

# PIANO TECHNICIANS JOURNAL

July 1981



Claude Debussy

# The Baldwin Piano...

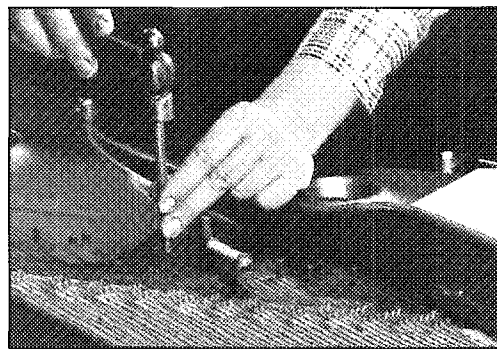
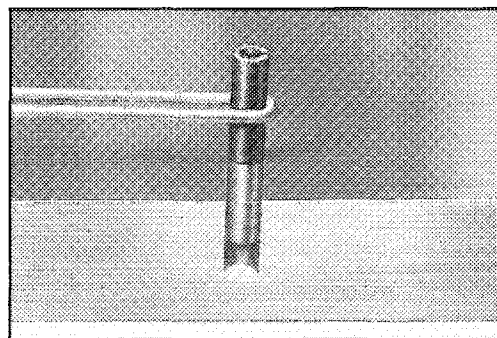
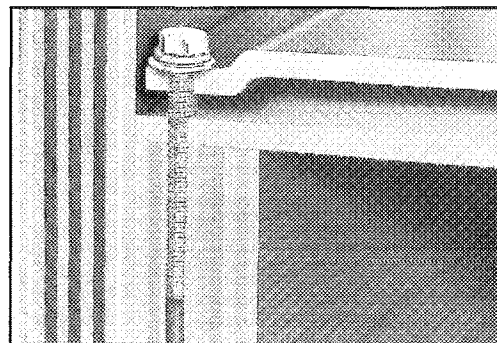
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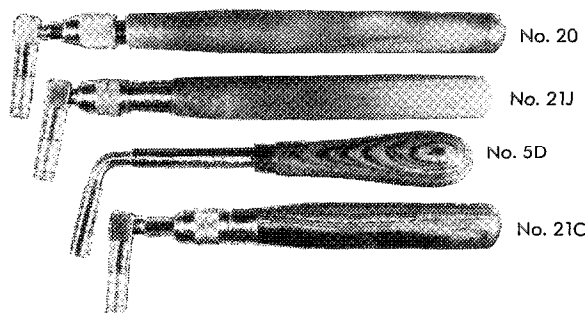


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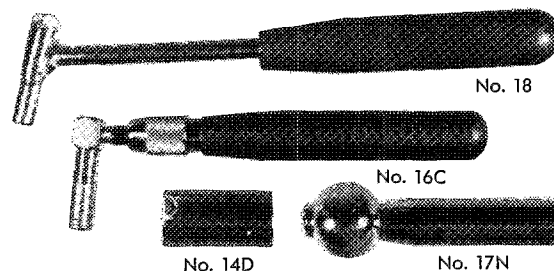
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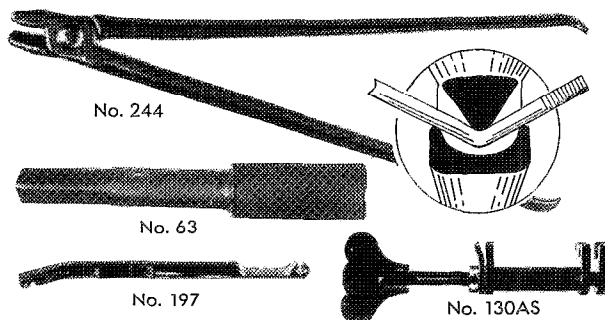
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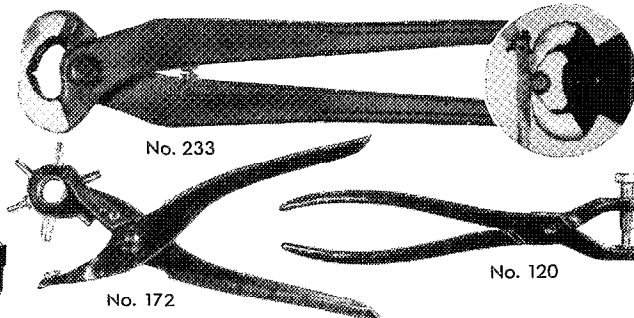
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# Piano Technicians Journal

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**COVER . . .** Impressionist composer Claude Debussy, said contemporaries, separated the music of the 20th and 19th centuries as Beethoven separated the 19th and the 18th. The success of his opera "Pelleas et Melisande" led to a schism in the French musical community and "Debussyism," a kind of aesthetic cult. Other works included "L'Après-Midi D'Un Faune," the "Nocturnes," and "La Mer."

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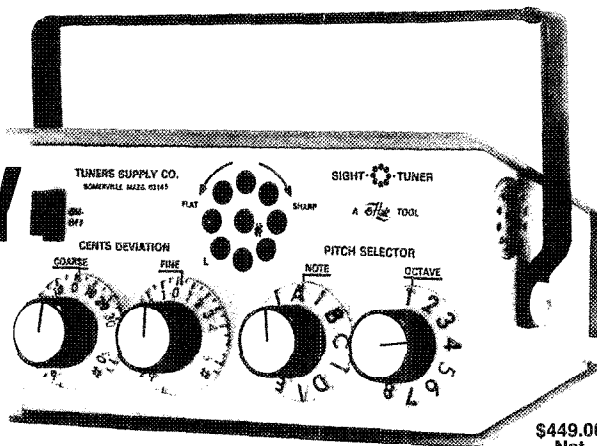
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# EDITORIAL

Don L. Santy,  
Executive Editor

*The Tuners Journal*  
July, 1922

## Our Platform:

1st. To establish and maintain the highest technical and moral standards in the profession of piano tuning.

2nd. To educate the public on the nature and care of the piano.

3rd. To eliminate free tuning, or the promise of free tuning.

4th. The adoption by the manufacturers and merchants of a uniform warranty defining "proper care and usage."

5th. The abolition of the practice of charging the tuning depart-

ment with services rendered the sales, advertising and renting departments.

Disraeli, at one time Premier of England and one of the most brilliant men of his day, remarked on a certain occasion that the greatest successes were achieved by men with the largest and most accurate fund of information.

That the tuner, in order to be successful, should have an extensive store of knowledge, is too apparent to admit of discussion.

We know of no better way for our members to acquire in tabloid form, if we may so express it, useful and necessary information on matters pertaining to their work than to attend the convention in Indianapolis, August 14, 15, 16.

Too many of us are unwilling either to think or to adopt new ideas. Some of us are in a rut, and we will have to be jolted out of it with new ideas and new methods. The urge to do things differently, more efficiently, if you please; an enthusiasm for our work that we never before experienced; and many other things, particularly in a commercial way, that will put the tuning business on the upgrade—these are some of the things we need.

Every tuner should know how to harness the team of quality service and good business methods.

Bring your unsolved problems, the knots you have been unable to untie and the obstacles that clutter your path to progress and success, and they will be solved, untied and cleared away for you.

Then there is reserved for you the

thrill of renewing old acquaintances, and forming new friendships, some of which will continue all through life.

As a loyal member of the N.A. of P.T., you want to share in the constructive work we are doing. Development comes through self-expression, and is of a two-fold benefit, helpful to the individual and to the organization. Our organization has the material, latent in a measure perhaps, to build the finest and most serviceable structure in the trade.

But it can be done only in one way—the get-together way—one hope, one end, the "all for one, and one for all" spirit.



The above article appeared in the July issue of "The Tuners Journal" in 1922, and was written by Thomas J. O'Meara, then the Managing Editor. Does it sound familiar? It was almost 60 years ago and we are to some extent concerned about the same issues, dealing with the same problems, aspiring to the same goals and objectives. To read those old *Journals* is a fascinating experience. The subscription rate then was \$2.00 per year and 20 cents for a single copy. (Also see this month's Update for a related article on costs.)

Those were the good old days. But how much did a tuning cost then? Five dollars was mentioned in one article. I'm sure there were those who did the job for even less.

The convention hotel that year advertised a bath in every room and circulating ice water. Rooms were around \$7.00 per night. Things have changed in 60 years—haven't they?

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# PRESIDENT'S MESSAGE

Bob Russell, President



During the month of July the symbolic Guild gavel changes hands. New officers are elected to continue and add to the growth of the Guild. New ideas and goals are put into effect. As we approach this time we

have mixed emotions. The past two years have been the most meaningful to me personally, but as in all progressive organizations the torch must pass on to new leaders.

Fifteen years ago I had a goal. A goal to give to the Guild as much time, energy, ideas, and support that I could in return for all the technical knowledge, brotherhood and support the Guild had given to me. I began working on committees, adding my thought to the ideas presented, helping to strengthen the forward progress of our organization in every way I knew. The more I attempted to help the Guild the more rewarding it became to me. Every step of the way was a wonderful experience. My horizons were broadened from coast to coast; my knowledge expanded greatly; and the many new friends added great enjoyment to my life.

The past six years on the national board gave me the opportunity to really experience the insight into the intricate Guild policies and functions and made me appreciate the many benefits and opportunities the Guild offers. Of course the past two years as

President were the most rewarding to me. During these two years I was fortunate to be able to make new and good friends from other countries, meet many piano factory representatives, teachers' groups, supply companies, related music associations, different piano technicians associations, and most important I have met so many of you.

So you see in reaching my goal of 15 years ago I now feel more indebted to the Guild for the wonderful and exciting experiences I have had and it will take a lifetime of effort to repay that debt.

I leave the office of President with mixed emotions. My goal was accomplished and I am sorry it is over, but the handing over of our gavel is like spring, a new beginning, new ideas, new leadership.

I would like to thank everyone of you for the support and respect you have given to me during my term as President. I know you will show the same support and respect to your new President as I will.

Thank you again for the experience of a lifetime.



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# THE TECHNICAL FORUM

Jack Krefting, Technical Editor

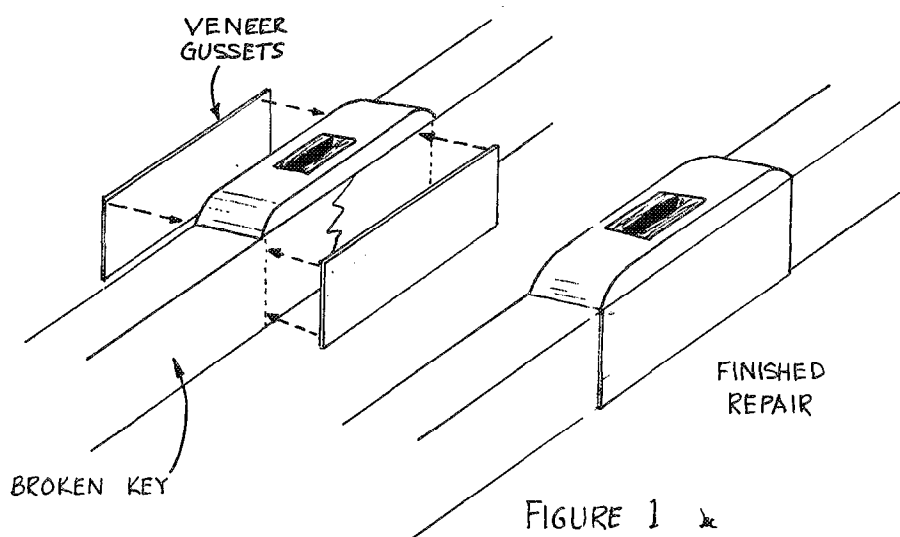


FIGURE 1

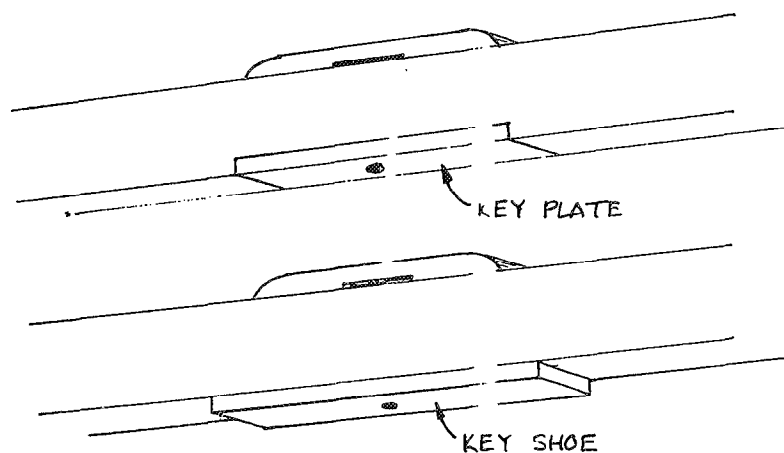


FIGURE 2

*Piano Technicians Journal? Not only have I found it very informative, but in some aspects it has reassured me on innovations of my own which were implemented over many years of trial and error...* —A G. Caught, Banksia Park, Australia

My point in printing the above is that we are constantly learning from one another. Every time I go to a seminar to teach, I wind up learning instead. Technicians used to guard "trade secrets" like they were the family jewels, and it was difficult for anyone to discover methods and techniques other than those used by his own teacher. Fortunately, times have changed. We now have an open exchange of ideas, and I would be hard pressed to name anyone who has not benefitted by it. If you will pardon the commercial, I will suggest that our nonmember subscribers should seriously consider membership in the Guild. A letter of inquiry to our office in Seattle will start the ball rolling.

## FRAGILE KEYS

**QUESTION:** ... "This summer I will be restoring a grand piano whose keys are all very weak at the balance hole. A number of them have been repaired in the usual way and I feel, if unattended, they will present repeated problems. It occurs to me it might help to saturate the vulnerable area with thinned epoxy. Or would white glue in some diluted consistency work? If neither of these, is it possible to have a new keyboard cut ... by whom and at what cost?" —Roland Grittani, London, Ontario

We don't usually publish letters or portions of letters which are complimentary of our own work, partly because that would appear pointless and self-serving, and partly because of the sobering realization that we

aren't in a competitive situation; in a manner of speaking, we run the only game in town. But be that as it may, I want to make an exception here:

"... May I compliment you on the

**ANSWER:** The installation of a new keyboard can be time-consuming and expensive, but it can be done. To explore this option, I would suggest writing to Frank Stopa, c/o Pratt Read, Ivoryton, Connecticut. Since the keys are not destroyed or missing, the simplest way to get them duplicated would be to send in the entire keyboard including the key-frame.

The other option would be to strengthen the existing keys. Roland says that some of them have been repaired in the usual manner, which presumably means that they have been glued back together with reinforcing gussets of veneer added to each side as shown in **Figure 1**. The veneer grain should be horizontal for maximum strength, and may have to be partially sanded away for clearance between keys. This procedure is much better, in my opinion, than simply adding glue or epoxy to the surface of the keystick.

We might also consider strengthening from the bottom. Some keys have a hardwood insert (called a key plate) or addition (called a key shoe) as illustrated in **Figure 2**. This insert not only stiffens the surface around the perimeter of the balance rail hole, but also adds significant strength to the keystick. If this keyboard is not so equipped, the keys could be altered by adding plates or shoes. A shoe would be easier to install because routing would not be needed, but unless there is already a thick stack of paper punchings on the balance rail it will be necessary to install a plate instead. In any case, the grain direction must be parallel to the length of the key.

The key buttons can reinforce the key also, especially if they are made of hardwood and are securely glued to the tops of the keys. American Piano Supply Company now offers a German-made set of key buttons which are far superior to any others I have seen, recently at least. The price is around \$40 per set, and well worth it if you want the best.

For more information on key repairs, see the excellent article in this issue by Priscilla and Joel Rappaport.

#### ADJUSTABLE CAPO BAR

**QUESTION:** "... I have a problem - actually a set of related problems - None of the other Guild members in

this area have been able to suggest possible solutions, leaving me to my own devices. I hope that you might be able to help me, the piano owners, and others who must have similar troubles.

"Two of the pianos, a Steinway upright built ca. 1882, and a Bosendorfer Model 200, 6'6", built in 1914, each have an adjustable pressure bar. Each piano's highest treble section will not remain in tune. Bridges, pin-blocks, soundboard and ribs, and climate are all normal; leading me to question whether the pressure bar might have been readjusted at one time or another leaving the counterbearing angle incorrect. In your discussion of this angle in the December 1980 issue of the Journal you describe a sensible way to check that the angle is consistent throughout the entire section, but I am not aware of what the angle should be or a method of determining that it is correct. Could this possibly be a reason for one section only of a piano going 1/8 tone sharp within two weeks of being in tune? Both pianos are very difficult to tune properly, as each unison in the highest treble section must be retuned over and over. Bearing over the bridges is normal.

"The other two pianos, a Baldwin concert grand #69692, and a Steinway A ca 1930, have similar problems. The strings on several notes in the middle treble section will not stay tuned if hit with very hard blows of the hammer. In addition to this, throughout the middle treble section an unpleasant, loud, ringing sound occurs in varying levels of loudness as each note is played. This high-pitched sound can be stopped by applying firm pressure on the unison strings between the plate string front bearing and the V-bar. I removed the strings from several unisons on the Steinway and lightly sanded and polished the underside of the V-bar to eliminate any burrs or grooves, but the ringing did not stop. Could the angle of counterbearing be responsible? Is there any way to check that?

"All four of these pianos are otherwise in good condition. Any possible help you could give would be very much appreciated by me and by the people who play them." —E. Franklin Dukes, Keswick, Virginia

**ANSWER:** The counterbearing angle, in itself, should not affect tuning stability. If the angle is too shallow there is always the possibility that the string

termination will not be solid and that the strings could move sideways on extreme excursion, causing false-ness and pinging. If it is too acute there could be rendering problems which would appear to be the same as some symptoms of instability, especially if the string is not pounded during tuning or if a kink develops at the capo bar. But aside from that, stability should remain unaffected regardless of counterbearing angles. After all, virtually every vertical piano is equipped with a pressure bar which may be said to be "adjustable", and so long as the screws are not stripped they present no unusual problems in tuning.

The pinging or ringing sounds could be traced to termination, though. A shallow angle or a grooved capo surface could easily be the cause of this symptom. In the event of inadequate counterbearing, the string excursion after a hard blow could be sufficient to allow the string to momentarily move from its customary termination point so that the string is actually touched by the capo in its "new" speaking length. A grooved capo bar has an essentially flatter bearing surface, which encourages the same behavior from the string. It may even be vibrating against the sides of the groove, although I would consider this less likely.

A common prescription for a grooved capo bar is to resurface it with emery cloth or a fine file. This is fine, up to a point; but we must remember that the profile of the capo is important to termination, and that the draft angle is directly affected by the removal of material from the capo. Shaving the capo down decreases the draft in a grand, and has the opposite effect in vertical pianos.

To answer the final question, it is possible that the angle is shallow. The only way to prove that would be to increase the counterbearing by loosening the strings and inserting a piece of brass rod under them to raise them at counterbearing point. The trouble with this procedure is that it is rarely possible to maintain the original length of the counterbearing

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segment without major surgery on the plate. But if it solves the problem it would be worth the trouble, considering the alternatives.

## DAMPER SPOONS

*"I would like to comment on a portion of 'THE TECHNICAL FORUM' in the March 1981 Journal. My contribution concerns the burred damper spoons which were digging into the damper lever felt. I had a similar, but not identical, problem . . .*

*"The piano, an old Gulbransen upright, is in a summer camp for girls about 40 miles from here, and it is kept in the assembly hall. Repetition was sluggish and in some cases nonexistent, except when the damper pedal was depressed. Removal and examination of the action revealed that the rounded parts of the spoons which push against the levers were rusted seriously. As we all know, rusty metal is coarse and abrasive in texture. Many of the felts had worn down to the wood. Consequently, the edges of the spoons were catching on the unworn felt around the holes which they had worn, thus impeding the return of the whippen to rest position.*

*"I removed the dampers and removed the old felt, and glued new felt to the lever bottoms. Then, using a Moto-Tool with a miniature wire brush attachment (part no. 428), I buffed all of the spoons clean of their rust. This procedure wore out two of the brushes, and the spoons shone with a soft, satin gloss. To lubricate the action and help retard further rusting of the spoons, I sprinkled powdered graphite on each of the new damper lever felts and rubbed it into the cloth. I then installed the dampers, installed the action and regulated.*

*"The repair turned out to be most satisfactory to the customer, and I feel that it will last as long as the rest of the piano. I welcome suggestions and comments from other readers . . ."*

**ANSWER:** I have not identified the above correspondent; not because he had requested anonymity, but because his repair procedure is questionable at best. Rubbing graphite into felt is bad enough, but grinding away at the plating with a wire brush in a Moto-Tool is even worse in my opinion. A bright plated surface against clean felt or bushing cloth will work reliably for a very long time;

adding lubricant is sort of like painting a brick building — once you start, you must continue forever. In my opinion these spoons should have been replaced, along with the lever felt.

## OPEN QUESTION: EPOXY IN TUNING PIN HOLES

*"I was recently called upon to deal with a cracked pinblock—loose pins in a straight line. What made the situation more aggravating was that the piano had just been restrung. I wound up doping it. Seems to have worked so far.*

*"It seems some people swear by doping. Do they know something I don't? Some people also swear by a process of removing the pin, coating the insides of the hole with epoxy, re-driving the pin and continuing to turn it to prevent its bonding in place. Do these people know something I don't? I tried it in some scrap and couldn't get it to work.*

*"One thing I tried that I liked, I never heard of before. I drilled an oversize hole (3/8"), filled it with epoxy and let it harden. I then drilled the epoxy with a 1/4" drill and drove in a 3/0 pin. It seemed good and snug. One thing that worried me was the possibility that use and time might degrade the surface of the hold. It seems this could be forestalled by lining it with a metal tuning pin shim, but I have not tried this.*

*"Does anyone have any thoughts—or, better yet, experience—on this? It seems to me that we need a good discussion of this whole area." — Michael Shapiro*

## MORE ON LOOSE PINS

Dear Mr. Krefting,

*"I would like to add to your comments about loose tuning pins in the January issue. I feel that loose tuning pins are the most prevalent serious problem we deal with.*

*"Because loose tuning pins are so common, I feel that we should deal with them in more specific terms. I prefer to measure torque any time I am confronted with the problem. Aside from the obvious benefit of demonstrating the problem to your customer, a few numbers recorded in your file or notebook will provide an excellent record for determining if the*

*problem is getting worse.*

*"I measure the torque with the gauge available from our suppliers, which measures inch pounds. The torque is measured in the counter-clockwise direction and indicates "reserve torque" that is holding power above that needed to counter the pull of the string.*

*"I consider a reading of 20 inch pounds unstable. A reading of 30 is unsatisfactory and in danger of slipping in the near future. A newly restrung piano or repinned piano may not read on the scale of the gauge which reads to 120 inch pounds. I feel that 70 to 80 is the most comfortable for tuning.*

*"Most of our loose tuning pins here in Colorado are due to drying out. If the wood is solid and the glue is holding, I prefer to use the old pinblock. It is far better stabilized and may well be preferable to a new pin block. Careful inspection is indicated. It is never safe to trust a doped pinblock.*

*"I would appreciate knowing about any specific standard of tuning pin tightness that has already been published. Could we hear from the manufacturers on this?" — Richard S. Frederick, Fort Collins, Colorado*

**ANSWER:** I would take exception to Richard's assertion that the old pinblock should be used in preference to a new one, but otherwise I agree with the substance of his letter. Regarding tuning pin torque, I can say that Baldwin anticipates a reading of 180-200 inch pounds immediately after driving the pin. This settles down to perhaps 150 after chipping, and to about 125 after a few tunings. We invite comments on this topic from other manufacturers.

## TECHNICAL TIPS

The following two tips were sent in by Kenneth Mayhercy:

1. "In old uprights, the hammer rest rail tends to shift to the left causing drag or breakage of the butts immediately to the left of the three stanchions. This is because these three pivot hooks turn to the right, and only the extreme left hook turns to the left. Along come the movers, who upend the piano on its left end, and the weight of the rail weakens the left pivot hook.

*"In the shop, the fix is to bench the action, remove the extreme left action bracket, bend the pivot hook slightly*

more to the left, and replace the bracket. But suppose you're in the customer's home and the pivot hook is loose from previous tinkering, then what? A quick, positive fix is the installation of a small hardware angle (see Figure 3) on the rest rail, pressing the pivot hook to the left. This can be done quickly without removing the action and really cures it right now.

2. "I carry a few assorted hardware angles and mending plates with me at all times and find that all sorts of case problems are fixable quickly for which I can charge a nice repair fee. Another example is a loose pedal rail which goes up and down with the pedals, and no sustaining action at all. While you hold one end up off the floor, have the customer slip a book under the bottom board so it is pushed up into position by the weight of the piano. Quickly install a mending plate as shown (see Figure 4) and then remove the book and adjust the pedals as necessary." —**Kenneth W. Mayhercy, Steamboat Springs, Colorado**

Our third tip is from Roland Gritani, who also contributed this issue's first question.

"Recently while working on an action with french butts, having removed the dampers and damper stop rail, I thoughtlessly allowed the hammers to swing forward slicing most of the silk loops. My first reaction was to utter a string of curses but after a pause for some thought I came up with a simple process to replace the set of loops. Doing an entire set took less than an hour and provided a very restful opportunity to listen to some quiet music and to send my mind off for a trip to the ozone.

"Using button twist (a heavy woven thread for sewing buttons), I wrapped a loop around a wooden key-end dowel held in a bench vice. This was tied off with a fat knot (to prevent it slipping through the hole in the brass rail). If a larger loop is needed wrap the dowel with a round or two of masking tape. Of course, the idea is to make up a full set of loops before inserting them all, though one may want to experiment with the loop and knot sizes on the first few.

"To install the loops I used a 3" piece of music wire filed flat on the end (wire cutters will leave a sharp point that will rip the loop and destroy it). To assist, I put a tiny hook on the other end to fish out the loop if necessary. I keep this 'tool' mounted on a

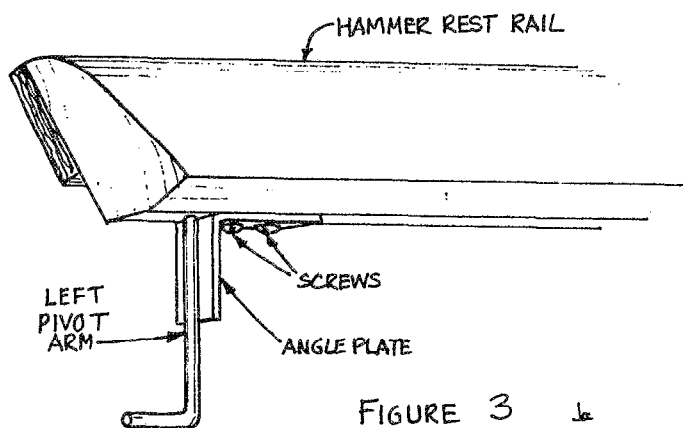


FIGURE 3

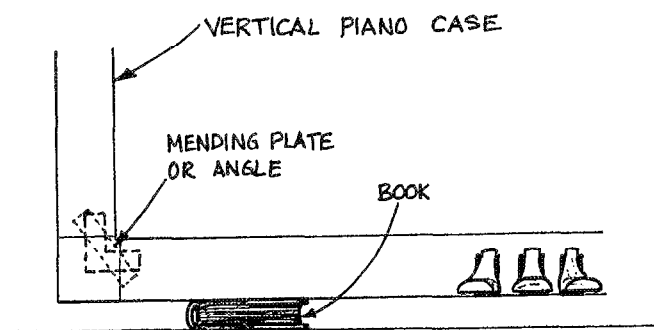


FIGURE 4

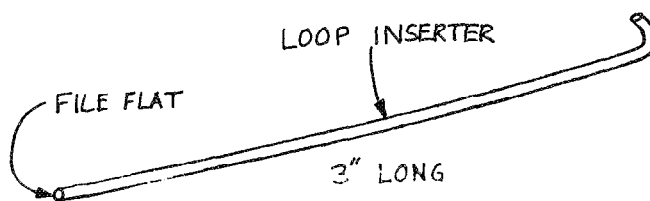


FIGURE 5

card for the next time. (see Figure 5).

"Another recent minidiscovery was that round tooth picks work fine to keep grand damper guide rail bushings in place while the glue is drying. A few toothpicks and a few minutes are all that is required."

#### GADGET OF THE MONTH

A very fine young technician from Modesto, California, decided after reading our comments on key dip in the January 1981 issue that we had left something out. Sure enough, we did, and here is part of his letter:

"... I use a tool which I made, but didn't invent, for setting dip in many pianos. The advantage of this tool is that it's good on sharps and naturals, and there is no variance on how hard you press the key. While I have different sizes of this tool, I find that I'll usually use the same size for all keys on a given piano for best results. The tool (see Figure 6) is inserted under the key onto the front rail pin. If you're like me, you'll want to use a size just smaller than the space you want there. About .001" leaves just enough room that when you tap on the key it clicks, but not enough that you can see the key move. My mentor, who

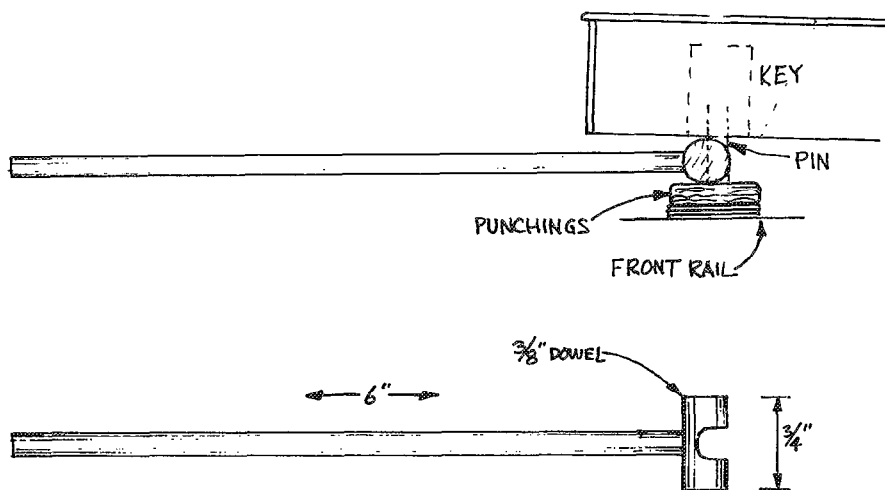


FIGURE 6 Jc

taught me to use this tool, makes it just fit, so when inserted you watch to make sure the key doesn't rise.

"The tool can be made of metal or wood. If metal, the head can be threaded so you can have one handle for several heads of varying sizes. Both parts of the tool are just doweling, with the handle being thin so it can be inserted easily and straight to a sharp's front rail pin. The head usually starts out with 3/8" dowel and is sanded top and bottom to various sizes. It doesn't work well when the keys are inset right at the front rail bushings, but otherwise is fine.

"I would also like to say something about dip block use that has helped me. I play the keys rapidly (two per second) listening to how hard I play to make sure I'm depressing with equal strength. Also I use a size slightly smaller than would be level (by about .001"). This is easier to feel and doesn't let my fingers get lazy without knowing it. I can readily then recognize a level feeling, or a larger bump." —Wade Muncy

## IN CONCLUSION

If you have any question, comment, technical tip or article for publication, please mail it to me at this address:

Jack Krefting  
Baldwin Tech Service  
1801 Gilbert Ave.  
Cincinnati, OH 45202

## BOOKS

### "How to Buy a Good Used Piano" by Willard M. Leverett

\$3.95 plus 75¢ postage,  
33 pages, 40 photos

available from Willard M. Leverett,  
8206 Yarrow Ct., Arvada, CO 80005

This handy, soft-cover book is an excellent source of information for the used piano shopper. It is not intended to take the place of a qualified technician and the thorough examination he/she would conduct if asked to appraise the condition of a piano. What it does do is give a shopper some basic instruction on what he/she can see in a quick way so that possible "dogs" can be eliminated before the expense of getting someone to do a detailed check.

The step-by-step is logical, the pictures are clear and the information correct. It provides a useful tool for a prospective buyer. This is the sort of book which could be made available to customers making general inquiries. As I read through I came away with the conviction that this was the bare minimum of information I would like a customer to have as they went out to shop. In fact, it coincided quite well with material covered by me in many a telephone conversation.

Basic flaws in pianos which are obvious to someone with only a little background, such as this book provides, should eliminate a large

number of "klunkers" being foisted on the unsuspecting public. Helping people defend themselves against those who would take advantage of them is a worthwhile service. If we can save someone from a mistake, a mistake which may later wind up as our problem when we become involved in trying to make the instrument work, we are doing them and ourselves a great favor.

Used pianos are in short supply. Good used pianos are in even shorter supply. "How to Buy a Good Used Piano" can be a great help in sorting out the good ones.

— Charles Huether

## Reader Feedback

Dear Mr. Santy:

In regard to Mr. Reed's letter in the March 1981 *Journal*:

My concerns as the years have been passing have been that the Guild would put itself out of the market in the frantic search for image. My first experience, from the tender age of 12 when I first started to work in a piano shop, was to learn the basics of the craft. It took some three months of carefully supervised effort on my part to satisfy my mentor in the way the shop was cleaned up at the end of the day's work. Notwithstanding, this natural lack of talent was carefully nurtured on a one-to-one basis by several good craftsmen who led me gently into a position of confidence that convinced even me of the possibility of making a living in the piano business.

As I reflect on the 45 years that have elapsed since my piano career started with broom in hand, the feeling persists that the Guild may be in error by not concentrating its efforts more strongly on this olden day premise of teaching the craft and preparing people for membership, knowing they have a background of hands-on training and experience.

Testing is most necessary to maintain creditable membership in our Guild.

Shutting the door by idealistic standards for our testing may be our biggest mistake for the care and feeding of good, practical field service technicians as members of the Piano Technicians Guild.

J. Jeffers  
Prescott, Arizona

# THE TUNER

Paul Monroe, RTT

## *First in a Series*

The TUNER—is more than a person sitting at a piano playing thirds, fourths, fifths, sixths with one hand and adjusting tension on the strings with the other. This is very important, but so are the other aspects of this business. I'll be talking about some of these aspects in this column. The comments and suggestions will be directed to the student and apprentice. The intent is to talk about some of the small but important things they should know.

For this article I will assume you are tuning part time or full time and you have appointments. How to get and keep appointments will be discussed at a later date.

I would like to start at the point where you have an appointment. Do you know your client? Have you been there before? In either case you should contact them the night before to confirm your appointment for the next day. There is nothing more frustrating and expensive as to drive several miles and find no one home. My experience has been that calling the night before eliminates more than 95 percent of your "no shows".

Before you make the telephone call ascertain the most direct route. If you can't locate the street or road on your map, ask for directions when you make your call to confirm the appointment. When you have the directions, write them on the back of your client index card. (I'll talk more about the "card" later on).

Exercise good judgement in scheduling your routine for the day. For new clients allow the amount of time you need to inspect, service, raise pitch if necessary and tune plus the time required to drive to the next appointment. For a repeat client, your record "card" will assist you in knowing what you will be doing at the next appointment and you will know from experience how much time to allow.

Be on time—not early—not late—on time. It reflects on you personally. If you can't be on time, call ahead and

explain your position and when you expect to arrive. Remember, if you inconvenience your client, your best tuning may not be good enough for a referral and referrals are the main source of new business.

This client I have mentioned is a very important person to know. Here are but a few of the many ideas on how to learn about this person.

Notice the decor of the home as you enter. What kind of pictures are hanging on the wall? Are they oil paintings? (It may have been painted by your client). Do you see family pictures? Most likely someone you are looking at is taking piano lessons. Observe the level of music you find on the piano. Sometimes you'll find their lesson assignment which will tell you their level of accomplishment. These little things begin to formulate a basis on which to know your client.

If the piano is hardly playable because it needs regulation, the hammers are flat at the strike point, the dampers work sometimes; you have an opportunity to sell repair work and maybe a complete restoration job. It can happen, so don't be backward about being forward.

To know your client will help you sell piano repair work. I believe you have a responsibility to advise the client on the condition of the piano, what it needs and how much it is going to cost for repairs.

You may be saying at this point, "I haven't had sufficient experience to know all the things a piano should have". This is where the Guild is very important to you. Attend chapter meetings, local seminars, state and national conventions like the one in San Francisco this year. Attending affairs of this nature should be top priority on your list if you plan to be good at your profession.

In the meantime, until you have had sufficient experience and you recognize the piano needs a great deal of work, ask your client if you can bring in another technician to evaluate the piano, then call on one of the members in your chapter who has a shop or has had good experience at evaluating pianos. Ask him to go with you and give you his evaluation. Pay him for it and include it in the

proposal price to your client. Where and when to do the work will be discussed in further issues.

Up to now you have been gathering information you can use as long as you have this client. You have established a certain amount of rapport and you are ready to service the piano.

It is important to have an established routine to check out a piano before you start to insert muting strips. You will save time and you won't miss items that may be important. The following list is a beginning point. I'm sure you'll add to and revise to fit your needs.

1. Observe the appearance
2. Play all of the notes
3. Check the physical condition
4. Correct problems
5. Mute and tune
6. Recheck unisons
7. Record piano name and serial number
8. Itemize the work you did—present your bill

In subsequent issues of the *Journal* I will be detailing each of the items on this list.

Remember, if you want to become good in your profession, attend your Guild sponsored meetings, seminars and conventions. The next National Convention will be in San Francisco, July 6-10. See you there.

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# 1981 TECHNICAL INSTITUTE UPDATE

by George Defebaugh  
1981 Institute Director

The following list of classes with their brief descriptions is the same one you will receive with your Registration Packet when you arrive at the Hilton in San Francisco. If there is a

reader out there who has not yet decided to attend because he didn't think his particular class would be presented . . . please look closely at this list. We do take late registrations

at the convention site and we will say it one more time . . . **If you're serious about the Piano Service business, you can't afford not to come.**

## **1. COMPLETE GRAND REBUILDING:** Bob Burton, Ken Kadwell, Sheldon Smith.

This class will be tailored for the technician with a good working knowledge of Grand repairing and regulating who wishes to improve his/her skills in the art and science of complete restoration. This class will cover both theory and application of soundboard and pinblock removal and replacement (or restoration) as well as complete action restoration. There will be some "hands-on" opportunities and the piano will be completed for sale at the close of the Convention.

## **2. NEW ADVANCES IN FINE TUNING**

Steve Fairchild

Steve will bring the equipment and know how to show you how to tune a perfect temperament and how to tune the top octave as easily as you tune mix-range unisons. The perfect musical tuning of bass octaves will be demonstrated and an in depth study of the piano's harmonic structure will be thoroughly discussed. The array of impressive gadgets includes Sight-O-Tuner, Harmonic Amplifier, and Digital display of partial frequencies.

## **3. FINE TUNING MADE EASIER (aural)**

Newton Hunt

There are many helpful techniques and approaches to fine tuning that seem to get lost during the daily tuning grind. These will be discussed, reinforced and demonstrated. There will be hand-outs, but bring your notebooks and recorders. There **IS** new information and modified procedures in our chosen field.

## **4. TONE REGULATING (Voicing)**

Norman Neblett

Outlines 40 minutes of slides showing the principles of tone regulation including strings, hammers, dampers and hammer fling. Following this is the actual demonstration of all the things shown in the slides. Questions are invited at all phases of the demonstration.

## **5. THE BASICS OF PIANO TUNING. . .** Leon Levitch

A basic tuning class, demonstration of slow beating and fast beating intervals, tuning hammer technique and tuning pin control. A first time Instructor (at a National Convention) with many years of teaching experience who can help smooth the pathway to success in our chosen profession.

## **6. SERVICING THE FENDER—RHODES PIANO** Harold Rhodes, H. Absman

Includes a familiarization with all Fender-Rhodes models of the past 15 years. Complete coverage of tuning techniques, action repair & regulation, voicing and tone bar replacement.

## **7. THE LEAK STOPS HERE. . .** Ruth and Raye McCall

A must for those who restore old players. Raye and Ruth are experts at "finding and fixing" and they can give you a lot of information on reworking valve and pneumatics, in a very short while. You better listen fast.

## **8. ADVANCED PLAYER SERVICING**

Norman Heischöber

An Odyssey into the utmost, innermost intricacies of the Player Piano, by a man whose work is also his hobby and recreation. Norman will deal with high level trouble shooting in all kinds of Players, and possibly say a few words about the one he built for himself.

## **9. SERVICING THE AEOLIAN PLAYER**

Bob Snyder

Class will cover all phases of the operation and servicing of the Aeolian products as well as some tips on trouble shooting.

## **10. POLYESTER REPAIRS AND TOUCH-UP**

Lee Sankey

Lee will give a slide presentation of Factory application and conduct a discussion on the materials used in the process. He will also show how to fill, finish and polish small damaged areas.

## **11. LACQUER FINISHING AND TOUCH-UP**

Wayne Clevenger

A slide presentation and lecture on stripping, sanding, filling and finishing for a complete piano refinish or a small area touch-up.

## **12. HARPSICORD MAINTENANCE AND SERVICE. . .** Wm. Kasimoff

Bill is a specialist in the Neupert Harpsichords, but is also thoroughly experienced in the servicing and tuning of all makes and models of Spinets and Harpsichords.

## **13. BUSINESS BUILDING (Organizing & Motivating Yourself). . .** Phil Bashaw

Phil has a Bachelor of Science degree in Business Administration from Long Beach State Univ. and will bring you the techniques he uses in his business to make it successful. This will include . . . self motivation . . . organization of the workday . . . work week . . . month and year. The use of the calendar as

an organizer and a tax record . . . the telephone . . . its use . . . its tricks . . . and 3x5 card organization, plus the do's and don'ts in the customer's home which make you a professional.

#### **14. THE CALCULATING TECHNICIAN**

Dave Roberts

Dave is the same calculating Technician who writes those lovely formulae and equations in the *Journal*. The class will review this material with emphasis on Piano Scale evaluation as well as a discussion and demonstration of those three programmable calculators mentioned in his articles.

#### **15. SOUNDBOARD REPAIR AND RESTORATION**

Lew Herwig

This class will cover shimming of soundboards with both Spruce and Epoxy as well as the possibilities of restoring or increasing crown in a flat board. When to shim . . . when to put in a new board. You can count on Lew to have his facts and figures on the tip of his tongue.

#### **16. PEDALS, LYRE AND SOSTENUTO**

Fred Drasche

In this class you will receive the benefits of 58 years of Steinway Factory experience plus a whole lot of field experience on a subject we often tend to overlook. Just remember the Artist can play a slightly out of tune Piano but without proper pedal adjustment, repair and lubrication, a performance can be ruined.

#### **17. WHAT ARE ALL THEM FELTS FOR??**

Jim Harvey

Although this title was cooked up with tongue in cheek the content is quite serious. You will find out which felts in the piano action are there for pure noise abatement, which ones are spring cushions and several other things that might never have occurred to you. Particularly good for the less experienced Technician.

#### **18. CLIMATE CONTROL INSTALLATION**

Allen Foote & Wendell Eaton

You are surely aware of the DAMPP-CHASER climate control system, but do you really know how easy it is to install, how much it costs, how much can you make from an installation???? Allen and Wendell will have answers to all of the above.

#### **19. TOOLS! TOOLS! TOOLS! . . . Francis Mehaffey**

This class really needs no buildup because Francis has a reputation for always coming up with good tools to help you do a good job. Just come and see what he might have dreamed up since you last saw him.

#### **20. PIANO APPRAISAL AND EVALUATION**

Ben McKlveen

This class is not really listed as a business building class, but the information you get here will certainly help make you a better business person. Ben will give an overview of Piano Market basics, evaluating pianos for repair and restoration, estimating repair costs and appraisal of customer pianos for insurance coverage. There will be slides, handouts and many well chosen words of pure McKlveen.

#### **21. KEY COVERING. . . Ed Solenberger**

OUR ANNUAL PTG CONVENTIONS have had

key repair and recovering classes before, but this will be the first time the Instructor will show you how you can make your own key covering machine using available machined parts. A very interesting and informative class for anyone interested in doing key covering.

#### **22. VERTICAL PIANO TROUBLE SHOOTING**

Ernie Juhn

Many of you have seen Ernie's damper class and some of you have seen his regulation classes so you know the contents of this class will be valuable. How do you find those buzzes, rattles, sticking keys, tight flanges etc. — and what do you do with them after you find them? Come see Ernie and go home with some answers.

#### **23. FRICTION IN THE GRAND ACTION**

Ed Whitting

The subject is old, but the Instructor is new. If you don't know what to do to each of the 23 points in the Grand action which **MUST** be treated before you can do a fine regulation, come to this class. Ed will have a refreshing approach to giving you some very basic information and there just might be two or three of those friction points you had forgotten about.

#### **24. BRIDGE REPAIRS—USUAL AND UNUSUAL**

John Bloch.

John will have slides and samples to show you bridge repairs from Epoxying splits in Klunkers to installing a new bridge cap on a piano which didn't have the bridge in the right place to begin with.

#### **25. SPECIAL TOOLS FOR SPECIAL PEOPLE**

Paul and Jack Sprinkle

This was the most popular class for the visually handicapped at the 1980 convention, so we have asked Paul and Jack to do it "Once more for the West Coast". Not only is this a must class for the blind Technician, many sighted Technicians can find here tools and techniques that will benefit them.

#### **26. BROKEN AGRAFFES, TUNING PINS & SCREWS . . . Paul Bergan**

You won't need to take notes in this class because Paul will be completely organized. His handouts will cover: How to remove broken agraffe and replace with a new one . . . What to do when the broken stub won't come out . . . what to do when threads have been damaged . . . what to do when someone has damaged the threads in the largest possible agraffe hole . . . how to solve buzzing agraffe problems . . . how to install new agraffe so it is tight and square to the strings . . . how to repair 7/32" agraffes in older Steinways . . . plus how to remove tuning pins and screws which have broken off flush.

#### **27. SHARPENING THE TOOLS OF THE TRADE**

Joel and Priscilla Rappaport, assisted by Dean Garten

After demonstration on preparation of cutting tools used in the shop, participants will sharpen commonly used tools and complete a small project. Tools and stones used in this class will be sold after the last class (app. 10:00 a.m. July 10th). There will be closed circuit T.V. coverage in this class so that those unable to "get their hands-on experience" will at least see everything clearly.

**MORE \* MORE \* MORE PAGE 35**

# Piano Technicians Guild



**24th Annual Convention and Technical Institute  
July 6-10, 1981**

*San Francisco, Everybody's Favorite City*

## **SAN FRANCISCO HILTON & TOWER**

Conveniently centered in the heart of downtown San Francisco's activity, the San Francisco Hilton & Tower is just a block from Union Square beckoning the shopper with high fashion apparel; cable cars clang their way up steep grades then descend for the scenic color of exotic Chinatown and Fisherman's Wharf.

## **BE A WINNER**

Register early (by April 15th) and be a winner! There will be two free dinners at the San Francisco Hilton Hotel awarded during the Opening Assembly, \$100 awarded at the Closing Luncheon, and four nights lodging given at the Wednesday Evening Banquet. (Winner of free lodging must be staying at the San Francisco Hilton and must be present at the Wednesday Evening Banquet.) One drawing ticket will be enclosed in your registration packet if you register early by April 15th.

Attending a Piano Technicians Guild Annual Convention isn't all classwork; you can relax with your friends (old and new) and enjoy the many activities planned for you.

## **REGISTRATION CANCELLATION POLICY**

Full registration will be refunded if cancellation is received postmarked no later than June 1st. After this date a 30 per cent cancellation fee will apply to all refunds made prior to July 1, 1981. There will be no refund made on any registration cancelled on or after July 1, 1981.

## **NONMEMBER SPECIALS**

Nonmember registrants who apply at the convention Membership Booth may obtain a \$30.00 certificate good on new member application fee when accepted as a Registered Technician, Apprentice or Allied Tradesman. Nonmember spouses may use \$6.00 of the registration fee as Auxiliary dues at the Convention.



*Fisherman's Wharf*

## **REGISTER NOW**

**Registration forms with checks attached are now rolling into the Home Office. Your early response will be most helpful in planning for your arrival in San Francisco.**

**When you make your decision to attend, let us know by your registration and check as soon as possible.**

## EXHIBITS

This year, arrangements have been made for over 30 exhibits by many of the industry's top companies. It will be your opportunity to discuss ideas, problems and possible solutions with the very people most likely to know—the service representatives and company officers of piano manufacturers, supply companies, importers, trade schools, electronic tuning equipment firms and others. This year the exhibit will be located in a more spacious area affording much more privacy for all involved.

## BANQUET

Each year the banquet serves as the convention's social highlight. The entertainment planned promises you a wonderful evening! You will be pleased to know that the banquet is being held on Wednesday evening and will be held in the glamorous Continental Ballroom.

## SPECIAL EVENTS

An event similar to the 1980 special including the "Flea Market" is in the planning stage with a Hawaiian theme. Plan to reserve a table for your Chapter. Details will appear in several issues of the Journal prior to the Convention.

## CLOSING LUNCHEON

At the Closing Luncheon you'll bid farewell to retiring Guild officers and welcome their replacements—share in award presentations and say goodbye to friends for another year. This is a "must attend" event that's guaranteed to make you glad you came to "EVERYBODY'S FAVORITE CITY."



## AUXILIARY WINE COUNTRY TOUR

The Auxiliary has planned an all-day tour to the wine country and village of Sonoma. You'll leave by bus and travel north to the Pueblo of Sonoma, a landmark of early California days, tour the state's oldest winery and sample its excellent wines. After a special lunch in the beautiful Sonoma Mission Inn, explore the quaint town of Sonoma, its many shops and points of interest, including Mission San Francisco de Solana, founded in 1823. Cost of the tour is \$28.00 per person. Please sign up and forward your check to the Home Office right away!

---

*The following is reprinted from "Indy 440", The Indianapolis Chapter Newsletter.*

## NEW WAYS TO CHEAT THE CUSTOMER

By Guy McKay

Most service in the home is easy to evaluate. If somebody comes and fixes the washing machine or paints the house, we can quickly tell if the required service was completed.

With piano tuning it is different. Many of our customers have no way to determine whether we have done what they are paying us to do. Many times their confidence in us is based on simple trust. So here is a tremendous opportunity to cheat.

Cheating can take many forms. Sometimes it is just doing sloppy or inaccurate work, or overcharging for what we do. Sometimes it takes a more subtle form. You could almost be doing some of these and not realize it.

### OVERSCHEDULING:

This usually happens when you are overly optimistic about how quickly you can complete your work. If the first appointment hits a snag, that means you will be running

behind schedule all day. When you are running late it is much easier to overlook that squeak or rattle. Sometimes if you are in a hurry, the piano seems to fight back. Have you noticed how many broken strings happen when you are already late? The loser in all this is the customer.

### SHARING YOUR BAD DAY:

There is nothing more frustrating than to be having a bad day and have a customer who is cheerful and exuberant. So share your grief. Tell the customer how miserable you are. When your customer realizes that what should have been a happy occasion is a real downer, they will feel cheated all right.

### TUNE THE PIANO AT ITS PRESENT PITCH:

This can often go on for years. The piano gets flatter and flatter without the customer catching on. It all happens so gradually. You are saved forever from the hassle of pitch raising. Of course the customer gets cheated again, since you are getting paid to tune it to standard pitch.

### RESCHEDULE APPOINTMENTS WHEN YOU FEEL LIKE IT

The customer will know right away that your time is more valuable than his/hers. After two or three times he/she will take the hint and call somebody else. You will be through with him/her altogether.

# San Francisco

## SPOUSE CALENDAR

### Sunday — July 5, 1981 (PTG Council in Session)

8:00 am-12:00 n Auxiliary Center Open  
1:00 pm- 4:00 pm Auxiliary Center Open

### Monday — July 6, 1981 (PTG Council in Session)

8:00 am-12:00 n Auxiliary Center Open  
1:00 pm- 4:00 pm Auxiliary Center Open

(Auxiliary Center open to Members and Non-Members)

### Tuesday — July 7, 1981

8:00 am-12:00 n Auxiliary Center Open  
8:00 am- 9:00 am Auxiliary Board Breakfast  
9:30 am-11:00 am Auxiliary Assembly  
Two Speakers & Slide Presentation  
11:30 am-12:00 n M A L Meeting  
1:00 pm- 4:00 pm Auxiliary Center Open  
1:00 pm- 2:00 pm Auxiliary Council\*  
2:30 pm- 4:00 pm President's Reception\*

### Wednesday — July 8, 1981

8:00 am-12:00 n Auxiliary Center Open  
9:00 am-10:00 am Class  
10:30 am-11:30 am Class  
1:00 pm- 4:00 pm Auxiliary Center Open  
12:00 n 2:00 pm Installation Luncheon

### Thursday — July 9, 1981

8:00 am-12:00 n Auxiliary Center Open  
9:00 am- 4:00 pm Tour of Wine Country and Sonoma Village  
1:00 pm- 4:00 pm Auxiliary Center Open

### Friday — July 10, 1981

8:00 am-10:00 am Auxiliary Center Open

All meetings are in California Room except President's Reception in Vista Room & Installation Luncheon in Continental Ballroom 5.

\*Activities for members only



## MEMBER CALENDAR (Preliminary)

### Saturday — July 4, 1981

1:30 pm- 6:00 pm Registration Open

### Sunday — July 5, 1981

9:00 am Worship service  
10:00 am-12:00 n Council in Session  
12:00 n - 6:00 pm Registration Open  
1:30 pm- 5:00 pm Council in Session

### Monday — July 6, 1981

8:00 am- 9:45 am Chapter Workshop  
8:00 am Complete Institute Office Setup  
8:00 am- 6:00 pm Registration  
9:00 am- 4:00 pm Classroom Setups  
10:00 am-12:00 n Council in Session  
1:30 pm- 2:15 pm Regional Caucuses  
2:15 pm- 5:00 pm Council in Session/Officer Elections  
7:30 pm- 9:00 pm Opening Assembly  
9:00 pm-10:30 pm Exhibit Opening/Ribbon Cutting

### Tuesday — July 7, 1981

7:30 am-12:00 n Exhibits (Drawing)  
7:30 am Membership Services  
8:00 am- 6:00 pm Registration Open  
8:30 am-12:00 n Institute Classes in Session  
9:00 am-10:30 am Board Committee Appointments  
1:00 pm- 6:00 pm Exhibits (Drawing)  
1:30 pm- 5:00 pm Institute Classes in Session  
5:15 pm- 6:15 pm Feminine Technicians Meeting  
6:30 pm Young Technicians Meeting  
8:00 pm-10:00 pm Flea Market — Hawaiian theme

### Wednesday — July 8, 1981

7:30 am-12:00 n Exhibits (Drawing)  
7:30 am Membership Services  
8:00 am Registration All Day at Office  
8:30 am-12:00 n Institute Classes in Session  
1:00 pm- 6:00 pm Exhibits (Drawing)  
1:30 pm- 5:00 pm Institute Classes in Session  
6:45 pm- 7:30 pm No Host Cocktail/ Reception  
7:30 pm- 9:30 pm Banquet

### Thursday — July 9, 1981

7:30 am-12:00 n Exhibits (Drawing)  
7:30 am Membership Services  
8:00 am Registration All Day at Office  
8:30 am-12:00 n Institute Classes in Session  
11:45 am- 1:30 pm Membership Services Open  
1:00 pm- 6:00 pm Exhibits (Drawing)  
1:30 pm- 5:00 pm Institute Classes in Session  
Free Evening

### Friday — July 10, 1981

8:00 am- 9:00 am Committee Meeting  
7:30 am-11:00 am Exhibit Finale (Drawing)  
8:30 am-12:00 n Institute Classes in Session  
12:30 pm- 2:00 pm Closing Luncheon

## MEMBER REGISTRATION COPY

Name \_\_\_\_\_  
Home Address \_\_\_\_\_  
City \_\_\_\_\_  
State/Province \_\_\_\_\_ Zip \_\_\_\_\_  
Nickname for Badge \_\_\_\_\_  
(if not the same as above)

- ☐ Member ☐ Non-Member  
☐ Visually Handicapped  
☐ Will be staying at the San Francisco Hilton and  
Tower

Spouse's Name \_\_\_\_\_  
(if attending)

Nickname for Badge \_\_\_\_\_  
(if not the same as above)

Children (names and ages) \_\_\_\_\_

### REGISTRATION CUTOFF DATES (Cutoff Dates are Firm and Absolute) Check Boxes and Total

#### TECHNICIANS

##### Guild Members

- Postmarked by May 1 ..... ☐ \$ 90.00  
Postmarked after May 1 ..... ☐ \$110.00

##### Non-Guild Members

- Postmarked by May 1 ..... ☐ \$175.00  
Postmarked after May 1 ..... ☐ \$195.00

Private Tuning Tutoring (1½ hours) ..... \$ 30.00  
☐ Aural ☐ Visual

Grand Rebuilding ..... ☐ \$ 30.00

#### SPOUSES AND CHILDREN

- Auxiliary Member ..... ☐ \$ 35.00  
Non-Auxiliary Member ..... ☐ \$ 45.00  
Children (15 and under) ..... ☐ \$ 5.00  
I Plan to Attend ..... ☐ Auxiliary Tea  
..... ☐ Auxiliary Luncheon

#### OPTIONAL FUNCTIONS

- Banquet ..... ☐ \$ 25.00  
Closing Luncheon ..... ☐ \$ 15.00  
Auxiliary Wine Country Tour ..... ☐ \$ 28.00

TOTAL ENCLOSED \$ \_\_\_\_\_

Tickets for optional functions must be bought no  
later than 48 hours before the event.

**NOTE:** Spouses of Piano Technicians Guild  
members and their sons or daughters, age 16 or  
over, may register for Institute classes at Piano  
Technicians Guild member rate. Guides of visually  
handicapped technicians may attend classes at no  
charge.

## HOME OFFICE REGISTRATION COPY

Name \_\_\_\_\_  
Home Address \_\_\_\_\_  
City \_\_\_\_\_  
State/Province \_\_\_\_\_ Zip \_\_\_\_\_  
Nickname for Badge \_\_\_\_\_  
(if not the same as above)

- ☐ Member ☐ Non-Member  
☐ Visually Handicapped  
☐ Will be staying at the San Francisco Hilton and  
Tower

Spouse's Name \_\_\_\_\_  
(if attending)

Nickname for Badge \_\_\_\_\_  
(if not the same as above)

Children (names and ages) \_\_\_\_\_

### REGISTRATION CUTOFF DATES (Cutoff Dates are Firm and Absolute) Check Boxes and Total

#### TECHNICIANS

##### Guild Members

- Postmarked by May 1 ..... ☐ \$ 90.00  
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Children (15 and under) ..... ☐ \$ 5.00  
I Plan to Attend ..... ☐ Auxiliary Tea  
..... ☐ Auxiliary Luncheon

#### OPTIONAL FUNCTIONS

- Banquet ..... ☐ \$ 25.00  
Closing Luncheon ..... ☐ \$ 15.00  
Auxiliary Wine Country Tour ..... ☐ \$ 28.00

TOTAL ENCLOSED \$ \_\_\_\_\_

#### DO NOT WRITE HERE

Date Rec. \_\_\_\_\_ Priority No. \_\_\_\_\_

Amt. Pd. \_\_\_\_\_

Cash \_\_\_\_\_ Check \_\_\_\_\_ Money Order \_\_\_\_\_

Chapter No. \_\_\_\_\_ Member No. \_\_\_\_\_

Classification \_\_\_\_\_

# ALOHA!

## Post-Convention Tour Schedule of Events

We are now able to submit a temporary schedule of events required to make the trip to Hawaii a truly educational experience and a proper business expense for tax purposes.

### *HILTON HAWAIIAN VILLAGE, Honolulu*

<i>Saturday, July 11th</i> 7:00 - 8:00 pm	Welcome and Orientation Meeting with the Hawaiian Chapter
<i>Sunday, July 12th</i> 9:00 - 12:00 n	Technical Forum Meeting on "Chapter Development"
12:30 - 2:00 pm	Luncheon
<i>Monday, July 13th</i>	No Meetings Scheduled

### *KONA HILTON, Island of Hawaii*

<i>Tuesday, July 14th</i> 7:00 - 8:00 pm	Welcoming Cocktail Party - Mai-Tai Punch Bowl
<i>Wednesday, July 15th</i> 8:00 - 9:00 am	Continental Breakfast
9:00 - 12:00 n	Technical Session
<i>Thursday, July 16th</i>	No Meetings Scheduled

### *WAILEA BEACH HOTEL - Island of Maui*

<i>Friday, July 17th</i> 9:00 - 12:00 n	Technical Session
12:00 - 2:00 pm	Brunch or Lunch

The Technical sessions will be informal with group discussions and group participation. Under "Chapter Development" will come suggestions on how to make chapter meetings more interesting and worthwhile. Included will be the following:

- 1) What chapters are doing in technical programming, membership promotion, seminars, board meetings, student assistance, public relations, social events, plans and goals, Auxiliary activities, etc.
- 2) A test or contest on "Name that Noise"
- 3) An easy way to tell who the smartest member of the chapter is.
- 4) A skit entitled "Tuner's Troubles"

Any suggestions to implement the technical and social meetings in Hawaii would be most appreciated - whether you go or not — **But try your best to go: You won't be sorry ... The Islands are beautiful and it will be a rewarding experience for all ...**



*Look for the Post-Convention  
Tour Reservation Form  
on the inside back cover of this issue.*

## TRAVEL TIPS . . .

Departure time has been set for that wonderful three-island post-convention trip to Hawaii. . .

Get in on the fun now . . . don't wait . . . take the plunge and visit the three beautiful islands of Oahu, Hawaii and Maui. Remember, this trip is a legitimate business expense!

Your flight via Northwest Orient Airlines will depart from the San Francisco airport at 8:20 a.m. the morning of July 11th. You will be on the beautiful beaches in the early afternoon after a magnificent flight and gourmet dining.

Don't miss this money-saving post-convention package . . .

For further information contact:  
KAILANI WORLD TRAVEL

In Oregon, California, Arizona, Nevada, Utah, Idaho, Montana and Wyoming, call 1-800-426-2561

In Washington State, call 1-800-562-2597.

All other states, call 1-206-676-1250.

SEE YOU ON THE BEACH!!!

## GOING TO HAWAII?

Please note that the deadline is May 24th for post-convention reservations, as both room and airfare places are being booked quickly. Should you desire to go to Hawaii and that date has passed, you may certainly call Kailani World Travel for arrangements on a "space available" basis.

## FARE SAVINGS

Check with your travel agent and watch your newspaper for "Super Saver" and other special fares. There are discounts you may not know about—savings for flying certain times of the day, certain days of the week, making certain connections, etc. It does make a difference, so investigate the alternatives.

# Tuning Exams Offered at San Francisco Convention

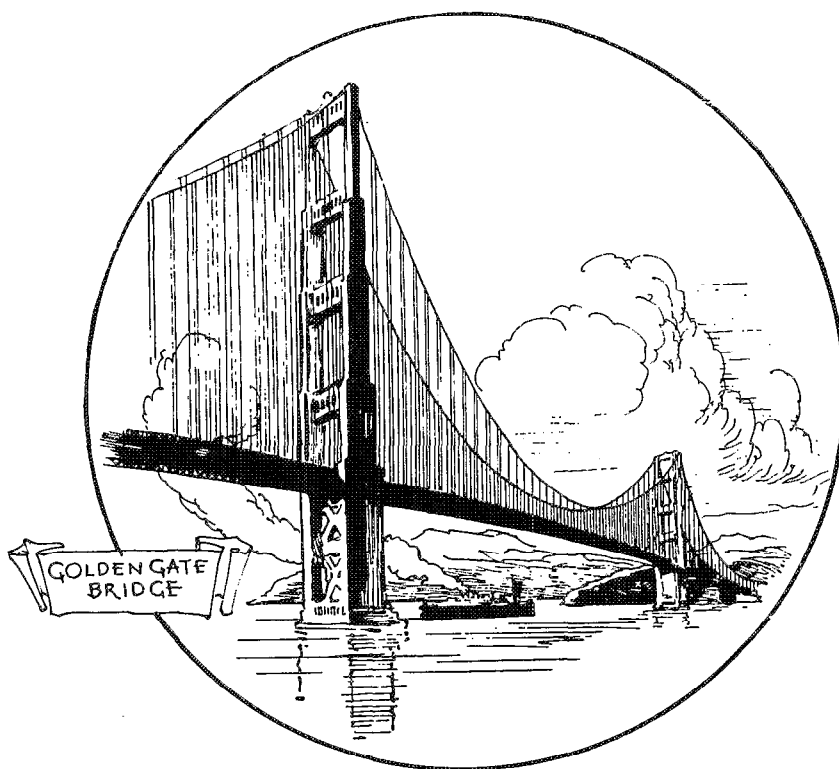
The new tuning exam will be offered at the San Francisco Convention. Due to the necessarily limited number of times available for testing, scheduling will be done in advance on a first come/first served basis.

Applicants for membership or reclassification must be cleared by their local chapter first. They must have passed the written and bench exams at the desired classification before taking the tuning test. All chapters should have copies of the "Application for a Tuning Test." This must be filled out in order to set a time for the test.

Send this Application along with \$40 examination fee (checks payable to the Piano Technicians Guild) and the coupon below to Ron Berry, 6520 Parker Lane, Indianapolis, IN 46220 for scheduling. You will be sent a time for your tuning exam. Those craftsman members desiring to take the exam as the first step towards Examiner certification may sign up also. There is no fee, and no chapter approval is required in this case.

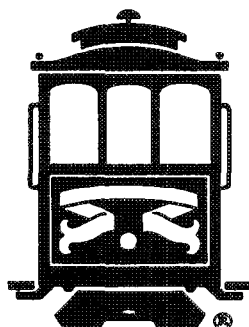
Those who have passed the exam with 90s and wish to learn how to give exams as the second step toward certification should present themselves at the exam area during the convention and will be assigned to work with an experienced CTE.

The \$40 exam fee holds your scheduled time. It can be refunded only if notification of cancellation is given to Ron Berry at least 48 hours ahead of the scheduled



time. If demand exceeds time available, names will be kept on a waiting list in the order received. Those on the waiting list who do not receive an examination time will have their exam fee refunded.

Requests for tuning exams must be sent before June 21, 1981 for scheduling at the San Francisco convention.



NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

PHONE (\_\_\_\_) \_\_\_\_\_

PRESENT CLASSIFICATION:

- ☐ Nonmember    ☐ Student  
☐ Apprentice    ☐ Registered Tuner Tech  
☐ Other

Taking exam to become:

- ☐ Apprentice    ☐ Craftsman  
☐ Certified Tuning Examiner

Applicants for membership or reclassification send \$40 exam fee (checks payable to Piano Technicians Guild) and "Application for Tuning Exam" along with this coupon to:

Ron Berry  
 6520 Parker Lane  
 Indianapolis, IN 46220

# Travel Into (and Within) San Francisco

by James G. Bryant  
Local Host Chairman  
1981 Piano Technicians Guild  
Convention

As in most large cities, finding your way in San Francisco and getting around once you get there can be difficult without some advance knowledge. For those planning to drive the following might prove helpful:

**From the North** (US 101 South - Golden Gate Bridge). Stay on 101 which follows Lombard Street to Van Ness where you turn right remaining on 101. Take Van Ness for 18 blocks to O'Farrell St. where you turn left. Follow it six blocks to Mason street and turn right and right again on Ellis St. and into the auto entrance of the Hilton Hotel.

**From the East** (I-80) and **South** (I-5) - San Francisco-Oakland Bay Bridge. Take the 5th Street exit off the bridge which is a *left hand* exit. At the foot of the exit veer right onto 5th Street and follow it across Market to Ellis St. which is one block from the end of what has become North 5th. Turn left on Ellis keeping as far right as possible on this one way street since you turn right into the hotel auto entrance after a very short block. (If you miss the 5th St. exit on the bridge don't try any fast lane changes (we want you here in one piece) simply take the 9th St. exit and follow instructions below).

**From the South** (US 101-North). If you have been on something other than 101 (such as Highway 1 or I-289) consult your road map and get on 101 before getting to downtown San Francisco. (If you know another way you don't need these instructions). Take the Ninth St. Exit and veer right at the foot of the exit onto Ninth. Follow ninth across Market and turn right on O'Farrell St. and follow it to Mason where you turn right and right again at Ellis St. and into the hotel auto entrance.

Those looking for hotels other than



the Hilton should watch for their street following the above directions. For their benefit the streets run as follows: From South to North (up): McAllister, Golden Gate, Turk, Eddy, Ellis, O'Farrell, Geary, Post, Sutter and Bush. From West to East (slightly down): Van Ness, Polk, Larkin, Hyde, Leavenworth, Jones, Taylor, Mason, Powell, Stockton and Grant.

San Francisco's street numbering system bears explanation. The numbering of all streets in this part of the city starts at Market Street which runs diagonally. All streets originate at Market—both those running North and South and those running East and West. Therefore, no matter which way one travels—East, West, North or South, the street numbers get either larger or smaller by 100's not only on the street you are on but on every cross street you pass! For example: If you are at the Hilton and know this to be the 300 block on O'Farrell and are looking for 600 Sutter St. and know, from the list above, that Sutter is three blocks North of O'Farrell you should now realize that it would be the same block (East-West) as the Hilton and not five or six blocks away as would seem logical. (The 300 block and 900 block of Sutter are both 6 blocks away.)

**Arriving by Air:** An Airporter Bus leaves every few minutes from each terminal. Just follow the signs. It makes only one stop in San Francisco which, fortunately, is at the Airline Terminal diagonally across the street from the Hilton. (Taylor and Ellis Streets).

**Arriving by Amtrak:** You will be bused from Oakland to the Trans-Bay Terminal at 1st and Mission Streets which is six very long and three short blocks from the hotel—a mile or more. We recommend a taxi.

## STEINWAY & SONS HOSTING RECEPTION

Steinway & Sons have completed plans to host the cocktail/reception preceding the Banquet on Wednesday evening at the coming Piano Technicians Guild Convention in San Francisco, July 8.

Baldwin Piano will be furnishing the highly useful note pads this year, as they have in the past.

According to Richard G. Gigax, Vice President, several members of Steinway's management group will be there, including President Peter M. Perez, John H. Steinway and Gene Inman.

The Board of Directors and the Convention Committee are pleased with these generous gestures which all attending should thoroughly enjoy.

## CONVENTION MEMBERSHIP BOOTH



Smit



Hawkins

**Special notice** to all non-members planning to attend the National Convention in San Francisco, California, July 6-10, 1981 at the Hilton Hotel:

Bob Smit and Marshall Hawkins will be manning the Membership Booth, just next to the Piano Technicians Guild Store in the Exhibit Hall. What does this mean to you as a non-member? You may apply at the membership booth and obtain a \$30.00 certificate good on new member application fee when accepted as a Registered Technician, Apprentice or Allied Tradesman. Also, this is the place to ask questions and get information about the Piano Technicians Guild.

See you there!

Dick Bittinger - NERP

This issue of the Vacuum Line is devoted entirely to the restoration of a Gulbransen player. At just the mention of the name, most of us would turn it down. Lawrence Frazier and Wally Townsend of Vandalia, Ohio were confronted with a challenge and apparently came through it in fine style. Lawrence has written an excellent treatise about it, so I will get out of the way and let him tell you about it.

"After various negotiations, a Gulbransen with glued stack was removed from the basement of the grandmother's estate, hopefully to go to the granddaughter, and was delivered to our shop. It had spent too many years in this damp basement with the usual deterioration of many glued joints, but we thought the piano could be saved.

"There was much necessary restoration of the piano in such a situation, which will not be covered here, because we will deal only with the unusual part of the player restoration. This is not intended for the beginner, but for someone familiar with player restoration.

"To our delight, the owner decided to do the stripping and refinishing himself and left the player mechanism with us.

"On further examination, it was discovered that there were as many glue joints that had let loose in the player as in the rest of the piano. In its heyday it was a popular and nice performing player. If something went wrong with the stack, because of its inaccessibility the service man merely sent the stack back to the factory, and they replaced it with a new one at a very nominal cost. I have heard it was around \$30 or less.

Nowadays, since that is not possible, we must take another route. There are a number of articles on how to rebuild a Gulbransen with which you should become familiar. However, this action was, as one should say, impossible.

Most of the glue joints in the manifold or stack, as I will usually call it, connecting the three pneumatic boards, had deteriorated almost completely, so sawing it was not possible. It was at once apparent that this part of the stack could never be made to work, so we devised a way to make a completely new part to take the place of the deteriorated original. We thought that one could be made to work as well as the other originally worked. We were right, because the

piano is playing very well. Needless to say, we had various other problems, but our idea of design proved to be good.

"The great extent of deterioration proved to be in our favor. The first step was dismantling and removing the spool box, etc., from the stack proper. Restoration of this part we will not touch on, as it is about the same as on all pianos. In our work, we send them out looking like new.

"We removed all brackets, etc. and the screws which helped hold the pneumatic boards to the stack. Because of the extent of deterioration, we were able with the use of a long, thin blade to remove the back layer of the stack, with the pneumatic boards still glued on, from the rest of the stack. Because this was a thin enough layer of plywood, we were able to remove the pneumatic boards without damage, by the use of a hot iron and careful prying with a thin knife and putty knife.

"We think that in the case of a less deteriorated board, the pneumatic boards could be carefully sawn from the back of the stack with a rather thin saw and later be screwed to the new part with a thicker cork gasket.

"The pneumatics were then separated from their boards with a metal block and hammer. Be sure to use a heavy hammer, not a nail hammer.

"From this point on, recovering pneumatics and rebuilding valves will not be dealt with in detail. We used preformed pouches, new leather circles on the valves, and new fiber valve seats on top. We always use a hot-melt glue gun to replace the pneumatics, prewarming the surfaces with a heat gun to insure perfect adhesion.

# VACUUM LINE

Raye McCall

"Now in the next step, the piece across the top with all the elbows for the tracker tubes was saved to be used in the new part. Luckily in our case, this piece was almost entirely loose. This we use in the new part, with modification. More about this later. The rest of the board, except for the bleed cups, was discarded.

"So much for the old, now for the new. Our aim is to retain the original dimensions as nearly as possible. For structural strength we used a 1/2" board the same length, but just a little bit higher (wider). There must be room to get the tubing on the top row of elbows, and room to put in the lower row. A little height here did not matter for us, but could be easily adjusted on the board under the spool box, if needed.

## New England Conservatory

DEPARTMENT OF PIANO TECHNOLOGY

FRANK HANSON, Chairman

The nation's oldest independent conservatory of music offers an outstanding program in the maintenance, tuning, and reconstruction of pianos. Program graduates are qualified for independent professional practice upon completion of course.

For application and/or brochure, write:

New England Conservatory  
Department of Piano Technology  
Frank Hanson, chairman  
290 Huntington Avenue  
Boston, Massachusetts 02115  
Tel. (617) 262-1120, ext. 365

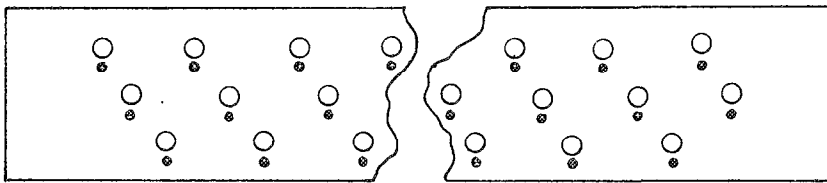


Figure 1

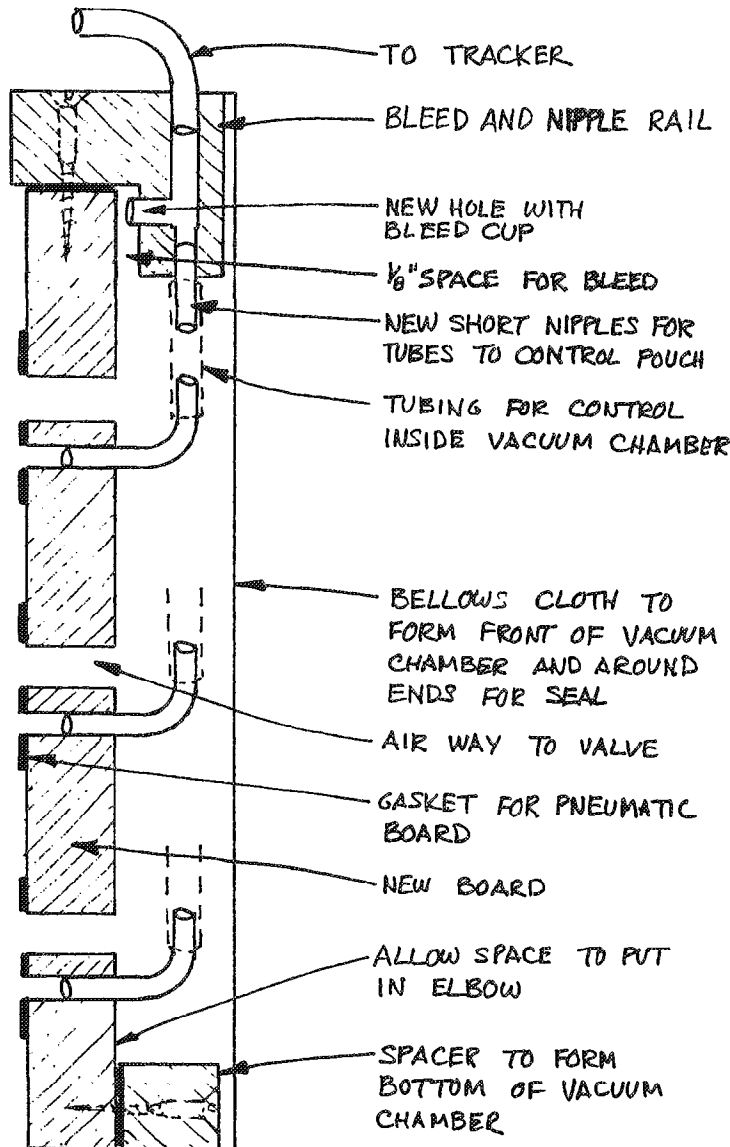


Figure 2

"We would like to have had a maple board, but because it was not available in 1/2" stock wide enough and also because of cost, we settled for a clear 1/2" wide poplar board, which worked fine. We cut 1/2" X 5/8" spacers for around the perimeter, which we will explain later, for extra width.

"Next we took the ply from the back of the stack, from which we had carefully removed the pneumatic boards, and, using it as a template, carefully marked and drilled holes the same size and location as in the original. (Fig. 1)

"The entire front of this board becomes the vacuum chamber with

the control tubes running through it from the bleeds at the top into the pouches, through elbows put into the board.

"To form the vacuum chamber, we took the original board from the top with the elbows, and turned it one quarter turn, with elbows up, bored holes from the inside into the existing holes, which are now vertical, to receive the bleed cups from the original stack. We then added short nipples down to elbows in the board. Straight nipples in center section will need to be replaced with elbows, and are about right for use as nipples on bottom. Remove large elbow from suction unit, and carefully plug and glue holes. This will later be installed through board from back into vacuum chamber at bass end. When this is completed, and bleed cups installed, attach this piece to top of board with screws and gasket, allowing 1/8" for vacuum to bleeds. If yours is like ours, this will give 5/8" space for vacuum chamber. From the extra width of new board cut 1/2" X 5/8" strips and screw and glue around other three sides to complete vacuum chamber. At each end we added additional pieces inside chamber for strength to attach support brackets. (Detail for above is Fig. 2)

"We cut thin cork gaskets (1/16") with the proper holes and attached to back of board with glue. Wally thinks it might be easier and better with this thin cork, to use full width pieces, marking and punching holes, on back, allowing less chance of slipping.

"If the pneumatics boards must be sawed free from the stack, do not try to split them off. I have seen this done, and it is definitely a "No, No." It might be advisable to use a heavier cork, cut in strips, to give room to keep the movable leaf of the pneumatic from striking the board in back when it opens. Also be careful not to glue some of the pneumatics too far back, for this same reason.

"When pneumatics have been reglued to the boards, and valves fully rebuilt, check carefully to see that all work freely and properly. Better now than later. Also make sure movable leaves do not bind against board at back end.

"When all check out and work OK, carefully align boards with holes on stack board. We started with center, then bottom and top. Align by inserting ice pick or some better sized tool, through small control holes at both ends, and at least once through

center. Mark position on board for the four long screws by tapping them gently into the back board. Drill these to proper size for pilot holes, and screw on the boards, being careful to keep in exact alignment. Now from front side drill pilot holes for at least two or three round head screws between each of the back screws. DO NOT GLUE pneumatic boards on. I believe we used 1 1/4" round head screws, you be the judge of what size. I would recommend drilling holes before the boards are finally attached, to avoid danger of drilling chips getting into the valves.

"After each board has been attached and tightened down, carefully check the control holes that go under the pouches with a suck tube. They must work freely and there must be no leaks, or a note will stay down, or not repeat properly. If there are leaks, take care of them before proceeding to next board.

"When all pneumatics are working, and spacers around edge are in place, install control elbows in proper location in the vacuum chamber with tubes to the nipples leading to the bleeds and tracker bar. Also install large elbow leading to pump unit.

"With a strip of bellows cloth of the correct width and length, glue across the front edges and around the ends to complete the vacuum chamber. For additional strength and looks we screwed on a piece of paneling and painted it to match the spool box.

"From here on brackets, etc. must be relocated and assembly of stack is routine as in most player actions, with various alterations having to be made. Elbows and nipples were sealed in with hide glue and vacuum chamber sealed with shellac.

"If done with care, it should work as well as the original."

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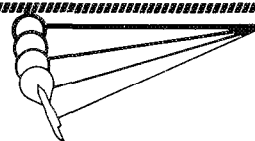
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# SOUND BACKGROUND

## HIGHLIGHTS IN THE HISTORY OF MUSICAL SCALES

### I. Introduction and General

By Jack Greenfield

During the past five years, *The Piano Technicians Journal* has published articles concerning the rekindled interest in performing harpsichord and early piano music in scales contemporary at the time of composition. Attention has also been directed to the potential development of music in new temperaments. Studies by Owen Jorgensen, J. Murray Barbour and others have been discussed and aural tuning procedures taken from Jorgensen's *Tuning the Historic Temperaments* (Marquette, Michigan: Northern Michigan University Press, 1977) have been presented. Barbour's book, *Tuning and Temperament, A Historical Survey* (New York: Da Capo Press Reprint of 1951 edition) also includes many scales and gives intonation in cents. These figures can be used for electronic tuning.

This article and several to follow will present some historical highlights in the transition from the scales

of ancient times to the adoption of the twelve-tone equal temperament now in use.

The origins of the musical scales of Western music can be traced back to early civilizations in the Mediterranean region and the Near East. A clay tablet dating from about 1800 B.C. discovered in Iraq in 1966-67 contains inscriptions believed to be a heptatonic scale. A tablet found among fragments of earthenware vases and similar pieces in excavations begun in 1928 in a cave in Cyprus contains unusual inscriptions, which were interpreted after years of study as comprising a performable musical composition with lyrics.

*This tablet had been more difficult to decipher than the others found in the excavation. It remained a puzzle for several decades. In 1959, Dr. Anne D. Kilmer of Berkeley, California, an authority on Assyriology, began a study and finally completed a script in singable form.*

*In 1974, the music was performed at a concert in Berkeley by a singer, Richard L. Crocker, accompanying himself on a reconstructed eleven-string lyre patterned after a drawing of a contemporary instrument in the British Museum.*

Historians in China dated the establishment of their scale even earlier - 2700 B.C. A Chinese historical account tells of the use of hollow bamboo tubes to produce tones of the scale. One bamboo tube of specified length was used to establish the fundamental pitch. The other tubes were cut to lengths prescribed by a formula to give ratios producing the desired intonation.

In later years, in China and in the West, scales were based on string length ratios. The monochord served as a yardstick for Western music for many centuries. The tuning fork was invented in 1711.

After acoustical science had advanced to the stage at which there was a better understanding of sound wave vibrations, ratios of the vibration frequencies were considered preferable for designating intervals. The system of measuring intervals in "cents" was introduced by Alexander J. Ellis in an appendix to his 1885 translation of Helmholtz's *On the Sensations of Tone* (New York, N.Y. Dover Publications, Reprint of 1885 edition). Ellis' system using the equal tempered semitone divided into 100 cents as a measuring standard is much easier to work with than with ratios stated as fractions. For example, while a "pure" fifth has the ratio  $3/2$  and measures 702 cents, a tempered fifth measures 700 cents and has the ratio  $4.33/289$ .

Throughout most of its history, Chinese music to a large extent has been constructed on pentatonic scales. This is also found among China's neighbors, Tibet, Mongolia, Japan and others in Southern Asia. Pentatonic scales occur also in more distant lands—Russia, Scotland, and some other countries of Europe, East

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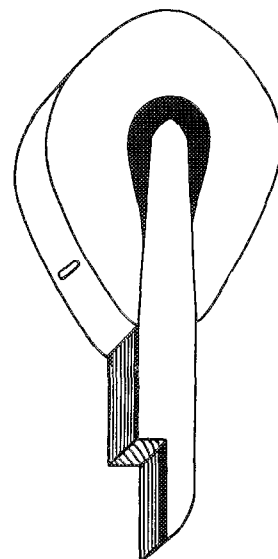
Most early pentatonic scales were made up of whole tones and skips of a minor third. It appears that primitive societies usually avoided smaller intervals. In general, considering national musical scales, the octave, perfect fifth and perfect fourth are fairly common but the tuning of other

Traditionally, in the music of India, the octave is divided into 22 different notes or microtones with differences in pitch not exactly equal. Scales with intervals slightly larger than an equal-tempered semi-tone occur in countries located in a belt stretching from North Africa to Indonesia with some extension up into Eastern Europe.

One of the few countries with traditional music based on an equal-tempered scale is Thailand, where a seven-note scale evenly spaced in

The following table compares the intonation of pentatonic scales formed by the black keys of a piano, the traditional scale of 2700 B.C. reported by Chinese historians and of some musical instruments reported in 1885 by Ellis. The Chinese instruments have additional notes for heptatonic playing. The Koto is a thirteen-string instrument but only five strings give the scale. The others are unisons or octaves. Ellis noted that the Koto can be tuned in a number of different ways analogous to our use of minor or major scales. The final sets of figures show remarkable coincidence of the intonation of an Arabic lute and a Scottish Highland bagpipe.

	I	II	III	IV	V	VI	VIII	Octave
Piano Black Keys Beginning on F# (Theoretical)	0	200	400		700	900		1200
Ancient Chinese (Theoretical)	0	204	408		702	906		1200
Chinese Flute (Actual)	0	178	339	448	662	888	1103	1196
Chinese Dulcimer (Actual)	0	169	274	491	661	878	996	1198
Japanese Koto (Actual)	0	185	337		683	790		1200
Arabic (Theoretical)	0	200	350	500	700	850	1000	1200
Arabic Lute (Actual)	0	204	355	498	702	853	996	1200
Scottish Highland Bagpipe (Actual)	0	197	341	495	703	853	1009	1200



# After Touch

**David W. Pitsch**

David Merrill pointed out in his article in the October '80 *Journal* that we really do not set the jack height, as the jack is not variable in its height. Rather, we set the height of the repetition lever relative to the top of the jack. However, I have always called this regulation setting the jack height, and I intend to continue to do so. The specification in regulating is to have just a fraction of space between the top of the jack and the bottom of the knuckle with the whippen at rest. This can be compared to setting the lost motion in a vertical piano. However, in a grand the amount of space needed is even less than in the vertical.

Before taking the action completely out of the piano to adjust all keys for the jack height, I like to set sample keys for blow, let-off and

drop, as well as jack height. Doing this first and proving these sample keys with aftertouch insures that after all of the steps in Section IV are regulated, the piano will play properly.

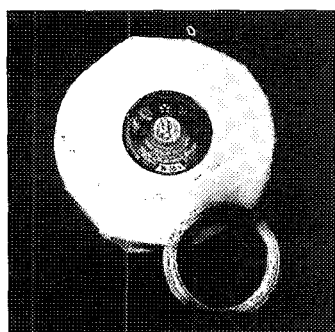
In order for the jack height regulation to be stable, the repetition springs must be strong enough to support the hammers. We have all seen hammers that do not return to the same height after each time they are played. This can be caused by either too much lost motion between the top of the jack and the knuckle, or by repetition springs that are too weak. Assuming that the repetition springs are strong enough, the culprit is the jack height. As well as causing an uneven hammer line, too much lost motion also causes a loss of power. On the other hand, too little space will not allow the jack to return under the knuckle as fast as it should (or not at all) and hence cause faulty

repetition. Some technicians set this measurement by feeling the top of the jack versus the side of the balancier window where the jack sits. The specs call for a 0.2mm (or a paper's thickness) space that the jack should be below the window.

This is fine if the piano being regulated is brand new or if the knuckles have just been replaced. Under these conditions, the surface of the knuckle is very even across the face where the jack contacts it. If the knuckle is not new, chances are that the leather has begun to get grooved in the middle from the force of the jack hitting it. To obtain the proper space between the jack and a grooved knuckle will require that less than a 0.2mm measurement be used. In some cases the top of the jack may have to be even with or higher than the balancier window. With a grooved knuckle, there is only one way to regulate. That is by using a process called "winking the jack".

With the whippen at rest, gently slip your finger in between the top of the jack tender and the bottom of the let-off bottom. Slowly depress the jack tender as if it were going through the process of let-off. Be careful not to push down on the whippen while tripping the jack. Depending upon the type of action you are working upon, you may see the hammer "wink" or not! By "wink" I mean that the hammer will fall slightly lower than its neighbors. Sufficient space must be allowed for the hammer to fall, so the hammer rest rail must be set a shanks diameter below the hammer shank at rest. If the action has hammer shank rest felt instead of a rest rail, either raise the shank or remove some of the rest felt.

For some unknown reason, some makes always give a perfect little "wink" for this test, but others are not as reliable. Therefore, do not keep adjusting the jack height until the hammer "winks". It may never show. Experience is the rule here. Furthermore, just because the hammer "winks" does not mean that the jack height is set correctly. It can fall too



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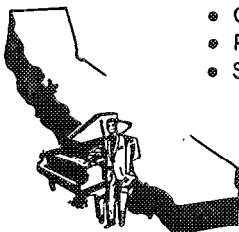
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far. The proper distance is about 1/32", give or take a little. Adjust all 88 whippens so that the amount of "wink" is the same for all keys.

On actions that do not "wink", or to recheck one that does, feel the jack tender as it is released to slide back under the knuckle. If possible, look to what is happening. The jack should not hang up on the knuckle, but rather go all the way back to its rest position (or just a fraction of an inch away from the spoon). This can be felt by the regulator. Again, all 88 jacks should feel the same. Just the slightest amount of resistance should be felt. Too much means that there is not enough lost motion. No resistance means that there is too much lost motion.

Remember when turning the repetition lever regulating screw to lift up slightly and get the felt of the repetition stop button on the bottom of the regulating screw away from the repetition stop felt. This will eliminate tearing up the fibers of the felt while adjusting the jack height, and will make for a more stable regulation. Otherwise these felt fibers will compact later and change the height. Keep in mind that the knuckle will flatten and groove a little on a brand new piano, so plan on coming later and change the height. Keep in mind that the knuckle will flatten and groove a little on a brand new piano, so plan on coming back to make minor adjustments in the blow and jack height after the action has been played a while.

Likewise on the Schwander style actions. The felt that is under the adjusting screw next to the balancier will compact and take the shape of the top of the balancier. Turning the regulating screw to adjust the jack height often turns this felt to a new position. It will compact again as the piano is played, changing the jack height.

As a help in "winking the jacks", lift the adjacent hammers and watch if the jack being regulated returns to line up with the adjacent jacks. This

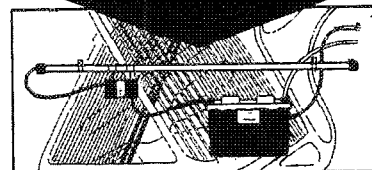
assumes that the adjacent jacks are resting properly against their spoons. For a final check, put the anmer into check and upon a very slow release of pressure on the key observe if the jack returns to its rest position. If while "winking" an undue amount of resistance is felt, raise the hammer and observe the jack in the window. The jack may be rubbing on the side of the window. If so, space the jack before continuing. If not, check for a tight jack center.

As a final note, on pianos with the hammer rest rail type action, sometimes the rest rail must be adjusted very close under the hammer-shanks to keep the shanks from impacting upon the top of the repetition spring or upon the top of the repetition lever regulating screw. This is a source of a very audible click. It is possible, if the jack height is way off, which it can be on a new piano, that as the regulating screw is turned up to eliminate too much lost motion, the shank will lower itself to rest upon this rest rail! Further adjustments at the regulating screw are fruitless as the hammer will not "wink", being now supported by the rest rail. This little thorn in your side has to be dealt with on a one-to-one basis. Once the hammer lowers to this point, the technician must raise it back by turning up the capstan. Proceed "winking" as usual.

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# VON DER WERKSTATT

Priscilla and Joel Rappaport

The importance and emphasis on good keyboard work in the regulation of an instrument is often underestimated. Actually key work, with all the details of cleaning them up, bushing, fixing pulley keys, tightening loose capstans, reglueing sharps, etc. can be quite a challenge—but very necessary. This means many long hours of tedious work where we do not only the above work but also run into unexpected repairs and problems that were discovered only after the work began.

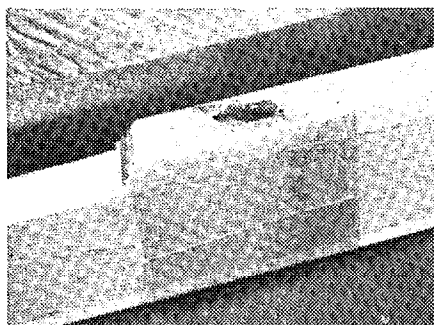
There is sometimes a great emphasis put on adhering to exact measurements to achieve a good regulation. However, measurements don't even figure into some of the components of a good regulation. One thing that we don't change any specifications on is the key. However, we run into many kinds of work that is needed before regulation can begin.

A primary ingredient for a good regulation is a good keyboard: one that has good key work and is consistent from key to key. The bushings must be consistent in their contact with the front and balance pins, the capstans should be free of burrs, and the balance rail holes in the bottom of the key should fit the balance rail pin correctly. Too often this area of action work is totally neglected. The most attention the keys may get is a quick check to make sure none of the keys stick, and then it is on to the fine points of high level regulation. Sufficient time should be allotted for key work, for it is here where the foundation of a good regulation is laid. If your key work is consistent and well done, then the regulation that is done later will feel solid and give the pianist a feeling of security when playing the instrument.

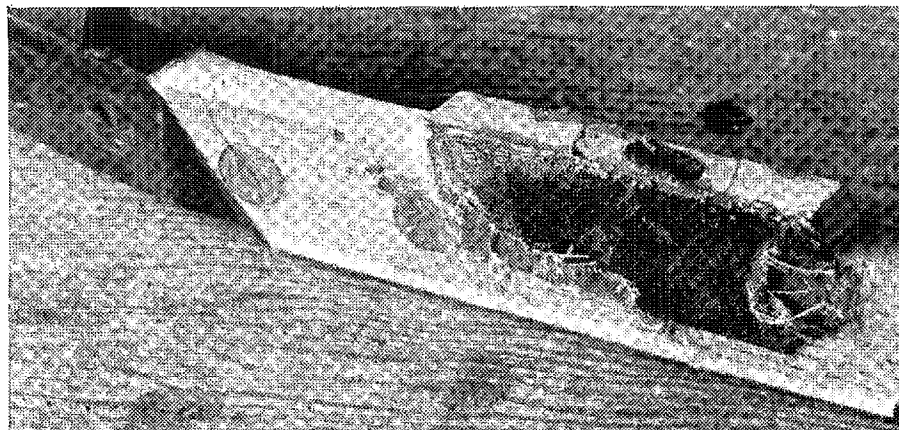
We would like to concentrate on

one area of key repair—glueing a broken key—and have included pictures to illustrate some of the points made in our discussion.

Broken keys do present a problem. The energy that a player puts into a broken key is simply not transmitted through the action so that the hammer strikes the string. So something must be done. There are many approaches and methods for repairing keys. One must first decide



*#1 Broken key repaired using a plastic-like tape. Although it is not a factory-type of repair, it worked. Perhaps this was the best method available to the technician at the time of repair.*



*#2 Key repaired by glueing a clothbacked sandpaper on sides of key. The key didn't fall apart but was sluggish due to friction caused by this material rubbing on adjacent keys. This repair looks sort of messy and does not come up to good repair standards.*

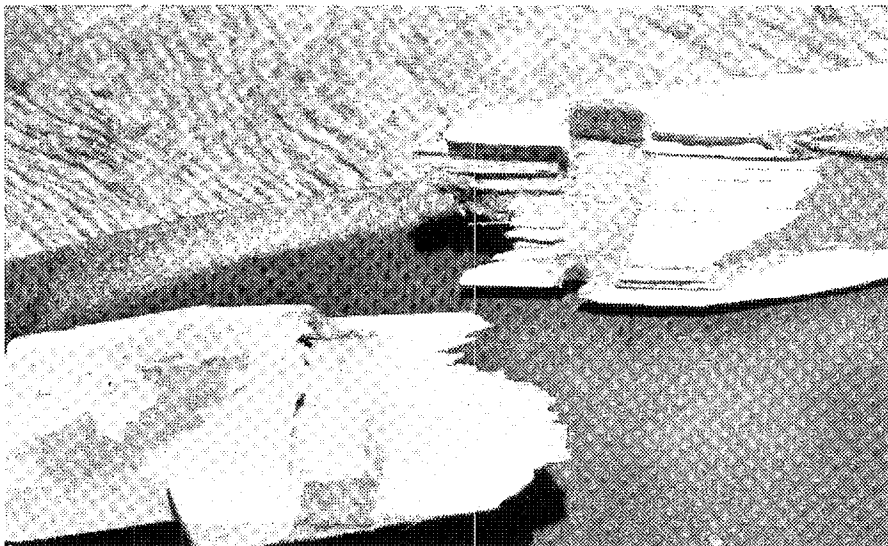
what kind of break it is and what will fix it so that the key works again. **Pictures 1 and 2** show two versions of this kind of repair. The first one was a plastic film wrapped around the area where the key was broken. The key was held together and the note played. **Picture 2** shows a piece of cloth-backed sandpaper glued onto the side of the key with some sort of strong glue or epoxy. The key did not fall apart, although glue was all over the top of the button and into the hole and around the balance rail hole. However, the thickness of the sandpaper and glue and the sloppiness of the bushing hole was not calculated into the repair since the key rubbed its neighbor, causing undesired friction. **Picture 3** shows a break along the grain of the wood. A break of this kind can be successfully glued since there is enough wood surface to give a good glue bond. Notice that the break is clean, there are no folded over wood fibers which would prevent the key from fitting back together. Glue is applied to the surfaces, taking care that just enough glue is used to give a good glue bond. If too much glue is

used, it will ooze out inside the hole in the key, causing future problems. These two pictures also show the construction of the hole inside the key. This area allows for movement of the key as it is held in place by the balance rail pin hole which is also depicted in this photo. It is important that the key be glued back so that the balance rail hole is round and not oval.

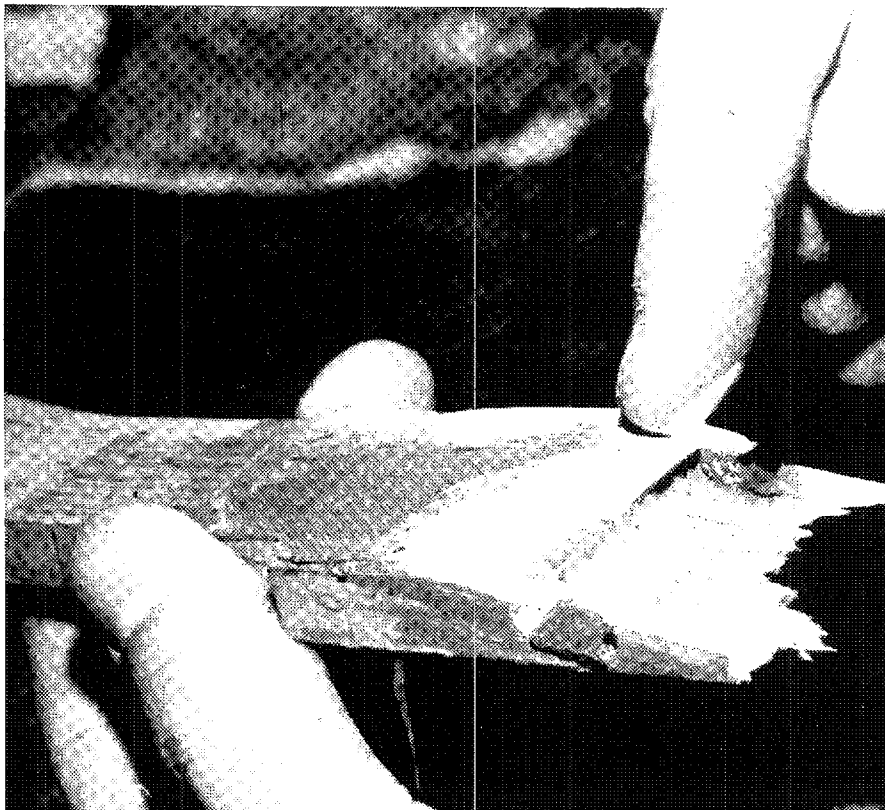
If it is oval because of not being carefully glued, the key will be loose and move back and forth on the balance rail pin and will also possibly not look right with the rest of the keyboard. In an extreme case, the front will not be in the same line as the other keys, or the capstan will be slightly out of line with the others. In glueing this key properly, the neighboring keys are used as a

clamp. This ensures that the original shape of the key to be glued will be maintained and that the key will again fit properly with the rest of the keyboard. If the broken key is not glued properly, one takes the risk that the key may rub adjacent keys on the frame, because the spacing between the keys is no longer adequate. Even though this keyboard may be from an older instrument, we wish to repair the broken key so that it looks and functions like it did when it was new.

**Picture 6** shows the key clamped between its neighbors using a double thickness of paper between the



**#3** Key is broken through the balance rail pin hole. This picture clearly shows the grain of the wood. The break is clean—no splinters or mashed wood is present. This kind of break is repaired best by glueing it back together since the break offers ample wood surface to ensure a good glue bond.



**#4** Application of glue to surfaces. Be careful not to use too much. An excessive amount of glue is to be avoided since the glue will ooze out into the inner part of the key and possibly cause friction or noise.

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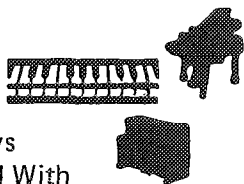
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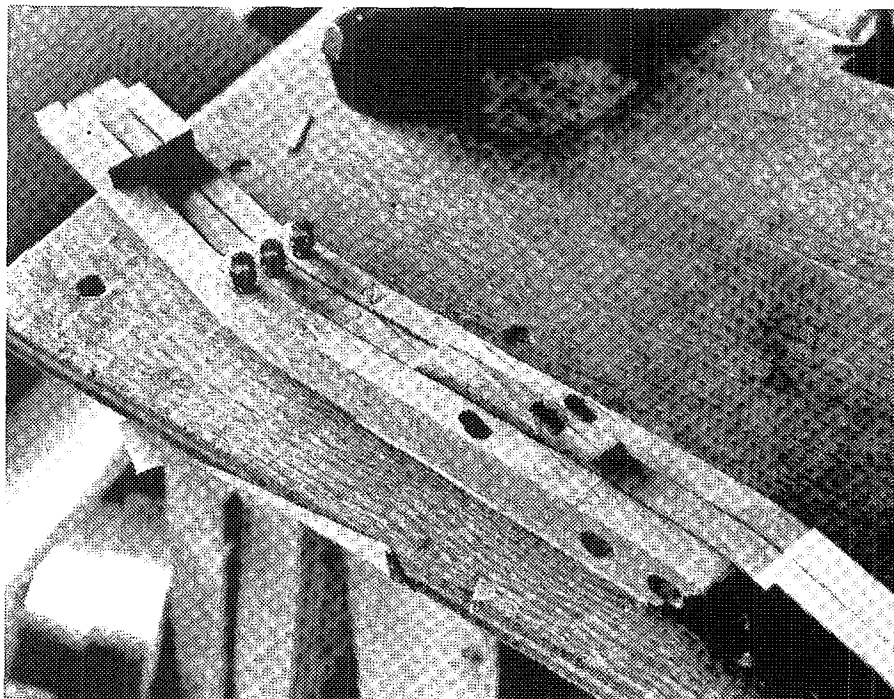
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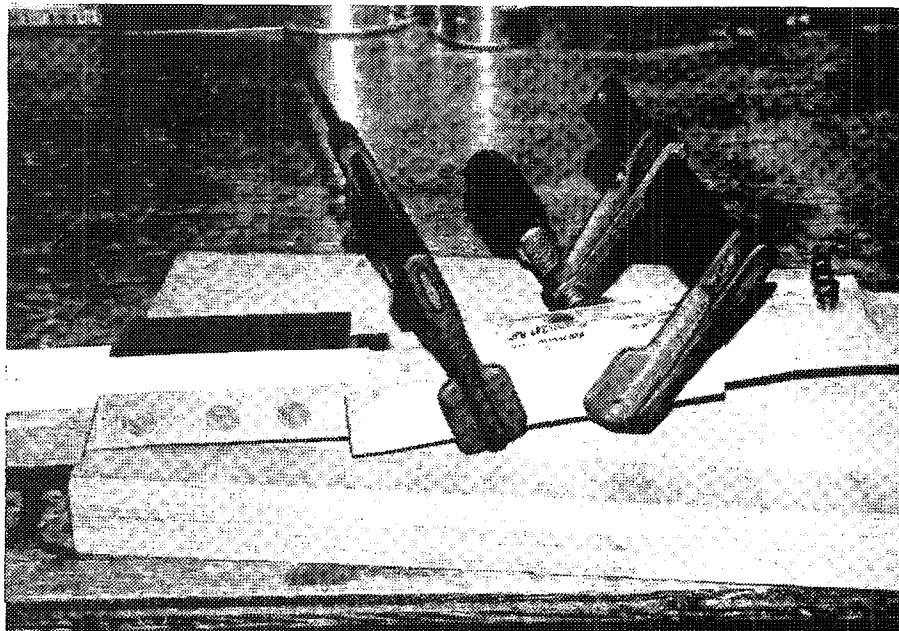
neighbor keys and the key to be repaired. This prevents all three keys from being glued together. Also notice the wood between the clamps and the keys. This is always a good idea when using clamps. This wood protects the keys from the direct

pressure of the clamps.

The following pictures illustrate a common key repair. This procedure is not intended to be the only method used to fix broken keys. Keys that are broken in different ways may require a different approach.



*#5 & #6 The broken key in the middle will be clamped using its neighbor keys as a form. This assures you that the shape or curve of the key is maintained. Also when glueing a broken key, a double thickness of paper between the keys is used as well as wood between the key and clamps. This wood between the clamps and the key protects the key from being indented by the clamp. Putting the keys on an even surface prevents an arch or slump in the key that wasn't there before.*



# CROSS OVER THE BRIDGE

## All New for 1980-1981

This year the booster club has a new format.

**1. POINTS** The point system for bringing in a new member has been changed to give members a simpler, fairer system. Three points will be credited for bringing in a registered technician, apprentice or allied tradesman and one point for sponsoring a member of any other classification. In this way, the point spread recognizes the fact that all who sponsor a new member are actively supporting the Guild.

Members who achieve fifteen points will be honored in the 1981 President's Club. Those who help bring a former member back into the Guild will be honored in the 1981 Restorer's Club.

**2. PRIZES** This year as a special feature every member who brings in three members will receive a flashlight pen and every member who brings in seven new members will receive a Journal binder as a gift.

To be sure all points are properly recorded, please check all new member applications carefully.

**1. Please PRINT your name after your signature on the line "recommended by" when you wish to receive credit for bringing a new member into the Guild.** Some signatures are difficult to read and we regret having to omit a name for this reason.

**2. Please show your own chapter after your name.** Some members sponsor a new member into a chapter other than their own.

**3. If you wish credit for a RESTORED MEMBER, please write this fact on the application form.** It is not always possible to trace a former member after a lapse of time.

**4. If corrections should be needed in the records, please notify the home office promptly. The Journal goes to print some weeks ahead of mailing.**

**5. The first figure after each name represents the number of points earned. The second figure shows the number of new members brought into the Guild for the year 1980-81.**

### Presidents Club

BITTINGER, Dick	17	7
DRAINE, Robert	24	8
MARCIANO, William	15	5
SMIT, Robert	18	6

### Restorer's Club

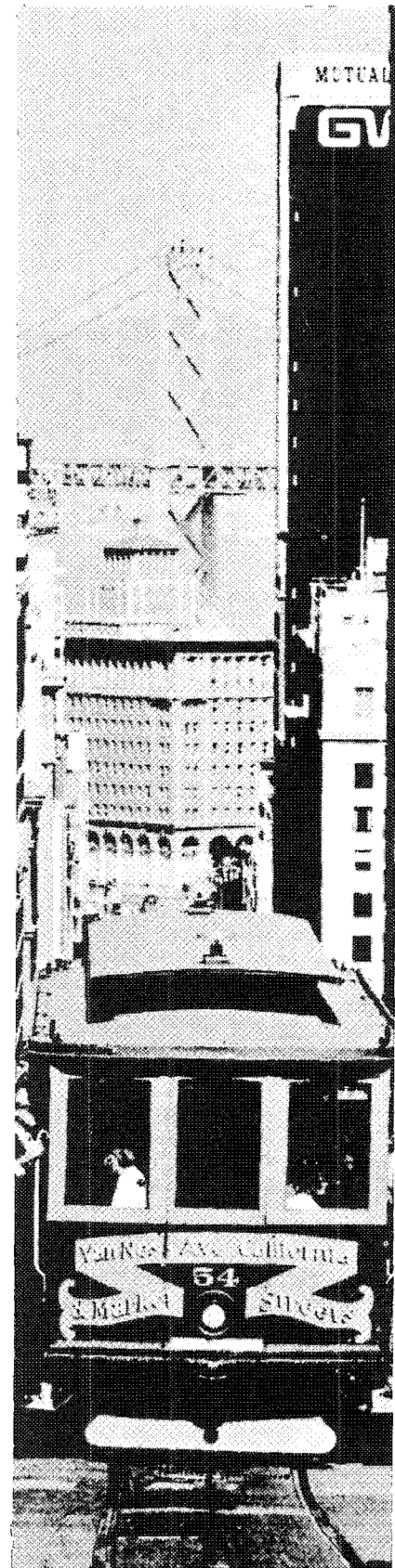
BITTINGER, Dick
COLEMAN, Sr., Jim
DeTAR, Brian
DUNCAN, David
FANNING, William
GOLD, Jimmy
MENSCHING, Dale
PREUITT, Ernie
SPRINKLE, Jack
WALKUP, Ken
WEEKS, George
WILLIAMS, Kenneth

### Pts Mbrs

### Pts Mbrs

### Booster Club

ACKMAN, W. H.	4	2
AFFLECK, Don	1	1
ALLEN, Jon	1	1
ANDERSON, Albert	7	3
ANDERSON, Mark	3	3
ASHMORE, Yvonne	1	1
BAIRD, John	4	4
BARRUS, Ralph	3	1
BAUM, Patrick	3	1
BECK, Jacqueline	5	5
BENNETT, Wallace	3	1
BERG, Harry	4	2
BITTINGER, Dick	17	7
BRADY, Stephen	6	4
BRATTON, Donald	1	1
BROOKSHIRE, Jerry	1	1
BROWN, Anson J.	1	1
BROWNFIELD, Gary	4	2
BURBACH, Charles	2	2
BURTON, Robert	1	1
BUYCE, Harold	6	4
CALLAHAN, James	1	1
CAUNTER, Gerry	2	2
CHESEBOROUGH, Connie	1	1
CLARK, Peter	1	1
CLEVENGER, Wayne	4	2
COLEMAN, Sr., Jim	7	3
COLLINS, James A.	3	1
CONOVER, Lester	3	1
COX, Merrill	9	3
CRABB, Larry	3	3
CRAW, Stephen	1	1
CUNNINGHAM, Jess	12	4
DANTE, Richard	3	1
DAVENPORT, Richard	1	1
DeARMOND, C.E.	6	2
DEFEBAGUH, George	3	1
DELPIT, John	3	1
DeTAR, Brian	4	2
DORLEY, William	5	5
DRAINE, Robert	31	11
DROST, Michael	6	2



DUNCAN, David ..... 3 ... 1  
 EATON, Wendell ..... 3 ... 1  
 EDWARDS, Laroy ..... 3 ... 1  
 EDWARDS, William E. .... 4 ... 2  
 ERDMAN, James ..... 1 ... 1  
 ESMONDE-WHITE, Oliver .... 6 ... 2  
 EVANS, Dan ..... 4 ... 2  
 FANNING, William ..... 6 ... 2  
 FELTON, Hilbert ..... 10 ... 4  
 FINGER, Chris ..... 12 ... 4  
 FLEGLE, Sr., Richard ..... 1 ... 1  
 FOSTER, Elmo ..... 3 ... 1  
 FREIDIN, Irving ..... 1 ... 1  
 FRITZ, Lloyd ..... 3 ... 1  
 FROST, Jack ..... 6 ... 2  
 GARLICK, William ..... 3 ... 1  
 GARMAN, Dale ..... 3 ... 1  
 GARRETT, Joseph ..... 4 ... 2  
 GEIGER, James ..... 3 ... 1  
 GENTRY, Kenneth ..... 3 ... 1  
 GILLER, Evan ..... 7 ... 3  
 GOLD, Jimmy ..... 3 ... 1  
 GOYA, Emily ..... 1 ... 1  
 GRENNING, Albert ..... 1 ... 1  
 GULLIXSON, Elisha ..... 3 ... 1  
 GUY, John ..... 4 ... 2  
 HANSON, Frank ..... 9 ... 3  
 HARMON, Clayton ..... 3 ... 1  
 HARVEY, Jim ..... 3 ... 1  
 HAUCK, Jack ..... 1 ... 1  
 HEDRICK, Ralph ..... 4 ... 2  
 HEINDELMAN, Lois ..... 3 ... 1  
 HENRY, Fern ..... 1 ... 1  
 HERBERT, Curtis ..... 4 ... 4  
 HERSHBERGER, Ben ..... 3 ... 1  
 HESS, Mark ..... 3 ... 1  
 HIGBY, James ..... 3 ... 1  
 HIPKINS, David ..... 3 ... 1  
 INGLES, Bob ..... 1 ... 1  
 JACKSON, George ..... 3 ... 1  
 JOHNSON, Eric ..... 3 ... 1  
 JORDAN, Wayne ..... 3 ... 1  
 KIMBALL, Michael ..... 1 ... 1  
 KINGSBURY, Richard ..... 3 ... 1  
 KOKTON, Paul ..... 3 ... 1  
 KREITZER, Mark ..... 3 ... 1  
 LAWRENCE, Paul A. U. .... 3 ... 1  
 LEVITCH, Leon ..... 1 ... 1  
 LILICO, John ..... 13 ... 5  
 LOEFFLER, W. J. .... 3 ... 1  
 LURIE, Mordecai ..... 6 ... 2  
 LYNN, Frederick ..... 6 ... 2  
 McCLURE, Wallace ..... 1 ... 1  
 McGUIRE, Michael ..... 4 ... 2  
 McKAY, Jim ..... 1 ... 1  
 McKINNON, Karl ..... 1 ... 1  
 MARCIANO, William ..... 15 ... 5  
 MARTEN, Gil ..... 3 ... 1  
 MATHESON, Duncan ..... 1 ... 1  
 MATTHEWS, John ..... 3 ... 1  
 MEEKINS, Joyce ..... 3 ... 1  
 MEHAFFEY, Francis ..... 1 ... 1  
 MENSCHING, Dale ..... 6 ... 2  
 MENSING, H. Daniel ..... 3 ... 1  
 METZ, Al ..... 2 ... 2  
 MILLER, Donald ..... 1 ... 1  
 NEIE, Gary ..... 3 ... 1  
 NICOLAI, Jay ..... 3 ... 1  
 ODENHEIMER, Fred ..... 6 ... 2  
 OSBORNE, James ..... 9 ... 3

OSBORNE, Joseph ..... 3 ... 1  
 PERKINS, Robert ..... 4 ... 2  
 PERSON, Donald ..... 1 ... 1  
 PETERS, George ..... 6 ... 2  
 PETERSON, Gerald ..... 3 ... 1  
 PHILLIPS, J. .... 3 ... 1  
 PREUITT, Ernest ..... 4 ... 2  
 RADD, Dorothy ..... 3 ... 1  
 RAPPAPORT, Joel ..... 3 ... 1  
 REITER, Michael ..... 1 ... 1  
 REQUE, Styrke ..... 1 ... 1  
 RICHARDSON, James ..... 6 ... 2  
 RITCHIE, Mark ..... 3 ... 1  
 ROE, Eugene ..... 3 ... 1  
 RUSSELL, Bob, Sr. .... 13 ... 11  
 SAAH, Joseph ..... 3 ... 1  
 SCHMITT, Paul ..... 6 ... 2  
 SCHOPPERT, Robert ..... 12 ... 4  
 SEITZ, Al ..... 4 ... 2  
 SEYMOUR, Ed ..... 1 ... 1  
 SIEROTA, Walter ..... 3 ... 1  
 SKOLNIK, David ..... 3 ... 1  
 SMIT, Robert ..... 18 ... 6  
 SNYDER, Willis ..... 3 ... 1  
 SPEIR, Leon ..... 3 ... 1  
 STARES, J. H. .... 1 ... 1  
 STEELE, Joe ..... 10 ... 4  
 STONE, Patrick ..... 6 ... 2  
 STRONG, Douglas ..... 3 ... 1  
 SVEC, John ..... 1 ... 1  
 THILE, Scott ..... 1 ... 1  
 UPHAM, Russ ..... 3 ... 1  
 VARNADO, James P. .... 3 ... 1  
 WAGNER, Lloyd ..... 9 ... 3  
 WAGNER, Robert ..... 6 ... 2  
 WALKUP, Ken ..... 6 ... 2  
 WEEKS, George ..... 4 ... 2  
 WEST, Richard ..... 5 ... 5  
 WHITAKER, Harry ..... 1 ... 1  
 WICKSELL, Larry ..... 1 ... 1  
 WILEY, John ..... 1 ... 1  
 WILLIAMS, Kenneth ..... 6 ... 2  
 WILLIS, Aubrey ..... 1 ... 1  
 WISENBAKER, Martin ..... 1 ... 1  
 WOODALL, Dennis ..... 3 ... 1  
 ZEISEMER, Bruce ..... 3 ... 1  
 ZELLMAN, Adelaide ..... 2 ... 2

## New Members

### REGISTERED TECHNICIANS

#### Cincinnati, OH Chapter

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#### Denver, CO Chapter

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#### Indiana Chapter

Terald Howard  
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#### Los Angeles, CA Chapter

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 Woodland Hills, CA 91367

Dan R. Martin

127 Douglas, Apt. D  
 Bakersfield, CA 93308

#### Tri-Cities Chapter

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 Dubuque, IA 52001

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 Ley, KY 40505

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 Ayer, MA 01432

#### Cleveland, OH Chapter

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 Cleveland, OH 44120

#### Seattle, WA Chapter

Jose Joselito  
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 Seattle, WA 98125

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 c/o Piano Systems II, Inc.  
 Addison, IL 60101

#### Colorado West Chapter

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 Grand Junction, CO 81503

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**Patnua Nickerson**

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Louisville, KY 40206

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Las Vegas, NV 89106

Roger Osgood  
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Las Vegas, NV 89121

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Rochester, MN 55901

**Nebraska Chapter**

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Sioux City, IA 51106

William T. Springer  
1401 South Glass  
Sioux City, IA 51106

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Grew Caunter  
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Edward Elliott  
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V7J 1N3

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V6R 1P8

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Wichita, KS 67217

Frank R. Johnson  
1922 E. 14th  
Winfield, KS 67156

**RECLASSIFICATIONS**

Landis, Glenn A.  
Herrin, Dawn M.  
Stoutsenberger, Rose

# Coming Events

Notices of seminars will be accepted for insertion in THE JOURNAL no sooner than six months before an event. In addition to the listing below, your seminar may be publicized through one free display ad, two columns by two inches deep. It is the responsibility of the advertiser to submit copy for the ad to the Home Office. Material must be received six weeks prior to the publication date of THE JOURNAL.

**Note:** All seminar dates must be approved by the Conference Seminar Committee. Please submit the appropriate information on the Request for Seminar Approval Form which may be obtained from the Home Office.

**October 9-11, 1981**

OHIO STATE CONFERENCE  
Dayton, Ohio

**Contact:** Francis Hollingsworth  
2271 E. SV Paintersville Rd.  
Xenia, OH 45385

**October 11-13, 1981**

FLORIDA STATE CONVENTION  
Daytona Beach, Florida

**Contact:** Walter T. Pearson  
c/o Community Piano Service  
2366 So. Ridgewood Ave.  
South Daytona, FL 32019

**October 15-16, 1981**

NEW YORK STATE CONVENTION  
Howard Johnson's  
Plainview, New York

**Contact:** Richard Dante  
12 Magnolia Drive  
Kings Park, NY 11754  
(516) 724-8720

**October 16-18, 1981**

TEXAS STATE CONVENTION & SEMINAR  
Space Center Inn  
Houston, Texas

**Contact:** Martin Wisenbaker  
808 Cordell Street  
Houston, TX 77009  
(713) 864-6935

**November 7-8, 1981**

BALDWIN/STEINWAY SEMINAR  
Sponsored by Baltimore Chapter  
Towson State University  
Baltimore, Maryland

**Contact:** Morris Millman  
8326 Scotts Level Rd.  
Baltimore, MD 21208  
(301) 655-6527 or  
(703) 442-6165

**March 26-28, 1982**

PENNSYLVANIA STATE CONVENTION  
Pittsburgh, Pennsylvania

**Contact:** Robert W. Wagner  
1225 Saxonwald Ave.  
Pittsburgh, PA 15234  
(412) 884-8222

## UPCOMING CONVENTIONS OF THE PIANO TECHNICIANS GUILD

**1981** July 6-10  
San Francisco  
San Francisco Hilton & Tower

**1982** July 4-9  
Washington, D.C.  
Capitol Hilton

**1983** July 4-8  
New Orleans  
New Orleans Hilton & Towers

# THE AUXILIARY EXCHANGE

Luellyn Preuitt

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### Editor, Auxiliary Exchange

**LUELLYN PREUITT**  
4022 South Fuller  
Independence, Missouri 64052

Your writer enjoyed the annual Missouri State Conference of the Piano Technicians Guild on May 1-3, 1981. This year's conference was hosted by the St. Louis chapter and auxiliary. The technical program was excellent, and was augmented by two classes taught by auxiliary members. On Friday evening, following registration and before the get-together event, Ginny Russell taught a class on "Helping the Technician" and Julie Berry advised a number of interested individuals on income tax preparation. Almost all of us are involved in these two areas, and we thank Ginny and Julie for sharing their expertise with us.

We boarded a bus Saturday morning for a central riverfront location, from which we began a walking tour, starting with the "old courthouse." Our guide, an employee of the Department of the Interior, National Park Service, helped make the experience an unusually pleasant one. At one point he led us into an almost barren room which seemed round at first glance. Later, as the eye became accustomed to the contours of the room, he pointed out that this was the point at which octagonal laying of brick changed to "round," and became the outline for the dome. This dome is the first such iron structure in this country, pre-dating the one in the nation's capitol by two years. The designer, William Rumbold, had to build a scale model and load it with 13,000 pounds of pig iron to convince skeptics of its soundness!

Our guide outline for us the change in thinking from "any old thing goes" almost 40 years ago to "do it exactly right" today. At the beginning, curators paid little attention to what kind of furniture might have been used in a particular courtroom. Now, he told us, one of the courtrooms is almost bare of furniture because no-

where in the records can it be determined just what kind of wood was used to manufacture the chairs and tables.

The first event, the formal opening ceremony, was held in the building on George Washington's birthday in 1845. Since then lawyers have argued cases involving slavery, the fur trade, steamboating and other controversies. The first trials of the Dredd Scott case were held in this building.

After the 1930s the building was vacated by the courts and it deteriorated. It was acquired by the National Park Service in 1940 and restoration was begun. From the brochure: "Small and old-fashioned as it may seem in comparison with today's tall, massive structures, the Old Courthouse dominated the city's skyline when the covered wagons rolled west in the mid 1800s. Built of Missouri limestone and brick, it stood over 190 feet tall, 100 feet taller than most of the surrounding buildings."

After leaving the Old Courthouse we walked to the Arch, where we spent about an hour in the museum viewing interesting exhibits of the early "gateway to the west." No one took advantage of the ride to the top of the Arch, which was understandable considering tickets for the 1:15 p.m. trip were being sold at 11:45 a.m. However, this writer would like to comment—the Arch is pretty high up. The trip down occupies a minute and a half less than the trip up. It is a trip everyone ought to take! Having taken it one time, she can safely make such a statement, and chuckle that she felt a good sense of security and was able to walk around, peer out the windows and wave hello to Illinois from a great height.

Leaving the Arch we went down to the McDonald's Riverboat Restaurant. Everyone was allowed to order one's own "thing" (if she could find it).

We had planned to visit the Old Cathedral and were almost thwarted because a wedding was being performed in the chancel. However, we first traipsed through the museum and then tiptoed into the sanctuary. It has been restored to its pristine glory of the early 1800s and is most awe-inspiring.

Then our bus found us. What a story that tells! We rode, thankfully, back to the Forest Park Hotel and went our separate ways.

We met again for the Saturday evening banquet, held on the riverboat "Belle Angeline." We were well entertained with piano music (what

else(?), following which we dined sumptuously from the buffet. We listened to inspiring messages from President Bob Russell and Central West Regional Vice President Ernie Preuitt, and some of us won absolutely fascinating prizes and gadgets contributed by some wonderful people.

Sunday, the auxiliary ladies went on a walking tour of a nearby shopping area. While not many of the shops

were open (St. Louis is still a victim of the Missouri blue law), we did visit an art gallery and antique show, and several of us treated ourselves to delicious ice cream treat.

Thanks to the St. Louis chapter for the melodious surroundings. We appreciate having been housed in an area which is at once contemporary, accessible to places of business and graciously urban. This is a combi-

nation which is difficult to obtain in many locations, and the planner of this conference were both astute and fortunate in their planing.

Next month is my final visit with you. I have been writing this column since July, 1970. I know I shall miss all of you. Yet it is a time for change. Perhaps I can think of some words which will express my gratitude to you for your support. Until then . . .

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## Technical Institute Class Descriptions (continued from page 13)

### **28. DESIGN AND REPLACEMENT OF GRAND KEYS AND ACTIONS.** . . Frank Stopa and Wally Brooks

Frank Stopa of Pratt-Read and veteran Rebuilder, Wally Brooks bring you a fascinating class showing how to make a new action, including rails and brackets, in a small shop, using Pratt-Read Clemson grand action parts. They will also cover design and layout for making a set of keys in a small shop. This just might help you save a good Grand whose action was lost in a fire or flood and the case still good.

### **29. GRAND DAMPER INSTALLATION.** . . Jack Krefting and Willard Sims

This class will show the examination and selection of felts for the different areas of the grand piano . . . vertical grain . . . horizontal grain . . . and which goes where. There will be "hands-on" wire bending as well as "show and tell" and for those too late or too timid for the front row, Baldwin is furnishing a Video Camera and T.V. Monitor so that all will get a good look at the proceedings.

### **30. GRAND ACTION REGULATION.** . . Roger Weisensteiner, Eric Johnson and Ray Reuter.

This is a basic Grand Regulation class which presumes no prior knowledge, but will have information for experts as well as neophytes. There will be action models and tools for a class of 50 so it will be "hands-on" all the way. You will get instruction on Renner, Schwander and Pratt-Read actions. Come early and get a seat by a "Model".

### **32. VERTICAL REGULATING AND SERVICING.** . . Cliff Andersen, Bob Hill, Bud Corey and Larry Talbot

This is one of our most basic and informative classes on regulating the vertical piano (Spinnet, Console and Studio). With the Wurlitzer Action Models and the expert instruction, by this fine team of Instructors, your hands-on experience will give you all the information you need to know when the vertical action is functioning properly and why it doesn't when it doesn't.

### **33. AFTERTOUCH IN GRAND AND VERTICAL ACTIONS.** . . LaRoy Edwards, Jack Caskey, Kenzo Usunomiya and Joe Dennis

Aftersound in Grand and Vertical pianos. An

exploration into their subtleties of regulation as the designer of actions intended. Discovering the functions of the vertical action that replace the repetition lever and spring of the grand action. It lays the groundwork for deciding unknown measurements and how to bend the rules for special situations.

### **34. ADVANCED PLAYER TECHNICIANS FORUM.** . . Norman Heischouer

Class is really not a class, but a getting together of Player Technicians to discuss service problems, new ideas, methods and materials. A round table "high level" sharing session primarily for advanced Player Technicians.

### **35. AEOLIAN PRODUCT CLINIC.** . . Lew Berger

Although Lew is sales manager for Aeolian Prayers, he is also a Craftsman Member of PTG and can give you a very informative and entertaining Player demonstration.

### **36. PINBLOCK INSTALLATION.** . . Lew Herwig

Class will teach when and how to install a new pinblock. What measurements to take before removing plate . . . how to fit a pinblock to the plate . . . what size drills to use on various pinblock materials to get proper tuning pin torque . . . and all related information.

### **37. FORUM FOR COLLEGE AND UNIVERSITY TECHNICIANS.** . . Joe Jones, chmn.

Another non-class with plenty of basic information on the trials and tribulations of those Technicians who service the pianos at some of our leading Institutions of higher learning. If this is your field, come and participate in this round table discussion.

### **38. PRIVATE TUNING TUTORING.** . . Don Morton, Fred Odenheimer, George Morgan, Ruth Ann Jordan, Donald Strong and others

These private classes are for those Technicians who are already full time tuners, but feel that they need help or evaluation in certain areas. No beginners or Students will be accepted for these sessions.

# Classified Advertising

CLASSIFIED ADVERTISING RATES are 20 cents per word with a \$5.00 minimum. Full payment must accompany insertion request. Closing date for ads is the first of the month prior to publication.

Box numbers and zip codes count as one word each. Telephone numbers count as two words. Names of cities and states count as one word each.

Send check or money order (U.S. funds), made payable to the Piano Technicians Guild, to Classified Ads, THE JOURNAL, 113 Dexter Avenue North, Seattle, WA 98109.

The Journal does NOT provide blind box service. Please include a mailing address and/or telephone number with your ad.

Ads appearing in this journal are not necessarily an official endorsement of the services or products listed.

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## FOR SALE

**NEW KEYSETS AND FRAMES** for Steinway Model A grand pianos. Good for all three issues of the style A, can be cut down for 85-note pianos. These are good quality, independently designed production type sets in unfitted condition. Price \$350 unfitted, \$550 partially fitted; packing and shipping extra. **Christopher S. Robinson, 190 Long Hill Rd., South Windsor, CT 06074.**

**CUSTOMER'S QUESTIONS?** The Piano Owner's Guild will answer them between tunings! Inquiries welcome. Hardbound, \$6.95; Softbound, \$3.95. Trade discounts, terms. **APEX PIANO PUBLISHERS, 2621 South 8th St., Sheboygan, WI 53081. (414) 458-4489**

**NEW SOUNDBOARDS.** Sounding board replacement, pin block installation, down-bearing adjustment, restringing, action rebuilding and excellent refinishing. All work approached with careful consideration given to both the scientific and musical aspects of the piano in our care. Price sheet upon request. **Southwest Piano Reconstructors, Kelly Anderson, 607 E. Main, Lancaster (Dallas) TX 75146. (214) 223-1439.**

**ZUCKERMAN HARPSICORD KITS** — A real challenge for the interested technician. Factory direct shipment at factory prices. Troubleshooting and advice for kit builders. Authorized Agent: **Yves A. Feder R.T.T. Harpsichord Workshops, 2 North Chestnut Hill, Killingworth, CT 06417, Telephone (203) 663-1811.**

**QUARTERSAWN 5-PLY VERMONT ROCK MAPLE PINBLOCKS** and 3/8" bridge stock. Call or write: **George H. Wheeler, 11 Cherry Hill, Springfield, VT 05156, (802) 885-5325.**

**INSTALL YOUR OWN**, new, ready made **SOUNDBOARDS.** Key boards made. **The Piano Shoppe, Inc. (Benvenuto), 6825 Germantown Ave., Philadelphia, PA 19119. (215) 438-7038.**

**PIANOS FOR SALE** — Always on hand, 150 to 300 uprights! Plain case, art case, and players. Also 50 to 150 grands at all times, as is or rebuilt. Excellent brand names — no junk! All set up for inspection. Lowest possible prices. **Call for quotes: Owen Piano Wholesalers, 2152 W. Washington Blvd., Los Angeles, CA 90018. Telephone: (213) 883-9643.**

**KEY RECOVERING MACHINES** for sale. Prices on request. Send self-addressed envelope. Or, build your own—send \$10.00 for plans, photos, instructions (refund w/purchase of machine). **Solenberger Piano Service, 1551 Lynn Court, Santa Rosa, CA 95405.**

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## HELP WANTED

**PIANO TECHNICIAN** — tuning, maintenance, rebuilding pianos, 12-month staff position with benefits of state employment period. Salary \$14,300 - \$15,800, depending on experience. Excellent location in mild climate. Application deadline July 1, 1981. Send experience summary and references to **Dean Robert Glidden, School of Music, Florida State University, Tallahassee, FL 32306.**

**MASTER TUNER-TECHNICIAN.** Artist piano-rental company seeks master tuner-technician. Must have positive self-image of his professionalism. Work with the greatest pianos and artists in the world. Master technician is sought for long-term employment in New York City, with possible relocation to San Francisco or Los Angeles. Must be willing to embrace with equal zeal the following: tuning, rebuilding, truck driving, piano moving, regulating, voicing, road touring and sometimes long and unusual hours. Benefits: work with the world leader in concert piano preparation and provision, all types of artists, all types of music. As a reward for long-term loyalty, profit sharing or other bonus could apply. **(212) 582-6798.**

**WANTED—TUNER TECHNICIAN.** Write **Emert S. Rice, Rice Music House, P.O. Box 1235, Columbia, SC 29202.**

**THE BANFF CENTRE SCHOOL OF FINE ARTS - MUSIC DIVISION** - Piano technician wanted for September 1, 1981, full-time position maintaining 24 grand and 88 upright pianos for year-round music program. Frequent concert tunings required for internationally known artists. Salary negotiable. For details contact: **Manager of Music Programs, The Banff Center School of Fine Arts, Box 1020, Banff, Alberta, Canada T0L 0C0.**

**WANTED - PIANO TECHNICIAN** full time for music dealer in sunny Florida. Write: **Bobb's Pianos & Organs, 2512 S. 30 Ave., Hallandale, FL 33009 or call Mr. Bobb, (305) 456-7800.**

**PIANO TECH** fully experienced in all phases of shop overhauling for teaching position. Part time to start. Send resume to **S.F. School of Piano Technology, 659 Haight St., San Francisco, CA 94117.**

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## WANTED

**WANTED TO BUY:** Used Peterson Tuner, Strobotuner or Sight-O-Tuner. Please write **Franklin Lundak, Traer, Iowa 50675.**

**PIANO TECHNICIAN** seeking job opportunities; willing to relocate; registered craftsman member. Please write: **Walter F. Gramza, Jr., P.O. Box 201, East Rochester, New York 14445**

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## MISCELLANEOUS

**TUNERDATA** prepares mailing lists and duplicate card files (coded geographically) for you. For personal interview at San Francisco convention write **Ed Fesler, 11315 Rich Circle, Minneapolis, MN 55437.**

**PIANO TUNING & REPAIR.** Well equipped shop. Top qualified teachers. **Steve Fairchild, Director. Piano Rebuilding by Dante, 2294 Locust Ave., Ronkonkoma, NY 11779. (516) 588-6446**

**ATTENTION PIANO RETAILERS AND TECHNICIANS.** Do you need a quality piano rebuilder and refinisher? Reasonable wholesale prices. Write for brochure listing prices and qualifications. **Dante Piano Rebuilders, 2294 Locust Ave., Ronkonkoma, NY 11779. (516) 588-6446.**

# NOW!

## A Map to the Treasures In Your Old Journals

Author and Title		
<b>Epoxies</b>		
— J. Arnold	Epoxies - V	
— James I.	Epoxies and	
— Ch. Delwin	Epoxy Gluing of	
— Don	Quick 4-6 Minute Ep	
— John	Epoxy Bridge Repair	
— Harry W.	Epoxy Glue	
— Robert W.	Epoxy Cement on Loose P	
— John E.	Epoxy Soundboard Repairs	
<b>Spreaders</b>		
— James	Electric Glue Gun	
— David S	Heat Gun Source	
— Jan	Gluing with the Grease Gun	
— John	Buzzes in Soundboard	
— John	Glue Spreader	
— John	Electric Glue Gun	
<b>360 Waters &amp; Ivory Cement</b>		
— Hoskins, Leslie	Mussel Glue	PTJ
— Ramsay, John	Ivory Glue Formula	TPT 03
<b>370 Tapes</b>		
<b>380 Softening Glues</b>		
— Krefting, Jack	Replacing Upright Shanks	PTJ 11/7
— Johnson, James L.	Separating Glue Joints	PTJ 06/7
— Overdorff, Anson	Glues and Solvents	PTJ 01/72
— Scheer, John	Softening Glue	PTJ 12/70
— Kegley, Paul	Disappearing Acetone	PTJ 05/66
— Koford, H. O	Soften Glue in Heated Sand	PTJ 08/59
	Loosening Soundboard Glue	PTJ 03/58
<b>390 Glue Removal</b>		
— Scheer, Larry	Removing Glue from Uneven Surfaces	PTJ 09/77
— Scheer, Larry	Squeeze Out	PTJ 09/7
— Scheer, John	Remove Glue Uneven Surface	PTJ 03
— Overdorff, Anson	Softening Glue	PTJ 12
— John	White Glue	PTJ 11
— John	Glue Removal	PTJ 19
— Joe	Gluing Ivory Replacements	PTJ 08
— Charles	Remove Old Key-Top Glue	PTJ 06
— James L.	Lubricant WD40 Tested	PTJ 05
— John	Lubricants	PTJ 04
— Bernard	Emralon in Piano Actions	PTJ 03

**\$25**

Send check or money order to:

**Piano Technicians Guild**  
**113 Dexter Avenue North**  
**Seattle, Washington 98109**

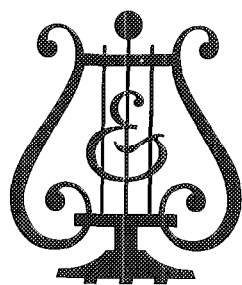
Now, you can find the information you need — quickly and easily. It's all here in the "Classified Index to Published Piano Technology." This 293-page index can guide you to any one of the thousands of articles that have appeared over the years in the **Piano Technicians Journal** and four other publications related to piano technology.

All you have to do is look in the index under the subject heading you need. There you'll find listed all of

the articles published on that subject.

You'll find out who wrote a particular article, the title of it, the issue in which it appeared, and the page number. Then, you just grab the issue you need, and the information is yours. Quick and easy.

And, the home office of the Guild can send you a reprint of any article listed in the index that you don't have. So, how can you afford to be without it? Order your index today.



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# PIANO TECHNICIANS GUILD

# JULY 1981 UPDATE

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## NO CONCERT TODAY

The audience is hushed; the virtuoso appears and is greeted with applause. He bows, takes his place at the piano and a burst of ear shattering noise rises from his fingertips. Alas, no one came to tune the piano. The violins, the cellos, the flutes, the trumpets, yes, even the tympani, were tuned by the musicians. But not the piano. The concert hall manager couldn't find a piano technician. At sometime, some place, some how a qualified technician failed to realize this was going to happen. He was concerned, yes, but only with the present. Not the future.

We all have a responsibility to the future as we live in the present. If we don't, someday there can be no present. Just think, without the piano technician, music studios would close, concert halls would be empty. Schools would be without music, and home music would be a thing of the past. A very meaningful part of our lives would come to a standstill and then disappear.

This is extreme logic, yet haven't you too heard the cry, "Where can I find a competent piano tuner?" "Sorry lady, there aren't many of us left any more." Oh but there can be if you and I will do more in sharing our profession with others through association in the Piano Technicians Guild. Each person needs a beginning, and for the piano technician this is a good one. A community of the most knowledgeable people in the profession studying, teaching, developing, sharing piano technology.

You have an opportunity to perpetuate this profession, to contribute to its growth by spreading the **WORD**. Talk to your friends, to your competitors about joining the Guild. Tell them how they can grow in knowledge and musical stature. You will also see your business grow as a result of your leadership in developing better technicians for your community. Study the benefit brochures furnished by the home office. Add your own experiences and joys through membership and then you will be prepared to say to someone: "I have something to pass on to you that has meant so much to me, the opportunity to join the Piano Technicians Guild. It's an organization of the best and it is where you should be."

Try doing this. With a bit of practice you will be thrilled with your success. Carry an application blank in your tuning case, also in your car so you'll be ready when you hear the response: "I think I will join!"

**No Concert Today?** Yes, there will be a concert because you thought enough to share membership in the Piano Technicians Guild with a person desiring a future in the field of piano technology. But don't wait. Start today and keep up the momentum for tomorrow.

—Walter Kerber



## May Chapter Mailing and Agenda Books

The May chapter mailing included one copy of the 1981 Council Agenda Book sent to the chapter president. The book is clearly marked for delivery to the chapter delegate but it is intended that any interested member should be given an opportunity to study the contents. The agenda book contains a complete copy of the Guild Bylaws and Regulations as amended by the delegates at the last Council session, 1980, and also all of the new proposed amendments received from the Bylaws Committee.

**Special Note:** Spare copies of the agenda books will be available at the convention for \$2.00, first come first served.

## Sending Checks

**Please — Please — Please** enclose copy of the dues billing or invoice for supplies when making a payment. If the dues billing or invoice is lost, please attach a note with your name and a statement showing what the payment you are enclosing is to cover.

The Home Office receives some checks without any information attached and we are then unable to apply the credit for payment and do not even know whether the funds are to pay membership dues or to purchase supplies.

# WHAT A PRICE TO PAY

We have been hearing a lot about the costs of things in San Francisco, our convention city for this year.

We hope this won't deter attendance since there are lots of compensating factors we should not overlook. The city is stimulating, interesting, lively, pleasant, clean, filled with fascinating sights and things to do. It's a perfect vacation spot and one NOBODY should miss. People are drawn back to its glitter and glamour again and again. Plan on staying a while and enjoy it to its fullest.

As far as costs are concerned, San Francisco doesn't have a corner on the market in this regard. Most of the big cities are going this way. It is the trend of the times. We have to adjust our income to meet it. Fortunately, piano technicians are mostly in the

position as independent businessmen and women to be able to do this.

Speaking of prices—we all know that the prices of various goods and services advance at different rates. Some shoot ahead, some remain static. Things like strikes, scarcity, disasters and politics all have something to do with it. It is beyond our control. Want to know what is happening? If you took the trend for the past five years and projected it for the next 10 years to the year 2001, you would be surprised—yes, even dismayed—but remember, it is all relative.

From Manplan Consultants, a Chicago-based management consulting firm, here are projected prices for various goods based on their price trends. Are you ready?

	1973	1977	1987	2001
Low priced car	\$3,000	\$5,000	\$17,700	\$105,000
High priced car	6,500	12,000	55,320	471,240
Private college tuition	3,000	3,840	7,219	17,510
Average house	34,500	54,000	191,160	1,134,000
Bar of soap	.15	.35	3.01	61.12
Toothpaste	.39	.79	4.89	62.80
Hump roast (lb.)	1.49	1.49	1.64	1.89
Ground beef (lb.)	.89	1.19	2.57	7.54
Coffee (lb.)	.70	3.25	163.86	39,642
Jelly (small jar)	.25	.59	5.28	113.98
Sunday Newspaper	.30	.60	4.38	70.92



## Your Own Address

We are receiving mail from chapters, in particular, and from some individual members without return address on the letter. Although we can trace the address through the files or the computer records, this does take additional overhead time and such correspondence does not receive as prompt attention as items with a return address on them.

**Please** include your return address on all correspondence. Thank you for your help in this.

## Home Office Address

Please address all mail to the home office at 113 Dexter Avenue North, Seattle, WA 98109. Our post office box 1813 was closed last November. Mail sent to the post office box is delayed as the box is cleared only once a week.

## Dues Update

The third and final billings have been mailed to all those who have not paid their 1981 Guild dues. Final payment is due June 1, 1981.

## New Billing Pads

Carbonless billing pads are now stocked at the Home Office. Because of numerous requests for the new type of paper, we decided to make the change. We feel sure that you will prefer it when you use it.

A portion of the back cover should be inserted below each set as it is completed to prevent data from appearing on the set below the one being completed.

Besides being clearer to use, your copies should be easier to read and smudge-free. The price remains the same—one for \$2.50 and three for \$6.00 plus postage.

## 1981 Booster Club

We have several new members applications where we are unable to decipher the name of the members who should receive credit of gaining the new member for the 1981 Booster Club and President's Club.

**Please** check the list of members and points credited in the Booster Club list and write or call the Home Office immediately if you believe the points credit is not accurate.

We want to have everyone given full credit again this year. Those who achieve the President's Club will receive a special Guild pin with the title PRESIDENT'S CLUB 1981 on a banner below the pin.

## Student Dues

Guild dues for new student members and for student renewals are \$60.00, the total amount payable to Guild at the Home Office. The change from \$45.00 to \$60.00 was approved by the delegates at council session last year.

Student membership is subject to review by the Chapter each year at time of renewal. Send the approval form accompanied by \$60.00 to the Home Office.

The Home Office does not collect Chapter dues for students, but Chapters are authorized to assess chapter dues up to \$20.00.

# SALES ORDER FORM

	Quantity Ordered	Total Price	Item	Quantity Ordered	Total Price												
<b>BUSINESS AIDS</b>			<b>JEWELRY</b>														
Ballpoint Pens - gold, writes blue and red-1/\$3.50-2/\$6 .....			* <b>Membership Pin</b> - lapel-type, gold with blue and white logo-1/\$3-3/\$6-12/\$18														
* <b>Billing Pads</b> - 2-part with logo imprint, 50 per pad-1/\$2.50-3/\$6 .....			* <b>Tie Clasp</b> - bar type, gold with blue and white logo-1/\$3-3/\$6-12/\$18 .....														
<b>Bumper Stickers</b> - yellow/blue/white \$1 each .....			* <b>Tie Tack</b> - gold with blue and white logo-1/\$3-3/\$6-12/\$18 .....														
<b>Coffee Mugs</b> - white pedestal/blue logo 1/\$4-2/\$7.50-4/\$12-6/\$16.50 .....			<b>PUBLICATIONS and MISCELLANEOUS</b>														
<b>Dash Cash</b> - emergency coin dispenser, white with blue logo-\$1.75 each			<b>Chapter Publicity Manual</b> - \$5 each ....														
<b>Flashlight Pens</b> - gold, comes with battery-1/\$4.50-2/\$8 .....			<b>Index of Journal Articles</b> 1/\$25 00														
<b>JOURNAL Binders</b> - brown with gold letters-\$6.50 each .....			<b>Pamphlets</b> - 10¢ ea.-100/\$8-500/\$35														
<b>Key Ring</b> - heavy plastic with laminated blue/gold logo-1/\$1.50-3/\$4-6/\$7.50			A-440 and Your Piano .....														
			Baldwin Postcard .....														
* <b>Logo Emblem Patches</b> - colorful 3" sew-on patches, all are priced the same: 1/\$1.75-3/\$3-6/\$4.50. Indicate colors: blue/white, blue/gold, black/gold .....			Care of Your Piano .....														
			"How Often Should My Piano Be Tuned?" .....														
* <b>Logo Metal Cuts</b> - reusable metal on wooden blocks - all sizes are priced the same: \$15.00 each. Indicate size/type: 5/8" round, 1/2" round, 1 1/4" piano or 7/8" piano .....			Piano Pointers .....														
			Reminder Cards .....														
* <b>Logo Rubber Stamps</b> - mounted on wooden handle, all sizes are priced the same: 1/\$3.75-2/\$6.50-3/\$9.50. Indicate size/type: 1 1/4" round, 5/8" round, 1/2" round, 1 1/4" piano or 7/8" piano ...			"Should I Have My Piano Tuned in the Summer?" .....														
			The Tuner To Turn To .....														
* <b>Logo Stickers</b> - peel-off backing, blue/gold/white - A and B styles. A - for inside glass B - regular 8 1/2" logo-1/\$3-2/\$5-6/\$10 .....			The Unseen Artist .....														
3 1/2" logo-1/\$1.50-2/\$2.50-6/\$5.50			<b>Piano Action Handbook</b> - by Merle Mason-\$2.50 ea. ....														
1 1/2" logo-10¢ each (Min. order 10) (B only)																	
<b>Piano Service Appointment Forms</b> - small, green 6-part 100/\$14.50 .....			<b>What is a Registered Piano Technician?</b> - card with Code of Ethics - 7¢ ea. ....														
<b>Piano Service Contract</b> - letter-sized, 3-part 20¢ each .....																	
<b>Piano Service Sales Agreement</b> - letter-sized, 2-part 10¢ each .....			<b>All items below are available free from the Home Office.</b>														
* <b>Pocket Protectors</b> - white vinyl with blue logo-3/\$1.25-6/\$2 .....			Lending Library List .....														
* <b>Service Stickers</b> - red and blue with logo. Plain-100/\$4-200/\$6-500/\$12 Imprinted with your name/address-\$45/1000 .....			List of Manufacturers & Suppliers														
<b>Tape Measure</b> - 6' metal 1/\$3.50			Magic Kingdom Club Application ...														
<b>Teacher Recital Program Covers</b> - 100 for \$8 .....			Members Benefit List .....														
			Reader's Digest Reprint: "The Other Masters of the Keyboard"- limit 10 per order .....														
			"Thank You for Your Membership Inquiry" .....														
			"What is The Piano Technicians Guild?"														
			* <b>For use by Registered Technicians only</b>														
			<b>SUBTOTAL</b>														
			<b>ADD SHIPPING AND HANDLING</b>														
			** Actual shipping and handling charges will be billed on orders from Canada and overseas.														
			<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td>If order totals:</td> <td>Below \$5.00</td> <td>\$5 to \$9.99</td> <td>\$10 to \$14.99</td> <td>\$15 to \$24.99</td> <td>\$25 or More</td> </tr> <tr> <td>Add:</td> <td>\$2.00</td> <td>\$2.50</td> <td>\$3.00</td> <td>\$3.50</td> <td>\$4.00</td> </tr> </table>	If order totals:	Below \$5.00	\$5 to \$9.99	\$10 to \$14.99	\$15 to \$24.99	\$25 or More	Add:	\$2.00	\$2.50	\$3.00	\$3.50	\$4.00		
If order totals:	Below \$5.00	\$5 to \$9.99	\$10 to \$14.99	\$15 to \$24.99	\$25 or More												
Add:	\$2.00	\$2.50	\$3.00	\$3.50	\$4.00												

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City/State or Province \_\_\_\_\_  
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 Chapter \_\_\_\_\_ Nonmember \_\_\_\_\_  
 Member's Number \_\_\_\_\_

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Enclose check or money order for this amount **TOTAL U.S. FUNDS**



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 113 DEXTER AVENUE NORTH  
 SEATTLE, WASHINGTON 98109

PLEASE FEEL FREE TO PHOTOCOPY THIS ORDER FORM

## Moving? Changing Your Address?

Be sure of your regular *Journal* delivery by asking the Post Office to forward your *Journal* to your new address. *Journals* that cannot be delivered because the addressee has moved are not returned to us. We are sent a notice only and must pay 25¢ for each non-delivery notice.

To mail a duplicate copy means double *Journal* costs plus the return postage notice cost plus around 60¢ remailing charges plus office overhead. The Home Office has done this whenever possible but we are finding that it is becoming more difficult to do so now that we no longer have so large an overrun of the *Journal* printing each month.

### BECAUSE WE WANT TO BE SURE YOU RECEIVE YOUR REGULAR JOURNAL EACH MONTH!

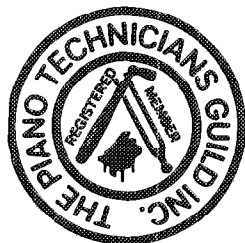
1. Please ask the Post Office to forward your *Journal* to you when you move.

2. Please notify the Home Office as soon as possible, 5-6 weeks before you change your address.

3. Should you not receive a *Journal*, please advise us immediately. On such prompt notification we can usually send a duplicate. When notified after any delay, we are not able to promise a duplicate *Journal*.

The Board of Directors has adopted a new policy:

"The Home Office is to charge a postage and handling fee for mailing duplicate *Journal* issues to replace missing issues due to a change of address."



### IN MEMORIAM

Robert Landreth,  
Newark, CA  
Gustave J. Darkow,  
Alexandria, VA  
Gustav Szabadi,  
Lincoln Park, MI  
James M. McHenry,  
Cambria, PA

## Chapter Notes

The publications department thanks all chapters which have been sending items for the Chapter Notes section of the Update on the special Chapter Notes form. If your chapter would like more of these forms, just send in a request to the Home Office. Unfortunately, we cannot include ALL of the material sent in. We try to use material interesting to the most members throughout the country when space permits.

## Membership Cards

Membership cards are sent only after the full dues payment for 1981 have been received at the Home Office. The cards are printed by the computer company and mailed to the members about the second week of the month.

## Fabulous Hawaiian Flea Market

This is your chapter's chance to be directly involved with the success (and the fun and profit) of the San Francisco National Convention! If you participated in last year's Flea Market, we know you'll want to do so again. If this will be your first year, start now to make the most of the opportunity.

Each chapter is responsible for the making, transporting and selling of its own product. You're given a free table and complete control over prices. The profit is all yours!

Fill out the form below right away...

YES! We plan to participate in the FABULOUS HAWAIIAN FLEA MARKET at the 1981 San Francisco Convention. We'll be selling the following:

Please reserve a table for our Chapter/Auxiliary.

**Deadline Now July 1, 1981**  
**CALL THE HOME OFFICE NOW!**

\_\_\_\_\_  
(Chapter president/person responsible)

\_\_\_\_\_  
(Name of chapter)