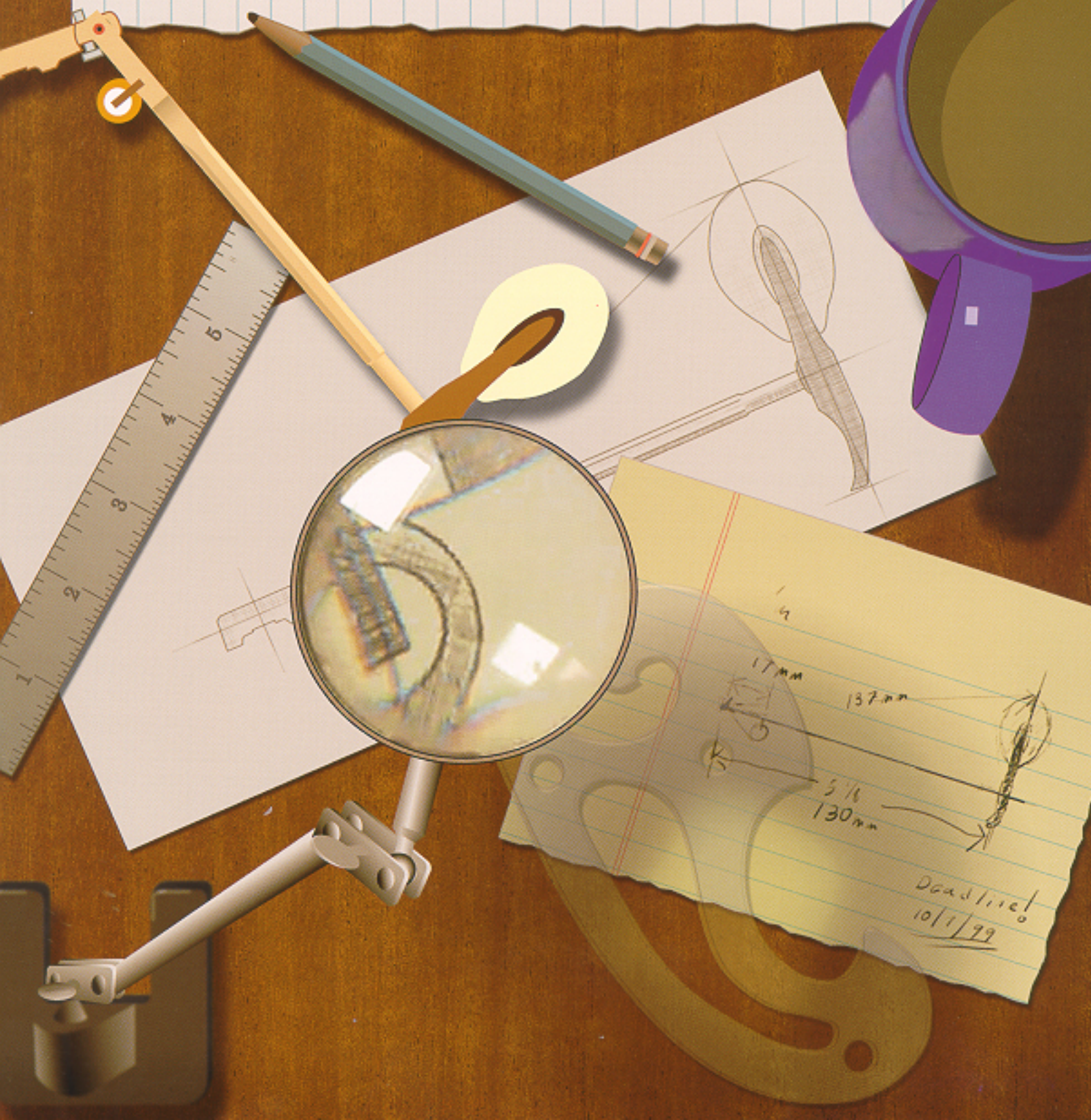


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Official Publication of the Piano Technicians Guild

November 1999

Vol. 42 #11





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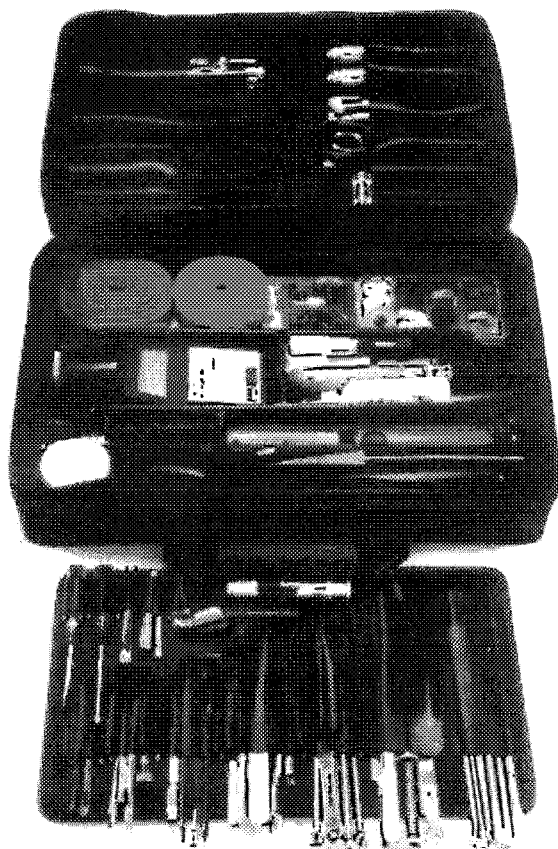
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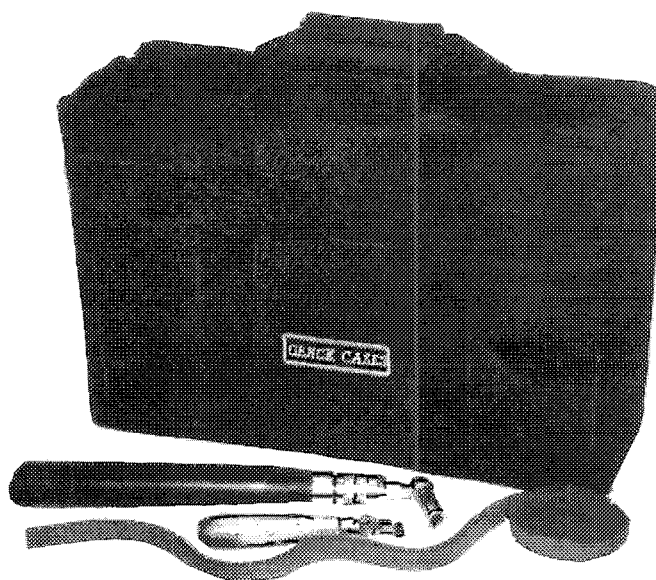
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EDITORIAL PERSPECTIVE

Now I've Heard Everything

In our business it's not unusual to hear strange tales. Occasionally the stories are true. Sometimes we even know the people involved in the stories. Take, for instance, two friends of mine — one was a cabinet-maker and the other a plumber — who together refinished a Chickering grand piano belonging to the plumber's daughter. The extraordinary part about this refinishing job was that they completely disassembled the piano before refinishing it. After removing the trim parts they carefully let down the tension on each string, removed the strings from between the bridge pins, unscrewed the plate and pinblock, and lifted out the plate, strings and pinblock as a unit. After refinishing the piano, they put everything back together and put some tension back on the strings. Of course they couldn't tune it themselves; that was when they called me and told me what they had done.



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Steve Brady, RPT

Recently, however, I heard a tale that left me shaking my head. As I was putting my tools away after tuning and servicing a fine concert grand in a palatial home, the cleaning lady — a woman who appeared to be in her early 60s — sidled up to me and announced, "When I was a little girl in northern Minnesota, we had a deaf piano tuner!"

"Oh, you mean a *blind* piano tuner," I said knowingly.

"No, that's what everyone says when I tell them this," she replied, "but our tuner really was a deaf mute!"

I regarded her with raised eyebrows for a moment, and she went on: "He tuned by feeling the vibrations with his hands and legs and body. It took him all day to tune a piano, and he never said a word to anyone, because he couldn't speak, you know. The piano would sound wonderful after he finished and he played beautifully, too."

I laughed and said, "I'm sorry, but I just can't believe what you're telling me."

"I swear it's true," she said. "He was in great demand because his tunings were so good. You had to wait six months to get on his list. He was married and had children and everything, and I can still picture him: a short man with black hair. I think his name was Mr. Olsen."

"Very interesting!" I said, thinking, "She's nuts!"

At my next tuning, I caught myself pressing my legs and hands against the piano, trying to feel the vibrations. I wondered: could I possibly tune a piano just by feel, if I took all day to do it? No. Not if I took a whole week or a whole year. It's just not possible. Is it?

If this Mr. Olsen truly existed, legends about him must still circulate throughout northern Minnesota.

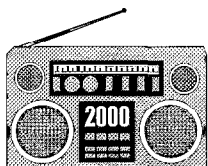
To all Minnesotans, past or present, who read this: help me out here, people! Have you heard this story? ☐

Please submit tuning and technical articles, queries, tips, etc., to me:
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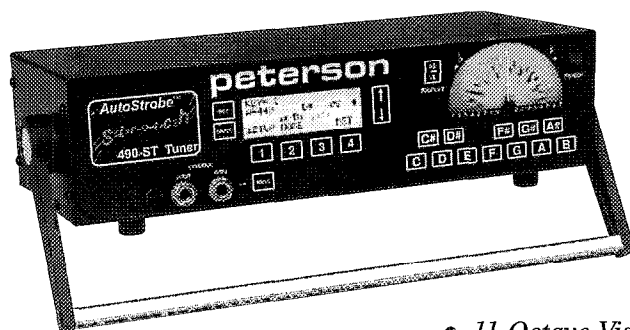
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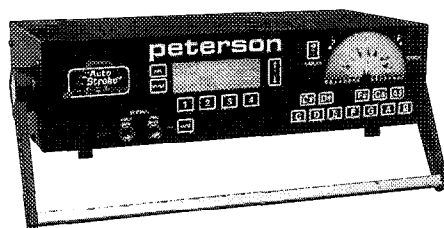
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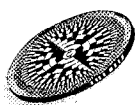
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COVER ART

"The Journal Illustrator's Desktop" by Chris and John Hartman, Twisted Pair Graphics. Illustration, graphic design and web site development, contact: Chris Hartman ckhartman@hotmail.com or John Hartman pianocraft@sprintmail.com.

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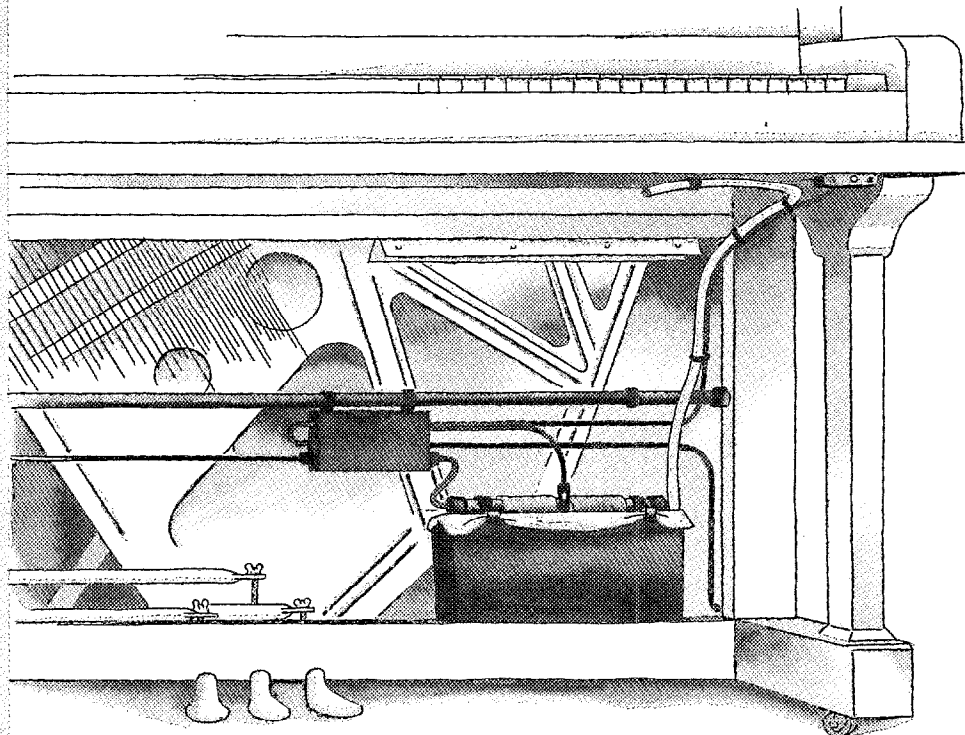
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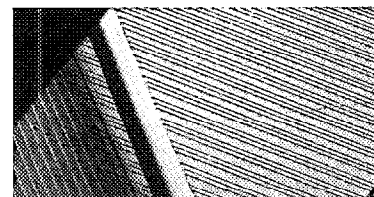


The Dampp-Chaser Piano Climate Control System automatically controls humidity.

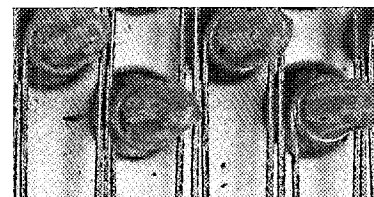
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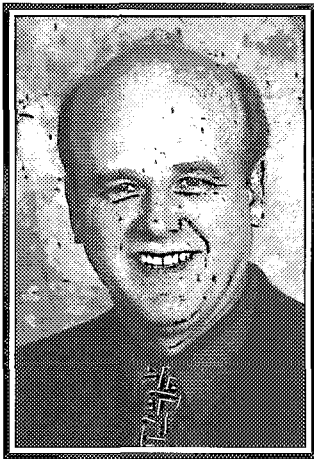
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Giving Thanks at Thanksgiving

In November, we in the United States celebrate a very special holiday we call Thanksgiving. This is perhaps the noblest of all state holidays, for it compels us to admit that we are not solely responsible for the fruit of our labor. It reminds us that we are dependent on others for much of what we have.

For piano technicians, one of the things we should be most thankful for is the courage and foresight of the people who formed the Piano Technicians Guild out of two rival organizations. These were ordinary people who did something truly extra-ordinary when they set aside years of tradition, accomplishment and rivalry to launch a new tradition.



David P. Durben, RPT
PTG President

We need to ask ourselves why they would do that. Why risk it? Why, when they could have gone on the way they were indefinitely? They did it so that together the two organizations might become the mainstay for all piano technicians, regardless of the particular focus of their individual businesses.

I believe that our founders were serious about being of service to the "piano service industry." In my mind that must include all of the piano service industry and I believe that unless we are actively working within the greater music industry to expand and refine the state of the art, we are selling ourselves short. While I believe that we have accomplished a great deal, and that we have much to be proud of, I also believe that the vision of PTG's founding fathers went beyond what we have done thus far.

At the same time, I believe that virtually every piano technician in North America (at least) owes a debt of gratitude to our founders and I can't think of a better way to say "thanks" than to become a member of the Piano Technicians Guild.

And for those of us who already enjoy the many benefits of PTG membership, I think the best way to say thanks is to become involved, not for selfish reasons, but to give back at least an equal portion of what we have received.

A handwritten signature of David P. Durben in cursive script. The signature is written in dark ink on a light background.

'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

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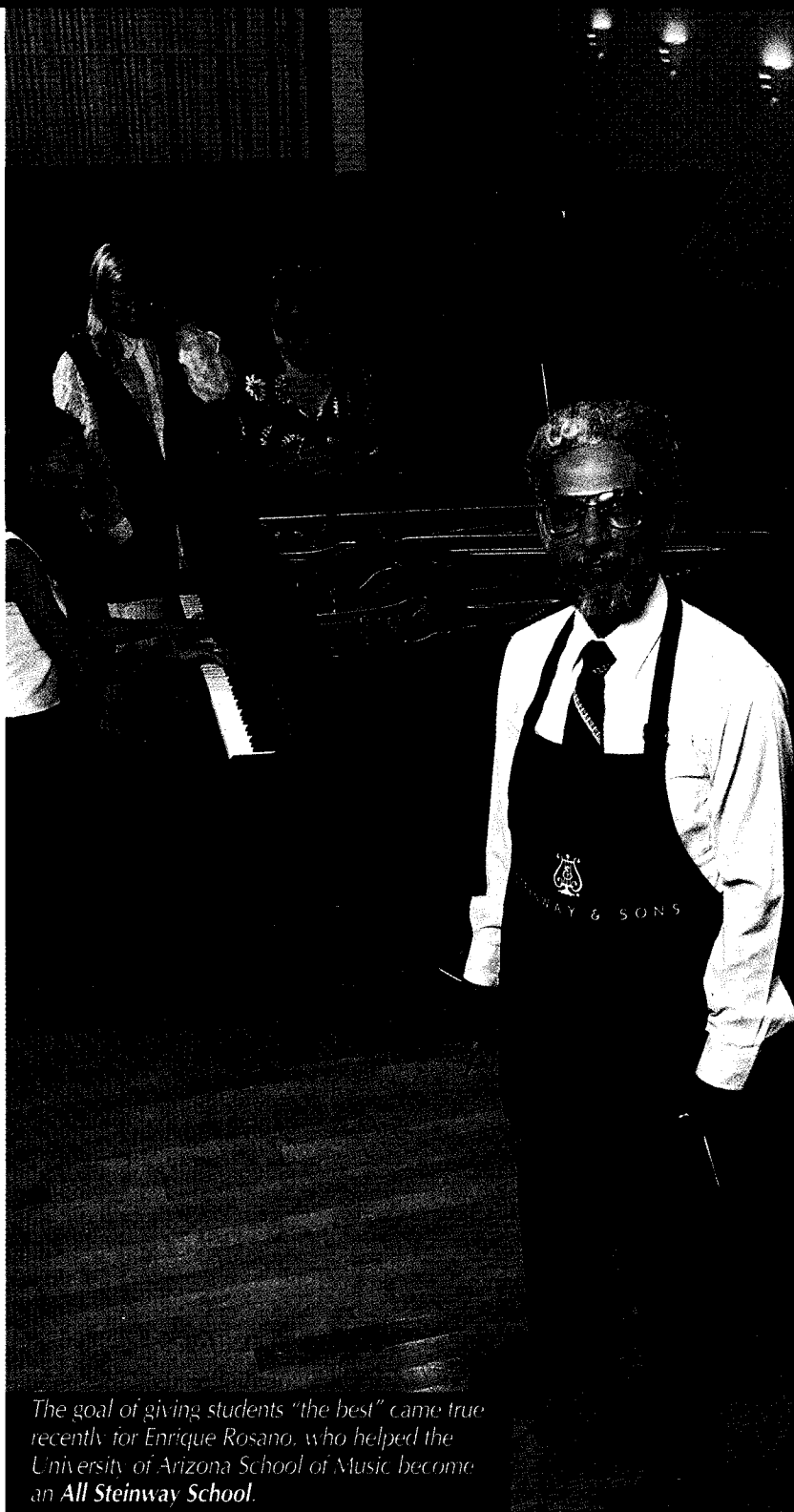
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The goal of giving students "the best" came true recently for Enrique Rosano, who helped the University of Arizona School of Music become an *All Steinway School*.

Letters to the Editor

More on the Battle of the Temperaments

I have been watching the battle between the Equal Temperament camp and the Well Temperament camp ensue from afar, until I read the last salvo of letters to the *Journal*. I find I can no longer remain all quiet on the Midwestern front.

The competitive spirit between temperaments is unfortunate. Clearly, there are merits to both Equal and Historic temperaments, depending on what music is played and who is doing the playing. Not everyone's taste is alike, just as all music is not alike. Equal Temperament works better on some music than does Well Temperament. Well Temperament works better on some music than Equal Temperament. Meantone works better on some music than either of the above. Not only that, but no matter what the numbers say it all comes down to personal taste. Just because 61 percent of the people like a particular tuning with a particular piece of music doesn't mean that the other 39 percent are wrong. Personal taste is, after all, personal.

Discussion and disagreement are good and healthy, but competition, in this case, is not. Clearly there is enough room in the world for many opinions, many tastes and many temperaments. Every issue is not always black and white; right or wrong. Sometimes a little gray can add perspective to an issue. The competition only leads to embittered people and confused customers.

It seems to me that there are more than a few egos on the line here, people who want to etch their place on the history of tuning or have already committed their life's work to one temperament or the other. So now we see several people trying to make new temperaments to see who can be the first to make a generally accepted, generic, watered-down-Well Temperament to replace Equal Temperament. This too has its place, and is another option for our customers, but let's not forget that a Victorian or Modified Meantone Temperament loses some of its flavor on the bedpost overnight, too. They may work for all types of music, as Equal Temperament does, but they are also not always as stunning as other "rawer" Well or Meantone temperaments can be or as Equal Temperament can be, with the appropriate music.

All of these temperaments in their many forms enhance the joy of music by bringing variety and new musical life to old and new music. I can envision a day where, on the concert stage, a Meantone piano is wheeled out for the Scarlatti and Mozart, to be replaced by a Well-Tempered piano for the Beethoven and Rachmaninoff and then replaced again by an Equal-Tempered piano for the Schoenberg and then Gershwin encores. Think of the business!

Tuning hasn't been this exciting since ... well ... ever.

— Carl Radford, RPT
Waukegan Chapter

An Open Letter to Bass-String Manufacturers

It is all well and good for technicians to join the 20th century and avail themselves of the modern computer to (hopefully) improve the scale of pianos. However, the primary problem to doing "re-scaling" (I really hate that term. "Scale evaluation" or "scale improvement" would, in

my opinion, be better.) is that the majority of Bass String Makers (BSM) are still either in the 19th century or haven't passed the 6th grade yet! There are a few exceptions, but most refuse to take our scaling efforts seriously. They, in their wisdom, know more than all of the "in the trenches" technicians. This, truly, is a sad situation, because of which, all of our efforts are for naught, unless, by some miracle, we can get the BSM to *make* the strings to the specifications we request. (Of course, within the limits of available materials.)

Some BSM will only accept "fractions," for measurements. If they are confronted with Decimal Measurements, they more often than not will convert them to "fractions." This practice has a built-in propensity for error. (They deny this, of course, but the end product bears this out!) Excuse me, but even at an early age, I was taught that "machining" is best done with decimal (mil) equivalents. After all, the making of bass strings is done on a *specialty lathe*, is it not? To add more to the problems, if we throw metric measurements at most BSM, they just convert. Anyone who has done conversions from metric to fractions or decimals, knows that this is a big problem which has a higher possibility for error than decimal to fraction.

So far, I have only presented one of the problems with BSM. The next problem is, once they have converted to "fractions," then they make a "*scale stick*." Most string makers will tell you that this is necessary for the "Lathe Operator," so that he can quickly make the "*special order strings*." Here, I should comment on how we all know how "stable" wood is! Having seen string-making up close, I can tell you no time is saved by this method, as opposed to a good rule and the spec sheet. I personally believe that either the "lathe operator" doesn't know how to read specs or is not allowed to by his employer. ("Time is Money" seems to apply here.)

Most BSM require/insist upon/prefer a paper pattern. The paper pattern has many problems. (1) What kind of paper is most suitable? I've found plasticized butcher paper to be about the easiest to work with and seems to hold its shape fairly well. However, paper in itself is not stable enough nor is it accurate enough. Mylar is really the best substance for patterns, but is very difficult to work with. I have seen paper patterns made out of recycled shopping bags taped together! (I'm all for re-cycling, but this is the epitome of cheap.) (2) The consideration of *when* you make the pattern; i.e. before or after the strings are removed.

If you do the pattern before, then the structure is under compression and will be easier to do. However, string specs are really only relevant to static measurements, not under tension. If you do the pattern after the strings have been removed, it is far more difficult to obtain a "tight" pattern. My real problem with a paper pattern is that it allows the BSM to just use it and disregard any specs forwarded. I think that the BSM don't expect us to check the final product. I have personally encountered this situation.

Let's return to scale sticks. In my opinion, the worst thing you can do is to call a BSM and request a set of bass strings for an "XYZ piano" (insert famous name), Model "Q." Do not expect the set to be accurate or "the best" for

Continued on Page 18



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Tips, Tools & Techniques

Another Use for Spring Clamps

I recently had to fix a battered music desk from an old rosewood Steinway C. The wood of the hinge areas had been split out and poorly repaired several times. I put tape along the outside and filled the entire network of cracks with slow-set epoxy – by heating it with a hair dryer (with lots of ventilation) so that the glue was fluid and would follow the cracks.



My tip: I had to stand the music desk up so that the epoxy would not drip out. I took two spring clamps and clamped them to the back rail. The four ends of the clamps made a stable support. I stood the assembly on an ironing board, which was a good (and adjustable) working height. I plan to use spring clamps whenever something long and narrow needs to be stood on edge.

— Susan Kline, RPT
Eugene, OR Chapter

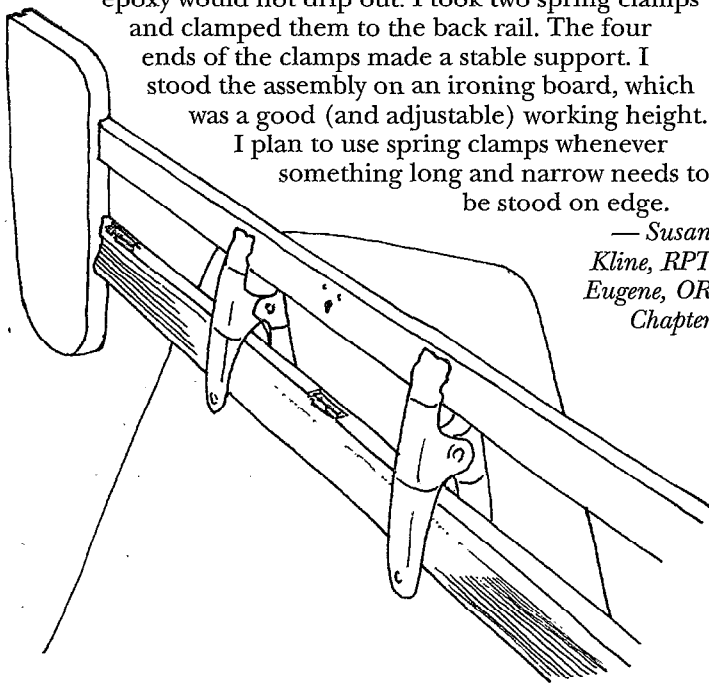


Figure 1 — Spring clamps used to stand music desk on edge during repair.

Cleaning Lacquer On Brass Parts

Have you ever had to clean the old lacquer off of the different brass parts of the piano? Messy, isn't it? Try some oven cleaner in a spray can. Spray the parts, let the cleaner do the work and then wipe it off with paper towels or wash it off with water. Then shine up the brass and re-spray with fresh lacquer. Oven cleaner sure beats paint remover.



— Harry Buycce, RPT
Western Michigan Chapter

More Muting Tips

Here's a variation on the muting tips from the August 1999 issue (TT&T, p. 10). Take a six- to eight-inch long piece of flat soundboard cleaning steel (it breaks easily with Vise-Grips™). Bend it in half and glue a piece of action cloth about 1 1/2" long to each side. It fits nicely around the grand plate struts and can also be used to stop the sound on the very top string on note 88.

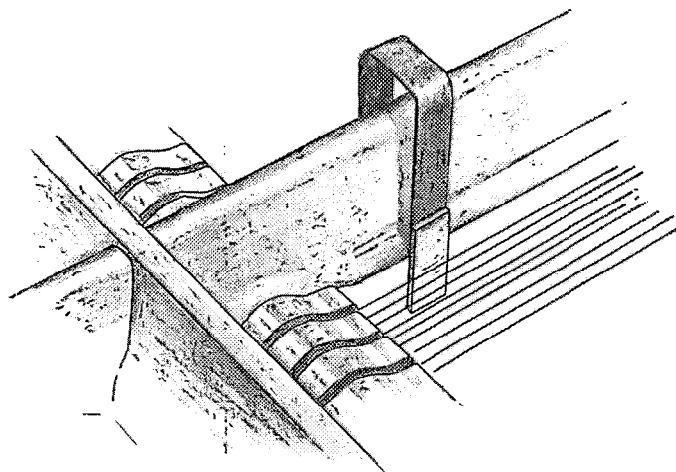


Figure 2 — Muting strings closest to plate strut with soundboard-steel tool.

Also, to quickly mute the two outside strings of a triple-strung unison, cut the top of a medium-size rubber mute as shown in Figure 3 and spread it around the unison.

— Leonard Hebert, RPT
Las Vegas Chapter

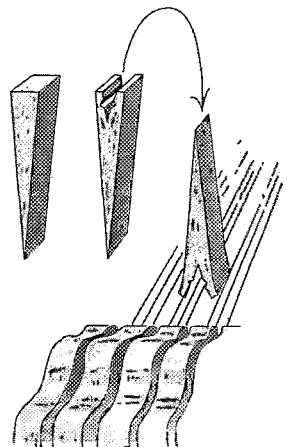


Figure 3 — Rubber mute modified for quick muting of outer strings.

Mold Release

I found a good mold release for epoxy. It's called polyvinylalcohol, and it works well brushed on a plate flange when perfecting the fit of the pinblock to the plate flange by filling the gap with epoxy. It's available from Defender, 42 Great Neck Road, Waterford, CT 06385. The phone number is 1-800-628-8225.



— Kent Gallaway, RPT
Appleton, WI Chapter

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By Stephen H. Brady, RPT

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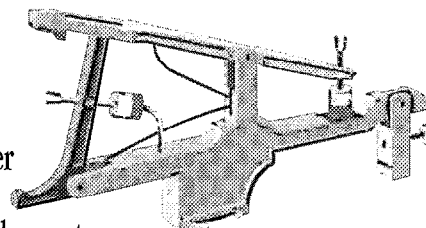
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*Research conducted by Prof. Abdul Sadat, Chair of the Industrial & Manufacturing Department, California State Polytechnic University

Q&A/ROUNDTABLE

Q The "NeverTune Piano"

If I find a piano remarkably close to pitch that hasn't been tuned for 10 years, do I touch up the tuning and then say "see you again in another 10 years?" More frequent tuning doesn't seem to make sense to the owner in some of these situations, but I can't make myself recommend they leave it go for that long, even if it is rarely used.

— Clyde Hollinger, RPT
Lititz, PA

A Roger Jolly:

Sometimes you would be giving the customer better service by touching-up the tuning, and then spending the balance of the time doing some technical work to improve the playability and tone of the instrument. Clean up lost motion or reset the hammer line, for example. As long as you are not just doing a touch-up to make a fast buck or as a general practice for a quick job, you will be providing the customer with a real benefit.

Allan L. Gilreath, RPT:

Roger describes part of the idea of Total Piano Maintenance. This is certainly not my original idea, but one that has been presented several times. It's a matter of prioritizing the needs of the piano and the customer.

Having said that, and still with every intent of giving the customers their money's worth, there's another point that comes to mind. One of my apprentices asked me the other day what you do when you come across a note that's "perfectly in tune." Do you retune it or leave it? Maybe it's my own hubris, but I had to tell him that I didn't know. I've never found one that couldn't be improved a little.

Zen Reinhardt, RPT:

I just tell the customers like it is — that I would like to see the piano at least once a year as if giving it a well-baby check-up. I explain to them that tuning is only one component of service, and that the check-up may entail a little action chiropractic, voicing acupuncture or a good cleaning — whatever the piano may need to get it into its best working order.

Q Pinblock Drilling

I am about to replace my first pinblock and I have a few questions. How do I drill out the holes in the block? What drill press do I need to buy to plunge that low? I know it needs to be modified to allow a seven-degree angle, but how do I get it to work? Who has the best info on the subject? I don't want a disaster the first time out. Any help would be appreciated.

— Ed Tomlinson, RPT
Vancouver, WA

A Brian Trout:

I will fit the pinblock to the plate first. Then when all the filing, rasping and sanding is done and it fits well, I will clamp it into the

plate just like it will go and put in the screws that hold the pinblock. (No tuning pin holes yet.) Then I put the whole assembly into the piano case and do whatever fitting needs to be done there. (It will vary depending upon just what you are doing). Next, I take a sharp pencil and mark the tuning-pin holes. It's a bit redundant, but I also take a center punch and mark each tuning-pin hole with that too. (You only think it's redundant until you only do the pencil marks and miss one hole.) Next, I take the whole thing apart again and drill out the pinblock. On the table of the drill press, I have a plank that I bolt on that's about the same length as a pinblock, and underneath another block cut to about a seven-degree angle, so that the whole thing leans in toward the drill press by whatever angle I set. Usually, I end up putting a couple of flat washers under the inside so it's not quite seven degrees. Most of the time I find that I like a four- or five-degree angle better. (Just a personal preference.)

I would imagine that using a radial drill press with a mobile base would make it an easier job if I had to do it in the piano. They usually have a long enough reach on them that they'll clear the keybed. But perhaps there would be other tools that could work better. I think I've seen little miniature drill presses that would probably sit right on the pinblock and hold a hand drill. That might be a better way. A resourceful person might just be able to design such an animal.

Clark Panaccione:

We've got a little five-speed ValueCraft™ drill press. It is made in Taiwan and it has a 50mm throw. We have two bases for it, so one is semi-permanently mounted on a sled — a 2' x 1' plywood board with the back end of the base raised on a shim to make the angle.

The long throw allows us to drill the block in the piano with the plate screwed in place drilling the bushings, if there are any, at the same time.

Continued on Page 14

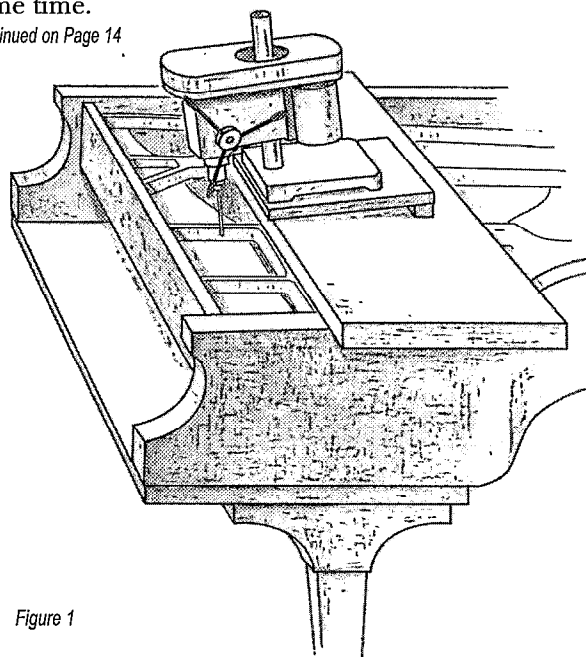


Figure 1

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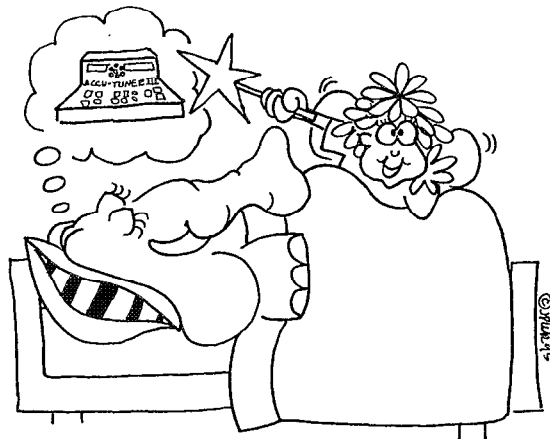
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Q&A/ROUNDTABLE

Continued from Page 12

Placing a door across the width of the piano makes a flat, sturdy table that the drill press sled can rest on. If it's an upright, the keybed and cheeks are removed first. We also run compressed air aimed right at the drill bit that helps to keep the bit from burning and also clears the waste. It is not quite a portable milling machine with automatic feed, but it has done a lot of blocks.

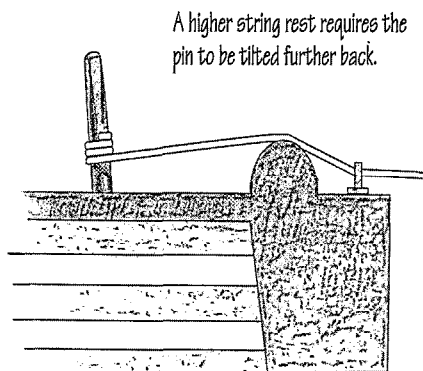
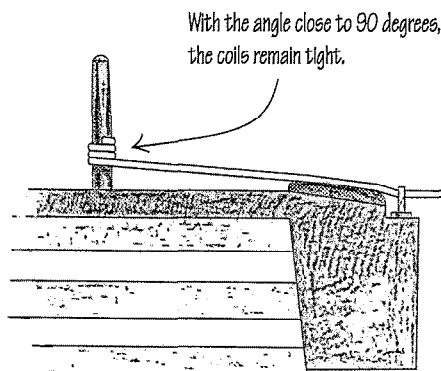
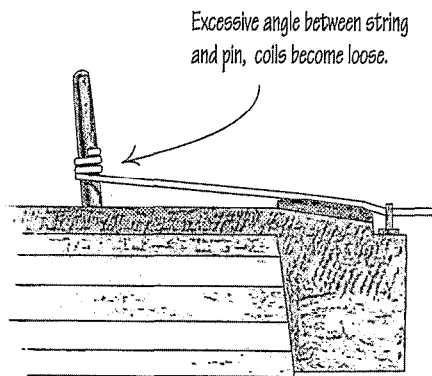
Del Fandrich, RPT:

Before you drill this pinblock, let's think about this a bit. Where did the seven-degree specification come from? What is the rationale for it? I expect that part of this might have originated with early three-ply pinblocks that had a bit more give in them than do modern multi-laminate pinblocks, but that is pure speculation on my part.

There are no definitive specifications for tuning-pin back angles on "modern" pianos. It varies from one piano to the next. And, although it's rarely drilled this way, the correct pin angle may well vary within the compass of a single piano.

That is, the correct angle may be different in the bass section than it is in the tenor. And may be yet some other angle for the treble sections. In other words, there are no absolute specifications....

As far as the tuning pin is concerned, it really doesn't matter what the drilling angle is in the pinblock. This is not a structural issue. The pin is not going to pull out of the block if the angle is too little. And it's not going to be more stable if it is extreme. What does matter is the angle that the string makes with the tuning pin. The string should make a 90- to 92-degree angle with the centerline of



the pin relative to the bottom of the pin. That is the string should leave the pin at no less than zero degrees and no more than two degrees from perpendicular to the centerline of the pin. With the pin driven in to its correct height and the string at pitch it should bear up very slightly against the coil as the tuning pin is turned clockwise, as in raising the pitch. This applies to string tensions appropriate to the modern piano, not harpsichords or even fortepianos. I suspect that greater angles probably wouldn't be as dangerous at the considerably lower tensions found on these strings.

Boring for the tuning pins to achieve these angles depends on the plate design and the string termination arrangement used. And, of course, on the diameter of the wire, the number of coils of wire on the pin, on how far the pin is driven into the block, etc.

I frequently hear of pinblocks being drilled at what I consider to be both extreme and excessive back angles – five-degrees to seven-degrees, occasionally even more. What the purpose of this is in the modern piano, I don't know. If the back angle is excessive the string will work its way down the pin as the piano is tuned and the technician will be faced with a constant, and losing, struggle to keep the coils tight.

So, for the modern piano at least, we have to look to the string angle relative to the tuning pin to tell us what the bore angle for the tuning pin should be and not just rely on some arbitrary standard we may have heard about.

Bill Springer, RPT:

Nick Gravagne had a series of articles in the *Journal* a few years back that outline the whole procedure very well. It is the method that I have used now for several years. His method has you drill the block outside of the piano with a drill press. Pianotek has some real nice drill bits for this.

Ted Simmons:

Nick Gravagne's article can be found in the December 1992 *PTJ*, page 19. Other articles of interest are May 1985, page 14; Sept. 1979, page 7 and Nov. 1971, page 8.



Removing Sharps & Matching Naturals

I have two questions concerning keytops:

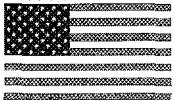
1. I have a customer with a brand new grand piano. I have to replace an ebony keytop. Can anyone suggest a safe way to remove the original keytop without pulling up splinters or damaging the key?
2. I have another customer who just purchased a used spinet from a store I do business with. There are two natural keytops that must be replaced. I want the repair to be seamless. I do save old plastic keys for such repairs, but I don't have anything that matches. I have a sample of the color I am looking for and the thickness of the existing tops is .090." Can anyone suggest where I can find keytops that will match?

— John Gunderson
Neptune City, NJ

Continued on Page 16

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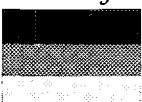
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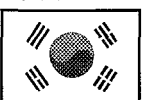
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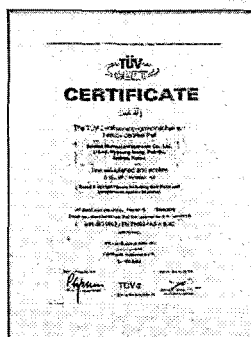
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Q&A/ROUNDTABLE

Continued from Page 12



Jim Love:

I've had good success putting the key in a vise and using a sharp chisel at the rear of the key. Give it a whack. Most of the time it pops right off.

John R. Fortiner:

Examine the keystick to determine the direction that the grain is running – not along the length of the key, but to determine if the grain is coming toward the top of the keystick if looked at from either side. What you want to do is use a chisel to remove the top, but the chisel must be used in the direction that the grain is rising. You do not want any splintering to occur in a direction that would be toward the bottom of the keystick, therefore use the chisel in the direction (front to back or back to front) that doesn't encourage the wood to split deeper and deeper toward the bottom of the keystick. By the way, normally those sharps will just pop off with very little wood damage.

Regarding the "shade" of white of plastic keytops, well, there are only about as many of those as there are strings in a piano. You might want to try Vagias Ventures (724) 869-2842 or fax: (724) 869-8341

Guy Nichols, RPT:

Here's the absolutely easiest way to remove sharps. Hold the key in your hand, face down, by the end near the backcheck. Hit your workbench with the sharp, at about a 45 degree angle sharply. Use a good hard whap, not a tap. When you're doing them all, you'll soon figure out how much force to use for that particular set, but for just one, hit it hard. The idea is to hit the top front edge of the sharp. Not a glancing blow, just straight down so that when it makes contact, it's just the edge of the front that hits. It "should" blow you away with its simplicity. They just pop right off without splinters or damage. A piece of thin leather or cloth on your bench or block can protect the sharp itself if you need to recycle it.



Restoring a Finish

I occasionally get an old upright that, with minimal regulating effort, is a decent entry-level piano. I enjoy that aspect of the work. As a non-refinisher, my question is, are there any quick ways to clean and polish an old "alligatored" shellac finish to make it presentable? Some people actually like the aged look, (I'm one), but would like to see more shine and color. I've tried denatured alcohol to amalgamate the finish in the past, but that is rather risky, at least when one considers my lack of refinishing abilities and how easy it is to completely ruin it. First of all, what is the best way to get the dirt out of the cracked finish? Degreasers? Solvents? Murphy's Oil Soap? Then, is sanding always necessary? Do any polishes help bring the wood tone through the finish? Any suggestions will be greatly appreciated.

— Ken Jankura, RPT
Newburg, PA



Guy Nichols, RPT:

There are a bunch of different things you could do, but you asked for "quick." So, the quickest way I know of is a two-step "pseudo-detailing" for old uprights with a crazed

finish.

1. Use a dark (when applicable, like most of the time) scratch cover like Old English or better yet some aniline dye (alcohol based is better than water based) to darken any light spots or stuff stuck in the grain. Use a rag and Q-tips. Get all the seams and cracks. Just let it set, don't buff or wipe.
2. Use lemon oil with a rag or polyfoam brush to saturate the entire surface, not the keys or insides, of course. Watch out for drips and runs, but be liberal with the application. After that sets for a while ... more than 30 minutes, use 0000 steel wool and more oil to go over the whole surface. Let that set for a while and then wipe off.

Doug Mahard:

I worked for an antique restoration specialist for several years here in Woodbury, CT, which is the antique capital of Connecticut. Practically everything he worked on was finished with shellac. The first thing every piece of furniture got was a good cleaning with Soilax. This is a suds free floor-and-tile cleaner and can be found at most hardware stores. Mix about two tablespoons of Soilax in a 1/3-bucket of water. Soak a pad of 0000 steel wool and rub a small area in the direction of the grain. Have plenty of paper towels on hand. Once you've rubbed (cleaned) a small area (approx. two sq. feet, or one surface of the fallboard) wipe dry with a paper towel or two. You might have to do this process two or three times depending on how much dirt and wax is on the furniture.

You are going to be amazed at the difference this one process makes in any piece of furniture. Dirt, wax, cigarette smoke, nicotine and even white rings from water stains come out. Sometimes if the finish is in good shape just the cleaning is all it needs. You might want to apply a fresh coat of wax if this is the case.

This now leaves you with a completely clean finish in whatever shape it is in: crazed, no finish or good finish. However, it allows you to assess correctly the direction in which you want to take the project. If the finish is crazed and the customer wants a smooth finish then start sanding the old finish off and reapply a new one.

Ron Engle, RPT:

I use one part turpentine and one part boiled linseed oil to bring life back to old finishes. It cleans them up and restores a deep rich color to them. I use steel wool only if there are broken spots in the finish or paint spots. The turpentine dissolves the dirt. Most of the time I just wipe it on with a rag followed by a dry rag. It takes several days for the turpentine fumes to evaporate. I've used it on shellac and varnish finishes only, and have had no problems. I cannot say about lacquer. Test it first especially if you use alcohol. I do not use alcohol for shellac and varnish because it dissolves shellac.

Larry Trischetta:

I use a product called Howard Refinisher™. You just wipe it

Continued on Page 19

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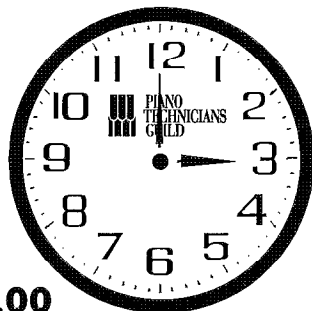
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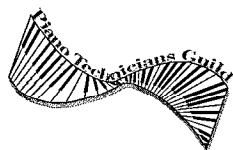
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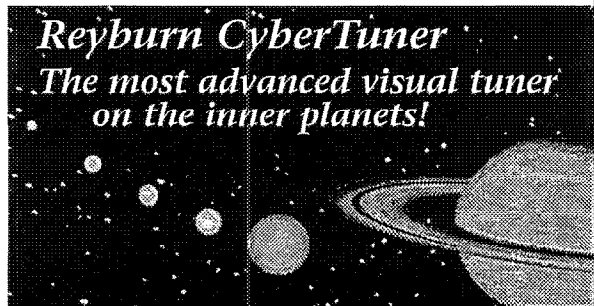
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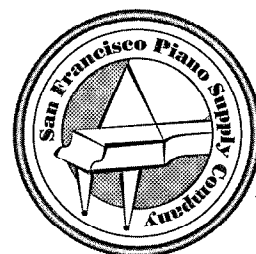
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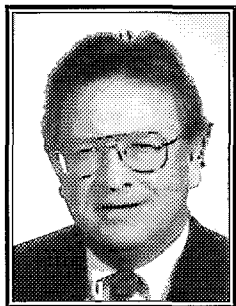
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The Executive Outlook

"Who's Number 1?"

As I met PTG members at the July KC convention and more



Dan Hall, CAE
PTG Executive Director

recently at the Texas State Association meeting some people greeted me with, "So, you're the new top gun" (or words to that effect). I usually just respond that I am just a

servant to the membership and certainly not the "top gun." In fact, the Good Book admonishes us to first become like servants. So who is *numero uno*? Let me suggest that, from my viewpoint, it is you the members, who are *numero uno*. If PTG the organization is to prosper, then our members must lead the way.

I try to *listen* to what members

have to say. (A wise sage once observed that God gave us two ears and one mouth.) Like everyone I think I have great ideas, but over the years I have learned that not all great ideas flow from the Executive Director. In fact, some of the best workable ideas come from the thinking of individual members. So I listen. I listen to my boss (in my case it is the PTG president, officers, board of directors and council). I listen to the PTG state and regional leaders. And I listen to all 163 chapter leaders. Top on the list, though, is my listening to individual members.

So, do you have an idea that would improve the value of PTG to its members? I'd like to hear about it. No doubt your regional vice president would also like to hear your ideas. Our political framework is built on representative government and so is PTG's structure. So let your chapter leaders know what

you think. Share your good ideas with your state and regional leaders.

Not sure what issues need your thoughts and suggestions? Here is a list to get those "creative juices" flowing. PTG's membership needs to grow more – what could be done at the chapter level to increase membership? PTG's educational programs at the chapter, state, regional and international level need to increase attendance – what could be done to stimulate participation? Average charges for technician services are not keeping up with increased costs – what can be done to help? Well the list is nearly endless but you get the idea. I believe there are hardly any problems that can't be solved if we only put our minds to the task. So let's hear it from you members because you are "number one." ■

Letters to the Editor

Continued from Page 8

that piano. The Model "Q" was designed back in '03 and this company has been making the strings for this manufacturer since the beginning and have been using the same scale stick. So-o-o, this set of strings just *has* to be the correct ones for the model "Q" you're working on, right? **Wrong!** (1) The odds of no construction errors having been made on your model "Q" during initial construction are nil. Manufacturers are notorious for large discrepancies between the designer and the end of the "assembly line." (2) The odds that the "scale stick" is exactly the same as it was back in '03, when it was made, are nil. (3) The odds that the BSM can still get *all* the exact sizes of wire that were used originally, are slim to none. (3) ad nauseam.

In any event, our grandiose attempt at improving a potentially great piano has so many roadblocks, some intentionally put in our way, that most, except the most stalwart, just throw up their hands, give up and take "carte blanche" from the Great Guru BSM.

I have not mentioned names so far and I won't except to say that in my experience the only BSM to date who was willing and open-minded enough to attack the problem, has been Ari Isaac of A. Isaac Pianos, Ontario, Canada, (416) 229-2096. The rest have done a very poor job of PR. I even contacted a CEO of a major BSM who really "fluffed me off!"

It is my opinion that the bigger companies that make strings for piano manufacturers believe that is their only relevant consideration when considering their cash flow. I respect that and certainly do not want them to go under. We need to support all of our industry, otherwise we're *all* out of business! But, if a BSM advertises "custom-made strings," then they should put their product where their mouth is. The cost for these "custom-made strings" is of no real consequence. Accuracy is the *prime consideration*. Nothing more, nothing less.

To date, I have talked with many rebuilders and general technicians regarding this problem. They all, to a man/woman, agree that there *is* a problem. A few are even "tooling up" to make their own strings. Hmmm. This will be very costly to do and I wonder how effective.

I wonder why the current batch of BSM can't understand that it doesn't matter what the cost, as long as the product is made *accurately*. That's really all that any of us want. I would welcome an opening of dialogue between the BSM and rebuilders. If the BSM can realize our frustration and make a real effort to give us the *accuracy* we are more than willing to *pay* for, then that is really all we can or should ask for.

— Joe Garrett, RPT
Portland, OR Chapter ■

Q&A/ROUNDTABLE


Continued from Page 16

on and wipe it off. It sounds too easy, but it works very well. It gives it a much newer look and takes water rings out. Here is the address. They will provide you with a little brochure with the different colors and product info – The Brass People (Howard Refinisher), PO Box 121, Souderton, PA 18964, 800-230-7142 or 215-721-4567

Jon Page:

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I wipe it on with a cloth and a brush for the inside corners and decorative detail. I may use a janitorial degreaser first depending on the job. It does dissolve the

finish somewhat so you need to end your wiping strokes with the grain. As Ron says, it cleans and enriches the finish. Your results may vary. It works great for me. 

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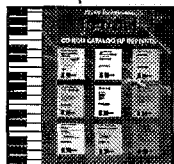
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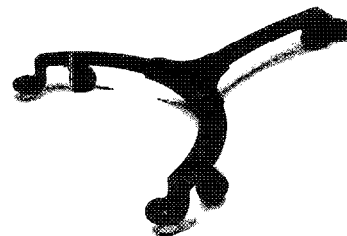
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A Guide to Bridge Recapping — Part IX

Making New Damper Guide Rails¹

During this series of articles, I have suggested on a number of occasions that, if the goal is to produce the best possible results in a rebuilding project, the means to that end may not be to reflexively duplicate the original fit, alignment and configuration of the instrument. This does not mean that I endorse change merely for the sake of change; during disassembly of a piano, careful measurements should always be taken so that putting things back the way they were is at least one of the options. However, rebuilders frequently receive substantial sums of money from piano owners who have faith that their instruments will be improved by the rebuilding process. Therefore, if there are indications that changes of fit or alignment in a piano will improve the overall performance of that instrument, it is in the best interests of everyone that the rebuilder make those changes.

This is the reasoning behind my attitude that almost every piano can be improved by carefully laying out the unisons on the bridge cap from scratch, rather than by duplicating the original spacing.² But, as is true in so many aspects of piano work, changing one parameter usually throws off another, and, in this case, changing the string spacing means that the original damper guide rails will not work. So, in the interest of making this series more or less autonomous, I am including a procedure for replacing damper guide rails.

The fit and alignment of all the parts related to the damper action is very complex indeed. Optimizing the functions of both the damper and hammer actions often can only be accomplished with the installation of new keys and keyframe

**By Bob Hohf, RPT
Contributing Editor**

along with a new damper back action. This is a challenging job, but the rewards in terms of the responsiveness of the completed instrument can be substantial. Also substantial are the time involved for the work and the cost to the customer; so most of the time we must work with existing parts that may be in somewhat less than optimal configuration. For the purposes of our discussion here, we will take the existing back action, keys and keyframe as given, and consider only the parameters that can be effected by the construction of new guide rails.

Figure 1 is a diagram of a generic damper action. Since damper function depends primarily on the force of gravity, dampers work best if the damper wires are vertical. In this configuration, the full weight of the underlever, lead weights and damper block can bear on the string to stop vibration. The more the damper wire deviates from vertical, the more of the weight is borne by the damper guide rail bushing and not the string. If the damper wires are vertical, then the line of the wire, shown as the dotted line in Figure 1, will pass through the

damper block flange center. Assuming that the keybed is parallel to the floor, and that the floor is level, this vertical line should be perpendicular to the keybed. This optimum configuration will create a space labeled “a” between the damper wire and the edge of the soundboard. This space may vary from bass to treble. It is also not uncommon to find that the back action is mounted so far back in the action cavity that the wires cannot be made vertical. In this case, either the back action must be moved or the vertical wire configuration must be compromised. Do not move the back action unless you fully understand the relationship between the underlevers and the keys. In original damper installations, the wires are frequently not vertical. This is probably because the distance “a” is set to a spec in the factory rather than measured directly from each individual piano. Photo 1 demonstrates measuring “a” using a combination square in the action cavity. With the underlever set to the height of the damper resting on the string, place the combination square on the keybed with the blade aligned to the damper block flange center. The distance between the blade and the soundboard edge can be measured

with a small inside caliper. This measurement can only be made at the ends of sections due to the block spacing, so take as many measurements as possible to determine the best “a” for the bass and treble.

The other parameter that can be affected by the guide rails is labeled “b” in Figure 1 — “b” is the distance between the top of the guide rail and the bottom of the strings. If “b” is too small, bending damper wires for good damping is very difficult. If “b” is too large, the length of wire above the guide rail becomes so flexible that good

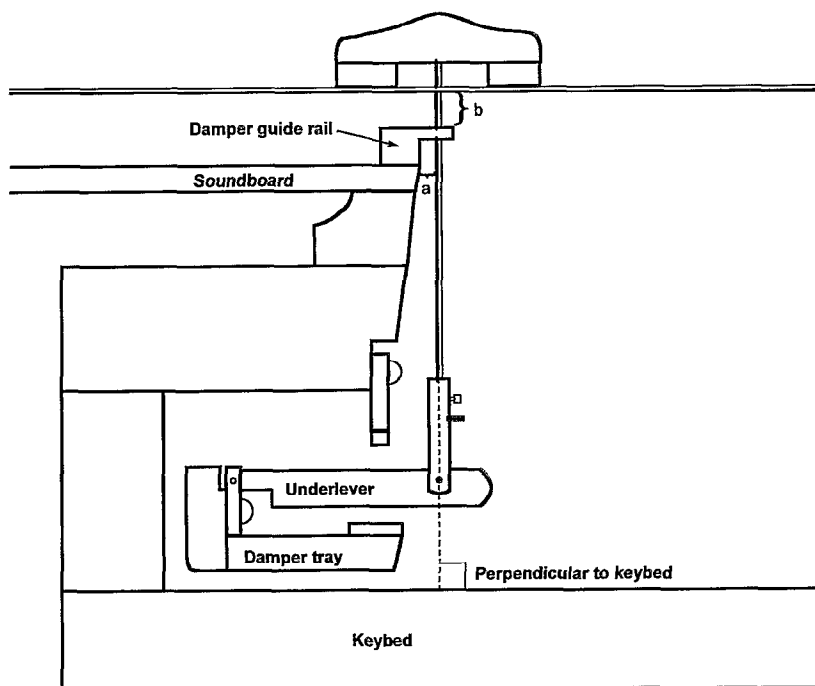


Figure 1



Photo 1

damping is compromised regardless of the way the wires are bent. I believe the best values for "b" lie in the range of 1/2" to 5/8".

Guide rail blanks

Damper guide rails can be made from either maple or birch; both are hard and stable enough for this function. I prefer to use birch because it is somewhat easier to machine than

maple. Figure 2 illustrates the steps to making blank guide rails. It can save time to make enough blank rails for several pianos at once then stock them for later jobs. I like to start with 8/4 birch about 30" - 32" long and saw it into 1-1/4" x 2" sticks as in Figure 2A. Take care to make all corners as square as possible since this will simplify measuring and alignment later. Next cut a 13/16" wide by 3/4" deep groove in one of the 1-1/4" sides of each stick with a dado head on a table saw as in Figure 2B. With most 8" dado sets, 13/16" uses all the blades and is therefore the widest groove possible.

Position the groove to leave a 9/32 x 3/4" tongue on one side and a narrower tongue on the other. Remove the narrower tongue on the table saw leaving the blank guide rail as shown in Figure 2C. The blanks cut to these dimensions will be oversized for most guide rails and may be trimmed to fit the dimensions of the original rails.

Photo 2 shows the original guide rails placed on top of the new blank rails. The new rails must be trimmed

to the dimensions of the originals. This can be done easily with a hand plane, a jointer or a table saw, depending on which surface is being trimmed. All features of the old rails should be duplicated onto the new ones. Any tapers or bevels can be made with a

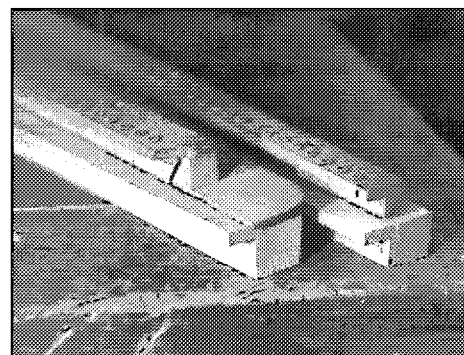


Photo 2

plane. Notches can be made with a saw and a chisel. I usually try to remove the trim piece for the plate horn cutout from the old rail and transfer it to the new one. The bottoms of the new rails may be fit to the trim by making saw kerfs to the proper depth on the table saw and cleaning up with a chisel.

Determining the proper width of the guide rail tongue is shown in Figure 3. The centerline of the line of guide rail bushings is located using the dimension "a" as measured above. The total width of the tongue is (a + 1/4"). The waste may be removed from the tongue on the tablesaw as shown in Photo 3. Take care that the edge created by the waste removal is clean and accurate, because that edge is used to scribe the centerline of the

guide rail bushing holes using a marking gauge set to 1/4" as in Photo 4. Photo 5 shows the treble and bass guide rails cut to clear the plate horn and scribed with the bushing hole centerline. Note that the bottoms of the rails have not yet been cut to fit the plate horn cutout trim.

Once the new rails have been trimmed and scribed, they may

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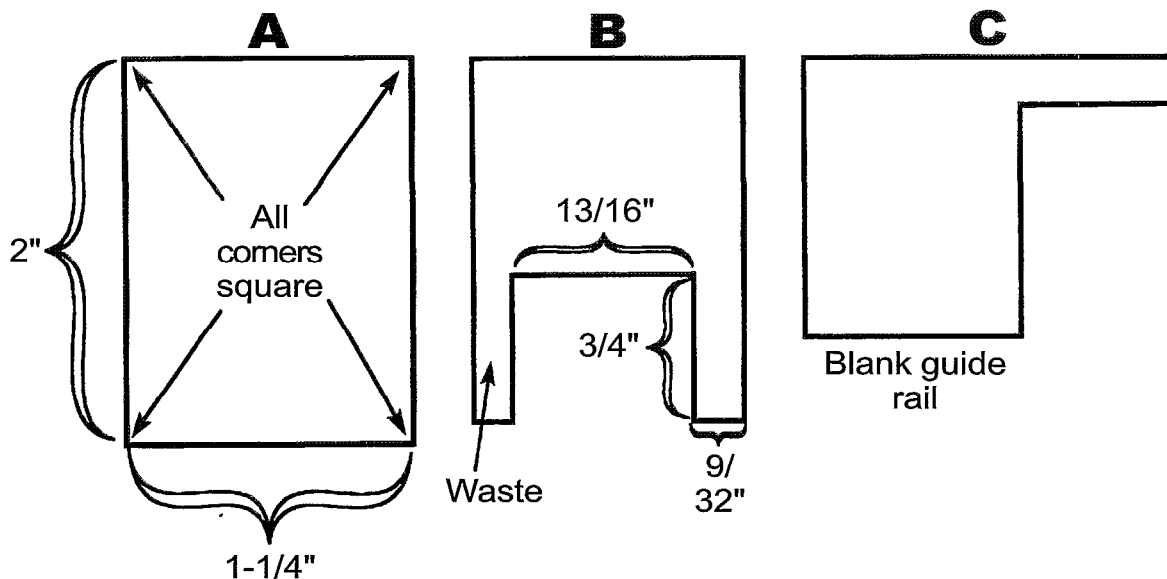


Figure 2

A Guide to Bridge Recapping

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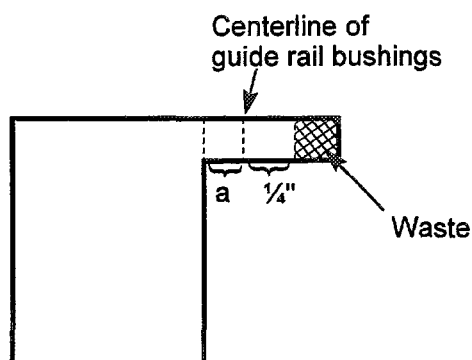


Figure 3

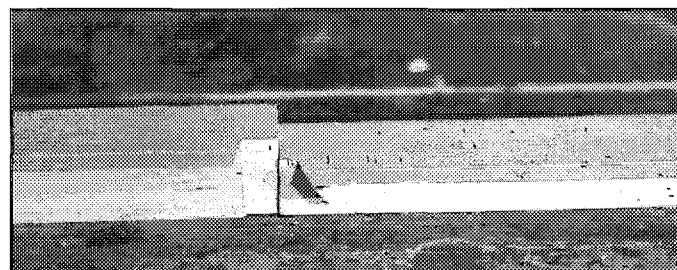
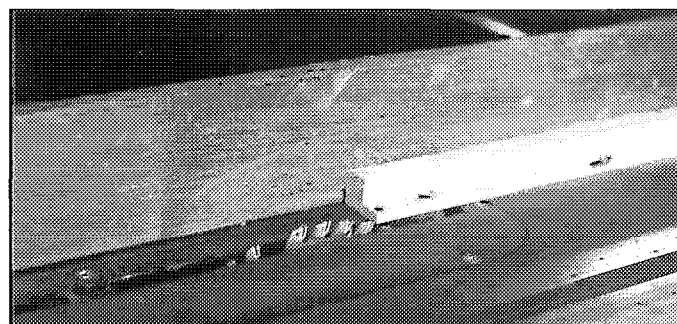


Photo 3 (TOP), Photo 4 (MIDDLE) and Photo 5 (ABOVE).

be held in position with masking tape as shown in Photo 6 while the mounting screw holes are marked on the top of the guide rails. Take care that the lower edge of the guide rail is flush with the edge of the soundboard when taping them in position; this will assure that dimension "a" is properly set. The screw holes should be located so that the screws lie in the spaces between the unisons for easy insertion and removal.

With the screw locations marked, take the guide rails to the drill press, drill and countersink the holes. A trick to ensure clean, chatter-free counter-

sinks is to make them first, then drill the screw holes. The holes should be just big enough to allow the screws to pass through freely with a minimum of side play; a good fit of the screws in the holes will positively locate the rails on the soundboard.

When the holes are drilled, carefully tape the rails back in position and mark the hole locations on the soundboard. This may be done accurately by inserting a brad-point bit that is $\frac{1}{64}"$ smaller than the holes and twisting it to mark the center on the surface of the soundboard. Remove the rails and drill the appropriate size holes into the soundboard and bellyrail as in Photo 7. Notice that the strings have been wedged apart by a piece of hammer felt to facilitate the drilling. If the belly rail slopes

back from the top edge of the soundboard, angling the screw holes back slightly will prevent them from coming through the face of the belly rail. The new guide rails may now be screwed into their final positions on top of the soundboard.

When the guide rails have been screwed in place, the bushing hole locations may be marked using a gauge such as the one pictured in Photo 8. The gauge can be made by mounting a center pin into the center of the end of a piece of $\frac{1}{8}" \times \frac{5}{8}"$ hardwood. Accurate and consistent marking with this tool requires that the center pin be *exactly* in the center of the gauge. Photo 9 shows marking a bushing hole location in the bass section. With the side of the gauge resting on the string, slide the gauge along the string with the point dragging across the top surface of the guide rail until the point clicks into the scribed line. In the unichord bass, I mark the holes on the line with the gauge flat against the string and held vertically. Since the unichord strings are so far apart, the bushings should not be centered between the strings, because this would require the damper heads to be offset from the bushings too far for good damping. For the bichord and trichord unisons, I mark the hole locations in the center of the space between the unisons. If the space is less than the thickness of the gauge, the strings will force the gauge into the center. If the space is greater than the thickness of the gauge, turn the gauge so that it makes a diagonal between the strings: this will assure that the point is halfway between the unisons. Be sure to keep track of which side of the unisons the damper wires lie and mark the holes accordingly; in the bass the dampers are on the bass side, and in the treble they are on the treble side. In Photo 9 the bushing hole being marked is for the string that is *above* the gauge in the photo. Do not hurry during this step. Accurately marking the bushing hole locations takes some practice and a mistake can cause big problems when installing the dampers.

When all the holes have been marked, remove the rails from the piano. At this point, I like to twirl a sharp pencil point in each mark to make them easy to see, and compare the new rails to the old to make sure I have marked for the correct number of dampers: it is easy to mark too many

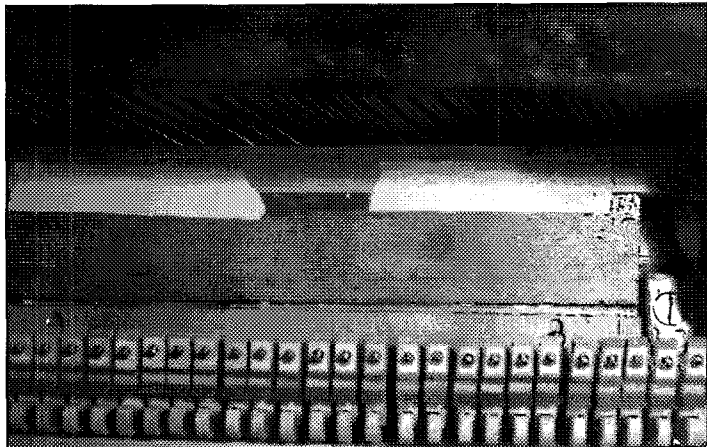


Photo 6

in the treble. Then drill the new bushing holes on the drill press as shown in Photo 10. The block under the rail tongue is thick enough that the bottom of the rail is suspended above the drill press table. Also, the block must have square corners to

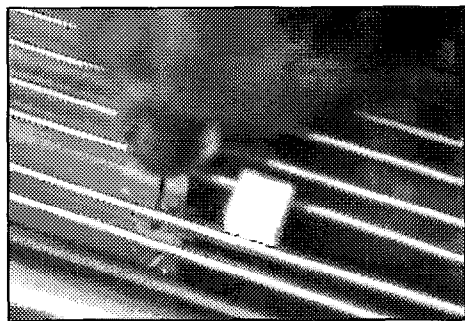


Photo 7

ensure that the holes are drilled perpendicular to the guide rail surface. I drill 3/16" holes with a brad point drill bit. Photo 11 shows the new bass guide rail with the bushing holes drilled and the plate horn cutout trim installed. Most original guide rails are unfinished, but I like to sand and shellac the new ones before installing the bushings.

Bushing the new rails

Photo 12 shows installing the new guide rail bushings. I use 1.2 mm bushing cloth torn to a width of 17/32". I use about a dozen strips 4" long and pointed on one end. Using many strips speeds up the bushing process considerably. I put a drop of hot hide glue on the back of each bushing as I pull the strips not-quite-flush with the bottom of the rail tongue. Gluing in the bushings prevents knocking one out if they ever

need to be reamed or burnished in the piano: replacing one bushing in an assembled damper system can be tricky. When the dozen strips have been inserted in the holes, glue applied and pulled into position, trim them flush with

the top surface of the guide rail using a sharp knife or razor blade as in Photo 13. Then move on to the next dozen.

After all the bushings have been installed and the glue has dried, I soak the felt with McLube 444™ and burnish with a piece of .097 drill rod in an electric drill as shown in Photo 14. This creates slick bushing holes with a good fit on the damper wires. Next glue the appropriate color felt onto the bottom of the new rails and trim flush. The completed damper guide rails may then be installed in the piano. Applying some Titebond™ to

the bottom felt makes a weak bond with the finish of the soundboard, but

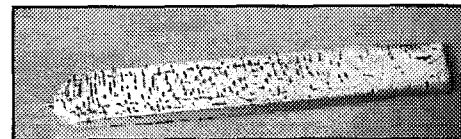


Photo 8

provides some security if humidity changes loosen the mounting screws. Photo 15 shows the new guide rails completed and installed.



Boyd lay in bed pondering his recently completed recapping job. It had been a long day, but he was not yet tired enough to drift into sleep; he was still a little tense after all that infernal wire-bending.³ Early on in the wire adjustments, the job had seemed interminable and each bend had to be made and re-made – sometimes several or more times. But, strangely, as the job progressed, each bend seemed to take on its own personality and its relationship to the other bends gradually became clear. Perhaps “infernal” was not quite the right word

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Photo 9

A Guide to Bridge Recapping

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for the task: for years Boyd had dreaded sitting down with his wire

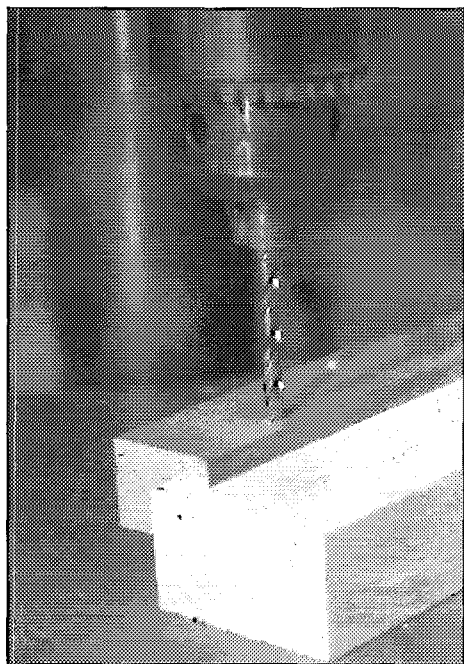


Photo 10

bending pliers to make the minor wire adjustments that seemed to accompany every damper job. Now he had been forced to take the job head-on. He knew he should feel thankful that he had finally moved along the way toward acquiring this skill. Also, during the long hours of studying the alignment of the components of the damper action, he had gained considerable insight into how the overall damper function could be improved by installing a new back action with realigned underlevers. True, the damper lift on this first job was not quite as uniform as he might have liked, but he knew that would improve as he gained experience. And, after everything had been installed, the damping on this first recapping job was better than on any piano he had ever done when working with original parts and alignment. As hard as it might be to believe, Boyd actually found himself looking forward to his next damper job.

Other interesting possibilities, opened by the process of recapping, began to run through Boyd's mind. Recapping gave him positive control over resetting the plate elevation. Therefore, he could now set the string heights above the keybed anywhere he wanted, within certain limits, of

course. He could only begin to visualize the impact this would have on his action work.

Boyd's mind drifted to the advice

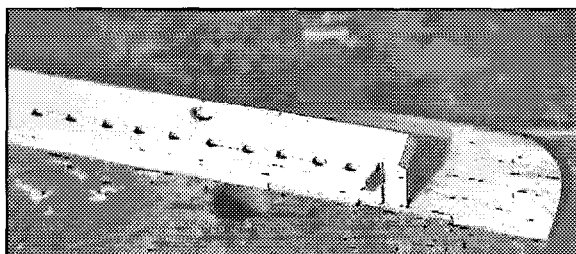


Photo 11

he had received before embarking on bridge recapping. "Supreme success."⁴ What did that mean? Maybe ... Boyd's ponderings were interrupted by an odor that wafted past his nostrils. It was sweet and pungent, unfamiliar yet familiar, but just a little too faint to positively identify. He opened his eyes to find himself in a room, dimly lit, filled with shapes, the corners disappearing into shadows. It was warm and friendly and the odors grew stronger: the pungent smells of pine shavings and turpentine, the full, musky smell of oil, sweetened by the fragrances released by working with exotic wood. It was a

workshop, small and filled to capacity with tools and inscrutable devices sitting on benches and hanging on the walls, along with stacks of lumber.

As Boyd moved cautiously through the space, he began to hear a faint scratching sound followed by an even fainter bong ... bong ... bong, then a pause, then more scratching, then more bonging. Suddenly, Boyd saw a man sitting on a stool, bent over a workbench; so intently did he work that he did not

notice as Boyd approached. The man was small and very old, and he was making a violin. His hands were knobbed and feeble looking, but their movements were slow, deliberate and certain. As Boyd watched, he tapped the violin top with his finger, carefully

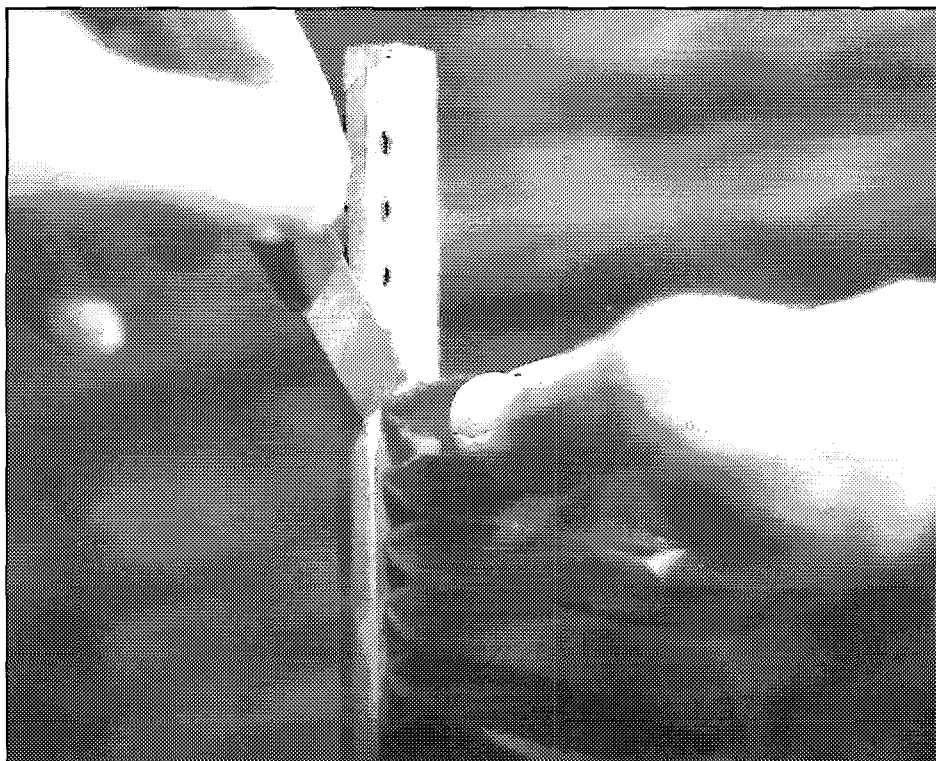
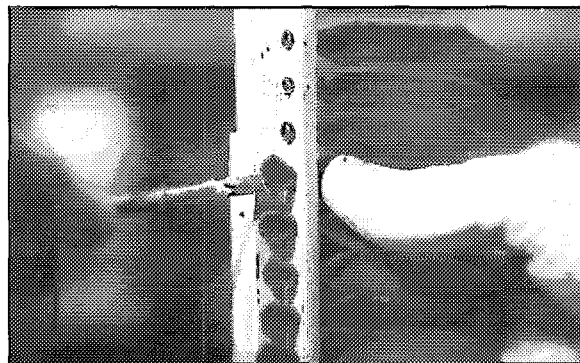


Photo 12 (TOP) and Photo 13 (ABOVE).

took a few minute scrapings from the underside of the top, then checked the fit on the body that lay on the bench beside him. Over and over, with unhurried, entrancing movements, he repeated the steps.

Consumed by an uncharacteristic boldness, Boyd moved closer, looked into the body of the violin that lay on the bench and read from a small piece of

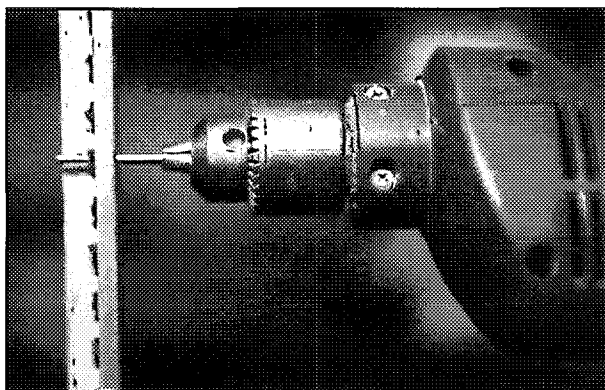


Photo 14

paper glued to the inside: "Antonius Stradivarius Cremonensis, Faciebat Anno 1737, D'anni 93." *He was watching the great Cremonese master himself making one of his last violins.*

"Mr. Stradivari!" Boyd blurted. Without stopping his work, the master spoke in a voice that was at the same time soft, aged, resonant and kind, "Call me Uncle Antonio."

It took Boyd a moment to regain his composure, "Uncle Antonio, we want to know..." The master stopped his work and turned slowly toward Boyd. His face was ancient and expressionless, but it was unmistakable: there was a brilliant and mischievous gleam in his eye. Boyd carried under his arm a huge notebook that contained the results of centuries of investigations into the creations of Stradivari. The master moved his work aside and motioned Boyd to place the notebook before him. As he leafed through page after page of data, charts and chemical analyses, Boyd saw a gradual transformation pass over the master's face. It started with a slight twitching around his mouth that increased as the corners turned slowly upward. Then, to Boyd's astonishment, he rose to his feet, threw his arms to his abdomen and let loose what Boyd could only describe as an uproarious belly laugh. Before Boyd had a chance to catch his breath, the master whooped as he leapt into a prodigious

backward handspring and landed out of sight behind a tool cabinet. Boyd was aghast by these antics. His futile attempts to understand what he was

witnessing were interrupted when the master reappeared, juggling three forms for violins of different sizes while precariously balancing

several sticks of lumber end to end on his chin.

"...we want to know the secret!" Boyd called out in despair.

The tumult subsided and the master resumed his calm expression. "The secret is..." He beckoned Boyd closer, narrowing his gleaming eyes, and cast quick, sidelong glances, as if to assure himself that no unworthy ears would hear the wonders he was about to disclose. The master placed his lips close to Boyd's ear and said in

a barely audible whisper, "There is no secret." Then the shop was filled with an even greater hilarity. The din spilled out the windows and resonated through the streets of Cremona. The volume increased to a deafening level as the entire earth began to shake with the immensity of the merriment. As consciousness reasserted itself upon Boyd's mind, he became aware that he had been awakened by his own laughter.

Notes

1. This procedure is based on an excellent class given on the subject by Joel and Priscilla Rappaport a number of years ago.
2. Hohf, "A Guide to Bridge Recapping," *Piano Technicians Journal*, September, 1999.
3. Of course the new unisons and the subsequent re-spacing of the damper guide rail bushings means that many, if not all, of the damper wires must be re-bent. The procedures for this work are beyond the scope of this series of articles. This is not to say that the skills involved in damper wire adjustments are trivial or easily acquired.
4. Hohf, "A Guide to Bridge Recapping," *Piano Technicians Journal*, March, 1999. □



Photo 15



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Ear Training: We Get Rhythmic

**By Ed Sutton, RPT
Contributing Editor**

Having solved all noise problems last month, we can return to study our clear, clean, perfect beat....

The first thing we can notice about it is that it isn't a beat at all, but is really a wave and a rather gently undulating wave at that. It does not have what conductors call an "ictus," a precise beginning point in time. It is very important that we understand this: it means that beats are innately rather slippery. If we grasp at them too quickly, we will mis-hear them and do sloppy work. If you find yourself making embarrassing mistakes while tuning, give yourself 10 extra points: you're in reality. The upside of this matter is that as soon as we understand the problem, the correction is easy. Giving our brains just a bit more time to process the beat sound will result in much greater accuracy. Let's say this again:

The beating sound, as the piano produces it, is an absolutely unarticulated sound. It is a gradual rising and falling of amplitude, with no peak, point or tick at the top. The duration of a beat is (to the ear, at least), somewhat ambiguous. (Anyone who has performed in ensemble for a conductor with a "round" beat knows this problem well.) If we just listen to a small sampling of beats (just three, four or five beats) it is very easy to mistake what we are hearing. If what we hear is close to what we know we ought to hear, it is embarrassingly easy to convince ourselves that we have heard it. Yes, you'll get faster at it over time, but if you get too much faster,

you might just be getting sloppy.

We can easily recognize the moment when our brain has created its hypothesis for what it's hearing. (It usually does this in less than a second!) This hypothesis is what we would articulate by saying, "It's going 'wa-wa-wa-wa.'" It seldom takes more than three or four beats for a hypothesis to form in our mind, but this quick hypothesis isn't our best. If we let our brain confirm and refine its hypothesis two or three times, we'll get much greater accuracy.

Just listen to the interval for an extra second or two. Focus on the pitch of the beating partials (this is something you can will) and let your brain do the rest. Forcing doesn't seem to help much; getting a clear sense of the beat rate seems to be one of those things we do best by "letting." This may add an extra minute to your temperament, but will save many minutes of troubleshooting.

Absolute counting of beat rates (counting in beats per second) is something tuners seldom do anymore. The one place they can be valuable is in recording how flat or sharp of standard pitch an instrument is. Here you can use the slipperiness of slow beats to get very accurate estimates relative to a tuning fork. Use a metronome, watch or digital timer to mark off seconds. Count the beats for several seconds and don't be surprised if they vary from second to second. If you think you hear beats going $/1,2 / 1,2 / 1,2,3 / 1,2 / 1,2 / 1,2,3 /$, figure it as $2 + 2 + 3 = 7$ beats over three seconds. $7/3 = 2.3$ beats per second. If you count $/1,2,3 / 1,2,3,4 / 1,2,3 / 1,2,3,4 /$, then $7/2 = 3.5$ beats per

second. Note that your variance can only be by one count and you should confirm it by at least one repetition. Of course the beat rate isn't really accelerating. Because slow beats are very slippery, our brain is grouping the rise and fall of volume as best it can. When it finds it's about to miss one, it jams it into the count as best it can. In music notation, we think we're hearing something like Figure 1.

In the last few decades, new techniques have been developed making extensive use of relative beat rates to tune pianos. Using these techniques requires a well-developed inner sense for grouping and subdividing small units of time. I've not seen a complete description of these skills and how to develop them published in the *Journal*, so, although it goes against my plan to keep these articles simple, I will proceed. If the work involved in learning to realize some slightly unfamiliar time divisions seems a bit daunting, perhaps I can offer some solace in the fact that the method offered here works very well, and once understood, is easy to remember and practice. The complexity is more in the presenting than in the doing. If you have trouble understanding the material, please find a good musician to help you with it (Ask to stay with the basic rhythm-word system presented here; some musicians use different, more complex systems. We don't need that.).

The purpose of practicing the following material is to create two related sets of rhythm patterns that we can hear clearly in our minds and produce in the world. Once they are established, they will respond sponta-

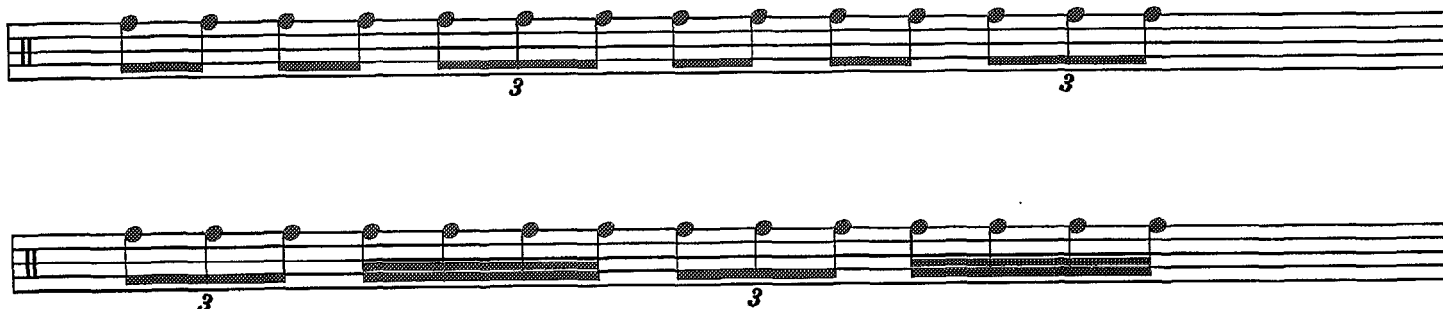


Figure 1

Figure 2

neously to appropriate beat relationships and give us a way of naming what we are hearing or defining what we'd like to hear. The late George Defebaugh, one of the finest aural tuners in the Guild, who helped many of us both in person and through videos, trained as a percussionist before he took up tuning. His skills as a percussionist enabled him hear beat rates with great accuracy. What I'm presenting here is a very basic course in rhythmic grouping and subdividing of the sort that someone like George Defebaugh would have done effortlessly.

The first task to learn is how to group a constant small time unit into various sized larger units. A digital metronome set to produce a fast tick will help greatly. It should be set to produce one sound

repeatedly; don't set it to subdivide beats or mark off measures. Use code words to produce this grouping, as follows:
"One" is used for a single tick.
"Num-ber" is used for groups of two ticks.
"Har-mo-ny" is used for groups of three ticks.

Now add a foot tap at the first syllable of the word and repeat each word several times, without missing a tick. Work for smoothness: each syllable fills one unit of time; your foot moves in a slow, easy continuous movement, the tap is just that moment when it touches the ground. The amount of time being

Continued on Next Page

Figure 3

Ear Training: We Get Rhythmic

Continued from Previous Page

grouped will vary with the number of syllables, so your foot will tap faster or slower. As you change from one word to another (from one grouping to

metronome ticks off the larger value which we subdivide. Here's the big picture, as seen in Figure 3.

The larger value stays the same, the smaller values change. Start with a tempo of mm60-80. First try saying the

happily grouping and subdividing time into three, four and five units! Gradually increase the tempo until you can't articulate the syllables; you may wish to explore whether you can hear the subdivisions in your mind faster than



Figure 4

another), give yourself several "empty" ticks of the metronome, to give your brain time to regroup. Musicians don't have this option; we do, and can use it to make our learning easier and our work more accurate.

Written in music notation, the exercise looks like Figure 2.

This is a good warm-up rhythm exercise. It's fairly easy to do, and the continuous small time value lets us focus on smoothness in all groupings. The next exercise puts that smoothness to the test. Be ready to repeat the first exercises whenever needed to re-establish your sense of smooth, even subdivisions of larger time values.

This exercise divides a given larger time value into various smaller subdivisions. It is more difficult than the first exercise and is our ultimate skill. We use the same code words we used in the first exercise, but in this case the

words "num-ber" (N.b.) and "di-a-tonic" (D.a.t.n.) as in Figure 4.

You may try tapping the syllables with your fingers; this may give more precision to your effort. Remember to give open ("one") measures between changes. The importance of this will be obvious as you proceed to the rest of this exercise, using "har-mo-ny" (H.m.n.) and "se-ren-di-pi-ty" (S.r.d.p.t.) to make the triple and quintuple subdivisions of the time unit shown in Figure 5.

Give yourself lots of extra "1" beats between the changes, and give yourself time to smooth out the subdivisions. Don't feel bad if you lack front-end perfection. This is hard stuff. Be proud of your improvements. You'll always be capable of improvement.

Take your time on this. End a practice session before you become exhausted and sloppy. Soon you will be

you can say them. Don't push too hard: better to stay calm and accurate. As you become comfortable with this practice, you will use the metronome less and find interesting ways to organize and inter-relate the material. It is possible and very valuable to weave patterns back and forth between the two exercise patterns.

Once learned, these exercises become very portable and can be practiced almost anywhere, any time you feel the need to hone your skills. I've been practicing for 30 years now and still can improve with more practice; it's a lifetime practice, learning to tell time. The ability to recognize and quantify relative beat rates is the backbone of conscious tuning. When you practice these skills, you are practicing everything. ■

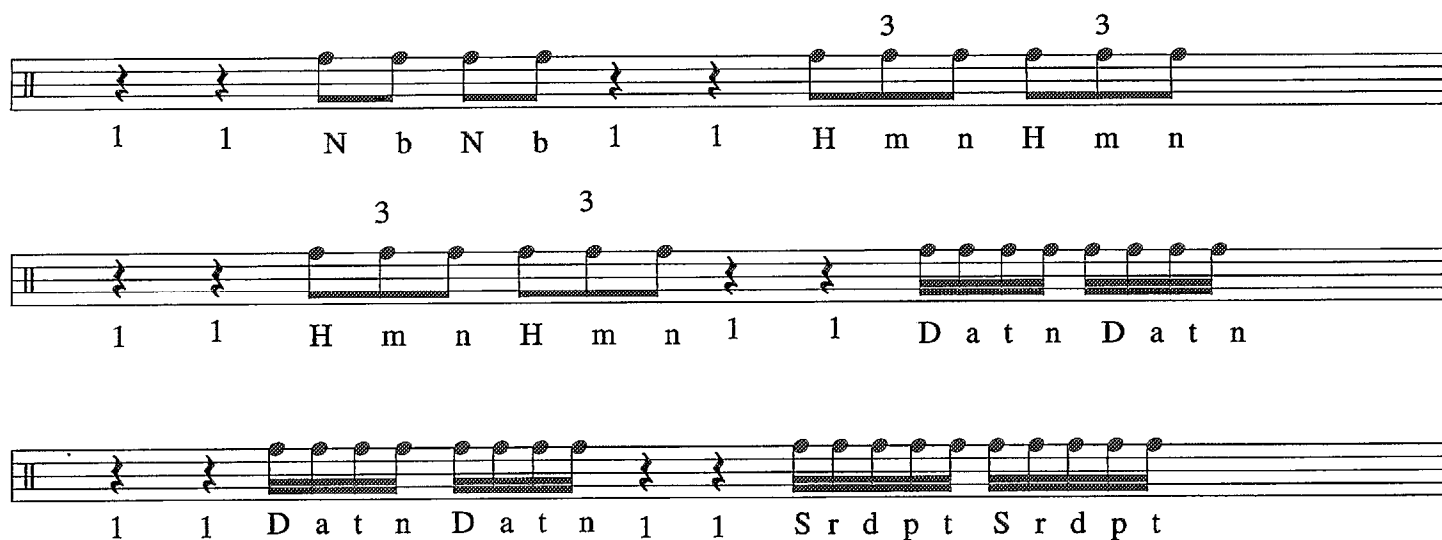


Figure 5

Planning for Retirement

Willem Blees, RPT
St. Louis, MO Chapter

One of the wonderful benefits of being self-employed is that no one can tell you how many hours a day you have to work or how much time off you can take. You can start your workday at noon or at 6 in the morning, and you can work until midnight or you can quit at 3 in the afternoon. Some of you might even start the day at noon and quit at 3, or, if you are a work-a-holic, start at 6 in the morning and quit at midnight. The bottom line is, as a self-employed businessman or woman you can set your own schedule and work as little or as much as you want.

When it comes to how many years you want to work the same applies. As a self-employed individual no one is going to tell you when to retire. Just as you want to take a few hours off every week to relax and take a few weeks of vacation every year (at least you should), you probably want to retire at a certain age and enjoy the fruits of your labor. You can have the option to retire at age 50, or you can work until you drop dead or age 100, whichever comes first.

While most of you probably have in mind to retire when you reach your late 60s or early 70s, there are many self-employed people who, because of a lack of planning or other unforeseen circumstances don't have a choice. These people have to work long past when they want to retire. They will not have the opportunity to live out their last remaining years enjoying the fruits of their labor. The reason for this is a lack of planning; they did not plan ahead for the retirement years.

The St. Louis Post Dispatch had an article once about how a lot of business owners do not have a plan as to what to do with their businesses after they retire. Many self-employed people work until they want to retire and then just sort of give up their business. They either don't know how to sell it or have not made the necessary arrangements to do so.

This article will help you sell your business. It will also mention the things for which a buyer of a piano service business should watch. What this article will not talk about is IRAs or Keoghs or cash savings accounts. I will assume that your insurance agent, financial advisor, banker or accountant has explained all these programs to you and that you are already putting away some money for your retirement years.

The problem with a service business like ours is that it cannot build up a tangible inventory that can be sold at a future date. In fact, the definitions of a service are: it cannot be produced in advance, it cannot be stockpiled and it cannot be saved for

future use. Unless you have a retail piano business, the only inventories you will have acquired are the tools, equipment and supplies you use for your business. All you will have, after many years of tuning pianos, is a list of customers for whom you have tuned. And as we all know, your clients are only loyal to you as long as you keep your prices the same and do a good job. It doesn't take much for a customer to leave you for another tuner. So when it comes to selling your list of customers there isn't too much you can tell a potential buyer other than that it is a list of people for whom you used to tune.

Selling Your Business

What we are going to discuss first is how to sell a business and the other end of that, how to buy a tuning business. Audrey Karabinus wrote a wonderful article about this subject in the April, 1995 *Journal*. In it she explains how to find the value of a tuning business, what contracts to consider and what tax forms to fill out. (Yes, the government gets involved in this, too.) Audrey explained how she came to selling her business. She found that there are several different ways to figure out the value of a piano tuner's file. One is to value each client at half the value of a tuning. In other words, if you had 1,000 clients and charged \$50 a tuning, your client list would be worth \$25,000. The other way she had it figured out was to take half a year's income as the value of a business. If your business income is \$75,000, then your business is worth \$37,500.

Both of these buy-out figures seemed rather high to me, so I asked my son Chris, a CPA, for advice. He advised me there are three methods for determining the sale price of a service business. The first method is a dollar amount for each appointment made over the past year. A second method is 30 percent of the net income of the past year and the third method is 10 percent of the gross income for the past year.

Audrey was moving out of town and had only been in business for 10 years.

This article deals with retiring after having been in business for many years. Therefore, presumably, there is not only going to be a much larger clientele, but also tools and supplies are going to be sold. So let's examine the two methods of selling a business that Audrey mentioned, and at the same time, discuss the other end of selling a business: buying it.

"While most of you probably have in mind to retire when you reach your late 60s or early 70s, there are many self-employed people who, because of a lack of planning or other unforeseen circumstances, don't have a choice."

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Planning for Retirement

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First, let's consider the number of clients in your file. From the seller's point of view all the names in this file are potential repeat customers. The buyer, however, needs to consider how many of these customers were "regular" customers and how many were one-time clients. In Audrey's case it could be that in the 10 years she was in business half of her customers used her only once and then either got another tuner or moved out of town. So of the all the names, perhaps only half of them should be considered as potential future customers. For a tuner who has been in business for 40 or 50 years, however, there might be over 5,000 names in the customer file. Therefore, perhaps a better way to figure a price of a tuning business is to look at how many customers were tuned over the past five or so years and use that number as the number of clients in a customer file. After all, it is the regular, or at least the most recent customers who are most likely to have their piano tuned by the new business owner.

The other way of selling the business was to take half of the previous year's income as a guideline, presumably 50 percent of the net income. Again, my son recommended using only 30 percent of the net, or 10 percent of the gross. Regardless of the percentage, there is still something else that needs to be considered. The seller would want to use this method if he had a very successful year. The buyer, on the other hand, wants to make sure that the business is making as much money as the seller claims. Therefore, if a buyer is going to use this method, it might be prudent to look at several years of income, instead of just one year. The seller claims that the business brought in \$70,000. However, upon examining the income from the year before, the business brought in \$90,000 and the year before that it brought in \$100,000. The question the buyer then has to ask is, what caused this decline in income? Perhaps the economy in the area is slowing down, in which case it would not be a good investment to buy the business. Or perhaps income declined because of poor performance on the part of the tuner, in which case the reputation of the piano tuner needs to be considered. However, if the declining income was due to the piano tuner's age or health, which is the reason he is selling the business, a new and/or young piano tuner could revitalize the business and bring the income back up to where it had been.

What if the incomes for the past three years were \$50,000, \$60,000 and \$70,000?

This might look like a growing business and it would be worth it to pay \$35,000 for the business. However, the \$70,000 might be the most that business is ever going to make, and perhaps it may go down to \$60,000 the following year. Because there is no way of knowing for sure, a talk with other piano tuners in the area or the local Chamber of Commerce might shed some light on the clientele of that particular piano tuner and the economy of the area.

The Tax Man Cometh

As was mentioned before, the government wants to get involved in the buying and selling of a business. Actually, it is not so much that they want to know that the business is being sold, but there are taxes that have to be dealt with. There might be some very serious tax consequences if the sale of a business isn't done right.

Both the seller and the buyer of a business have to file Tax Form 8594, the Asset Acquisition Statement. If the transaction is a cash sale, then all the income has to be reported as business income, and is taxed accordingly on your schedule C and on form 4797, the Sales of Business Property. If the buyer is going to pay for the business over a period of time, then the sale becomes installment payments, in which case the Installment Income Form, #6252, has to be filed. If this happens, then the seller is actually lending the buyer the amount equal to the sale price of the business. But because the seller is getting the payments over a period of time and he will be getting interest, or at least he should be getting interest, and because interest income is different than cash income, it has to be reported on Schedule B.

Another aspect of the tax game is how much can be deducted and/or depreciated per year. The IRS treats the value of business assets differently. A list of clients is considered an intangible asset, while the tools and supplies are considered tangible assets. When the tools, etc., are sold they are treated like a store would sell any merchandise; when they are sold the profit from the sale is considered income. Since most of the tools are probably more than seven years old and have already been depreciated the income from these tools would be considered pure profit. The supplies would be sold at a profit also, but since they cannot be depreciated, only the difference between what they cost and what they were sold for is considered as profit. The seller of a business doesn't want to get a lot of money for his tools and supplies, because he wants to keep his "profit" down. However, the buyer of the business wants to pay a lot for the tools and equipment (not more than what they cost new, but still a high fair market price), because he can depreciate them over seven years.

The client list, on the other hand, is treated differently.

The client list is an intangible asset and when it is sold the income from that sale is considered a capital gain and it is taxed less in the higher income bracket. Although most piano tuners don't make enough money while they are working to be in a high-income bracket, when the sale of the business happens it puts them there. Therefore, the seller wants to get a lot for his client list. The buyer, on the other hand, doesn't want to pay a lot for this list, because he has to defer this expense over 15 years. So you can see that when a buyer and seller get together they need to make a compromise over the value of the intangible assets and tangible assets. Therefore, it is recommended that the two parties hire a CPA to help them work out the details.

"The alternative to selling your business is to continue it, but have someone else run it for you. Many businesses keep going where the owner is not actively involved in the business any more."

One more thing about buying/selling the business. The seller, with all good intentions, wants to retire and live an easy life. Unfortunately, several months — or even years — after he retires, he finds himself in a position, for whatever reason, where he decides that he doesn't want to be retired anymore. Therefore, the buy-out agreement should contain a non-competition clause. What a non-competition agreement does is protect the buyer from having the seller take away the customers he/she just bought. It means that the seller of the business will not be allowed to tune or repair pianos in a certain geographical area for a certain length of time. After all, the new owner paid a lot of money for that business, and if the seller were allowed to compete with the new owner, and get his old customers back, it would defeat the purpose of selling the business.

Alternatives to Selling Your Business

Keep your business running after you quit

Although selling the business is probably the best choice for many of you, there is an alternative to selling your business when you are ready to retire. After all, when you sell your business you are presumably also giving up your means to make a living, unless you want to start another career or work at the neighborhood store bagging groceries. The alternative to selling your business is to continue it, but have someone else run it for you. Many businesses keep going where the owner is not actively involved in the business any more. Some large examples are Steinway, Baldwin and Kimball.

Although these are corporations, many small businesses, including one-person operations, have done the same thing.

Getting someone to run your business, however, is not an easy thing to do. Whom do you get, how well is he or he/she trained, how is the person going to run it and how can you be assured the business will be run the same way you ran it, are just a few of the questions that need to be answered. Some of us are fortunate to have a son or daughter learn the trade, but even that doesn't guarantee that he or he/she will stay in the business. My son learned the business, but decided that it was not the career he wanted. If you have a son or daughter to take over your business, you are lucky. Presumably he or he/she will have learned the business from you and will most likely run it the way you want it run. Unfortunately for me, and I am sure a lot of you, that is not going to be the case. So if you want your business to continue after you retire, then you have to do something to assure that it will. The following idea is nothing new in the business world, but it has not, to my knowledge, been discussed before in these pages.

The idea is to train someone to run your business before you are ready to retire. When you hire that person depends on when you want to retire and how long you think it will take that person to learn your business. It also depends on the skill level of the person you want to take on — not just technical skills, but also the paperwork and the people skills. Therefore, this person will have to learn everything from doing the paperwork to working with customers, to tuning and repairing pianos so that by the time you are ready to retire he/she will have learned everything about your business. The advantage of having a person working for you during the time you are training

him/her is that he/she will start having contact with many of your customers.

At first he/she will primarily work in the office, answering the phone and setting up appointments. Later she will work in the shop doing minor repairs and regulations and finally learn how to tune a piano. When you are confident he/she can tune a piano to your satisfaction he/she will be able to start going on service calls and meeting the customers face to face. The advantage of this is that you will be there to answer questions, take care of emergencies or even make a return call to a dissatisfied customer. This way the customers get to know your "replacement," and if he/she does make a mistake, the customer won't go to another piano tuner.

It might take you 10 years to train in your replacement, but during that time, you will have taught her as much as possible about your business for her to be able to run it your way. This is not to say he/she will not come up with some new ideas, but you will know that the business you have built up over the last 20 or 40 years will continue long after you have retired and eventually have died.

Speaking of dying, what's in it for your replacement? Why would he/she want to work for you when he/she can work for herself? For one thing, unless he/she is a trained tuner/technician before he/she came to you, he/she is learning the business. The second reason is that he/she doesn't have to find the money to buy a business, yet he/she can make a fairly decent income working for you. And the third reason he/she is willing to work for you, and not have the "glory" of owning her own business, is that you have agreed ahead of time to give him/her the business when you die. It would not be prudent to go into detail about that aspect because there are far too many variables involved, but I am sure you get the picture.

This is a "win-win" situation for both the owner and the worker. He/she is learning a trade while being paid an income. Eventually he/she will be able to run her own business, without having to buy it, when he/she inherits the business when you die. You, on the other hand, are able to continue to have a say in how your business is being run and will have a continuous source of income for the rest of your life. After several years of taking it easy and living on the road, you could even "come out of retirement," if you decide that it is not what you want. In the meantime, before you fully retire, you could take extended trips because someone is able to take care of your business.

Renting Pianos for Retirement Income

There is another form of retirement income that I want to share with you. It was actually the first step in coming to the previous plan. The plan I am talking about is the piano rental business. There have been several articles written on this subject in the past, but I do want to mention it again. Renting pianos is a great way to make extra income or to accumulate retirement income. In a nutshell, this is the way the piano rental concept works. You buy a used piano for \$500, fix it up and rent it for \$35 per month. Do this 200 times, and you have an income of \$7000 per month. That is the easy explanation. For more details, look up the articles in the *Journal*. [EDITOR'S NOTE: Two such

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Planning for Retirement

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articles are "Renting Pianos for Fun & Profit," by Paul Rice, September, 1990 issue, p. 11, and "Piano Rentals as a Side Business," by David Dachert, February, 1995 issue, p. 8. —SB]

If you don't want to have your business continue when you retire, then sell it. If you want it to continue, then opt for one of the alternatives. But in either case, the most important thing about deciding on what to do with your business is to plan ahead. And that planning needs to start at least 10 years before you are thinking of retiring. Just as it takes many years of savings to build up an IRA account, it also takes many years to build up the piano rental business and train someone to take over your business. You should have been saving for your retirement since you started working. Even though that probably has not always been possible, you should have been putting money away for at least the last 20 years. For the piano rental business, depending on the area of the country you are in, you will need approximately 10 years to accumulate 200 pianos. And as far as training someone to take over your business, that all depends on how much time you want to spend with the person who is going to run it, and when you want to quit working.

Epilogue

We are all basically self-employed, so retirement can be more a state of mind than an actual experience. Some piano tuners have to tune four pianos a day long past when they wanted to retire, while others have found a way to quit working at an early age. Wouldn't it be great to be in a position where, if you wanted to, you could tune four pianos in a day or one piano a week, but not be under any obligation?

I am looking forward to the day when I will be able to travel, go to conventions and see my grandchildren without the worry of where the money is coming from. That is why I am working now to get to the point where I can afford to do that. Having someone continue your business or getting into the rental business is not for everyone. But experts say you should be able to retire if your retirement income portfolio will last you at least 20 years. Hopefully, after reading

this article, you can add income from piano rental and your piano tuning business to your portfolio. If not, then hopefully the information on selling your business was helpful to you, to make it possible for you to have a means to support yourself in your retirement years. As has been said, it is never too early to start planning for your retirement. If you plan early and take some action, you can retire at any age and enjoy the fruits of your labor. ■

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 G20935, 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.

Members may individually convert the \$1,000 death benefit policy. Conversion information requests should be directed to customer service number: 1-888-222-9513. Please reference your group term policy number G20935. The current \$1,000 death benefit continues through December 31, 1999. According to the policy certificate members have 31 days after the policy terminates "to convert his life insurance under this policy without medical examination to an individual policy of life insurance." ■



A Piano Technician's Guide to Field Repairs

By Stephen H. Brady, RPT

The repair procedures described in this manual are among those most commonly required in an average piano service practice. The aim of this book is to provide the basic information necessary for a technician to improvise other repairs based on the methods and techniques found in the book.

\$20 MEMBERS / **\$25** NON-MEMBERS

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The Human Ear: The Limits of Accuracy

By Virgil E. Smith, RPT & M.Mus.
Chicago, IL Chapter

No one in his right mind would dare claim that the human ear is more accurate than the better electronic tuning devices when referring to the area in which the machine must function, but the ability of the ear to hear very accurately in important areas where the machine cannot function more than makes up for the machine's superiority in its limited area. If the machine were able to read and measure pitch and beats the way the ear is able, or if the ear were limited to the way the machine must deal with pitch and beats, there would be no contest, the machine would always win. But the machine must deal with single partials or the fundamental without upper-partial influence, while what is important in tuning and performance is the pitch of the fundamental influenced by higher partials and the beats or lack of them in intervals where all the partials of both notes are sounding.

In these areas the ear can be extremely accurate and the effectiveness of the machine accuracy depends on how the tuner can relate it to these important areas. For example, in Equal Temperament the F3-A3 3rd should be expanded from its pure 5:4 ratio to approximately 7 bps. The aural tuner simply listens to the two notes of the interval and tunes until the correct speed of beat is achieved. The machine tuner must work with a set of coincident partials to reach the same conclusion. Some of the machine's accuracy is lost in tuning a single pitch because what the ear hears is the pitch with all the partials sounding, whereas the machine hears pitch without the benefit of other partials.

In tuning an octave the aural tuner simply eliminates the beat between the two notes of the octave, whereas the machine tuner must work with various partial combina-

tions until he/she finds the one that when matched best duplicates the aurally tuned octave. What is of final importance is what the ear hears, not what the machine reads. The customer listens to the fundamental pitch with all the partials sounding, not the one without partials; he hears the beatless octave, not sets of matching partials; and in the beating intervals he hears the natural beat between the two notes with all the partials of both notes sounding, not one set of matching partials. The accuracy of the machine is effective when it can be related to the accuracy of what the ear hears.

The above is not meant to minimize the importance of the electronic tuning device and its excellent accuracy; tuners have been able to accomplish amazing things with the machine in spite of its limited field of operation. Our goal is to help establish the position of the electronic tuning device in the whole tuning picture, and to help those who tune with it to improve their tuning by understanding and utilizing the full resources of the ear.

Every machine tuning expert emphasizes the importance of the ear when tuning with the machine. It is my understanding that Dr. Sanderson, inventor and manufacturer of the Accu-Tuner, still maintains that the ear is capable of producing a more accurate tuning than the machine; that the Accu-Tuner is only an aid to more accurate aural tuning. He proved his point at the Orlando tune-off by unknowingly voting for

my aural tuning in all 13 times in preference to the Accu-Tuner tunings. One other tuner was able to pick out my tuning in all 13 sequences.

The Accu-Tuner and other electronic tuning devices have made a tremendous contribution to the music field, and with the various programs available have greatly improved the quality and ease of tuning, often much better than aural tuning. The fact that the ear is capable of producing a superior tuning does not mean that aural tunings generally meet that standard; on the contrary, they are often inferior to good machine tunings.

In addition to natural beats and correct pitch the ear is able to hear other factors that the machine cannot measure, but which can contribute to the quality of the tuning, such as resonance, color, warmth and brightness. Steve

In addition to natural beats and correct pitch the ear is able to hear other factors that the machine cannot measure, but which can contribute to the quality of the tuning, such as resonance, color, warmth and brightness.

Fairchild's article in the October 1998 *Journal*, "The Violin Temperament," brought out the importance of these other factors in tuning. He talks about unisons that had "life" and "invisible motion" though still beatless. Several years ago, *Scientific American* published an article on tuning which maintained that the best-sound-

ing unison did not have all three strings at exactly the same frequency, though it still sounded beatless to the ear. Later, the Baldwin Piano Co. came to the same conclusion after their own research.

I occasionally hear a musician

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The Human Ear

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describe a machine-tuning unison as "sterile" compared with a warm, resonant ear-tuned unison. I suspect the same might be true with octave tuning. Most of Dean Reyburn's nine acceptable octave stretches will have a slight beat in them, but there could be a "sterile" beatless octave as opposed to a warm, resonant beatless octave.

Of course, only the ear can hear subtle differences like these and only the ear can tune unisons that have "life" and "invisible motion." How wonderful it would be if we could hear one of Robert Fairchild's fine tunings today.

The accuracy of aural tuning is greatly improved when tuning without the strip. I resisted this for many years, but when I finally began tuning with rubber mutes only, my tuning became noticeably more accurate.

ately. I notice that Robert Fairchild tuned without the strip.


I disagree with my very good friend, Jim Coleman Sr., on one point. In his article, "Electronic Tuning Devices: The Limits of Accuracy," in the December 1998 *Journal* he said, "We need to recognize that no one tunes bass notes by the fundamental." In my opinion

many of us tune bass notes by the fundamental just like our customers hear them and check them with 10ths and 17ths. I have customers who check my bass octave tuning very carefully by listening to the fundamental pitch and for beats between the single and double octaves. Neither my customers nor I are aware of the 5th partial.

Where do we go from here? Our understanding and skill in tuning have increased dramatically in recent years, especially with the use of the machine. Some of us remember the disasters from the early use of the machine in tuning. When the customer would complain about problems in the tuning the response would be, "The machine shows it to be correct; you must be hearing it wrong." Unfortunately, this still happens occasionally. There is still room for improvement in both the visual and aural tuning areas.

Aural tuners can improve by recognizing and utilizing the full resources of the ear, instead of training their ears to hear beats in the same limited way the machine must function. By working with

natural beats instead of partials they will be able to cope with the difference in pitch between one string sounding alone and the tuned unison and have greater accuracy in those important areas that the performer and audience naturally hear. Visual tuners can improve by recognizing the difference between the way the ear hears beats and pitch and the way the machine reads and measures them. By checking their work aurally the way the ear hears beats and pitch naturally, they should be able to combine the accuracy of the machine with the accuracy of the ear for better tuning results. These may be high but not impossible goals. Wouldn't it be wonderful if we had in every chapter tuners able to tune at the Robert Fairchild level?

The electronic tuning devices have been developed to a high degree of accuracy, but they still deal only with one tiny aspect of musical sound as through a tiny keyhole, whereas the ear is able to grasp and evaluate many aspects of musical sound and hears them as through a wide-open door. Its accuracy may not be measured to .001 of a cent, but it is extremely accurate and because of its ability to deal with the complete sound picture, it is capable of producing a tuning equal or superior to the finest machine now available. "Keyhole" aural tunings cannot be expected to match keyhole machine tunings, so aural tuners should abandon "keyhole" tuning in favor of the more accurate open-door tuning. 

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An Essay on the History of Tuning — Part XIII

By Skip Becker, RPT
Northeast Florida Chapter

A Bit of Haydn

The last time Mozart and Haydn saw each other was the day before Haydn departed on his first trip to England. Haydn's nearly 30-year career as the Esterhazy court composer ended in 1790, when Prince Miklos died and the prince's brother disbanded the court orchestra. At that very moment an impresario from England appeared with an offer Haydn couldn't refuse: a trip to London; 1,200 pounds sterling in commission, publication and performance fees; and no room on the boat for Mrs. Haydn.¹

Mozart, although happy for his friend's success was also worried: "Papa, you have no education for the great world and you speak too few languages."

"Oh!" replied Haydn; "my language is understood all over the world."

That day Mozart never left his friend's side. They dined together and that evening they parted full of foreboding. Tears welled in both men's eyes.

Mozart said, "We are probably saying our last adieu in this life."

Haydn, 24 years Mozart's senior, applied the words to himself. He never dreamed his young friend's life would be cut short the following year.²

As much as this author would like to include Franz Joseph Haydn (1732-1809) as a professional tuner (and he was), such a view of this composer would be myopic. Haydn began his musical career in 1761 by accepting the post of Vice-Kapellmeister to Prince Paul Anton Esterhazy. In those days tuning would have been an unspoken prerequisite. Any German-speaking professional musician would have had the skill. The prince had bigger plans for Haydn than that. He made this tuner sign a contract promising to be "temperate, mild and lenient; abstaining from undue familiarity; and from vulgarity in eating, drinking, and conversation; taking care to be punctual; and practicing on all instruments that he is acquainted with."

Haydn slept above the stables and began work each morning by putting on his wig and blue servant's uniform. Then he patiently waited in the prince's antechamber for the day's musical orders. He wrote the music, led the rehearsals and conducted the concerts. This author is certain he did the tuning, but a more important responsibility was keeping the musicians' uniforms clean and neat and the musicians sober (Haydn was required to turn in attendance reports on the players). He also gave voice lessons, served as librarian, copyist and instrument technician. When the Empress Marie Therese came to visit, "Haydn not only had to prepare and conduct the new music, but run into the field and shoot some grouse for the royal dinner table."³ And then there were the women; one after another, usually students, sometimes performers,

filling his life with a series of romantic affairs. Haydn was legendary in this regard and justly earned the affectionate title "Papa." The life of this 18th-century tuner was rigorous indeed!

Haydn's trips to London were triumphs of the first order. From the moment he arrived royalty, ambassadors, artists, aristocracy and musicians queued up to call upon him.⁴ Crowds had to be turned away from his concerts and the audience often cheered so loudly that entire movements of his symphonies had to be repeated. The longer he stayed in London, the more his fame and popularity grew. Oxford made him an honorary doctor. He gave 26 command performances. "King George had at first been reluctant to meet Haydn because he was a Handel fan and admitted he didn't understand "all that modern music." Queen Charlotte, on the other hand, made Haydn sing for her, invited him to all her concerts at court and even asked him to move into Windsor Castle over the summer so they could make music together without all those other people "hanging around."⁵

He was also in huge demand as the most prestigious teacher imaginable. He gave lessons and bemusedly "made big eyes" at his fee of one guinea each. Haydn found he had a special weakness for London ladies (and they for him). He always tried to be discreet, but was often unsuccessful. On one occasion, as he was "setting to music" the love poems of the wife of a famous surgeon, the doctor arrived home unexpectedly and attempted to ply his trade on

"The report of his death had been premature, as he pointed out in an open letter to prove he was 'still of this base world. How can I die now? I have only just begun to understand the woodwinds.'"

Haydn's nose. "I shouted, screamed, pounded and kicked until I was able to free myself and hurried out of the house," Haydn later reported.

Another proclivity Haydn took to London was promoting the work of Mozart. Haydn had done much to help Mozart while he was alive (Mozart was a frequent performer at the Esterhazy court) and he redoubled his efforts upon hearing of the death of his young friend across the channel. In this he was very successful. As we can imagine, promoting the music of Mozart was as easy then as it is today. By the turn of the 19th century Haydn was the most popular

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An Essay on the History of Tuning — Part XIII

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composer in the world and the catechism for all modern musicians had become Haydn and Mozart.

Haydn spent most of his keyboard career as a harpsichordist; the German invention called the fortepiano was a novelty in his youth (and in those days everyone assumed it was a German invention). In 1788 he purchased his first piano, a Schanz, of Viennese manufacture, which he described as “particularly light in touch,” with a “very agreeable action.” In London Haydn became enamored with the English piano and he returned to Vienna in 1795 with a Longman and Broderip grand. In 1801 Sebastian Erard sent one of his grand pianos as a gift.

After his second London trip Haydn moved into his cottage in the suburbs with the intention of retiring. The father of the symphony would not write another — although he had composed 108 before then. In his retirement this prolific composer wrote two famous oratorios, two dozen quartets, seven masses, 365 songs and the Austrian National Anthem.⁶

Haydn’s sun was setting in a blaze of glory. During this period he also became Beethoven’s teacher, although neither of them seemed to appreciate the relationship. In these final years Haydn was revered by everyone. Many composers and other famous personages made pilgrimages to his door. He still attended concerts, and most notably he was a regular visitor to the salon of his good friends, Andreas and Nannette Streicher, the leading piano manufacturers in Vienna.

In 1805, the musical world was rocked by the news of Haydn’s death and went into mourning. A London newspaper printed the obituary first and the shock waves traveled to Paris and other cities all over Europe. “Letters of condolence poured in, flowers and wreaths were delivered. Kreutzer composed a violin concerto ‘in memory of Haydn,’ Cherubini published a ‘Cantata on the death of Joseph Haydn,’ and they scheduled Mozart’s Requiem at a memorial concert in Paris.”⁷

The outpouring of grief was so great that Haydn, too, was moved — although he took the entire affair with his customary good humor. The report of his death had been premature, as he pointed out in an open letter to prove he was “still of this base world. How can I die now? I have only just begun to understand the woodwinds.”

When he heard about his memorial service in Paris,

“On one occasion,
as he was ‘setting
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Haydn’s nose.”


instigated by Napoleon himself, he said “I’m only sorry that I didn’t know about it in time. I would have gone to Paris, that I might be present to beat time to the performance of my own mortal rights.”

Haydn’s real funeral came during very unhappy times for Vienna. Napoleon would occupy the Austrian capital twice during the first decade of the 19th century; the second and much more severe humbling of Vienna coincided with our composer’s death (but was not the cause).

“On May 10th, 1809, in the morning a French army corps advanced to the Mariahulf line, not far from Haydn’s home. They were just getting him out of bed and dressed when four canister shots exploded, violently rattling the windows and doors of his house. He called out aloud to his frightened servants, ‘Don’t be afraid, children; where Haydn is, no harm can reach you!’”⁸ That remark was quite perspicacious. After four days of intense bombardment Vienna surrendered.

After the capitulation, Napoleon dispatched a special squad to guard Haydn’s cottage. Of course, being surrounded by French troops created much anxiety for those inside the cottage, but this was greatly relieved when a sergeant of the honor guard sang one of Haydn’s arias to him (by all accounts, he was a capable tenor). These anecdotes circulated quickly and were great comfort to the Viennese who knew Haydn; but unfortunately he would succumb to the rigors of age in just a few weeks. On May 30, 1809, Haydn died quietly at home. His memorial service two weeks later included Mozart’s *Requiem*, and was attended by everyone of culture.

Notes:

1. By all accounts, Maria Anna Aloysia Appollonia Haydn was ugly and rancorous, always pestering Haydn to do something more useful than writing music. She used his manuscripts to curl her hair and line the pastry dishes. She insisted on her husband buying a little cottage for her to live in when she became a widow. Haydn did buy it, but moved into it himself, the merry widower.
2. Anecdote from *Book of Musical Anecdotes*, by Norman Lebrecht. Page 46.
3. Victor Borge, *My Favorite Comedies in Music*, page 33.
4. All except one jealous violinist-composer named Giardini who caused a bit of scandal by calling out, at the top of his lungs, “I don’t want to meet the German dog.” Haydn just laughed and went to one of Giardini’s concerts anyway. “He played like a pig,” he wrote in his notebook afterward. Borge, pp. 38-39.
5. Haydn said thank you but he had a previous engagement. When he got back to Vienna he sent a bill to the royal family for all the concerts he had played for them. It actually took a special act of Parliament, but Haydn finally got his 100 guineas. Borge, page 39.
6. Many musical historians also consider him the father of the string quartet and probably the piano concerto, too, but anything can be argued. Haydn’s own list of his compositions, “near as he could remember,” was 124 pages long. The Austrian Anthem was later usurped by Germany. We know it today as the tune to “Deutschland Uber Alles.”
7. Borge, page 42.
8. Lebrecht, Page 48. 

Real Business in China

**By Stephen R. Schroeder
Pomona Valley, CA Chapter**

This has been an exciting year for Schroeder's Pianos in Paramount, CA near Los Angeles. We've seen an increase in profits in ways that have taken us all by surprise. Our teaching efforts have doubled while we have been remodeling and adding inventory to better assist our customers used piano needs. We are excited about our future. If we continue to focus on the care and benefit of the people we serve, we believe the business will take care of itself.

Take for instance our recent invitation to China. About a year ago I received a call from a Chinese American man named Perry. Perry was interested in selling his 6'9" Schafer and Sons grand piano. Our office arranged a time to go to his home in Huntington Beach to buy the instrument.

I arrived on time. Perry's son answered the door, inviting me in while explaining that his dad would be home shortly. Shortly became an hour or so, but I purposed to enjoy the wait even though I was under a little pressure back at the store. When Perry arrived he was apologetic and we agreed on a price to consign his piano to Schroeder's. We also agreed to get a hamburger down the street as none of us had had lunch.

Perry's piano was in the store less than a week when I visited a growing church in North Long Beach, CA to say hi to some friends. They were remodeling the sanctuary on a very tight budget and as I looked around I felt compelled to offer Perry's piano to the pastor/pianist for the amount I hoped Perry would accept. The pastor ultimately accepted my offer, but when it was all over I had to pay a little out of my pocket.

Perry had been transferred to China to spearhead operations there for his high-tech employer. We stayed in touch after he left and when Perry was back in Los Angeles we made it a point to get together. I told Perry stories about our adventures at Schroeder's that spawn from my hope to make the people we do business with more important than the business opportunities themselves. I have some great stories to tell about this dynamic and in this case the "dynamic" resulted in Perry offering to pay my way to China to teach the approximately 15 employees of his favorite piano store, in Beijing, to regulate pianos.

When I arrived at the piano store in China, I asked the owner and the manager to choose the upright piano, from the two hundred on the floor, that needed the most help. They did and I went home with Perry to the largest Holiday Inn in the world. I was praying that I would not disappoint everyone in the morning.

What fun! Over the next two weeks we regulated a Chinese upright and an old Yamaha grand. The owner, Mr. Bao, decided the effort was newsworthy and Beijing TV News, on the number one station in the city of 60 million, taped me shaping piano hammers! I had honestly never thought that shaping hammers would do that for me. The significance of being on Beijing TV might be more important than I guessed at first. About a week after they filmed us the program was aired and I was the only white guy and certainly the only American on for a couple of hours at least. You will remember that this was only a few days after the embassy bombing crisis and foreigners were just coming out of hiding. I knew that I could probably positively affect the people I worked with, but was overwhelmed to think I could be one to bring some good will to the whole city! The gist of the editorial clip was that "foreigners are willing to help and we should seek them out."

When we finished regulating Mr. Bao said the upright piano played like the new Steinways in his other store.

Because of the language barrier, I communicated with the students by demonstrating technique, making motions with my hands and uttering international noises. When we got stuck we pulled out the Franklin style Chinese/English translator. Sometimes it caused more trouble than it fixed!

One of the things that intrigued them the most was my tools. A friend of the manager rode a bus 200 miles just to see them! Sometimes it was necessary to be a

little innovative. There wasn't much to work with besides what I brought. Once we purchased a small battery charger transformer for a "Zapper" to heat action centers in new bushings and I used chop sticks to hold the regulating string!

Towards the middle of the second week I decided to risk implementing an idea that had been brewing in my mind. I asked the manager, who provided anything I asked for, to

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**The
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Real Business in China

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take me to buy a bench grinder and a few unorthodox attachments. It took the whole day in heavy traffic to locate exactly what I wanted. We took our prizes back to the store and the next morning I had my victory. I turned that bench grinder into something like a Shopsmith. On the left spindle I replaced the grinding wheel with a very thin cutting wheel and on the right spindle I installed a heavy sanding disk on the outside of the stone wheel and even added a half inch chuck that we re-tapped to the same thread as the grinder.

More than satisfied, I began to work. I made a number of tools from scraps of steel, including capstan wrenches, spoon benders, spring hooks and fancy modified key spacers. I also modified their own tools so that they would work better. I used the sanding disk on the right side to make hammer shank splices and to shape hammer tails. We also had purchased polishing wheels and compound. I used the chuck to hold various tools, center pins to burnish new flange bushings. I also used the chuck as a lathe to make a balance hole burnishing tool.

One of the special highlights of the trip was the ninth China International Exhibition of Pro Audio, Light, Music and Technology, called CALM EXPO' 99 where we examined a number of instruments. It is their equivalent to the NAMM Show. Some of the other things that I enjoyed were visiting the Forbidden City, The Great Wall and a factory that made refrigerator magnets.

There were two aspects of the trip that meant more to me than the rest. The first was the sincere, honest and open way that the management of Bao Piano City and the students responded to my help. The second, and the prime highlight of all, came when Perry said that he had a surprise for me. He asked if I would like to speak to and possibly debate with some of the students at The Peoples University. He said that he had heard of a group of approximately 400 Chinese national students that gather on Friday nights somewhere on the campus. They call it English Corner and it is a hotbed where anything might happen.

I said, "Sure" and Perry arranged for us to meet two college coeds for dinner across from the university. They would be our hosts so that we could feel a little bit more like we belonged. After dinner my doubts reached their

peak as we walked across the street bridge into the university. We approached a crowd of about 600 students surrounding a fountain that was off and under large decorative street lamps that were dark as well. At that moment Perry said he didn't want to hang with me anymore and sent me into the crowd to the left, escorted by my pretty bodyguard, Cathy. Once we were in the middle of the crowd, Cathy asked me turn and face her while she tried to explain to me in broken English that "it" would happen any moment.

We were immediately interrupted with, "Excuse me, may I ask you a question? Where are you from?"

I answered, and was interrupted again with, "Excuse me, may I ask you a question? How long have you been in China?"

That answer was followed with, "Excuse me, may I ask you a question? Why are you in China?" By this time I was surrounded by a crowd of interested students, each hoping for their chance to say, "Excuse me, may I ask you a question?"

Things were going nicely and I began to feel at ease because the questions were fairly "safe." I was again interrupted with, "Excuse me, may I ask you a question? Are you from the US?" I answered, "Yes."

"Do you believe in God?"

"Yes."

"How come?"

I answered "Because it's reasonable. Let me explain. Do you see an order to our existence – design?"

The questions stayed mostly on this theme for the next two-and-a-half hours interrupted only twice with questions holding me accountable for the embassy bombing. The answer I gave the students about the bombing was good enough that the man who asked it called me "Sneaky" and the students shouted him down saying, "He gave you a good answer! You're not thinking. Think! Think!"

These students agreed with me, after some discussion, on every point until my 'bodyguard' began to tug on me saying that I was going to miss my ride.

Since the trip I've reflected on my good fortune: to have been in a position to promote goodwill for both the PTC and the USA at a politically crucial time, was a once-in-a-lifetime opportunity. The friendships I formed during the trip continue to remind me that the business of helping our fellow human beings is the only "real" business. ■

**The
Tuner's
Life**



Transporting To and Around the 2000 Convention Site

By Andrew Margrave, RPT
President, Northern Virginia Chapter & Host Chapter Chairman

The real, actual location of PTG's first international convention of the new millennium is the Hyatt Regency Crystal City, 2799 Jefferson Davis Highway (US 1), Arlington, VA 22202. The convention is not in Washington, DC. Since *Journal* readers are already likely to be thinking of their means of transportation to Crystal City next July, this article is timed to assist in the formulation of optimal travel plans, in accordance with the Northern Virginia Chapter's deep commitment to a highly successful 2000 Convention.

It is highly recommended that anyone able to reach the convention by air, train or bus, do so. Crystal City is a typical urban commercial center. We of the Northern Virginia Chapter have been informed that the Hyatt Regency Crystal City has 200 all-valet parking spaces, each at \$16.00 per day, and that there are 400 more in a nearby auxiliary parking lot. Available street parking in Crystal City is fine for those willing and able to replenish the parking meters with coins every two hours.

The subway system, called "Metro," is a valuable re-

source. Crystal City is just one Metro stop from Ronald Reagan National Airport, and the Smithsonian Institution, site of Piano 300, is as few as three Metro stops from Crystal City. An upcoming *Journal* article will explore the Metro in more detail. Other future convention-related *Journal* material will include meticulous, detailed directions and mapping.

It is also possible for convention attendees to fly into Dulles International Airport (about 25 miles from Crystal City) or Baltimore-Washington International (BWI) Airport, which is some 30-35 miles from the convention locale and take an airport shuttle to the Hyatt Regency Crystal City. Railroad travelers can pull into Washington Union Station or the Amtrak station in Alexandria, VA then ride the Metro to Crystal City or employ a taxi. The taxi fare to Crystal City is normally under \$20 from Washington Union Station and still less from the Alexandria Amtrak station.

Anyone with questions or who otherwise desires further enlightenment should write or call me. My address is P.O. Box 2593, Fairfax, VA 22031. My telephone number is (703) 273-5646. ■

Destination: Arlington, VA — July 5 - 9, 2000

— Gary A. Neie, RPT
Assistant Institute Director, Team2000

After servicing pianos and organs for several years I thought I had all the knowledge that I needed. I was out there every day tuning and servicing pianos, I was earning a good living at \$ 7.50 a tuning, doing floor tunings for \$ 3.50 and everything was going well.

Then it happened, one of my regular customers called with a problem. She had a broken agraffe on her Steinway grand, the three strings were hanging up in the air. I had never seen a broken agraffe, so I called a fellow piano tuner, Kelly Ward, RPT, with my problem. He said come on over and let's talk. It so happens that he had a replacement agraffe on hand and showed me how to get the old broken one out of the plate.

Then he said, "Would you like to go to a chapter meeting of the Piano Technicians Guild with me? Our Regional Vice-President, Jess Cunningham, will be there."

I went, found out how much I didn't know about the piano tuning business and started attending meetings regularly. These folks were more than willing to take me under their wings and help me each step of the way. I was elected as a delegate to my first annual piano convention in Calgary, Alberta, Canada. That was back in 1968. Boy, were my eyes ever opened. I met so many excellent teachers that I had just heard about, and the things they taught me, wow. My mind was busting with new information and I was going home to set the world on fire. Well, as you know, I didn't set the world on fire.

I did begin to earn more income — I found out that raising prices would not drive my customers away. I had new knowledge and was able to service pianos more efficiently. Our PTG Chapter was meeting regularly and we were learning and sharing each time. Then in 1975, under the direction of Jimmie Gold, our South Central Regional VP, we were en-

couraged to combine our little chapter with two other small chapters and we had our first joint meeting on September 6, 1975. Then we really began to grow. We tested as many as eight people in one day with the PTG exams. Our new chapter, North Central Louisiana, was having great programs. We were attracting people. We were giving PTG tests at every meeting. We were sending more of our members to annual PTG conventions.

We decided to host a South Central Seminar. Our first Seminar was in Alexandria, Louisiana. Our Teachers were Steve Jellen, Fred and Mimi Drasche, La Roy Edwards, Kenzo Utsunomiya, Cliff Geers and others that escape my memory at the moment. We even had a banquet with a Cajun humorist at the conclusion of the seminar. It went over so well that we began having seminars each year around our Region.

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"Team2000"

News from Arlington!

Dale Probst, RPT
Institute Director for Team2000

Team2000, the Institute Committee for the PTG 43rd Annual Convention & Technical in Arlington, VA, July 5-9, 2000, just returned from a planning visit at the site hotel, the Hyatt Regency Crystal City. We are all excited about the possibilities this unique facility will offer to the Piano Technician's Guild Annual Institute.

The hotel is five minutes away from Washington National Airport by shuttle or taxi and is a short distance from the many attractions of Washington, D.C. The hotel provides free shuttles and many varieties of public transportation are available. We will be the only group at the hotel that week and are assured of their full attention. Parking is available at the hotel and at a lot nearby. Room rates are \$108 plus tax for single or double rooms, \$118 plus tax for triple or quadruple occupancy. These prices represent almost a fifty per cent discount off of regular price!

Piano 300, on display at the Smithsonian, will attract visitors all year and during the time we convene. Part of our team visited the Smithsonian and viewed a floor plan of the exhibit and met with Cynthia Adams Hoover, curator of the exhibit. Along with the rare and unusual pianos, the pianomaker's tool chest featured in the October 1996 *Journal* will be on display. This exciting exhibit will run only next year, so be sure to include a visit in your itinerary for Arlington.

Before and after the planning meeting Team2000 toured the hotel and began the process of assigning areas for classes, exhibits and social functions. The wide variety and number of meeting rooms which are available will guarantee that we will be able to arrange classes in new and interesting formats. The exhibit hall is huge and will be able to accommodate 100 exhibitors for the first time in many years. We plan to have food service at each end of the hall to make it more convenient for everyone to spend some time with our exhibitors.

We urge you to support them; they are a key element in our conventions.

Speaking of food – there will be luncheons every day of classes, some sponsored by manufacturers, one by the Auxiliary, a Leadership Luncheon and a brand new Associate Luncheon. In addition, the very popular break out bars will offer you the chance to purchase individual items before, between and after classes. There will be receptions every night of the convention, sponsored by our loyal supporters: Randy Potter, Young Chang, Kawai, Steinway and Yamaha. Bring your expandable clothes and dig in!

Wednesday All Day classes proved so successful this year that we will continue them again in 2000, returning the best of KC99 classes with several new, interesting additions. Make plans to join us early, we will preregister these classes – first come first served. You may even get the proverbial "Free Lunch," if you are lucky!

Finally, a powerful brew of new classes, stirred in with old classics, spiced with a display of interesting historical and unique instruments will whet your appetite for knowledge. We will have an interactive display of models, instruments and classes for everyone. Establish a special convention fund for your business and contribute to it regularly. If you invest five dollars a day, every day, you will have enough to attend the annual in grand style. Remember, you pay for ignorance, your customers pay for knowledge. ■

Destination: Arlington

Continued from Previous Page

In 1988 I taught my first class at the annual PTG convention in St Louis and have been privileged to teach at many more. The point I am trying to make is *you never stop learning*, even when you teach you learn.

This is probably the most exciting business in the world, we can set our own hours, earn as much or as little as we want, meet new people each day and find out there alot more folks out there learning and teaching just like we are. Some of the time we learn more at our chapters and seminars outside the classrooms, just watch whenever everyone gets together. You always go back to your business with new knowledge and enthusiasm to do the work. The challenge to you is, "Get to every chapter meeting, every Regional and State meeting, every Annual PTG Convention and Technical Institute that you can. Then Learn, Learn, Learn."

In July of 2000 you will have the greatest opportunity to learn. This promises to be the best organized Technical Institute ever. You will learn from the greatest instructors. You will learn how to conduct your business better. You will say, "Why haven't I been going to these things all along?" It never costs to go to a convention, it always pays back more than you spend. Begin making your plans now to be with us in Arlington, Virginia, July 5-9, 2000 and start the new century off with a bang. ■



You hear Roger Jolly's class was a "must see," but the only other time that class was available you weren't. This year you'll have another chance! A sampling of classes that had us "standing in the halls" will be offered once more in Arlington. Watch for class offerings flagged with the logo above. ■

Why All Day Wednesday?

Some things just take a little longer. That's why Wednesday is set aside for day-long classes. With a wide variety of subjects being covered by some of the finest teachers in the country, we're sure you will find an area to focus on. Dig deeper into a subject and learn the ins and outs of regulation, design or any of several other vitally important areas. The Renner All-Stars return. The Steinway team improves your skills. The

Yamaha team expands your horizons. Watch this column and your mailbox for listings of the other great offerings for a special day. If you're looking for a challenge, we have the opportunity for you. Plan to be in Arlington, VA on Wednesday, July 5, for the return of one of the most intensive piano technology experiences ever!

— Allan Gilbreath, RPT
Assistant Institute Director, Team2000 ■

Deadline Reminder for Foundation Matching Grants

December 1, 1999 is the deadline for PTG chapters to apply for matching grants from the Piano Technicians Guild Foundation for local Piano 300 events.

Applications were sent to each chapter outlining the details for applying for up to \$500 (a total of \$5,000 has been allocated to this project) to promote the chapter, the PTG organization and piano tuners. It is hoped that chapters will partner with local musical organizations to promote locally a better awareness of the piano, a deeper appreciation of piano music and the role of the piano technician. The deadline for chapter submission of grant applications is Dec. 1, 1999.

Chapters may apply for these funds by returning their applications by Dec. 1 to the PTG Home Office, 3930 Washington, Kansas City, MO 64111-2963.

Questions should be referred to Foundation president, Nolan Zeringue, at 504/446-6812 or to the Home Office at 816/753-7747.

Opportunities Open to Support PTGF

With your PTG dues notice you will receive a form on which you may make a donation to the PTG Foundation. The Foundation is a 501(c)3 organization making donations tax deductible for the individual or his/her estate.

Foundation President Nolan Zeringue encourages you to become a Patron member (\$100 or more); a Contributor (\$50-\$99); or a Supporter (\$35-49). You also may want to include a memorial gift (in memory of a member or friend); honor a mentor, member or friend; or make a special contribution to the PTGF Museum. □

Year End Gift Giving

The end of the year is a time for remembering, taking stock and catching up. It's the holiday season and a time for making gifts. As you think about gift giving for this year, consider these giving strategies.

Give a "Second Mile" Gift

During this special season of giving we often wish to make an extra contribution to the causes we have supported all year long. The end of the year is a splendid time to go the extra mile in recognizing the good work of the PTG Foundation.

Give a Memorial Gift

As we think of those special piano people who have touched our lives, we often want to do something "just right" to demonstrate that they are still remembered. Whether a special teacher, pastor or other loved one, a memorial tribute can be a satisfying way to salute those whose memories continue to enrich our lives.

Give a Christmas Present to the PTG Foundation

For many of us, the Piano Technicians Guild is like

family. Just as we enjoy Christmas gifting for loved ones, the upcoming holiday season provides a special opportunity to make a gift to the causes we believe in. A satisfying response to what the piano industry has given us is our gift at Christmas time. Think of an amount equal to your purchases for family members. Why not match that amount with your Christmas gift for the PTG Foundation.

Don't delay! To qualify for a 1999 charitable tax deduction your gift must be made by December 31, 1999. Complete your gift now and you will receive the tax benefits as well as the satisfaction of supporting a favorite family member, the PTG Foundation.

(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.) □

"The Piano Technicians Guild Foundation is formed to support the goals of PTG by preserving and displaying historical materials and providing scholarships and grants for piano performance, study and research."

The PTG Foundation Needs Your Help!

The history of PTG and its predecessors is in danger of being lost. As part of its mission, the PTG Foundation has taken on the task of preserving that history.

The work of collecting, organizing and preserving our past must be an ongoing part of our present. Your donation of money or historical materials will allow us to continue this important work. Contact the Home Office for details.

Honor a mentor, friend or associate, either living or deceased, with a tax-deductible contribution. Three contribution levels have been established:

- Patron (\$100 or more)
- Contributor (\$50-\$99)
- Supporter (\$35)

To make a contribution, or for more information, contact:

PTG Foundation
3930 Washington
Kansas City, MO 64111
(816) 753-7747

NEW MEMBERS

Join In SEPTEMBER

REGION 1

054 - Vermont

Steve M. Carlsen
134 Pearl Street, #1
Essex Jct., VT 05452

061 - Ottawa, ON

Troy K. Scharf
P. O. Box 353 #2
Otterburn Ave.
Munster, ON K0A 3P0,
Canada

REGION 2

379 - Knoxville, TN

Walter J. Bruce
1510 Southside Avenue
Bristol, TN 37620

REGION 3

771 - Houston, TX

Linda L. Culbreth
3530 Beau Lane
Houston, TX 77039

REGION 4

462 - Indianapolis, IN

David P. Armstrong
2923 E. State Rd. 48
Shelburn, IN 47879

REGION 6

941 - San Francisco, CA

David Gordon
117 A Bartlett Street
San Francisco, CA 94110

Judith M. Lozada
1085 Tasmin Drive, #382
Sunnyvale, CA 94089

Kappe M. Rousseau
1311 Webster Street,
#E318
Alameda, CA 94501

945 - Golden Gate, CA

Patricia A. Allred
70 Versailles Court
Danville, CA 94506

International Correspondent

Michael McDermott
Kilmessan Co. Meath
Republic Of Ireland
R.O.I.

PTG's Newest RPTs

Region 1

170 - So. Central PA

Clifford A. Leshner
1620 Saint Mary Street
Lewisburg, PA 17837

Region 3

771 - Houston, TX

Leslie W. Bartlett
16315 Laluna
Houston, TX 77083

Region 4

445 Youngstown, OH

John A. Mancino
21 Fairlawn
Niles, OH 44446

Region 5

671 - Wichita, KS

J.D. Hershberger
116 Windward Court
Newton, KS 67114

Hurricanes in NC Devastate PTG Members

Dear Fellow Technicians:

As you already know, eastern North Carolina has been ravaged by two hurricanes, Dennis and Floyd, in the last few weeks. You have seen TV coverage showing the mass devastation caused by the storms and flooding accompanying them. There are thousand of businesses and homes affected. Two of our long-standing members have suffered from this devastation. Both of these members have had their houses, offices and shops flooded with several feet of water. They are not covered by insurance. Few people in the area have flood coverage because eastern North Carolina has never experienced this kind of flooding in our history.

As the Pamlico Chapter President, I'm asking any member who can to tune one piano and send the funds to help our members, J. Sam Corbett and W.F. Wintch Jr., get back up and running. The chapter has already given a large portion of its treasury to help. Please send any contributions to:

Don Wigent, 1035 West Rockspring Road, Greenville, NC 27858.

Thank you for your help. If you have any questions, call me at 252-830-0505, or e-mail at wigent@mail.ecu.edu.

— Don Wigent, RPT
President, Pamlico, NC Chapter

Bylaws Proposals Due

Bylaws proposals are due by December 31, 1999. Any recommendations should be sent to Bylaws Committee Chair Vivian Brooks, 376 Shore Road, Old Lyme, CT 06371.

Committee Seeks Nominations

The Nominating Committee is requesting nominations for all PTG offices. Any RPT member in good stand-

ing is eligible to hold office. Nominations may be sent in by any chapter. Any member in good standing may submit his or her own name for consideration. All nominations must be submitted no later than February 1, 2000, to be included in the Nominating Committee report.

The Nominating Committee will submit a report to Council showing the committee selections for President, Vice President and Secretary-Treasurer, and

In Memory...

Paul Forgy, RPT, Yuba City, CA

all of the nominations received for the three offices and for the offices of the seven Regional Vice Presidents.

Please send nominations to: Gracie Wagoner, RPT, Chairman, Nominating Committee, 1307 S. Maple St., Sioux City, IA 51106.

CALENDAR OF EVENTS

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

March 31 - April 2, 2000

Pacific NW Regional

Ridpath Hotel, Spokane, WA
Contact: Scott Colwes
(208) 667-3393 / (509) 994-0673
1315 Coeur D' Alene Ave.,
Coeur D' Alene, ID 83814

March 23 - 26, 2000

PA State Conference

Hilton Hotel, Allentown, PA
Contact: Chris Solliday (717) 420-9588
Fax: (717) 424-6986 / E-mail: Solliday@ptd.net
P.O. Box 277, Delaware Water Gap, PA 18327

April 7 - 9, 2000

Central West Regional

Sioux City Hilton, Sioux City, IA
Contact: Charles Schuett (712) 276-2328
5040 Stone Ave., Sioux City, IA 51106

April 9 - 12, 2000

Florida State Seminar

Treasure Island Inn, Daytona Beach, FL
Contact: Walter Pearson (904) 255-4804
1128 State Ave., Holly Hill, FL 32117

July 5 - 9, 2000

PTG Annual Convention & Institute

Hyatt Regency Crystal City, Arlington, VA
Contact: PTG Home Office
3930 Washington, Kansas City, 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.

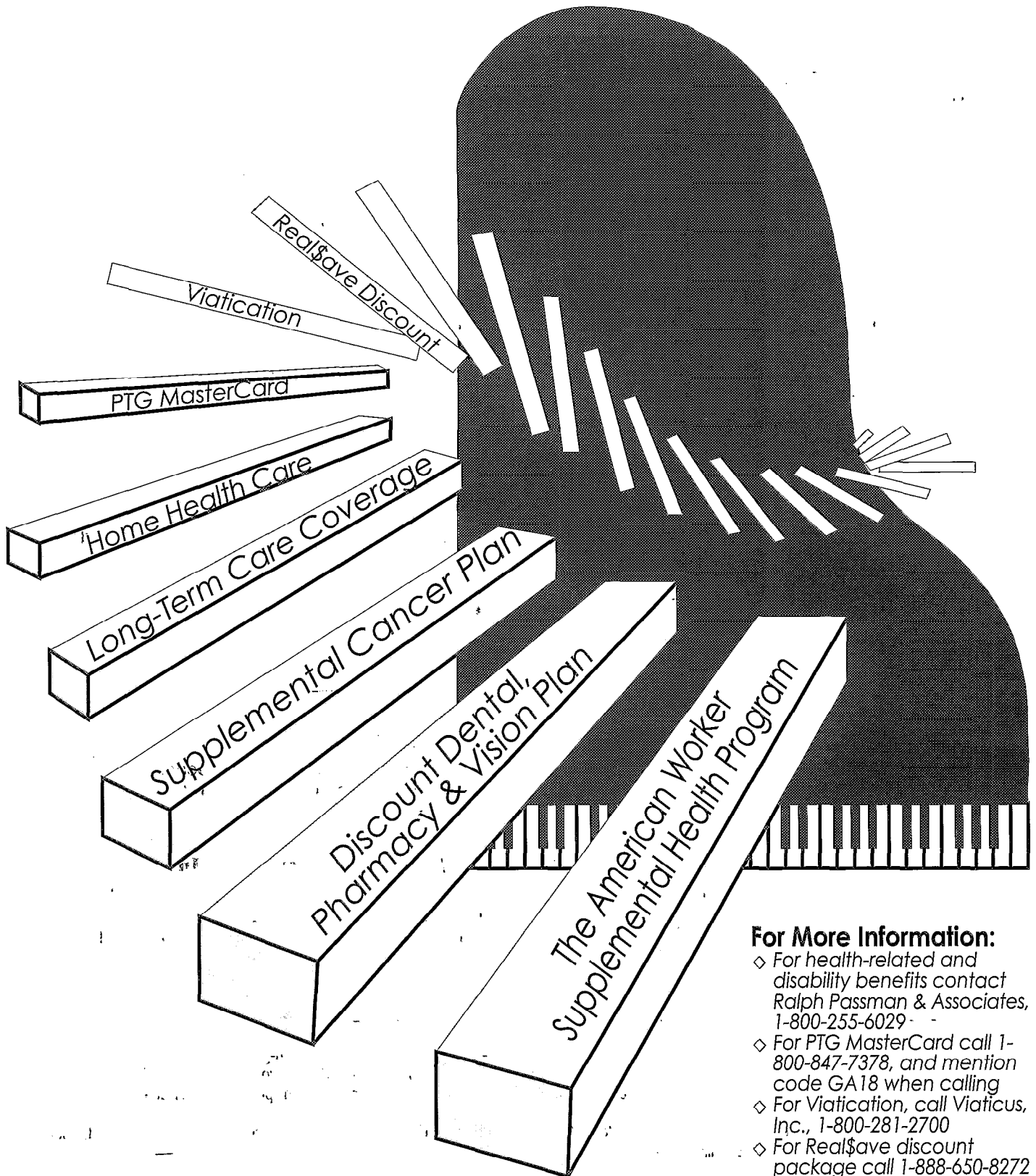
Once approval is given and your request form reaches the Home Office, your event will be listed six-months prior and each issue until the month in which it is to take place.

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.



The Privileges of Membership

Because members' personal and professional circumstances change over time, the products and services offered by PTG must change as well. The number of membership benefits available through PTG recently expanded with one idea in mind: to meet members' needs by providing quality products and services at a competitive cost.



For More Information:

- ◇ For health-related and disability benefits contact Ralph Passman & Associates, 1-800-255-6029
- ◇ For PTG MasterCard call 1-800-847-7378, and mention code GA18 when calling
- ◇ For Viatication, call Viaticus, Inc., 1-800-281-2700
- ◇ For Real\$ave discount package call 1-888-650-8272

AUXILIARY

exchange

DEDICATED TO AUXILIARY NEWS AND INTERESTS

Back in Time

It has come to my attention, according to the mail that I have received the last couple of months, that



Phyllis Tremper
PTGA President

more RPTs are reading this page. Good news! I hope that we have enough facts and fiction to keep both groups interested. RPTs, please see that your spouses read this page every month before

you take this *Journal* to your shop. It is the only way that I can reach all of our membership with news and details about convention and other pertinent information.

The *good news* this month is that Mr. Dan Hall has agreed to have the Auxiliary notices mailed to all PTG members. Notices were mailed Oct. 14, 1999. Please confer with your spouse about Auxiliary dues – which are still \$15, a very fine investment and donations such as the PTGA Scholarship Fund. Any one can make a donation to our Scholarship Fund in honor of a person or in memory of a person. And our two winners in Kansas City last July are an example of what we do with our scholarship money. Thank you for your help in this matter.

I just returned home from the convention planning meeting in Washington, D.C. and Arlington, Virginia before they closed the airport last Sept. 16. We got out of the East Coast just in time. I do hope and pray that all of our East Coast members sustained little damage and suffering from Hurricane Floyd. That experience was close enough for me.

Now for more *good news*. I stayed an extra two days in Arlington, VA to plan the tour of the Washington, D.C. area. I had thought that I would have

to raise the amount of the tour again this year as all living expenses are much more there than we Mid-Westerners are used to. However, believe it or not, I lowered the fare! I have a wonderful tour agent with Gray Line and she and I put together a tour of the area which, I hope, will please all who participate. Of course, you know the old saying, "You can please some of the people, some of the time, but you can't please all the people all of the time."

Fred and I toured some of the monuments on our own on Sunday, and then we took the Gray Line tour they have planned on Monday. We changed our tour to fit our membership's interests. Now I would suggest that those of you who want to dig deeper into the history of the area come a week earlier or stay a week later after convention because there is *no* way that one can see all of this beautiful place on a one-day tour.

Our tour will just whet your appetite for more and you will have to go back on your own to cover more of the buildings and exhibits which we will be only be able to see for 30 minutes to an hour maximum. There is just not enough time to cover all things. Since I have not heard from too many of you as to what you wanted to see, I have chosen places that I thought you would want to see. I had to take out some things which Gray Line had on their tour because there was too much walking. But, you *must* wear excellent walking shoes, comfortable clothes, maybe a little, light sweater as the air-conditioning is quite cool and a water bottle as it will be very warm on July 7, 2000 when we tour the area. The tour driver/guide

was excellent. Such knowledge of the place was most enjoyable and with humor, too.

If you are planning a family adventure in D.C. for several weeks, I suggest that you do research on the following: <http://www.si.edu/> – Smithsonian Institute; <http://www.washington.org/> – Washington Travel Information; <http://www.funside.com/> – Alexandria, VA Information; <http://www.stayarlington.com/> – Arlington, VA Information; <http://www.wmata.com/> – Washington, D.C. and vicinity Metro Rail Information.

I will have more as the months go by, but had to let you in on the wonderful experience I had in Washington, D.C., Arlington and Alexandria, VA. We purchased a day-pass on the Metro and traveled all over the area. That is the way to go. The Metro is clean, safe and a great ride. I certainly have changed my opinion of the area from what I have heard in the media and all other sources that I have received over the years. I do hope that I have impressed upon you that next year's convention will be excellent in all ways. The organizers of next year's convention are working very hard to please you and make your stay at the Hyatt Regency, Crystal City an excellent and enjoyable experience. And what better way to learn your profession and have a good time besides with your friends. Please come and join us.

Happy Thanksgiving to all.

We pass through this world but once. Each new day is a treasure, spend it wisely.

— Phyllis K. Tremper
PTGA President

November is American Music Month —
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HEALTH COMPELS SALE: Complete Set, plus extras, re-stringing/re-building tools. Large quantity of supplies, many years accumulation of benches, music desks, etc., and 5 re-buildable pianos. Contact (530)692-2178 or baps@jps.net

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*Steinway L Mahog. \$16,000; *Steinway Console Wal. \$4,500; *45" Steinway Studio Eb. \$6,895; *Steinway Studio Walnut \$7,295; *Steinway M.eb. \$23.5K, new strings, block and more; *Steinway M walnut \$15,995; *Steinway A \$15,000; *Steinway 7'5" Eb. \$27,000; *Steinway 42" walnut, \$3,995; *5'8" Knabe Wal. \$4,500; *7'1" Bluthner Wal. \$3,995; *6'2" Weber Eb. "Artcase" \$9,995; *42"x42" Monochord "Miniature" \$1,495; *5'4" Fisher 1915 Circassian Walnut \$3,995; *4'10" Kimba Frch. Prov. \$4,995; *5'8" Chickering, perfect ivory's Mahog. 1916 \$4,000; *5'4" Chickering Mahog. 1926 \$4,995; *Mason & Hamlin "BB" w/ PianoDisc \$29,995; *1949 Mason & Hamlin 5'8" Walnut, \$18,500; *Kawai 6'6" Eb. \$17,995; *4'7" Wurlitzer "petite" Wal. \$4,195; *Yamaha CLP-360 (Midi) Clavinova \$1,795. Call **SCHROEDER'S PIANOS** Since 1957 for a complete list of used pianos, 800-57 PIANO. Visit our web page: [57 piano.com](http://57piano.com)

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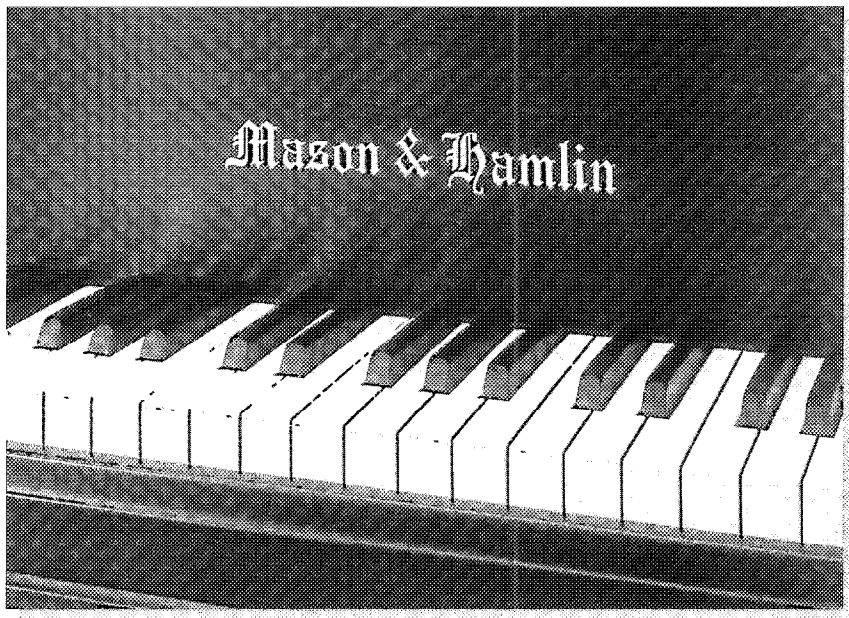
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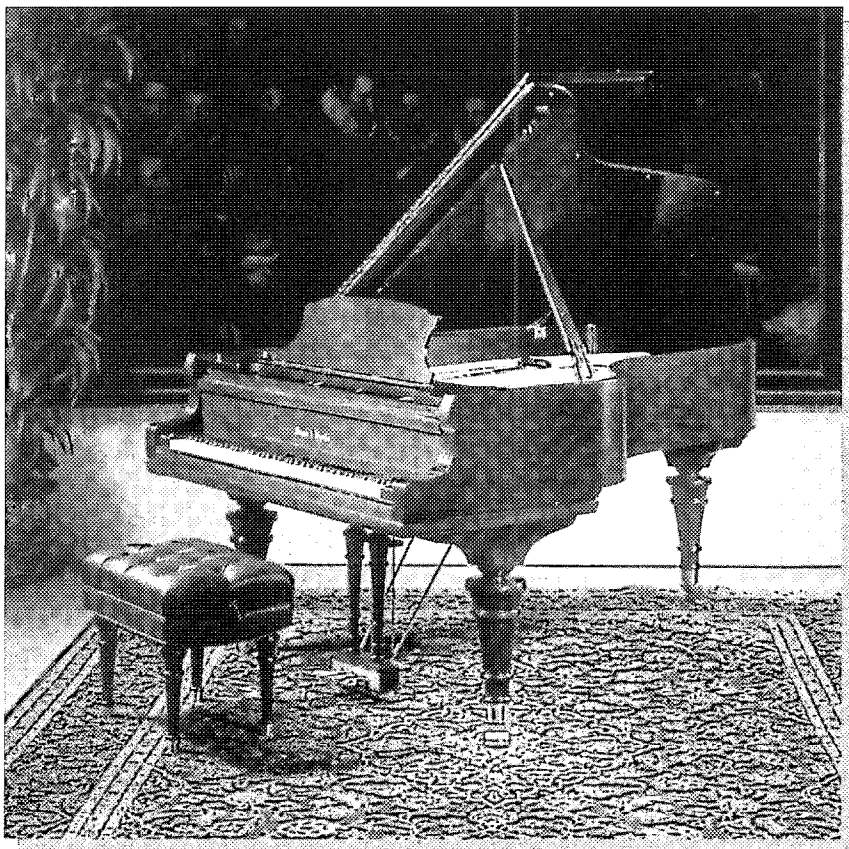
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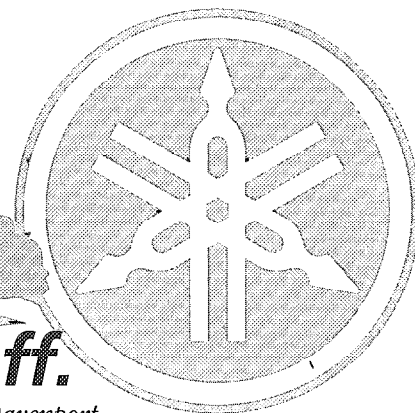
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REGAZETTE

November 1999

YAMAHA



Some Thoughts About Let-off.

By Richard Davenport

Let-off is important. It affects control, power, repetition and tone. You can prove this:

- a) Adjust let-off to 2mm.
 - try playing softly
 - try rapid repetition
- b) Now adjust let-off to 6mm and notice the difference.
 - less power, less control and a change in tone.

Let-off determines the amount of time the jack remains in contact with the knuckle. The longer the jack remains under the knuckle, the more control and power a pianist experiences. The jack moves farther from the

knuckle when let-off is wider. Repetition suffers because the jack takes longer to return.

All fine regulation adjustments, including let-off, can be done better in the piano. Why not use a work bench? The string line is not always straight; it is defined by the plate. The flatness of wooden keybed depends upon its exposure to weather and age. Therefore the conditions found in the piano are impossible to duplicate on a work bench.

Should you use a gauge or estimate with your eyes? Use your eyes! A gauge is slow and can damage damper felt (Ask me how I know!) Good lighting is essential. A visual check can expose let-off variations of 1mm or less. It is a good idea to depress groups of keys, not individual ones. Establish a steady rhythm while slowly depressing the keys. Move methodically up and down the keyboard. Also, look up and rest your eyes often.

Several techniques can be used to help see let-off in the bass and high treble:

- Blocking the dampers up improves visibility.
- In a short grand, pull out the action a short distance until the hammers are visible in front of the dampers.
- On larger grands, sit on the floor and look up from under the pinblock.
- For the lower hammers, position your line of sight from tenor to bass. For the upper bass, move it from bass to tenor.

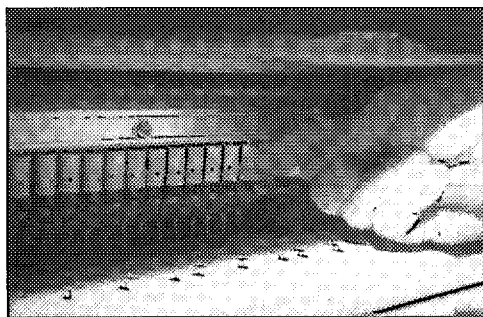


Richard Davenport started his career as a piano technician in 1973, and has been a consultant to Yamaha since 1980.

A former music instructor, Richard is originally from Manhasset, L.I., NY. He and wife Jeanne have a 13 year old son named Jeffrey and reside in Los Angeles.

- Tenor and lower treble hammers are usually visible, but high treble hammers present difficulties. Using a mirror in back of the capo bar is very effective.
- Another method works well with the straightness of Yamaha's V-Pro plate. Adjust five equally spaced hammers in the high treble, pull the action forward about 3 or 4mm. The hammers will become barely visible in front of the capo bar. Using these samples, regulate the rest to match.

Good action regulation requires accurate let-off. Accurate let-off requires practice. Setting let-off in the piano assures best results. Your work will improve control, power, repetition and tone!



Tip: You can easily find the hole in a Yamaha let-off dowel without looking. Hold the let-off tool (capstan wrench) so your index finger is slightly in front of the tip. The tool should be parallel to the inside of your index finger. Hold the handle with your remaining three fingers and thumb. Pretend to point to the let-off dowel with your index finger. Your finger finds the hole in the dowel by feel and the tool slips in to make adjustments quickly. It is worth the time it takes to learn this procedure as demonstrated in the photo.

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