Piano Technicians Journal

May 1987

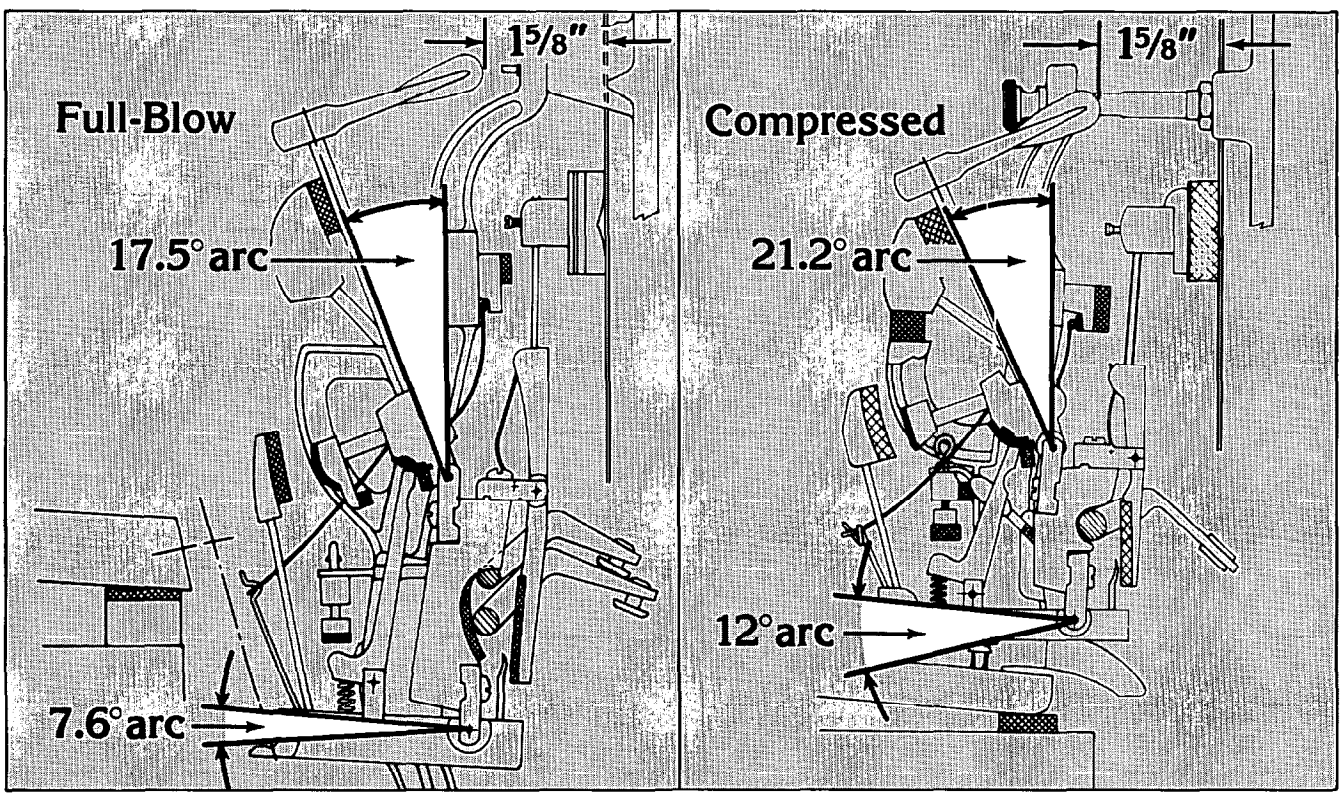
The Baldwin Piano...

You can see why it sounds better

The designer of a console piano is faced with an important decision on the type of action to use. Most manufacturers use a compressed action with small parts because the strike point of the hammers is not high enough to allow room for a full-size direct blow action. We prefer to use full-size parts with pick-up fingers.

True, the compressed action is somewhat easier to remove and replace. But it has the built-in disadvantage of operating on greater arcs of motion, with added rubbing friction. That means less dependability and far more frequent service. In our Full-Blow Action our full-size parts travel on smaller arcs of rotation so there is less wear on the action centers.

Again, because of the greater arcs of motion, the compressed action has a reduced rate of repetition. In contrast, our researchers have found that our Full-Blow Action repeats at an average rate that is 23 percent faster than a compressed action.



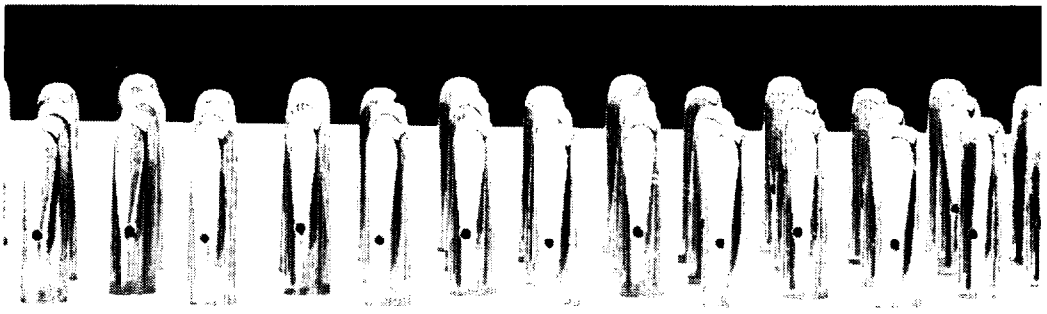
In summary our Full-Blow Action adds up to a very impressive advantage when it comes to tonal performance — consistent full-power blows from full-sized parts, reduced wear on action parts, and an extremely fast repetition rate.

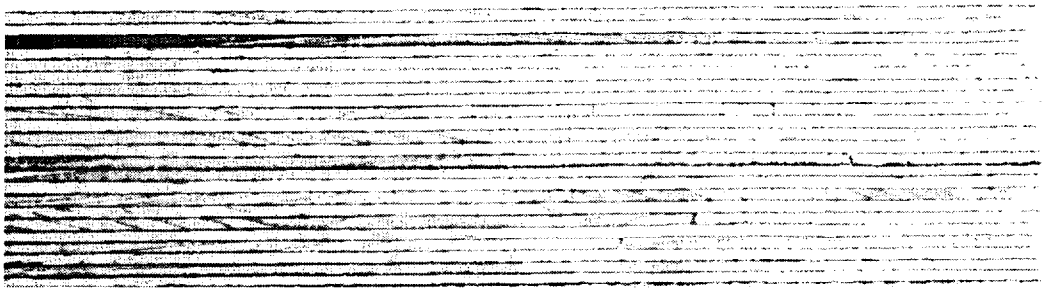
Sixth in a series of informative ads on piano tone published by Baldwin exclusively for the benefit of piano technicians.

Baldwin® - *Leading the way through research*

Delignit®

Multi-laminated beech pin block material





At long last Schaff has obtained a distributorship for the German made, multi-laminated beech pin block material called DELIGNIT©. For several years now this type of pin block has been imported into the United States and Canada. Now this particular DELIGNIT© grade, having the same characteristics of density as used by almost all European piano manufacturers, is available at Schaff.

As the above picture of a typical 1⅜" DELIGNIT© pin block shows, there are approximately 21 cross laminated plys of high quality beech veneers that are compressed together with a modified hot curing phenolic resin applied in a special dry-bonding process. A full panel pin block measures 48" wide x 59" long with a double block being 19" wide and a single block measuring 9½". All of the various width blocks come in either 1¼", 1⅜" or 1½" thickness.

Single and double blocks can be shipped UPS, but a full panel must ship via truck. Write or call for pricing information.

THE HOUSE DEDICATED TO SERVICE

Schaff PIANO SUPPLY COMPANY

451 OAKWOOD ROAD, LAKE ZURICH, IL 60047

(312) 438-4556

The Piano Technicians Journal **May 1987**

Official Publication Of The Piano Technicians Guild, Inc.

Volume 30
Number 5

IN THIS ISSUE...

PLUS...

THE COVER...

The CN Tower, the world's tallest free-standing structure, is Toronto's trademark. It's 1,815 feet tall and contains the world's largest revolving discotheque and restaurant. Convention-goers who visit the tower will be able to see almost 100 miles on a clear day.

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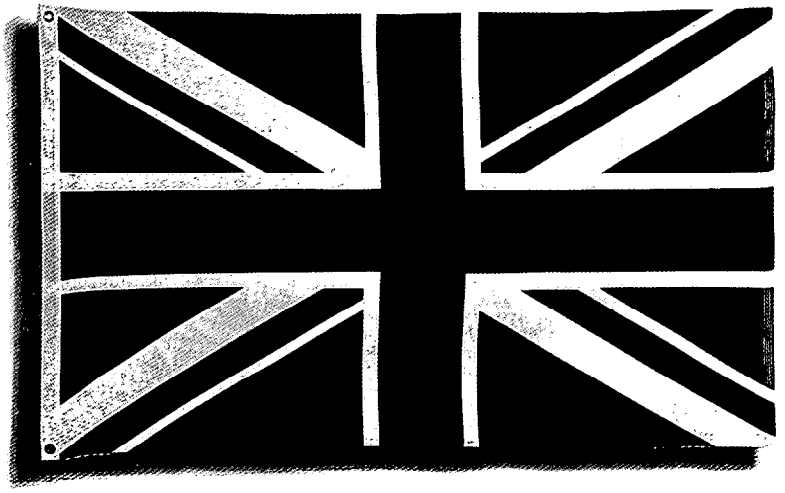
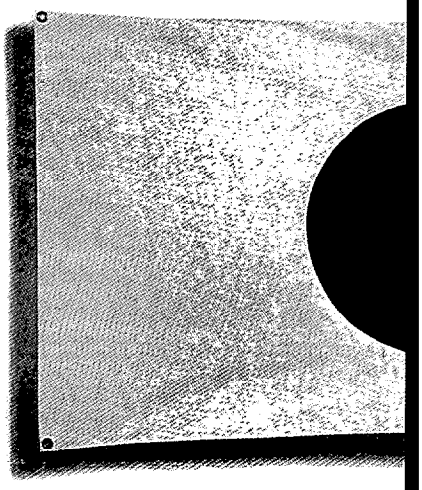
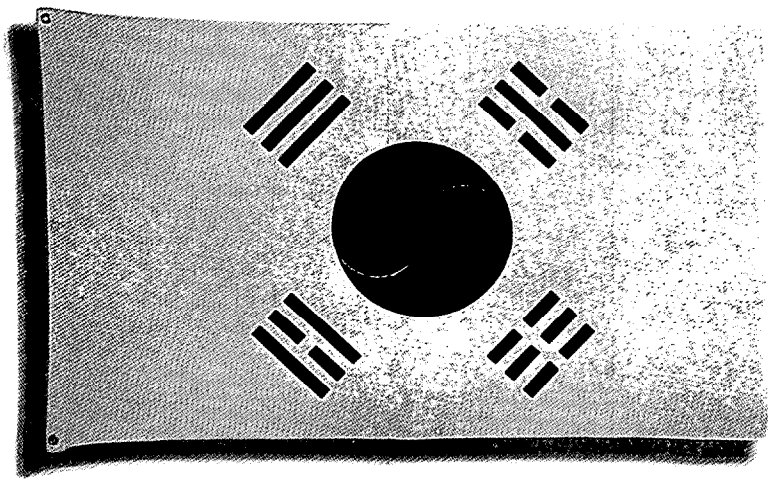
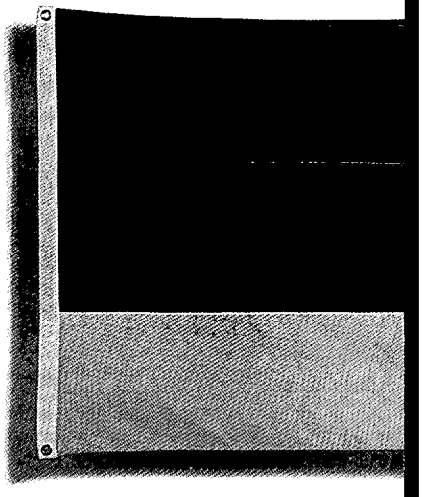








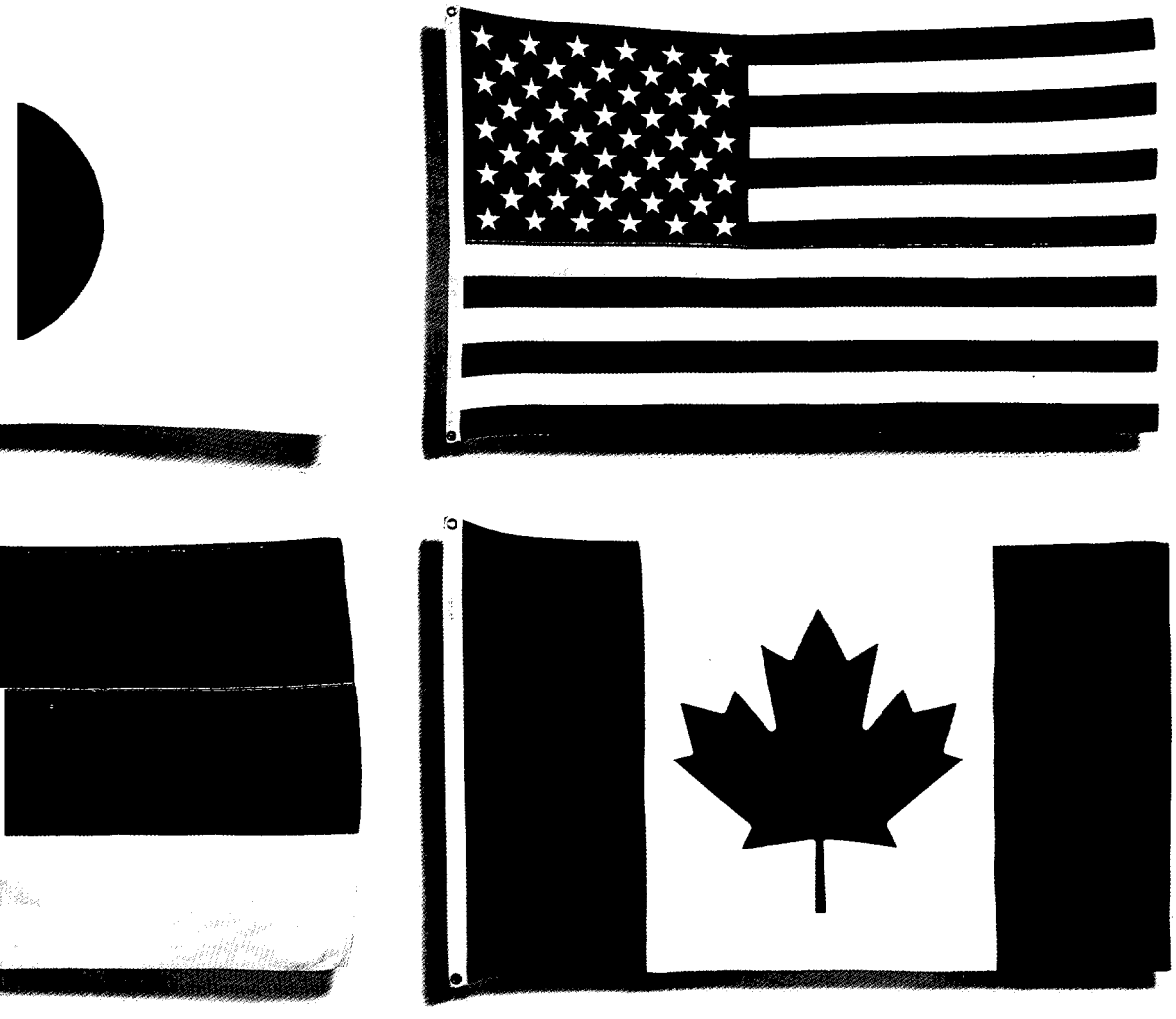
The best the world

Only the finest materials are used to create a Young Chang piano. And we've gone to great lengths to find them.

To Alaska and Canada for premium grade spruce for our soundboards, keys and back posts. To Vermont for maple. To England's Royal George Feltworks for our hammer felt. To Germany and Japan for our premium core wire.

And because Young Chang pianos are created in Korea, we can offer exceptional instruments carefully crafted of the finest materials in the world at the very best value. Instruments that come with a 12-year *full* warranty—our promise of continued outstanding performance year after year.

At Young Chang, we're dedicated to creating instruments of

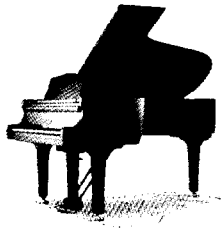


has to offer.

outstanding quality and extraordinary beauty. It's a commitment to produce instruments nothing short of remarkable. Instruments that approach perfection.

Because at Young Chang, we're dedicated to offering the world the very best.

For more technical information, please call Ray Chandler at (213) 926-3200. Or write to him at Young Chang Technical Services, 13336 Alondra Blvd., Cerritos, CA 90701 for a free copy of our Service Guide and Technical Specifications Manual.



YOUNG ℄ CHANG

President's Message

M.B. Hawkins
President

Pushing Up The Iceberg

This story is a takeoff on a discussion I recently overheard. After I had taken time to think it through, it seemed that what was being formulated in my mind was worth developing further and sharing with our readership.

I'm sure not too many of us, if any at all, go around day- to-day thinking about icebergs. For now, let me ask you to think about an iceberg. If you're like me, when you think of an iceberg, you picture a mass of ice protruding out of the water, slowly floating along. While that may be true and that is what is visible, there is much more to it than that. What was not mentioned was the part that you don't see, the portion under the surface of the water. As I understand it, this part comprises a much larger mass of ice than is ever visible from above the surface — and it is at this point that we move from the iceberg to an organization such as the Piano Technicians Guild.

When the RTT emblem is seen on someone's business card, or the words "Piano Technicians Guild" are seen, what comes to mind? Does the picture of an iceberg appear? Perhaps not, but let's look closer.

The name of our organization, the *Piano Technicians Journal*, and those representatives who are high-visibility persons really represent the part of the iceberg you identify with when you relate our organization to an iceberg. I would say it generally is not the mass beneath the surface that people think about when the words "Piano Technicians Guild" or the RTT emblem is viewed. Yet if it was not for the part beneath the surface, the portion above the water would not be visible at all. This analogy can be made from the organizational level and then easily transferred to the regional, state and chapter levels as well. It even goes further, in your individual business, there is your office staff. It may only be another hat you wear, but nevertheless, it is the part beneath the surface that supports your outward visibility.

Let me ask each of you to give this comparison more thought. It seems to me if we really understand what is being said, we will push harder from underneath so as to make visible more and more above the water. One of our goals in PTG is to become more visible. To do that, those highly visible areas will continue to shine and shine more brightly as the buoyancy and support of the submerged portion continues to function well. This means a number of things: it refers to the individual member who from day to day strives for peak performance not only in your business but as a member of your chapter, also. It refers to those in office who must, to do their part, fully understand their role in the overall scheme of things. That, of course, means action. It means doing the job. It means not procrastinating. We have committee people who have a role to fulfill as well as those who contribute to the *Journal* by way of articles. Then we have our Home Office staff who have a mission and role to play. The Board of Directors feed off of all the activity beneath the surface.

Speaking for the Board, I want you to know we appreciate what you're doing and can only say "keep up the good work!" You will surely be rewarded greatly as we continue to push from underneath and cause a greater portion of our organization to be visible from the surface.■

From The Home Office

Larry Goldsmith
Executive Director

In the yearly cycle of Piano Technicians Guild activities, this is an especially fascinating time. As we put together the convention materials, including the class descriptions which begin on page 12 of this issue, it's fascinating to watch the schedule come together in a tangible way. It's almost like watching the pieces of a jigsaw puzzle appear and magically fit themselves into place.

Of course we all know it's not that easy. A lot of hard work has gone into making those pieces fall together. Institute Director Dick Bittinger has been working on this convention for more than a year. So have members of the Toronto Chapter. Board members have been busy carrying out the wishes of last summer's Council and keeping open lines of communication so that new issues will get a full airing this summer. Our committees have been busy as well, and the fruits of their work will be displayed in various ways at the convention.

In fact, almost every organizational aspect of the Piano Technicians Guild comes together in one place, in one relatively short time. The events that take place July 19-24 in Toronto, the decisions that are made there, have a huge effect on our industry. What's truly amazing is that it's open to anyone who cares enough to participate. Even though the Guild has been extremely lucky in attracting people of energy, vision and dedication like those mentioned above, it has a never-ending need for good people.

It is possible for one person to make a difference, to have an impact outside of his family, friends and community. It starts by getting involved. And the opportunity is waiting in Toronto in July.

* * *

It's called backing into the big time. A story in a recent issue of *Business Week* magazine concerned new computer programs, including one that lets you write notes on a computerized notepad on one side of the computer screen while you're doing something else on the other side. In a photograph illustrating the screen, the sharp eye of Sherman Titens spotted the note "call piano tuner."

Now if we could just convince the software company to put that message in every package they sell...

* * *

One further convention note: Bittinger and Instructor Tom Cobble are in need of video equipment to use in a class setup in Toronto. They plan to use a video camera and monitor to give people in the back of the classroom a closeup view of the instructor's hands. If anyone is planning to bring a video camera to the convention and might be willing to loan it out for a class period or so, please contact Bittinger (717-859-3111) or Cobble (804-744-5645).

International Scene

Fred Odenheimer
Chairman, International Relations Committee

East Meets West In Frankfurt, Toronto

It is no wonder that the Frankfurt Fair is the most important music fair in the world. It is a time when East meets West; where, if you are interested, you can go from one stand to the next to compare quality and naturally price. From what I suppose is an incomplete list, there are at least 30 piano manufacturers from some 16 countries represented. At this time I am just talking about pianos. There are a number of harpsichord, clavichord, and forte piano exhibitors. There are electronic and pipe organs, aside from electronic keyboards, and naturally the whole range of musical instruments and accessories. There are also parts manufacturers and in this context I want to refer mostly to piano action parts, soundboards etc., parts that are generally bought by a piano factory, especially the smaller ones. While the manufacture of pianos in the U.S. has greatly declined, we are still a major contributor to overall world production. However when it comes to parts, we are getting close to becoming a desert. With a production of close to 100,000 instruments and demand from rebuilders, it seems to me that there should be room for a manufacturer of quality action parts, especially since the raw materials are still around us. Depending merely on foreign supplies could shut down the industry completely.

At this time the PTG and IAPBT conventions should be very much on our minds. Toronto is quickly becoming a reality and you will miss a great opportunity if you decide to stay home, going without the excitement, losing a chance to gain new experiences, failing to meet old friends and make new ones. For those of you who will be there I want to point out that the IAPBT convention will follow the PTG meeting on Saturday, July 25. There will be a luncheon and a banquet in the evening. There will also be a technical session Saturday afternoon when Edward Swenson will talk on restoration of antique pianos. He will have slides to support his lecture and he will also show some of his special tools for reconditioning. That should be a worthwhile and interesting afternoon and I hope that I shall see many of you there.

Do not forget "Friends of IAPBT." Just $15.00 will buy you a year's membership and it certainly supports a worthy cause.

Economic Affairs

Carl Root
Washington, D.C. Chapter

Selling A Piano Service Business

If your primary source of income is piano service in the home and someone were to ask you what your business was worth, you might respond, "It's priceless! It provides me with food, shelter, clothing and other essentials like a VCR."

Let's rephrase the question, How much is your piano service business worth as an asset? What could you sell it for if you decided to retire or change careers? Large and small businesses outside our profession, both retail and service, are bought and sold every day, yet in our field this is less common. There are several reasons why few piano service businesses are offered for sale in the PT *Journal* classified section and why the subject rarely comes up at the chapter level. The purpose of this article is to show how buyer, seller, and clients might benefit from a sale and to examine the factors that make one business worth more than another.

Because many home pianos are serviced at least twice a year, we develop a friendly relationship with many piano owners compared to other service people who are called out only occasionally to fix a problem in the home. The idea of trading 10 of my customers who live closer to you for 10 of yours who live close to me is a practical idea that would cut down on driving time and perhaps provide quicker service, but this is rarely done because clients and tuners often become attached to each other.

The idea of putting your friends up for sale seems rather odd. However, if you were to retire, your customers would certainly be grateful for uninterrupted service if you were to provide them with a replacement piano technician. Younger technicians, who are often put off by the idea of buying a piano service business, fear that clients will be unwilling to accept them, but if you ask someone who has bought a service business what the transfer rate was, you will find that at least 90 percent will be glad to have you service their piano. Keeping the customer satisfied is, of course, the new technician's responsibility, but the opportunity is there and the future service will be interrupted only by a significant difference in skill, business practices, or personality. There are other variables that affect this transfer rate which will be discussed later in this article.

There are some creative ways of compensating the seller when the technician who wishes to purchase the business is short of funds. The buyer can be hired with the expectation of obtaining eventual solicitation rights. The seller can transfer the clientele but maintain control of the business until all payments have been made. The purchase price can be expressed as a percentage of annual income for a set period. In most cases, a contract is the best way to clarify the conditions of the sale and avoid misunderstandings.

If the basic tuning fee of the seller is substantially lower than that of the buyer, the turnover rate will be lower than if the tuning fees are about the same. Tuners on the verge of retiring often avoid giving themselves cost-of-living increases because their own daily expenses are lower. The mortgage is paid. The children have left home. It is also harder to increase prices when you have been servicing your "friends'" pianos for 30 years. However, when customers inevitably go looking for their next tuner, will his fees be perceived as too high or yours be perceived as too low? There is a risk that maintaining lower fees will push your clientele into the waiting arms of a less qualified tuner. Some may even stop servicing their pianos altogether!

An older tuner might find it difficult to hand over his life's work to some young know-it-all. "I worked hard to get where I am. Why should you have it handed to you on a silver platter?" I wonder if some who have this attitude are all too aware that their level of craftsmanship will now be revealed to their

mic Affairs . . .

successor. How many doped blocks, graphited knuckles, half-step flat pianos, and new key tops and bridle straps are in your clientele?

Do you keep accurate records of all your service calls, including brand, model, serial number, condition, and itemized charges? Do you contact your best customers on a regular schedule? If not, it will be difficult for a prospective buyer of your business to separate active and inactive customers. The purchase price can be expressed as a percentage of annual income, but how much of the income is derived from first-time calls, pianos in remote areas, junk pianos, pianos tuned every two years, plastic elbow replacement, etc. In short, what is the quality of your business?

A computer can provide a great deal of information about the precise make-up of your clientele. A simple evaluation system using five categories shows the quality of the piano, ease of scheduling, personality traits that indicate friendliness and consideration, travel distance, and how often the piano is tuned. Each category gets a 0, 1, or 2 rating for each customer and the sum of those ratings, all weighted equally, is entered in a separate category. This system, designed to aid scheduling priority, can help separate musical instruments from klunkers, good people from deadbeats, and eventually show a prospective buyer exactly what he is getting.

Tailoring your service to the needs of each piano, maintaining a high level of craftsmanship, keeping accurate records, and giving top priority to your best customers is a good practice no matter how you intend to dispose of your business. Consider that under ideal circumstances, you may be able to retire with an additional one-year income as a bonus for your efforts!

This discussion has focused on retirement or a career change. What options exist in the event of your unexpected death? Most PTG chapters have had the experience of assisting a widow in the disposition of all business-related assets. Your foresight could save your spouse and your chapter a great deal of work and possibly provide substantially more money for your spouse when it is most needed. Experience has shown that selling the clientele within 30 — 60 days will assure the transfer of customers who are used to being contacted regularly. This may be difficult to achieve if assets are held up in probate so now there is another good reason for making out a will. Make sure someone else understands your recordkeeping system and is clear about your intentions for its dispersal. ■

Toronto Institute 1987

Here at last is the annual convention Journal *issue! Get ready to "Discover The Feeling" as you read these class descriptions and look at the institute instructors. Pick out the classes that you want to attend at the Toronto Institute because next month's* Journal *issue will have the whole schedule layout. This way you will be able to plan your entire week at the Piano Technicians Guild Annual Convention. The Institute begins Tuesday, July 21, and ends Friday, July 24.*

Dick Bittinger 1987 Institute Director


Bittinger

A. Isaac


C. Isaac


S. Jackson


Fandrich


Vincent


Wheeler


C. Pile

Company-Sponsored Classes

Installing Hammers — *A. Isaac Pianos: Ari and Clair Isaac and Steve Jackson (Can.).* This will be a hands-on class, including traveling shanks, boring, tapering, and the final touch of voicing the hammers. There will be a grand and a vertical piano to work with to gain first-hand experience.

Art And Science of Piano Sound — *Baldwin: Del Fandrich, Alan Vincent and Rick Wheeler (USA).* A fast moving class beginning with grand piano servicing techniques, advancing on to piano building, then concluding with a discussion of piano acoustics — how a piano works and why it is designed to be built the way it is.

New Approach To Polyester Repair — *Bronte Piano: Cheri and Dwight Pile (Can.).* This is a hands-on class dealing with the Konig Lack 20 polyester system. It does not require the use of an electric buffer, it is fully hard in 30 minutes, and is fool-proof. This class will make you an expert!

Soundboards And Bridges — *C.A. Geers Piano Co.: Cliff and Tony Geers (USA).* This class is about the basic part of the piano in the process of rebuilding and why the soundboard and bridges must relate to all parts of the piano. If you're into rebuilding, you need this technical information!

Felt Facts — *Chas. W. House and Sons: Peter Van Stratum and Tim Waters (USA).*

Humidity In Rebuilding — *Dampp-Chaser Electronics: Wendell Eaton and Steve Smith (USA).* A long-time top-notch piano rebuilder will deal with the importance of humidity control on rebuilding, especially on soundboards, pin blocks, actions, keys and keybeds.

Reduce Your Canadian Taxes — *Deloitt, Haskins & Sells (Can.).* A special class for Canadian piano technicians by a well-known firm of management consultants serving as advisors and accountants to clients throughout Canada.

Schwander-Langer Action — *Herrburger Brooks: Dave Martin (England).* For those technicians who are not too familiar with these two types of actions, now is the time to find out how they work. The new Langer 80 action will be included in this class, too.

Electronic Tuning with Aural Test — *Inventronics, Inc.: Al Sanderson (USA).*

Grand Regulation — *Kimball: Dale Lassiter, Jon Light and Roger Weisensteiner (USA).* This will be a hands-on class using action models and tools for regulating grand actions. A high-speed film will reinforce and clarify the action functions as you regulate your model action.

What To Use — When And Where — *Mohawk Finishing Products, Inc.: Terry Still (Can.).* There will be a film on different types of finishing products, a display for you to look over and be familiar with, and a question-and-answer session.

Influence of Design on Piano Quality — *Samick: Klaus Fenner (Germany).* This technician known throughout the world will share some of his experience in the past 20 years working with piano designs.


D. Pile


C. Geers


Van Stratum


Eaton


Smith


Martin


Sanderson


Lassiter


Light


Weisensteiner


Fenner


Duricic


Campbell


Drasche


Garlick


Mohr


Coleman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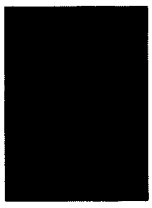
Russell


Elrod


Long


Talbot




Edwards


Whitcomb


Ito


Chandler


Gilchrist

Voicing — *Schimmel: Leonardo Duricic (Germany).* This subject needs the attention of all piano technicians who want to make professional tone quality for their customers' listening pleasure.

Piano Scaling — *Sohmer: Dave Campbell and Bruce Clark and Gary Green (USA).*

Servicing The Steinway Grand — *Steinway & Sons: Fred Drasche and Bill Garlick (USA).* Reconditioning and troubleshooting, along with their service tips on tuning, regulation, etc.

Concert Preparation — *Steinway & Sons: Franz Mohr (USA).* Franz will fill you in on what needs to be done before the big concert.

Aural And Visual Tuning — *Superior Imports, Ltd.: Jim Coleman and George Defebaugh (USA).* Two experts in both aural and visual tuning present a class in comparative tuning techniques. They will examine solutions to special problems accenting how one technique can reinforce the other.

Key Bushing and Weighting — *Tadashi: Bob Russell (USA).* This is a step-by-step procedure using slides and lecture techniques to guide you through a practical method of key bushing and weighting. You will learn the best and easiest way to do these jobs with an instructor who is known for his common-sense approach to teaching.

Player Piano Service — *Wurlitzer: Richard Elrod (USA).* This class will be a general show-and-tell on player operations with common service practice and methods.

Vertical Regulation — *Wurlitzer: Dave Long and Larry Talbot (USA).* This is a hands-on class using three key models to get the real experience of a vertical action.

Professional Service — The Yamaha Way — *Yamaha: Bill Brandom, LaRoy Edwards, Lloyd Whitcomb (USA); Mitch Ito (Japan).*

Young Chang's Piano Service — *Young Chang: Ray Chandler (USA) and Paul Gilchrist (Can.).*

Tuning Tutor — *Ray Anderson (Can.).* Ray will also be doing a tuning concert of historical temperaments for the Teachers Relations Committee seminar.

Glues and Piano Repair — *Andre Bolduc (Can.).* Name and describe different types of glue, how to use them and where. How to repair the piano case and which tool to use. How to maintain your tools to keep them in good condition. How to handle veneering by bending, clamping, etc.

Piano Technicians Guild Technical Films — *Ken Bryant (Can.).* Ken will be showing a few technical 16mm movies on the two free nights. Stop by and check them out for your chapter program next year. Yes, non-members are invited to view our films too.

Between a Rock and a Hard Place — *Tom Cobble (USA).* As piano technicians we find ourselves trying to walk a fine line between those three all-important elements of our business: customers, dealers and manufacturers. This class is designed to help!

Rebuilding the Player Piano — *Dan Gates and Raye McCall (USA).* The first part of this class will have Raye showing some slides on some special problems and basic facts of the old player piano. Going into the second part will deal with basic rebuilding techniques, materials, tools and information. Dan and Raye will actually show you how it can be done.

Moving Pianos — *Jim Geiger and crew (USA).* If you ever wondered how the other guy does it, then don't miss this class. Jim and his moving crew will show you many ways to make the job a bit easier and safer.

The Art Of 'Unsalesmanship' — *Susan Graham (USA)* - The foundation of good estimating and sales is an ability to diagnose what is wrong, to know what is possible to achieve through repair and/or rebuilding and to be able to calculate the time a job will require. The needs and expectations of the customer must be heard and understood to formulate plans for the piano which will be satisfactory for both customer and technician.

Occupational Health Hazards — *John Harrison (Can.).* John is a toxicologist employed by the Canadian government. He will have vital information that may save your life, or at least change your way of doing things in your shop and on the job.


Anderson


Bolduc


Bryant


Cobble


Gates


McCall


Graham


Harrison


Huether


Jackson


Juhn


Keyes


Krefting


Jameson


Lillico


Long


Lowell


Mackie


Mastagni


McKlveen


Mehaffey


Potter


J. Rappaport


P. Rappaport


Sadigursky


Snyder


Stone

History of North American Pianos — *Charlie Huether (USA).* A slide presentation with commentary on the piano industry as it developed in the 19th and 20th centuries with emphasis on USA and Canada.

Keytop and Sharp Replacement Made Easy — *Howard Jackson (USA).* A method of key recovering including a discussion of other repairs and adjustments that may need to be made in order for professional results.

Damper Leaks — *Ernie Juhn (USA).* Ernie will do this class for the visually impaired. I'm sure they will be much impressed by his sample giant grand and vertical dampers.

Relationships In and Out of the Piano — *Otto Keyes (Can.).* This class will primarily be dealing with relationships outside of the piano (those with people). However, there will be important mechanical relationships that will be discussed throughout the class period from time to time.

Pin Block Installation and Restringing — *Jack Krefting and Sally Jameson (USA).* This will be a four-day class with three hours per day. If you want to learn the rebuilding trade, then you don't want to miss a minute of this class from teardown to restringing. Jack and Sally are well-known experts in this type of piano work.

Upright Dampers: Installation and Regulation — *Paul Koktan (Can.).* Methods used for removing old dampers and installing new ones. A virtually foolproof and simple method of regulating with initial setup establishes the correct relationship to the lift rod and spoons, then the actual regulation goes very quickly.

Tuning Concert — *John Lillico (Can.) and Jack Sprinkle (USA).* Jack and John plan this tuning concert just a bit different than ever before. I'm sure we all will be able to relate to this. The concert begins immediately after the closing luncheon.

Bird-Cage Actions — *Ralph Long (England).* Getting the best out of bird-cage action pianos without too much time and loss of income, taking into consideration the age of the piano.

Techniques for Downbearing — *Tom Lowell (USA).* Tom Lowell's theory of the easy-to-understand, state-of-the-art procedures taught in this class are sure to simplify and perfect your skills in downbearing measurements and adjustments.

In-Home Service of the New Piano — *Bob Mackie (Can.).* Proper customer approach with a little skit on how it should not be done if you want to stay in business. Advice on who should be told if there is a technical defect, how to charge for your services with confidence or compromise, tricks on voicing as part of the tuning service, and much more.

Piano Touch-up And Finishing — *Angelo Mastagni (USA).* Learning how to remedy raw edges, remove water marks, repair ugly dents, scuffs, etc. How to make dull finishes shiny or shiny ones dull. Learn to make a burn-in knife and torch for under $2.00. How to answer customer questions regarding maintenance of finish.

Voicing In The Field — *Ben McKlveen (USA).* Ben will do this class for the visually impaired and will demonstrate the art of making that old parlor piano sound better to the customer's ears.

Gadgets and Tools — *Francis Mehaffey (USA).* If you want to make your piano work go easier and faster, then don't miss this class. Francis has new tools and gadgets and will demonstrate their use for your piano shop or on the job. He will also have some sample plate repairs which will be explained and featured.

Past President's Mini-Class — There are 12 past presidents who have agreed to participate to this date. Please check last month's *Journal* for past presidents' names and class titles. The classes will be for 1 1/2 hours each day and three past presidents will share equal time for their technical presentation. Believe me, all the mini-technicals look great!

New Taxes In The USA — *Randy Potter (USA).* Randy will show you how to keep records for the direction of the IRS forms, understanding the new tax forms, etc. Best of all, he will tell you how to save money when you file your taxes each year. You can't afford to miss this one.

Sharpening Tools — *Joel and Priscilla Rappaport (USA).* This is a hands-on class. First come, first served, limited to 36 participants per class. There will be a brief history of tool sharpening with a demonstration of the preparation of cutting tools used in the shop. Participants will sharpen commonly used tools and complete some woodworking projects. Sources of tools, paraphernalia and literature will be provided.

Tuning Pianos in Russia — *Isaac Sadigursky (USA).* If you think some days are rough for you in your tuning, then listen to

Isaac's story on a day of a Russian piano tuner. He will also show you some tools from Russia and the way technicians are trained there.

A Look Inside — *Willis Snyder (USA).* Subjects enhanced by close-up photography. Qualification of decisions to repair, rebuild or replace. It is almost unbelievable to view such things as felt, leather, wood, metal and strings magnified many times over. A class you'll never forget.

Vertical Reconditioning — *Sid Stone (USA).* If you are going to do regulating on a vertical piano it is a must to do the reconditioning first. Sid will start off with a short movie of some do's and don'ts, then on to the practical work of reconditioning the piano and action.

Computers - Boon or Bane? — *Dean Thomas (USA).* This class is designed to focus on what computers can and cannot do for a one-technician shop, with or without spousal help. Included will be: real and unreal expectations, applications, implications and insinuations for the computerized piano tuner technician's shop.

Pedal Works — *John Zeiner (USA).* Pedal repairs of all types, grand damper set-up and adjustment made easy, grand action preparation needed for damper regulation.

Thomas

Zeiner

Blind Tuners Road Show Moves to Toronto

Stanley Oliver
Chairman, Visually Impaired Committee

On Monday, July 20, from 9 a.m. to 4:30 p.m., in Parlor G of the Constellation Hotel, there will be a regrouping of the clan who utilize ears and fingers to see their way around pianos. Leading off the concentration of stars is Emil Fries, dean of instructors for blind tuners with graduated students from around the world. Emil, recently added to PTG's Hall of Fame, will treat with the past and future for blind technicians and a report on his recent visit to the Royal National College for the Blind in London, England. Ernie Juhn and Ben McKlveen will deal with grand, vertical damper installation and other piano considerations. A series of mini-technicals with standout blind tuners will take place in Parlor G during the ensuing four days of regular Institute classes, working these around the edges.

We have been in correspondence with a group of blind tuners in Quebec and expect to see some of these aboard. As most Quebec tuners are essentially wholly French-speaking, communications may be a problem. Marcel Carey, president of the Quebec group and PTG stalwart, is now working on a French-language cassette edition of the PTG *Journal* which will include direct news from a tuners' organization in France.

Arrangements have been made for a guided tour of the Canadian National Institute for the Blind with its national headquarters and training facilities in Toronto.

Here is a once-in-a-lifetime opportunity to meet and make new friends and greet old ones. We strongly encourage our nearly 100 blind PTG tuners to be on hand in Toronto starting July 20th for great instruction and hospitality. Check your convention flyer for registration and hotel costs and do it today.

An Invitation To The Fifth Biannual Meeting Of The International Association Of Piano Builders And Technicians

The International Association of Piano Builders and Technicians will hold its fifth biannual meeting in Toronto, Canada, July 24-25, following the Annual Convention of the Piano Technicians Guild.

The Piano Technicians Guild is one of the founding members of IAPBT, and will join with the other member organizations at that time to renew acquaintance and exchange ideas. There will be meetings of the officers, a meeting of delegates from the member organizations and a technical presentation.

IAPBT is an umbrella organization of technicians' groups throughout the world. Our present membership includes the Piano Technicians Guild, the Japanese Piano Tuners Association, Taipei Piano Tuners Association, Korean Association of Piano Technicians and Piano Tuners and Technicians Guild of New South Wales, as well as individual members in England and Germany.

These IAPBT meetings will follow the regular PTG convention and all are invited to stay the extra time and enjoy the contact with technicians from all over the world. Take part in this exciting social and technical exchange. Broaden your horizons, expand your knowledge.

— Charles Huether, IAPBT President

THE
TECHNICAL
FORUM

More Dumb Sales Claims, Making a Dish For a Soundboard Press, Action Center Torque, and Steinway 'O' Vs. 'L'

Jack Krefting
Technical Editor

Sometimes the most misinformed, hilariously funny sales claims come from the manufacturers themselves, in their own printed sales literature. At the last National Association of Music Merchants show in Anaheim, one Korean maker was handing out style sheets showing a full color photo of a medium-sized grand, together with the following specifications:

— Professional Grand Deluxe, 88 keys
— Elegant design based on 16th century European models (full sostenuto).
— Featuring West German Renner Action
— Colors: Ivory and Gold
— Height: 101 cm (3'4").
— Weight: 328 kgs (723 lbs.)
— Picture model: American Walnut Satin

Without quibbling about the niceties of form and grammar that are commonly trampled when a foreign company tries for a translation, we can still find some amusement here. In the first place, one has to wonder about those 16th century European models they are referring to, since the piano wasn't even invented until the 18th century; and then, to make the statement even sillier, they seem to imply that one of the main features of those 16th- century European models was the full sostenuto, and *that* wasn't even invented until the 19th century.

What we found even more hilarious, though, was the fact that they listed the height but not the length, so this is a 3'4" grand piano according to their own specs. Apparently it never occurred to the marketing genius who wrote the copy, or to his superiors who approved it, or to the printer or the importer or anyone else involved, that the important variable in grand piano dimensions is length, not the height.

Grand Rebuilding

This month we will make a dish for a soundboard press, with photos to illustrate one method of doing it. First, a few observations about dishing a press at all versus the flat press used in some shops.

The whole idea of gluing ribs to a soundboard has to do with strength and flexibility, stiffness and sensitivity. These seemingly exclusive features must be present in the finished board or it will not sound good, period. We must construct our board so it will be strong enough under all climatic conditions —that is, so it will not belly backwards in extremely dry conditions —and yet not so strong that it chokes.

If we were scale designers, we would make our own calculations regarding the number of ribs and their placement and cross-section, as well as the thinning of the soundboard. This would have a profound effect on the flexibility/strength ratio, and would certainly be a large part of the scaling of our new piano. But since we are rebuilders, our best efforts should go into restoring the piano to its original condition, or as near to that as we can get. So, as rebuilders, we are not going to change the number or placement of ribs, or anything of the sort. We are going to make a soundboard assembly that is as good as the original, and made as nearly as possible in the

Photo 1

same way, so that the instrument can be said to have been faithfully rebuilt and not customized like a hot rod in a car show. That way the value of the piano is preserved, because the new board is enough like the original that it can be duplicated again, 50 or 60 years from now, by another rebuilder.

While it is certainly possible to make a soundboard on a flat deck —it is sure a lot easier, for one thing —the fact is that most good pianos were bellied in some sort of curved press, and there are some compelling theoretical reasons why that method is better. Provided of course that the ribs are shaped to the same contour as the press, the curved deck gives extra assurance of crown without undue rib tension, and allows bellying at a more reasonable five-and-a-half to six percent moisture content instead of the four-and-a-half to five percent necessary with a flat deck. When a board is bellied at four and a half percent, it will swell up so much that it won't sound good for at least three or four years because of excessive crown; and when it finally settles down, it develops compression ridges because of the pressure of the downbearing. In view of all that, we are suggesting consideration of the bellied press deck and correspondingly contoured ribs.

Once the decision has been made to dish the press, it becomes apparent that it cannot be a simple trench or cylindrical groove, but must be a spherical bowl. While it might be possible to make an upright board in a cylindrical trench, it certainly is not possible to belly a grand board that way. This is partly because each rib in a grand reaches its apex at a different point, and partly because we want the deck to be universal, which dictates the universal bowl shape or, as a last resort, a flat deck.

We selected a 72-foot radius as the optimum, although that number is certainly open for debate, and calculated mathematically just how deep the dish would have to be at the center and at each concentric circle outward from the center at three-inch increments. We scribed concentric circles at three, six, nine and 12 inches, and so on, from the center outward until our full dish diameter of seven feet was reached. Then we started drilling holes in the deck material, which was ordinary two-by-10 construction spruce stock.

Photo 1 shows how the calculated hole depth was transferred from a micrometer to vernier caliper, the idea being to use the points of the latter to accurately position the drill stop as shown in Photo 2. Those with sharp eyes will note that the drill stop is backed with flat washers to prevent the drill stop from slipping under pressure.

Photo 3 shows the bullseye marking of the deck, as well as the drilling of the first few concentric circles. At each point, the shoulder of the drill bit was supposedly at the optimum depth of the dish at that point, which meant that allowances had to be made for the extra depth of the drill bit point and the fact that the shoulder of the bit would cut as deeply on the uphill side as on the downhill, because the drill went straight down. Inevitably, this leads to spots which are drilled too deep and have to be subsequently filled in, but at least the shoulder of the bit showed the optimum elevation at the circular scribe line. We had a good point of reference.

In Photo 5 we have temporarily removed the center three boards for ease of removing material, and find that with a seven- foot diameter dish and nominal two-inch stock, the center has to be less than 1/2 inch thick. It is of course supported by 4 x 6 timbers laid on edge and touching one another all the way across, so there is no support problem but it still seems as though we are removing an awful lot of material.

Photo 6 shows an inshave, gouge and mallet being used to sculpt out the outer portions of the dish. The center part was removed for easier stock planing. The inshave, incidentally, was originally used for shaping concave surfaces such as chair seats and, other than the curved shape of its blade, is similar to a drawknife.

Photo 7 show a heavy-duty buffer/grinder fitted with a coarse sanding disc to smooth out the dish. A compass plane, which has a flexible spring steel sole that can be adjusted to any contour, works well in this application also.

Throughout this process, it was necessary to keep checking the contour against our reference stick which we made so that one edge was convex to the same 72 foot radius as our dish. The other half of this stick, incidentally, is concave to the same radius and can therefore be used to check the contour of ribs after they have been shaped in preparation for gluing.

When we were satisfied with the contour, the drill point marks and other indentation in the dish were filled in with Bondo, after which

Photo 3

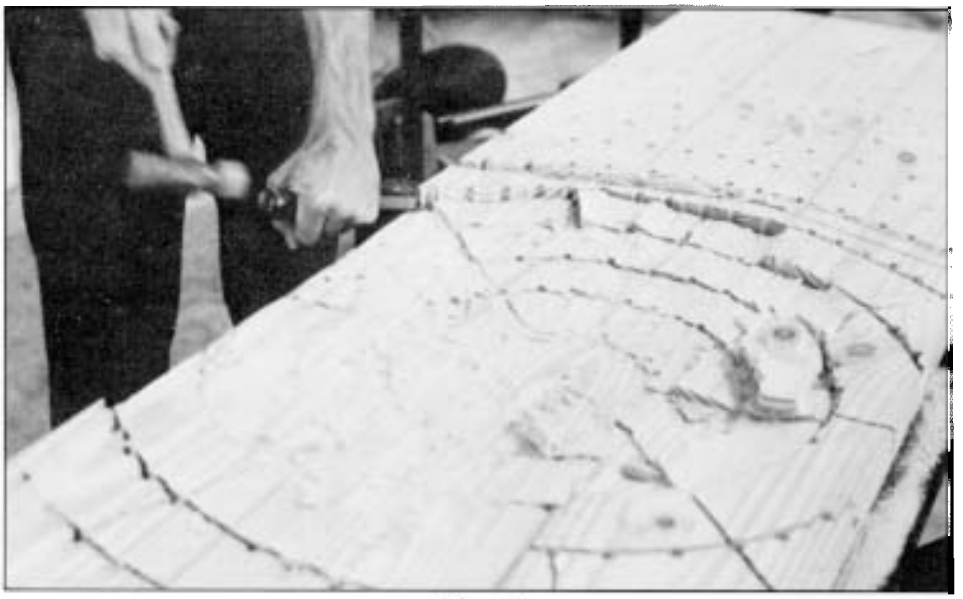


Photo 4

Photo 5

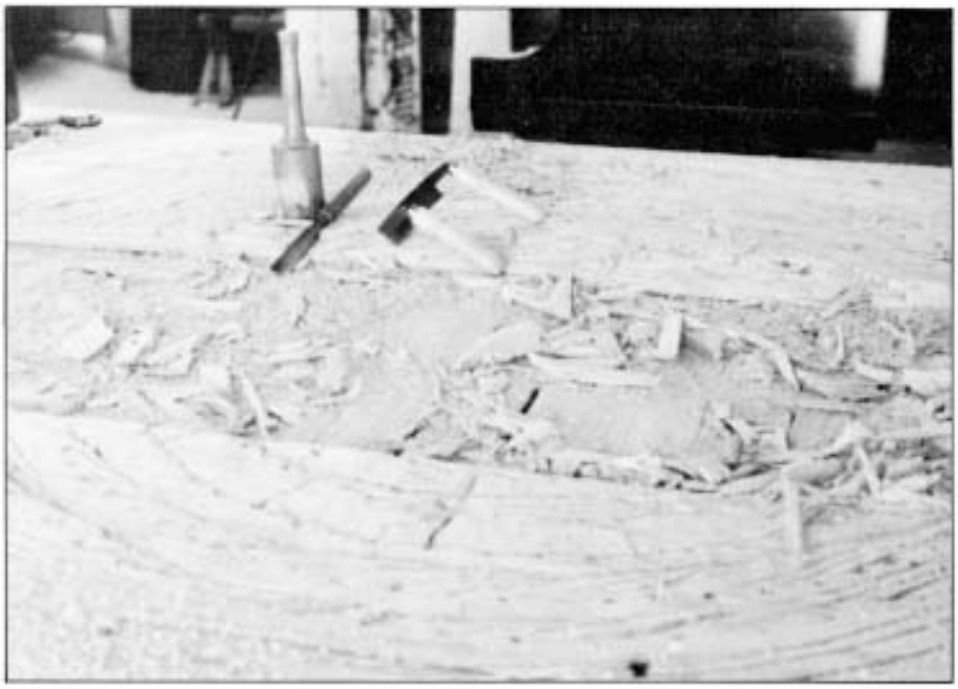


Photo 6

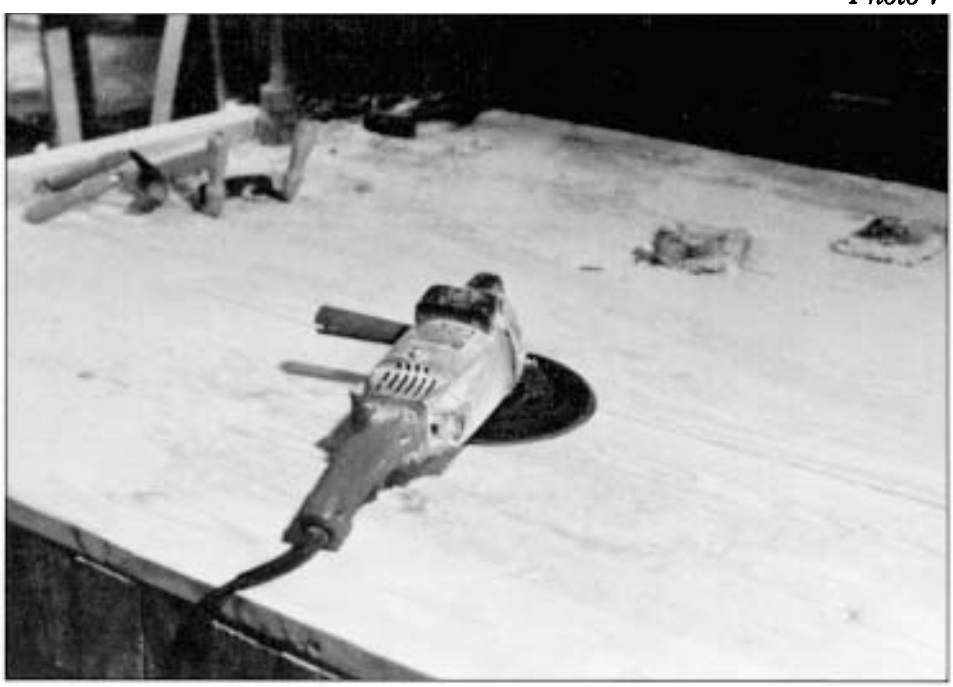


Photo 7

the whole thing was sanded one more time.

In the lower left portion of the photo, the sub-deck of four-by-six timbers laid on edge is just visible, which gives an indication of just how strong the press has to be. The complete details of the construction of this press will be given in this space next month, and then we will discuss soundboard making and installation in subsequent issues. Other rebuilders who may wish to share details of their own soundboard presses are encouraged to send in the information for publication; this is always true, but especially so in this case because there are so many different ways to approach this very important process, and nothing like this kind of information has appeared before as far as we know.

Action Center Torque

Q: *I service a piano that is played hard enough to exhibit grooving of the hammers in just a few weeks' time. A few of the hammers have flat spots instead of grooves, which of course indicates a loose centerpin or a loose flange, and yet every shank passes the swing test which we have been taught to use. Do I need to buy a gram gauge to get accurate torque readings? What is most likely causing this?*

A: Unfortunately, no one test will tell the whole story and this is an excellent example. The screwdriver test (sliding a screwdriver shank from side to side under a group of hammershanks) is certainly one of the most primitive, and yet it is the only popular test that would have diagnosed this condition. What we have here is a badly pinned —or badly bushed —center which passes not only the swing test but also the gram gauge resistance test because the total torque is within acceptable limits. It swings five to seven times, and the gram gauge reads, say, five to nine grams when applied 1/16 inch from the end of the flange. The total torque is acceptable, but the problem lies in the fact that one side is too tight and the other side too loose.

The screwdriver test would have revealed the flaw which was missed entirely by the more sophisticated tests, because when that screwdriver shank slid back and forth, the loose side of the bad center would have allowed a bit of motion. This means the affected hammer would have twitched back and forth with the motion of the screwdriver.

So should we all revert to the relatively primitive screwdriver test to determine the torque of action centers? Absolutely not.

No one test is good enough to tell us everything we want to know about action centers, nor is any valid test to be thrown out of consideration simply because a more scientific one becomes popular. We can never be smart enough to afford to throw any of our diagnostic tools away.

In abnormal conditions, such as when an action has recently been rebuilt and has new bushings, or when vandalism or other extraordinary damage has occured, the screwdriver test may be the most valid of all. It certainly is the quickest, and for that

reason alone should remain in the technician's repertoire. Under normal wear conditions, the gram gauge test is better because it more accurately measures the resistance of the center, and if properly performed, is a far more objective test.

The greatest weakness of the gram gauge test, though, is its inability to compensate for varying hammer weight from bass to treble, a difference which is considerable in a vertical and enormous in a grand. Here the swing test comes into its own, forcing the technician to pin the heavier hammers more firmly and the lighter ones more freely, in order to pass the test.

Next year, someone will no doubt come up with a new test which will be better than any of these, or at least so it will seem. But just because we are willing to experiment with the new doesn't mean we have to completely disregard the old methods. An extra test or two is like an extra proof in tuning: a nuisance to learn and remember, maybe, but invaluable when needed.

Steinway 'O' vs 'L'

Q: *What are the essential differences between the new "O" and the "L" Steinways?*

A: The most important difference is in the shape of the rim. The "O" is virtually round at the tail, just like the early "A," while the "L" has a much sharper bend from the spine to the tail. This sharper bend and flatter tail is characteristic of the "B" and later "A" models, which offer a greater distance from the end of the treble bridge to the edge of the rim. All else being equal, the "L" should have a better transition through the break as well as superior tone and ring time at the bottom of the treble bridge.

Interestingly enough, though, there was a much more obvious difference in the scale between the old "O" and the new "O" than between the new "O" and the "L," even though Steinway saw fit to change the scale designation with the advent of the "L" in 1923. The old "O" can be identified easily by its straight bass bridge, while the new "O" has a curved bridge which looks exactly like that of an "L."

There is an obvious difference in the plates, too, most notably in the area around the four plate holes. The "O" has a single crisp-edged rim around each hole, while the "L" plate has two concentric rings that are more rounded.

Incidentally, the "O" is still in production at the Hamburg factory, except that it now has a polyester finish and a bellyrail-mounted sostenuto.

Please send all tuning material for publication to Rick Baldassin, and all other tech material, articles, questions and comments to me:
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Questions And Answers And 'The Magic Of Tuning'

Rick Baldassin
Assistant Technical Editor

Cleaning House

As might be expected with a column of a technical nature, with a lot of numbers and so on, the possibility of a misprint is greatly increased. Such was the case in the March 1987 issue. Under the heading "Questions and Answers," in paragraph five it states:

From this we can see that not only do the fundamental frequencies of the notes of equal temperament progress in the ratio of 1:2, but so do the beat rates of the intervals made from these notes.

This of course should read: "...in the ratio of 1: $\sqrt[12]{2}$,..."

In addition, in Figure 2, the theoretical fundamental frequency for A♯3 should be 233.082, not 133.082.

Furthermore, in Figure 3, the information for the piano F3 and C4 was recorded in error, and consequently paragraph 11 which describes Figure 3 is also in error.

Since there were errors in Figures 2 and 3, I feel it best to reprint all information relating to Figures 2 and 3, beginning with the end of paragraph eight. Please disregard entirely paragraph 11 of the March issue. Please accept my apologies for any grief this may have caused you over the past two months.

...let us compare what could be a real piano fourth, and a theoretical fourth (Figure 2).

In this example, the 4th partial of the lower note was sharp of theoretical by 3.5 cents or 1.414 beats, while the 3rd partial of the upper note was sharp of theoretical by only 1.9 cents or 0.767 beats. The net result is that the piano fourth, with both fundamental frequencies tuned to the same frequencies as the theoretical fourth, beats 0.647 beats slower than the theoretical fourth. The same principle would hold true for the Major Thirds and Major Sixths.

Let us look for a moment at the fifth. If the same held true for the fifth, we would expect that the Fifths would beat faster than the theoretical frequencies (the Fifth being contracted), since the Fourths, Major Thirds, and Major Sixths (expanded intervals) beat slower. Let us compare what could be a real piano fifth, and a theoretical fifth (Figure 3).

Figure 2

	Note	Fund Freq.	4th Part.	Note	Fund Freq.	3rd Part	Beats
Piano	F 3	174.614	699.870	A♯3	233.082	700.013	0.143
Theory	F 3	174.614	698.456	A♯3	233.082	699.246	0.790

Figure 3

	Note	Fund Freq.	3rd Part.	Note	Fund Freq.	2nd Part.	Beats
Piano	F 3	174.614	524.448	C 4	261.626	523.584	0.864
Theory	F 3	174.614	523.842	C 4	261.626	523.251	0.591

In the above example, the 3rd partial of the lower note was sharp of theoretical by 2.0 cents, or 0.606 beats, while the 2nd partial of the upper note was sharp by 1.1 cents, or 0.333 beats. The net result is that the piano fifth, with fundamental frequencies tuned to the same frequencies as the theoretical fifth, beats faster than the theoretical fifth.

From the above it is clear that the calculation of theoretical beat rates will not work on the inharmonic piano...

Questions and Answers

Now that these housekeeping matters have been taken care of, on to the business at hand. I have received a few questions as to how I came up with the "beats" in Figures 2 and 3 of March issue, comparing a Piano Fourth with a Theoretical Fourth, and a Piano Fifth with a Theoretical Fifth.

Actually there are two ways of coming up with the beat rates. One requires a micrometer, tape measure, inharmonicity formula, formula for cents-to-frequency conversion, and a calculator. The other requires a calculator, formula for cents-to-frequency conversion, and precision measuring device such as the Accu-Tuner.

In the first case, we would go to the piano and measure the wire diameter for the note in question and the speaking length. Knowing either the note number, or the frequency of the note, we can then calculate the inharmonicity co-efficient or constant. Once we know the inharmonicity constant, we can calculate the inharmonicity at any partial by multiplying the constant by the square of the partial. ($I = Bn^2$, where I = the inharmonicity of partial n, in cents.) Once we know the inharmonicity of the partial in cents we can calculate the frequency of the partial with the following formula:

$$f = 27.5 \times 2^{\left[\frac{(N-1)}{12}\right]} \times n \times 2^{\left(\frac{I}{1200}\right)}$$

where f = frequency, N = Note#, n = partial, and I = Inharmonicity

Having calculated the frequencies of both partials in question, it is simply a matter of taking the difference of the two to determine the beat rate.

As mentioned, by measuring the wire diameter and speaking length, knowing the frequency or note number, the inharmonicity constant can be calculated. In the examples for Figures 2 and 3, the constants were 0.22 for F3, 0.21 for A♯3, and 0.27 for C4. To calculate the inharmonicity at the fourth partial of F3, we would multiply 0.22 (constant for F3) x 16 (4^2). 0.22 x 16 = 3.5 cents. This means that the frequency of the fourth partial of F3 is 3.5 cents sharp of theoretical. To calculate the frequency of the fourth partial of F3, we would use the formula listed above, inserting 33 (Note number for F3) for N, 4 (fourth partial) for n, and 3.5 (inharmonicity) for I. The result is 699.870, which is the frequency listed for the fourth partial of the piano note F3 in Figure 2.

To calculate the inharmonicity of the third partial of A♯3, we would multiply 0.21 (constant for A♯3) x 9 (3^2). 0.21 x 9 = 1.9 cents. To calculate the frequency of the third partial of A♯3, we would insert 38 (Note number for A♯3) for N, 3 (third partial) for n, and 1.9 (inharmonicity) for I. The result is 700.013, which is the frequency listed for the third partial of the piano note A♯3 in Figure 2.

To calculate the beat rate of the fourth, subtract 699.870 from 700.013 and get 0.143 beats per second for the piano fourth, which is 0.647 beats per second slower than the theoretical fourth.

To calculate the inharmonicity of the third partial of F3, multiply 0.22 (constant for F3) x 9 (3^2). 0.22 x 9 = 2.0 cents. This means that the third partial of F3 is 2.0 cents sharp of theoretical. To calculate the frequency of the third partial of F3, insert into the formula 33 (Note number for F3) for N, 3 (third partial) for n, and 2.0 (inharmonicity) for I. The result is 524.448, which is the frequency listed for the third partial of piano note F3 in Figure 3.

To calculate the inharmonicity of the second partial of C4, multiply 0.27 (constant for C4) x 4 (2^2). 0.27 x 4 = 1.1 cents. This means that the second partial of C4 is sharp of theoretical by 1.1 cents. To calculate the frequency of the second partial of C4, insert into the formula 40 (Note number for C4) for N, 2 (second partial) for n, and 1.1 (inharmonicity) for I. The result is 523.584, which is the frequency listed for the second partial of piano note C4 in Figure 3.

To calculate the beat rate of the fifth, subtract 523.584 from 524.448. The result is 0.864. This is 0.273 beats per second faster than the theoretical fifth.

As mentioned earlier, the other way to calculate the beat speeds would be with a precision measuring device, cents-to-frequency conversion formula, and calculator.

To calculate the beat speed for the fourth in this way, we would first tune note F3, with the tuning device set on F3, 0.0 cents. We would then tune A♯3, with the tuning device set on A♯3, 0.0 cents. By doing this, we have matched the fundamental frequencies of F3 and A♯3 to their theoretical frequencies. The next step is to measure the interval width. This is done by setting the measuring device on the coincident partial, which would be F5 for this example. With the tuning device set on F5, play F3, stop the display with the cents buttons or dials, and record the reading. Next, play A♯3 with the tuning device still set on F5, and stop the display with the cents buttons or dials, and record the reading. The difference between these two readings is the cent width of the interval. For the example in Figure 2, the difference or cent width would be about 0.4 cents. To calculate the beat speed, we would again turn to our formula. For this example we would insert 33 (Note number for F3) for N, 4 (fourth partial) for n, and 0.4 (inharmonicity) for I. The result is 698.618, which is the frequency of the fourth partial of F3, 0.4 cents sharp. To calculate the theoretical frequency, we use just the first part of the formula:

$$f = 27.5 \times 2^{\left[\frac{(N-1)}{12}\right]} \times n$$

The result is 698.456. To calculate the beat speed, take the difference of the two frequencies. 698.618 - 698.456 = 0.162 beats per second. (The example in Figure 2 shows 0.143 beats. The discrepancy is due to rounding error). In other words 0.4 cents = 0.162 beats at the frequency of F5.

Performing the same experiment for the fifth in Figure 3, we would tune F3 and C4, as before. With the tuning device set on C5, we would measure the cent width of the interval. The example in Figure 3 would have a cent width of 2.9 cents. Inserting into the formula 33 for N, 3 for n, and -2.9 for I, we would get as our result 522.966. Calculating the theoretical frequency as before would yield 523.842. The difference is 0.876 beats. (Figure 3 shows 0.864 beats). Or in other words, -2.9 cents = 0.876 beats at the frequency of C5. Unfortunately, I know of no way to perform this experiment by ear. There is simply no way to tune the fundamental frequencies of the notes to their theoretical frequencies aurally. I suppose one could use a set of precision chromatic tuning forks, but the experiment breaks down here.

Our next question comes for Douglas Neal of Sioux City, Iowa. Doug writes:

The purpose of this letter is to try to find an explanation for certain acoustical phenomena which occur during temperament tuning.

A specific example of this phenomena can be observed in tuning the perfect fourth. The pitch of the beat that is heard when tuning the perfect fourth is usually identified as being one octave above the top note of the perfect fourth. The lowest coincident partial of the perfect fourth is two octaves above the bottom note of the interval. Why is the beat perceived to be beating at a pitch that is lower than the pitch of the lowest coincident partial?

Good question. I was not sure upon first reading this that I had ever experienced this phenomena. Sitting down at the piano and listening to several fourths, I found that there does appear to be a beat an octave above the upper note as Doug explained, if the following two conditions were present: 1) I was not listening discriminately at any one pitch level, but generally to the tone spectra set up by the two notes, and 2) The beat rate of the fourth was not very fast, one beat per second or less.

In trying to find a reason for the presence of this phenomena, I set out to prove whether or not a beat did in fact exist at the pitch level an octave above the upper note of the fourth. To do this, I held down both notes of the the fourth without playing them. I then struck with a staccato blow the note an octave above the upper note of the fourth, and listened for a beat. There was none. There was, however, a nice singing tone present. Still holding down the two notes of the fourth, I struck with a staccato blow the note two octaves above the lower note. Sure enough, the beat rate of the coincident partials was present. My next step was to try to isolate both tones simultaneously. To do this, while still holding down both notes of the fourth, I struck simultaneously with staccato blow both the note an octave above the upper note, and two octaves above the lower note. The result was very interesting. The sound heard was the same as when the fourth was played and listened to generally as described previously. The following observations were made: 1) The tone an octave above the upper note was louder than the beat two octaves above the lower note, and 2) The phenomena diminished as the beat speed increased, the pitch of the beat coming more into focus as the speed increased over one beat per second.

I can only conclude that since both pitch levels are present, one steady, and one slowly changing phase, it is difficult to distinguish which of the two is moving. Because the steady tone is louder, one might tend to focus on it as the pitch of the beat. As the speed of the beat increases, it draws attention to itself, and establishes itself as the pitch level of the beat.

As tuners we must learn to focus in on beat rates at the proper pitch level. This is more critical when two sets of beats are present at the same time. In this case, the beat speed was the same regardless of whether it appeared to be coming from an octave above the upper note, or two octaves above the lower note where it is supposed to. The problem of focusing on specific beat rates is more critical to intervals such as the fifth, and Major 17th in the bass. In both cases, two beat rates are present. In the case of the fifth, there is beating at the 3:2 level (an octave above the upper note), and at the 6:4 level (two octaves above the upper note). The beat at the 6:4 level is nearly twice as fast and generally louder than the 3:2 beat. The 3:2 beat is the one which must be listened to, however. This beat can be isolated as above, by holding down both notes of the fifth, and striking the note an octave above the upper note. Be careful. This may at the same time excite the 6:4 beat. Be sure to listen for a beat at the pitch level you are striking. The other case which can be a problem is the Major 17th in the bass. The Major 17th (two octaves and a Major 3rd) has beats at 5:1, and 10:2. When the faster 10:2 beats become louder than the slowing 5:1 beats, we can be misled to believe that the beat rate of our 17th has suddenly sped up, rather than gradually slowing down, as we desire.

Our thanks to Doug Neal of Sioux City, Iowa, for this thought provoking question.

I would like to close this month with a contribution by Leila Joiner, of Tucson, Arizona. It is entitled "The Magic of Tuning." I was delighted when I first read it, and after grinding out all of these numbers, I found it quite refreshing. I hope you will too.

The Magic Of Tuning
By Leila Joiner

The other day I was tuning one of those great old never-say-die uprights (you know, the kind with the original strings still intact, slightly rusted, but somehow never having known a false beat) and my mind began wandering the way it usually does when my tuning shifts gears from manual to automatic. This time, instead of pondering the mysteries of life, I started pondering the mysteries of piano tuning and, even more mysteriously, my expanding relationship with the very act I was then performing.

I remembered how I had never wanted to be a piano tuner in the first place. I entered this field 12 years ago because I wanted to repair pianos, not tune them. Tuning was a necessary evil to be avoided whenever possible. Somewhere along the way my attitude changed, perhaps as my relationship to the piano changed, or perhaps as my way of listening to the piano changed.

Customers often ask questions like: "How did you learn to do that? You must have been born with perfect pitch!" I try to explain

that it's just a different way of listening. As a piano tuner I think it would be agony to have "perfect pitch" (if there is any such thing). Have you ever seen the "perfect piano" on which to exercise your "perfect pitch?"

When I'm tuning a piano there is no such thing as pitch. There is only a series of relationships. These relationships are interdependent and interfunctioning, much like a family or a society. If these relationships are in their proper order then the whole functions harmoniously. If they are not, things are "out-of-tune." The more I listen to the pianos I tune, the more my concept of pitch changes. I can no more think "This note is flat" or "This note is sharp." Instead I think, "This note is not in its proper relationship to these other notes. Something needs to be corrected." Then it is a matter of testing relationships to find the best correction.

In the beginning I learned to listen to something called "beats." I heard so many "beats" at once it nearly drove me crazy! I heard so much that I couldn't hear anything at all. Gradually I learned to listen to movement, to change.

As I change the tension on the string, all the relationships with which I am concerned also change. My ear becomes sensitive to their motion. It learns to separate the changing relationships from the static ones, and to stop the motion where things seem to be relating most harmoniously.

Another thing my ear has developed over the years is something I call "color memory," or the memory of the particular quality of certain intervals. I no longer define these intervals by their "beat rates," although I may have at one time. I recognize them by a quality I remember, much as you might remember the way your spouse looked when you first met 20 years or so ago, even though he or she has no doubt changed considerably over the years. I feel their quality much the way I could still feel walking in New York snow long after I had moved to Southern California. It's a comfortable awareness that proves to me the duration of my relationship to the intervals I use to tune.

There is another feeling: the feeling of tuning a piano that wants to be in tune. Some pianos, no matter how old, no matter how neglected, seem to have a memory of their own harmonious structure. They have a desire to be "in tune" with themselves. They seem to have an essence of "in-tuneness" built into them from the beginning. I am always happy to run across a piano like this. It reminds me of my relationship to the piano I am tuning. I am an instrument helping another instrument to achieve its desire. A little farfetched, you say? Not for one who believes that pianos have hearts and souls.

I consider myself an average tuner. I tune average pianos in average American homes for an average fee and I spend an average amount of time doing it. I don't consider piano tuning an average occupation. It has taught me many new concepts. It has given me many new insights.

If you let it, it has a magic all its own.

Again our thanks to Doug Neal for his question, and to Leila Joiner for her contribution. It is necessary for your contributions to make this column a success. Please send your written submissions to me (double spaced, typed, please).

Rick Baldassin
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GOOD VIBRATIONS

Measuring The Crown

Nick Gravagne
New Mexico Chapter

This month's article is something of a departure from preceding articles in that it is strictly practical. It deals with measuring soundboard crown and relating this information in a preliminary way to the rebuilding process. Anyone who has rebuilding experience knows the value of measuring, locating and noting everything from action positions to lid hinges before, or directly after, removal from the piano. A good rule is never take anything off the piano without noting its original position. The components may or may not be installed in original positions but it is usually helpful to know where they originally existed. Realizing there is a danger in becoming too fussy, this is still a far sight better than ripping headlong into a teardown with little, if any, measurements, notes, etc.

In his October 1984 article, Chris Robinson says, "...the ability to anticipate the nature of the job is more essential in the development of speed and accuracy than any other single capacity..." It is important to view a rebuild objectively by asking such questions as: what is wrong with this piano, what was it probably like when it was new, what can be done to make it right regardless of what it was like when it was new? It is in the spirit of these ideas that the following is offered concerning measurement of soundboard crown in an old board as a useful technique in "anticipating the nature of the job."

Last month's article ended by presenting a somewhat typical scenario of a piano in need of a new soundboard. Space won't be taken to repeat it so refer to it if necessary. The article proposed these three questions:

1. How much crown actually exists in the old worn-out board?
2. Without changing the height of the plate or bridge, how much crown should there be to put downbearing at a positive "in the ballpark" reading? (Last month's hypothetical piano had a zero to negative bearing in the center parts of the bridge).
3. What kind of bearing readings could be more or less expected by installing a new plus or minus 60-foot radius (or some other radius) soundboard while keeping the original bridge dimensions and plate location?

Although the answers to these questions would be of particular use to a replacer of soundboards, they are not without value to anyone involved in piano technology. At the very least they might convince someone who hasn't given thought to such matters that something might be very wrong with his bridge-to-bearing relationships causing this technician to seek qualified assistance where none had been sought before. Or, perhaps a technician has removed everything down to the soundboard after taking preliminary measurements and has decided to send the case out to another

"Although the answers to these questions would be of particular use to a replacer of soundboards, they are not without value to anyone involved in piano technology. At the very least they might convince someone . . . to seek qualified assistance where none had been sought before."

rebuilding shop for a new soundboard, opting to personally handle the bridges. What is to be expected when it comes back? Will the old bridge be more or less at the proper height so as a fine adjustment at the plate will be all that is necessary for good downbearing? (assuming the old bridge is reusable or recapped at original height). Still another possibility is that a rebuilder might be installing a new board constructed by another rebuilder. What can be expected regarding the amount of crown and the dimensions of the bridges relative to downbearing?

The following procedure is simple and doesn't take more than one-half hour. A small basic electronic calculator is handy as is some writing paper to do some figuring. The procedure assumes that the strings are off but the plate is still in. Please, remember that this is not a discussion on how to measure bearing or set bearing. This is, rather, an overview approach in order to ascertain the general condition of the soundboard crown and bearing relationship. The procedure would be performed and noted in addition to the usual teardown techniques.

1. Before removing the plate, check the insufficient bridge bearing at a place on the bridge which has a long rib passing underneath. Chalk-mark the bridge at this place. Do this at two or three ribs. Use the usual technique of stretching a carpet thread or fish line from agraffe hole to rear string rest, duplex or whatever. Note the zero or negative bearing. Of course, if there is positive bearing this procedure probably won't be useful. Although this is a familiar test for many rebuilders it is being used for a different purpose here.

2. Plate is out. Measure the crown deflection at the approximate center of the ribs under investigation by using two blocks of wood of equal length and a straightedge. The blocks could be one-by-fours cut to seven inches in length. Cut them together (one on top of the other) on the same saw to insure equal length. Stand the blocks on their ends at each end of the rib on top of the soundboard. Tape them to the case if necessary. Place the straightedge on top of the blocks and measure how much higher (if at all) the center of the rib/board is than the ends. For example, the seven-inch dimension is known for the ends so a measurement at the center of 6 7/8" means the board is 1/8" higher at this point. Of course, the measurement is made with a ruler from the top of the soundboard to the underside of the straightedge. (Note: do not use the case to support the straightedge as the inner rim where the soundboard is attached is not always the same dimension below all around). Since many soundboards are thinner at the edges than the middle do not be generous with this reading, i.e., if it reads 1/8" call it 3/32".

3. Measure the lengths of the two or three ribs being considered. In actuality it doesn't matter if the length is being measured exactly in line with a rib as long as it is parallel with a rib in the middle portions of the soundboard. Measuring short, stiff ribs is too misleading.

The values obtained in 2 and 3 can be used in the following formula to find existing crown in the soundboard (old or new).

Formula 1

$$C = \frac{24d}{L}$$

where c = existing crown in the old soundboard; d = crown height measurement (deflection) as found with the blocks and straightedge; L = length of the rib

Before running an example, please, note that the answer that this formula yields must be compared to a table of soundboard radii as presented by Bob Hohf in the February 1984 *Journal*. The table is presented at the end of this article for convenience. This formula, and those that follow, were derived by working in reverse from that radii table. The formulas are useless without the table.

Example 1

deflection (d) measured at 3/32" (.094"). Rib length (L) measured at 44".

Using formula 1, crown (c) equals

$$\frac{24 \times .094}{44} = \frac{2.26}{44} = .051$$

Compare .051 in the table and read to the right and find the radius base of that rib at 120'. This is obviously flat compared to the standard 60' radius. Don't be surprised to find different readings at different ribs. This would be true even on a new board. But the general curvature of the board can be ascertained by averaging the answers. Remember, small errors in the deflection (d) value mean large errors in the radius answer so measure carefully and don't be generous. It is a good idea to get under the soundboard and stretch a string along a long rib (but on the soundboard) and look for a gap between the string and the center of the soundboard. Don't be concerned about measuring this gap, though.

The next thing to know is how much crown should there be to give a more or less correct positive bearing of, say, 1/8" (or any other amount). In other words, how much higher does the soundboard in *this* piano need to be in order to put the test string 1/8" above the rear string rest at the points in question?

Formula 2

$$N = \frac{24(d+n+h)}{L}$$

where N = necessary soundboard crown; d = deflection (blocks and straightedge); n = negative bearing as found with string test (omit if bearing was zero); h = the desired positive bearing; L = rib length

Example 2

deflection (d) is 1/16" (.0625") negative bearing (n) is 1/64" (.016") desired bearing (h) is 1/8" (.125") rib length (L) is 44"
Using formula 2, necessary crown (N) equals

$$\frac{24(.0625 + .016 + .125)}{44}$$

$$= \frac{24(.2035)}{44} = \frac{4.884}{44} = .111$$

The table shows .111 to be approximate of a 55′ radius soundboard. That is, given the same bridge height, this piano needs a soundboard based on an approximate 55′ radius to have good positive bearing at this point in the scale with very little, if any, plate adjustment.

The last question is perhaps the most intriguing. What bearing is going to result by using a new 60-foot radius (or any other radius) soundboard?

Formula 3

$$P = \frac{RL - 24(d + n)}{24}$$

where P = predicted bearing with 60′ (or other radius) board; d = deflection; n = negative bearing; L = rib length; R = radius base factor (get from table);

Example 3

Say that a new 60′ soundboard is going in. Deflection in the old board is 1/16″ and the negative bearing is 1/64″ (.016″). Rib length is 44″.

Using formula 3,

$$P = \frac{.100 \times 44 - 24(.0625 + .016)}{24}$$

$$\frac{4.4 - 1.884}{24} = \frac{2.52}{24} =$$

.105″ (about 7/64″)

If a different radius other than 60′ is being considered, change the R factor in the formula to a different one by going to the table. For example, a 55′ radius needs a .109 factor. Incidentally, the .109 factor for a 55′ board works out to a predicted bearing of a shade under 1/8″.

So the answer to the question how much bearing is going to result by using a new 60′ radius board is 7/64″, and a 55′ radius board is 1/8″. Notice how small the difference is. The point is, installing such boards without changing bridge or plate height will theoretically yield such results.

Although these numbers cannot be seized upon as absolute answers, they are very useful in getting an overview of the rebuild, again, anticipating the nature of the job. The value of the preceding approach, which takes considerably longer to explain than to do, is that certain predictions can be made and the various rebuilding processes and materials considered in advance of their actual use. This is especially true of the bridge which may be reused or recapped at original dimensions. As explained last month, the bridge work is more easily accomplished while the bridge is off the old soundboard and handy. Considering last month's hypothetical piano with this month's hypothetical analysis, a decision to replace the soundboard with a 55 to 60-foot radius board should give workable results with the old bridge height.

Table

Answer from Formulas 1 & 2	Radius of soundboard curvature in feet
.133	45
.120	50
.109	55
.100	60
.092	65
.086	70
.080	75
.075	80
.067	90
.060	100
.055	110
.050	120
.046	130
.043	140
.040	150

It has often happened that when a plate was installed over a new soundboard and bridge that the plate struts were actually pushing down on the bridge. It wasn't until the piano was strung and the board compressed that the condition was alleviated. If this was the best location for the plate height it usually means that downbearing had to be somehow compromised. The reverse has happened as well in that when a plate was installed on original nose bolt positions and pinblock thickness there was little if any bearing. Lowering the plate is the only thing to do but this is also a compromise. Compromises are many times necessary, but if they can be avoided so much the better.

Most of the time the approximate 60′ radius soundboard will work out fine without giving it a second thought. Sometimes, however, some unusual circumstances prevail which would theoretically call for an unusually high crowned soundboard. Knowing this in advance, a more average crown with a taller bridge might prove to be more workable. The combinations are many.

Two Cautionary Notes

If the rebuilding shop doesn't make its own soundboards, it is important to know and communicate with the outside installer or supplier. If the soundboard tapers/thicknesses are not more or less duplicated, especially at the high treble and low tenor, the old bridge height may not work and the plate adjustments and compromises may be more radical than anticipated. This would be particularly frustrating if a Steinway-type pinblock is being retained allowing no leeway for front bearing adjustment. Some outside shops will refuse to do belly work unless it is all done by them. This is understandable, considering the almost endless number of potential problems. Others, however, are more flexible but can make no promises as to what happens after the piano has left their shop.

Second, it is hoped that this approach will not cause a rebuilder to demand that a soundboard shop or supplier deliver a product with a crown radius base of 57.125′ (or some other inflexible value) insisting that the bridge, plate and everything else won't work otherwise. That is not the point of this kind of analysis.

This discussion has assumed some knowledge and skill on the reader's part, particularly in terms of downbearing, soundboard and bridge mechanics, and disassembly and assembly procedures. Some of this will be treated in theoretical and practical terms in upcoming issues.■

The Piano Replaces The Harpsichord in Vienna

Jack Greenfield
Chicago Chapter

Conditions in Vienna Favor Music

Vienna did not reach its position of preeminence as a center of musical activity until the later decades of the 18th century. Favorable political, economic and social conditions contributed to the city's rise to cultural leadership. The princes, dukes, counts and other nobles who ruled the regions of Bohemia, Moravia, Hungary and parts of Italy under Austrian rule preferred to congregate in Vienna, the capital city of the empire. They spent time as needed out in the lands they ruled but generally returned during the winter months to Vienna where they maintained palaces or other residences. In contrast, outside the Austrian empire in Germany the rulers of principalities, duchies, kingdoms, free cities and other independent governmental units usually resided in their own domains.

Situated as it was on the Danube, which was navigable from well inside southern Germany to the Black Sea, Vienna grew as a trading center. The concentration of the aristocracy and influx of wealth from commerce and banking created a rich market in which tradesmen and craftsmen could earn a good living. The city's prosperity attracted many from other localities who came to find work or start businesses or shops and before the end of the 18th century, Vienna had a population of 225,000, then the largest of all in German-speaking cities.

The emperor of Austria during the period when Vienna first rose to musical leadership was Joseph II, son of Maria Theresa and Francis I. Since there were no direct male heirs, Maria had inherited the Hapsburg empire on the death of her father, Charles VI, in 1740. Francis, her husband who had become grand duke of Tuscany earlier in 1737, succeeding Gian Gastone after Austria acquired Tuscany, gained the title of emperor although he was not a Hapsburg. Francis did not participate much in the imperial government, leaving most of these responsibilities to Maria Theresa. She continued to be active assisting their son as joint ruler, when he became emperor on the death of Francis in 1765. She died in 1780.

> "The Hapsburg family had always been musical . . . Joseph II loved music and played the cello, but he considered music a luxury and contributed only measured support."

Historians consider Joseph II a "benevolent despot." While he was an autocratic ruler, he instituted a number of reforms that improved the life of the populace. He abolished serfdom, instituted more humane penal codes, enabled peasants to buy land more cheaply, put limitations on clerical privilege and granted wide religious tolerance.

The Hapsburg family had always been musical. Maria Theresa had sung in opera performances as a young girl. Joseph II loved music and played the cello but he considered music a luxury and contributed only measured support. Fortunately there were

many other patrons of music among the aristocrats and the wealthy. Some of the rich noble families maintained private orchestras of professional musicians who were kept busy full-time. In addition, there was considerable employment of instrumentalists and vocalists for performance in the theater, public concerts, house parties and church and monastery presentations.

Earlier Viennese Keyboard Music Insignificant

The prominence of piano music and performance and rapid growth of piano-making in Vienna during the last quarter of the 18th century contrasts sharply with the insignificance of earlier clavier composition and instrument making in Austria. The leading keyboard composer before Haydn was George Cristoph Wagenseil (1715-77), who served at the imperial court for over 40 years until he died. Critics of his day thought he played well but in the words of Marpurg, his composing was "pretty mediocre." There are no records concerning the craft of harpsichord and clavichord building in Austria and existing examples of such instruments made during the 18th century are very rare. The Viennese builders who became known for fine instruments acquired their fame for their pianos. They did not have the previous reputations for excellent harpsichords and clavichords to match those of the outstanding builders of Germany.

Stein Pianos Popular in Vienna

When Mozart moved to Vienna in 1781, he found a tremendous interest in the piano, an interest which his playing and compositions had helped to build. His praise had made the Stein piano with its escapement action much in demand in spite of the distance the instruments had to be sent from the Stein shop in Augsburg, Bavaria. Some of the members of Austrian upper society who had bought Stein pianos already included Countess Schonbon — sister of the Archbishop of Salzburg, Countess Thun and Count Cszerin.

Mozart's Start in Vienna

Settling in Vienna, Mozart soon established sources of income from teaching and performing. He also received occasional revenue from the sale of his compositions. He had no difficulty in obtaining as many distinguished or talented pupils as he was willing to take. While he spent part of the day composing and part teaching, during many of his evenings he was engaged in performing at the frequent private concerts and parties of Viennese society.

Near the end of his first year in Vienna, in one of his famous engagements, Mozart became involved in a competition with Muzio Clementi. Clementi, and Italian-born virtuoso about four years older than Mozart, was in Vienna while on an extended European concert tour. The Emperor invited both Mozart and Clementi to perform at the imperial palace on December 24, 1781. To be certain of having a good instrument, Mozart borrowed Countess Thun's Stein piano. During the program each pianist played several of his own compositions, some previously written, others improvised. They were then asked to play several sonatas by a third composer, to be read at sight. The program ended with two-piano duets with one pianist improvising developments of themes from the sonatas while the other played the background harmony. For the duet, Mozart was asked by the Emperor to play the palace piano. In writing about it later, Mozart stated that the piano was out-of-tune and three notes stuck. "That doesn't matter" was the Emperor's comment. No winner of the contest was declared but the opinions expressed were that Clementi displayed more brilliant technique but Mozart played with more elegant taste. Clementi spoke well of Mozart afterward but Mozart usually was deragatory in discussing Clementi's music.

Mozart's Popularity Rises and Falls

During the following year, the year of his marriage to Constance Weber, Mozart's musical activities widened as he was commissioned by the Emperor to write an opera and he began to perform in public concerts. The opera *The Abduction from the Seraglio* had a successful opening and was performed repeatedly afterward. Riding on a wave of popularity, Mozart began to produce his own yearly subscription series of public concerts in 1784.

In spite of such major outside activities, Mozart continued to compose at an intense pace, producing an impressive number of instrumental sonatas, chamber music, symphonies, and operas. The principal influences on his work during this period were his association with Haydn and his discovery of the works of J.S. Bach. Mozart's 17 concertos for piano and orchestra written from his concerts in Vienna are of special importance in the history of the piano. In these, Mozart gave the piano more prominence than any previous composer had given to the solo instrument of a concerto.

Mozart's highest level of popularity was reached in 1786 with the successful performances of his *Marriage of Figaro* in Vienna and Prague. Public interest in his music then began to lessen, perhaps due to overexposure or lack of appreciation for the more serious intense nature of his more mature composition. His teaching dropped off, his earnings from commissioned works diminished and his health declined. His salary after appointment to a minor position he finally obtained as "chamber composer" to the Emperor was only 800 gulden, compared to the 2,000 gulden paid his predecessor Gluck.

His operas remained his most successful works but these productions took up much of this time and he had to reduce his concert work. When he tried to revive his concert series in 1788, he could not get enough financial support. In 1790, when Leopold II succeeded Joseph II, Mozart presented a concert during the festivities in Frankfurt, where the coronation ceremonies for the Emperor of the Holy Roman Empire took place. The concert was a great musical success although not a financial one. Mozart played two piano concertos, K. 459 in F and K. 537 in D, the so-called *Coronation Concerto*. Mozart's last concerto, K. 595 in B♭, was composed for a concert in 1791 organized by another musician. Mozart died in Vienna on December 5, 1791.

Haydn Composes for Piano

Joseph Haydn is not famous for his piano pieces as for his symphonies and string quartets, but his compositions were also influential in bringing the piano into more prominence. Although not a virtuoso, he was quite competent as a soloist or an accompanist. He conducted his symphonies and operas from the keyboard. One of the earliest records of his ownership of a piano is a letter to his publisher in 1788 stating "in order to compose your three clavier sonatas particularly well, I had to buy a new forte piano." In a 1790 letter he advised a friend to give his harpsichord away and buy a piano. He also wrote that he did not play the harpsichord anymore. It is believed that Haydn began composing for piano instead of harpsichord much earlier even though he continued to designate most solo keyboard sonatas for "clavier," "cembalo," or "clavicembalo." From 1784 on, Haydn designated his clavier trios "per il clavicembalo o forte piano" or "pour le clavecin ou pianoforte avec un violin et violincello oblig." Haydn's clavier trios are more significant for the piano than his clavier concertos, most written earlier in style suitable for harpsichord. In the trios, the piano part dominates while the violin and cello play obligato or other background.

In 1790, while still receiving full salary, he went into semi-retirement giving up many of his duties. This enabled him to move into Vienna from the Esterhazy Castle which was in an isolated area about 45 miles away. He was invited to London where he directed and performed during the periods January 1790 - July 1792 and February 1794 - August 1795. He also became quite familiar with English pianos while he lived in London. After returning he continued to compose for about six more years. Although he wrote several piano trios he wrote no more piano sonatas. He went into full retirement in 1801 because of illness and he died in 1809. During his lifetime he composed a total of about 57 keyboard sonatas and 41 piano trios.

Music Publishing in Vienna

The rapid growth of music performance, study and composition created a booming market for music publishers who began to establish business in Vienna after 1770. A considerable amount of music had been available only in manuscript copies. Composers of commissioned works usually were required to obtain the patron's permission to publish. Although he occasionally sold to publishers, Mozart preferred to retain control of most of his works and sell only a small number of manuscript copies. During his lifetime, however, more of his music was circulated in unauthorized copies than authorized. He could have earned much more by dealing with publishers.

Early in his career, Haydn also discovered his music was being published without permission all over Europe. Realizing that he could at profit at least from a large domestic market, he decided to publish. His first works released were six piano sonatas published in 1774. Although he received no earnings from the unauthorized foreign publications, they benefited him by making him famous in England, where he was invited to conduct and perform, and elsewhere in Europe.

In addition to the works of Mozart and Haydn, the publishers had available to them the compositions of their contemporaries of much lower stature. There were Austrians, Germans, Czechs and Italians who performed, conducted and composed in Vienna. Although most are forgotten now, their "Forte piano" compositions for piano solo, four-hand duets, piano with strings, piano with flute and other ensembles helped widen the use of the piano.■

Calendar Of Coming Events

Date	Event
*July 20-25, 1987	**30th Annual Piano Technicians Guild Convention & Institute** Constellation Hotel, Toronto, Ontario, Canada Home Office; 9140 Ward Parkway; Kansas City, MO 64114; (816) 444-3500
July 24-26, 1987	**International Association of Piano Builders and Technicians Biannual Conference** Constellation Hotel, Toronto, Ontario, Canada Home Office; 9140 Ward Parkway, Kansas City, MO 64114; (816) 444-3500
Sept. 19, 1987	**Connecticut One-Day Seminar** Sohmer Piano Co., Ivoryton, CT Vivian Brooks, 376 Shore Road, Old Lyme, CT 06371 (203) 434-0287
Oct. 2-4, 1987	**Florida State Assembly of the Piano Technicians Guild** Orlando, FL David G. Taylor; 1909 Mae St.; Orlando, FL 32806; (305) 898-9266
Oct. 9-11, 1987	**Ohio State Conference** Greater Cincinnati area Jack Krefting; P.O. Box 16066; Ludlow, KY 41016; (606) 261-1643
Oct. 16-18, 1987	**Texas State Seminar** Hilton Hotel, Wichita Falls, TX Jimmy Gold; 2101 Walnut; Duncan, OK 73533; (405) 255-5804

Associate With the Guild!

What is a Registered Tuner-Technician?

Ronald L. Berry
Vice President

The basic membership group in our organization is the Registered Tuner-Technician (RTT). Approximately 2,500 out of our 3,500 members are in this category. By having this category, the Guild is setting a minimum level of competence it believes necessary to be a professional technician. It is also providing a means of presenting to the public a group of technicians who are more highly qualified and are up to date on recent developments in piano technology and the piano industry.

The benefits of membership are the *Journal*, PTG life insurance policy, the exclusive right to identify as a Registered Tuner-Technician and use the RTT logo, member rates at seminars and conventions. The RTT has available numerous business aids to help build and improve his/her business.

The same educational opportunities are available to RTTs as those for Associate except that most meetings and institute classes are tailored to make the person who is already an RTT a better technician. While the Guild does have some focus on helping new technicians learn the craft, the focus of helping the professional improve is the main one.

The exam procedure for RTT serves two functions. First it is to determine which technicians meet a minimum level of ability to designate themselves as RTT. Secondly, the tests offer a personalized educational opportunity for the technician. The tests are specific enough to give a technician an analysis of his strengths and weaknesses. Making the RTT level is meant to be a marking point in a lifetime of study and not the height of a technician's career.

By being an RTT you identify yourself with the top people in our industry. This is a small enough industry that you develop personal relations with technicians from all parts of North America, providing a tremendous input to your business. Like anything else, the more you put into your membership, the more you get out of it. The late Walt Sierota used to say "I keep coming to these seminars and meetings and I don't know specifically why, but my income keeps going up every year." So often we tend to look for instant results of our efforts rather than seeing the long term gain. Participating in your chapter may not make a new customer call you the next day, but you might learn a more efficient way to do some operation that will make you more money after you master it.

There is no doubt that you can run a successful business without being a member of PTG, but know that you can do it better by being a member.

NEW ASSOCIATE MEMBERS DURING MARCH, 1987

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Bourdon, Donald	1
Bryant, Jim	2
Davidson, Stuart	1
Grutzmacher, John	1
Jones, Henry	4
Powell, Teri	1
Zeringue, Nolan P.	1

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Vogt, Lawrence T.	2
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Vanderlip, Dave	1
Wathan, Michael J.	1
Weintraub, Ron	1
Welton, T.Scott	4
Wilken, Candice	1
Wilson, Richard D.	1
Wisner, Peter	1
Zeringue, Nolan P.	2

The Auxiliary Exchange

President's Message

This will arrive in May, just as you are making your final plans for Toronto. By now your reservations are made (to avoid those late charges) and the excitement is building!

There is no more enthusiastic person than one who is attending a convention for the first time and experiences the exhileration of those around them, greeting old friends and meeting new ones. Observing your spouse poring over the Technical Institute classes, scheduling time to attend each class and gain the knowledge that will allow your business to expand and to obtain the perfection that each member of the Guild so eagerly seeks.

It is my understanding that the IAPBT will be meeting in the same hotel the day following our International Convention. Many delegates will be arriving early to join our activities. Those who were in Kansas City two years ago still hold wonderful memories of their association with technicians and their spouses from foreign lands. If you were not able to attend, you missed one of the greatest experiences of your life! Don't let it happen again! If you haven't yet made the decision to attend the Toronto convention, do it now — it could be one of the nicest things you will do for yourself in 1987!

— Ginger Bryant

With our annual convention taking place in Toronto, Canada, you may hear individuals speaking French as well as English. Should you need any assistance in reading signs in French or understanding the spoken word, we recommend you consult Marcel Carey of the Guild or Julie Berry of the Auxiliary! Elsewhere on these pages you'll find expressions in Japanese to help you greet members of the International Association of Piano Builders and Technicians. — Ed.

Optional Tour

The perfect way to see Toronto is to join us on our tour Wednesday, July 22.

We will leave the hotel promptly at 9:00 a.m. with our first stop being Spedena House (pronounced Spadeena, an Indian word meaning a hill or rise of land). The house was built in 1818 and boasts of "one of a kind" furnishings from all over the world. We will then take a one hour tour of downtown Toronto, stopping at "Ed's Warehouse" for a delicious lunch. From there we will proceed to Harbourfront docks and enjoy an hour boat cruise of the harbour and surrounding islands. Have your camera loaded for some exceptional scenery. After debarking, we will cross the street for shopping in the unique Harbourfront antique shops and The Queen's Quay Center, housing many unusual boutiques. These are screened very carefully by the management company to guarantee there are no two alike. You don't have to hide your checkbooks, as we will be given a 10 percent discount on any purchases made!

Make your reservations early. Our hotel is about 35 minutes from downtown by car and our tour is an enjoyable and effortless way to take in the beauty of this historic city.

— Ginger Bryant

There may be some Japanese women at our annual convention this year and you might wish to learn a few expressions from their language. We offer the following:

Good morning: ohayo gozaimasu (oh-HAH-yoh-gohZAH-ee-mahs)
Good afternoon: kon nichi wa (KOHN-nee-chee-wah)
Good evening: Komban wa (KOHN-bahn-wah)
Yes: hai (HAH-ee or EH)
No: iie (ee-EH)
How do you do?: Hajime mashite (Haji (hah-JEE-meh-mahsh-teh)
You're welcome: do itashi mash-ite (doh-ee-TAH-shee-mahsh-teh)
Thank you: domo arigato (DOH-moh-ah-REE-gah-toh)
Pardon me: sumimasen (soo-MEE-mah-sehn)

— Editor

A unique event ocurred last March 6-8 at the South Central Regional Spring seminar in Oklahoma City. The entire spouse/guest program was developed and carried out by a Guild member! **Michael Yeager,** site chairman, appointed **Norman Cantrell** to handle all the details of the activities, and he did a commendable job, ably assisted by his wife, **Vicki.**

Our program began with a get-acquainted coffee session, followed by a Stress Management seminar conducted by a counselor with Scope Ministries. This hour session proved to be absorbing and after a half-hour break, the group was ready to resume instruction and input for another hour. During our socialization we greeted new friends and old acquaintances. **Deanna Zeringue, Dorothy Neie, Juanita Melton, Mary Lafuze** and **Winnie Raggio,** all traveled from Perryton in the Texas panhandle. **Mabel Reed** was welcomed from Kirksville, MO, and of course our 'regular' **Mimi Drasche** from sunny Florida. It was not always easy for this editor's eastern ear to understand and 'hear' the nuances of speech that flowed from the accents of the South and the Deltą — but we all had a very good time. Several promised to see us again in Toronto!

At the mini-style and fashion show given the following day, just prior to our tour to Kirkpatrick

Schedule For PTGA Program — July 20-24, 1987; Toronto, Ontario

July 20, 1987 — Monday

9:00 a.m. Executive Board Meeting
Luncheon

9:00 a.m. Craft Class — Auxiliary Room:
Flower Arranging — Ruby Discon

2:00 p.m. Business Class — Auxiliary Room:
Business Techniques — Jan Blees

7:30 p.m. Convention Opening Session

July 22, 1987 — Tuesday

8:30 a.m. Auxiliary Opening Assembly

9:00 a.m. Welcome to Toronto — Mike Filey, noted speaker and Toronto radio personality

9:45 a.m. Member-At-Large meeting combined with get-acquainted coffee.

10:30 a.m. Auxiliary Council

1:00 p.m Bus leaves promptly for Parkwood — Estate of the late Col. and Mrs. R.S. McLaughlin. Tour of home, "High Tea" in formal gardens.

July 22, 1987 — Wednesday

9:00 a.m. Optional Tour

Auxiliary Room open for craft class
With Bert Sierota

7:30 p.m. Convention Awards Banquet

July 23, 1987 — Thursday

9:00 a.m. Refinishing Class
Andre Bolduc, RTT — PTG class instructor

10:00 a.m. Reorganizational meeting for PTGA — Moderated by Julie Berry

12:30 p.m. Installation Luncheon

4:00 p.m. Post Board Meeting

July 24, 1987 — Friday

9:00 a.m. "Life of a Piano Tuner In The Soviet Union" by the fabulous Isaac Sadigursky, RTT, PTG instructor

12:30 p.m. Convention Closing Luncheon

Center, we met **Shirlee Bailey,** wife of **Ben Bailey,** Oklahoma Chapter president. A busy school teacher, she had been unable to attend earlier events but will definitely join our Auxiliary and attend the annual convention in Canada.

On Sunday, after Chapel a discussion "Why an Auxiliary" was chaired by Norman Cantrell, PTG, and a comprehensive presentation given by National Vice President Deanna Zeringue, assisted by Agnes Huether. Everyone had an enjoyable time and a good deal of credit is due to the Guild! Since there is no Auxiliary Chapter in Oklahoma kudos must be given to Michael Yeager and Norman Cantrell and their wives: **Nan Yeager** for the attractive table settings at the banquet and Vicki Cantrell for her assistance in the spouse/guest program.

— Agnes Huether, Editor

Exchange Editor:

AGNES HUETHER
34 Jacklin Court
Clifton, New Jersey 07012

National Executive Board

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Piano Technicians Guild Foundation

What does the Foundation do?

The PianoTechnicians Guild Foundation is a separate, non-profit entity with its own board of directors. Contributions to the Foundation's Steve Jellen Memorial Fund for Research and Education are used to promote thepiano and the professional technician. Most recently, the Foundation endowed a $500 annual scholarship for advanced piano study for a certified member of the Music Teachers National Assn.

To contribute, complete this form and mail to: Piano Technicians Guild 9140 Ward Parkway, Kansas City, MO 64114.

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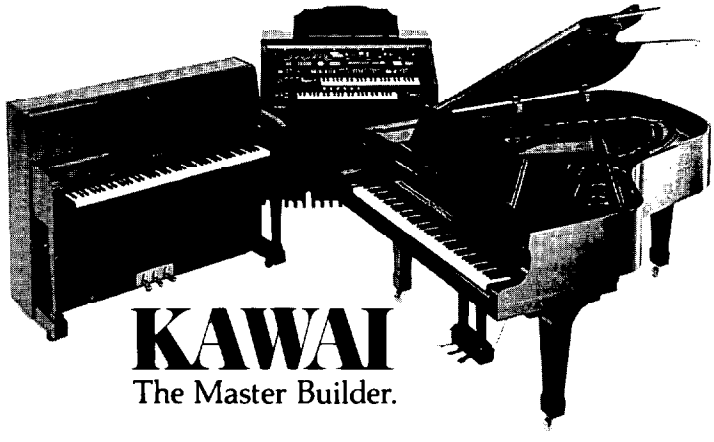

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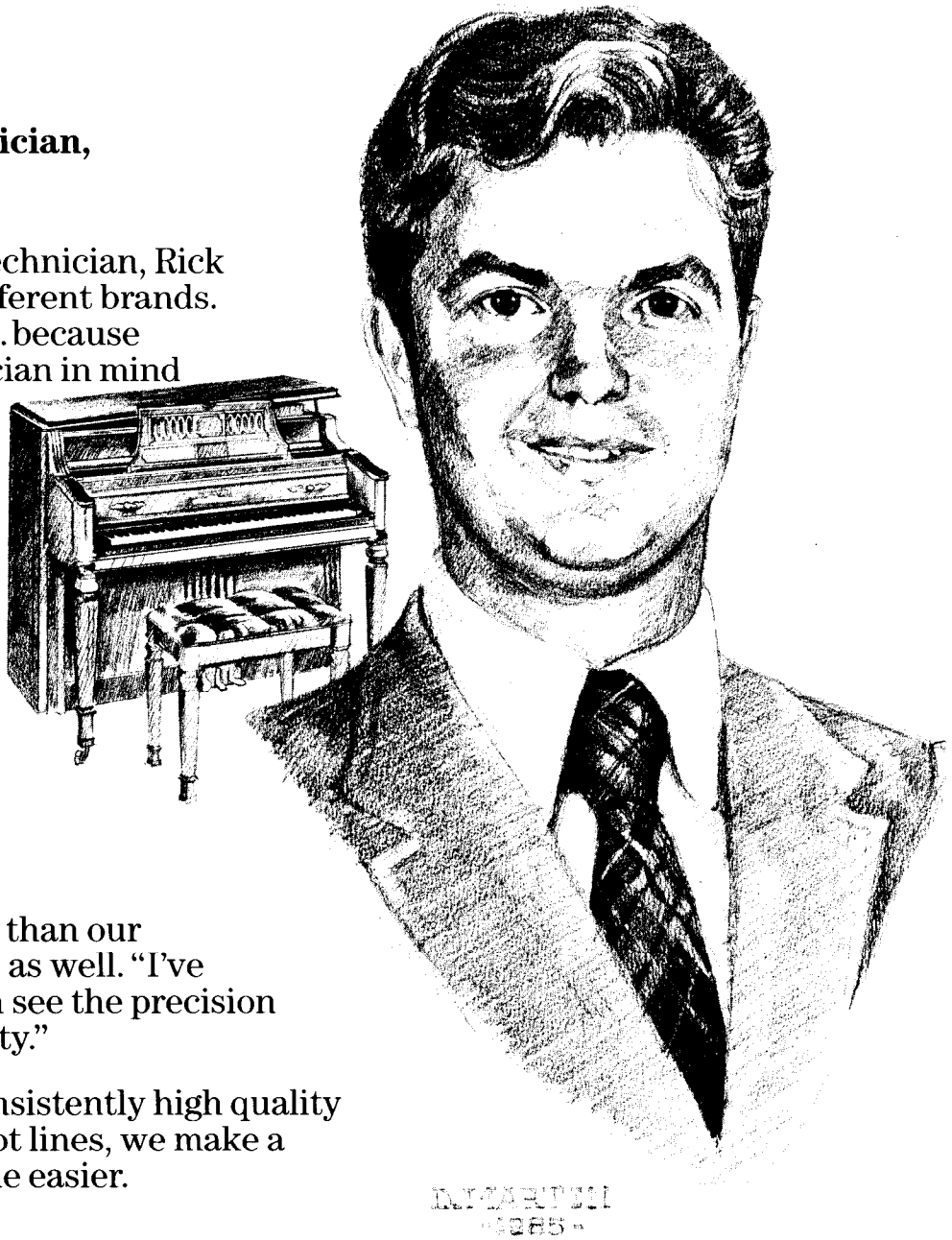

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May **UPDATE** 1987

Published Monthly For Members Of The Piano Technicians Guild, Inc.

Nominees for 1987-88 Piano Technicians Guild Offices

President: M. B. Hawkins
Vice President: Ronald Berry
Secretary-Treasurer: Robert Smit

The following names have been submitted in nomination for the office of Regional Vice President for their respective regions:
Southeast: Donald S. Valley, Colette Collier (withdrawn at her request)
Central West: Gracie Wagoner
Western: James Bryant

Nominating Committee
Susan Graham, Chair
Vivian Brooks
Larry Crabb
Ellen Sewell
Michael Travis

Committee Proposes Bylaws Changes

Here are proposed changes to the Guild's Bylaws, Regulations and Codes, as brought forth by the Bylaws Committee. These matters will be discussed by the 1987 Council during its meeting July 19-20. The proposals also are included in agenda books which were mailed to each chapter president.

1. Awards Committee Concerns (from Board minutes 87-026)

To recommend to Bylaws Committee the removal of the restriction that the Hall of Fame nominations must come from chapters.

Action -

Regulations article II section B. 1. d.

d. Delete "Only chapters" and add "Any member in good standing" in its place and delete the word "chapter's" before (choice of nomination).

Proposed Wording -

Any member in good standing may nominate candidates for the Hall of Fame and a resume of the candidate must accompany the choice of nomination.

Comment -

Board feels removing the restriction that Hall of Fame nominations must come from chapters will give the Awards Committee more input for a selection.

2. Guam Members (from Board minutes 86-144)

To refer to Bylaws Committee the addition of Guam to the Western Region.

Action -

Bylaws article IX section 2. f.

f. Insert "Guam" after the word provinces.

Proposed Wording -

The Western Region shall include the following states, provinces, Guam and parts of Mexico: Alaska, Arizona, British Columbia, California, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington, and that portion of Mexico including Sonora and Baja, California.

Bylaws Committee recommends adoption. Board recommends adoption.

Continued on next page

In Respectful Memory

Robert A. Burton

Robert A. Burton of the Santa Clara Valley, CA, Chapter, a charter member of the Piano Technicians Guild and one of its most honored members, died April 15. He had been in ill health for some time.

As a member of the American Society of Piano Technicians, Burton was instrumental in establishing chapters and setting up educational presentations. He was inducted into the Guild's Hall of Fame in 1981 and received the Golden Hammer Award in 1983.

Memorial services were April 25 in the First Congregational Church of Redwood City, CA. The family requests contributions to the American Cancer Society or the Piano Technicians Guild Foundation.

Bylaws...

3. Boundary Change (Toronto Chapter proposal)

Change the boundary between the Central East and Northeast Regions so as to include all of Ontario in the Northeast.

Action -

Bylaws article IX section 2. a.

a. Delete "the portion of Ontario lying east of and including Toronto" and adding "Ontario" in its place.

Proposed Wording -

The Northeast Region shall include the following states and provinces: Atlantic provinces (New Brunswick, Nova Scotia, Newfoundland, Prince Edward Island), Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Quebec, Rhode Island, Vermont, Delaware, and Ontario.

Action -

Bylaws article IX section 2. d.

d. Delete "the portion of Ontario lying west of and including Toronto" and adding "and" before and a period in place of a comma after Wisconsin.

Proposed Wording -

The Central East Region shall include the following states: Illinois, Indiana, Kentucky, Michigan, Ohio, West Virginia, and Wisconsin.

Comment -

The Toronto Chapter feels that all of southern Ontario should be located in one region so it can be more effectively served under the jurisdiction of one RVP. Ontario is the only state or province which is arbitrarily divided between two regions and it would be more consise if it were divided along boundary lines.

Board has no recommendation. Bylaws Committee recommends adoption

4. Proposal for Senior Members (from Board minutes 86-99)

To refer to Bylaws Commitee a proposal to include in the Bylaws regulating Senior members (Art. VI, section 1. I.) that they not be charged chapter dues.

Action -

Bylaws article VI section 1. I.) Insert the words "or chapter" after the word "Guild."

Proposed Wording -

A member may continue membership and pay no annual Guild or chapter dues provided that the member ...

Bylaws Committee recommends adoption. Board recommends adoption

5. Tech/Written Exam Fee (from Board minutes 86-111)

That the Bylaws Committee prepare a proposal for an exam fee for technical and/or written exams. (From Board minutes 87-031) That Board recommend to Bylaws Committee to establish a $60.00 fee for technical exam.

Action -

Board recommends Council adopt a $60.00 fee for technical exams. This fee shall be charged each time the test is given and is to be retained by the body administering the test.

6. Exam Fee Adjustment (from Board minutes 86-115)

To refer to Bylaws Committee a request to amend the Bylaws to give the Board the authority to adjust fees for examinations as needed.

Action -

Article XII section 2. e. Delete "fees" and insert "set examination fees," after the word "assesments."

Proposed Wording -

Recommend dues and assesments, set examination fees, and set PTG *Journal* subscription and advertising rates.

Comment -

The Board feels that setting fees for services should be up to the Board as part of its administrative responsibilities.

From the Examination and Test Standards Committee

7. *Action* -

Bylaws article IV section 2. b. - Delete "parts of the" after the word (three) and add "s" to (examination). Delete "parts of the" after the word (two) and add "s" to the word (exam). Delete "parts" after the word the and add the word "exams" in its place. Delete "as long as all three parts are passed within two years of the reclassification date" and add "as long as they are the current approved exams, completed within a four year period."

Proposed Wording -

To achieve a registered technician rating a candidate must make a grade of at least 80 percent on each of the three examinations. Grade averaging shall not be permitted. Failure to make 80 percent on one or two of the exams will not require retaking the exams passed at 80 percent, as long as they are the current approved exams, completed within a four year period.

ETS Committee Comments -

The word "parts" has been removed as they implied one examination divided into three parts, a misleading idea used three different times. This should make it clear that there are three distinct examinations.

Removal of the words pertaining to retaking exams within two years is recommended because a time limit of two years means people must take an

Continued on next page

Bylaws...

exam before they are ready and examiners will be overloaded with people unable to pass. As long as they are current council approved exams (whose dates can be changed in the bylaws whenever necessary) all candidates are assured of taking the correct exam.

Though desirable, it does not seem realistic to expect every candidate to have the skills necessary to pass all three exams within a two year period, especially if they have failed the written exam at the outset.

8. *Action* -

Bylaws article IV section 2 c.1.

c. Add "and should be administered by the chapter."

Proposed Wording -

The written exam is taken first, and should be administered by the chapter. If the member fails to receive a score of 80 percent, no further exams are taken and the member remains as Associate member or Affiliate member. Any RTT may administer this exam.

ETS Committee Comment -

This is recommended as the chapter should be the first to evaluate the knowledge level of the new Associate member so they may offer personal guidance for further education. It is also not recommended that an Associate be given the written exam at a test center where a special appointment has been given (and the candidate may have travelled a long distance) only to fail the first exam. Failure of the written exam would certainly indicate inability to pass the technical.

9. *Action* -

Add Bylaws article IV section 2. c. 4.

"In cases where exams are administered simultaneously at an approved test center. The tuning exam may be given before the technical exam under the direction of the person supervising the test center."

ETS Committee Comment -

This is necessary to allow a full Test Center to operate at capacity, i.e., some may have to take the tuning before the technical so that all appointment slots will be occupied by candidates.

10. Waukegan Chapter Proposal

Delete -

"g. 2) In order to pass the official RTT tuning exam with the aid of a visual instrument, the examinee shall:

a) First with the instrument in the room (and available for use) pass all parts of the exam, except for the unison part, at 80 percent or better; and

b) Second, with the instrument removed from the room, pass the unison part aurally at 80 percent or better and then retune octaves 3 and 4 aurally and score 70 percent or better on Pitch, Temperament, and Midrange."

Comment -

It is the opinion of many of the Waukegan Chapter members that the current requirements for tuners using visual aids are unfair and possibly illegal. Currently these tuners must be proficient in two completely different techniques of tuning. This double standard implies the intrinsic superiority of aural tuning, although the PTG code of Professional Ethics #4 states; "Members shall not advertise or otherwise imply or claim to the public that their method of tuning is inherently superior to other professional methods of tuning."

Furthermore, article V, section 1, g. 1) requires:

Chapter examination committees shall, when pre-examining an applicant, who uses the "visual method" be satisfied that:

a) The "visual" instrument used is sufficiently accurate and critical to ensure an acceptable tuning if properly used.

b) The applicant has and supplies the skills necessary to achieve solid tuning to the same degree as is expected of an "aural" applicant.

c) The applicant know why "stretching" is necessary and knows how to adjust his "visual instrument" to achieve acceptable results.

The Waukegan Chapter supports these ideas, but does feel that codes V section 1 g. 2) b) and c) discriminate against the "visual tuner" as well as against those with some aural disability.

11. Recognition of Subordinate Bodies (from Board minutes 87-022)

For reasons beneficial to the organization and in order to protect PTG from liability on projects initiated by any of our subordinate bodies the Board recommends to Bylaws Committee to prepare an amendment that the Piano Technicians Guild recognize all regional organizations and assemblies. This amendment to be presented to Council as an emergency measure.

Action -

Add Bylaws article VIII section 10, Chapter Organizations

The Piano Technicians Guild recognizes all assemblies and organizations of chapters brought together to advance the purpose, objectives, and principles set forth in these bylaws.

Chapter Mailing

The April mailing to chapters contained information on delinquent dues, mailing label requests, a message from President Hawkins, a Chapter Management Committee message, a quarterly activity report form and a film order form.

President's Activity Report to Membership, March 30, 1987

M. B. Hawkins
President

At the conclusion of the 1986 convention I made a personal committment to attend as many seminars and conferences as time would permit during this association year. This would allow me an opportunity to meet face to face many of our members I would otherwise never meet.

First there was a trip to the Home Office in Kansas City by Vice President Ron Berry, Secretary-Treasurer Bob Smit and myself in August. Many things had occurred in Las Vegas and there was the immediate need to get paperwork, etc. turned around and off to a good start.

The month of September brought the Convention Planning Meeting which was held in Toronto, Ontario at the Constellation Hotel, site of this year's Convention and Institute. Quickly on the end of that meeting I visited with the Wilmington, DE, chapter for one evening. The next weekend was Milwaukee Days, the first seminar for the fall. At that session, Vice President Ron Berry and I assisted the newly elected Regional Vice President for Region 4, Barbara Bennett, attend the membership table and generally relate to the region. The last weekend in September was spent in St. Petersburg, FL, at the Florida State Assembly Meeting. There Southeast Regional Vice President Jim Ellis and I collectively greeted the attendees. At both Milwaukee and St. Petersburg there was a successful mini-symposium for chapter officers. All in attendance related well and it is believed the sessions were of a definite benefit.

Two weekends in mid-October were spent at the Ohio State Conference in Cleveland and the Texas State Seminar in Houston. Having attended the Texas State Seminar gave me the opportunity of meeting with the South Central Regional Vice President, Nolan Zeringue. Much feedback and exchanges of information occurred during each of these two sessions. On the way to Texas I spent one day at the Home Office in Kansas City. I met with the chair of the Chapter Program Committee and talked on the phone to the New York State Conference Chairperson since I was not going to be able to attend their function.

During the month of November the Charlotte, NC chapter sponsored the North Carolina State Conference in Charlotte. It was nice to meet those people and have an opportunity to exchange views and share information.

The following week was a one-day seminar in Baltimore, MD sponsored by that chapter. It was well-attended by chapters from as far away as Winchester, VA.

In December I visited with the Roanoke, VA, chapter for one evening which proved very interesting and enjoyable.

We came to the end of 1986 and the train was still on the track. Now to prepare for the Mid-year Board Meeting to be held in Toronto, Ontario, Canada at our `87 convention hotel. It was there we had a management review meeting with staff from the Home Office and the Board voted in our new Executive Director, Larry Goldsmith.

The day I returned from Canada was an interesting day indeed. Immediately upon landing at the National Airport, I went home long enough to put down my bags and get back in the car for a trip to Richmond, VA. The Richmond chapter had invited me to attend a special session with their chapter members and special guest, Randy Potter.

During February, in conjunction with the California State Conference, I visited with the Redwood chapter in Eureka, CA. This small chapter had a lot of input and during the California State Conference itself I had the benefit of talking to someone from just about every chapter in California among others represented there. Western Regional Vice President Jim Bryant and I had an opportunity to interact which proved quite beneficial.

The month of March was a busy one. The month began with the South Central Regional Seminar in Oklahoma City. During the third week I visited the Wurlitzer factory in Holly Springs, MS, in conjunction with the Memphis, TN, Mid-South Seminar. This was immediately followed by the Central West Regional Seminar in Minneapolis at the University of Minnesota. There I assisted Central West Regional Vice President Gracie Wagoner with the membership table and a class on examinations overview.

This quick review is to let you the membership know that you are a part of one fantastic operation. This Piano Technicians Guild is really the only game in town and each of the players in his or her own way have something very special to give. Do take advantage of the opportunities. Many people are sacrificing valuable time and energy in order that our service profile within the industry and to the piano-owning public will be second to none. On the other hand each of us must constantly reach for excellence in what we do in order to uphold the respect we have gained in the past 30 years and will continue to earn in the future.

During the last eight months I have tried to be particularly sensitive to the comments from our membership relative to the membership changes made by our council in Las Vegas and the

Continued on next page

Activities...

understanding of these changes at the chapter level. There are still some areas where the membership changes are just now beginning to be fully understood. It does appear a real understanding and acceptance is taking hold very well.

I have had some correspondence relative to the group formally known as Members at Large. It appears that the assimilation of this group by chapters has been slow. I am not sure yet how much real effort was put forth by RVPs and chapter officers to help these members feel welcome and accepted. Neither do I know what type of real effort is being employed today to address the needs of those who live outside the formal chapter radius.

As I have accessed the subject of rebuilding during the year while visiting seminars/conferences, it appears that many, perhaps most, of our membership rebuild to some degree, but they also tune. As I see it, those wanting a separate classification do not tune and feel they should not be required to tune if examined. This subject will be the topic of a forum-type class during the Toronto Institute. This forum should give us much more information than we have had previously from our general membership. It seems the organization should not move to develop such a classification for rebuilders until the evidence is quite clear that there is a genuine need. That issue will be decided by Council.

The matter of rebuilding standards is another issue. If it is the standards used relative to rebuilding pianos we want to focus on, then that must be addressed specifically.

Our growth totals have basically remained the same for the past three years. Compared with the first quarter figures of 1984 our RTT totals are stable within 50 and the Associate membership is up; notsignificantly, but up. Looking at a three year period one would have to say our membership is stable. To have maintained the stability we have during the past three years with the economic conditions that period of time brought us, it appears we have done well.

Insurance is a matter that continues to be an issue with the Board of Directors. As we can uncover definite advantages for our membership in this area, we will bring findings to you.

In the course of my travels one of the things I am particularly sensitive to is the failure of our RTT membership in the display of the emblem which is the distinguished mark of the RTT, the franchised member of P.T.G.

As per Council's decision last year, this emblem was to be removed from printed materials unless accompanied by the name of an RTT. Many have adhered to the decision and others seem to blatently continue the use of the emblem in a way that is now not legal. Sometimes it appears incorrectly used as a result of members not being aware of the changes which came about in council at Las Vegas.

I am inclined to view its non-use with its apparent non- importance to membership. Council seemed to feel quite strongly about the emblem's use as a logo because that would mean the less than 1,000 Associate members could legally use it as well. However, its current use by those authorized to display it seems minimal. As I travel to the various seminars and conferences, I look at phone books and business cards from all over the United States and the emblems non-presence is very obvious.

As your President, I am still unsure as to what it is that our organization really wants. Perhaps someday there will be a clear-cut decision backed up by clear-cut actions such as wearing the pin and the signing of one's name accompanied by RTT.

There has been through these past eight months much discussion relative to the P.T.G. Film Proposal. The fact that Council voted overwhelmingly 48K for the production of a film does not seem to have reached a large portion of our membership. Once again unclear signals tend to cloud issues. Going along with the majority, or what appears at that time to be a majority, without letting your personal feelings and thoughts be voiced has a tendency to later surface and hinder progress. When you have questions or comments be sure to speak out. It is hoped that this year's council will yield more clarity.

If there is one issue which we can clear up this year I would hope it is the recognition of specified Regional Testing Centers with specific schedules for operation. The Regional Vice Presidents along with their Regional CTE are to bring this situation to a head with locations and schedules of operation. Once recognized, we can work together to bring all of them into very close tolerances relative to operations. This is not intended to stop chapters which already do the complete examination process from continuing. It is being designed to put in place a schedule of examination location which anyone can look at and plan their activities accordingly.

We made progress when we eliminated the backlog waiting for membership. We must not allow the same situation which prevented membership under the old system to hinder progress to RTT under the new system.

The general well-being of our membership appears good. Even though there is not enough individual participation, in my opinion, the organization tends to move ahead based on the dedicated endeavors of the core group. If all our membership was to become aware of our complete potential through greater participation, our forward movement and rewards would increase in leaps and bounds.

Continued on next page

Activities...

We are a tremendously diverse organization and it has been a genuine delight to meet and talk to those of you I have met. I am presently of the opinion that our strength more than likely hinges on the fact that we are so diverse.

Keep up the good work as we have much to accomplish in the future.

During the remainder of this term I will be visiting Emil Fries' Piano Hospital in Vancouver, WA in conjunction with the Pacific Northwest Conference in Yakima, WA as well as attending the 1987 Pennsylvania State Conference in Scranton, PA the beginning of April.

Attendance at the Michigan State Conference in Kalamazoo, a visit to Steinway, one evening with the Rhode Island chapter followed by the New England Regional Seminar in Merrimack, NH, will complete this year's activity until I see you in Toronto for our 30th Anniversary Celebration during July.

Let me take this opportunity to thank my wife, the Board of Directors, the committee chairmen along with their members, the Home Office staff and the large body of our membership which have been very cooperative with a great amount of assistance and support.

While the past year has been extremely busy and challenging, it has been my privilege to serve.

Council Agenda Books

Council agenda books are scheduled to be mailed to chapter presidents in the regular monthly mailing for May. The books contain the agenda for the July 19-20 meeting. The books are to be available for chapter members' study and then are to be passed to the chapter delegate.

At Toronto Convention

New Class On Giving The Technical Exams To Be Offered

Bill Spurlock
Chairman, Exam Review Subcommittee

A new class has been designed to aid chapters in setting up and administering the LA and Chicago Technical Exams. To be offered twice, the presentation will demonstrate the props and techniques necessary for successful exam giving.

Last year at Las Vegas we offered mini-sessions on the same subjects during the break periods, but time was too short to do more than just scratch the surface.

We feel these full 1 1/2-hour classes will allow a thorough look at both tests. All necessary jigs will be displayed, test procedures described and possible problems and pitfalls discussed. those unfamiliar with the exams should come away well equipped to set up their own test centers, while anyone having problems in administering these exams will be able to present questions for discussion. These classes will also serve to debut a newly simplified and revised version of the LA exam. Copies will be available at the class as well as through a general mailing at a later date.

We ask that only Craftsman members attend these classes. As the capacity will be limited to about 50 people, it may be necessary to limit the attendance to those who are involved in giving the technical exam in their chapters or those who expect to be doing so in the future.

Chapter News and Notes

Dale Heikkinen
Chapter Management And Achievement Committee

Connecticut

Paul Monachino, presently of Sohmer and formerly with Aeolian, recently presented the evenings's technical on bedding the keyframe as it is done in the factory. Using a Mason & Hamlin keybed and an unfinished keyframe, he led the chapter through the many detailed and exacting procedures needed in order to complete the process to the point where the action stack is set onto the frame. It was interesting to see that Mason & Hamlin uses various jigs for nearly every measurement involved, many of them dating back to before either WorldWar. Presumably this would mean that there is a very high degree of consistency from one instrument to another, allowing the in-home or in-shop technician to rely fairly closely on factory specs.

In October, the Connecticut chapter moved its meeting and shop location to another building on the grounds of Sohmer & Co. The task took 91 man hours to complete.

In December, the player piano that was rebuilt by the chapter was sold for $2,000.00. The profit from the sale came to $1,500.00. Charles Hubert spent twenty hours putting the finishing touches on the piano.

Continued on next page

News And Notes...

Washington, D.C.

This month (March), Dave Lamoreaux will bring his unbridled enthusiasm to the chapter, in his presentation of the "Complete Service Call." Dave will bridge the gap between the true technician and the piano tuner. So get in on the action; your absence could put a damper on the whole thing...

"Mammal infestation," by R. Errol Floyd

The subject has received some attention in the past, coutesy of Carol Beigel, but I didn't appreciate just how severe thisproblem could be until I saw a couple of cases myself. I believe some elaboration might be useful.

Never underestimate the amount of damage that small animals can inflict on a piano. I recently estimated $1,100.00 for repairs to a studio piano infested with mice. I recently repaired a grand piano damaged by cats. The bill was $2,100.00, and I should have charged more. This kind of damage is not usually covered by insurance.

Mice chew all kinds of felt and cloth and leather, especially bridle straps. Animal urine is corrosive; it destroys action springs, damages treble and bass strings to the point of breaking, rusts tuning pins over their entire length (thereby contaminating the block), weakens backcheck and bridle wires, and rusts key pins right through the plating. As with other water solutions, urine can damage finishes, stain wood, rot soundboards and pinblocks, warp keys and dissolve hide glue.

As damage to pianos by animal infestation rarely happens suddenly, but rather accumulates over a period of months or years, it is largely preventable. Piano owners can do their part by keeping pianos closed and pets away from their pianos. We technicians can help by being alert to signs of infestation, particularly by mice. Mouse feces are cylindrical, hard, dark brown or black, about 1/16-inch in diameter, 1/8 to 3/16 inches long, pointed or rounded at the ends, and are typically found on the keys or other horizontal surfaces inside the piano. Nests are found on the keybed or bottom board, etc., and can be quite large. They are typically made of stuffing relocated from other furniture in or near the house. Upon discovery of these signs, extermination procedures should begin as soon as possible. The cost of a professional exterminator might well be cheap in the long run.

(Ed: Another unmistakeable sign of critters is when the top edges of the keys behind the key buttons have been rounded off by what looks like a coarse file. Mice love to chew on wood and after finding such signs, you can always say: "That's just another reason to have your piano checked regularly, now isn't it?")

Western North Carolina

The March meeting of the chapter was held at Valley Piano. "It seems to be the consensus of opinion this year that the "'weak months of January and February' just have not happened that way," writed Don Valley. "That is good news. The bad news is that we have all been so busy that we are tired already." Jeff Owens and Clayton Harmon have been very busy getting November's North Carolina State Conference off the ground. "The excitement is high, and rightfully so when one considers the top-notch events that will make this a landmark of state conferences."

Southwest Florida

In March, Ferdinand Pointer presented a program on "Harpsichord service for the piano technician." For the program, he brought a harpsichord to the session, a large two-manual "concert double." A hands-on demonstration followed on how to tie a hitch pin knot, inserting a plectrum, and voicing.

"Sound equal to CD's," by Hans Fantel

While digital audio tape has not been officially shown in this country, this reporter attended a demonstration of prototype at Sony's laboratories in Tokyo two years ago. Impressions gained on that occasion were vivid enough to be recalled even after so long a span. To sum it up, the sound emanating from a tiny cassette — notably smaller than those currently used in audio equipment — seemed as good as what can otherwise be heard only from laser-scanned compact disks.

The usual limitations of audio cassettes had vanished. There was no trace of background hiss, no distortion of loud passages and no sign of that wobbly tremolo — technically known as flutter — that sometimes results from inconstant tape speed.

For example, Grieg's Piano Concerto in A minor astonished this listener by the clarity of the piano sound even under the stress of a *sforzando*. On conventional analog tapes such as those in general use today, such climactic moments are often blurred because the pianist's powerful touch momentarily overloads the tape's magnetic capacity. In contrast, the digital tape accomodates such musical dynamics without audible problems or constraints.

Finally, the steadiness of the digital data stream emanating from the tape precludes all aberrations of pitch. There is no trace of false tremolo. As a result, the sound of fixed-pitch instruments, such as a piano or an organ, sound forth with a hitherto unattained sense of sonic solidity.

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News And Notes...

North Central Louisana

The 29-member chapter meets every other month for a five-hour period. A 30-minute general "rap" session is held at each meeting; it is a question-and-answer discussion on problems experienced in the field by members and "is always a very interesting part of our meetings," writes Eddie Melton, President. In September, the meeting was held in Natchitoches, LA. Steve Wells gave a demonstration of the Accu-Tuner; a related tuning demonstration was presented by Howard Jackson. Also in the tech portion, Eddie Melton demonstrated the use of the Hot Box, as recommended by Steinway Piano Co., as a remedy in drying out piano actions that have been over-exposed to moisture.

Northwest Arkansas

"I have discovered," writes Denele Campbell, "that if I carry a small package of moist wiping towels, I will find a multitude of uses for them. These can be found in the baby care section of the store, and are disposable. They are wet and usually smell like baby oil, and not only clean up your hands after fiddling with the dirty insides of old pianos, but can also wipe off dirty keytops, dusty panels or cobwebs, not to mention that they are inexpensive."

Dallas

"Be aware of split action rails," by Mike Ello

The following is an experience I had that could be helpful to some of you. It all started with a phone call: "Hello...my piano has some keys that are stuck in the treble end and they are continuing to do so day by day towards the middle." Upon arriving at the home and inspecting the console piano, these were the symptoms:

1. Excessive lost motion especially to the treble end
2. Three or four broken bridle straps with these same hammers blocked and staying against the strings
3. Complaint from customer that sustain pedal no longer worked

I first began to check some regulation dimensions but soon found upon closer inspection a split wippen-hammer rail. The spring tension from the sustain pedal rod was pushing up on the upper half of the split rail with the hammer flanges on it. This left a gap from the bottom half of the split rail which had the wippen flanges on it. The result, of course, was a large gap between the jack and the hammer butt.

To repair this, I first disconnected all bridle straps from the beginning of the split to the end. This was in order to allow the whippen and jack to drop below the split. I intended to reglue. I then removed all the treble damper levers and then was able to remove the damper lift rod. After that whippens were removed at 10 inch intervals (about three each place). This was done to allow space for some small "C" clamps. Lastly, using a glue knife I cleaned, reglued, and clamped the rail to set overnight. The next day, I simply removed the clamps and reassembled the action. This is not a common problem we come against and is not visible from front view so take note of the symptoms I listed to increase your diagnostic abilities as a piano technician.

Columbus, OH

From the Technical Forum of the Columbus Chapter Newsletter, Don Gagliardo offers a "Miss Manners" tip. "Some days I feel as if I specialize in caring for the elderly. Special consideration should be given to replace objects in their original location in the room. Some old folks have a hard time moving those vases or trophies around. Repositioning a lamp and plugging it back in behind the piano can be a real back breaker." This is also good PR with your customer.

"Editorial," by Don Gagliardo

Ignorance pervades the novice piano owner. I am speaking particularly of the folk who are under the impression that they can buy something cheap to get "junior" by until he or she shows promise of continuing lessons. I am especially perplexed when I go to service a broken-down, hand-me-down spinet in a quarter-million-dollar house with two $25,000 sport cars in the driveway. We have an excellent opportunity to inform the public for their benefit that their particular view of the get-me-by-cheap piano is fallacious. A cheap lousy piano discourages "junior" from playing. The action is unacceptable for learning technique. The piano is a poor investment if they dispose of it eventually. It will not fetch much in the marketplace, and they will probably spend an inordinate amount maintaining it. We can inform the piano owner that an investment in a good new or used piano is a sound investment. Junior will be more inclined to practice, and even if the piano is to be sold someday, it will command a respectable price in the market. So let us be bold, take a stand, and maybe we can help these ignorant folk.

Youngstown, OH

This medium-sized chapter of 16 craftsmen is in the process of refinishing and rebuilding a small grand at the shop of Clarke Houser in Warren, OH. In anticipation of finishing the project, the chapter has been meeting twice per month plus their meeting night. The project is under the direction of Houser, Ron Orr, and Mark Shengle with an average of eight to 10 members lending a hand.

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News And Notes...

Cincinnati

"Keyboard videoconference," by Marnie Squire.

The Videoconference for Keyboard Teachers sponsored by the Baldwin Piano Co. and *Clavier* Magazine on January 29 was a great success. I attended this Videoconference at Wright State University.

An astounding 11,000 independent and university-affiliated piano teachers came to 145 locations across the United States and Canada to consider the question, "Is independent studio teaching a viable career?" Linked by satellite to P.B.S. station WCET in Cincinnati, participants called in hundreds of questions. Panelists Richard Bradley, Martha Hilley, Linda Clary, Larry Harms, Lori Lane, and moderator Barbara Kreader discussed market planning, budgeting, advertising, publicity, and other topics during the four-hour presentation.

All 11,000 teachers were asked, "Would you recommend independent studio teaching as a viable career?" Sixty-nine percent answered "yes." Most of these were married women who did not support themselves.

The next Keyboard Videoconference will be held October 15. The second half of a workbook that was provided to participants will be discussed.

Western Michigan

"Old uprights, anyone?" by Yat-Lam Hong.

Some time ago, I met a woman who decided to get some free advice when she discovered that I make my living as a piano technician. "My six-year-old son will be starting piano lessons soon, and I want to get him the best piano possible," she said, "What do you recommend?"

"Buy him a concert grand," I said. Apparently not knowing what a concert grand is, nor the reasons for my reply, she said, "Fine, I'll buy him one, but how much does it cost?"

"About $45,000," I said.

"Oh, no! We can't afford that kind of piano!" she said with an expression of total disbelief. "What I mean is that I want to get him something good, but cheap."

Her response reminded me very much of a Peanuts cartoon in which Charlie Brown was telling his friends that "I love mankind. It's people I can't stand!" The funny thing about this cartoon is, of course, the built-in contradiction in those words.

It's my opinion that, ideally speaking, a piano that's "good enough" for the total beginner should also be "good enough" for the finest concert pianist. Because the beginner has no concept of what a piano could sound like and how it could respond to one's fingers, this is when these priceless values should be instilled in him so that his love for music may be kindled at an early age, and once awakened, we hope, it may continue to propel itself by its own momentum.

When I recommended to this woman the purchase of a concert grand, I was simply answering her question "at face value," that is, without making compromises for any extraneous considerations, such as the size of her music room, the condition of her pocketbook, the place a piano occupies in her order of priorities, etc. And I think that, in this context, very few people will disagree with me that a concert grand is the very best piano one can buy. After all, it's the model on which piano manufacturers stake their reputations most heavily. However, when the ideal piano meets reality, the result will be different for different people. This is where all the other models come into the picture, ranging anywhere from a semi-concert grand to the cheapest spinet.

Quite often, people will buy an old upright for their children to start lessons on, obviously thinking that this old piano is only a "starter," and "if Johnny proves to have talent for music, then we'll buy him a good piano. To do that now will just throw money down the drain." As a result, I frequently get calls to fix up old uprights for new owners, who, among other reasons, cannot resist the temptation of a "bargain," especially when the piano costs only a fraction of what it takes to move it.

In such cases, chances are more often than not that the piano may be 60 or 70 years old; the overall pitch may be a half-tone or more flat; the bass strings may be so corroded that their tones may best be described as "pitched thuds"; the pins in the split bridge may be so loose that they jingle against the vibrating strings, producing a special kind of percussion effect. As many as half of the key-tops may be missing, and the ones remaining may be so badly chipped in front that they resemble the teeth of a saw blade; the key bushings may be so worn that the keys simply clack against each other the glue joints may be so weakened that many jack flanges have come loose from the whippens, causing what the owners call "sticking keys"; the tuning pins may be so loose that a note may provide its own accompanying harmony; the butt-flange bushings may be so worn that the hammers wobble enough to strike strings of neighboring unisons, causing "wrong notes" that the pianist did not play; the bridle straps may have all rotted; the punchings and back rail felt may all be moth-eaten; the remains of a mouse's nest, and possibly the mouse itself may be resting peacefully inside the keyframe.

On a monstrosity like this, little Johnny is expected to study piano and develop an appeciation for music. It's no wonder that, after a few complaints that "our piano doesn't sound like the teacher's," he quits taking

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lessons. With a sigh of relief, the parents would then say, "Thank God we didn't buy him a $3,000.00 piano to start out with!" — and probably never find out what they claimed they wanted to find out in the first place: whether the kid has any talent for music.

Parhaps without consciously realizing it, these parents are practicing a fallacy that sociologists call "self-fullfilling prophecy." It works something like this: A person starts out to ex-Oplore the validity of an assumption, and controls the conditions in such a way that the result can come out only in one predictable form. When the inevitable happens, this becomes has "proof" that he's right in his original assumption. It's a vicious circle!

Perhaps my reply to this woman's question gives her the impression that I'm just another "crackpot piano tuner" or confirms the old saying that "free advice is worth what it costs." This is her problem. As for me, every time I'm called to "fix up" another old upright, I secretly wonder: Are these people also trying to kill their children's musical sensibilities in the name of love?

Northern Michigan

The chapter holds three meetings per year. The January meeting was hosted by Ted Minor. John Glover handled the technical program which was divided into two parts. The first part covered voicing techniques. The second portion was a demonstration of a "hypo" type glue injector for rib and soundboard work, which is also perfect for epoxying bridge pins.

Madison

In January, John Wolozen gave an entertaining account of "The artist behind the artist" writes Norm Sheppard, editor. He talked about his many years of tuning for concert artists. He told the chapter not to be intimidated by the concert situation and to tune in a normal relaxed manner. He said if all of your best efforts fail to please a fussy artist, offer them your tools and suggest they do it for themselves. As John reminded Rudolph Serkin, "Rudolph, without me you would sound terrible." During the applause, before going back on stage for an encore, Rudolph always bowed to John.

Chicago

"President's message," by Brian Mott.

Listening to Virgil Smith speak at this past month's meeting reminded me of something I used to ponder quite often — just how many different versions there are to this thing that we all attempt to provide, a well-tuned piano.

Having pretty much developed my own education in the field, I've never had the advantage, or disadvantage of learning on man's system as law. Consequently, through the years I've been exposed to many ideas and theories, and it sometimes amazes me that nearly everyone who starts out on the tuning journey has a slightly different road map, is looking for somewhat different signposts, and will explain the routing in a slightly different way.

And yet, they all end up (at least the good ones) at the same destination, a piano that sounds right to the pianist, a well-tuned instrument.

In a similar way, I've noticed that no two tuners seem to approach the business side of our profession in quite the same way either. Some have spouses who are deeply involved, others handle it all by themselves. Some rely heavily on personal computers, others manage quite nicely with file cards. I've noticed many tuners who invest heavily in Yellow Pages advertising to attract business, and I've spoken to many who avoid such advertising.

One of the best aspects of monthly chapter meetings concerns the time periods before and after the technical sessions, when we are "killing time," so to speak, time when it's possible to make a new acquaintance or solicit a "consensus" opinion about an unusual situation you are confronting in you work. Maybe, like me, you'll be amazed at how many different ideas about something you can hear. And maybe you'll walk away with another part of the puzzle solved.

It's one of the most valuable resources Guild membership offers you, and all you have to do is participate.

Central Illinois

"Oh Lord, I can't even find enough clean rags to start the project in five minutes, much less get it finished," writes Bob Morris. The project he was referring to was a method Raye McCall uses in completely rebuilding an upright piano. One of the grubby jobs that we all do and hate is polishing balance rail pins. Raye uses a benz-O-matic torch nozzle that he machined for use in a drill. He stuffs the nozzle with hammer felt, drills a hole through the center of the felt, puts polish on each of the pins, rams the drill down and up, and the pin sparkles! It takes about five minutes to do the whole rail.

Central Iowa

The chapter project, restoring a grand piano, has been taken to the Malloy Custom Piano Shop in Cedar Rapids to be sold. Agreement as to price and percentages to Malloy is on file for anyone who is interested.

Twin Cities

"Korean piano names," by Phil Bach

If you pronounce Horugel as hoe-ROO-gull, Young Chang as 2 words with the "ang"sounding

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like in "anger," Sojin rhyming with sloe gin, and Samick like it looks, give yourself 25 percent. You got Samick right, of course: there's no way to ruin that, but you blew the other three. Maybe you say them like you hear them, which is what I think I did. Anyway, thanks to *Soundboard Buttons.*

Horugel is pronounced "her-GELL," with a somersault by your tongue when you get to the "r." It's a pretty name when my Korean informer says it. He thought it might be a German name but I assured him it is not.

Young Chang we'll take in stages. First, Yung Chung will get you much closer. Now, make it all one word, with the accent on the first syllable: "YUNG-chung." Next, eliminate the last "u": "YUNGchng." (Hang in there; you're doing fine). Now sort of swallow the first "u" to make it REALLY short, like "YNGchng." It sort of sticks to your palate, doesn't it? My informant says, "In Korea, YNG-chng very fine piano"; high praise from man who own honorable Kawai.

It seems that I've seen Sogin written as SOJIN somewhere, which might help explain why he pronounced it "SERjin," exactly like "surgeon."

Kansas City

"Technical tidbits," by Wayne Yockey.

Question: What do you do when a customer requests the touch of the piano to be heavier? Do you try to talk them out of it, install jiffy leads, what? I asked Greg Hulme.

Answer: On a vertical piano, I would just install jiffy leads.

On a grand, jiffy leads are not the answer. Since the keys of a grand are weighted in front of the balance rail, adding weight behind the balance rail will increase the touch weight but will also increase the mass and slow the action down. The proper approach would be to remove a lead weight from the key. Generally, you will find three leads toward the front of the key that are pretty uniform throughout the action. These might be called the gross adjustment. You will also find some leads closer to the balance rail. These will vary in size and placement from key to key, and could be called the fine adjustment. To properly increase the touch weight, determine which of the gross adjusting leads you want to remove (the first, the second, etc.) and remove that weight from every key. Then plug the holes with wood (sugar pine or spruce). It is important to plug the key for the strength of the key. By removing lead, the touch weight has increased by the action is a bit faster since there is less mass.

When weighting off an action in the piano, lift the dampers. Don't exceed 60 grams.

South Bay

California Convention highlights: Susan Graham's handy "tool" for checking crown in a grand; Ed Solenberger's microwave method for rebushing flanges, factory-style; Decimal sized chucking reamers for flange bushings, varying by .0005", available from MSC Industrial Supply, 800-645-7270; a great design for a wheeled "cart" to support a piano being rebuilt, which expands from 5' to 9' shown in Dick Bittinger's class; Wally Brooks' jig for working on old damper underlever actions which holds the heads very securely for drilling out the grommet... and his method for replacing old grommets; Bill Spurlock's Vertical Regulating class with so many good ideas, including little key supports to block up the end keys, so you can level the entire action with a straightedge... and bending the rest-rail-hangers to correct occasional wholesale blow deficiencies; Fern Henry's methods of isolating various action parts to determine where the sluggishness is; Bill Garlick's terrific show of Steinway Patents, teasing us with 19 out of 126!

San Diego

Don Mannino gave a class in March called "Tuning stability into new pianos." In addition to problems and solutions relating to new and newly strung pianos, he discussed general tuning stability topics such as tuning lever techniques, piano problems to watch for, etc. This class was helpful to both new and experienced tuners, with ideas gleaned from preparing and tuning new pianos.

San Francisco

The San Francisco chapter is please to announce the Award Fund, established in 1986. In 1987, their first award will be given in conjunction with the San Francisco Young Pianists' Competition, now in its fifth year. The competition will be in June at San Francisco State University. This year alone, over 1500 music teachers and students will become familiar with the chapter as the sponsor of a named award. The chapter has donated $300.00 to this event and will have a booth with a roster of their membership available to the public in attendance. The chapter members expect to gain as much as the recipients: by showing themselves as active participants in the musical life of the Bay Area; by fostering continued interest in the acoustic piano, in the long term; and, by having the chapter name appear in bold print.

Santa Clara

Member Tom Gorley realized, in talking with a number of other members, that too many craftsmen are poorly informed on IRA and Keogh account investments. They invited Patrick Pedley from the

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Chapter Notes

Indiana Chapter

Chapter members and guests attended an excellent technical session and meeting at Goshen College March 9. Larry Boyle treated us to a thorough analysis of the inharmonicity phenomenon. Handout sheets with the formula for determining the inharmonicity of treble strings and the formula for determining thse values in cents were very useful.

An old spinet was on hand for our experiments. One string of the unison at F3 (Key #33), F#3 and A3 (key #27) was changed from #17 (.039") wire to #20 (.045") wire. All this was prepared in advance of the meeting and the replacement wires had had some preliminary stretching.

Larry proceeded with some tuning experiments monitored by a Strobo-Tuner and Sight-O-Tuner. A-440 was carefully set, then the 220-A was tuned, using the correct (#17 gauge) wire. Next, the oversize wire was tuned an octave below the A-440. Accuracy was confirmed with the electronic instruments. We heard (and saw) about a two-beat-per-second discrepancy with the oversize wire and the discrepancy increased as increasingly higher partials of the same oversize wire were checked.

We discussed scale design in general, also techniques for treating a newly installed wire to expedite its tuning stability. The mathematical scale must be installed in the piano itself before its validity as a design can be evaluated. In one case, a big improvement in a bass string's tone was achieved simply by moving the hitchpin slightly closer to the bridge, which would have the effect of adding a bit of stiffness to the soundboard in that area.

Near the close of our meeting, we moved over to a small auditorium to be treated to a half-hour recital by Marvin Blickenstaff, Goshen College's professor of music. Mr. Blickenstaff delighted us with pieces from the romantic era. He is a well-known and well-traveled pedagogue in the piano who gave an extremely well-received Town Hall debut in 1969. His background explanations of the repertoire he was performing for us were a delight in keeping things on an informal basis and gave us an even keener enjoyment of the music.

We are working twoard a "Keyboards of the Future" meeting at the Fred Myers Piano & Organ Co. in Fort Wayne in May. The store has an excellent inventory of electronic keyboards principally used for educational purposes. As technicians, we have to bring ourselves us to date with the tremendous resources and adaptability of these instruments and how they are often effective in leading the student toward the traditional piano.

It has also been suggested to Fred Myers that we would enjoy a review of the various manufacturers' warranty features.

Ian McLuckie

Los Angeles

Claudia Ellison, president, began her meeting with the opening announcement that the California State Convention would be sponsored by our chapter and would be held Feb. 12-14, 1988. It will be held near Los Angeles. We announce this now so that people around the nation can plan to attend if they wish to combine this with a winter vacation in the mild-weather area of our nation. Also, our seminar will be held in April.

The Nominating Committee presented their slate of officers to be voted upon at our next meeting. Our delegates to the next convention will be Alan Cates and Teri Powell.

Our speaker for the evening was Randy Woltz. His subject matter was "Center Pins." He mentioned that good bushing cloth has a smooth side and a rough side. The cloth should be installed in the hole with the smooth side toward the center pin. The rough side should have a very fine ribbon of glue in the middle of the strip when inserting it into the flange. If the pin is too tight, he recommends that a flange file be used to ream out the hole. Never use chemicals, he said. When an action is tight or sluggish at the center pin, try using a 25-watt soldering iron. These irons can be bought with removable tips; therefore buy several different kinds of tips. Heat the center pin and thereby loosen the bushing. (Beware of heating the wood part or the pin may also become loose in the wood.) When fitting the pin into the wood it should be tight enough that it will not fall out when the tip of the pin is inserted into the wood and turned so that the pin is under the wood part being held.

Randy closed his instructions with a number of very good slide pictures which illustrated the lecture he had give. Thank you, Randy, for that fine, instructive lesson.

Harry Berg

News And Notes...

brokerage firm Charles Schwab and Sons, which is a discount brokerage firm which charges minimal fees. Your friendly neighboring bank will only barely keep you ahead of inflation, says President Roland Kaplan. There are other investments that are safe, pay much better, and are easy to purchase. To the self-employed professional, IRA's are a must. Since most craftsmen do not have an employer who provides retirement, it is up to the individual technician and no one else. The alternative is spending your retirement camped out under a freeway overpass!