1999 PTG Convention & Technical Institute. Photographs from the convention are featured throughout this month's issue.

PIANO TECHNICIANS **Journal**
Volume 42 • Number 10 • October 1999

Major piano manufacturers agree on the benefits of Dampp-Chaser:

Bösendorfer

"The usage of Dampp-Chaser humidity control systems effectively compensates climactic changes within the piano's environment and is for that reason beneficial in terms of stability and long term reliability."

Kawai

"Your Dampp-Chaser humidity control systems are the best and most carefully designed systems we have seen."

Schimmel

"The best way to preserve the value of fine grands and uprights is to automatically regulate the relative humidity right within the instrument...with a System from Dampp-Chaser Corporation."
Nikolaus Schimmel

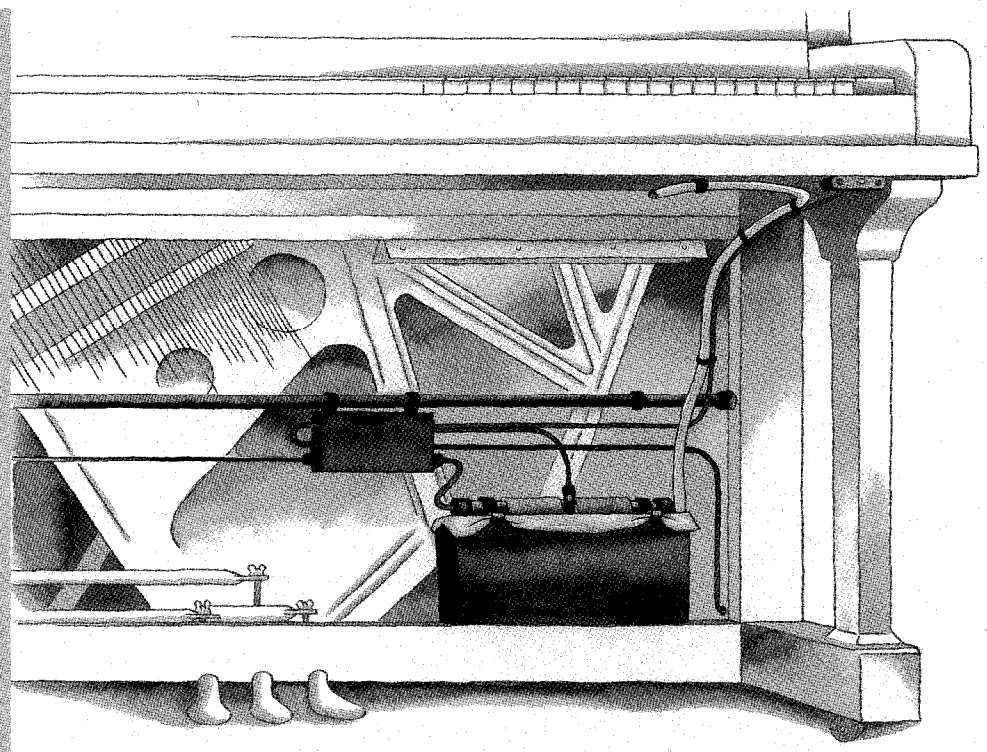
Steinway & Sons

"The installation of a Dampp-Chaser Humidity Control System can, in our opinion, provide a degree of climate control for the piano which may not be otherwise attainable."

Yamaha

"...the proper installation and use of a Dampp-Chaser system can be beneficial to the stability of the instrument."

SAVE THE PIANO



The Dampp-Chaser Piano Climate Control System automatically controls humidity.

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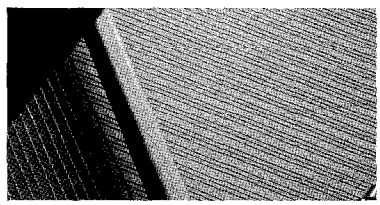
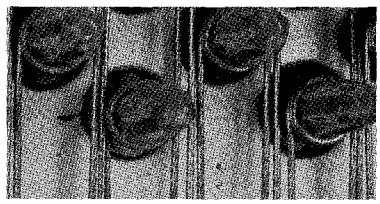
With a Dampp-Chaser System,

- **shrinking and swelling of wooden parts is minimized,**
- **the pitch stabilizes and tunings hold better,**
- **tonal quality and touch improves noticeably,**
- **and the piano's investment value is safe-guarded year after year.**

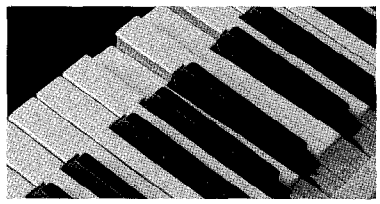
The Dampp-Chaser System prevents...



a cracked or uneven soundboard...



rusted strings and pins...



sticking or loose keys, and sluggish action...

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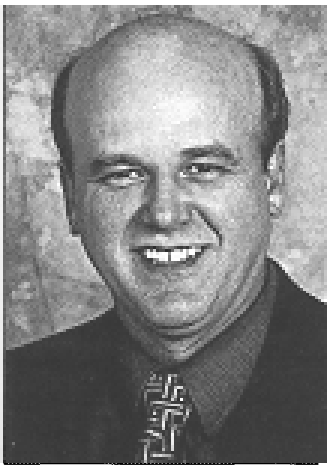
Working Together Means Working Better

It has been my pleasure as PTG President to work with technical representatives and others in the manufacturing sector of the piano industry to create opportunities for education, to bring service-related products to our members and (occasionally) to resolve problems when PTG's interests and those of the manufacturers seemed to come into conflict. I have found these folks to be almost without exception reasonable people who are truly interested in providing a good value to their customers. They also show a keen appreciation for the many common interests that PTG shares with them.



David P. Durben, RPT
PTG President

As individual entities the Piano Technicians Guild and the piano builders have enjoyed a very good relationship. Indeed, it has been quite an easy thing because we have so many common goals and interests.

Consider, for example, who we serve: the PTG was formed to serve the piano service industry first and everyone else in the piano community as it becomes possible to do so. For a manufacturer the sale of a piano to a retailer signals the beginning of a relationship with that dealer, the consumer who purchased the piano and possibly an independent piano technician. Given the nature of the piano as something that requires on-going service (one manufacturer's representative has called it "an on-going work of art"), the manufacturer must share our interest in service.

For a piano technician, his or her contact as a service person may involve a retailer, a consumer and possibly a manufacturer. So as individual members of PTG and the wider industry, we have a stake in a relationship between our association and the companies that manufacture our instrument.

Thus, the manufacturer and the Piano Technicians Guild must be aware of their similar roles of service to the industry and, indeed, we have worked hand-in-hand for many years. In addition to the many excellent classes that are taught by their technical representatives, manufacturers have provided a great number of pianos for various functions, from workshops to concerts and receptions; this in addition to the marvelous talents they have provided at concerts and banquets. Many of their representatives are members of PTG (though not all, and we're working on that, too!) and the sharing of talented people on PTG committees and on manufacturer's staffs has been a key element in our collaboration.

As we continue our cooperative efforts, the executive committee and executive director of PTG will meet regularly with representatives from manufacturers to make our collaboration a successful effort. We are dedicated to friendly, respectful relationships with all of our industry partners, to meet the needs of our members and to make the piano service industry a better industry overall.

David P. Durben

'It's a thrill to be an *All Steinway School* because I really feel that I'm working with the best.'

– Enrique Rosano
Chief piano technician
University of Arizona School of Music

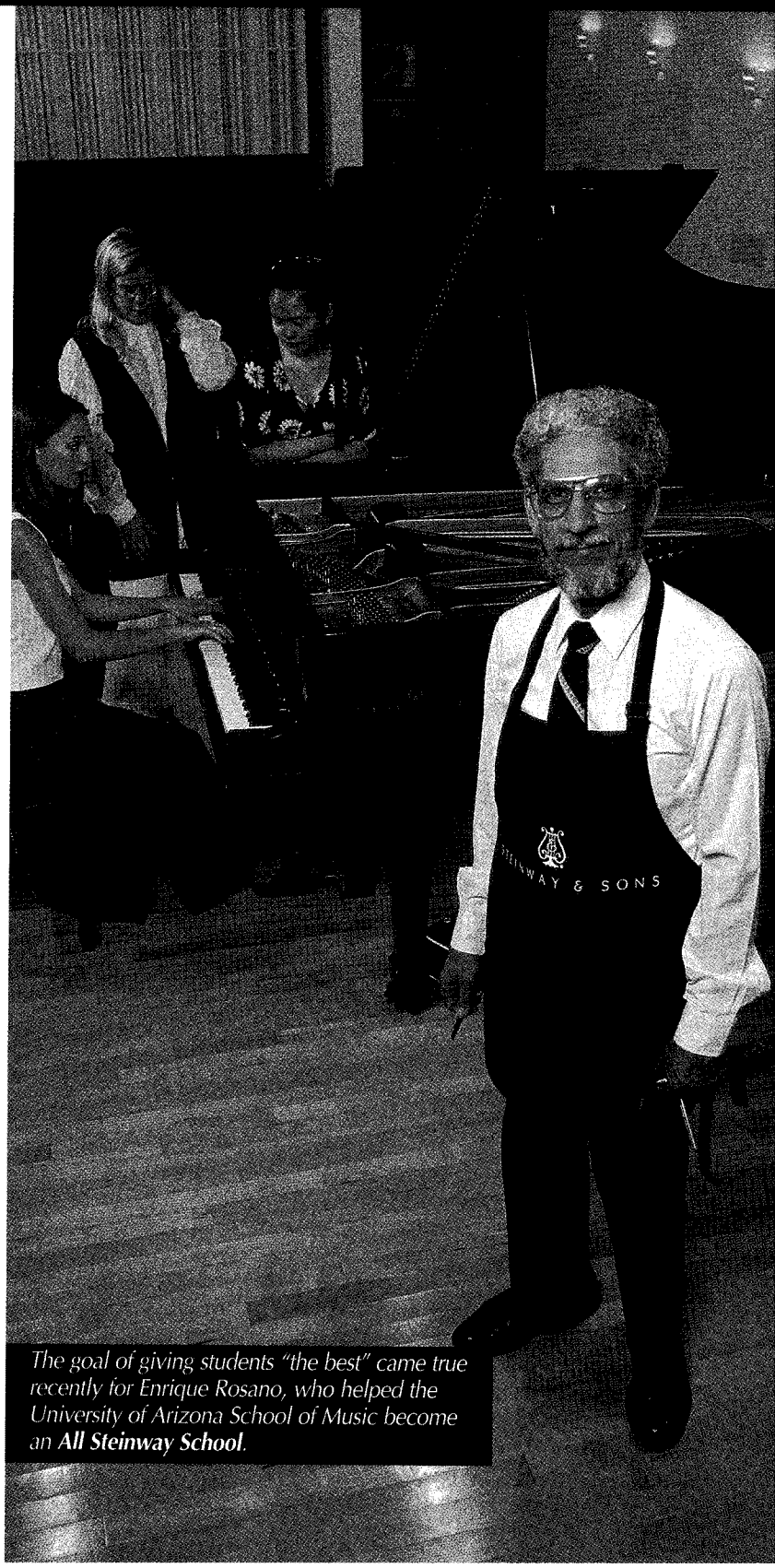
When Enrique Rosano fell in love with the incomparable Steinway sound as a 7-year-old, he couldn't possibly imagine that 40 years later he would be an important part in the purchase of nearly 100 of these exquisite musical instruments.

But as chief piano technician at the University of Arizona School of Music at Tucson, Enrique, indeed, was a key factor in earning this university the highly valued *All Steinway School* designation.

"It's a thrill to be an All Steinway School because I really feel that I'm working with the best," says Enrique, who compares Steinway pianos to finely tuned racecars. "When I prepare a Steinway for a recital, I know its sound will remain fresh and strong from beginning to end. Its consistency and durability are simply beyond compare.

"Each Steinway has its own distinct character that delivers a beautiful, sophistocated, full-bodied sound." And because of his strong appreciation of Steinway quality, Enrique also has become part of history. The university's recent selection of 98 Steinway grand and upright pianos represents the largest single institutional purchase since Steinway & Sons began handcrafting the world's finest pianos 145 years ago.

For information on Steinway & Sons' technical seminars or for a diskette on Steinway's new guidelines for institutional piano service, please contact Gary Green at (800) 366-1853.



The goal of giving students "the best" came true recently for Enrique Rosano, who helped the University of Arizona School of Music become an ***All Steinway School****.*

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Letters to the Editor

Thank You PTG

Today, as I write these few words of thanks, the radio and television stations are heralding the greatness of Kansas City's newest hero, George Brett. I am also an admirer of George Brett, but, with the Golden Hammer in my possession – he ain't the only pebble on the beach.

Several years ago Lue and I had a little four-pound poodle named "Charlie." He didn't know he only weighed four pounds; he only knew he was a dog and he would attack at will. Little or big, cat or dog or squirrel, male or female, it made no difference to him and defeat was no deterrent to him. I feel much like Charlie, but I am content to share gratitude with George Brett. I wish him well and only pray that neither he nor I will ever let our friends down.

RPT Ernie Preuitt with the 1999 Golden Hammer Award at the Annual Convention in Kansas City this past July.

I must give thanks to the Awards Committee for selecting me as a worthy candidate for the Golden Hammer Award. I also thank Ted Sambell for the presentation. I was most flabbergasted after his rendition of Michelle Goodson's letter to the Awards Committee. She is first-class in everything she does. I don't know how she found out so many things about me, but again she is just class.

There is not enough space in this message for me to say all I would like to say, but in as few words let me state: Keith Bowman's construction of the Golden Hammer is like Michelle's — first class. This piece not only shows his craftsmanship, but that he put his heart and soul in it. It is a most beautiful piece of art.

I am also grateful to those who attended the banquet and showed their warm friendship to me. At the reception afterward and the next morning while I was in the Foundation Booth, the congratulations kept coming.

Saturday at noon, Sandy (Roady, PTG Convention Coordinator) packed the award for me and I left immediately to show it to Lue and Sunday morning it went to church with me where the congregation shared in my excitement and pleasure of receiving such an award.

As soon as I show it around for a few more days I will find a place for it in our china cabinet (Lue's suggestion). We are a great bunch of people in a great organization and I am not only proud, but consider myself fortunate to belong to a group like PTG.

Thanks many, many times for being a part of my life.

And to my local chapter ... a special thank you (especially to Lucy and Chris) for the wonderful get together thrown in my honor. I will add the latest plaque received to the "Wall of Fame" in my home.

— Ernest Preuitt, RPT
Past PTG President

Promoting the Guild – Sid Stone Style

We all know how much Sid Stone, RPT has done to promote the Guild, but I think you will nevertheless be astonished at the story I am about to tell.

I had just boarded my flight to Oakland from the PTG Convention in KC when I spotted Sid a few rows up. I swapped places with the fellow in the next seat so that I could spend the rest of the time swapping stories with Sid.

Before we got off the ground, a spectacularly beautiful flight attendant came to us wearing a tie with a piano key design on it and said to Sid, "Everyone loves this tie, but I'd better give it back to you now."

"Oh, no!" said Sid, "I don't want it any more. You keep it." Seems she had admired it as Sid was boarding, and in the ancient tradition of the Bedouin, Sid had awarded her the object of her desire.

Since I had the aisle seat, I spotted her several times during the flight talking to passengers, holding the tie for them to see and pointing back in our direction. Twice she came back and reported that everyone loved the tie. I offered as how it looked better on her than it did on Sid. Sid gave her his card and told her that we were returning from a technicians' convention. I mentioned that Sid was a former president.

About a half hour before the end of the flight, she came by again. Thinking Sid was asleep, she handed me a small package with a thank you note on it. Sid caught on and opened it to find every little giveaway the crew had on hand. The pilot then turned on the PA system and said, "Ladies and gentlemen, many of you have noticed the tie that Carrie has been wearing. It came from passenger Sid Stone, who is a Registered Piano Technician with the Piano Technicians Guild and former president of the Guild." Thus did a planeload of passengers come to learn of the Guild and the RPT credential.

Thank you, Sid, for your tireless service on behalf of the PTG!

— Paul S. Larudee, RPT
Richmond, CA

P.S. Sid's 80th birthday was celebrated Aug. 1. He loves old ties, the more the better. You think I'm kidding?

How Valid Are Tune-offs?

The idea of presenting "Tune-offs" – pitting Equal Temperament against various historical temperaments – originally seemed proper to me at the time that they were done. Over the past year, however, my thoughts concerning them have been reversed. This is based on the following axioms:

1. There has been no evolution of temperament from primitive to superior. There only have been changes throughout the history of temperaments.
2. For each change that was made in history, a new and good

Continued on Page 16

Tips, Tools & Techniques

Ink Eraser for Cleaning Strings

While helping a fellow technician with cleaning rust from piano strings, I remembered I had an ink-eraser holder that's refillable with 1/4" diameter refills. I brought it the next day and it really did help nicely in getting in tight places under the capo bar, up in between the tuning pins, etc. It makes a nice complement to the Polita polish bar.

— Alan Hoeckelman, RPT
St. Louis, MO Chapter

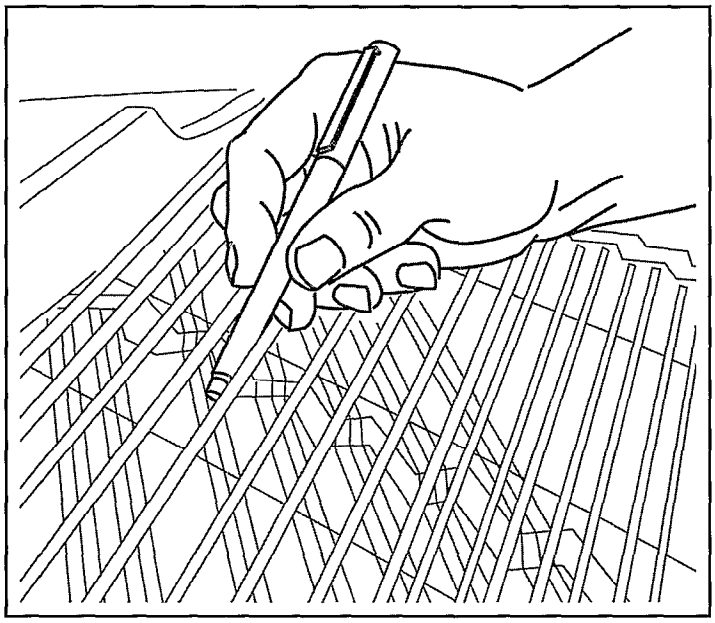

Figure 1 — Refillable ink-eraser holder.

Loose Tuning Pins

I am now using cyanoacrylate (CA) glue on loose tuning pins with good results. I have even done pianos which had been unsuccessfully "doped" with pinblock restorer. I've had no failures with two applications of CA glue with a two-day curing period between applications. I use two 8-oz. bottles of CA on each piano. ***[Editor's Note: The "water-thin" viscosity is recommended for this usage. In addition, make sure you're working in a space with excellent ventilation, because CA fumes should not be breathed . — SB]***

I do a rough tuning following the first application. I think this is important because if the pin must be rotated very far after the second application, the hardened glue will score the tuning pin hole and make the pin looser than it should be and also will result in a poor tuning pin "feel" — kind of mushy, like pinblock restorer. It may hold, but you can't feel the pin being set like you can with fresh wood. The beauty of using CA is that when it is applied properly and the piano is rough-tuned after the first application it results in a crisp tuning feel.

I've also used CA glue on loose bridge pins, eliminating many false beats on the pianos. It also works on loose capstan screws.

— Ken Churchill, RPT
Orange County, CA Chapter

Dummy Tuning Pin

When replacing a broken string, it's not a good idea to unwind the tuning pin a full three turns. The better way to do it is to back it out one-half to one turn and wind coils on the replacement string using a "dummy" tuning pin. In doing so, it can be difficult to get the becket out of the dummy pin.

To solve this difficulty, I simply cut a deep groove down the length of the hole side using a hacksaw. I make the groove about half way through the pin. This allows for easy removal of the becket and coil — just slide them down and off the end of the pin.

— Ralph Tuckfield , RPT
San Diego, CA Chapter

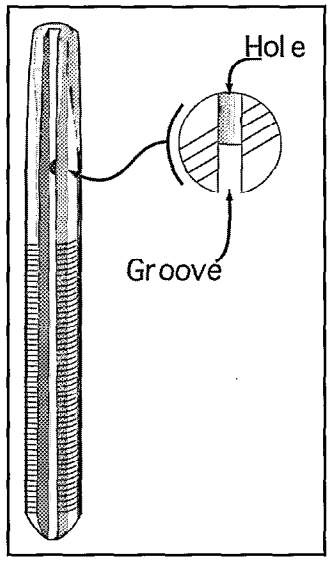

Figure 2 — Dummy tuning pin with groove cut down side.

Treble String "Follow"

Treble music wire cuts little notches into V-bars after 10 to 15 years, causing voicing problems (trashy, whining sounds) and tuning problems. Pitch doesn't follow tuning pin manipulation because the wire hangs up in the notches. Sometimes lubrication at the V-bar and heavy pounding can get you through this for a while, but eventually the results will be string breakage from abrasion in the notches and concert tuning instability.

If the wire is fairly new (stringer just didn't bother to dress the V-bar — shame, shame) you can let the tension down by 1/2-turn in those two top sections, separate the trichords with a wooden wedge and dress the V-bar in small sections by shoe-shining it with emery cloth. Inspect visually with a mirror and by touch with your fingernails. The bar should end up perfectly smooth, bright and clean. Space the hammers ***before*** letting down the strings, then use them to realign trichords.

If the wire is five to 10-years-old, and especially if several have broken — suggesting damage from notches — the top two sections should be restrung, after dressing the bar, of course. You may be able to re-use the existing tuning pins, so don't automatically go up a size.

— Peter Krauss
Reprinted from The Sooner Tuner, *newsletter of the Oklahoma Chapter*

Grand Wippen Retrofit

I have in my care a George Steck 8'-9" grand with a very unusual wippen/capstan configuration. Instead of a cushion the wippens are pinned to a kind of sticker/flange. One end of the sticker is pinned to the wippen and the other is pinned to the capstan. (Thankfully, this end has a set screw!) The capstan is the double-screw type capstan accessible only with an offset screwdriver.

I don't relish the thought of loosening 88 set screws just to remove the stack, nor do I look forward to regulating the hammer blow once I replace the hammers.

If I replace the odd wippens with conventional ones and replace the old capstans with 1" dowel capstans, am I asking for trouble with the action geometry? Does anybody have any experience or suggestions for how to go about changing them? Or is it better just to live with the old parts if they are still serviceable?

—Jack Lofton, RPT
Seattle, WA

Bill Shull: I have a piano in my shop with this pinned capstan setup. From my perspective there are several ways you can go:

1. Keep the design and the original parts. This allows original engineering, which should work fine as long as your replacement hammers are not too heavy, but you will have to mess with the rocker capstans.
2. Install new wippens from the Renner kit and install capstans. This gives you a chance to process action geometry and have a hand at design yourself. Again, you will not want to get too heavy on the hammers and before deciding you will want to play with the configurations. You will want to be sure the capstan/wippen foot contact point crosses the key balance hole/wippen centerline for minimum friction. You will want to regulate out the samples and be sure that all the coincident arcs work at the jack/knuckle point also (hammer center/wippen centerline) and you will want to measure the keystick to obtain the best ratio. I used old Yamaha grand keys from an Ivorite replacement job, cut out the capstan section, trimmed the bottom and glued in place on the key after determining correct location. Get this right; you don't want to go back and relocate later.
3. The cheap retrofit: Do the same as above, but with original wippens. This is what I did on the grand in my shop. Make your own sample wippen foot blocks, cut the bottom of an existing wippen flat and work with your samples until it works, as in #2 above. Renner USA sells several sizes of wippen feet. I think the longest is 21mm, which is what worked for me. Again, don't use hammers that are too heavy. This is a great application for the Renner and Abel light varieties.

Option 3 is cheaper, but time-consuming; doubly so if you make a mistake and have to fix it. Option 2 is ideal. You end up with new action parts, an easy-to-regulate hammer line and a wealth of experience. Someone will have to pay for the parts, of course. Hopefully the client will. It sounds like quite a piano.

Jon Page: Do not be afraid of a rocker-arm action. They are quite stable once you have them under control. They are a low-friction design. Those 88 set screws on the sticker only take a few minutes to loosen and tighten.

Unless the parts are useless, do not replace them just to install more familiar parts. Since you are not familiar with action geometry, this may not be the best candidate for you to get your feet wet. I felt the same way when I first encountered these mechanisms. But after I became familiar with them, I would not change them. Now, I happen to like sticker actions. In fact, today I was delving into the possibilities of installing stickers on a modern action. From the few I have seen the friction is considerably lower by removing the capstan/cushion interface. Lower friction makes for optimum repetition.

The best arrangement I have seen so far is on an Ibach where the sticker had a turnbuckle midway which adjusted as easily as a capstan. The key had the "pin mount" screwed to the keystick. This arrangement added only about five to 10 minutes to the top action removal/reinstallation process. For the added benefit of reduced friction, that is a small price to pay. Convenience isn't everything.

Make it work first. If there is a problem with regulation, determine why. It probably won't be because of the sticker, but rather the hammer length. There are many things to consider.

Pitch Floating

There have been discussions in the past on letting the pitch float a little. My question pertains to doing this on a concert instrument. We have four Steinway model Ds, which usually are tuned or touched up several times a week, sometimes daily. How does one determine which note to use as the pitch standard if one wants to let it float? Almost invariably the low tenor is sharper than the rest, with it decreasing as one goes up the scale, at least after the lowest treble break. The bass is almost always right on. If the piano is roughly the same amount sharp throughout there is no problem. But in the above case wouldn't it be better to just go ahead and lower the sharp portion(s) and tune as usual? That's what I usually do, but have been curious about which note (or area) others may use to determine the pitch level. I use the SAT III.

—Avery Todd, RPT
University of Houston, Texas

Don Rose, RPT: I have kept records for many years of humidity change vs. pitch. The first visit to a piano for me is *always* to strive for A=440. After that, if humidity is not controlled I usually do the following, unless otherwise requested by the client: If the humidity is rising the low tenor will be sharp. The most stable part of the majority of pianos is the first few notes below the bass break. When humidity is higher and the pitch at A4 is sharp I will choose an average of four notes in this area to float pitch. This means I will have to lower the low tenor and possibly raise the treble area. If humidity has gone lower and A4 is flat then I will raise the pitch to A=440. A4 thus becomes a "go" or "no go" as far as pitch correction is concerned.

Continued on Page 14

Continued from Page 12

Roger Jolly: As the humidity affects pitch, it also affects inharmonicity; as the hammer gets a little softer with an humidity increase, the inharmonicity goes down a little, so should the stretch. In concert situations always resample for a new curve/stretch. You may well find less of a variance if you resample. As long as the piano is being used solo, let it float two to three cents. If you have time and a good budget, perfect A=440 every time.

David Ilvedson, RPT: I also use an Accu-Tuner. What I do is check the overall pitch of the A's. I will offset the SAT after the first check to get it closer to where the piano is. For instance, +2 cents. I check the A's again and find I'm still below so I offset to +3 cents and check again. Of course, I am noticing, like you, that the tenor is much higher than the overall piano. When I find the right offset that allows me to make a small tension change to fine tune, off I go. Of course I will bring the tenor down as it has drifted beyond the general pitch of the piano.

Keith McGavern, RPT: After strip-muting I visually read the notes on each piano from A1 up through C7 with my CyberTuner. This gives me a general idea of pitch location in order to make the necessary pitch adjustment. Then I reread the piano as often as necessary to eventually make a decision on where to float the pitch.

Before I owned the RCT, I did the same thing with the SAT unit. Both are invaluable for this one procedure. The visual readout takes very little time, provides a tremendous amount of information and accomplishes the least amount of tuning changes possible when allowable.

Clyde Hollinger, RPT: In your situation I would do what you are doing, Avery. I will probably start floating some of the average home pianos that get tuned only once a year. Here's a hypothetical example: Every June a client's piano is usually in the ballpark. But in one year it is very sharp following two weeks of damp rainy weather. I know that if I lower the pitch to A=440, the next year it is likely to be very flat. I might take it a little in the direction it should go, though, since it will not change evenly across the whole range.

Kent Swafford, RPT: When I get to a piano that I tune regularly I use the CyberTuner Pitch Raise mode to accurately measure the pitch level of the instrument. In Pitch Raise mode RCT automatically measures the pitch level and stores the data of each note. I start at A0 and play the note long enough for RCT to do the measurement, then hit octave up and measure all the A's of the piano, then do the same for all the C's. Then I go through slowly and look at the measurements and determine the average pitch level. I am convinced that this procedure has increased the stability of my tunings because I am *tuning* pianos and not fighting with them over pitch level. This is especially valuable with model Ds that generally do not appreciate having their pitch changed. If I really must change the pitch level of a D, I do the correction pass and then may measure to see at what pitch level the piano really landed and tune it there. It saves some grief and yields good stability.

Plate Location Holes

Yesterday I worked on a new "Crown Jewel" Steinway model and it had plate location holes. The holes in the board were almost closed from lacquer, but they were there. I spent lots of time peering down the plate holes to the soundboard holes, running things down the hole and found that they did not line up! They were about 1/16 - 1/8" off. The plate was closer to the block/stretcher than the holes would have indicated. So my question is, when are the holes drilled and why? Do they use it to install the plate at the factory? Is it used for pulling the plate for restoration later? Is it just for rough location or precise? I really want to understand the purpose, function and process.

— Lance LaFargue, RPT
Mandeville, LA

Stephen Dove, Steinway & Sons: Plate fit takes place immediately after coating of the case. The plate flange is mated to the pinblock and the guide holes are made when the process is finished. The holes are initially drilled into the braces. The piano then moves to soundboard fraizing, where the board is cut to the exact shape of the rim. The board is held above the piano during this operation and lined up using the guide holes. However, it is very difficult in production to line everything up perfectly. To accommodate, the actual bridge pattern is set directly off of a measurement from the V-bar during the bellying. I hope this clears things up.

Sagging Center String

Most of my clients have very old pianos (mostly uprights). I don't have much trouble with the lower or middle section, but that treble section often is a real pain. I use the SAT so I am able to get immediate feedback when the pitch slips. After tuning the center string, I go for the treble (right) string and when it comes in tune, the center has slipped, sometimes a lot. By the time the left string is being worked on, the center may be even flatter than when I started. I start compensating by leaving the center string higher and higher with each set and sometimes this helps, but chasing the pitch of the center string down the musical scale is a real pain.

Eventually, I get the strings to go where I want. They even stay in tune pretty well, but the time involved is frustrating. There are times when it takes me more time to tune from F4 to C7 than the entire rest of the piano. I do a quick pitch raise if the piano is six cents or more away from 440. I will even to do the treble section quickly a second or third time if it drifts flat.

Does anyone have any suggestions as to how I might improve my technique in this area of the piano?

— Ed Carwithen
John Day, OR

Ken Jankura, RPT: By a quick pitch raise, do you mean with the 33 percent overshoot available on the SAT? If so, you should be pretty close

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so that few of the unisons need to be pulled up very much to get where you want to go. If that is not the issue, it might be something in your technique that allows the string to slip. I notice in my own tuning that if I don't use firm test blows in the treble, I am less likely to get the stability I am after. I semi-consciously use extra firm test blows on the center string and only firm test blows on the outers. I can tune the bass and mid-section quietly if I have to, but not the treble. Try Ken Burton's book *Different Strokes* for some good insight into technique.

Clyde Hollinger, RPT: I don't know how experienced you are in tuning, but it may be a hammer technique problem. I don't tune as many old uprights as I used to, but I can usually get a piano with even somewhat loose tuning pins to hold a pitch – so I doubt that it's structural.

You might try this. On a piano that seems to give you problems tune the center string where you want it. Then, instead of moving on to the side strings, play the key 20-30 times with the same force you normally use to tune the side strings. Check your SAT to see if the pitch changed. Normally you will have to take the pitch somewhat sharp to get it to settle and stay where you want it to be. I also like using an electronic tuning device for its immediate feedback in cases like this!

John Formsma: If you are doing a pitch raise, then the pitch can drop quickly requiring more work. Since you have the SAT, are you using the pitch raise feature to do pitch raises? If the piano is close to pitch, then you might examine your hammer technique.

What I do when tuning is to use somewhat of a jerking motion. Actually, it is a quick motion that moves the pin in the block rather than only twisting the pin. With practice very small movement of the pin is possible, which helps stability. If you are twisting the pin rather than moving the pin in the block, then the string will assume its original pitch once it settles. When I first began to tune, I was told to use a smooth motion which tends to allow for more pin twisting than pin moving. So now I concentrate on very small pin movement using a jerking motion.

After the pin is set, slightly sharp, you can flex the pin to set the string where it needs to be. Give it a good test blow and hope it holds. Pin setting can be tricky.

Wim Blees, RPT: I strip-mute the whole piano, and tune only the middle string the first time through. I then will mute only every other note and tune the open strings. After doing those unisons, I check and correct notes by playing octaves, intervals, etc., from the middle up. Finally, I mute the outside strings that are in tune and tune the remaining strings. This procedure gives me greater stability in the upper sections of the piano. Try it and see if it will speed up your tuning.

Steve Pearson, RPT: Many years ago I began tuning vertical pianos with the tuning lever in the left hand. I never went back. It was a tad awkward at first, but almost right away it seemed to produce more solid tunings and less fatigue. This seems particularly effective with the Steinway verticals. I usually shoot for 11:00 to 1:00 hammer position. I still tune grands standing with the lever in the right hand positioned at around the same "time." I have never had stability problems ... at least not that I would admit to anyway. If there is a reasonable balance of vertical/grand pianos in one's clientele, swapping the tuning lever to the other hand seems to alleviate some of the physical problems associated with always working in one twisted position.

Letters to the Editor

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acoustical quality was gained at the expense of another good acoustical quality that always was lost.

3. Because of the latter, no temperament can be judged to be either superior or inferior to any other temperament.
4. In general, historical music sounds best or most effective when performed in the temperament from its own historical period.

Actually, there has not been an evolution progressing from poor to better in any of the so-called fine arts. Who would dare say that our modern authors are better than Shakespeare? Who would maintain that the best of our modern music is superior in value to Beethoven's symphonies?

Since temperaments cannot be rated or judged, the fallacy of the "Tune-off" idea becomes apparent. If tuners nevertheless insist on sponsoring "Tune-offs," then the following conditions should be adhered to: The two pianos being compared must be of the same make, model, size, age, condition, style and finish. The two pianos being compared must be alternately moved to the same spot on the stage before judging. The voicing and action regulation of the two pianos must be identical. One single impartial tuner who is equally skilled in both temperaments must tune both pianos so that the octave-stretch and quality of unisons on both pianos will be identical. The music examples should be very carefully examined because the music chosen, along with how it is interpreted and played, will determine the voting outcome. (Actually, this last qualification nullifies the whole project and shows the futility of this exercise.)

Thus, a "Tune-off" cannot determine which temperament is best; it can only reveal the current taste of the audience. Any temperament can be shown to be desirable if the appropriate music for it is demonstrated on it. To hold a "Tune-off" is similar to asking a group of people to vote on whose music is the best between J.S. Bach, Beethoven or the Beatles. Any of these composers could be the winners depending on the tastes of the particular group doing the voting.

If a program presents two temperaments not as a contest but as a revelation for the future, this could be very beneficial. The current universal usage of Equal Temperament is not good because it has no accommodation for those people of varying tastes. It is especially restrictive to those musicians who prefer the classical music of the 19th century and before. To instruct musicians that many other temperaments in addition to Equal Temperament are available not only would be a satisfaction to many of them, but it also would add much interest and variety to the daily work of the piano technician. To be skilled at tuning more

than one temperament and giving the customer choices greatly enhances the professional image of the tuner. It brings the musician and tuner closer together because of the theoretical and historical knowledge involved.

Currently we have many brands of top-quality pianos such as Steinway, Baldwin, Mason & Hamlin, Yamaha, etc. This is good because varying tastes can be accommodated. It would be terrible if only one brand were available, but this is the deplorable situation right now with temperament.

— Owen Jorgensen, RPT
Northern Michigan Chapter

More on Centering Holes

John Dewey's tip *[TT&T, July 1999]* on centering holes in the ends of rods can be extended to enlarging any circular hole. A typical application would be converting Steinway grand trap lever pivot holes from felt-bushed to nylon bushed. The pivot pins are approximately 0.166" which is the diameter of a #19 drill bit. A #19 hole is drilled into and through a piece of waste board about 3/4" thick. A 1/4" drill bit is substituted for the smaller one and the end of a pivot pin is inserted upward through the hole in the board about 1/4". The trap lever is placed over the pin projection and the drill then can enlarge the hole to the proper size for the nylon bushing to be pressed in. I know many technicians who are expert woodworkers "eyeball" this process. I only did that once. The longer trap levers are extremely sensitive to angular displacement and it is worth the extra few minutes to me.

— Mark Stern, RPT
Los Angeles, CA Chapter

The Executive Outlook

Renewal in a New Era

Hello, I'm Dan Hall, your new PTG Executive Director (ED) and the PTG Foundation ED. My employment was the result of the PTG Board's thorough search and selection process. I am honored to have emerged as the executive selected to provide management to your organization. I have been designated as a Certified Association Executive by the American Society of Association Executives since 1983. My undergraduate degree (business and economics) was earned at the University of Missouri. In 1986, I earned my MBA degree from the University of Phoenix. I am single with one son, Bryan, who is in graduate school at the University of Colorado. I have served as executive director for two national associations during my career. My family's Missouri roots go back to 1837, so I have literally hundreds of relatives in the K.C. area.

How do I like the job? What do I think of the PTG? These are questions I've received since starting employment on July 19 at the 42nd PTG Annual Convention & Technical Institute. First, I love the work! The PTG – it is a proud and strong organization.

I've already seen many ways to help PTG save money. We are applying for sales tax and property tax exemptions. If granted, we will save several thousand dollars in taxes each year. I was successful in renegotiating the contracted hotel deal for Dallas in 2003 (lowering room rates from $104 per room to a lower $99 per room). When taxes and the lower rate are considered this amounts to more than $14,000 savings in members' pockets. I also have successfully re-negotiated the Salt Lake City hotel deal saving PTG a possible $11,000 in fees plus lowered room rates from $119 per room to a tiered-rate structure starting at $99 per room, again saving thousands for PTG members.

Now, my hope is to visit as many of the regional PTG meetings as possible. I want to learn what you, the members, need from your organization. While the PTG Board hired me, at the very top of the organization chart is you, the PTG member. For I realize that if I am able to help the Board serve your needs, then I truly will have been successful as your PTG Executive Director.

A Guide to Bridge Recapping — Part VIII

By Bob Hohf, RPT
Contributing Editor

Cutting the Notches

In last month's article we progressed to the point of drilling the bridge pin holes and marking out the notches. Since the speaking length of the strings must terminate at the point of contact with the bridge pins, and the pins are installed back somewhat from the edge of the bridge, the bridge must be relieved to create a terminating edge through the center of the line of bridge pins. This is the purpose of notching the bridges. There are several types of bridge notches found in pianos. We will discuss the most common, "scooped" notch pictured in Photo 1.

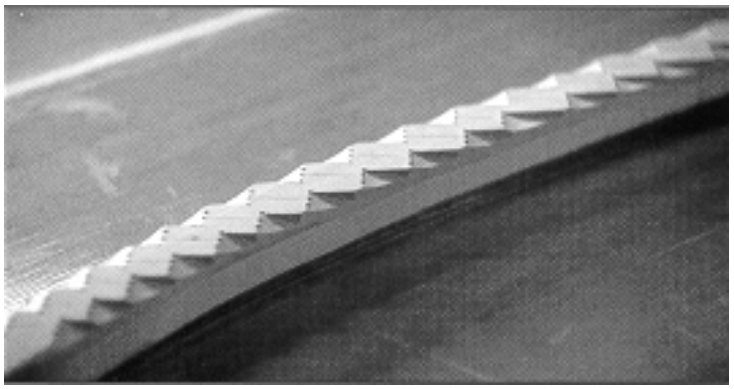

Photo 1

Every trichord unison has two notches, one on the front of the bridge defining the speaking length of the string and one on the rear defining the string tail. Each notch is made with two chisel cuts, one vertical and one scooped. Since the grain of the quartersawn caps is oriented predominantly along the length of the bridges, the vertical cut chops across the wood fibers while the scooped cut is at a more oblique angle to the grain. Notching is the test of how well the wood that was chosen for the caps was selected. Some quartersawn maple will plane and notch very well in both directions, some will work well in one direction and less well in the other and some will not work very well in either direction. Generally, if the lumber works better in one direction than the other, it is best to orient the caps in such a way that they plane better from bass to treble. These caps will notch better on the speaking length side of the bridges and any chipping or other notching problems will tend to occur on the less critical back side of the bridge.

The ability to handle notching problems caused by wood grain is a function of the sharpness of the chisels and the skill of the user. Often uncooperative maple can still be notched in the standard manner by using an extremely sharp chisel taking more and shallower cuts. However, the more notching you do, the more grain anomalies you will encounter and the more tricks you will need to learn. Perhaps the most important concept developed by experience is skill in "reading" the wood grain and discarding problem wood before it becomes a bridge cap.

Photo 1 shows the vertical and scooped cuts and the line where the two cuts meet. The beginning of the scooped cut must be crisp and sharp and must bisect the bridge pin holes. Some pianos were originally notched so that the termination coincided with the *back* of the bridge pin holes. Whatever the tonal advantage or disadvantage to this sort of notching, bridges notched this way have proven more prone to splitting to relieve the force of side-bearing. To my knowledge there is no manufacturer today that continues to notch at the back of the bridge pin holes.

There is no *one most correct* method of cutting notches. I have seen several that can all produce satisfactory results. Far more important than the details of a particular method is the skill of the craftsperson behind the tools. Whatever method you decide to use, practice until you can execute the steps with confidence and consistency. No matter how much care and precision have gone into the recapping job to this point, it can all be undone by a poor notching job. Good, clean notching with sharp terminations is essential to good tone production.

The notching method I prefer uses five custom-ground chisels. Four of these chisels are pictured in Photo 2. Chisel C is used for chopping the vertical surface of the notch, chisels A and B are used for roughing-out the notch bottom, and chisel D is for cleaning up the corner of the notch. Chisel A is a 1" firmer chisel ground with a secondary bevel of 17-18 degrees and honed with a primary bevel of about 20 degrees as illustrated in Figure 1. These bevels are more acute than standard and produce a much sharper cutting edge. However, the trade-off is a weaker and more easily spoiled cutting edge. Chisels ground and sharpened with these angles can cut the hardest maple like butter, but force must be applied directly in line with the cutting edge. Otherwise, the chisel will require re-sharpening very quickly. Chisel B is a 1" framing chisel ground and sharpened the same as A. Chisel B is used to rough-out notches in areas of the bridge that are hard to reach with a short chisel.

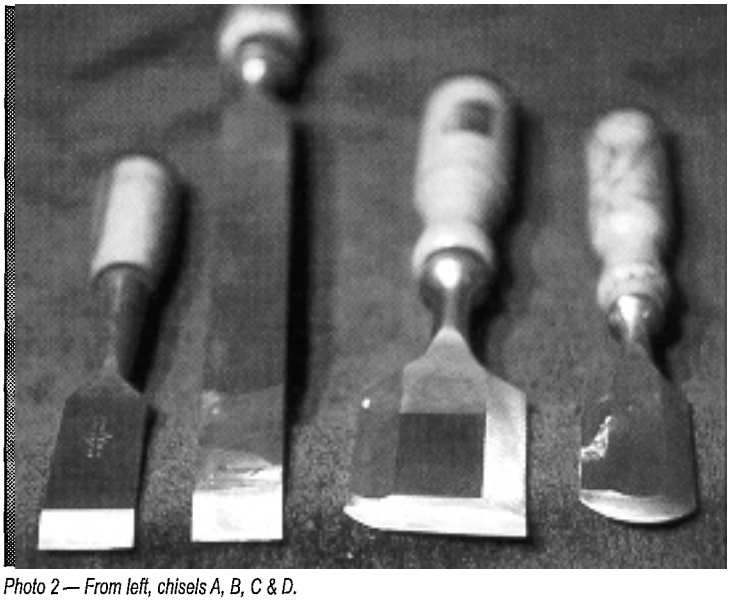

Photo 2 — From left, chisels A, B, C & D.

Chisel C is a 2" cabinet chisel ground with a curve on one end of the cutting

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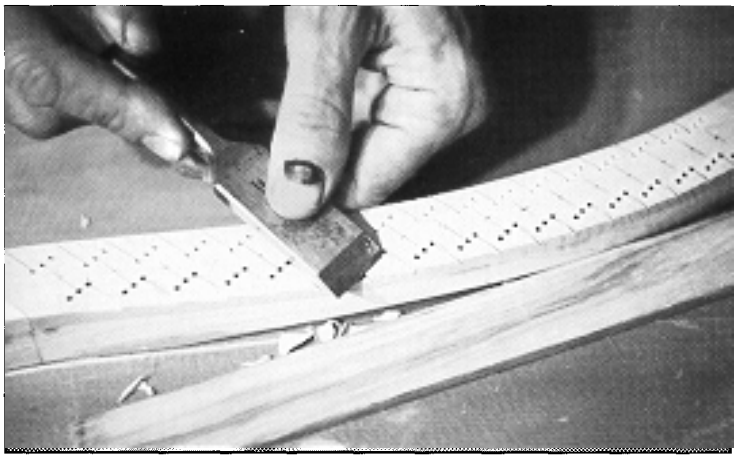

Photo 3

edge corresponding to the scooped bottom of the notch. It is also ground with an acute secondary bevel in spite of the hard, chopping action required of it, for reasons that will be described below. Matching the depth of the vertical chopping cut of chisel C with the flat paring cuts made with chisels A and B, and later the final scooped paring cut to create a clean corner, is a skill requiring much practice on many notches. In the meantime irregularities may be removed by rolling the edge of chisel D along the vertical cut made by C. This will neatly deepen the vertical cut where necessary and the small amount of waste created may be cleared out with either a chisel or a sharp scraper.

The basic notching process involves *roughing-out* the notches somewhat smaller than the finished notches and with all the faces flat. The reason for roughing-out the notches is illustrated in Figure 2. Chisels are one of the simplest and most basic of all woodworking tools, but, as is true in most woodworking operations, making them do what you want often is not so simple. It often is overlooked that chisels perform *two* functions, cutting and wedging. The cutting edge is created by the primary bevel and it cuts wood fibers when it is forced through wood. Once the fibers are cut, as the tool is forced further into the wood the secondary bevel forces the cut fibers apart with wedging action. Understanding this wedging action is critical to effective notching with chisels.

The first rough chopping cut for a notch, illustrated in Figure 2A, is made into the flat top surface of the new cap about 2 mm to the waste side of the pencil line drawn 96 degrees from the line described by the bridge pin holes. Since the chisel is forced to cut across the grain through solid wood, even if it is held perfectly vertical, the wedging action will force the blade away from vertical. Once the cut is made and the bottom surface is roughed out, the second and final chopping cut can be made accurately right to the line. The wedging action of

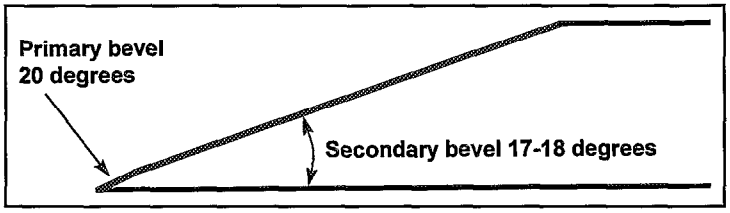

Figure 1

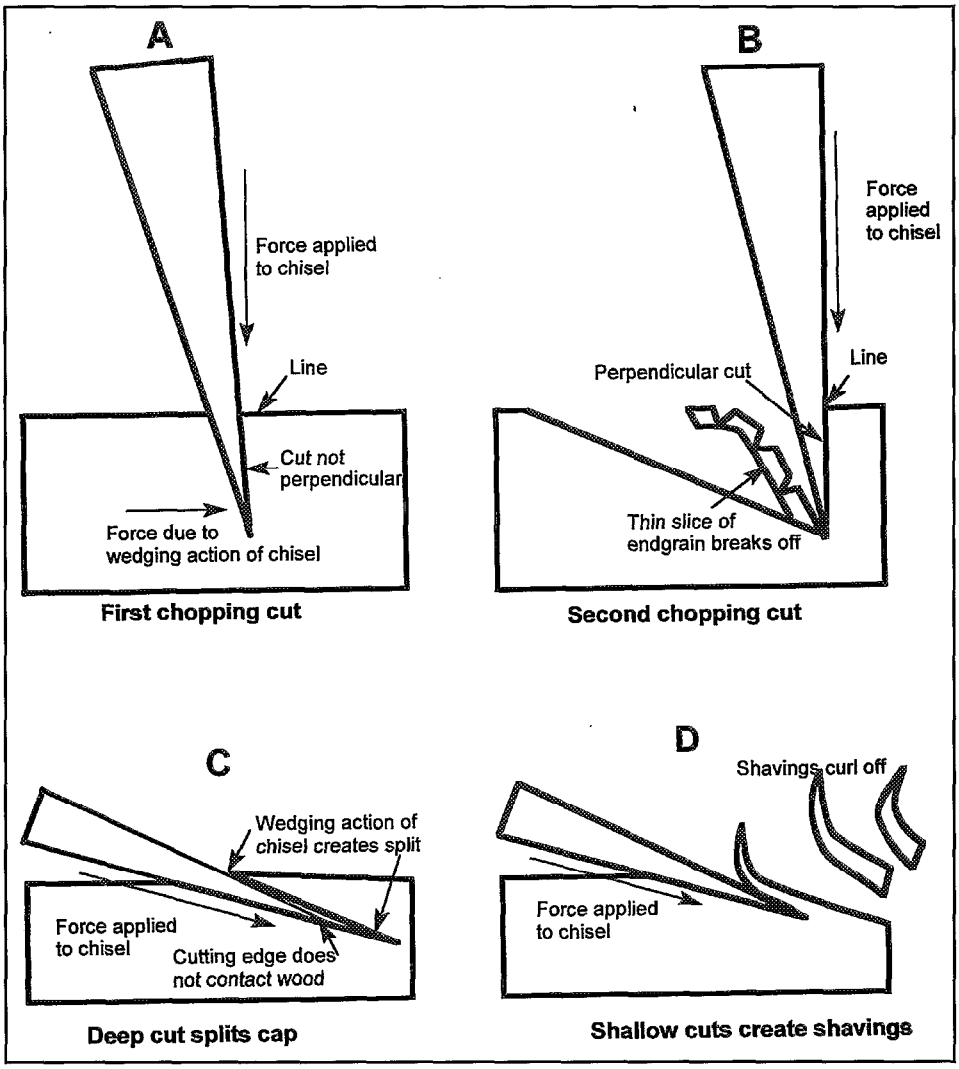

Figure 2

Photo 4

the second cut simply forces the waste away from the cut and does not cause the chisel to wander from the desired vertical line. Grinding the secondary bevel of the chopping chisel, chisel C in Photo 2, more acute than normal allows a deeper initial chopping cut and lessens the wedging that forces the chisel away from vertical.

Roughing out the bottom of a notch with chisel A or B in Photo 2 is illustrated in Figure 2 C and D. These cuts are made more or less *along* the grain of the bridge cap. If too deep a cut is made, the thickness and rigidity of the wood do not allow it to bend, and the wedging action of the chisel causes the wood to split ahead of the cutting edge. The direction of the split is determined by the grain of the wood and not by the cutting action of the chisel. To prevent splitting, several cuts must be made shallow enough to create thin and flexible shavings as in Figure 2D. These thin shavings can simply curl upward due to the wedging action and the smooth, new surface is made by the cutting edge. To avoid confusion, I should mention that, in practice, the order of the cuts illustrated in Figure 2 is A, D, B.

I make the chopping cuts by "hooking" the curved corner of chisel C (Photo 2) in the appropriate bridge pin hole, then roll the edge forward and over the edge of the bridge cap while pressing down. This movement requires considerable force applied to the chisel. Those who lack sufficient body mass to make this cut by hand may hit the chisel carefully with a mallet to drive it into the cap. Using a mallet to make this cut requires wearing earphones. Photo 3 shows roughing out the bottom of a notch with the small firmer chisel. The rough notch extends only to the string side of the bridge pin holes and the chisel can cut right up to the vertical, chopped surface, creating a nice, clean corner. Notice the placement of a scrap piece of softwood on the soundboard beneath the work area, so that any slips will not gouge the soundboard.

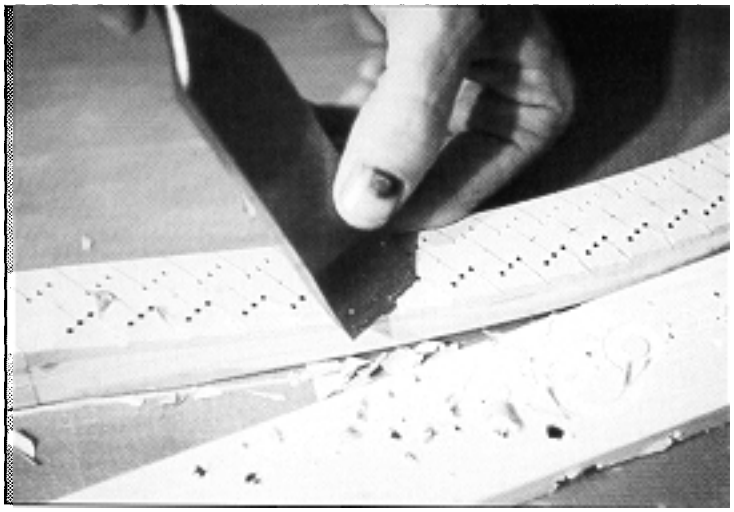

Photo 5

Photo 6

Photo 4 shows the specially-ground chisel for making the final scooped cut of the notch bottom. It is made from a 1 1/4" heavy duty Sorby chisel. In Figure 3A the custom profile of the chisel is compared to the original shape, and Figure 3B details the sharpening of this tool. The bottom surface is honed last so that the wire edge follows its shape. Properly sharpened, this chisel is extremely sharp but, again, the cutting edge is easily spoiled. Because of the curvature and the orientation of the wire edge, the chisel "wants" to make a scooped cut. Finding the shape that the chisel cuts in a piece of maple takes practice; guiding the chisel into too sharp a scoop causes the bottom of the chisel to hit and crush slightly the critical edge of the notch that defines the string termination and quickly spoils the cutting edge. When making the final scooped cut carefully place the cutting edge on the center line of the bridge pin holes and align the left edge of the chisel with the surface of the chopped cut as in Photo 5. Then carefully cut the scoop. In the long notches at the lower end of the tenor bridge the initial scoop is followed by a flat cut to the edge of the bridge. Cutting this flat surface with the curved chisel takes practice.

Cutting the Bass Bevels

The notches on bass bridges are cut in the same way as on the treble bridges. However, on many bass bridges, particularly on pianos less than six feet long, the strings terminate at a continuous bevel that is cut into the front and back of the bridge and connects the centers of the bridge pin holes. If the body of the bridge is straight, the bevels can be cut easily with a block plane. But most bass bridges are curved, making a plane, with its relatively long sole, ineffective. These curved bevels can be cut with spokeshaves. A spokeshave is basically a small plane with a short sole and handles on the sides. Spokeshaves come in a wide assortment of shapes and configurations for all sorts of specialized operations. There are two that are particularly useful in bridge work: one has a straight cutting edge and a flat sole and the other has a straight cutting edge and a convex sole. The flat sole works well for cutting the bevel on the outside curve on the back of the bridge and the convex sole cuts on the inside curve of

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A Guide to Bridge Recapping

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the front of the bridge. Photo 6 shows cutting a bevel on an outside curve with a flat-soled spokeshave.

Close attention must be paid to the grain direction of the bridge cap when cutting the bevels. Straight bridges are relatively simple to bevel with a block plane since generally one side will plane well in one direction and the other side will plane in the other direction. Beveling curved bridges with spokeshaves is not so simple because the wood grain in the cap cannot follow the shape of the bridge body. Figure 4 illustrates a typical curved bass bridge with the grain orientation of its cap. The arrows show the direction this cap can be beveled with the spokeshaves in order to avoid grain tearout. On both the front and back of the bridge, the two cuts must join seamlessly to give the appearance of one single bevel. The bevels must be cut at a steep enough angle to provide clearance for the windings of the vibrating bass strings and should pass through the center of each bridge pin hole. Any unevenness in the bevels, chatter marks left by the spokeshave, or fine adjustments at the bridge pin holes may be attended to with a sharp scraper.

Spokeshave irons generally are mounted in the handle in the same way as smoothing planes: with the beveled side down or facing the "frog." I find that spokeshaves work much more effectively with the iron mounted bevel-side-up, similar to a block plane. Mounting the irons this way raises the effective cutting angle of the iron, which some may consider undesirable, however, with the bevel side up the back side of the spokeshave throat contacts the iron *immediately* behind the cutting edge. This gives far better support to the cutting edge than the opposite configuration and greatly reduces the tendency of the iron to chatter. Of course, it goes without saying that all spokeshaves and planes must be well-tuned to function properly.

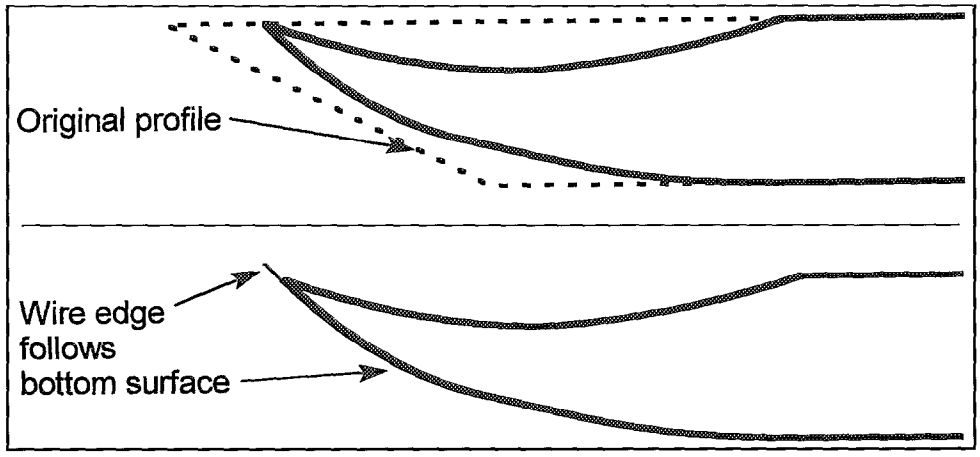


Figure 3A, TOP, and Figure 3B, ABOVE.

Dealing with Problems

There are many problems to be encountered when notching and beveling bridges. Irregularities in wood grain, idiosyncrasies of design in particular pianos, unison spacing, misalignment of plate and strings and correcting mistakes are just the tip of the iceberg. Please realize that the discussion of notching presented here is merely an outline of one method for accomplishing this task. I believe that attempting to provide solutions to potential notching problems here would be necessarily incomplete and futile. And the time spent reading such a discussion would be much better spent with a chisel in hand grappling with a piece of scrap maple. After all, as with every aspect of piano work, the solutions to notching problems lie in skill, experience and, above all, practice.

A Word About Finishing

Some may have noticed that, to this point, I have not mentioned applying lubricant to the top surface of the bridge. It is common practice to apply lubricant after the bridge pin holes have been drilled, and the top of the bridge cap lightly sanded, but before the notches are cut. This procedure results in clean and sharp-looking edges where the chisels cut through the lubricant at the string terminations and the vertical chopped cut. The problem with this sequence of steps is that the top of the cap remains essentially unfinished. When the bare wood of the notches is finished, the varnish (or whatever finish is used) must be applied in such a way that it either stops short of the string termination or runs up over the string termination and on top of the lubricant. If the varnish stops short of the termination, the most highly stressed point on the bridge where the pins enter the wood is unprotected. If the finish runs over the terminations, the edge is rounded slightly and strings contact finish rather than lubricant at the points on the bridge cap where the bulk of the forces of downbearing are focused. Exactly how much this practice affects the ability of the string to slide on the bridge cap during tuning is hard to say, but I prefer a different procedure that, I believe, provides a number of benefits.

It is a commonly held belief that the finish on the soundboard has little or no effect on the production of tone in pianos, and due to the logistics of designing an experiment that would provide conclusive evidence to the contrary, it is unlikely that this matter ever will be proven one way or the other. However, it is the *surface* of the soundboard that actually contacts the air and creates the sound waves that we hear. Ultimately, it is the collision of the soundboard with air *at the molecular level* that transmits the energy of the moving soundboard to the air. Therefore, I find it hard to believe that the condition of the surface of the soundboard at the molecular level has no effect on tone production. In any case, believing that the type of finish does not affect tone justifies the application of fast-drying, high solids and non-penetrating finishes. After all, there are great production advantages to finishes that can be applied with few steps.

However, I believe that sealing the soundboard and the bridges with shellac has a positive effect on the tone production, as well as the strength and stability of the wood itself. Shellac is relatively fast drying and, when diluted to a 2-lb. cut or more, significantly penetrates both spruce and maple. This penetrating action helps bind wood fibers together and makes the surface of the wood tougher and more crack-resistant than either bare wood or wood finished with a non-penetrating finish. I believe that the hard and tough "skin" of a shellac finish makes the collision between

the vibrating soundboard and the air more elastic in the sense that there is less energy lost due to the compressibility and uneven surface texture of the spruce. Admittedly, this is speculation.

The disadvantages of using shellac as a finish are that it is more difficult to apply than either varnish or lacquer, and it requires multiple coats to completely seal spruce. Also, the shellac itself must be sealed with varnish to make it alcohol resistant.

The shellac-and-maple skin on the bridges has two benefits. First, the thin shellac runs into the bridge pin holes and reinforces the tops making them less prone to forming the stress-relieving cracks on the back sides of the pins. Second, the skin makes the surface of the bridge less compressible than either bare maple or maple finished with a nonpenetrating finish. As mentioned several times in the course of this series of articles, I believe that the compressibility and resistance to crushing of the cap in the immediate vicinity of the termination of the speaking length of the string has a significant impact on the ability of the bridge to conduct tone, especially high partials, from the strings to the soundboard.

A Finishing Schedule

Once the bridges are notched and beveled and the soundboard is ready for finishing, lightly sand the top of the bridge cap to remove any irregularities left by planing and from drilling the bridge pin holes. I use a flat sandpaper paddle and sand with 120-, 220- and 320-grit sandpaper. Then start applying finish brushing fairly diluted 2-lb.-cut shellac onto the soundboard. When the brush gets quite dry and before reloading it with more shellac, dab it on the bridge cap, making certain to wet all the corners and the entire top surface. Then repeat the process until the entire soundboard and bridge are coated. Even though shellac "flashes" quickly and is dry to the touch almost immediately, when building up the finish, it is a good idea to give each coat an hour to dry before re-coating. Use the diluted shellac for the first two coats in order to maximize its penetration into the wood. After two coats, however, the spruce generally is sealed to further penetration, so increase the concentration in order to build up finish. Keep applying coats of shellac until the entire soundboard is completely sealed and the shellac surface has a rough gloss. This takes about six coats. I do not dab six coats on the bridge cap since too much build-up of finish will change the dimension of the tops of the bridge pin holes. I apply diluted shellac to the bridge cap until the top takes on a faint gloss — usually about three coats.

Once the soundboard is sealed, this is a good time to refinish the piano case; any finishing "accidents" that damage the shellac finish are easily repaired. Otherwise, the shellac should be allowed to dry for several days before sanding. The reason for applying so many coats initially *without sanding* is that the sealed soundboard and bridge bodies may then be wet-sanded. Anyone who has ever tried to dry-sand shellac will understand the advantage of this. In order to wet-sand, there must be enough finish thickness to prevent sanding through and exposing unsealed wood fibers. Any exposed wood grain will become raised by the moisture and become difficult to reseal in subsequent steps. I *carefully* wet-sand the soundboard and bridge body with 320-grit wet-or-dry paper. I do not sand the bridge top at this time, nor do I ever attempt to sand the notches. The trick to doing this sanding step successfully is in knowing when to stop; the surface texture of the spruce will not yet be completely filled by the finish, but should be approaching this point.

Once the soundboard and bridges have been wiped clean and allowed to dry, begin applying more shellac, using shellac of medium concentration. The glossy low points of the texture of the soundboard that remain after the 320-grit sanding should be about pinhead sized and shallow and require only a little finish to fill. The medium-concentration shellac should have enough solids to fill the remaining texture and will level much better than the higher concentration used in the earlier coats. At this point, I apply another five or six coats at one-hour intervals. I may or may not apply more shellac to the top of the bridge, depending upon the finish buildup as indicated by the degree of gloss. After the shellac has again dried for several days, wet-sand with 400- and 600-grit paper. The shellac then may be sealed with varnish. When applying varnish to the notches, brush slightly over the edges that define the string terminations, but not over the entire top of the bridge. The varnish must be applied carefully in a dust-free environment since the way it levels and dries creates the final surface of the soundboard.

Once the varnish is completely cured, dry-sand the top of the bridges lightly with a sandpaper paddle covered with 220-, 320- and 400-grit paper. This will remove the varnish and most of the shellac from the top of the bridge and create a hard, sharp edge at the string terminations. At this point the lubricant may be applied to the top of the bridge. I prefer to brush on and burnish McLube 1708L.

There are obvious disadvantages to refinishing soundboards and bridges in this way. It is considerably more labor-intensive than spraying on sanding sealer and lacquer or applying a high-solids varnish directly to the bare spruce. But, in spite of the number of steps, the finishing schedule outlined here is not as time-consuming as it may sound. It would be prohibitive to finish this way in a shop where pianos are rebuilt one-at-a-time because of the number of coats and the drying times, but the steps fit easily into other work in progress. Also, applying the lubricant after cutting the notches sacrifices some of the *visual* crispness that results from the more conventional procedure of lubricating first, then notching. However, I am willing to make this trade-off in favor of what I consider to be significant gains in tone production.

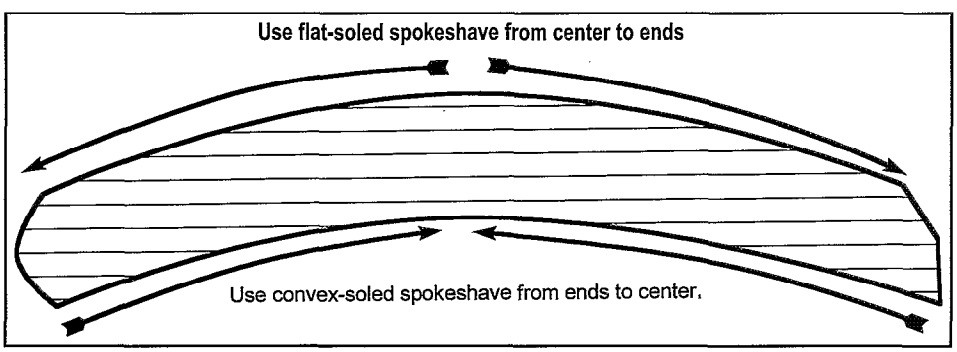
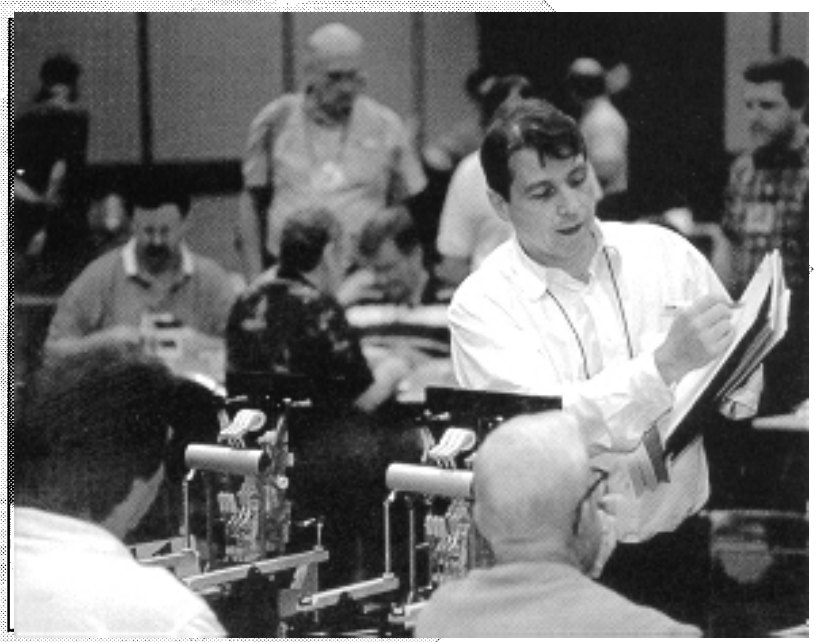


Figure 4

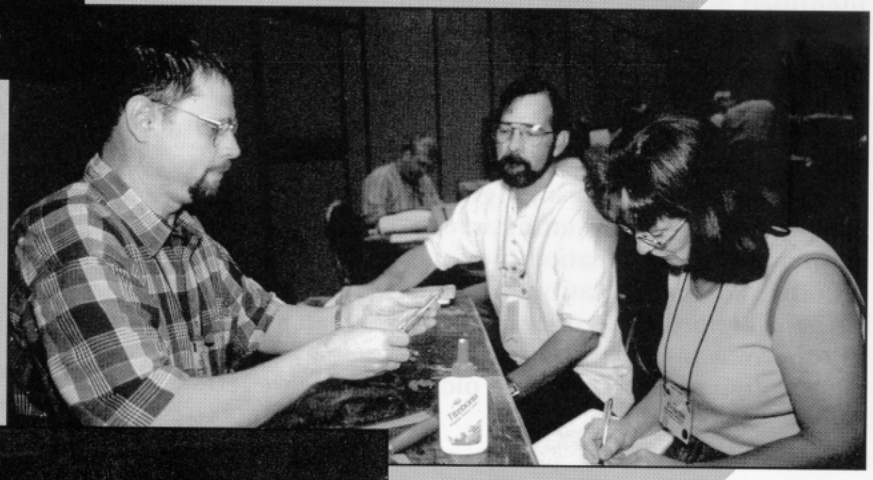
Applied Skills

Alan Vincent (RIGHT AT LEFT) and Webb Phillips (BELOW LEFT) teach Applied Skills during the 1999 PTG Technical Institute in Kansas City.



While David Patterson (ABOVE) teaches "Troubleshooting Vertical Actions," Hayley Gilreath (LEFT) mans the check-in table outside of the packed classroom.

Also teaching in the Applied Skills class were, Jim Geiger (ABOVE RIGHT), Joel Jones (FAR LEFT AT LEFT), Journal Editor Steve Brady (BELOW LEFT) and Ron Nossaman (BOTTOM CENTER).



Bedding the Keyframe – Part III

By Brian De Tar, RPT
Portland, OR Chapter

Outward & Beyond

Ah, yes, the moment we've all been waiting for. The final installment, which will lead us on the final steps to achieve our goal: to establish a solidly bedded keyframe that allows the pianist to experience a solid feeling action instead of the once "spongy" feeling action.

Last month, we had our first taste of wires and gizmos with the Yamaha Disklavier, PianoDisc or any other grand with "augmentations" ... Hmm, "grand augmentation" ... I'll have to remember that one! At any rate, if you were able to get your hands on a 'Grandly Augmented' piano, you found out how ***simple*** and ***quick*** it is to remove the hammer sensor rail. Remember that the hammer sensor rail ***does not need to be removed*** from a MarkII or MarkIIXG Disklavier grand! The MarkII and MarkIIXG grand can be identified by the fact that it does not have the "wagon" to go along with the piano. The control unit on the MarkII and MarkIIXG Disklavier is located under the treble end of the keybed.

With that dispensed with, we go back to our task at hand, but before we get started, recheck to make sure all the keyframe screws are tight. If it seems we get carried away with tightening screws, my point is this: remember we are creating the foundation from which ***all*** other action regulation will be based. De Tarism: ***All points of compromise become cumulative!*** Or to put it another way: ***Mediocrity is cumulative, so is excellence!***

Enough chatter, now let's pick up where we left off!

Check Key Height & Key Dip

A precaution before proceeding with this step: make sure the hammers are ***not*** resting on the wippen cushion! Without the complete weight of the hammer on the wippen, the back of the key will not be in total contact with the back rail cloth. This will give you inaccurate key height measurements!

Key heights for most quality grand pianos range from approximately 64 mm to 67 mm. Key dip typically is around 10 mm. You could express this as a ratio of approximately 6.5:1. ***An important note about key dip:*** When the key is firmly depressed, check to be sure there is approximately 1 to 1.5 mm of clearance between the ***top*** of the jack and the jack stop cushion in the repetition lever window. If there is no clearance, it is possible, on a hard blow, for the jack tail to break. If there were not enough clearance, some prime points to check would be excessive key height and dip or very early let off.

Key height measurement should be checked at each point where there is an accessible glide bolt. Don't worry about the hidden glide bolts (if present) just yet. We'll deal with them specifically a little later. Measure from the bottom of the lip of a white keytop to the keybed (not the bottom of the ledge occupied by the keyslip!). About this time, the question comes up "Why measure from the ***bottom*** of the keytop?" The answer: The bottom of the keytop presents a straight line, which is much easier to sight against your ruler!

If the key height is too high:

Turn the appropriate glide bolt counterclockwise until proper key height is achieved. If the key height does not change or changes very little, check the glides on either side. If these are projecting out too far, they will hold the keyframe up. To check for this, see if the glide in the area that you are trying to change the key height in is now knocking. If it is knocking, turn the glides on either side counterclockwise slightly. This will allow the keyframe to settle to its new height.

If the key height is too low:

Turn the appropriate glide bolt clockwise until proper key height is achieved. Check for any pre-existing "knocking" glide bolts. Then check for consistency in glide bolt pressure with the "Lift and Tap" method. To check for any pre-existing "knocking" glide bolts use the side of your hand to tap on the keys at the balance pin just in front of the glide bolt. At this point do not lift the action rail as you are checking to see if any glide bolts are set too high above the keyframe. To check the consistency of glide bolt pressure use the "Lift and Tap" method described below. ***Remember:*** when tapped, glide bolts must have a solid sound on the keybed.

"Lift and Tap" Explained:

With one hand placed under the hammer flange rail near where a glide bolt is located, use a lifting motion while tapping the keys at the balance rail with

your other hand. The amount of lift it takes to produce a "knock" must be equal from glide bolt to glide bolt. One of the keys to the success of this method is to develop some speed, moving from one glide bolt to the next. This encourages developing a feel for how much lifting pressure it takes to generate a knock from each of the corresponding glide bolts.

Adjust the glide bolts. If a glide bolt "knocks" slightly, use a glide bolt wrench (or a short screwdriver where applicable) to turn the glide bolt clockwise a small amount until the "knock" disappears. It's also possible to turn the glide bolts on either side of the "knocking" glide bolt ***up*** slightly. This won't change the key height any. It will merely redistribute the weight of the keyframe by increasing the amount of weight bearing on the knocking glide while reducing the amount of weight bearing on the adjacent glide bolts. Recheck each glide bolt for consistency. ***Always check the glide bolts on either side to ensure that they are not knocking!***

Now you get to hone your "Lift and Tap" skills. Practice getting the "feel" of how much lifting pressure it takes until you hear a knock. If any glide bolt feels "heavier" than its neighbors, it's an indication that the glide bolt is supporting more weight than its neighbors are. Use a glide bolt wrench to turn the glide bolt counter-clockwise until it feels equal to its neighbors. If any glide bolt feels "lighter" than its neighbors, it's an indication that it is not making enough contact with the keybed as compared to its neighbors. Turn the glide bolt clockwise until it feels equal with its neighbors.

Remember, you decide whether you change the offending glide bolt or the glide bolts on either side. Play around with it a bit. See what differences you come up with, then report back! That's how we all learn!

Adjust the Two Hidden Glide Bolts

The amount of lift it takes to produce a "knock" must be equal from glide bolt to glide bolt. Tilt the action up on the keybed. Use the glide bolt wrench, to turn the two hidden glide bolts counter-clockwise until they contact the keybed. Use the "Lift and Tap" method and adjust them until they feel equal with the main glide bolts. Practice and very small turns with the glide bolt wrench are the keys to success here!

Check The Backrail Bedding

Using a long screwdriver or rod to reach through the strings, place the tip of the screwdriver on the damper side screw of each action bracket and tap. Check for any knocking that might be occurring between the back of the keyframe and the keybed. There should be no "knocks." The back rail should have a solid feeling. If a knock is heard and the piano is "Grandly Augmented" (Disklavier, PianoDisc, etc.) ***First check the height of the key drive unit.*** If it's too high, it can raise the back rail enough to cause a knock. If the Key Drive Unit height is okay, and there is still a "knock," mark and sand the high spots (where no knock is heard as in front rail fitting). Continue this process until there is no "knock" heard. Also, make sure that there is no flex in the keyframe. Although there is rarely a problem here, ***never*** is a long time!

Check Front Rail Bedding

With the action in the piano, tap along front rail. Check for any knocking that might be occurring between the front of the keyframe and the keybed. There should be no "knocks." The front rail should have a solid feeling. If a knock is heard, mark and sand the high spots (where no knock is heard) on the front rail until the "knock" is no longer heard. Make sure there is no flex in the keyframe.

I know that this wasn't on the original list, but you had to know that it was coming: Now that you've got the hang of it, use the "Lift and Tap" method to recheck the consistency of bedding! Again, the amount of lift it takes (at the hammer flange rail) to produce a "knock" must be equal from glide bolt to glide bolt (including the two hidden glide bolts).

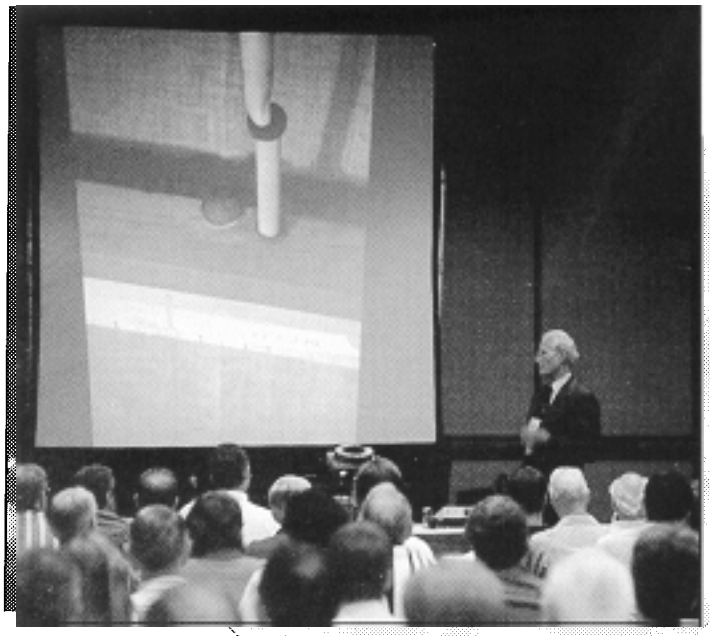
Okay, okay, so there are ***two*** more things. We must remember to replace the case parts! On "Grandly Augmented" pianos (Disklavier, PianoDisc, etc,) remember to check the cables and replace the control unit. Not much more to say here ... you got 'em off, now you get 'em back on! Once you have everything back together, play the piano and (if appropriate) make a test disk to verify the integrity of all cables.

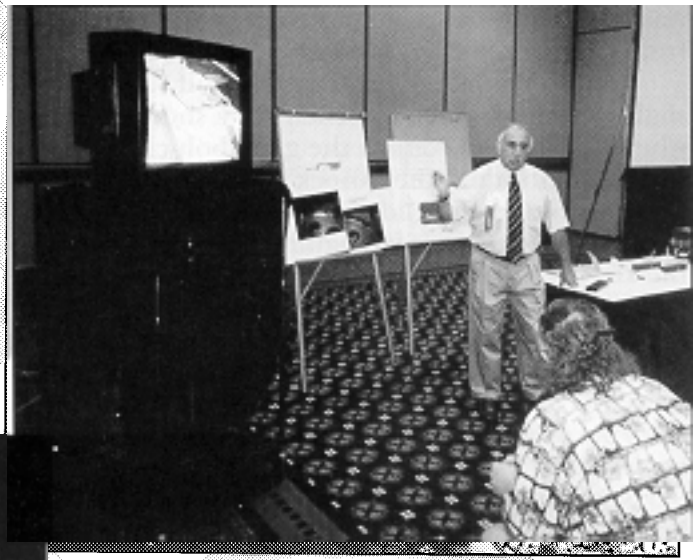
Wrap-Up

As you may have found out, if key dip or key height is incorrect this bedding procedure will prove itself out by the fact that the keyframe will not bed properly. If the dip or height cannot be maintained within the proper range, the key height and dip will have to first be established by traditional methods: inserting or removing balance or front rail punchings. You can change key height or dip only slightly by adjusting glide bolts. With a little practice bedding the keyframe will take you approximately 10 to 15 minutes, allowing you to quickly give a pianist slightly more or less aftertouch.

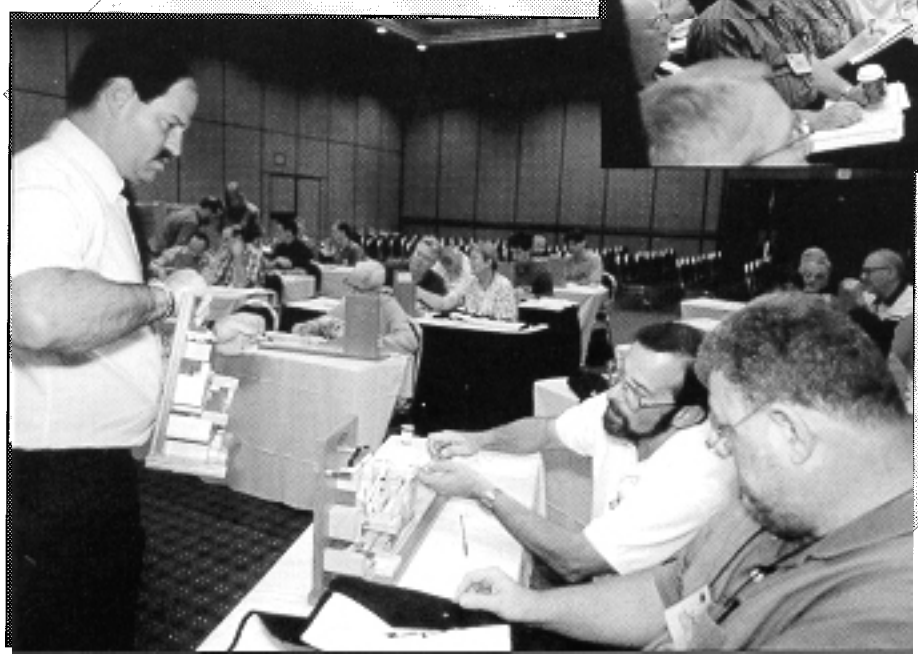
I hope you've enjoyed this series of articles on bedding the keyframe. Have fun and let me know how your experience was. In conclusion, may I offer one last De Tar-ism that many of you have seen me sign my name with on the web: ***No obstacles ... only opportunities!***

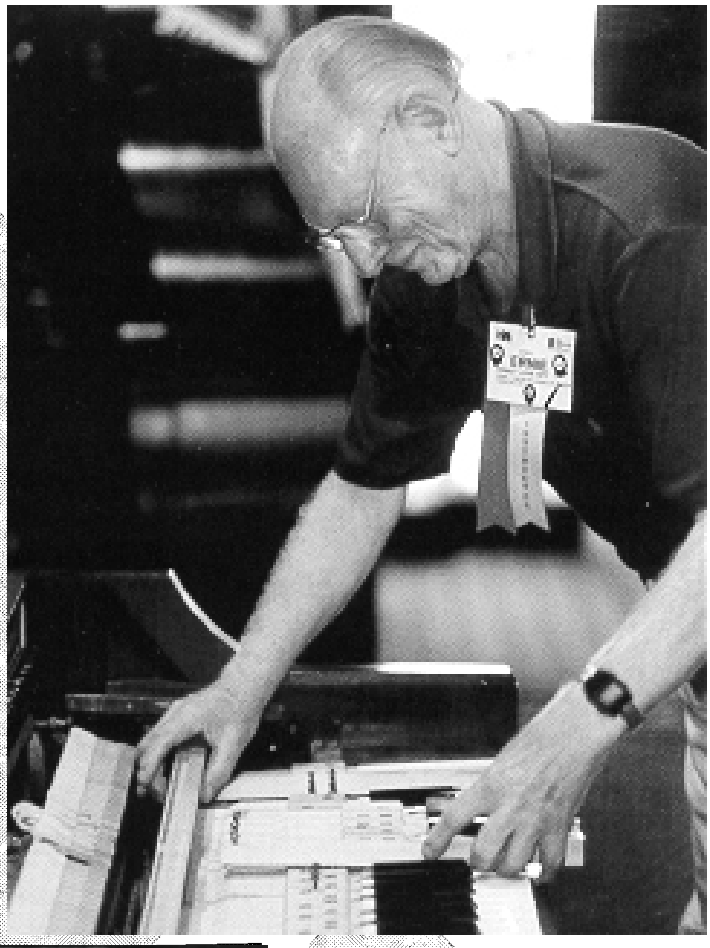
In Class





RPT Norm Neblett (UPPER LEFT) teaches a segment of the All-Day Wednesday Renner USA class. RPTs Dan Franklin (ABOVE) and Dan Levitan (LEFT) lead classes while Roger Jolly faces a full house and Bill McKaig, RPT, (BELOW LEFT) uses an action model to make a point.





PTG CPA Bill Mendus (ABOVE) fields a question on taxes while RPT Ernie Juhn (RIGHT) preps a piano for class as John Patton (BELOW) of Steinway and Sons uses a display to explain his point. Virgil Smith, RPT, (BOTTOM) explains his technique using a grand piano as an example.

Ear Training: Hear More Beats Better

By Ed Sutton, RPT
Contributing Editor

Is it really necessary to write another article on beat rates? This question rests heavily on my spirit as I begin. Yes, I do believe I can offer a few details of technique that might help someone do better work more easily. So I proceed with high hopes and if I fail, oh well, what do you expect in the *Piano Technicians Journal* but yet another article on beat rates? And surely someone is reading the *Journal* for the first time....

When I started tuning I had a problem. I understood tuning theory rather well. Once in a while my tunings came out pretty good. More often I had a horrible time of it and made an average mess of the piano. I didn't understand why. Even if I said why, I didn't really understand why.

What we usually just call "hearing the beat rate" involves many different skills. The first involves knowing what a well-tuned piano should sound like: "what you're trying to do" in the sense of "knowing the result you're trying to attain." This has been much covered in the *Journal* and generally is not what the articles in this series are about. "The things you need to be able to do in order to get those results" are more what I'm writing about and in this category I count at least three, maybe four, hearing skills. One is the ability to hear and articulate the beats; next is the ability to group the beats into appropriate larger time units; and finally, the ability to subdivide the larger time units back into smaller units for comparison with other beats.

The fourth issue, a very big side-issue, is dealing with the garbage noises that ill pianos throw at us in a misguided attempt to avoid having their temperaments made well. In practice, "dealing with garbage" is the technician's most valuable and hard-earned skill. It is the biggest part of the whole can of worms we call our work and in my experience, it grows bigger all the time.

I suppose it began to sink in about the time I really began to understand (and not just say) that two or three quick tunings are better than one slow tuning. The understanding goes something like this: the closer the piano is to its final state, the more likely the sound you hear will resemble the final clear sound of the instrument; the further away the piano from the final state, the more likely the sound will be clouded by contradictions in the tuning and the less likely that you'll be able to hear what you need to know. To tune a piano, it must be tunable. The more I do to make the piano tunable (and to make the beats hearable), the better the tuning goes in every way.

Jumping quickly to the high end of the spectrum, I'd like to quote Howard Jackson, RPT, who in a recent conversation said: "I've come to believe that the only way to proceed is to recognize that tuning is voicing and voicing is tuning. When I start, I put my string-voicing kit on the piano and so far as time allows, I fix the troubled notes as I come to them. I'm constantly working to improve the sound of the instruments I service and over time it pays off."

That is the mature view. In practice I admit it's not always easy to get there. It's easy to get fixated on a ritualized concept of tuning. There is a certain ease to just going into the piano and doing the same thing over and over. It's easy to call pianos certain slang terms and absolve oneself of responsibility for the work one does. Sometimes when such moods strike and I feel superior to the work at hand, it helps to remind myself that if every person, place, creature and thing I consider below me were miraculously erased from the universe, I'd be the dumbest, ugliest one left — not a situation I desire!

A Zen teacher would say that if you aren't paying attention to what's before you, you are losing that moment of you own life. This Brand X piano in front of me is the only life I have! Yikes! But not yikes, because Howard is right. Pay attention, do what you can to help the piano sound better and you'll have a good life. Tuning is voicing; voicing is tuning. When you tune the piano, you're giving the world a new voice. What do you want the world to sound like?

Now for the garbage ... value it!

A Short Catalog of Piano Garbage, with Diagnoses & Remedies

1. ***Garbage caused by other strings sounding*** — This may be some of the unisons of the interval bleeding through the temperament strip or other strings (almost always in the bass) bleeding through their dampers. Typically this sounds like the beat begins faster, then slows down, because the interfering string(s), being partially damped, stop sounding sooner than the open strings. You're lucky! These problems can be fixed. Get a new temperament strip or, better yet, do a quick and rough tuning of the mid-range, unisons included, and then fine tune. (Don't fight it, do it!) Fix the leaking damper, or mute off the string while tuning.
2. ***Garbage caused by loud, higher coincident partials*** — These can be tricky; sometimes a higher partial blends into the sound of a lower partial so well that it's hard to believe it's really beating an octave higher. Suspect this when an interval seems to be beating too fast, about double the norm.

The lower note of the interval is often a wound string or a low plain wire string. To diagnose you need to know where the co-incident partials are. Hold down the interval and "ghost" the pitch for the partial you should be hearing and note the beat rate. Now "ghost" the pitch an octave higher (the next co-incident partial for all intervals but the octave). If the beat rate at this pitch is the same as what you heard at the lower pitch, you have found the little monster. Focus your ear at the level of the correct partial and play the interval again. Listening carefully you'll probably hear a slower, quieter beat. If not, test with the appropriate aural test; the interval may be pure at that level. This is typically a problem of 4ths and 5ths, but also occurs frequently between F2 and A4 when setting pitch. In this case, focus your ear carefully at the simple pitch level of the tuning fork, then play the test interval again and listen for the slower, softer beat at A4.

3. ***High-partial garbage caused by hard hammers*** — Very common in the first plain wire notes of middle-aged studio consoles. Keep a "bent under" voicing tool with sugar-coat needles (very short) in your kit. Surface voice the first three or four plain wire hammers. This can make octaves and unisons much cleaner in an area that tends to be queasy. In beaten-to-death practice room pianos the problem may be systemic. When tuning my candidate for World's Worst Practice Room Piano I used to make a temporary "practice mute" by stretching a length of stringing braid under the strike point, using a mute at each end to hold it. It works!

   The best thing would be to improve the hammers. Steam does great things for battered practice room pianos.

4. ***Problems caused by false-beating strings*** — You move the tuning pin three times, but the beat rate stays the same. It's probably a false-beater on one of the notes. Fourths, 5ths and octaves on this note may all seem to have the same beat. Try your false beat eliminator, gently, please. No luck? If the beat stops when you hold a screwdriver blade to the bridge pin, you have your diagnosis. Try a light tap to the bridge pin. Try turning the bridge pin 90 degrees. Loosen the string and use CA glue to stabilize the pin.

   If none of that helps, is it the front termination? Can you move the string to get some fresh V-bar? If it's an agraffe, try pushing the string to one side with a screwdriver to see if that makes the beat stop. If so, it may be possible to wedge a bit of hard leather to push the string over to the clean place. In bass strings, try squeezing the end of the wrap with needle nosed pliers while tapping to compact the coil. Do a quick test of the harmonic series of the beating bass string. Knowing exactly where the beat occurs can make it easier to deal with. And if none of this helps, console yourself with knowing that the tuner usually hears more false beaters than the player.

5. ***False false-beaters*** — I know of at least two: Fast reverb in the hall, such as might occur near a plate glass window, and reverb from ceiling fans. Once you hear it, you hear it on every note, always the same speed. Turn off the fans. Sometimes turning the piano or moving it behind one side of the proscenium will help. Ear plugs will help. At least know you're not going insane.

6. ***Ringing duplexes, aliquots and bits of string*** — can really interfere with treble tone. Mask them off with masking tape.

7. ***Uneven voicing or hammer/string contact*** — This is the big killer of unisons. It doesn't beat, but it keeps the unison from really locking in. To get a sample, push down on one string of a grand piano unison to temporarily put it out of level. Try to retune the unison, listening for a raspy sound at the fundamental and a boingy, unsettled quality in the partials. Lift the string level again and retune and you should hear a clearer sound. Try this on several notes. (On a vertical pull the string out of level and press it back in to level it.) In practice, you would lift or settle the strings to match the hammer or lightly shape the hammer to the strings. If the hammer is too far out of lateral alignment to strike all three strings, you may get a beat from the unstruck unison vibrating sympathetically.

8. ***A late-lifting damper*** can change the sound quality of a string by slightly muting some of the partials. You play a slow-beating interval, but don't hear a beat. Lift the damper by hand, play the interval. If you hear a clear beat, now you know the problem.

9. ***And now we conclude*** with the category of *generally weird sounds.* These may be caused by freak soundboard responses, tired strings, worn, over-centering or soft hammers that damp as they strike. What can be done? Maybe not much. Try plucking. Try using the *una corda.* Try playing very soft. Try touching the string at the node with the edge of a mute to sound the harmonic and tune from it. Can't get the harmonic to sound? Been known to happen....

Yes, it's a weary topic, isn't it? Sometimes pianos seem a lot like juvenile delinquents. (At least pianos don't carry guns!) We expect of pianos something of the permanence and perfection we obviously can't attain for ourselves, just as we expect our children to accomplish what we can't accomplish. It's an unfair expectation. Better just to be grateful we can do something to help.

We didn't get around to beats yet ... maybe next month!

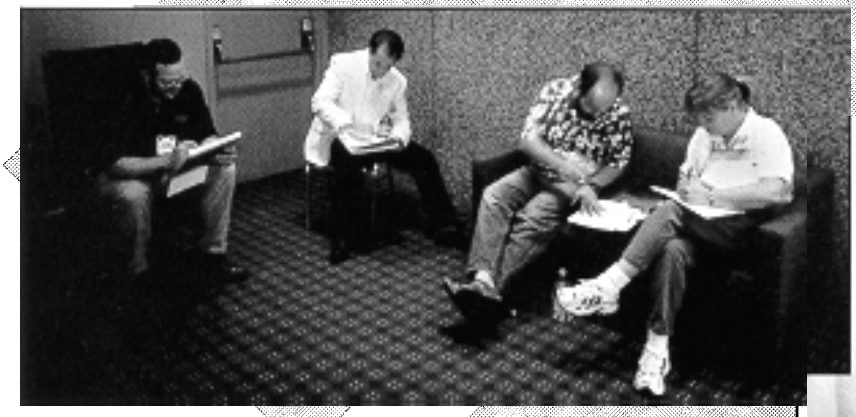
KANSAS CITY

Elizabeth Ward (ABOVE LEFT) goes over her notes during the 1999 PTG Council session in Kansas City. At right Ted Stambell and Mary Stevens vote for a measure while Richard Bittner (LEFT AND RIGHT) and Ward Guthrie pass. Paul Larudee (BELOW) examines supporting material while Ward Guthrie and Dan Franklin (BOTTOM FROM LEFT) look on as a speaker makes a point.

In Council

The Institute

The 1999 Kansas City Technical Institute (ABOVE FROM LEFT): Assistant Directors Dale Probst and Evelyn Smith, Institute Director John Ragusa, and Assistant Directors Alan Gilreath and Laura Olsen. Alan (AT LEFT) celebrates his 35th birthday at the PTG Registration Desk in the lobby of the Hyatt Regency Crown Center Hotel. Members of the Institute Committee (FROM LEFT), Gilreath, Ragusa, Probst and Olsen, go over class schedules. Olsen and Smith (LOWER RIGHT) go over a piano roster in the Exhibit Hall.



Analyzing Touch Perception in Grand Pianos

By Ken Sloane, RPT
Cleveland, OH Chapter

I have worked on many actions with "appropriate" upweight/downweight relationships that pianists still perceive as heavy. In such an action you can assume friction is not the problem because excessive friction will increase downweights while decreasing upweights, giving you an action that cannot be weighted to have an "appropriate" upweight/downweight relationship.

For example, take an action that feels good with upweight/downweight measurements in the 50/20 gram range, a range that most manufacturers would find quite acceptable. Using the formula F=(D-U)/2 (F = friction, D = Downweight, U = Upweight) we find the total friction in each key to be about 15 grams. Now if some environmental fluctuation adds five grams of friction to each key, you will then get upweight/downweight measurements in the 55/15 range (total friction now 20 grams per key). With the introduced friction, the action will feel heavier, but it would be very unwise to "lighten" the action by adding weights to bring downweight measurements back to 50 grams per key. The added weights would lower upweight measurements to around 10 grams, key return would be slower, and repetition would likely be affected. Adding insult to injury, the weights will have introduced more mass to the keys, mass that has to be accelerated with each key stroke (additional inertia); so the piano will not only play poorly because of the excessive friction, it probably won't feel any lighter because of the additional inertia you have introduced.

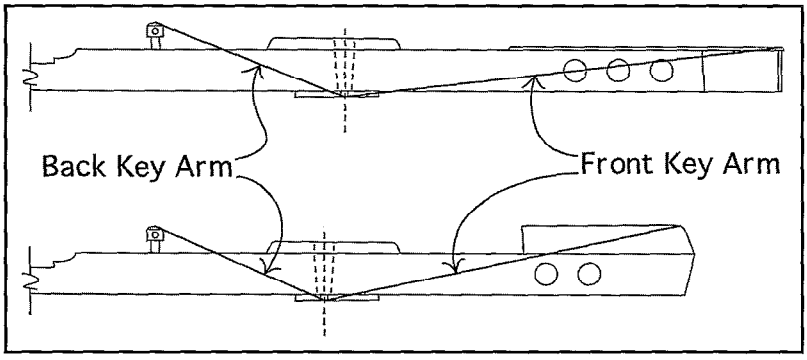


Figure 1 — Measuring points for key ratio.

But what about those actions that weigh off in the "acceptable" 50/20 range that are perceived as being heavy or, for that matter, those pianos out of the "acceptable" range that are perceived as being "light." I have seen many pianos with downweights in the 60s and even 70s – usually with upweights that are greater than 20 – that pianists perceive as being light. The phenomenon that accounts for this seeming paradox is associated with the presence of different amounts of inertia in the actions – too much and an action becomes unwieldy, especially in loud, fast passages; too little and an action becomes hard to control, especially in regard to subtle, dynamic change.

To alter the level of inertia in an action one must change the mass of its moving parts or change the ratios of any of its levers so the components they move are accelerated at different speeds. In regard to the former, the hammer is the greatest contributor to inertia because it has to be accelerated over the longest distance and is a relatively heavy action component. In regard to the latter, the hammershank action-center-to-knuckle distance and key ratio are especially important.

However, I have seen actions that, even with relatively light hammers, cannot be weighted in any way in order to feel light. These are frequently Steinways with shanks of the pre-1984 dimension (15.5mm action-center-to-knuckle distance) that also have key ratios significantly less than 2:1 (as you get below 1.9:1, inertia seems to become a problem). Fortunately, installing post-1984 shanks with their 17mm action-center-to-knuckle distance will frequently alleviate the problem, even if the key ratio is not ideal.

However, this seems to be less true for nine-foot pianos whose longer keys provide additional wood that introduces more inertia to the action. This was proven rather dramatically to me with a "D" here at Oberlin that was built in 1987, had post-1984 shanks (17 mm action-center-to-knuckle distance), good upweight/downweight specs, and always was perceived as being heavy. At this moment I can't find my notes on the piano that would tell me what the key ratio average was, but I remember it as being significantly below 2:1. By below, I mean (for example) 1.85:1 as opposed to 2.1:1. I should mention, also, that I measure key ratio from the center of the bottom of the balance rail hole to the top of the capstan and to the front of the top of the key cover or sharp (see Figure 1).

After years of listening to comments about the heavy touch on this piano I decided to move its capstans to get a better key ratio. The procedure to do this is rather simple but necessitates also moving the wippen heel to match the new capstan position. This is easily accomplished by using a band saw to cut the heel from the wippen support and regluing it in the appropriate position.

You can mathematically determine how much to move the capstan to get a 2:1 key ratio, but you need to be aware that moving the wippen heel changes the length (leverage) of the wippen lever. What I did with my "D" was to figure how much I needed to move the capstan to get a 2:1 ratio and moved the capstans a little less than the calculated change (if my memory serves me correctly, 1/16") to compensate for the lengthening of the wippen lever. This 1/16" was a "guestimation," and I checked to see if everything was going to work okay by moving the capstans on a few sample keys to make sure my dip was not going to be in excess of .400".

When I felt comfortable with all my calculations, I moved all the capstans 5/16" and re-regulated for the extra key travel needed (dip of .395" was sufficient). We now had a concert piano on stage that pianists felt was on the "light side," and no one noticed the increased key travel.

In closing, be advised that I have talked only briefly about the many variables contributing to the touch resistance in a piano. The way they interact is very complicated, and absolute conclusions are very hard – if not impossible – to substantiate. However, I will leave you with a few general conclusions I have come to that may be of some help in evaluating your pianos.

With an action that uses shanks with the 15.5 mm action-center-to-knuckle distance, key ratios less than 1.9:1 seem to be problematic, especially with larger pianos with their longer keys. I characterize actions like these as "low leverage" actions whose hammers move greater distances per unit of key travel than hammers on "high leverage" actions. If the key ratios get down to 1.8:1, any other "negative" contributor to the system (e.g., heavy hammers) can have a profoundly adverse affect on the touch of the piano. Use light hammers in a "low leverage" action.

Conversely, actions I characterize as "high leverage" actions – having shanks using 17 mm action-center-to-knuckle distance and keys with a 2:1 ratio – allow for much more flexibility in hammer choice. Because of their better leverage, their hammers move lesser distances per unit of key travel than hammers on "low leverage" actions and heavy hammers can be used without introducing a lot of inertia to the system.

In regard to hammer weight, I am reluctant to offer any general conclusions. For one, I work almost exclusively on Steinways and use their hammers. I order them coved only with long tails and weigh sample hammers from the set before they are bored or tapered. Besides, I actually only started weighing hammers in an organized fashion just a few years ago because I found that the width of the hammer was a very important indication of its being light or heavy. In general, extra width adds a lot of extra weight. I find that under 11 mm is small, 11 mm is "average," and over 11 mm is wide.

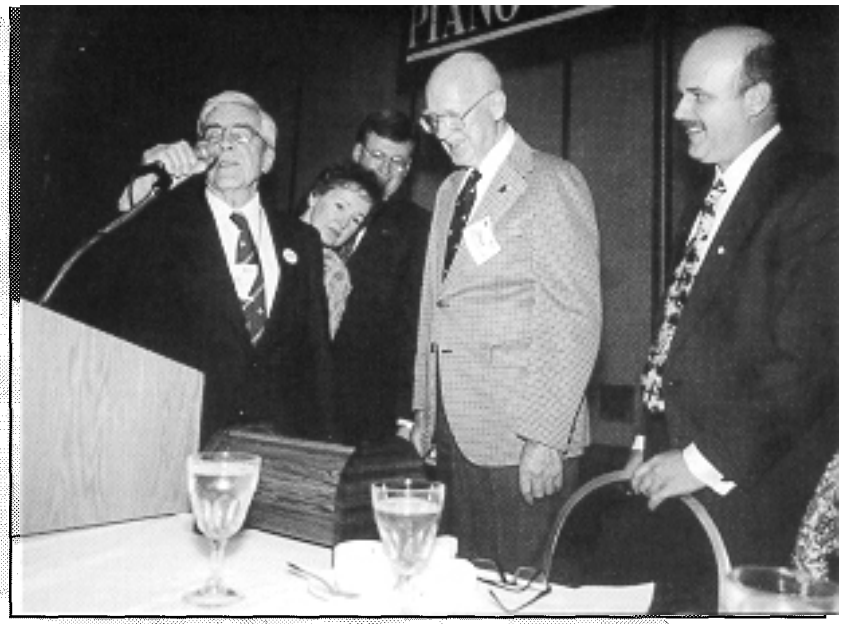
For those of you who want some weight figures, I will resort to industry "norms." Correct me if I'm wrong, but I believe that most manufacturers make hammers in the 10-to-11-gram range for the bass to about 5 to 6 grams in the treble. My inclination is to use a "heavier" hammer – which I believe gives better tone – in a "high leverage" action.

Remember, also, that the density of the hammer felt plays a role in the feel of an action. Soft hammers, no matter what their weight, will feel heavier because it takes more force from the pianist to make them speak; and I have no idea how someone would go about trying to quantify this "density factor."

I hope this article has been helpful. At a later date, possibly, I could provide more information on how the weight of hammers affects touch perception.

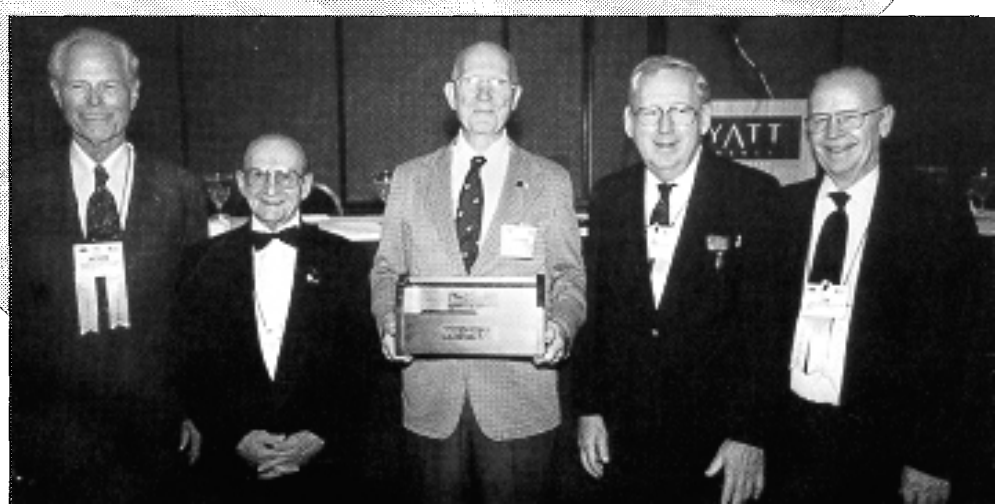
During the 1999 CyberCafe class in Kansas City, RPT John Baird (UPPER LEFT) shows off the PTG computerized index and Reprint Kit CD-ROM, while Ron Berry, RPT, (ABOVE) shows technicians how to use the Internet and RPT Alan Zajicek (AT LEFT) explains how a Palm III can aid in business.

Kansas City CyberCafe



1999 Golden Hammer winner Ernie Preuitt, RPT, addresses the Golden Hammer Banquet (AT LEFT), and (ABOVE) views his award with PTG President Dave Durben, from left, Jim Birch, Gracie Wagoner and Ted Sambell, who made the presentation.

Golden Hammer Award

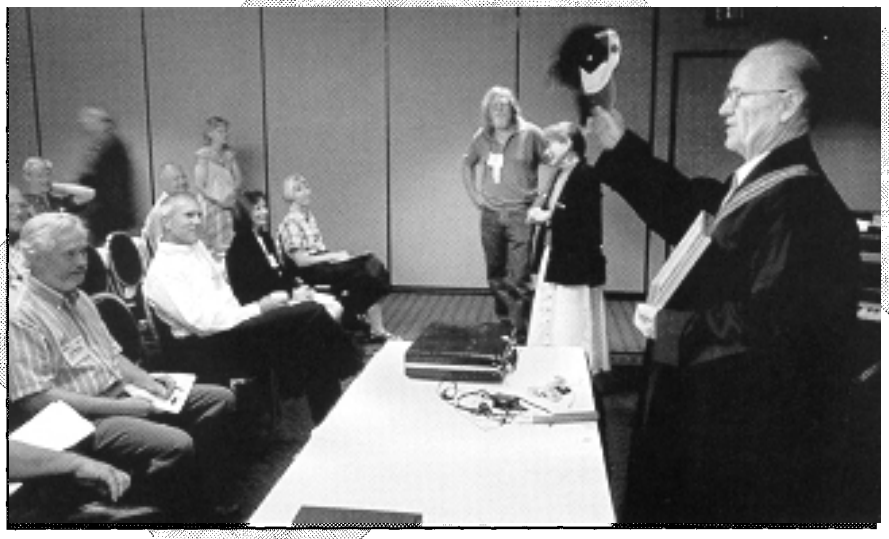


Ernie Preuitt (TOP) holds his Golden Hammer so Charter PTG Member Robert Qualls can examine the award. Above, he is surrounded by past Golden Hammer Award winners (FROM LEFT) Norm Neblett, Willis Snyder, Al Sanderson and Jim Coleman, Sr.

Golden Hammer Awards Banquet

During the 1999 Golden Hammer Banquet 2000 Institute Director Dale Probst (top) and Host Chapter Chairman Andrew Margrave (LEFT) discussed next year's convention in Crystal City, VA. Above, Jim Birch (FROM LEFT), Gracie Wagoner, Jim Coleman, Jr. and Immediate Past-President Marshall Hawkins received recognition from PTG President Dave Durben for their work on the PTG Board during the past year.

The Doctor is In



Jim Coleman, Sr. (ABOVE) doffs his "mortar board," a Harley-Davidson cap with tassel, signifying his Doctor of Real Piano Technology, PTD (Doctorium Pianotorious Technocratici) that was bestowed upon him by Ron Nossaman and Gina Carter (CENTER ABOVE) and Jim Bryant, Northeast Florida Chapter, (AT RIGHT).

Ron Coners — Learning From the Masters

By Steve Brady, RPT
Journal Editor

Most piano technicians come to their profession in roundabout ways — not many of us knew in the eighth grade that we wanted to tune pianos for a living. Ron Coners of Steinway & Sons is no exception. Having reached college age, "I had no idea what I wanted to do with my life," he said during a recent interview. "My parents insisted that I go to college, so I took a year of civil engineering at a community college, thinking that since I'd always been mechanically inclined, it might be right for me. I ended up dropping out of engineering and getting a liberal arts degree, but still didn't know what I wanted to do."

As serendipity would have it, Coners' mother was a friend of Elisabeth Mohr, wife of Steinway's Franz Mohr.

"Gilels looked at me like... well, I was just a kid!"

Elisabeth suggested that Coners might like working on pianos. "So I talked to Franz about it and Franz got me an interview at the factory. The personnel director told me there were no openings for working on pianos, but that I could get on in the maintenance department. I asked if it might be possible to move up to working on pianos if I started in the maintenance department and he said it was."

So Ron Coners started work in the Steinway & Sons maintenance department. "I was there about a month," he said. "It was one of the most miserable months of my life. The headquarters of the maintenance department was right next to a blast furnace, the boiler for the whole system. I couldn't talk to anyone because no one spoke English very well."

After a month of frustration, Coners called Franz Mohr again and told him he was ready to quit. "If I couldn't work on pianos, I didn't want to stay there," Coners recalls.

"As it happened, there was an opening in the Concert & Artist department at that time and although they usually filled those openings with trained technicians, Franz was able to persuade the director of the C & A department to transfer me over from the factory. I started here completely green."

That was 1975. Today, Coners presides over the famed Steinway Hall basement selection room in New York City as Chief Concert Technician and Manager of Concert Services. The road to his current position began with learning the skills of concert work—tuning and regulation — from Franz Mohr "and a lot of other people, both technicians and pianists." Coners maintains that he learned more about voicing from the noted classical pianist Alfred Brendel than from anyone else. "Just hearing him playing his chromatic scales and how he would pick up the voicing taught me more than anything."

Ron Coners seated in his office at Steinway Hall in New York City.

Within a short time, Coners found himself touring with the late Russian pianist Emil Gilels. "He always wanted someone to go on tour with him; as a matter of fact, he even wanted to bring a piano with him. The first year, I think it was 1977, Franz went with Gilels to the larger cities while I went to the others. The next year, I did the whole tour with him.

"When I first met Gilels, David Rubin (the C & A director) told him, 'Okay, Franz will work with you in these cities and Ronnie here will work with you in the other cities,' and he looked at me like ... well, I was just a kid! But after that tour, we got along just great.

"I learned an unbelievable amount about regulation and voicing on those tours with Gilels. We had a strike-point problem in those years; the treble sections were just way off. We had brought a piano with us and somewhere in Ohio Gilels decided the piano was no good and sent it back, and wanted me to work on the local piano. I was just totally green and what would now take me a couple of hours would take me a couple of days to do back then. So I just worked like a dog on these local pianos as we went from city to city, sometimes working right up until the time they opened the doors. But I just learned so many things doing this.

"Just to give you an example, before one concert I worked like crazy on voicing the piano. The piano was dead — someone had just put new hammers on it — and I had to juice it up. I worked on voicing it, then put the shift pedal down and did the shift-pedal voicing and just worked as hard as I could. Then, in the middle of the concert, I started

The Tuner's Life

hearing 'ping, ping,' you know. He came offstage and I asked him, 'When you press the soft pedal, do you press it all the way?' He explained that sometimes he would press it just a little, or halfway, or whatever, trying to get 'color.' The pinging I had been hearing was the string hitting the edge of the hammer. So ever since then, I always file the left edge, the corner, off the side of every hammer."

His many years of working with the cold-pressed New York Steinway hammers has led Coners to believe that the shoulders of the hammers are relatively unimportant in terms of tone production. Once the hammers are stiffened by lacquer or keytop/acetone solutions, he does all his voicing very close to the striking point. To add more "edge," he uses a few drops of lacquer at the crown and to reduce hardness in the tone he voices judiciously — using a single needle — right down through the striking point. Says Coners, "I've even cut the shoulders completely out of a hammer and hung it in with some regular hammers and then played the notes for a group of technicians. Nobody could pick out the hammer with no shoulders."

Coners voicing a piano in the Steinway Hall basement.

Coners considers touring with Gilels to be a major highlight of his career. Among other highlights he includes tuning for Vladimir Feltsman at the White House ("I went to the reception, met President Reagan, had my picture taken, the whole thing."), traveling with Misha Dichter to St. Petersburg, Russia ("a very interesting experience") and tuning for recordings in Israel.

Coners feels fortunate not to have had many major disasters in his career, but like all piano technicians, he's had some close calls. A few times "I made the mistake of rushing and broke something at the last minute. Once I tuned at the 92nd street "Y" and had to do some regulating or voicing or something, and when I went to pull the action out it was one of those cases where a hammer was up too high and it just smashed the hammer. It wasn't just a broken shank, but the hammer itself broke. What do you do? I went and borrowed some thread from the stage hand, and just wrapped and glued the hammer and it got by for the concert — but looked just horrendous. Another time, I was tuning for Victor Borge. Same deal. I broke a hammer shank and I was in Queens and didn't have an extra shank."

Besides the really good and the really bad experiences, there are what Coners calls "crazy things," the kinds of unusual memories that accumulate over the years of a concert technician's career:

"Years ago Brendel had two concerts at Carnegie Hall, a week apart. In between, Feltsman was playing, I think, Prokofiev's Third Concerto with the Philadelphia Orchestra. Brendel opted to play the house piano and as usual was just going crazy about voicing, and so we went through the routine and ended up with a mellow sound. He played his first recital and was very pleased with the piano. Then Feltsman comes, and instead of selecting a piano, says, 'I'll just play the house piano.' At the rehearsal, the piano's not bright enough for Feltsman, who loves a bright piano and especially needs that brilliance for the concerto. His manager is begging me to do something with the piano, and by this time it's too late to get another piano. So I juiced it up, made it into this crashing bright sound and he was thrilled to death. He came off the stage and said, 'I feel like a king!' For whatever reason, I wasn't able to get back to Carnegie to voice it back down before Brendel got there. I arrived while he was at the piano. He turned around and said to me, 'Well, this is now the loudest piano in America!'

"I went to Israel twice. Once with Murray Perahia and once with Feltsman. On one trip I found myself with four hours to spare, so I rented a car and drove from Tel Aviv to Jerusalem — I've come all the way to Israel, I got to see something, right? — and I went looking for the old city, saw the Wailing Wall and so forth. Then I didn't know where else to go, but I saw some signs pointing to Bethlehem so I thought I'd drive there. I drove halfway to Bethlehem and it got very scary looking. I mean, people were giving me dirty looks, the road was terrible, so I turned around, went back and saw this sign for the Dead Sea.

"Always listen to the pianists you work for."

"I figure the Dead Sea will take me another hour, so I've really got to rush in order to get back in time for the recording session. So I'm driving down to the Dead Sea and I see this sign: 'Jericho this way,' which is completely shot up with bullet holes. I keep going until I'm almost to the Dead Sea and I can see it in the distance, when this guy, this military man, comes out in the middle of the road with a machine gun and stops the car. At this point I was so naïve I didn't know if this guy was Israeli or what. He says something to me in a language I don't understand, then he says in English, "We need a ride." So two of these guys get in the car with their machine guns, one guy

Continued on Next Page

The Tuner's Life

Ron Coners — Learning From the Masters

Continued from Previous Page

sitting in the front seat and the other guy in the back seat is looking through my tools and poking around. I ask, 'So where do you want to go?' and he says, 'just go.' We drive for a while and come to a military base and they say 'let us off here.' So they get out and say 'thanks for the ride.' Now, maybe that kind of thing happens all the time there, I don't know, but it sure was an experience for me."

Coners lives on Long Island, commuting to and from Manhattan by train each day. Once at Steinway Hall, he supervises and arranges schedules for a team of eight concert technicians who perform some 60 to 80 tunings a week for concerts alone. In addition to concerts, there are recordings. "Before the recording business started to decline a few years ago," says Coners, "there was one week, about five years ago, where we did 128 tunings." The average Steinway C & A tuner does about 10 to 15 overtime tunings per week and two of the technicians get around Manhattan on bicycles, says Coners. "It's the fastest way to get around in this city." The Steinway C & A fleet numbers about 70 to 80 pianos, about half of which are model Ds. "With about 15 of the model Ds stationed permanently in halls, there might be 20 or 25 Ds in the basement at any given time," says Coners. With his dual title of Chief Concert Technician and Manager of Concert Services, he finds that much of his work is administrative: "talking on the phone, dealing with people, signing this and signing that, doing estimates."

Ron Coners, 'a burly man with a surgeon's touch.'

The day I spoke with Coners in Manhattan, he was preparing to fly to Fort Worth, Texas, to tune pianos for a new piano competition catering to amateur pianists. (Michael Kimmelman, a participant in that competition, referred to Coners as "a burly man with a surgeon's touch" in a recent issue of the *New York Times Magazine.*) Coners half-jokes that he does most of his actual piano work *away* from Manhattan, with frequent trips to Chicago and other major cities to tune for certain pianists, like Daniel Barenboim and Alfred Brendel.

Despite his important position in the piano world, Coners remains a devoted and quietly religious family man who doesn't crave the limelight. He is quick to give his staff due credit: "I've got some great people working here, some fine concert technicians. This job would be absolutely impossible without them. They do most of the work here in Manhattan."

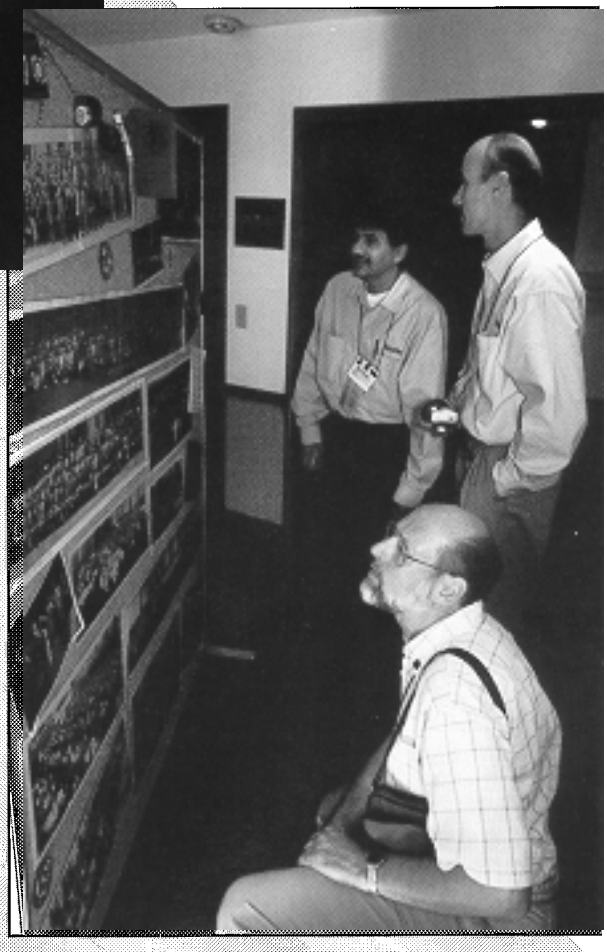
Asked if he has any advice for someone just getting started in piano technology, Coners grows reflective for a moment. "It's a difficult question," he says, "because it depends a lot on where you live. If you can't get yourself into one of the few remaining schools, you need to find someone who is a really good technician and apprentice yourself to that person." Another pause. "But there's another thing," he says. "Once you've learned the craft, remember this: always listen to the pianists you work for."

1999 - 2000 Board of Directors

The 1999-2000 PTG Board of Directors are: (FROM LEFT) Robert Mishkin, Southeast RVP; Larry Messerly, Western RVP; Ruth Phillips, Northeast RVP; Taylor Mackinnon, PTG Vice President; Dave Durben, PTG President; Rolf von Walthausen, Central East RVP; Keith Kopp, Pacific Northwest RVP; Kent Swafford, Central West RVP; Richard Bittner, PTG Secretary-Treasurer and Jack Wyatt, South Central RVP.

During the 1999 PTG Convention & Technical Institute in Kansas City, RPT Taylor Mackinnon was elected vice president during Council. During the same session Richard Bittner, RPT, was elected PTG Secretary-Treasurer. During the regional caucuses, RPT Keith Kopp was elected the Regional Vice President of the Pacific Northeast Region, the post Mackinnon had previously held, and Larry Messerly, RPT, was elected to fill the Western Regional Vice President post, formerly held by RPT Jim Coleman, Jr., who opted not to run for another term in office.

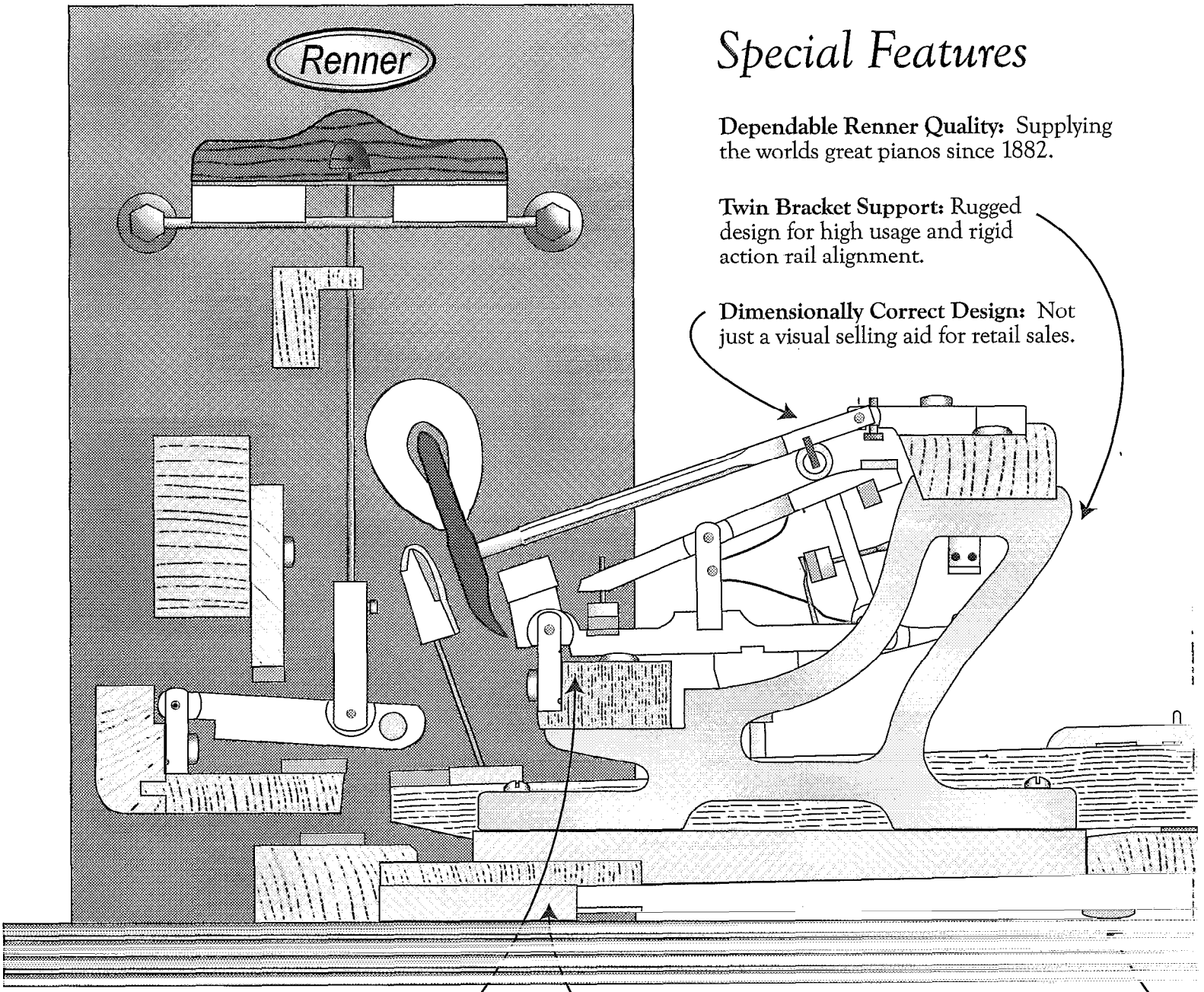
Home Office & Museum



During a tour of the PTG Home Office, Mark Burgett (ABOVE FROM LEFT), Michael Zarate, Bruce Pulsifer and Paul Olsen examine hand-written production records from the Baldwin factory in the PTG Foundation Museum. At right, Zarate, Burgett and Pulsifer review a pictorial view of PTG's past as Julie Mackinnon (BELOW CENTER) and Olsen prepare to start the tour of the office.

PTG Immediate Past-President Marshall Hawkins leads a Home Office tour through the PTG Hall of Fame.

Julie Mackinnon and Bruce Pulsifer review PTG merchandise and publications during the tour.



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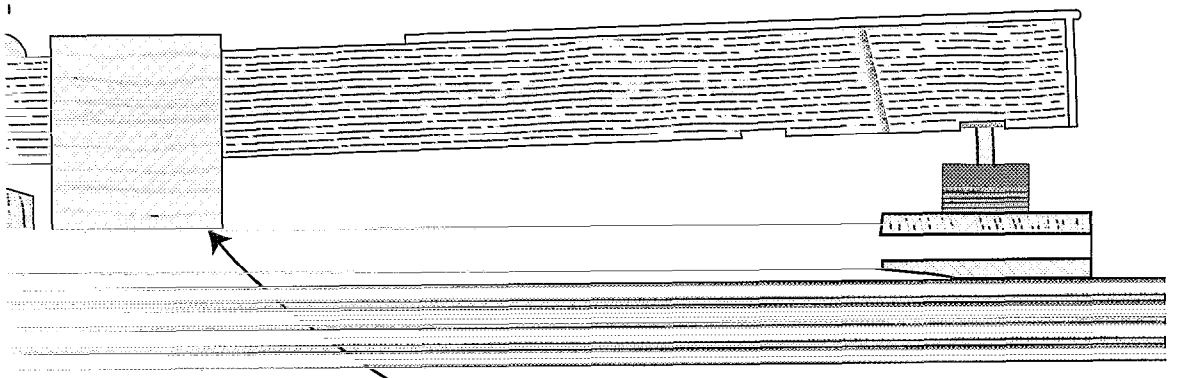

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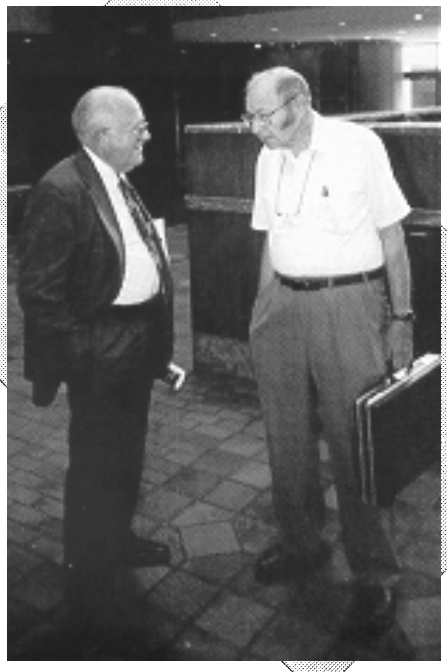
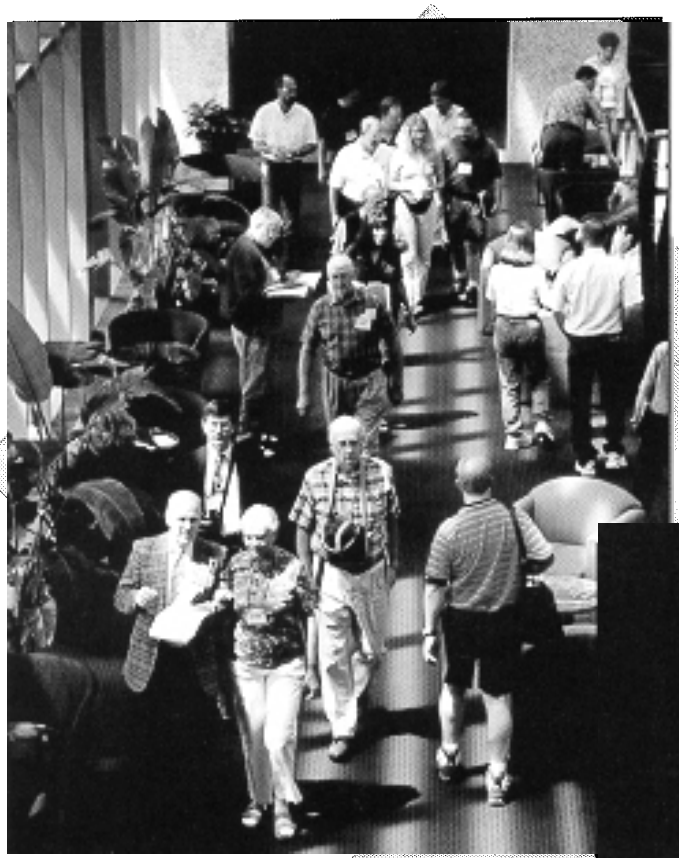
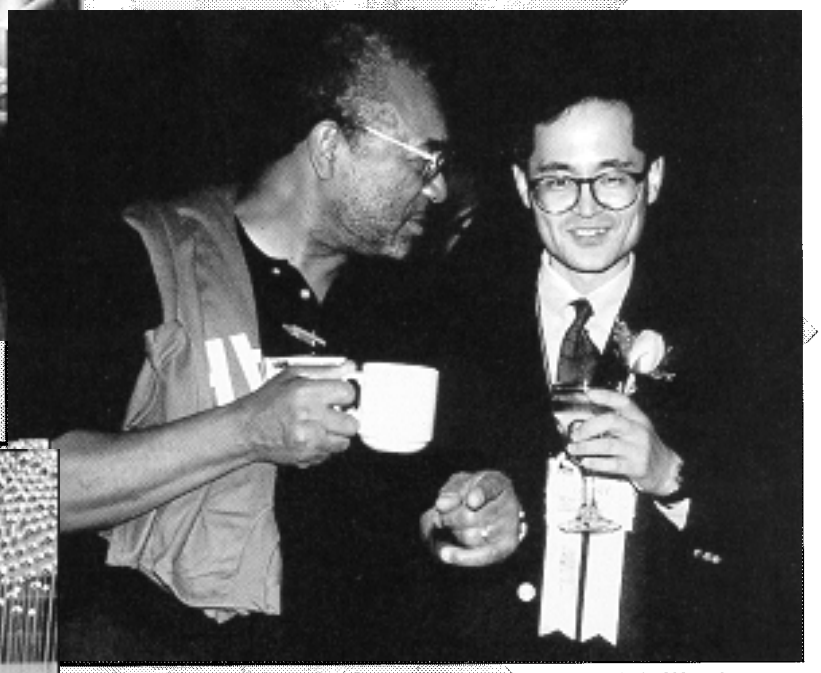
Faces in the Crowd

Terry Farrell (ABOVE LEFT) and Don Powell take time to visit between classes. Bob Bussell (top right) checks out committee assignments. At right, PTG members gather in front of the Kansas City Chapter host table during a class break. Gary Neie (BELOW LEFT) and Clayton Harmon in the lobby of the Hyatt Regency Crown Center Hotel. Jim Ellis (BELOW RIGHT FROM LEFT), Rick Baldassin and Al Sanderson in a hotel alcove.





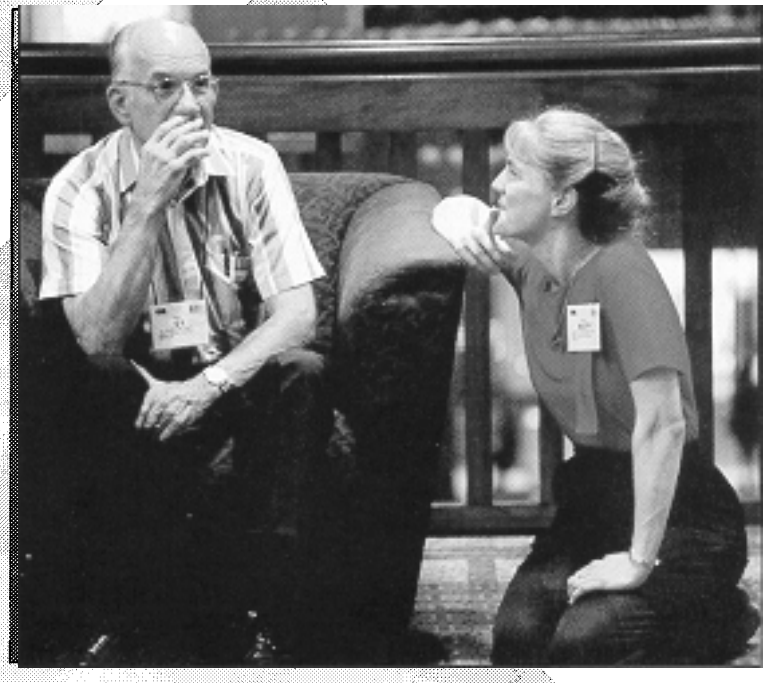
Mitch Kiel, left, with Paul and Christine Monroe between classes.



PTG Immediate Past-President Marshall Hawkins and Terry Nimi of Yamaha.

PTG members (ABOVE) traveling along the Hyatt Regency Crown Center Mezzanine during a class break. Dawson Hall (BELOW) practices in the hotel lobby.

Kathy Smith and Curtis Spiel discuss testing procedures.



More Faces

Bruce Pulsifer (TOP LEFT) gets information on the Kansas City area from Wayne Yockey at the Kansas City Chapter host table. Top right, Randy Potter finds a quiet break restful in the Hyatt Regency Crown Center Hotel Above, Ken Nossaman (LEFT) and Kris Anderson during a break in classes. Sy Zabrocki (above right) and Mary Stevens take time to visit. At right, The Fred Club, (FROM LEFT) Raudenbush, Drasche and Tremper.

By David Patterson, RPT
Toronto, ON Chapter

The Bartolomeo Chronicles

Bartolomeo Enjoys a Factory Approach

Bartolomeo chats with his engineer client about a range of subjects: emerging technologies, robotics, the price of pianos and new piano values compared to repair work. As the subject turns to engineering efficiency at the piano owner's window production facility, Bartolomeo experiences a recurring memory from a manufacturer's videotape. In this portion, lasting only a few seconds, a piano factory employee, dressed like a surgical assistant, is installing let-off button punchings. The worker's hands are a blur as felts are popped into place at a rate of several per second. The clip always seems like a sped-up, surreal, fast-motion scene as the mental image plays itself for Bartolomeo.

It stands as a constant reminder: the piano technician's value will forever be gauged in the marketplace against the results produced by robots and incredibly-specialized practitioners. The factory teaches many things. How on earth do they string eight pianos per day? The answer is the same for all things technical: quality and speed. They are twin brothers, but one is revered and one is downgraded. Improving quality is put on a pedestal. Improving speed ends up associated not with superior value, but with hurrying, rushing, sloppiness or shoddiness. And nothing could be further from the truth.

Bartolomeo is more and more open to new ideas that are not "by the book" regulating techniques. He appreciates the customer's interest in results. Action brackets often are too tight-fitting to allow for easy action removal and installation. He originally put up with it because, well, nobody said to change it. Thinking like a factory person, he takes ownership of the situation and bends the bolts using a pipe or extension tuning lever handle. Caution is used to ensure that the action is properly seated.

When removing the action for work, he sets the first and last let-off within each section, as well as marking the spoon lift. This information allows the use of a string representation once the action is on the workbench. He duplicates the piano conditions to allow as much as possible of the let-off, damper and spoon work to be completed prior to the return visit.

The let-off rail is adjustable and is moved up or down by bending the brackets. When practical, the wholesale changes made by this method save time and effort. Often the original detailed regulation is still intact once all of the buttons are moved up closer to the jacks. Lengthy and unnecessary bouts of let-off button turning are made even worse by a line of wear that occurs in the cloth. This groove, caused by the jack tender, results in an uneven, staggered adjustment pattern. Even though the button may be turned in even amounts, the corresponding change in the hammer release point ends up difficult to work with.

Balance rail shimming is a skill that yields huge time dividends once the investment is made to learn rapid screw location and removal, along with accurate prediction of the required thickness of shim. Herein lie solutions to problems of key leveling, key dip, aftertouch and key strip clearance. When it will work, excessive lost motion is eliminated by shimming under the back rail with cardboard, veneer or felt. Individual rough adjustments are once again done away with. After all, the lost motion probably resulted from lessening of the dimension of bolster cloth thickness. When the original dimension is restored, things fall into place and only minor adjustments are needed.

Dowel-style capstans on old and late model uprights dramatically alter touch/resistance when adjusted forward and backward. Contact *closer* to the pivot point (door hinge) produces a heavier feel and a longer stroke. Conversely, contact *further* from the wippen flange (door hinge) produces a lighter touch but a shorter travel distance for the wippen.

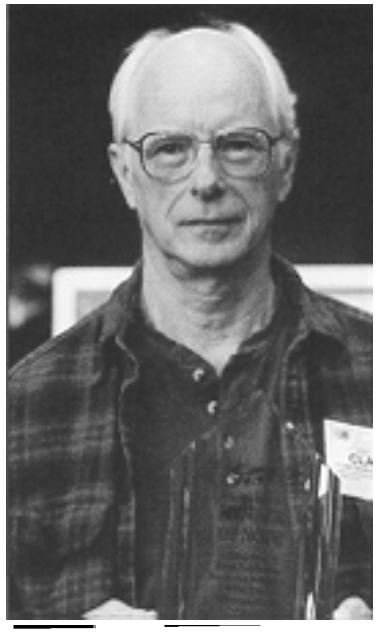
The adjustable nature of the hammer rail is used with pre-regulation setup in situations where the dip is acceptable. In this case, using hammer blow to affect aftertouch results in a fraction of the work when compared to key dip adjustment. Using the adage "if you can't beat 'em, join 'em," Bartolomeo even uses the left pedal adjustment to crank up the hammer rail during the swollen season and provide jack return clearance on late model instruments.

Bartolomeo sees through the eyes of the public we serve. Results come first. Technique comes second.

This installment completes a 12-part series concentrating on practical tips for in-home servicing of vertical pianos.

Award Winners

1999 Hall of Fame winner Rick Baldassin.



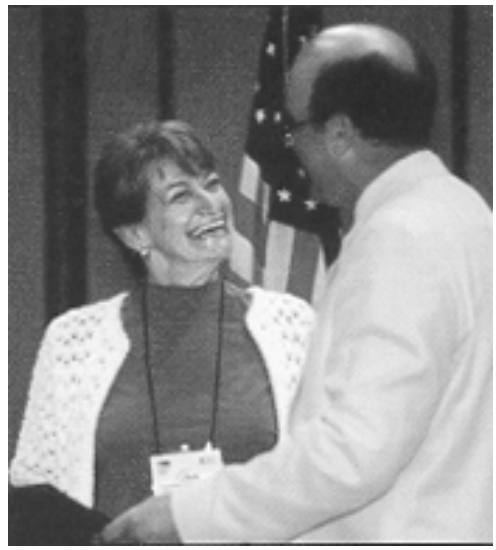
Claire Davies (LEFT) and Richard Bittner (ABOVE) received 1999 Member of Note Awards.

Opening Assembly

PTG President Dave Durben (ABOVE LEFT), 1998-99 Secretary-Treasurer Gracie Wagoner (CENTER ABOVE), in-coming Executive Director Dan Hall (ABOVE RIGHT AT LEFT) and Interim ED Pris Chansky and Kansas City Chapter President Bob Dillinger addressed the Opening Assembly.

The 1998-99 PTG Board of Directors (AT LEFT FROM LEFT) Taylor Mackinnon, Pacific NW RVP; Kent Swafford, Central West RVP; Rolf von Walthausen, Central East RVP; Jack Wyatt, South Central RVP; Bob Mishkin, Southeast RVP, Ruth Phillips, Northeast RVP; PTG Secretary-Treasurer Gracie Wagoner and PTG Vice President Jim Birch with PTG President Dave Durben.

At the Podium



Journal Editor Steve Brady (ABOVE LEFT AT LEFT) presents Dave Hughes with the 1999 Jack Greenfield Award. Above, PTG President Dave Durben presents Gina Carter with a Presidential Citation. At left, Richard Bittner (FAR LEFT) and Keith Kopp (RIGHT) present Mark Poulin with the Examiner of the Year Award. Below, 1998-99 PTG Foundation President Randy Potter presents Laura Olsen with the Past PTGF President Award.

During the Opening Assembly, 1999 Institute Director John Ragusa introduces his assistant directors (FROM LEFT), Evelyn Smith, Alan Gilreath, Laura Olsen and Dale Probst.

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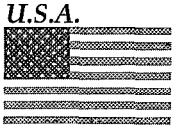

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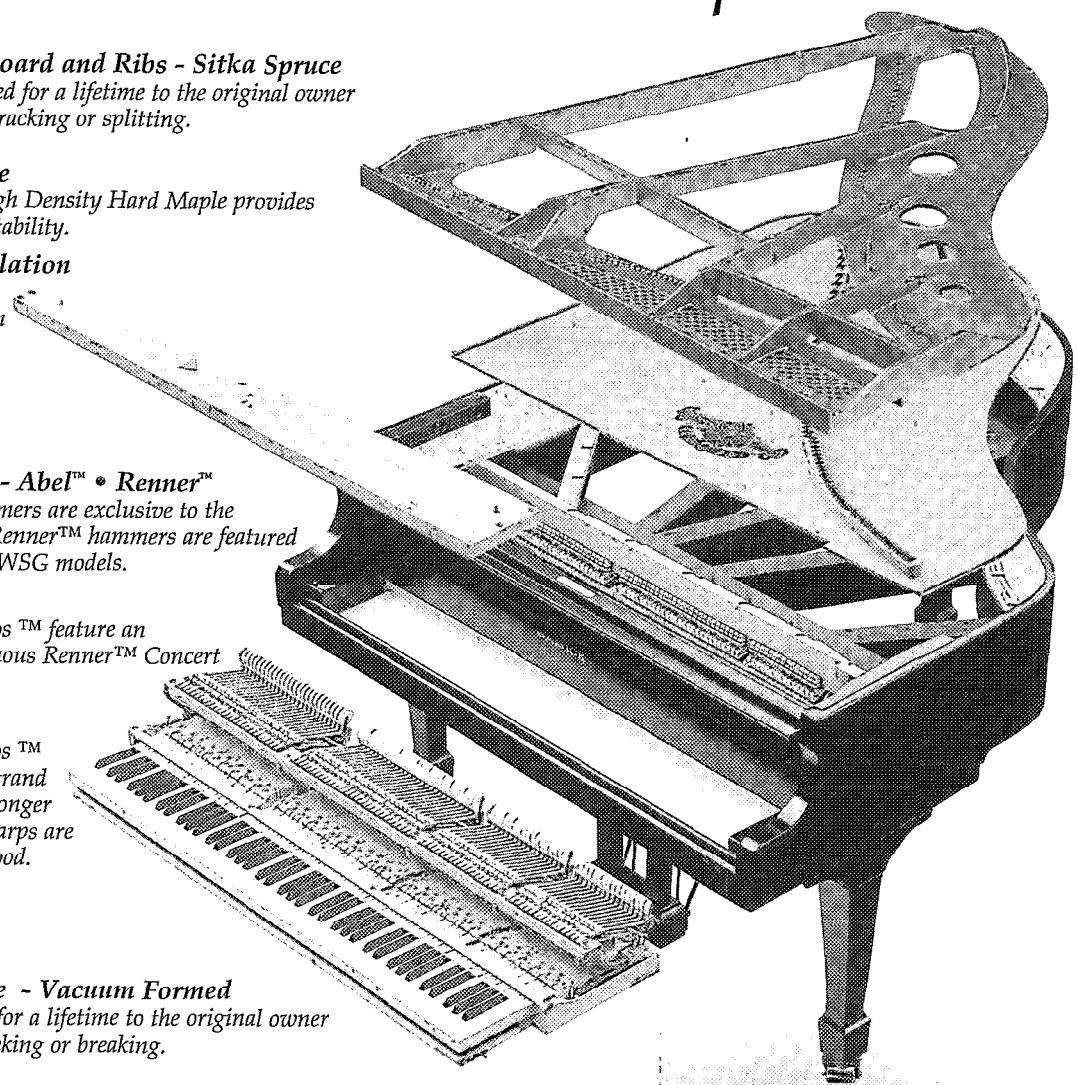
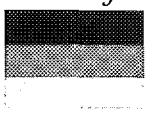


Germany



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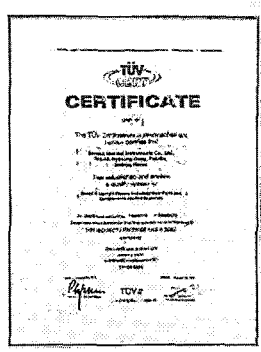

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PTG Review
PIANO TECHNICIANS GUILD
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So How Do You Do It?

My friend asked me how I managed to attend the Annual Convention.

"I mean, all that time off of work," he said, "how do you do it? You gotta pay for a room, registration, food, and you miss a week's work..."

"No," I said, "I don't miss a week's work."

"Whadayamean?" he asked.

I explained to him that attending the convention is work to me. It is also fun: meeting new people, learning new things. But I would no more try to be a professional piano technician without attending the convention than ... well, leap tall buildings in a single bound.

He regards me with the slightly befuddled, highly intelligent stare that is his trademark.

"So your saying that the convention is work but you have to pay for it yourself. No one pays you for this work, you pay them?"

"Wrong," I say. "Everyone I work for pays for the convention, it is part of the continuing education that allows me to serve my clientele more effectively. I learn better ways of doing things, new ways of seeing things, and I get excited about making my customer's piano more beautiful to play. I am surrounded by some of the best technicians on the planet, teaching and learning from each other at warp speed, this is it baby, the majors, the big show, it doesn't get any better than this."

My friend is speechless at my eloquence, a rare moment.

"Sure there are great regional seminars, wonderful chapter programs, and many other benefits to PTG. But when the rubber smokes the road, when you want to see pianos and technicians from all over the world, if you dare to take on the best teachers available for four and one half days, crying for more as they carry you out on a stretcher, it's maximum overdrive time, pedal to the metal, pays your money and take on the next century."

"You haven't been taking your medication," he inquires, "have you? Would you like a cold compress, you look feverish?"

It's true, I know. I have the PTG Fever. Probably a terminal case, the prognosis for recovery is poor. As a known carrier, I am avoided by those who fear that it is contagious. I see them avoid my eyes as I walk down the hall, I hear them whisper as I pass by:

"Watch out, he's got that PTG stuff real bad!"

I smile and keep walking. It's not so bad, I think. I've seen worse. Heck, I've been worse. They should have seen me a few years ago. I would have had them begging to sign up for a class or help set up a classroom. Now I just control their thought processes.

— Dale Probst, RPT, Institute Director ■

— 2000 Convention —

Musical Attractions for Piano Technicians and their Families — Washington, DC Metropolitan Area

By Andrew Margrave, RPT
President, Northern Virginia Chapter

The Washington, DC, metropolitan area is notable for its enormous and varied smorgasbord of musical offerings near Crystal City, VA, where next year's PTG Convention will be held. The most prominent musical venue is the John F. Kennedy Center for the Performing Arts, known informally by abbreviated terminology's as such as the Kennedy Center, JFK Center, and KenCen. The Kennedy Center, open since 1971, has four performance halls plus a Grand Foyer in which performances are sometimes given. To find out what is happening at the Kennedy Center at any time call (202) 416-8000 (local) or 1-800-444-1324 (toll-free). The Kennedy Center's website is http://www.kennedy-center.org.

The Smithsonian Festival of American Folklife, a long-time fixture, will be held on the National Mall, a large rectangle stretching westward from the US Capitol to the Washington Monument grounds, June 23-27 and June 30-July 4 next year. All the arts and much more will be featured. Of course Piano 300, also sponsored by the Smithsonian Institution,

Continued on Page 52

Musical Attractions

Continued from Page 51

must rank as one of the all-time magnets for piano technicians and indeed all with any stake or interest in music. The Smithsonian's main telephone number is (202) 357-1300.

The Netherlands Carillon, a gift from the Dutch government following World War II, is in Arlington, near the Iwo Jima Memorial landmark. Free bell concerts are given at the Netherlands Carillon throughout the summer. For additional information, call (703) 285-2000.

The Arlington Parks, Recreation and Community Resources Department sponsors outdoor concerts in various parts of Arlington; call (703) 228-6960. The Crystal City Water Park, in the middle of Crystal City itself, is the site for concerts Tuesdays and Thursdays, 11:30 a.m. – 1:15 p.m. (Warning: The musical fare for all these Arlington outdoor concerts usually varies among pop genres, seldom if ever including permanent music of quality). Alexandria, VA has its own outdoor concert series; for information call (703) 883-4686.

Every July 4 there is an Independence Day Celebration on the National Mall, culminating at night with a National Symphony Orchestra performance and fireworks. (The nocturnal festivities are not recommended for in-person patronage due to factors of safety, noise, crowd control and sanitation. Far better is it to view said festivities on TV.) Call (202) 619-7222 if more information is desired.

At Mount Vernon, home of George Washington, about 15 miles south of Crystal City, there will be a concert on July 4, just as there was a July 4 concert there this year. Call (703) 780-2000.

Wolf Trap Farm Park, located in Fairfax County about 15 miles west of Crystal City, has musical events on most summer nights. Call (703) 255-1800.

The service band concerts are especially highly recommended for the superiority of their executants and their better-than-average repertoire. The concerts are free and most are on the Mall, either by the U.S. Capitol or near the Washington Monument. For information call: U.S. Marine Band, (202) 433-4011; U.S. Army Band, (703) 696-3399; U.S. Navy Band, (202) 433-2525; U.S. Air Force Band, (202) 767-5658. There is also the Tuesday evening (7 p.m.) Sunset Parade at the Iwo Jima Memorial, courtesy of the U.S. Marine Drum and Bugle Corps and Silent Drill Team; call (202) 433-4073 for more information.

The numerous nightclubs in and around Washington, DC, are generally to be avoided as much too seedy for families and dangerous as well. Besides, who needs nightclubs with the more wholesome fare cited above available? ■

[The author gratefully acknowledges Arlington Convention & Visitors Services, 2100 Clarendon Blvd., Arlington, VA 22201, telephone (703) 228-3988, for providing immense help in the formulation of this article by furnishing much of its material.]

HURRAY! FOR THE NEBRASKA CHAPTER

If my calculations are correct, we have a total membership of 26 (15 RPTs and 11 Associates). We had a total of 11 members present at Kansas City which equals 42 percent of our Chapter. Six RPTs of 15 equals 40 percent, five associates of 11 equals 45 percent. The RPTs present were Larry Caldwell, Bob Erlandson, Wes Hird, Mick Johnson, Mike Osterberg, Richard West. The Associate members present were Keith Byrkit, Casey Edel, Dwight Haupt, Steve Lehr, Lorraine Thompson. We also met up with two former Nebraska Chapter members while there: John Minor and Jeff Stickney. Good going Nebraska Chapter.

— Larry Caldwell, RPT ■

Members of the Nebraska Chapter celebrating their 35th anniversary are (FROM LEFT) Gene Somer, RPT, immediate past president; Keith Byrkit, secretary; Larry Caldwell, RPT; Richard West, RPT, president and Steve Lehr at Richard West's home. The celebration was held during the chapter's June planning meeting featuring pizza and the special dessert at right.

The Nebraska Chapter's 35th anniversary ice cream cake features a sweet keyboard, but it can't be played. The cake technician used too many white keys between the black keys.

The PTG Award Committee *requests that you submit nominations for the following awards to the PTG Home Office, 3930 Washington, Kansas City, MO 64111-2963:*

Golden Hammer, Hall of Fame and Crowel-Travis Member of Note.

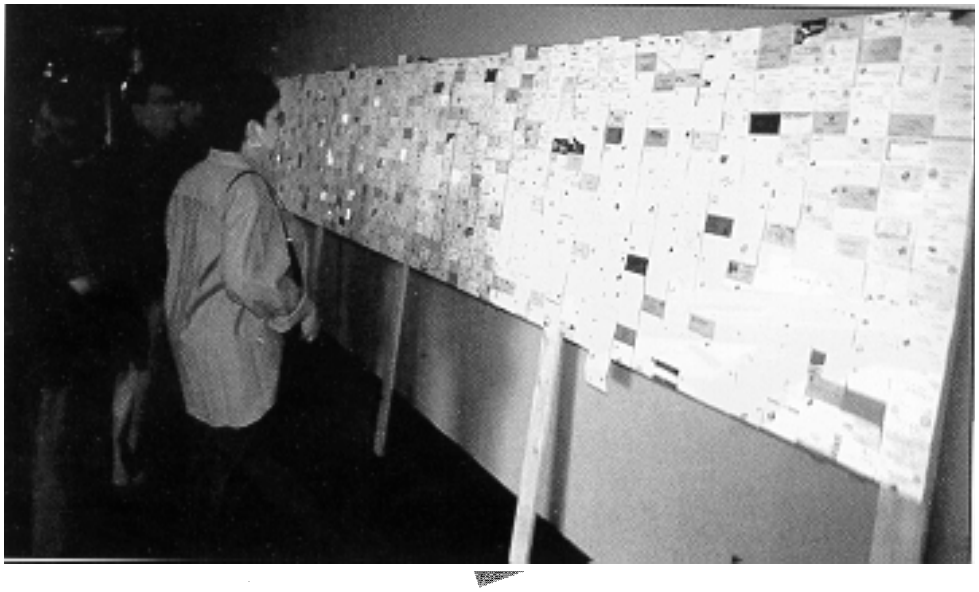
Any member in good standing may nominate candidates to their chapter. Upon chapter approval, a resume of the candidate(s) must accompany the chapter's choice of nomination.

The deadline for these nominations is ***December 31, 1999***

Randy Potter School of Piano Technology Reception

Above left, guests at the Randy Potter Reception make their way through the buffet line. Mary Jane and Roger Weisensteiner (CENTER ABOVE). Left, centerpiece for buffet line.

Sid Stone's Business Card Display



Kelly & Carroll Ward Celebrate 50 Years of Wedded Bliss October 9, 1949 - 1999

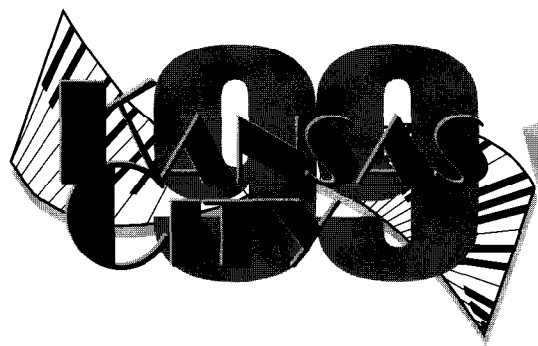
1966 PTG Convention & Technical Institute, Miami, FL — *The Wards (from left), Kelly, Carrol, Margaret (the short one), Charles, Elizabeth, Richard and Frances with Jess Cunningham.*

Council Action Ends Death Benefit

(Kansas City) — PTG Council Delegates voted to end the $1,000 death benefit for PTG members at the 42nd Annual PTG Convention & Technical Institute.

The PTG bylaws were amended to remove the PTG death benefit insurance policy from member benefits. The primary reason for this change was the high premium cost (nearly $50,000 per year) of providing this benefit. Last year 24 claims were paid while some 3,900 technicians are PTG members. PTG members may convert their $1,000 term life insurance to other whole life products offered by Royal MacCabees Life Insurance Company (Group Plan 20938, phone 1-888-222-9513)

Individual PTG members carrying the *supplemental* life insurance policy of $10,000 or $25,000 still will be able to keep this coverage. Other PTG members not now covered may apply for this supplemental life insurance plan, subject to underwriting approval. If interested in supplemental life coverage contact: Ms. Lupe Sherman, Gallagher Benefit Services, at 800/934-4624 or by e-mail at: lupe_sherman@ajg.com. ■



This is a Test...

Ricki Klos** (ABOVE FROM LEFT), **Wim Blees and Mark Poulin discuss testing procedures while Curtis Spiel** (FAR LEFT AT LEFT) **and Evan Dunnell grade an action model.

Foundation Focus

PTG / PTGF ... One in the Same

Fred Tremper, RPT
Vice President, PTGF

When recently reading the biography of Alexander Hamilton, one of the nation's founding fathers, I came across the following assessment of his attitude toward the fledgling country and the collection of States:

"He believed in an indivisible nation where the people would give their loyalty not to any state but to the nation."

It brought to mind the attitude that many of us have toward the relationship between PTG and the PTGF, that they are two separate entities, each separate from the other; the Foundation takes its own road with occasional financial help from the Guild. Not so. The Foundation and the Guild are one and the same. Everyone who is a member of the Guild is also a member of the Foundation.

What, then, does the Foundation do to promote the interests of the Guild? The Foundation is a tax-exempt entity, as is the Guild. Money that comes to the Foundation is put in trust for the benefit of the Guild and its members. So, money that comes to the Foundation through, say, a donation in memory of another is held by the Foundation for the benefit of the Guild.

The Foundation spends money for scholarships (see below), publications (most recently it sponsored the publication of Jack Greenfield's book History of Midwestern Piano Manufacturing and also literature which members may distribute to their clients) and the museum, housed at the Home Office in Kansas City, which includes a library and items of historical and cultural interest peculiar to the tuning profession. All of these activities support the Guild and call attention to its good name.

The Foundation has established on a permanent basis two scholarships. The first is to Associate members of the Guild who have passed the written examination and are ready to take one of the two remaining RPT exams. The winner (or winners) receives free registration to the annual convention and is able to take the third exam free of charge. Any Associate member in good standing may apply for this scholarship. To apply, contact any Foundation director for information.

The second scholarship the PTG offers is in conjunction with the Music Teachers National Association. It is a $1,000 award which is intended to further the winner's study of piano pedagogy. The winner is selected not by the PTG but by the MTNA. The presentation of this award, however, is by one of our members who acts as a representative of the Guild. The net result is that we (the PTG) gain an invaluable reputation as an organization committed to the furtherance of piano instruction in particular to music in general.

The Foundation is made up of 10 directors headed by a president, vice president and secretary-treasurer. In addition it has at its disposal the collected wisdom of its directors emeritus who are made up of former Foundation directors whose contribution has been judged to be outstanding.

Personally, I have always felt the term "directors" is really a misnomer. We are functioning as trustees. What is the difference between a Board of Directors and a Board of Trustees? Probably very little in practical terms. The difference is in implication. A trustee is one who holds something for the benefit of another. The Foundation's board is really a group which is holding in trust not only funds but the good name and reputation of the PTG itself.

The thrust of this message is that the Foundation is a branch of the PTG, but is not a separate entity. As the saying goes, "We all work for the same boss. Let's do it together." ❑

Tax Angles for Donations

Give Through a Life Income Gift

Many people who have planned to remember the PTG Foundation through their wills may discover that a life income gift established now can make a lot of sense. Through a life income gift you can continue to receive income from invested funds at the same or even greater levels as you currently do. Upon your death the remainder will go to the charity just as you planned.

However, unlike a bequest, life income gifts offer significant tax advantages now. Capital gains taxes can be completely avoided or significantly reduced if the life income gift is funded with appreciated property. Some life income gifts can provide tax free income. And the "remainder" value of the gift is currently deductible in 1999. Check with your tax adviser or call the PTG Foundation to inquire about a charitable remainder trust, a gift annuity or a pooled income fund gift. (Call 816-753-7747 or email: exec@ptg.com)

Give Appreciated Property

Charitable giving of appreciated assets can be a terrific tax-wise strategy. Gifts of common investments such as stocks, bonds, mutual funds and real estate qualify for a very attractive tax benefit. You may take a full fair market value deduction today even though your cost may have been much less. Moreover, you do not need to declare or "recognize" the capital gain at all. In effect, this is much like a double deduction.

Consider this illustration of how gifts of appreciated property can be an effective strategy for year end giving. Suppose you have stock that is currently worth $1,000 but years ago, when you bought it, your cost was only $200. The $800 difference between original cost and today's market value would be taxable as a capital gain. In a 20 percent tax bracket, the tax due if you sold the stock would be $160, leaving $840 available for giving. But if you gave the property directly to the charity, you avoid the capital gains tax, give a full $1,000 gift—and get a $1,000 charitable deduction. The charity can sell the stock with no capital gains tax. You will have made a bigger gift at less net cost because of the larger charitable deduction.

[*This publication does not attempt to make any legal or tax advice. For advice in specific situations, the services of a competent legal, tax or financial planner should be obtained.*] ❑

Piano 300 Celebration
PTG Foundation Matching Grant

As you are aware, the year 2000 marks the 300th anniversary of the invention of the piano. The Piano Technicians Guild and PTG Foundation have an unparalleled opportunity to promote the importance of the piano and the central role that piano technicians play in making beautiful music possible.

Grants Available ...

In order to assist chapters in holding local events, displays, concerts, etc., the PTG Foundation has agreed to expend up to $5,000 to PTG chapters, in matching funds of not more than $500 each, to assist in putting on and publicizing these events.

Smithsonian Display ...

The Piano Technicians Guild has been at the forefront of Piano 300 since the January 1997 initial planning meeting with the Smithsonian. Although the Smithsonian display has been scaled back because of lack of financial support from the industry, it will be of importance to the musical world. And, our members will have an opportunity to visit during the 2000 convention in Arlington, VA, July 5 - 9. This exhibit is to open in March, 2000 and will operate for one year. PTG has served as a resource for information and materials to be in the display.

Project Goal ...

Chapters can play a central role in bringing Piano 300 to their local communities. The possibilities for promoting a better awareness of the piano, a deeper appreciation of piano music and the role of piano technicians at the local level are nearly endless. Cooperative efforts with local music organizations offer a great opportunity to showcase the talents of all concerned in these musical events. Projects should promote piano music and furthering the knowledge and recognition of the Piano Technicians Guild and PTG Foundation.

Deadlines/Information ...

Chapters are required to apply for these funds by the Dec. 1 deadline. All applications should be returned to the PTG Home Office, 3930 Washington, Kansas City, MO 64111-2963 to be received by the deadline. Any questions should be referred to the office (816/753-7747 or e-mail ptg@ptg.org) or to Nolan Zeringue at 504/446-6812.

PTGF

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Ernest Preuitt, RPT
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Left: PTG Foundation meeting at the 1999 Annual Convention in Kansas City.

PTGF Board Members: (left to right): Ernie Preuitt, Roger Weisensteiner, Fred Raudenbush, Jim Birch, Jack Wyatt, Nolan Zeringue, Marshall Hawkins, Fred Tremper, Paul Monachino

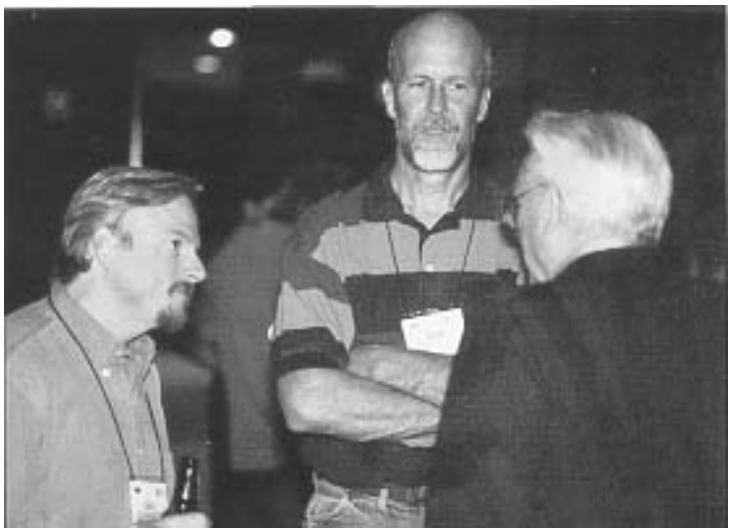
1998-99 PTGF President Randy Potter presents his Agenda.

Steinway & Sons presented the Marcus Roberts Trio for an outdoor concert at the Crown Center Terrace.

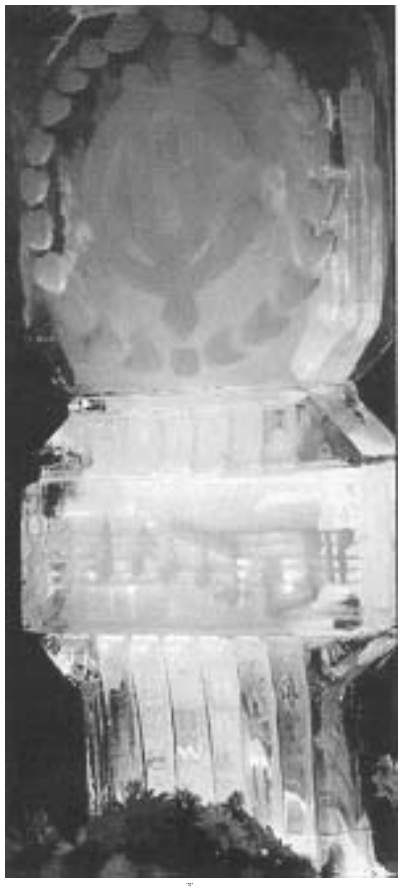
The Steinway & Sons Reception is where friends can gather and meet, including Jenora and Stacy Yoak (AT LEFT FROM LEFT) and Melanie Brooks and Paul Chick (BELOW FROM LEFT) Al Fisher, Dave Watson and Meredith Pritchard, who all enjoyed the reception following the outdoor concert.

Steinway & Sons Reception

Young Chang Reception



Eric Wolfley (from left), Bob Hohf and Fred Tremper hold a conference during the Young Chang Reception.



Tom Miller, vice president of sales and marketing, Young Chang America, and designer and engineer Joseph Pramberger discussed new Young Chang features during the beginning of the reception and found a receptive audience (BELOW).

Young Chang concert artist Jim Martinez performed during the reception.

1999 IAPBT Convention

Japan Site of 11th Annual Event

By Yat-Lam Hong, RPT
Western Michigan Chapter

The eleventh convention of the International Association of Piano Builders and Technicians (IAPBT) took place on May 29-31, 1999, in Hamamatsu, Japan. This was the third time IAPBT had its convention in Japan. It met in Tokyo in 1983 and Kyoto in 1989 also. It consists of seven member organizations: USA/Canada (PTG), Japan (Japan Piano Technicians' Association or JPTA), eleven countries of Europe (Europiano), Korea (KAPT), Taiwan (TPTA), England (PTA), and Australia/New Zealand (APTTA). The total membership represented by IAPBT is about 9,800. It may seem hard to believe, but, since its founding in Minneapolis in 1979, IAPBT is now in its twentieth year of existence.

This Hamamatsu event was really two conventions in one, as JPTA's seventieth convention coincided with the first two days of the three-day IAPBT convention. About 700 members were there for JPTA and 100 for IAPBT. The United States was represented by 24 of the 100 IAPBT participants. The rest came from Germany, Italy, France, Switzerland, Austria, England, Japan, Korea, Taiwan, Australia, New Zealand and China.

It's especially appropriate that this double convention of piano technicians and builders took place in Hamamatsu. With all the Japanese piano manufacturers located here, including the "Big Two" (Yamaha and Kawai), this city is the piano-building capital of the world, which may come as a surprise to many. In fact, musical instrument manufacturing is only one of the three major industries of Hamamatsu, which dominate the economy of the region. (The other two are motorcycle manufacturing and textiles, which are beyond the scope of this report.)

Hamamatsu is a city of just over half a million in central Japan, about midway between Tokyo and Kyoto. It's in a very scenic part of the country. With mountains to the north, the Pacific Ocean to the south, a lake to the west and a river to the east, recreational opportunities abound. With its mild weather, Hamamatsu attracts large numbers of vacationers and conventioneers throughout the year.

Ralph E.T. Long, the new IAPBT president, and his wife, Jean.

It also prides itself as the "City of Music." The musical instrument manufacturing aspect aside, this is also the home of the International Chopin Festival, the Yamaha Jazz Festival and the Hamamatsu International Piano Competition. Artists, both native and internationally renowned, come here regularly to perform and the city maintains a busy concert schedule year-round.

The double convention took place in the Act City Hotel, which is conveniently located right next to the Shinkansen Line station. Known to most Westerners as the "bullet train," Shinkansen is named for its bullet-shaped engine as well as for its speed, which could reach 170 miles per hour. Besides speed, this train system is also known for its quietness, comfort and punctuality.

The Act City Hotel is located in an enormous 44-story multi-purpose building. This five-year-old hotel occupies the top 16 floors, and is part of the luxurious Okura Hotel chain. The middle 19 floors are rented out as offices for various businesses, and the lower floors contain the hotel lobby, ballrooms, banquet rooms, restaurants, bars, garages, a convention center, a concert hall and a mall full of shops and still more restaurants. Also here is the very impressive Hamamatsu Museum of Musical Instruments, which is every bit comparable to the world-famous Glinka Museum of Musical Instruments in Moscow. To go around the entire complex once is a one-mile walk, which should give one some idea of its immensity.

Hamamatsu being the "City of Music," the Act City Hotel has appropriately adopted music as its theme. Just about everything here has a music-related motif. The lobby floor is lined with black and white tiles arranged in keyboard fashion. The floor at the main entrance is decorated with a performing jazz band in mosaic tiles. The main columns are painted gold with flared tops that remind one of the bells of brass instruments. Abstract sculptures of cello, French horn, etc. are all over the place. The

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elevator lights are shaped like grand pianos and the background music could be anything from *Eine kleine Nachtmusik* to the *Hammerklavier* Sonata.

Without question, the "theme song" of this hotel is Chopin's Nocturne in C-sharp Minor, opus posthumous. Excerpts from this piece are used as decorations on the elevator doors, wallpaper, shower stalls and on the glass doors at every entrance to the hotel. If one doesn't like Chopin, there's just no escape from it. Although this piece is generally not considered to be one of Chopin's masterpieces, it apparently had some special significance for the architects who designed the building.

A good part of the first two days of the joint IAPBT-JPTA Convention was taken up by the eight technical classes on a variety of topics offered by Bechstein, Bösendorfer, Dampp-Chaser, Inventronics, Kawai, Music System Research, Steinway and Yamaha. For the benefit of JPTA members, all classes were translated into Japanese from the instructors' English and German. Most of the JPTA technicians I saw seemed to take the lectures seriously and they took notes furiously, filling their notebooks with page after page of pearls of wisdom. Their thirst for knowledge was obviously insatiable, and they were a refreshing contrast to those technicians who already knew everything and chose to spend their time drinking away at the bars during class time.

While the technical seminars were in progress, the exhibition hall also was open. I spent much time there, checking out the latest products in the piano industry and visiting with some of the exhibitors. Most of the big-name European manufacturers were represented there: Bechstein, Bösendorfer, Grotrian, Hamburg Steinway, Schimmel, just to name a few. I also visited with a vendor who was demonstrating his automatic room humidifier/dehumidifier. He said that a piano needs a stable climate to stay in tune and sound at its best and that as long as the room the piano is in has proper humidity at a constant level, there is no need for any in-the-piano heating units or water buckets. And he proceeded to show me how his machine worked.

Another exhibitor was demonstrating his "Silent Panels" that are to be installed behind a vertical piano to muffle the sound, so a pianist's practicing wouldn't drive his neighbors crazy. According to him, these panels could reduce the volume of an acoustic piano by as much as 50 decibels! In the cramped and tightly packed apartments where many Japanese live, these panels could be the best thing for sound reduction, short of switching to the digital piano.

Then, there was the "double" piano, which was a regular vertical piano, where the top front panel could be folded down over the keyboard to make a desk, and the desk lamp is already built-in over the hammer rest rail. Two filing cabinets with drawers are fitted in the spaces on both sides of the pedals. Thus, a complete desk and a vertical piano would take up no more space than the piano alone, and one could play the piano and then do paperwork without having to leave the bench. This two-function piano is simply called the "Double," and again, it's an ingenious solution to the space-saving challenge.

Ralph E.T. Long was carried by Neri Band members and paraded around the Grand Hotel ballroom in celebration of a new beginning.

The Yoshizawa Co. showed its piano-moving devices. Using a system of levers, pulleys and chain hoist, they enable one person to move any vertical or grand by himself safely. They're massive pieces of equipment, perhaps more suitable for factory use than small rebuilding shops. And then, there were the usual array of companies that sell action parts and regulating tools.

On exhibit were also many Japanese-made pianos that I had never heard of, and I asked Seishi Tamaoki, an executive with Kawai, about this. When I first visited Hamamatsu 10 years ago, there were 15 piano manufacturers in Japan. Now, according to Mr. Tamaoki, there are only six. Being in the Japanese piano business, he ought to know. Besides the "Big Two," they are Diapason, Apollo (formerly Toyo), Kreutzer, and the Hamamatsu Piano Co. The Hamamatsu Piano Co. is made up of several small companies that went out of business earlier, and have since regrouped to form the new company. It makes pianos with brandnames such as Gershwin, Schwester, etc.

Most American technicians have never heard of these names, because typically they're not sold outside Japan, Mr. Tamaoki said. It's notable that many of these brands have "German-sounding" names. It seems that, to the average person, Germany still makes the best pianos, (which, of course, may or may not be true), and if the name sounds German, it's probably German. Perhaps the manufacturers who assign German-sounding names to their pianos are hoping that some of the quality and craftsmanship of German-made pianos would somehow "rub off" in potential customers' minds and that might make their pianos easier to sell.

It was a fascinating discussion I had with Mr. Tamaoki and it's an indication of how fast the piano business is changing, even in Japan. I've long noticed the trend to use German-sounding names for pianos of average or below-average quality. Typically, such pianos are made in Asian countries. One of the simplest ways to make a name sound (and look) German is to add an umlaut to a vowel, as this diacritical mark has magical powers. (Before I get into trouble, I want to make it clear that I'm not talking about Blüthner or Bösendorfer, even though both of

these well-respected names have umlauts in them.)

Conversing with our Japanese friends, we did have language difficulties. When speaking English, some Japanese have the puzzling habit of reversing the sounds of *r* and *l*, and *f* and *h*. Knowing this simplifies communication. For example, when a hotel clerk said, "Youl loom is on the horty-hourth hlool," he really meant, "Your room is on the forty-fourth floor." That's simple enough to figure out.

What's much more troublesome was the kind of double-miscommunication that happened frequently. This was when my question was misunderstood and the person would answer the wrong question in such broken English that his intended meaning was totally obscured. For example, on the first day of the Convention, I sneaked out to attend an afternoon recital of solo French music by pianist Kumiko Nakada in the Hamamatsu Museum of Musical Instruments auditorium next door. (This was not an IAPBT event, but it just happened to coincide with the Convention.)

Wanting to know if seating for this program was general admission, I asked the attendant whether I could "sit anywhere" in the hall. She looked puzzled at first and then figured out what I was asking (so she must have thought). Pointing to the seats in the auditorium, she said, "Sit. Please sit," by which she probably meant, "Yes, it's all right to sit during the performance." That seemed to be a logical answer to the question: "Can I sit during the recital?" but that was not what I asked. "Can I sit?" and "Can I sit anywhere?" are two entirely different questions and with the language barrier, I couldn't make the distinction understood.

This kind of double-miscommunication happened frequently throughout our travels in Japan and I found it a bit tiring to cope after a while. For that, we only had ourselves to blame — for visiting a foreign country while linguistically unprepared. Fortunately, most restaurants have their offerings in plastic models in display cases, where we could simply point to the items we wanted, and showed fingers to indicate the quantity. That was a lifesaver, without which we might have to go hungry on top of being misunderstood.

Incidentally, Miss Nakada's recital was superb and it was most enthusiastically received by a full house of music lovers, and I did "sit anywhere." A good share of the credit had to go to the piano she performed on: an unbelievable Yamaha CFIIIS concert grand. Being in Yamaha's hometown, this piano obviously had had the best of care. It had power, projection, clarity, warmth, and resonance—all the qualities that belong in a good concert piano. If all CFIIIS's sounded this good, they would surely be a formidable challenge to Brand S pianos for dominance on the concert stage.

Neri Band members in performance.

The opening ceremony for the IAPBT Convention was held later that afternoon. Following all the welcoming speeches, we were treated to a piano recital (my second one for the day) in the Act City Concert Hall, which seats about 800. On stage were four pianos: two replicas of the 1720 Cristofori piano in the Metropolitan Museum of Art in New York, a replica of a Walther fortepiano, and a Kawai EX concert grand, all performed by pianist Kikuko Ogura, a specialist in early music. The first Cristofori piano was built by Kawai, and so were the fortepiano and the EX, while the second Cristofori was built by Norio Yamamoto, a private builder. Miss Ogura performed four works in order, one each from the period of the pianos on stage. This fascinating recital was in fact a brief history of the development of the piano in sound.

Puzzled by the natural white wood finish of the Cristofori replica, I went backstage afterward to talk to the builder. (I apologize for not being able to tell you his name, as his business card was all in Japanese.) He said Kawai financed this replica-building project and this Kawai Cristofori was on special loan from the Hamamatsu Museum of Musical Instruments just for this recital. He had spent six months at the Metropolitan Museum in New York studying the 1720 Cristofori, taking measurements, making notes, etc., and discovered that the original 7'5" instrument Cristofori made was in plain white wood. The black finish of the Cristofori in New York was not by Cristofori, but done much, much later. And between the present black paint and Cristofori's original white wood finish is a layer of green paint, which is also not original. So, the natural white fir finish of the Kawai replica is much closer to Cristofori's original than the black one in New York, at least in this respect. Some things one would never know unless one had the curiosity to ask a nosy question.

This evening, we were the guests of IAPBT at a reception in the Meitetsu Hotel ballroom. It was a most lively affair. A large jazz band consisting of Yamaha and Kawai employees played favorite melodies from each country represented by those present. Kenzo Utsunomiya, IAPBT president, said, through an interpreter, "Please look at your nametags. You'll notice there's no designation of the country where you're from. This is because in music there are no geographic boundaries,

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and piano is our common language." His remarks struck a sympathetic chord and received thunderous applause. They set the festive tone for the evening, where the food was first-class and wine flowed like water. And I couldn't tell you how many shrimps, squids, octopuses and other delicacies were consumed. The JPTA chorus also performed and a good time was had by all.

On the second day, we were down to serious business, where the general meeting took up all morning. With four different languages spoken among the 100 IAPBT participants (Japanese, English, Korean and Chinese), communication could be a serious problem. This is where modern technology saved the day. Every person was issued an ear phone and a four-channeled radio receiver, where each channel was assigned one of the four languages. Everything that was said at this meeting in any language was simultaneously translated into the other three languages. By tuning in to one of the four channels, everyone could understand anything that was said by anyone in any language, and nobody had to feel slighted because of language difficulties.

IAPBT members preparing for a group photo following a tour of the Kawai Ryuyo Grand Piano Factory.

Making this feat possible was a team of nine professional translators, who worked furiously inside a glassed-in booth on the second floor. Unlike good children, they were heard but not seen. Each of them had his/her linguistic specialty (English/Japanese, Korean/English, Japanese/Chinese, etc.), and simultaneously translated everything, which was broadcast to the receivers instantly. I followed both the English and Chinese channels closely and had to admire the translators' incredible bilingual ability in both accuracy and fluency, even when dealing with the most technical vocabulary. Their services cost the IAPBT a bundle, but Kenzo said that was money well spent. Without them, the meeting simply couldn't proceed in any workable fashion.

Among accomplishments of this morning, proposed changes in the by-laws were discussed and passed. Sites for the next three IAPBT Conventions were confirmed. A proposal was made to use the Internet web pages as a means of economical and efficient communication among the membership. To promote better esprit de corps, Tom Liu of Taiwan also proposed that IAPBT have its own flag and song to be sung at meetings. The delegate of each member organization also gave a "state of the industry" report in his country.

Apparently realizing that being internationally isolated in the piano world is not to its advantage, the People's Republic of China sent a delegation to the IAPBT Convention for the first time. Led by Xian-Bin Jin, the general manager of the Heintzman Piano Company of Beijing, the delegation proposed that China be accepted as a new member of IAPBT. Mr. Jin gave a well-prepared talk, which ended with a moving poem about pianos and people. His talk received a rousing reception and his proposal was approved. Now, IAPBT is an eight-member organization. (Old-timers may remember Heintzman as a very respectable Canadian piano manufacturer. Since closing its plant in the late 1980's, it formed a joint venture company with China, which retains its name and continues production. Although its manufacturing facilities are now in Beijing, Heintzman is not to be confused with the Beijing Piano Company in the same city, which is a totally separate enterprise.)

The afternoon session was the "Piano Summit," an ask-the-experts panel discussion, where the eleven experts consisted of piano technicians, dealers, manufacturer's representatives, music professors and concert pianists. The topic was "Piano for the Twenty-First Century." This was followed by another piano recital, this time played by the well-known Tokyo pianist, Ikuyo Nakamichi, in a Beethoven and Schumann program. The piano used for this recital was another outstanding Yamaha CFIIIS concert grand.

This evening's banquet in the Act City Hotel ballroom was a formal affair. Various dignitaries, including Mr. Yasuyuki Kitawaki, the mayor of Hamamatsu, extended their welcome again and wished all participants a successful convention and a safe trip home. Mr. Hajime Ogawa, a member of Japan's House of Representatives, also extended his best wishes and congratulated the attending piano technicians for being the unseen artists who are an essential force in the rise of musical culture and the art of the piano.

Tuxedoed waiters served this elegant five-course dinner to the music of a jazz combo. The piano used for the evening was a magnificent 9'6" Bösendorfer Imperial concert grand. Traditional Japanese Kodo drummers provided the after-dinner entertainment. Then, Mrs. Kenzo Utsunomiya, a concert pianist, was invited (and practically dragged to the piano) to play for us, and she gave a brilliant performance of Chopin's Fantasy-Impromptu, op. 66. And the crowd went wild.

There must be something to the Chopin-Act City Hotel connection. But if I must single out the most memorable thing about this super-luxurious hotel other than its connection to things musical, it'll have to be the special toilet seat that is installed in every one of its 324 rooms. (Please bear with me. This is not your usual bathroom humor.) Until I actually had the chance to try one, this was just something I'd only read about and casually dismissed as frivolous. Called "Washlets," these space-age toilet seats are made by

Toto, a major Japanese plumbing equipment manufacturer. They have control panels that look somewhat like those built into the arm rests of airplanes and they have a complicated network of tubing on the underside.

When the user is done with his "business," he slides his weight towards the back of the toilet seat. His weight in this position automatically activates the device and lines up the body parts to be washed. A push of the "Standby" button makes the Washlet drain out any cold water already in the tubes. Then, the green light comes on to inform the user that the unit is ready to "go."

A press of the "Bidet" button sends jets of warm water forward and upward in a front-to-back pattern to do the automatic washing. The "Spray" button sends the jets up in a side-to-side pattern, which gives one a totally different sensation. I laughed myself silly each time I used it and so did all the others whom I felt I knew well enough to discuss a delicate subject like this. One could also dial the "Pressure" knob to suit one's preference, or one could simply turn it up all the way and literally have a blast.

The Washlet is supposedly a more sanitary way to clean oneself, and if nothing else, it at least helps save toilet tissue. I'm not sure how much this device contributes toward the advancement of human civilization, but it certainly turns a normal bodily function into a high-tech adventure. With an invention like this, the Japanese mindset seems to be saying that, as long as waste elimination is a normal and unavoidable activity of human life, one might as well have fun doing it. The Japanese are not nearly as squeamish about such things as Americans.

A Washlet costs about $300.00, but at this spare-no-expense hotel, it's viewed as a necessity and the hotel charges accordingly. When not as part of the IAPBT package, the normal room rate is $250.00 a night. For your information, Toto also makes other interesting models of toilet seats. For those who don't like the feel of bare skin on cold plastic, it makes a self-warming model. For those who might be particularly averse to picking up germs from strange bathrooms, it has a model with automatic toilet-seat cover dispenser. (This is fairly common in public toilets.) If one is unusually sensitive about any indelicate noise one makes while taking care of business, Toto makes a device, which, with a push of the button, makes just the *sound* of flushing water, without actually flushing anything. This sound masks the real noise the user is making and it saves water and possibly embarrassment. Enough about high-tech toilet seats.

The third day of the IAPBT Convention began with a tour of Yamaha's Kakegawa Plant, which produces Yamaha's vertical pianos. It also makes player pianos, "Silent" pianos, piano hammers, bass strings and assembles actions. Built in 1965, this plant is located in Kakegawa, just outside the city of Hamamatsu. With a land area of 2.5 million square feet and a floor space of 905,000 square feet, this is physically the largest piano factory in the world, and it's only one of the many Yamaha factories devoted to piano manufacturing. Comprised of six enormous buildings, the place is so immense that it even has its own railroad system for transporting supplies to and from the various parts of the factory. For safety, one could cross the aisles only when the traffic lights turn green or risk being run over by the trains.

Boarding the bus for a factory tour is part of the U.S. delegation to the IAPBT Convention.

Our tour began in the large meeting room with an introductory lecture and a film about Yamaha's latest products. We learned that this factory has a maximum production capacity of 800 pianos a day, which was reached in 1981. Due to reduced demand, it's now making only 200 units a day. This factory has 650 employees, but not all of them work on the production lines, as there appeared to be a sizeable staff of office workers. According to the plant manager, Yamaha started making pianos in 1900 and the company will celebrate its hundredth year in the business next year.

Other than the size of the factory, I was struck by how "quiet" the place was, well, quiet by industrial standards any way. It looked like about a third of the work stations were unoccupied, but appearance could be deceiving, as much of the work is now being done by fully automated machines. For example, in the action manufacturing area, we saw wood, wires, center pins, etc., enter the machines at one end, and they came out at the other end as fully assembled hammer butts, damper levers and other piano parts. These completed parts were again screwed onto the action frames by other machines and by the time the action is assembled, even the damper lever wires were already bent to match the exact angle of the strings. All these operations were done without human supervision.

In another area, we saw machines insert tuning pin bushings into the plates, drill the tuning pin holes and insert tuning pins to the preset height with mechanical "hands." When they were done, these plates were ready for stringing, with all the becket holes facing the same direction. Again, there was nobody watching these machines.

The Yamaha engineers must have spent thousands and thousands of hours designing these machines and programming the computers that control them. Doing what they did, these robots looked almost "alive." How I wish I could have taken some

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pictures of them! Unfortunately, photography was strictly forbidden in the factory. Fear of industrial spying is certainly one of the reasons and we had to respect that, if nothing else.

Although nobody came right out and said so, the underlying philosophy seemed to be: "Don't let human workers do any of the jobs that machines could do." And when it comes to uniformity, machines could easily beat people hands down. There are numerous other advantages, too. Machines don't get tired or sick, lose their concentration, take breaks or vacations, demand pay increases and better benefits, etc. As long as they're properly maintained, they'd work 24 hours a day, if necessary. It's this enormous system of automation that makes it possible for Yamaha to produce quality pianos at reasonable cost.

Human workers are only used to do what machines cannot do: jobs that require skill, experience and judgment. It's obvious that efficiency and workers' comfort were both taken into consideration in the layout of this plant. For example, all the pianos coming through the line are mounted on tracks and they move slowly and steadily at a preset pace. The workers' benches were also mounted on tracks that they could scoot along to keep pace with the moving pianos. Each worker had his job clearly defined and had to get it done before the piano moved away from him. Nobody talked at all, as each person concentrated fully on his job. We watched the person glue on hammers in amazement: With tools developed specifically for this job, he'd pick up the hammers one section at a time, dip the shanks into the glue tray and insert them into the hammer butts. In less than one minute, all 88 hammers were glued in place and aligned. While the glue was setting, rough regulation already began. There was no wasted time or motion. (Imagine what such efficiency could do for a rebuilding shop!) The workers were so well trained that they knew exactly what they were doing and nobody was needed to supervise their work.

In the area where trap work and Disklavier components were to be installed and regulated, the workers stood in a sunken floor, so the pedal mechanisms were at working height, with no need to bend down and work in a tiring position. Throughout the factory, break areas were provided for the workers, complete with exercise machines (for those who choose to work out instead of eating lunch) and desks for record keeping, etc.

One could easily spend several days touring this factory, but we only had two hours and had to skip over a lot of things. For example, we never saw the lumber-seasoning operation, soundboard installation department, etc., but there was just no time for it all. What we did get to see was truly impressive. By assigning much of the most repetitious and monotonous jobs to the machines, the workers get to do the more interesting tasks, which would certainly minimize fatigue and reduce burnout. The friendly work environment, I'm sure, also makes the employees feel valued and appreciated as human beings.

Some of the guests at the IAPBT final banquet (from left) Dr. Al Sanderson, RPT, Jean Long, Mary Sanderson, IAPBT President Ralph E.T. Long, RPT and Barbara Hong.

Following the factory tour, we were invited to a unique "green tea" lunch at Yamaha's Tsumagoi Resort, a country club for Yamaha's executives, guests and members. Except for the consommé soup, everything on the menu was colored and flavored with Japanese green tea. The meal looked like an off-season St. Patrick's Day celebration. Being a nation of tea drinkers, Japan produces an enormous quantity of tea. Throughout the countryside, one could see the dome-shaped tea groves being grown everywhere, sometimes even in tiny vacant lots between houses. It's inevitable that the flavor of green tea would work its way into Japanese cuisine and this lunch was a special treat for special guests.

From the green dinner rolls and green butter to the green seafood appetizer and green custard dessert, everything was flavored with tea. The *pièce de résistance* was the main course, a steak, which was covered with green gravy. As most Americans are familiar with *Green Eggs and Ham* since childhood, the concept of eating green-colored meat should not be all that strange. Unfortunately, by then, a few of us were already "greened out," and found the meat, delicious as it was, hard to stomach. For those few, it was too much of a good thing and it was their loss. For the rest of us, it was a rare treat to sample a unique creation of the imaginative Japanese cuisine. We're most grateful to Yamaha for this epicurean delight. Green tea is said to be loaded with Vitamin C and caffeine and we were thus physically and mentally recharged to tackle the activity of the afternoon: a visit to the Kawai Ryuyo Grand Piano Factory.

Built in 1980, the Kawai Ryuyo Factory in Iwata City, about 12 miles east of Hamamatsu, is located out in the country. It occupies a land area of over 1.8 million square feet, and its buildings take up 321,000 square feet of that. The company takes pride in calling this facility the "Workshop in the Woods," as it stresses environmental awareness, where waste of natural resources is reduced to a minimum. For example, scrap wood not good enough to make pianos is recycled in its own Energy Center to heat and cool the buildings throughout the year. In 1997, this factory won the Japan Audit and Certification Organization's coveted "ISO14001" award for excellence in environmental management.

Due to time limitations, we could only visit the main Assembly Building and the Research Center. My first

impression on entering the Assembly Building is the feeling of peacefulness. If the Yamaha Kakegawa factory was "quiet," this factory was practically "silent." Maybe my concept of a factory as a noisy, dusty, hot and chaotic place is outdated. One reason for the quietness is the large number of unmanned work stations. By my rough estimate, it looked like half of the employees were on vacation. Perhaps Kawai employees take their vacations in shifts, so the production wouldn't have to shut down completely. It could also be that those who weren't there have taken early retirement due to down-sizing.

Currently, the 100 employees at this plant turn out about 50 grands a day. The most experienced technicians concentrate on making the EX model, Kawai's best concert grand, which is almost entirely handcrafted. This team produces between 30 to 50 EX's a year in an area off limits to visitors. Kawai employees seem to take their jobs very seriously, and I saw no sign of sloppiness or goofing off anywhere. And the result of such dedication shows: All the pianos in the large selection room were in excellent tune, regulation and voicing, and they were a joy to play.

The Research Center has the anechoic chamber and auditorium. The anechoic chamber is a large room covered with sound-absorbing acoustic foam on all sides: the four walls, the ceiling and the floor. This room is so soundproof that one could hear one's own heart beat without amplification—a very strange sensation. The suspended weight-bearing "floor" is made of steel wires stretched tightly across a room-sized frame in midair and these wires are strong enough to support the weight of people walking on them and a large grand piano that's being tested. It's perhaps as close to "walking on air" as most people will ever get. This is where every EX is tested for unwanted noises and any other problems in tone quality. They become much easier to isolate in an echoless room, where, as much as humanly possible, nothing touches anything.

Once the problems are identified and remedied, the EX goes back to the auditorium for more listening tests while a pianist gives it a good workout. This auditorium has special movable acoustic panels to simulate the reverberation time of concert halls of any size. Only after an EX passes all these rigorous tests does it get shipped out to the customer. Our guide said that, although such stringent measures of quality control are very costly, Kawai feels it must do it for the EX, because this is the piano on which the company reputation rests. With more and more concert pianists at international competitions choosing the EX over other makes, it appears that Kawai has made the right decision.

Yat-Lam Hong, RPT, with Leonardo Duricic, vice president of C. Bechstein Pianofortefabrik of Berlin, at the IAPBT Banquet.

Children (and occasionally adults) who have not learned the rudiments of sanitation often think nothing of coughing and sneezing on each other. They also chew their fingernails, pick their noses, suck their thumbs, wipe their nose drippings on their pants and then, when reminded by their parents, go to their pianos and practice, or go to their teachers' studios for lessons—all without washing their hands. Thus, the piano keyboard often becomes a hotbed where germs literally changed hands and get passed on to unsuspecting pianists. It's exactly with this problem in mind that Kawai has now developed the "anti-bacterial keyboard," which is used on many of its models. From the best that I could understand from the guide of my tour group, this is a special antiseptic ingredient that's mixed into the plastic keytops, not just a surface coating, that should last indefinitely, and it should keep these Kawai piano keyboards germ-free. Having no way to verify his claims, I just have to take his word for it. These anti-bacterial keyboards don't look or feel any different, but they offer Kawai owners a new level of protection that's, until now, unheard of.

As long as I'm on the subject of passing germs, I might as well mention the Japanese custom of bowing. When Japanese people meet, they bow to each other, rather than shake hands as Westerners do. When a Japanese bows, he's acknowledging the other person's presence and it is a gesture that conveys politeness, friendliness and respect. But unlike a handshake, there is no physical contact and therefore no danger of passing germs to each other. It seems to be a much healthier way of greeting one another. A side benefit of bowing is that, on very cold days, a person won't need to remove his gloves to greet his friends, customers and colleagues, thereby conserving body heat. To those who don't understand the custom, it may seem weird and old-fashioned.

I recall asking a Kawai executive many years ago why his company kept changing its piano designs, constantly came out with new models and kept technicians and dealers in perpetual confusion. His answer was brief and to the point: "The search for perfection never ends." Without question, the newly introduced anti-bacterial keyboard is just one more innovation in the endless process of that search. When starting his company, Koichi Kawai had the dream to create the world's finest piano and I think he would be proud to see his vision still being carried out. (Koichi Kawai was the founder of Kawai Musical Instruments Manufacturing Co., and the "K." on Kawai grand fallboards is his first initial.)

The Convention concluded with a superb banquet at the sumptuous Grand Hotel ballroom,

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1999 IAPBT Convention

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where we were the guests of Yamaha and Kawai. Following speeches of appreciation and recognition by various officials of the JPTA and IAPBT, the party began. The menu included delicacies such as squid, giant scallops, crab meat with oyster mushrooms, steamed dumplings filled with shark's fin, pistachio custards and on and on. At the back of the ballroom were two chefs whipping up their specialties: One was preparing world-famous "Kobe" beef to order. A Japanese delicacy, this beef came from cattle raised on beer(!) and grains. It was so tender and flavorful it practically "melted" in the mouth. The other chef was busy making fresh sushi of all varieties and raw fish probably had never tasted better than this. It makes the grocery store variety of sushi taste like refrigerated cardboard by comparison. For those with tamer tastes, there were the usual chicken and pork dishes. For vegetarians, there were stir-fried seaweeds, tree ears (a kind of black edible fungus from trees), and the more familiar carrot sticks, sliced green peppers, celery, tomatoes, radishes, etc. There was more food than anyone could possibly eat and the waiters kept bringing trays and trays to refill the tables, as though there were no end to it. As we stuffed ourselves silly—to the accompaniment of the jazz band playing on stage, the line between a gourmand and a glutton became hopelessly blurred.

As the dinner began to wind down, we heard much commotion outside the ballroom and wondered whether there was trouble. Just then, in came the biggest surprise of all: a performance by the *Neri* Band. According to Kyota Ise, the distinguished Yamaha concert technician, the Neri Band is a Hamamatsu tradition and it typically performs to celebrate new beginnings, such as the opening of a new business. Wealthy families would often hire a Neri Band to celebrate the birth of a baby. (They have to be quite well off, as hiring a Neri Band is expensive.) Typically, the baby is carried at the front of the band, which marches round and round the house. If it's a daytime performance, the baby's name is written on a kite to be flown into the heavens, symbolizing a "soaring" future for the newborn. With trumpets and whistles blasting at top volume, the band is quite loud and the noise is meant to scare away any lurking evil spirits that might interfere with the baby's growth. It's an absolutely charming tradition.

Led by two members carrying enormous ceremonial flags, our Neri Band was a group of 60 or 70 men and women of all ages. The trumpet players played only an arpeggiated B-flat major chord over and over and over, without melodies, and they were accompanied by the whistle-blowers, who made their noises in sync. Those who didn't play an instrument carried paper lanterns with lit candles inside and they chanted in rhythm with the instrumentalists. Wearing black ceremonial uniforms and split-toes shoes, the band members marched round and round the ballroom. Neri Band members marched in a rather peculiar style that might best be described as "jogging with shuffling feet." As the lighting dimmed, their lanterns provided the only illumination in the room and soon the rhythmic trumpet sounds stopped being "monotonous" and mysteriously took on a hypnotic effect.

The band then carried Kenzo Utsunomiya, IAPBT president, and Ralph E.T. Long, the new IAPBT president, both now dressed in ceremonial robes, on the interlocked arms of some members, and they were paraded round and round the ballroom. Appropriately, this is also a celebration of a new beginning, which the Neri Band is supposed to do. Its performance also signifies the transfer of power, authority, leadership and responsibility to the new president. The trumpets and whistles made enough noise that I didn't think any evil spirits would dare come close to interfere with the future of IAPBT. This was an evening that will "Long" be remembered.

As I close this report, I must publicly thank Kenzo Utsunomiya, the outgoing IAPBT president, and his 29-member Executive Committee for the outstanding Convention. Many of the subtle touches planned into the events didn't even hit me until afterwards and I appreciate them greatly. I also want to thank Randy Potter, chairman of PTG's International Relations Committee, who worked long and hard to plan the tour for PTG members around this Convention, which included visits to Tokyo before, and Maui afterward (to relax and digest the magnificent food we enjoyed in Hamamatsu).

Looking back, I'm still struck by the contrast of Japanese society, where the new and the old exist peacefully side by side. The jazz band and the Neri band, which shared the spotlight at our final banquet, are a good example. In many stores, the electronic calculator still sits side by side with the abacus on the counter. The ultra-modern 1,092-feet tall Tokyo Tower is located right next to the sixteenth-century Meiji Shrine. Women are as comfortable wearing traditional kimonos with obis as micro-skirts and platform shoes with six-inch soles. Businessmen in spotless suits and ties are seen in the same coffee shops as teenagers with earrings, nose rings, lip rings, eyebrow rings, with hair dyed red, green, or purple and shaped into spikes. The list goes on, and nobody seems to think anything is amiss. I had such fun just people watching in Japan, and this was one of the few free activities.

Anyway, if you missed this IAPBT Convention, it was your loss. This biennial event will be held again in England in 2001, France in 2003, and Beijing, China, in 2005. It's not too early to start saving up for it. ◆

PTG Vice President Taylor Mackinnon (ABOVE LEFT) offers his accolades to Kawai artist Judith Cohen following her performance after the Golden Hammer Banquet. Below right, Cohen after she finished her performance.

Judy Snow (FROM LEFT), Amy Hochstetler, Jeff Arnold and John Imobersteg take time to chat before attending the Kawai Reception.

The reception was a family affair for Melanie, Wally and Vivian Brooks.

Kawai Reception

Larry Crabb (ABOVE LEFT AND FAR RIGHT ABOVE) leads the Barbershop Chorus before the Yamaha Reception. At Left, Bill Brandom introduces the A-440 Big Band which featured the likes of LaRoy Edwards (BELOW AT RIGHT) and Alan Gilreath (BELOW LEFT) on trombone.

Yamaha Reception

Ernie John (left at right) and Ernie Preuitt share some laughs during the Saturday night reception.

CHANGES & CLARIFICATIONS

The following are additions and changes to the 1999 Membership Directory

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Congratulations Emil Fries Piano Hospital & Training Center for 50 Years of Service

Industry News

The Emil Fries Piano Hospital and Training Center recently graduated another batch of competently trained students.

At the same time, The Emil Fries Piano Hospital and Training Center is celebrating its 50th year, having started in 1949.

When the Washington State School for the Blind discontinued its piano technology training program in 1949, Emil Fries, one of their graduates, knew something had to be done to continue this very necessary training program. So he started talking to people and by the fall the Emil Fries school was a reality.

One of its graduates that first year, Ken Serviss, later became an instructor, and worked with Emil until he passed away a few years ago.

Ken is now head instructor for the school. Don Mitchell and William Benjamin are full instructors as well. Leol Sylvester is an assistant instructor.

Emil Fries was a Life member of PTG, and over the years received every award PTG had to bestow, including the Golden Hammer Award in 1989. He also received many other awards from civic and governmental organizations for his work both to the blind community and in the general public as well.

For those of you who are unaware, the Emil Fries Piano Hospital (known to many simply as "The Piano Hospital") is continuing to provide strong training within our professional community. The training center recently purchased the property next door for $150,000, so it could expand the training opportunities for its students. And they just spent $8,000 to update accrediting. In addition, each year the center goes through rigorous state licensure, which all schools are required to do. (For those of you who think providing training is "cheap" think again.)

The Piano Hospital is the only school in North America still training blind piano technicians, and though most of the students are visually impaired they also take a few sighted students each year.

Emil Fries' well-known autobiography is titled *But You Can Feel It,* which you should be able to purchase from the PTG Home Office in Kansas City.

Congratulations for completing 50 years and thank you for the hundreds of competently trained piano technicians you have provided our professional community.

— Randy Potter, R.P.T.
Randy Potter School of Piano Technology ◆

Calendar of Events

October 2, 1999
Ohio State/Central East Regional
Grave Piano & Organ, Columbus, OH
Contact: Kim Fippin, (614)890-2197
275 Foxtrail Pl.
Westerville, OH 43081

October 8 - 10, 1999
Texas State Association
Waco Convention Center, Waco, TX
Contact: James Geiger (254)867-9589
3924 Kendall Lane
Waco, TX 76705

October 29 - 31, 1999
North Carolina Regional Conference
Radisson Hotel, High Point, NC
Contact: Dave Feeny (336)697-2646
3455 McConnell Rd.
Greensbobo, NC 27405

February 18-21, 2000
California State "Tune-In 2000"
Santa Clara Marriott Hotel, Santa Clara
Contact: Roland Kaplan (408)927-0620
6528 Leyland Park Dr.
San Jose, CA 95120

July 5-9, 2000
PTG Annual Convention & Institute
Hyatt Regency Crystal City,
Arlington, VA
Contact: The Home Office
3930 Washington, KC, MO 64111
(816)753-7747

All seminars, conferences, conventions and events listed here are approved PTG activities. Chapters and regions wishing to have their function listed must complete a seminar request form. To obtain one of these forms, contact the PTG Home Office or your Regional Vice President.

Once approval is given and your request form reaches the Home Office, your event will be listed six months prior and each issue until the month in which it is to take place.

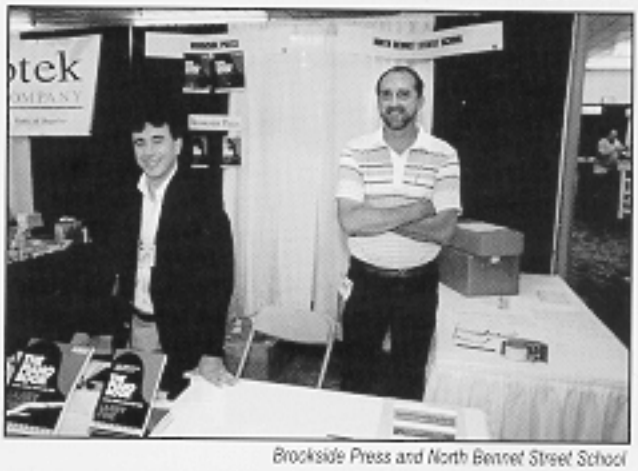
Deadline to be included in the Events Calendar is at least 45 days before the publication date; however once the request is approved, it will automatically be included in the next available issue.

EXHIBITORS@KC

Samick Music Corp.

Brooks LTD.

American Piano Supply Co.



Brookside Press and North Bennet Street School

Baldwin Piano & Organ Co.

Doc's Proplugs/Earsaver

Boston Piano Co.

Dryburgh Superglues

EXHIBITORS@KC

Environmental Purification Systems

Paul L. Jansen & Son Inc.

Fandrich & Sons Players

Kawai

Pearl-River Piano

Mason & Hamlin

Send a Piana to Havana

McCall Enterprises and Mazzaglia Tools

EXHIBITORS@KC

Pacific Piano Supply Co.

Piano Technicians Guild Membership

Pianotek Supply Co.

Renner USA

Randy Potter School of Piano Technology, Inc.

Reyburn Piano Service, Inc.

Piano Technicians Guild Foundation

Sanderson Piano Services

EXHIBITORS@KC

Schaff Piano Supply Co.


Story & Clark Pianos

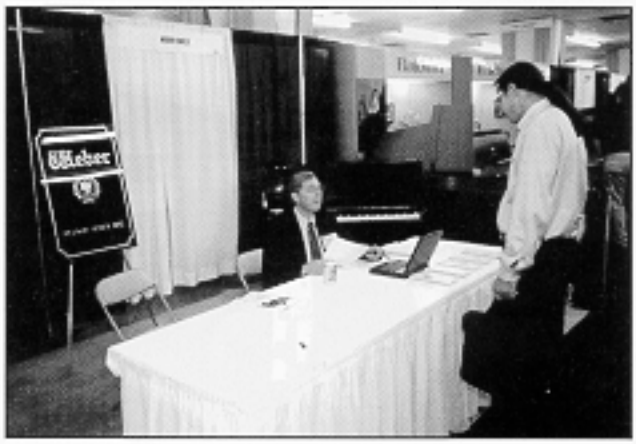
Schmitt's Piano


Thomas F. Rourk, Ivory & Keyboards


Spurlock Specialty Tools


Walter Piano Co., Inc.

Steinbuhler and Company



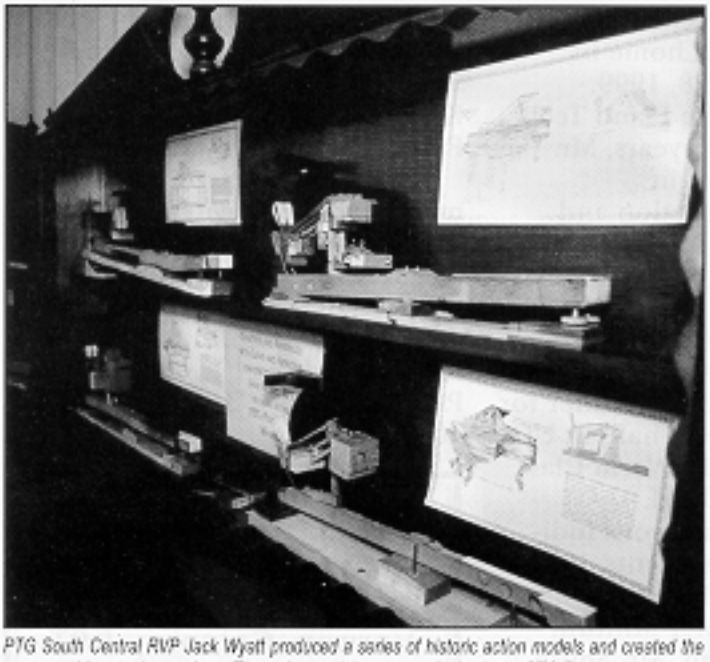
Weber Piano Co.

Allied Piano

Young Chang

Exhibitors @ KC

Bruce Gerck took a couple of new "friends" for a stroll around the Exhibit Hall.



PTG South Central RVP Jack Wyatt produced a series of historic action models and created the custom cabinets to house them. The action models were on display in the PTG Foundation booth in the 1999 Exhibit Hall.

Passages

GEORGE A. GAILES, JR.

April 26, 1926 – August 1, 1999

George Gailes was a charter member of the Piano Technicians Guild. He also served as president of the Washington, DC, Chapter in the 1960s. He was a dedicated piano technician and also devoted to his music and family. The chapter expresses its sympathy to his wife, Claire, and their family.

Interment was in Ft. Lincoln Cemetery on August 3, 1999.

—*Wendell Eaton*

F. KELSO DAVIS

February 23, 1916 – August 3, 1999

Kelso Davis, an Honorary member of Piano Technicians Guild in the Connecticut chapter, passed away on August 3rd. He was a First Selectman in Essex, CT, from 1969 through 1973. He was involved in the founding of the Connecticut River Museum as well as the development of the town park. Davis has passed on the sense of service to the community to his children. Each son has been involved in politics in some capacity, with his son Jay, serving as first selectman in Maine. His son Jefferson is currently a Connecticut State representative, and Philip as past burgess of the borough of Fenwick in Old Saybrook.

Davis lived most of his life in Essex, spending time in Florida in his later years. He was a graduate of Kent School and Williams College. He taught at Kent after serving in the Navy as the captain of a salvage tug. He rose to the rank of Lieutenant Commander.

The sea was a constant part of Davis' life. He was a member of the Cruising Club of America, the New York Yacht Club, the Edgartown Yacht Club, Essex Yacht Club and the Bermuda Yacht Club. He sailed on every known sailboat in the East.

Davis raised five children in Ivoryton, where he worked for the Pratt Read Company for 25 years. He was a supporter of the church, conservation and health organizations of each community he resided in.

He had an incredible number of friends, and was very devoted to them. His ashes were interred beside St. Mary's By the Sea in Fenwick, where he summered most of his life.

Contributions in his name may be made to the Connecticut River Museum, Main Street, Essex, CT 06426; to the Middlesex Hospital, 28 Crescent St., Middletown, CT 06457; or the Oxford Academy, 239 Boston Post Road, Westbrook, CT 06498.

SHELDON D. SMITH

November 26, 1938 – July 28, 1999

Sheldon D. Smith, 60, a master concert piano tuner and rebuilder renowned for his musical expertise and technical craftsmanship died at his home in Berkeley, CA, July 28, 1999.

A member of the Piano Technicians Guild for 35 years, Mr. Smith taught classes in soundboard construction and piano plate repair in San Francisco and Berkeley and at annual conventions.

For the past 13 years he tuned for the San Francisco Symphony, and was also the concert tuner for Zellerbach and Hertz halls at UC Berkeley and Yoshi's World Class Jazz House in Oakland.

He also had numerous individual musicians as clients, including Garrick Ohlsson, Robin Sutherland and Peter Mintun.

A pianist himself, Mr. Smith focused on Steinway grands, although he tuned and rebuilt others, primarily European, instruments.

Born and educated in San Luis Obispo, he entered the Navy right out of high school. After military service, he learned piano tuning under the tutelage of Robert Burton of Redwood City, then continued to perfect his skills on his own.

He had several piano rebuilding shops in San Bruno and San Francisco before settling permanently in Berkeley in the mid-1970s. During those years he built an impressive clientele of professional as well as amateur pianists.

During the last year of his life, Mr. Smith was an avid fund-raiser and participant in the nonprofit organization, Fix Our Ferals, holding monthly clinics to spay and neuter feral cats.

He built equipment for the clinic and used his skill, developed as a dental technician in the Navy, to sterilize surgical instruments.

He is survived by his wife and business partner, Linda McCormick of Berkeley; his mother, Grace Parson of Arroyo Grande; his daughter, Jennifer Smith of Mountain View; his son, Kenneth Smith of South San Francisco; and two grandchildren.

Friends, colleagues and fellow musicians were invited to attend a "piano party" in his memory on August 22 at his Berkeley workshop, 2220 McGee Avenue.

Contributions in his memory may be made to Fix Our Ferals, P.O. Box 13083, Berkeley 94712-4083.

In Memory

Vernon Calcote, RPT
Jacksonville, FL

Sheldon Smith, RPT
Berkeley, CA

New Members Join In August

REGION 1

021 Boston, MA

Eric R. Harmsen
30 Revere Beach Pkwy., #106
Medford, MA 02155

REGION 2

223 Northern Virginia

Robert E. Mimm
7966 Calvary Court
Manassas, VA 20109

REGION 3

701 New Orleans, LA

Eric C. Werner
252 Mouton
New Orleans, LA 70124

741 Tulsa, OK

Gregory M. Lynch
9317 E. 29th Place
Tulsa, OK 74129

Melvin R. Sutter
P.O. Box 3675
Bernice, OK 74331

REGION 4

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Salem, IN 47167

493 Western Michigan

Scott A. Helms
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Kalamazoo, MI 49008

REGION 5

683 Nebraska

Charles W. Lukas
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Hershey, NE 69143

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917 Pomona Valley, CA

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951 Santa Clara Valley, CA

Randall J. Black
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Molalla, OR 97038

974 Eugene, OR

Terry L. Jack
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Leaburg, OR 97489

Kudos New RPTs Associates Reclassify

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REGION 5
671 Wichita, KS

Ann Fell
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Winfield, KS 67156

REGION 7
996 Alaska

Dan S. McElrath
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Anchorage, AK 99516

AUXILIARY exchange
DEDICATED TO AUXILIARY NEWS AND INTERESTS

Kansas City Closes out the Millinium with a Bang!

We have placed the 42nd PTG Annual convention in the history book. On the whole, I feel that the week went very well. I was pleased with our new By-laws and how they worked in Council. I only wish that more of our members could have been there. We did not have the turnout that I had expected and counted on. We had to have fifty to receive a certain group price for the trolley and the Truman Library and we did not have that number. I had told the agent to expect fifty, and we received the tickets for fifty but we had five tickets left over which were not used and the Auxiliary must pay for them. So if any of you see your way clear to add a few more dollars to your dues statement when it comes next month, the Auxiliary Treasury would appreciate it very much.

Phyllis Tremper
PTGA President

I especially appreciated the concert at the new Mormon Church in Independence. The new Cassivant organ was a joy to behold and hear. I moved around to different seats in the auditorium and no matter where I sat, the acoustics were just fabulous. The young organist also gave us the same concert on the Tracker Organ in the Auditorium in the next block. That was also great to hear the different settings for each piece on the separate organs. Music is wonderful, isn't it?

The new movie in the Truman Library was very professionally done. I enjoyed that every much. Even though I grew up during the Truman Presidency I didn't remember many of the scenes shown in that movie. (As an aside, since JFK, Jr., was lost at sea during the convention week-end, many of the pictures the magazines printed of him and his growing years, I had not seen either. They must have built up an archival file to show years later!)

I thought my luncheon at the Mystery Theatre was very delicious. The chicken one could cut with a fork it was so tender. Now, however, we won't talk about the play. Just that it won't make Broadway. Well, I can't win them all! The ride to the Shopping Plaza was nice, wasn't it? But the heat could have been turned down a bit. My, 102 degrees! Almost reminded you of Orlando, didn't it?

The 1999-2000 PTG Auxiliary Board of Directors are: (front row from left) Vice President Diane Hennesy and President Phyllis Tremper, and (back row from left) Corresponding Secretary Beva Jean Wisenbaker, Treasurer Marilyn Raudenbush and Recording Secretary Evelyn Tornstrom.

I am truly sorry about the tour to Hallmark. Somewhere along the way there was miscommunication. They never open on Saturday until 9:30 a.m. and please forgive me for all of those who went over there at 8 a.m. I hope you enjoyed the shopping at Crown Center. I met Vicki Helger who wrote the column for you about what to do in Kansas City and we enjoyed the movie and tour of Hallmark very much. They even gave each tourist a CD, which I haven't heard yet as of this writing, but will soon.

The piano receptions every evening are just amazing. They get bigger and better every year (as does my waistline). The Hyatt food is to die for. I hope you ate one meal at the Peppercorn Duck Club. It was gourmet all the way. Now for that diet....

All aside, we who were there had a great time. But I believe one of the highlights of the week was when Ernie Preuitt drove the Board Members to visit with Luellyn for a few minutes. It was so wonderful to see and visit with her. Her spirits were so high and it seemed like we were visiting with the same gracious lady we all knew and loved. Would you please take a minute of your time, get your Auxiliary stationery out (that some of you say you never use), and drop her a line at her home address in your spouse's PTG Directory. Ernie will see that she gets the mail as he visits her every day. Let's not forget those who have paved the way for us.

If any of you who were not there and want to know of news of convention other than these pages, drop me a line by snail mail or e-mail and I'll be happy to write you back. Also, make sure your address is correct in the directory as we will have a newsletter coming out soon also. If you move, please notify our Vice President as she keeps track of all membership and we don't want to lose you. All of you are very important to the running of this organization and we need ***you***. Isn't it amazing that we all have a great time together once a year. Just think, the only thing we have in common is that our spouses are piano technicians, that's all! We all have different religions, degrees, ages, races, sexes and philosophies! What a wonderful world! *Music is the Spice of Life!*

—Phyllis K. Tremper
PTGA President

It Was Meant To Be

The drawing for the winner of the Symphony Afghan was held after the Barbershop Singers on Saturday night of the convention in Kansas City. We sold $640.00 worth of raffle tickets for the PTG Auxiliary Scholarship Fund, and the cost for yarn was $20.24. Great work, everybody who bought tickets.

All alone in my room the day before, I decided to do a sample drawing just for fun. I shuffled the tickets and drew a name. The name was Lenny Childs of San Antonio, Texas. I said to myself, "Oh, my! If I tell Lenny about this after someone else's name is drawn tomorrow night, he will never let me live it down that we gave "his" afghan to someone else!"

Phyllis Tremper, PTGA President, decided at the last minute to let Mary Jane Weisensteiner do the drawing since it was her birthday. We had some final additions from sales made by Evelyn Ternstrom, PTGA Recording Secretary. I shuffled the tickets again and held the bag up high even though Mary Jane said she did not have her glasses. I took the ticket from her and passed it on to Phyllis for the announcement. "Lenny Childs." Think of that! His name was drawn in the unofficial drawing as well as in the official one and by two different people. It was meant to be!

I would appreciate copies if anyone took pictures of Lenny with the afghan. We did not get any posed pictures since he was so excited and ran off to his room to call his wife, Elena.

— Beva Jean Wisenbaker ✍

Prior to her performance at the Auxiliary Scholarship Recital, college winner Kristin Jonina Taylor (LEFT) explains the pieces she will be playing. Above, Conrad Hulme at the keyboard during his presentation as the high school scholarship winner. At right, Hulme and Taylor with the PTG Auxiliary Board of Directors.

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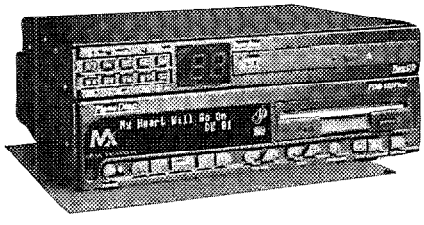

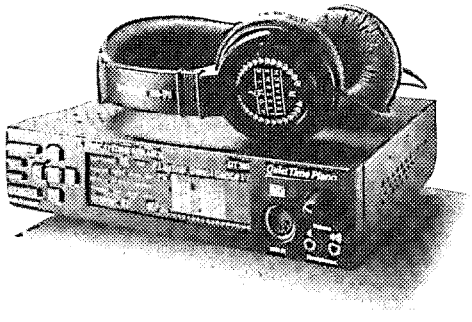

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TECH GAZETTE

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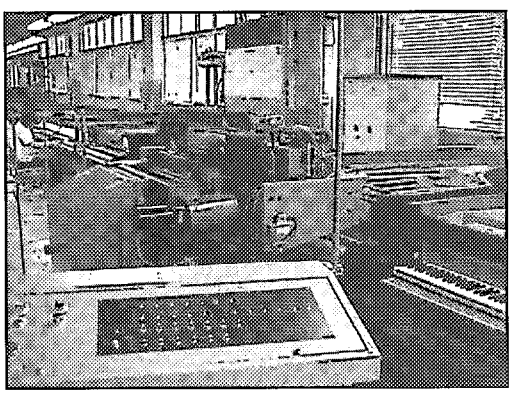
October 1999

"I recently had a chance to visit the Yamaha piano factories in Japan, and I'd like to share my experience with you." — *LaRoy Edwards*

Everywhere I went, I marveled at the advancements that have been made in the centuries-old process of creating fine Yamaha pianos. Highly skilled craftsmen and state-of-the-art equipment literally work side by side to bring the best of both worlds to the piano maker's art.

While many procedures have remained unchanged, from V-Pro plate production to extensive employee training, several operations have been improved to further enhance the quality that goes into every Yamaha piano. For example, Yamaha has earned a reputation for perfectly leveled keyboards. The laser beam that precisely set and leveled the key height, is now used to calibrate the key travel or dip. As a result, the unerring "eye" of this machine is responsible for a degree of accuracy that even the most accomplished pianist will truly appreciate.

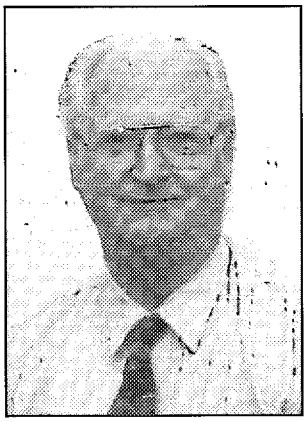


Over the years, the use of robotics has led to amazing consistency in quality – perfectly creating the back frame, drilling the tuning pin holes, and tapping the tuning pins into place – all without the help from human hands. Even more astonishing were the stringing machines, which put the perfect 2 1/2 turns on the tuning pin with the aid of a skilled worker. But now, the actual stringing is also done almost entirely by machine – with the exception of strings near the plate struts and the bass strings, which are still done by hand. An identical stringing machine will soon be in use at Yamaha Music Manufacturing in Thomaston, GA.

But that's not all! After more than twenty years of trial and error, a new machine to chip tune the strung back is now reality. The most unique part of this device is that it tunes like a technician does, automatically turning the pin until the pitch is a few cents sharp, then reversing the tuning pin to lower the pitch to the correct place before "setting the pin."

Finally, grand piano production has reached a remarkable milestone. For the first time, limited production of these exquisite instruments will be completed outside of Japan. One model, the GH1FP, will be produced in a French Provincial cabinet at the Thomaston, GA facility.

In the manufacturing plant, traditional craftsmanship and robotic precision combine to endow each Yamaha piano with the best of what the past and present have to offer. As a result, each piano will provide its owner with a link to classic tradition and a promise of flawless operation for years to come. It's something you can feel in every Yamaha piano, but getting a chance to see the process first-hand really brought that realization home.



LaRoy Edwards

LaRoy Edwards currently works as a consultant, conducting sales and technical seminars for technicians, dealer and sales personnel. He joined Yamaha in 1962 as Piano Service Manager. In addition to owning his own Yamaha dealership, he has authored several Yamaha training guides and programs, including the Yamaha Servicebond Assurance Program and the Seven Keys to a Fine Piano. 30 years ago LaRoy created the Little Red Schoolhouse, the longest running technology course of its kind, providing comprehensive instruction on grand piano regulation. He has also taught extensively for the Piano Technicians Guild and currently serves as the President of his local chapter. Numerous PTG awards have been awarded to LaRoy, including Member of Note, Golden Hammer and the Hall of Fame award. Currently LaRoy and his wife reside in Northern California.

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