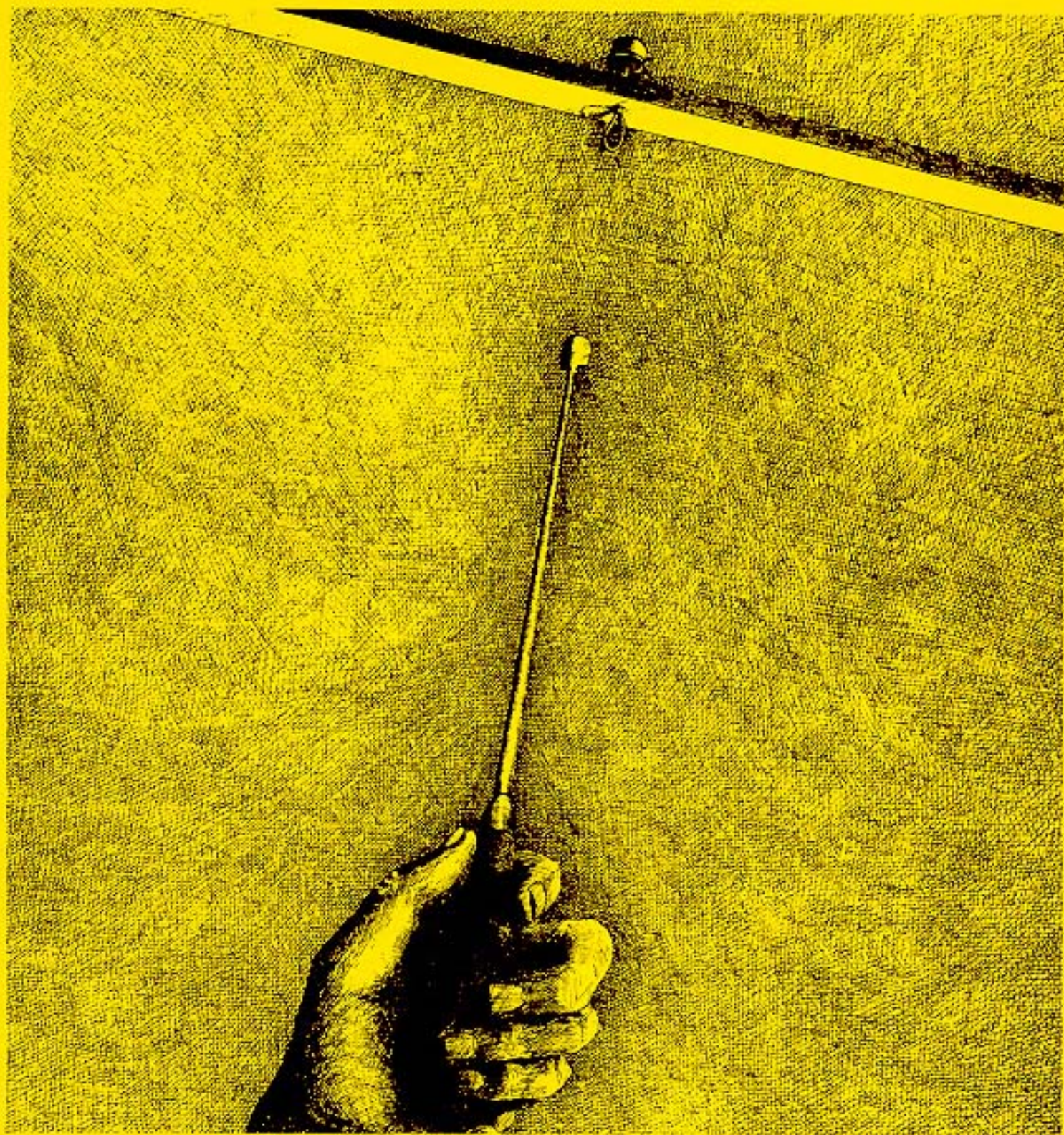


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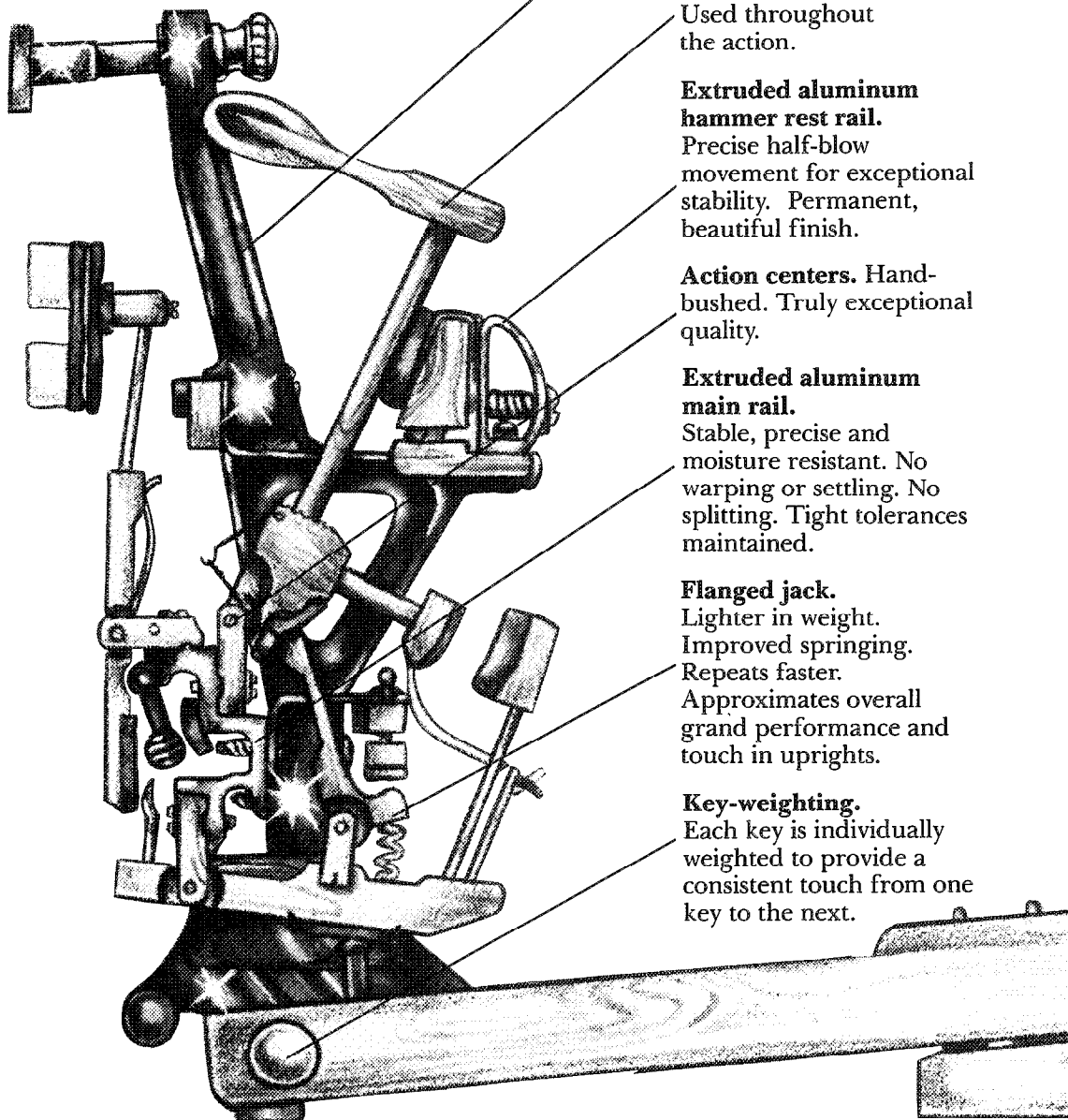
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# Piano Technicians Journal

Official Publication of the Piano Technicians Guild

May 1982

Volume 25, Number 5

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**COVER . . .** This excellent illustration of piano tools was sent to us by Les Jorgensen, a Registered Technician from East Lansing, Michigan. Information on prints used on the cover of the Piano Technicians Journal, contact Mr. Jorgensen, at 1135 Sunset Lane, East Lansing, MI 48823.

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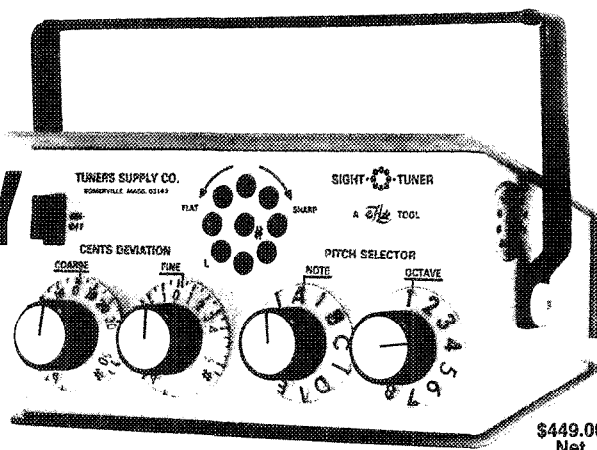
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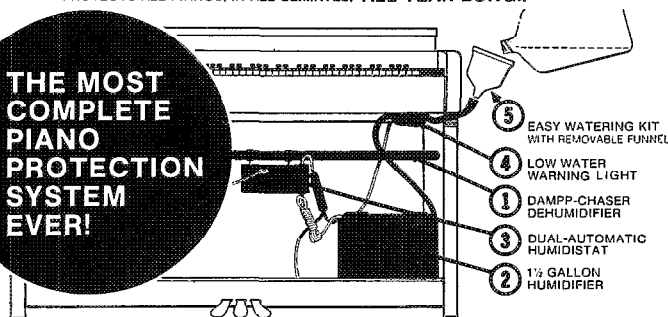
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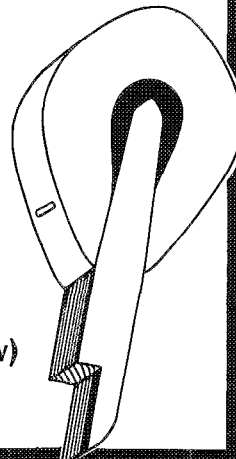
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## How Much Do You Get Out of Your Organization?

You could ask yourself this question in regard to almost any organization you belong to. How much you get out of it is in direct proportion to how much you put into it. How much a person puts into an organization, of course, varies with each individual in proportion to the distribution of his/her time, level of interest and enthusiasm, financial ability, and, most important of all, "attitude."

Whenever I hear a member growl "What do I get out of this outfit anyway," I always ask myself, almost unconsciously, "I wonder what that person is putting into it?" By joining an organization, your troubles will not necessarily fade away into the past. It simply means that you have added to the power and strength of your fellow members, which will, in turn, enable you to deal with the obstacles which make survival in the market place difficult. You will be better equipped to handle possible debilitating and destructive legislation which may surface at any level of government. It means that unfair competition can be dealt with, false advertising stopped, and oppressive forces of anti-business met with the full force and fury of a united front of honest people. Most of all, it means that your customers — the consuming public — will receive a higher level of service, because you have taken the trouble to improve your craft and upgrade your business.

*People united in a trade, craft, or profession walk with their heads held high, exude confidence in their manner, and enjoy their work. You can see it at every conference. You can hear it in almost every conversation. You can sense it in the air.*

*If there is one thing I've learned in organizations during my years in them, it is the axiom "People do what they really want to do." Given few exceptions, when people REALLY WANT to participate in their trade association, club, or society, THEY DO IT!*

*In reality, it all boils down to "attitude." A positive attitude can carry a person farther than politics, personal wealth, and, yes, even farther than skill and learning. I have seen it again and again. A person who is skilled in dealing with PEOPLE can generally beat out one who is simply skilled.*

*I would like to use an article appearing in the March issue of the Connecticut Newsletter "The Keybed," written by Lee Fox, to illustrate my point. It certainly bears reprinting and should bring a message to all of us:*

### Minding Your Own Business

"Get ready.... get set... go!" We all know that is the way many events start, but how many of us apply the same approach to the start of the most important events of our careers... getting our customers?

As far as getting ready, we have spent much time and effort in gathering technical skill to properly service our customers' pianos, but as far as getting "set" are we in the proper frame of mind that will convey the most positive impression to our customer? Do we approach each job with enthusiasm and convey to the customer that we are genuinely interested in the welfare of the piano and his maximum enjoyment from the instrument?

People will buy more from the depths of your convictions than the heights of your logic. If you feel good about what you are doing, it will come across positively. To be convincing, be convinced! Your sincerity will be noticed and will go a long way in getting

your customer to agree with you when you recommend something in his best interest.

So, getting set — displaying a positive mental attitude — is equally as important as all the time we spend preparing technically to service our customers. Next time you are walking up to a customer's door, take a few deep breaths, think a happy thought, put a smile on your face, and greet the customer with enthusiasm and confidence that you are really going to make a difference in the way he will enjoy his piano. You will be amazed at the benefits! **Lee Fox**

*In his article, Lee talks about the proper mental attitude with his customers. I would like to go a step further and address his idea to one's attitude toward one's Guild. At a time when dissidents are quiet, when argumentation and internal politics are absent, and when the collective thoughts of the members are dwelling on progressive, positive, and worthwhile things, such as building benefits for one another, taking steps to improve the craft, building better public image, and sincere concern for the welfare of the organization, this is the time when organizations can reach new heights of quality and service.*

*I can think of no better quote on proper mental attitude than one I read some years ago and slipped into my notes. It is in the form of a prayer, or a grace delivered at some meal function, but it is packed with common sense. I share it with you now:*

Give me good digestion, Lord, and something to digest.

Give me a healthy body, Lord, with sense to keep it at its best.

Give me a mind that is not bound, that does not whimper, whine, or sigh.

Please don't let me worry too much about that fussy thing called "I."

Give me a sense of humor, Lord, give me the Grace to see a joke.

And to get some happiness out of life, and to pass it on to other folk.

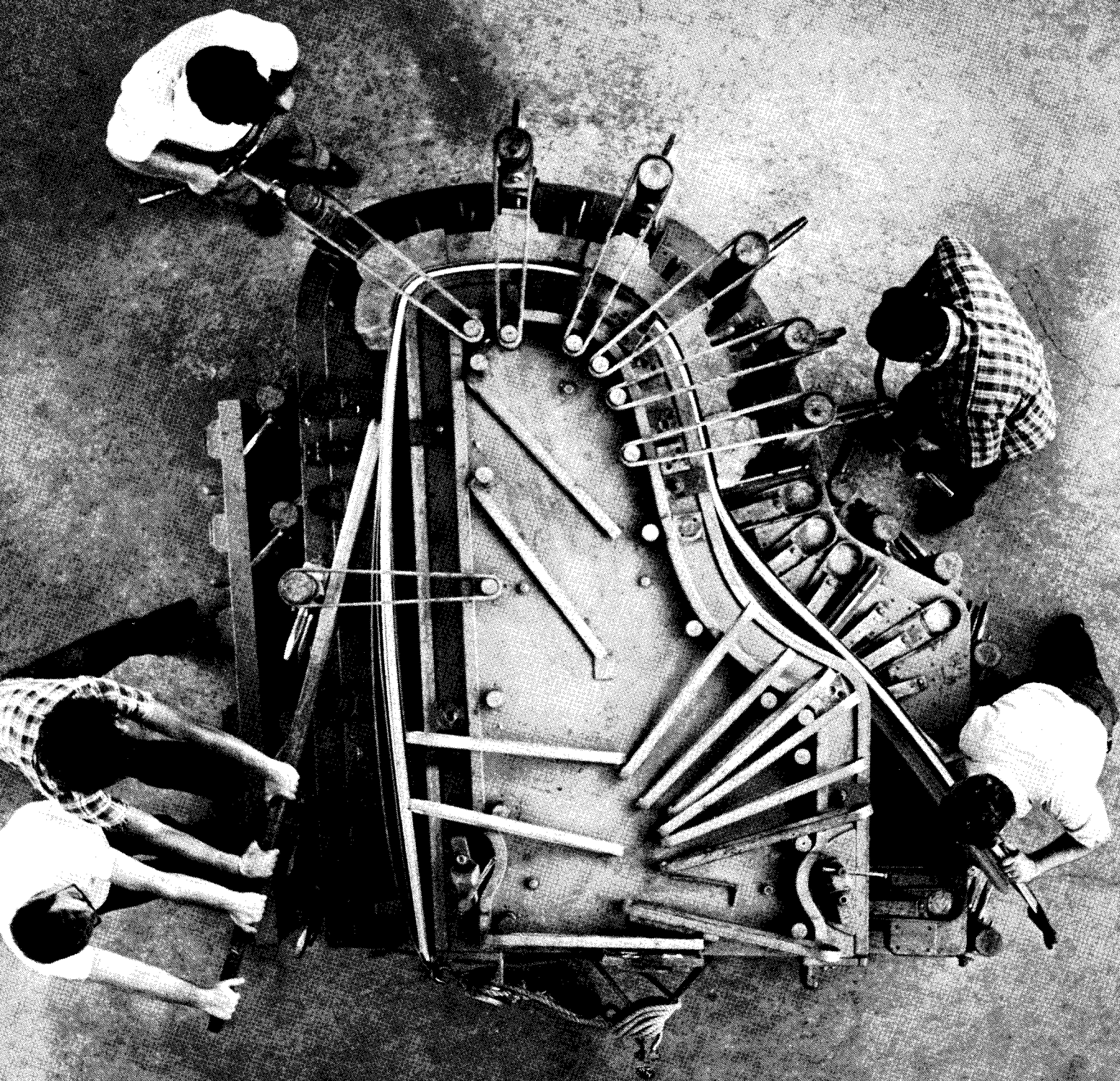
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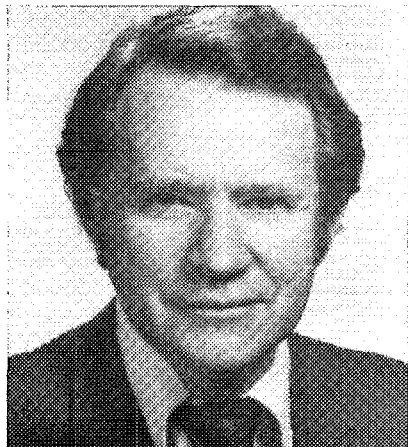
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# PRESIDENT'S MESSAGE



**Sid Stone, President**

**T**he current recession in our country has not affected all members of the Piano Technicians Guild alike. Some of you still have as much business as you

can handle; while you who service pianos in areas where there have been extensive layoffs (as in the automobile and building industries) may be out of tune financially. Our hearts are with you.

Some economists are now saying that the current recession has bottomed out or is leveling off, and in a few months we will see an upswing in the nation's economy. I would be inclined to agree — since my son-in-law, the tile setter, has been called back to work.

Likewise, there are indications from across the country that the current recession in the Piano Technicians Guild's new examination has bottomed out; and we will see an upswing within the next few months, perhaps as early as our 25th Anniversary in Washington, D.C.

If by July 1 your chapter has examined all its applicants for membership, let me know and also the number of tests

(new tuning exam) given the first six months of this year — or, if you prefer, the second quarter of the year. Special mention will be made at Council. I believe in giving credit where credit is due. This will be my first Council meeting as chairman — but also it will be my last, as I have informed the Nominating Committee that I can not run for re-election. I have recently purchased a building which is being made into a piano store. With the extensive remodeling needed, the three-month delay in opening the store, and the mortgage payments of \$2400 every month — there seems to be no way I can survive this new business venture and give the time and energy required of the President of the Piano Technicians Guild. I support the Nominating Committee's recommendations for President, Vice-President, and Secretary-Treasurer. May each and every one of uphold and give support to all the officers elected at the Council in Washington, D.C.

## 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 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.

### UPCOMING CONVENTIONS OF THE PIANO TECHNICIANS GUILD

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### OTHER UPCOMING CONVENTIONS OF INTEREST

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# THE TECHNICAL FORUM

Jack Krefting  
Technical Editor

**W**e received lots of letters this month, thank you one and all, mostly in reference to the unison tuning controversy; but before we get into all that, I want to share this with you:

Dear Mr. Krefting,  
"With great interest we read regularly the "Piano Technicians Journal". In the publication of December 1981, we found a report, concerning "Thinned treble shanks". In this article you wrote: "Thinned treble shanks aren't seen much anymore".

"We want to correct this statement, as several world-known companies, as for example Bösendorfer, Bechstein, Grottrian-Steinweg, Schimmel and Ibach presently do use such thinned treble shanks."

**Faithfully yours**  
**Louis Renner**

My apologies to those manufacturers, as well as any others that may be using thinned shanks. I keep forgetting that we have an international readership and that what might be true in the United States is not necessarily true everywhere. What I should have said was that the average technician in this country doesn't see thinned shanks much anymore.

## Unison Tuning

**W**e asked for comments from readers in the idea that unisons

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may actually sound better if they are slightly less than perfect; it turns out, not surprisingly, that professional tuners are highly opinionated about the practice of their art. Without further comment, then, here are five letters:

"The article *Tuning Preferences For Piano Unison Groups*, by Roger E. Kirk in the Journal of the Acoustical Society of America (Vol. 31, No. 12, December 1959) contains the results of tests given to a group consisting of 102 college students and 21 additional subjects including students of a music school and Baldwin engineering and research personnel. Of these, 45 had played musical instruments for a minimum of five years, the remainder had played for five years or less. The test results apply to this group only.

Kirk mentions the practice of the artist tuners he consulted who deliberately do not tune to exact unison but he did not supply enough information to answer the question: do most artist tuners *deliberately* not tune to *beatless* unisons?

Kirk also reported that measurements on individual strings of three-string unison groups in concert grand pianos immediately after tuning by artist tuners gave an average maximum difference in fundamental frequency of 1½ cents but did not include the data for these tests. *The Coupled Motion of Piano Strings*, by Gabriel Weinreich in Scientific American (January, 1979) presents Weinrich's theoretical analysis leading to his hypothesis that in the middle of the keyboard, strings within 1/3 of a vibration per second from each other "lock together" at the same fundamental frequency so that the strings of unisons perceived as "beatless" could vary in frequency by as much as the maximum difference observed by Kirk.

Weinreich presents his hypothesis as a probable explanation but also implies that additional series of tests with tuned pianos would be desirable for confirmation. Such studies on the work of artist tuners and the determination of the unison tuning preferences of professional concert pianists also would make an excellent

research project.

**Jack Greenfield**  
**Chicago Chapter**

Dear Mr. Krefting,

I see that my letter about tuning unisons got published, but my questions are still unanswered. They are serious questions about the Piano Technicians Guild standards. I'm not writing to get a letter published, but to get information. The questions have been raised in my mind in part as a result of a conversation with a Piano Technicians Guild examiner, who stated that national standards (recently adopted, I gather) require a tuning applicant to get his unisons inside a one cent spread. I was told there are no rules about tuning too closely.

I have no doubt that it is possible to deaden some notes by tuning too closely. (As Roger Kirk pointed out, it is not possible to induce this condition in some notes, probably because of some slight difference in the overtone components of the three strings.) I have written to the Steinway people, who reply that their tuners know that you can tune unisons "too perfectly" and avoid doing this.

I didn't get a quantitative answer from Steinway to the question how close is "too perfect", but an answer can be found in the research done in the 50's at the Baldwin Acoustical Lab. That research indicated that factory tuners consistently tuned with a unison spread of 1½ cents and that trained listeners preferred this spread to one smaller than a half cent or larger than 2 or 3 cents. This may be technical, but it is not theoretical, as you suggest, and should be of practical value to tuners. It does not mean that the Baldwin tuners detuned every note. It does mean they were aware that, after beats were tuned out, that it was possible inadvertently to have tuned too closely and thus to have created a dead tone. I find this happens to me once every two dozen notes or so. It seems to happen more often on finer pianos, which makes sense. The situation is easy to correct, of course. Simply moving any of the three strings up or down ½ cent is enough to restore



normal blooming piano tone. The acoustical reasons for this can be found in the articles mentioned in my published letter.

For tuners not used to working with cents, at middle C (261.6Hz) two strings 1Hz (or 1 beat) apart are 6.5 cents apart. A spread of 1½ cents gives a beat lasting longer than 4 seconds; this long a period obviously is perceived as "beatless" to most people.

**Sincerely,  
Phil Jones**

Dear Jack:

"I cannot resist commenting on some of the recent discussion on unison tuning. There may be much that we don't understand yet about unison tuning, but as of now I am strongly opposed to deliberately tuning any kind of a beat in a unison. Evidently it has been proven that a unison with the three strings tuned to exactly the same frequency does not have the best sound or sustain as long, but the alternative is not to leave an audible beat in the unison. Two of my customers gave me copies of the splendid article in the "Scientific American" on tuning, and if I understand it correctly the best sounding unison that sustained the longest did have strings tuned at slightly different frequencies, but their sound complimented each other in such a way as to produce a pure, beatless sound to the ear. I think the skilled tuner arrives at that objective when he manipulates his hammer until he finds the best possible solution for each unison. That is why I always like to tune the third string of the unison with the

with the other two sounding.

"Another reason I am opposed to intentionally tuning any kind of a beat in a unison is the effect on tuning stability. One of the most difficult aspects of tuning is to set the unison so that it will stay solid over an extended period of time, and this is only possible when the unisons are tuned as pure as possible. Unisons with slight beats in them can be expected to be objectionably out of tune much sooner than a solid, beatless unison.

"Then there is the argument that beatless unisons are dead, and that a slight beat makes them warmer. I have heard this occasionally from pianists, fortunately none of them my customers. There are tunings where the temperament and octaves are carelessly tuned with unisons fairly accurate that can sound very dull. In such a tuning a slight beat in the unison might give it a little life and warmth, but that is not really the best solution to the problem. The best solution is a fine tuning where the most desirable relationship between the unisons and their corresponding harmonics is achieved. In such a tuning the unisons will not be dead, but rather very warm, alive, and resonant. The purer the unison the better the three strings match their corresponding harmonics which gives greater warmth and resonance. A unison this warm and resonant is satisfying without a vibrato of any kind."

**Virgil E. Smith  
Chicago Chapter**

Dear Mr. Krefting:

"I found both Dr. Loeb's article (Aug.

81) and the replies (Jan. 82) very suggestive. Unfortunately, I do not understand it all well enough to use just a few words, so please excuse any expatiation. As Evariste Galois said, "An author most hurts his readers by concealing difficulties."

#### **"I. Room acoustics**

Certain modern halls and auditoriums seem very dry. Even a brightly voiced piano can lack space-filling capacity when tuned too conservatively. This type of sound seems to be a continuing fashion — perhaps we will soon see concertgoers wearing the Sony Walkman!

#### **"II. Piano design and evolution**

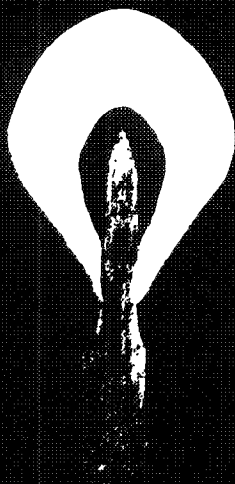
Hammer velocity is the primary factor affecting loudness, so if zero beats is the ideal, why have three strings? And what is the point of the *una corda* pedal? I once had an old Fischer piano with non-overstrung bass and double stringing through the tenor. The unisons were easier to tune purely, but it sounded muddy once it lost tune even slightly. However, closed triadic harmonies in the bass (as in Mozart) were clearer than with overstrung bass.

#### **III. Musical Genre**

Whole styles have evolved on pianos which were evidently not that well tuned. The octaves and block chords of Ragtime seem somehow redundant when played on a good piano. On a "self-detuned" piano they add definition to the harmonies. The closed 7th and 9ths of some jazz styles are acceptable when simple triads sound tinny.

#### **"IV. Tuning Theory**

Pure unisons reveal more clearly the inherent compromises of tempera-



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ment. A certain bandwidth may thus not decrease the overall purity of a tuning. Some future theoretician may even concoct a scheme of unequal unisons to go with unequal temperament.

"There is more than one difficulty with putting this theory into practice. To tune unisons 'on the edge' is to risk falling off. But to 'play it safe' is to impede certain possibilities. Similarly, brightly voiced hammers can sound harsh, but it is precisely the artistic CONTROL of such possibilities which can be most expressive. Voicing is perhaps more stable than tuning, which indicates that brightness might well be sought there before any unisons are detuned."

"Students of the piano must hear that piano sounds bend, and rhythm and phrasing must acknowledge and exploit this reality. Classic or written traditions presumably require greater standardization than improvisational styles, but in any case, the piano itself, as well as the performer's ideas, dictate the interpretation."

**Jonathan Schultz**  
Johnson, Vermont

Dear Jack,

"You asked for comment on how solidly unisons should be tuned; tune them as near zero beat as the false beating strings will permit.

"My present tuning technique on all pianos is as follows: strive for *smooth increase* in all interval beats in the temperament octave (F3-F4). In descending to F2, and in ascending to F5, equal beat the 4th against the 5th within its octave. This will automatically give the octave a very slight stretch. Ray Feaster's dynamic tuning does a great job on bass tuning (F2 down to A0). One octave arpeggio plus two and three octave test verifies the stretch.

"I strip mute all bichords and the trichords up to C7. Quick octave work from F5 to C7 can be refined with the 12th and octave test. Work (F5, C6, C7) backwards. I have constantly good results tuning chromatically from C7 to C8 all three strings by 12th and octave test. I do bichord unisons and the other trichord unisons *last*, with arpeggio checks. One more time, I will play up the scale checking all trichord unisons for zero beat.

"The tenth test is mandatory to orient the temperament to A4, (i.e. F3, A3 beats the same as F3, A4). Occasionally I will use the 10th tests in the bass, F3 down to C3 *only*.

"The above work plan assumes that the *pitch level* was found, or prepared

to be, no more than 10 cents flat or sharp of A-440. My observation is that this work plan always results in a good to great sound. Natural unison decay *always* enhances this kind of tuning for many weeks. The inspiration, and the lasting enjoyment are fantastic."

**W. Dean Howell**  
El Paso, Texas

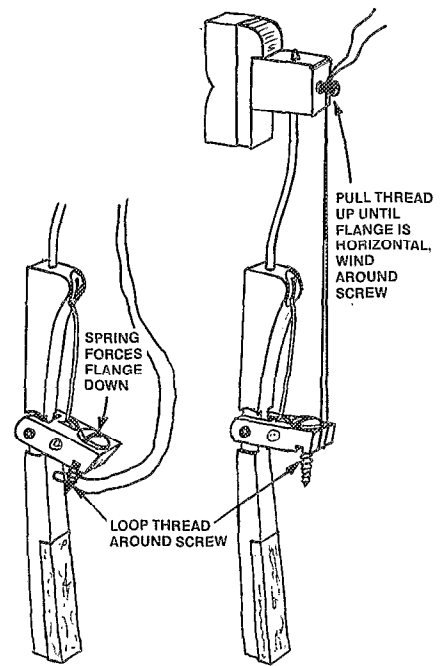
## Spinnet Damper Lever Replacement

**Q:** "... I remember a tip somewhere about putting a spinnet damper lever back in the piano, but can't remember what it was or where I heard it. The problem is that if you need to remove a complete damper lever and flange assembly for repinning or whatever, getting it back in the piano without removing the action can be difficult because the spring makes the flange point downward and it's tough to get it on the rail, get the screw in and tight, etc. Do you have a tip for this?"

— Anon

**A:** The way I've always done it is to use a screw-holding screwdriver and push the flange against the rail until it seats, applying varying amounts of downward pressure on the flange from the damper block. This does work, but there is an easier way. Two or three years ago, we published a tip from someone — Herman Koford, I think — which makes this job simple, requiring no special screwdriver. All that is needed is a piece of thread less than a foot long.

Place the screw in the flange, double the piece of thread, and loop the thread around the screw as shown in **Figure 1**. Pull the ends of the thread taut and be sure the thread passes around the end of the flange so the flange can be pulled to a perpendicular position. Then wind the thread around the screw in the damper block several times so it will hold the flange and screw in position, and put the damper assembly back in the piano. When the screw point finds its hole, tighten the screw a few turns with a regular screwdriver; then unwind the thread from the damper block screw and release one end of the thread, pulling on the other. The thread will come free and the screw can be tightened all the way, to about 10 inch pounds of torque.



**Figure 1**

## Traveling Shanks In Brass Rail Piano

**Q:** "What is the best way to travel shanks (butts) in an upright action with a brass flange rail? Heating and bending or twisting the shanks gets me my hammer angle, but traveling presents a problem. I thought of putting shims, left or right, between the centerpin and butt plate, or between the pin and the rail, but getting them in there is hell, and removal of a few damper levers seems to be necessary. Any other ideas?"

— **David G. Nereson**  
Denver, Colorado

**A:** The whole idea of the brass rail was to avoid some of the traveling problems associated with individual flanges mounted on a wooden rail, any of which could be drilled or bushed inaccurately, as well as saving labor on pinning birdseyes. Unfortunately, even though the brass rail itself can be made with a fairly high degree of precision, the butts are then the bushed parts; the traveling accuracy is only as good as the precision with which the butts were drilled and bushed.

Three terms — *spacing*, *aligning*, and *traveling* — are often confused or



thought to be synonymous; so before getting to the question, let's briefly clarify terms. In a general way, these terms apply to all pianos, anywhere there are action centers, but for now we'll limit our discussion to the vertical hammer center.

**Spacing** refers to the side-to-side location of a given hammer in relation either to its proximity to its neighbors or to the strings of its intended unison. This is altered either by warping the shank to one side with heat (not twisting, now, but bending) or by tilting one end of the centerpin somehow, or sometimes simply by loosening the flange screw and sliding the flange to one side. The latter being the quickest and easiest method, it should be used whenever possible — that is, whenever there is sufficient clearance between the bore of the flange and the shank of the flange screw. Sometimes the clearance is there, but on the wrong side; someone else already moved it as far as it would go. In any event, this method is obviously not possible in a brass rail piano.

**Aligning** might, in this context, refer to heating and twisting the shank so the hammer is pointing in a direction perpendicular to the plane of its centerpin. If that plane is parallel to the face of the strings (strike line) and the center is accurately bored and bushed, no *travel* is present. I am tentatively defining *travel* as any oblique or sidewise motion of the hammer and shank as they move from the rest position to the strings and back.

**Traveling** — de-traveling would perhaps be a better word — is a term to describe what we do to eliminate travel. When a standard flange is present, we shim the flange with sandpaper or other suitable material to correct or adjust the plane of the centerpin. This is a non-violent approach, well-considered and easily reversible if the correction is overdone. More primitive methods have been advocated, mostly involving some twisting or bending of the centerpin itself; these methods are not generally reversible except by replacing parts. Some, for example, have suggested that brass rail spacing of hammers can be done by placing a screwdriver on the butt top, next to the shank collar, and hammering down on the screwdriver to bend the centerpin in somewhat the same manner as is commonly used to space grand jacks. I'm sure the hammer does move, though the condition of that side of the action center would have to be in doubt.

In the Forum of January 1973, a reader suggested another bending technique for spacing hammers in a brass rail piano. This involves the equally risky procedure of inserting a screwdriver between the action rail and one side of the butt; twisting of the screwdriver would force that side of the butt higher, bending the pin. The author evidently preferred this method for its speed, although he did allow that "sometimes an old butt will break."

Bending of the centerpin up or down would space the hammer, no doubt about that, whether or not the bushing were damaged in the process. But we should note here that traveling of the butt and shank would require alteration of the plane of the centerpin in a side-to-side direction, not the tilting of one end up or down. If it were possible to twist the tongue of the brass rail without breaking it off, that would probably be the best traveling method of all because it would alter the plane of the pin so it parallels the strike line without bending the centerpin. Maybe the reason we have to use repair clips in these pianos is that someone tried to twist the tongues, who knows?

I would not consider even attempting to place a shim between the pin and the tongue unless there were clearly no other options. The only kind of shim that comes to mind as a possibility would be fine brass wire, such as is used in harpsichords and clavichords. If it could be inserted with relative ease it might work, although please note that this is pure speculation on my part.

If the butt is traveling, it would seem that one of three things must be wrong: the brass tongue is twisted, the centerpin is bent, or the bushed holes in the butt are not in correct alignment. Attempting to straighten twisted tongues could lead to breakage, but would probably be the best way if the hammers and shanks are to be retained and the centerpins are not bent. If the butts are in bad shape anyway, to the point that hammers are flopping around even though the butt plates are tight, then it is obviously necessary to rebush or replace the butts for proper center torque before thinking about traveling.

If a technician had one of these actions disassembled for rebuilding, it would make good sense to sight down the brass rail, checking for straightness in the V of each tongue. If they must be straightened — and before doing so I would install that butt and find out if there was a reason for the twist — I would twist below the V where the tongue is stronger. If any of the tongues

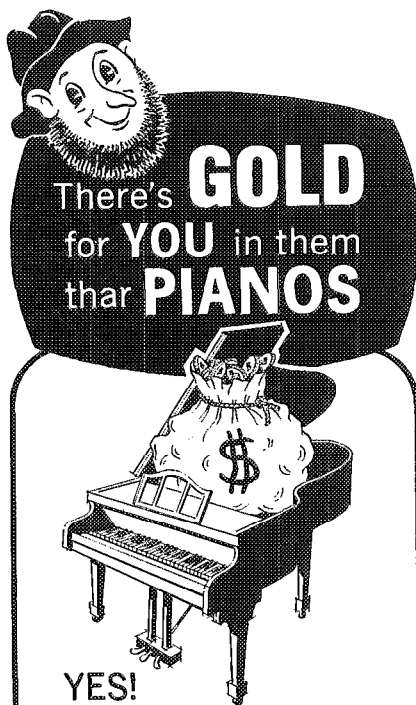
are broken at the V, repair clips are available. Supply houses also will replace a brass rail, if you send them a pattern or scale stick.

## Tech Tips

**M**ark Williams of Coudersport, Pennsylvania, suggests that an easier way to bed the back rail of the keyframe is to use a visible transfer material such as chalk, applied to the keybed along the area where the back rail will touch. When the keyframe is put into position, step on the *una corda* pedal several times to be sure the chalk rubs off on the frame. Then pull it out and sand or plane wherever there is chalk, just like fitting a pinblock. I haven't tried this yet, but it sounds good especially since this would seem to be workable even without removing the action or keys. Of course, any change in back rail bedding must be accompanied by appropriate changes in the height of the glides as well.

**C**hristi Mickel of the Twin Cities Chapter says that a 1/4" diameter round curtain rod works very well for holding pickup fingers in place when removing spinet actions. If a rod of sufficient length cannot be obtained in this small diameter, Christi suggests using a piece of steel rod in the center which can be stored inside the closed rod. She also carries a 63" stick with a felted groove in one end to prop the lids of verticals with end hinges. This makes it unnecessary to remove the lid to tune the bass.

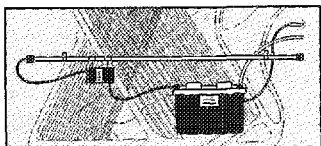
**D**ick Bittinger of the Reading-Lancaster Chapter sent in an idea for steaming bushings, etc., using any kind of container that will boil water and a few simple hardware items as shown in **Figure 2**. Called the "Keener Steamer", presumably after Leavitt Keener, it allows the technician to direct steam anywhere within reach of the plastic tubing.



YES!

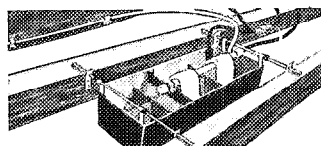
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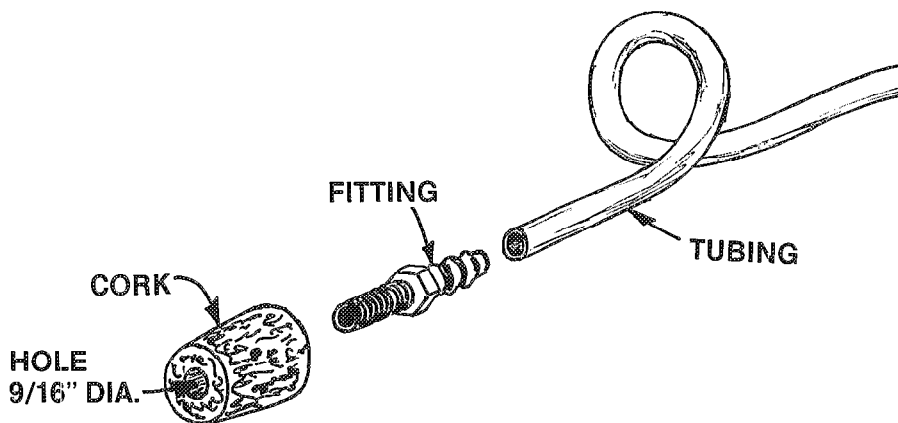


Figure 2

This makes it unnecessary to remove  
the lid to tune the bass.

the tools designed for this work never  
seem adequate. There is now a tool,  
drawn in **Figure 3**, which does a  
better job than any others I have tried.  
It is actually a heavy duty end cutter,  
and is available at Schaff.

## Tool of the Month

**G**etting knuckles out efficiently  
and cleanly is always troublesome, and

The above feature is a kind of out-  
growth of the "Gadget of the Month"  
idea. If you have a favorite tool or pro-  
cedure you wish to share, send it to me  
at this address:

**Jack Krefting**  
Technical Editor, PTJ  
3802 Narrows Road  
Erlanger, KY 41018

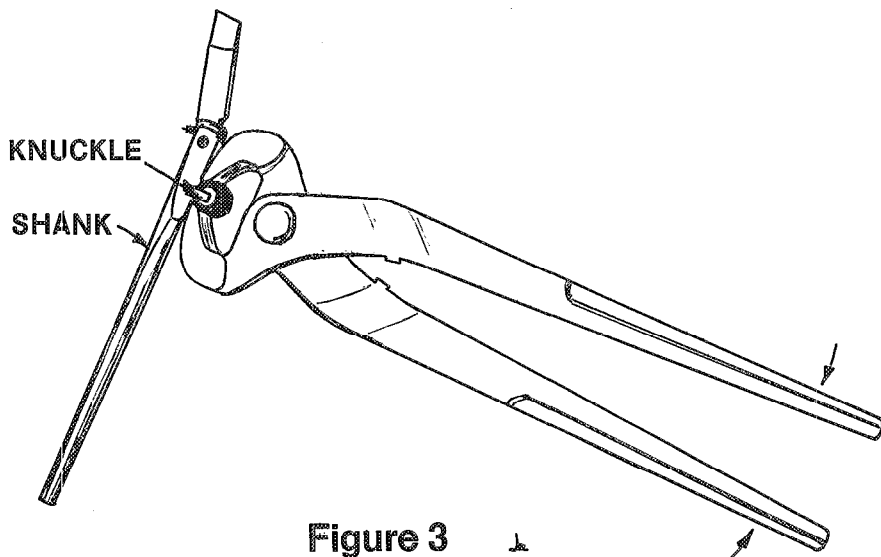


Figure 3

# The Tuning Test

**Ron Berry, Chairman  
Examinations and Test  
Standards Committee**

It used to be the test which was carried on tucked away in little rooms at seminars. Those tuners who were interested in learning about the test or in being tested themselves would find their way back to the little room and sign up for a test time. Other tuners would drop in and out from time to time so they could see how this new procedure worked. And they would usually find Al Sanderson or Jim Coleman patiently working with the person being tested and explaining the procedure to any onlookers.

Now it is the official Piano Technicians Guild tuning test, and it is being given by more than a hundred examiners in places from Fredericton, New Brunswick, to Rome, Georgia. Some test pianos are still to be found tucked away in little rooms at seminars, but many others are sitting in music stores, living rooms, and music schools. Some tuners still peek in to learn about how the test works and to be tested themselves so they can become CTE's, but many of the people being tested don't even realize they are experiencing a new way of testing.

A transition has taken place. At a time when other industries have been cutting down on new development because their work cannot proceed on volunteer labors of love . . . at a time when other trades are being told what to do by government regulating agencies instead of working out a system for self-regulation that fits their own needs . . . at a time when school systems are lowering their IQ level standards for classifying gifted children because not enough children were meeting the former standards . . . at times like this we can take great comfort in the fact that our Piano Technicians Guild has put into place its new tuning examination, developed through volunteer efforts, a forerunner to government regulations, an examination which establishes one standard measurement of tuning performance for the industry.

— Ron Berry

## Letters To The Editor

Dear Mr. Santy:

This is an open letter to Eric Stevens, who, in the March Journal, encouraged the formation of SHARP (Society to Honor and Advance Real Pianos). Having had to work on bar and nightclub pianos that are in the deplorable condition that Mr. Stevens describes, I would like to suggest that all nightclub pianists help piano tuners maintain these pianos by doing the following. Please, all you pianists, do not sign a contract to play a gig unless there is a clause specifically stating that the piano that is to be used is in good condition and in tune, before you start to play, or you won't play, period. Perhaps if enough of you piano players will demand that these pianos are maintained, you won't have to play on an untuned, unplayable piano, or an electric.

And when you do sign that contract, inform the manager that the tuner would like to have the place quiet, preferably without the jukebox playing or drunk patrons making snide remarks. Also inform him that just like he likes to be paid right away for each drink that is consumed, the tuner would also like to get paid right away, and not several months later.

The massive campaign that Mr. Stevens wants the piano industry to start, could begin with him. He could announce to the audience that his "boss" thinks enough about the piano that he just had it tuned. I know it will create more work for me, but it will make his job easier also.

To quote Eric, "I'm mad as hell, and I am not going to take it any more."

**Willem Brees  
Webster Groves, MO  
St. Louis Chapter**

Dear Don Santy,

Thank you for your kind letter. I apologize for being so long responding. It has taken this long to feel like I understand things that need doing; where things are; and have some will now, to face things that must be done.

I would like the Guild to know that Jim Coleman, Bill Quinn, and Bob Magee have been very gen-

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Raye McCall, RTT  
Pomona Valley Chapter

## "Helpful Hints"

**S**everal ideas of the "helpful hint" variety have been accumulated, and it seems that they might be worthwhile sharing. It is my hope that this may trigger some thoughts in the minds of those who read this column, thereby causing them to pass along some more hints, which we can share.

**S**ack replacement in a *player grand* — The stack has been removed, either as part of the restoration process, or to solve a service related problem in the field. The work has now been completed, and it is time to reinstall the stack in the piano. There are two ways this can be accomplished, that I am aware of. One way is to turn the piano upside down. In this position it is very easy to lay the stack in place and gradually work the poppet, or lifter wires, into their correct places. You can then secure the stack in place, and return the piano to its normal position. This is obviously not the procedure to be done in M'Lady's living room.

I have a method which has been used a number of times. It is easy, painless, and can be done by one person. Cut two pieces of wood three-sixteenths of an inch thick, three-quarters of an inch wide, and just a bit longer than the stack. Glue a strip of

felt the full length of each strip. When the glue has dried, place the felt surfaces together, and form "U" shaped clips from piano wire to hold the "sandwich" together. Place the strips on either side of the poppet wires, and put the clips on from the bottom. The felted surfaces will hold the poppet wires in alignment, while making it possible to move them from side to side as may be necessary. If there are dowels on the upper ends of the wires, now is the time to make sure they are in straight alignment. There may be a guide rail on top of the keybed. If so, remove it for the time being. When you are ready to lift the stack and secure it to the keybed, you will need two automotive jacks — one under either end of the stack. These jacks will make it very easy to slowly, and gently, elevate the stack into position, and hold it there while you secure it with the screws. As it is being lifted, just after all of the dowels have entered the slot in the keybed, stop and remove the wire clips and the felted wood strips. I have installed a number of stacks this way, and find it works very well. If you have a better way, why not send it to me so we can all share it.

**O**ne of these articles recently was on the subject of *Reed Organs*. In restoring these instruments, one prob-

lem has become very bothersome. All of the work has been done well. Everything should be tight, but when the assembly is complete and the pedals are operated, one or several ciphers become disgustingly obvious. The pallet valve springs are no longer strong enough to give as tight a seal as is needed. We purchased some replacement springs, but found them to be even weaker. We have located a manufacturer to make new springs for us. They are made of stainless steel wire, so they look like the original equipment. They are a bit stronger, and will have better retention of strength for a longer period of time. We are making them available for sale at thirty-four cents each, or \$21.95 for a sixty-five piece set.

**D**id you ever wish you could do a *pneumatic recovering job* and have them all precisely the same size? Here is a little jig that should help you do just that. It can be quickly made out of any scrap piece of wood  $\frac{1}{8}$ " to  $\frac{1}{4}$ " thick. The width should be such that when the pneumatic boards are placed over it, the outer span is correct. Glue a small block to each side. These will serve as guides to insure proper alignment of the pneumatic boards. (See **Figure 1**.) The jig is used only when the pneumatic cloth is glued to the ends of the pneumatic boards. It is suggested that you use a magazine or newspaper to provide a cushioned working surface. Draw a center line on it a distance from one edge which is half the length of your cloth strip. It will be unnecessary to scribe a center line on the pneumatic cloth. When you place the cloth on the working surface, make sure that one end is even with the edge of the paper, and use the center line to reference the positioning of your pneumatic boards. (See **Figure 2**).

**A**nother use for *player tubing* — Rubber or EPDM tubing of the smaller size can be used to insulate a sol-

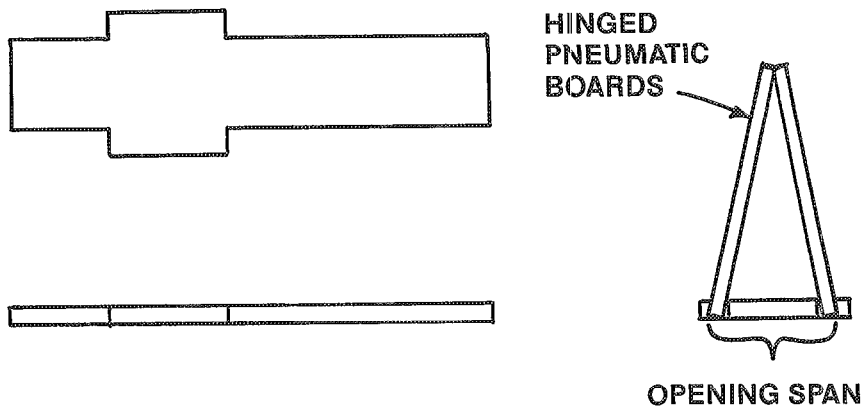
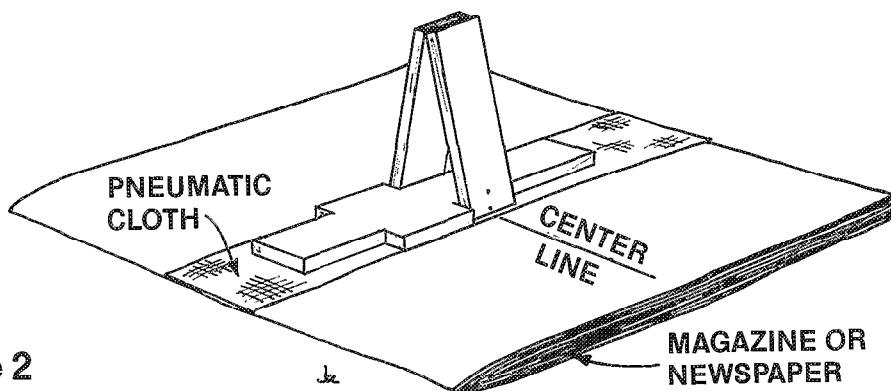


Figure 1



**Figure 2**



der joint in electrical wiring. First strip the insulation. Cut a piece of tubing long enough to cover the completed splice, and slip it onto one of the bare wires far enough so that the bare wire is exposed. Make the splice, and solder it. When it has cooled, pull the tubing so that it overlaps the splice. Result: a better insulated splice, with a neater appearance, and no worry about the tape coming off.

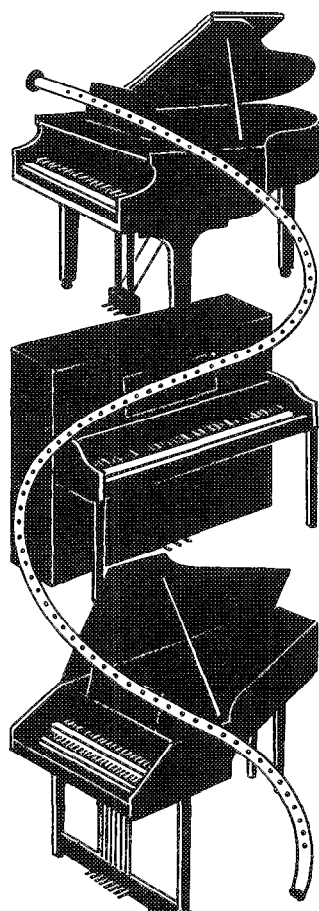
You have no doubt that since many players were put together using hot glue, heat can also be used to take them apart. The oven in the kitchen is a neat place to put Ampico block valves and or Simplex units for heating, after which they came apart very easily. You might ask, "Is it possible to use the microwave oven to do this?" The answer is "Yes", but you must take certain precautions. ANY metal must be removed before using the microwave. If you are working on Ampico block valves, remove the nipple and the metal ring (outside seat). Further be advised, that all leather will be destroyed, so do not use the microwave unless you intend to repouch. Do not put too many units in the oven at a time, because the glue hardens again quite rapidly. If you are working in Simplex units, you should first remove the old pneumatic cloth and sand off the glue. This will avoid a nasty mess in the microwave, on the pneumatics, and in your hands. Power settings for Ampico valves: Medium-high for thirty seconds. The power setting for Simplex would be the same, but the time would be slightly longer, because of the greater mass.

**N**ot too long ago, two articles appeared in this column on the subject of **PUMPS**. I neglected to say anything about pump and electric motor noise after these units have been re-installed in the piano. Some of the motors were originally mounted in rubber

while the pumps are usually found to be mounted in packed felt. Reusing the original rubber is a waste. It has no doubt turned hard, and thus all the sound insulating properties are gone. There are some fine rubber motor mounts available, though they are expensive. It is possible many times to make a conversion to use the rubber mounts, but you may need to have some metal brackets made in which the rubber mounts can rest. It would

be great if we knew of a source from which to buy the rubber of the proper density in bulk sheets, so that we could cut and shape our own mounts according to the need. Does anybody have any suggestions?

Some of the information presented here comes from AMICA Bulletins, for which I thank authors Dean Randall, A. Petaja, and Bill Spurlock.



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## Primary Sources For Ancient Music History

### INTRODUCTION

**M**any of the general histories of music devote much attention to compositions, performance and other practical activities while giving little attention to theory and development of scales and tuning. Another deficiency is that little or nothing is presented about the music of earlier civilizations which served as the base for the beginning of Western European music in the Middle Ages. However, there are more complete authentic references that are not difficult to find — comprehensive modern works written in English such as the *New Grove Dictionary of Music and Musicians*, which are available in many public and school libraries, and inexpensive paperback books for purchase for personal libraries. But before these are discussed, the primary sources for ancient music history should be noted. These include translations of original writings and old books and articles in journals, not generally accessible, containing discussions, commentaries and other information written by mainly European scholars.

### BOOKS FROM CHINA

**T**he earliest known writings on music theory appeared in the fourth century B.C. in China as well as in Greece. Chinese scholars continued to study and write for over 2000 years. One of their greatest works was the nineteen volume *Handbook of Music* completed in 1596 by Prince Chu Tsai Yu presenting Chinese music history and theory including the author's calculated figures accurate to nine places for string lengths for the 12-note equal tempered scale. Europe had no knowledge of Chinese music until information was brought back by Europeans who visited China during the eighteenth century. At present, neither *Grove* nor any other bibliography lists English translations of original ancient Chinese writings on music

theory. The closest alternative references for English readers are the books written by westerners who lived in China and studied music there.

The French were among the first to make a study of Chinese music. The first book by a European on the subject was *De la Musique des Chinois* by Pere Joseph Amiot published in 1780. After travel to the Orient became easier other scholars visited China and more books and articles began to appear. One of the earliest of the books written in English is *Chinese Music* by J. A. Van Aalst (1884).

The first westerners who had any exposure to Chinese music had a low opinion of it because what they heard was mainly popular theatrical tunes. During the twentieth century the status of Chinese music has risen. An excellent reference written in English with understanding and respect is *Foundations of Chinese Musical Art* by John Hazedel Levis. The author was born and raised in China and lived there for over twenty-five years. The first edition of this book was published in Peking in 1936. The Paragon Book Gallery Reprint Corporation of New York published reprints of the books by Levis and Van Aalst in about 1964. These reprints, now out of print, may be available in some libraries. Another reference being offered now is an English translation of chapters 4-8 of Louis LaLoy's early 1900's book *La Musique Chinoise*, on ancient Chinese music in theory and practice. (Kirksville, Mo., 63501. Six-Six Music Company, \$4.00)

### ORIGINAL ANCIENT GREEK AND ROMAN WRITINGS

**A**lthough the ancient Greeks were in advance in other cultural activities, they lagged behind some contemporary civilizations in the adoption of writing. In the sixth century B.C., the time of Pythagoras, culture was transmitted orally. Information on his life and philosophy was passed on verbally for several centuries before it was finally put in writing. The earliest

Greek known to have written important work on music theory was Archytas, who lived in the first half of the fourth century B.C. The fragments of these writings still existing have appeared in a modern German translation. In addition to the discussion of scales and tuning, the work is notable for presenting Archytas' physical theory of sound. Most other Greek philosophers considered sound to be a metaphysical phenomenon.

The most significant writings on ancient Greek music theory still in existence are generally considered to be books of Aristoxenus — latter half of fourth century B.C., Ptolemy — second century A.D., and Boethius — first quarter of the sixth century A.D. Aristoxenus was a prolific writer who wrote hundreds of books, most of them now lost. *The Harmonics of Aristoxenus* by H. S. Macran (Oxford, 1902) is an English translation of existing writings.

Ptolemy's three volume series of books *Harmonika* ("Harmonics") is of great importance because it provides a history and other information on the studies of earlier Greek music theorists as well as the results of Ptolemy's own research. Ptolemy provided specific details on the tuning of different ancient Greek scales. Ptolemy's books appeared in an Arabic translation in the ninth century, in Byzantine (Greek) editions in the fourteenth century, in a Latin translation in the sixteenth century and finally in a modern German translation edited by I. During in 1930. During also edited a similar translation of the extensive commentary Porphyry wrote about a century after the composition of *Harmonika*.

Boethius *De Institutione Musica*, written at the time of the final separation of the Roman Empire, was a final account of Greco-Roman music theory that was passed on to become the foundation of the music of the Medieval World. Boethius' presentation of Pythagorean doctrines had a strong influence on later music.

Boethius' work did not receive much attention for several centuries, but gained great popularity by the tenth century. Many manuscript copies were



written during the late Middle Ages and Renaissance. It was first printed as a book in Latin in 1491-92. A complete edition in German translation by Oscar Paul was published in 1872 and work on an English translation is reported to be under way now. Short excerpts in English translation from the works of Boethius, Aristoxenus, and other ancient and early writers on music are presented in Oliver Strunk's *Source Readings in Music History I. Antiquity and the Middle Ages*. (New York: W.W. Norton and Company Paperback, 1965.)

## LIBRARY REFERENCES

**T**he most outstanding comprehensive reference on practically every subject in the field of music is the 20-volume *New Grove Dictionary of Music and Musicians* (1980). Critics consider it far superior to the nine-volume 1954 fifth edition. The cost, about \$2000, for the *New Grove* is prohibitive for private purchase but it should be available in many public and school libraries. The articles are written by specialists who have access to old books and documents as well as current studies on their specialties. In addition to articles on the ancient music of various countries there are separate articles on important individuals, musical instruments, and theory and up-to-date bibliographies. *Ancient and Oriental Music, The New Oxford History of Music, Volume I*, edited by Egon Wellesz (London: Oxford University Press, 1957) contains articles by specialists who provide even more details

on ancient music of Asia and Europe.

Supplementary biographical information can be obtained from Scribner's *Dictionary of Scientific Biography*, another standard reference. The most recent comprehensive book for history of musical instruments is *A Survey of Musical Instruments*. (New York: Harper and Row, 1975) written by Sybil Marcuse, a former curator of the Yale University Collection of Musical Instruments. Curt Sachs' *The History of Musical Instruments* (New York: W. W. Norton and Company, 1940) is an earlier standard reference.

## PAPERBACK BOOKS

**I**n the paperbacks, there are two on general music history with material of interest on ancient countries. *The Pelican History of Music, Volume I*, edited by Robertson and Stevens (Baltimore: Penguin, 1960) surveys some of the same countries and periods as the preceding *Oxford History* but in considerably less depth. *Music Cultures of the Pacific, the Near East and Asia* by William P. Malm (Englewood Cliffs, N.J.: Prentice Hall, 1967) contains extensive sections on Asiatic music but only a few pages on ancient music of the Near East.

Since the ancient music theorists were basically mathematicians, it is not surprising to find them discussed in histories of mathematics. Two good sources for biographical material are the Dover paperback reprints *A Short Account of the History of Mathematics* (1960 reprint of 1908 edition), by W.W. Rouse Ball and *History of Mathema-*

*tics, Volume I* (1958 reprint of 1951 edition), by D.E. Smith. For information on history of musical instruments, Sybil Marcuse's *Musical Instruments, A Comprehensive Dictionary* (New York: W. W. Norton and Company, 1975), contains a substantial amount of the same material as her *Survey* mentioned previously.

## TECHNICAL REFERENCES

**A**mong the preceding, the *New Grove Dictionary* presents the mathematical principles of intonation of various scales in clear yet concise form. Herman Helmholtz's classic book in acoustic science, *On the Sensations of Tone* (Dover Paperback Reprint of 1885 edition), traces the mathematical development of ancient scales, explains tonal modes, and contains useful tables and other data on intervals including fractional ratios and cents equivalent, among the many topics covered. A more recent book, *Genesis of a Music* by Harry Partch (New York: DaCapo Press Paperback, 1979) also provides mathematical background in its survey of the history of intonation. Partch's commentary is helpful toward an understanding that might be difficult to get from bare statements of mathematical principles alone.

The final two books, J. Murray Barbour's *Tuning and Temperament, A Historical Survey* (New York: DaCapo Press Reprint of 1951 edition) and Owen Jorgensen's *Tuning the Historic Temperaments* (Marquette, Michigan:

*Continued on page 26*



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# AFTER TOUCH

David W. Pitsch, RTT  
Utah Valley Chapter

## 50 Point Guide To Grand Regulation Part XX

### Step #35

#### The Aftertouch continued

**W**e left off last month with how to set the aftertouch on the natural keys, and some of the problems which occur when trying to set the dip with a key dip block. I just want to emphasize how much I dislike using a key dip block. As stated before, when beginning to regulate, only one measurement is needed, either the blow distance or the key dip. Remember the Dip and Blow Priority discussion? The arguments are clearly in favor of using the Blow Priority method where possible. I find it no problem when finished regulating to alter the action to give it a little more power or a little faster repetition to suit the artist. All of this can be performed without a key dip block!

Now that the natural aftertouch has been established, virtually a repeat is done to regulate the sharp aftertouch. Taking a section at a time, watch the amount that the hammer rises after drop and add or subtract punchings so that the sharps have the same

amount of hammer rise as the naturals. Greater care must be exercised when raising a sharp to avoid elongating the center hole in the key. Double check the evenness of the sharps in the down position by depressing a group of them and comparing their heights to the neighboring naturals. Correct the offending key height, blow, let-off, drop, or jack alignment, and reset the aftertouch. Continue to the next section until all 88 keys have been completed.

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*In my opinion, the term aftertouch is the most misunderstood term in grand regulation.*

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Now turn all of the paper punchings under the felt punchings, preferably keeping the large cardboard at the bottom and the thinnest paper at the top.

Regulating the sharps in this manner eliminates all of the mess and confusion of how to set the sharp key dip. No more need to use a coin beside the sharps, or using an expensive tool which is too small to handle, or trying to feel the backs of the sharps versus the naturals. The method as explained here accomplishes the same thing as regulating the sharps to raise the same amount at the capstan as the naturals. This is what is really wanted, so that both the long and the short keys perform the same lifting motion at the whippen. This is the only way that the entire keyboard will play uniformly. I hasten to add though that watching the hammer rise after drop is far easier than trying to feel the level of the capstans with the keys in the depressed state. Number one, the capstans are curved and difficult to feel if they are even; number two, the capstans are inaccessible unless the top action is removed, which only requires adding weights to duplicate the weight just removed!

In my opinion, the term aftertouch is the most misunderstood term in grand

regulation. I never cease to be amazed at the many different definitions this term is given by otherwise knowledgeable technicians. Even after teaching classes on this subject, I have had technicians come up to me afterwards and start talking about something completely foreign to the term, yet they understood it as aftertouch! Here are some of the definitions I have heard:

- 1) *Raising the capstans is synonymous with setting the aftertouch.*
- 2) *Leveling the keyboard, especially by putting a crown in the middle is to give the action "aftertouch"!*
- 3) *Adjusting the amount of let-off as regulating the aftertouch.*
- 4) *The amount of travel that the jack has away from the knuckle has been defined as aftertouch. (Perhaps this is correct, but it is certainly foreign to the standard definition.)*
- 5) *The compression of the felt punching being called the aftertouch.*

And so on, with some ideas being so far off, it isn't funny.

Once the correct meaning of the word has been established, I have been even more amazed at what technicians think is the correct amount of aftertouch. Some say it varies with the size and use of the piano. I agree somewhat, but I have heard them include the statement that a concert grand should have more aftertouch to please the artist. This is the exact opposite of what is true. Trying to get a specific measurement for the aftertouch is like trying to get blood out of a turnip. Some say "set it at what feels right". Somewhat vague to say the least. Others claim that aftertouch should be almost nonexistent. One technician said that the aftertouch should take up the last third of the key dip!

Let me first state that I do not believe that there is one and only one correct measurement for aftertouch. As I will explain later, the aftertouch can even

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be tapered throughout the 88 notes on the keyboard. Last month I gave as an illustration a measurement of .025". For normal, everyday pianos which have gone through the break-in period, I'll use this figure. For a new piano or an old one which has just been restored with new action parts, I prefer a little more aftertouch. This will allow for the normal compacting and settling of the new parts. Be aware though, that I regulate these pianos as usual and only when completely finished I give it more aftertouch by raising the hammer line slightly. Never should the punchings be taken out just to give a new piano more of a safety factor.

By slightly raising the hammer line I am counteracting what I know will soon happen. Because the knuckle flattens, the whippen felt compacts a little, the felt punching at the center rail compresses slightly, the hammer line will fall and the shanks will end up resting on the rest rail or whippen cushion felt. If a home piano should have about .025" aftertouch, should the concert grand be given more? Think about how often these two pianos are serviced, and why a safety factor is given to the key dip. The home piano may get tuned once a year, or if you are lucky, maybe twice or even three times. But the concert grand may be serviced once a week, or as often as once a day! If the climate changes from dry to moist and the action swells, or if the piano has really been played a lot and starts to compact, you'll be able to regulate the concert piano as these changes occur, but not the piano in the home.

More important is the speed of repetition available to the concert artist. The less the key dip, the faster the repetition. No wonder that the concert pianos where the technician thought they needed more aftertouch play like a truck instead of a Ferrari. Unless the artist expresses his preference differently, I regulate concert grands to have the minimum amount of aftertouch.

On the other hand, is there a maximum amount of acceptable aftertouch? Number one, if a soft blow is given to the key and the hammer tail is not caught by the backcheck, the hammer can rise so high from excessive aftertouch that it touches the strings. Please note that a similar situation will occur if the repetition springs are too strong, so don't decrease the aftertouch without assessing the problem. A second reason why excessive aftertouch is undesirable has to do with the jack tender. Too much key dip forces

the jack between the let-off button and the jack stop felt. Especially on an older piano where the glue is weaker, this can cause the glue joint to break. The tender then will not trip the jack and a blocking hammer will result.

Going back to the idea of a tapered aftertouch, the let-off was tapered wider in the bass and narrower in the treble. To compensate for this, either the hammer line must also be tapered, the aftertouch must be tapered, or both. If the choice is to have the same amount of aftertouch for all 88 keys, then the hammer line is tapered ap-

proximately the same as the let-off. I prefer somewhere in between, tapering the aftertouch as well as the hammer line.

Since the speed of repetition is dependent upon the key dip, a little less dip in the higher treble will give a slightly quicker repetition. The artists like this, because they play fast, light passages in the high treble which often demand a very fast repetition, while in the bass the artists often play harder to create a larger tone. The deeper aftertouch in the bass will feel better to them.

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# THE TUNER

Paul Monroe RTT  
Orange County Chapter

**T**his article is usually written for the benefit of the beginning tuner. However, for this article I want to include the craftsman tuner also. The subject is RAISING PITCH. I know of craftsmen members who are reluctant to raise pitch to standard 440HZ for several reasons. One is, they know that using their present method the piano will need tuning in a few weeks instead of 4 to 6 months and their clients don't want to pay for another tuning that soon. The method that follows is a remedy for that problem.

Before beginning the details about raising pitch, I want to give credit to George Defebaugh who is responsible for the temperament that I have written in previous articles and for this method of raising pitch which has improved my speed and stability. George has spent and continues to spend a great deal of his time helping our profession become what it is today. Thanks, George.

This method of raising pitch will reduce your tuning time and build in stability so that when you complete the regular tuning process, the piano will stay in tune for almost the same length of time as your standard tuning. In many of the pianos where I have raised

the pitch  $\frac{1}{2}$  step, the pitch and tuning has held for as long as two years without any tunings between times. In one case I returned to a fifty year old Shoninger upright two years after I had raised the pitch a  $\frac{1}{2}$  step and there were three notes in the temperament that did not require any change. I hope I have whetted your appetite enough to try it — you'll like it.

The first step is to make sure all the plate screws are tight. Next, ascertain how much A4 is below the standard 440HZ. This is a fact that *must* be determined as you must raise the pitch of A4 sharp (above 440HZ) 25% of the amount it is below pitch. For instance, if A4 is 8HZ below pitch, you must raise it to 2HZ above 440 or to 442. The pitch during the initial pitch raise will drop that amount. If you were to raise A4 just to 440, you will never get the piano to stay at 440, all other things being equal — i.e.: temperature and humidity.

Why does this fact exist? Picture the soundboard and the bridge. When you increase the tension of the string the bridge twists and rolls due to the side bearing on the string caused by the staggered bridge pins. See **Figure 1** for what it should look like and **Figure 2** showing the rolling and twisting configuration. The wood in a bridge has good memory and will do it's best to return to it's original position. This means that as the wood moves it changes the tension on the strings and the pitch will be unstable. This is the reason to overshoot 440HZ by 25%. As the wood moves it will stop its movement at the desired tension keeping A4 at 440.

Now that you have set A4 to the proper number of beats sharp, tune A3 to it and proceed to set a quick temperament as outlined in the November, December and January issues of the JOURNAL. Do *not* spend a lot of time setting the temperament. If you spend more than a couple of minutes the beat rates will change by themselves so be as accurate as possible remembering to spend a very short time in setting the initial temperament.

Proceed on to tuning octaves. I

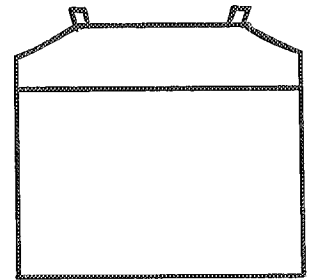


Figure 1



usually start the octaves by tuning down to the bass-tenor break and then return to A#4 and proceed through C8.

When you start tuning A#4, you will have to expand the octaves. I suggest you start with one beat per second on A#3-A#4 and keep on expanding the one bps so that when you arrive at C5 the interval of a 12th, F3-C5 is expanded to at least a slow roll. At this point picture in your mind a graduated scale, increasing evenly in beats per second through C8.

Another test interval to use at C6 is the interval of a 19th, F3-C6. It too should be expanded. Be aware that this is true only in raising pitch. Expanding the 12th and 19th intervals does *not* apply to regular tuning.

The next step in raising pitch is one of the most important. It is the method

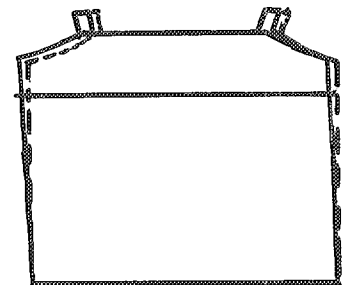


Figure 2



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of tuning unisons. If you will recall that in the article on unison tuning, I suggested you start at C8 on pin #1 and proceed to the tenor-bass break on this pin then return up the keyboard on pin #3. This method of tuning unisons is what builds in stability.

If you were to tune the unisons turning pins #1 & #3 instead of just #1, you will cause the bridge to roll and twist much more than if you turn only one pin at a time. The more movement in the bridge and soundboard, the less stability in your tuning. In effect what you have accomplished by tuning the unisons in this manner is a more even distribution of tension causing less movement in the structure and as I iterated before, the less movement in the structure, the more stable your tuning.

After quickly and accurately tuning the unisons in the treble and tenor sections, proceed to retune these sections and reset a quick temperament. With this accomplished raise the pitch in the bass section. When you start on the octaves in this section they should be contracted to a slow roll, the opposite of what you did in the tenor and treble octave tuning. The reasons are the same however. This section will drop and should end up where you want them to be.

When you arrive at F2, I suggest you start making the octaves pure at this point. This will assist you to do the final tuning expanding the bass octaves. This is the area also where you can start listening for the partial structures in the wound strings. It will tell you if you want to tune the octaves using the 2-1, 4-2 or 6-3 combinations of the coincidental partials. Refer to previous articles on octave tuning in the JOURNAL for information regarding the use of partials in octave tuning.

A few important reminders. Before raising pitch make sure all plate screws are tight. If you find any that will not tighten, remove one at a time and repair the screw hole. Do NOT remove more than one at a time. There are many ways to accomplish this task, however, I find the fastest method is to insert an ice cream stick the length of the screw threads. The sharp edges on the stick help hold it in place better than a hammer shank. Another method is to repair with epoxy. If you have never used this method before, ask an experienced technician who has for details. If you do want to try it without asking first, do it at your shop in a piece of scrap wood. Do not experiment on a client's piano. You may cause yourself a financial headache later on if you do.

On verticals check the pressure bar screws. They should be snug. If you have to turn any of them more than 10 degrees, I suggest you repair the screw hole as I just described.

Before raising pitch check the tenor and bass bridges. If the bridge is checked or cracked next to the bridge pins, the piano most likely will not hold a tune no matter what you do short of bridge repair.

Also, check the bridge cap if it has one and make sure it is intact and not separated from the body of the bridge.

Another item that will preclude good stability is the soundboard separating from the ribs. The tone production of course is usually reduced when this condition exists but if the board is free to move unrestricted due to temperatures and humidity conditions, it will have a noticeable and undesirable effect on the tuning.

The most important item to check is the pinblock. It is most difficult to know the pinblock condition until you have actually started raising pitch. There is, however, one way of being alerted to the pinblock condition and that is the state of the tuning before you start to mute the piano. If there are many unisons radically out of tune, you should check those tuning pins for their condition in the block. This is a good place to use your torque wrench if you have one. If you don't have one, with a little

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experience you will know by the feel in your tuning hammer if the pinblock will stand a raise in pitch.

Another clue that will also help learn the condition of the pinblock is when it can be seen, as in some old-style verticals. There are a few grands that have an exposed block, including a well-known imported brand. Observe the condition of the wood around each of the tuning pins. Look for space above the pin or cracks on each side of the pins. These conditions are indicators of a poor pinblock.

As usual you can write endlessly about this subject, explaining the many nuances you experience with each piano, and it is my hope that this article will provide sufficient information to assist you to increase your tuning speed and stability. It's a great feeling.

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## HEADS AND TAILS

**W**hen I first started working on old uprights, I repaired chipped ivories by gluing on replacements with contact cement. If a keyboard was in bad or just mediocre condition, I recovered the whole set with plastic; in fact, recovering the keys was a standard part of any reconditioning job. It was appropriate for those pianos, making them sellable and more durable, but it was unfortunate that better pianos, too, had ivory keyboards replaced or poorly repaired because of a lack of expertise. Over the years I've sought to learn how better to continue the life of ivory keyboards.

There is no legal source of new ivory. Therefore, we cannot offer new ivory keycovering, at any price. However, as most of us are aware, many pianists prefer the touch of ivory; it absorbs moisture and feels warmer and less slick than plastic. Artistry is a mysterious thing: we should respect that musicians usually do not care for changes in "feel", which is the pianist's physical contact with his instrument. Ivory is also getting something of an "antique"

value. Many people think it makes a piano more valuable or somehow more "genuine". This creates a confusion that just having ivory keys makes an instrument worth something — how many times lately have you pronounced a square grand or birdcage upright DOA only to get the rejoinder "But it has ivory keys!". Similarly, the ivories themselves are thought to be of value — I had a customer lately offer to have her mother in New Zealand send me ivories off old pianos; she was disappointed to learn this would not be sufficient pay for me to rebuild her ancient Hazelton grand. Therefore, we must not overemphasize the value of ivory keys, nor give an impression that plastic is a poor substitute. Modern plastic keycovers are attractive and very durable; they are a fact of life and it is up to us to keep the public well-informed on this point.

Given all that, what is there for technicians to do who prefer to keep ivory keys? Restoration of keyboards reusing ivories seems to be the only answer. In this article, then, I will deal with some of the tricks to reusing old ivory. It is patient, finicky work; I don't advocate

doing it to every piano. I make sure that the customer understands that the result may differ slightly from the original factory job; if there is any doubt I replace or restore a few as examples. They also understand that the cost, which may be several times that of new

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*Artistry is a mysterious thing: we should respect that musicians usually do not care for changes in "feel", which is the pianist's physical contact with his instrument.*

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plastics, is due to the *work* involved.

Another consideration before a job is undertaken is: if ivories are chipped or missing, do I have adequate replacements? This requires having boxes of old ivory heads and tails hanging around the shop, which in turn requires that you save or purchase every ivory you can get your hands on. Ivory varies in color, grain and opacity; pre-used ones will also be cut to a length and width and beveled to the shape of a particular key — this can be seen by sighting along the back edge of the heads. A B ivory can only be used on a B (or an E) key, and so on. The more you have on hand, the better your chances of doing good work. (The hardest ones to replace are #1 and #88 since they are unique — save these carefully when you find them).

All right. Assume that, like me, you bought the estate of an old piano tuner and you *have* boxes of ivories. They're probably dirty and yellow with old glue and linen on them — obviously they must be prepared for re-use.

Knowing that ivories were bleached in the factory when new, I assumed that was the way to prepare them for re-use. The method I developed was to soak them in hydrogen peroxide overnight and then place them in the sun under a sheet of plate glass to dry and bleach for several days. There are obvious drawbacks to this (what if it rains?) so as I prepared this article I contacted an expert for a better meth-

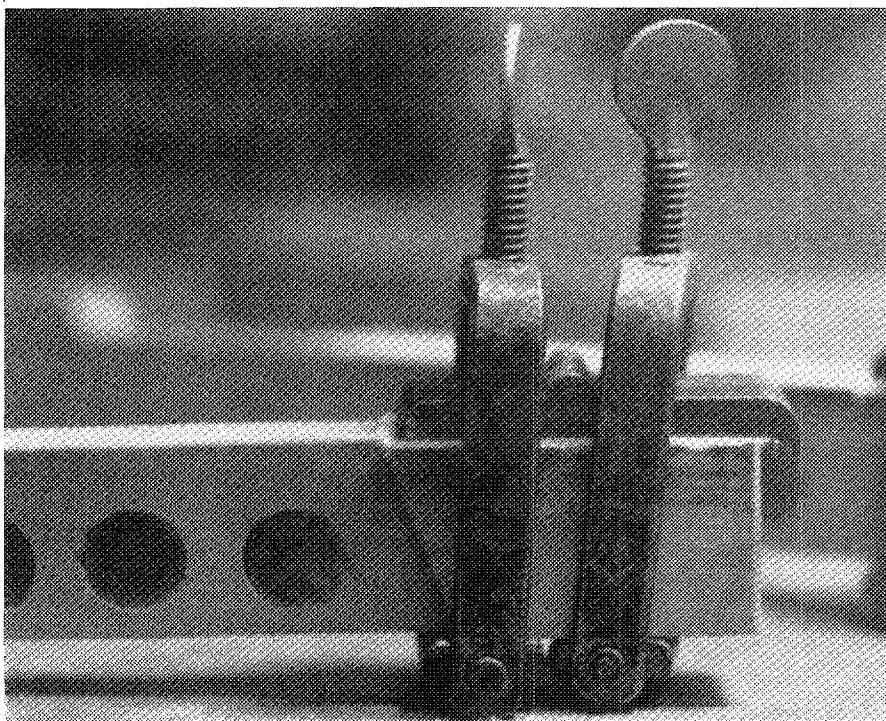
### 1. Before





od. I called Frank Stopa of Pratt, Read & Co. who very graciously took the time to describe his method for preparing old ivory. Frank restores entire keyboards by actually removing all the old ivory, bleaching it in the manner described here and regluing it. The way I look at it, anyone who voluntarily removes a whole set of keycovers and reglues them has confidence in his work, so I report to you his method.

Ivories must be carefully removed from the keys. As with any glue joint, moist heat is the way to go; lay a wet rag across the ivories and use an iron to produce steam to loosen them so they can easily be removed from the key with a thin-bladed knife. Avoid removing splinters of wood from the key or scorching or breaking the ivory by going slowly until you get the feel of it. Once the ivories are removed, Frank places them in a detergent and hot water solution for a few minutes. This soaks off dirt and any remaining glue or linen (scraps of gluing wafer). The ivories are then rinsed and laid out on paper towels in a 110° oven. They are watched carefully and turned whenever they begin to curl. He continues to watch and turn them until the curling stops. Then they go into a glass container of Clairoxiide, which is a hair bleach available from drugstores. They sit in this solution from one to six days; long enough to bleach but not too long or they become dead white, porous and brittle. I asked Frank about advice I've heard to oil bleach ivories with baby oil if they become brittle but he advises against it — the oil will gum up. Watch the ivories and remove them from the solution before they get to this point. If you are preparing just a



**2. Gluing — note angle of clamps**

few ivories to replace some missing and are leaving the rest of the keys alone, you may wish to forego bleaching or to remove them from the bleaching solution sooner so they will match the originals. When Frank removes a whole set he numbers them in pencil which stays legible even through bleaching — number on the top or else erase the marks before gluing as they will show through.

Once the ivories come out of the bleaching solution, they are rinsed and again go into the oven for the same gentle drying, being turned as they curl until the curling stops. Then they are

clamped together to keep them flat and sealed in a plastic bag until they are ready to be used.

With the ivories bleached and dried, the remaining area to prepare is the notorious joint where the two pieces meet. If you've never done ivory work, you may be blissfully unaware of how difficult it can be to make this an invisible joint; even with a good match there is often a fine gray line. Other technicians have suggested a dab of white epoxy at this joint but that is just as visible. Frank's advice is to file the edge of both pieces so they are clean and square. The ivory is held on a square;

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the square must be a wooden-handled type or else have a strip of wood glued on to hold the ivory in place. The edge can be carefully filed, using a fine-toothed file, guided against the edge of the square which the ivory just overhangs. Originally, the pieces were slightly beveled. This is impractical for us to try to duplicate in the field; two square edges will match well. If you are doing a spot-repair, at least be sure to clean each edge by wiping with a solvent or scraping gently without removing chips. Make sure no dirt or glue remains on either piece or on the key just in front of the tail.

Also prepare the surface of the key. Repair splinters or gouges. The top of the key must be clean and square; sand, scrape or clean with a solvent as necessary. If there is an old wafer, I remove it (it is sometimes possible to cement an ivory to an old wafer but you take the chance that it will come apart later between the wafer and the key). Moist heat will loosen the wafer and it can be pulled off. Slice through the linen just in front of the tail if necessary to avoid pulling it off.

Frank uses hot hide glue, colored with whiting, and linen underneath, which is the traditional method. Ivory varies in translucency so some form of whiting is necessary for a uniform result. Since I usually do not remove the whole set, I choose a gluing method to match what has been done; either the prepared wafers, which are linen impregnated with whiting and glue, or else ivory cement which dries white

and will tint the key somewhat. Another factor in determining gluing method is thickness — if you are matching what is intact, you may need a wafer to raise the head to the level of the tail; conversely, if the replacement head is much thicker, use of a wafer would require you to sand the head until it is too thin. **DO NOT USE CONTACT CEMENT.** It is colored yellow (with powdered mustard to discourage glue-sniffing, if you want to know) and the yellow shows through; the bonding is not good or long-lasting. Ivory which has been glued with contact cement cannot be cleaned and reused: traces of cement remain in the pores and the head will be darker. For an emergency repair on a beat-up old piano, okay, but remember it does permanently ruin the ivory and the results will be mediocre.

Along with the ivories I bought, came bags of Hale ivory wafers. One set of instructions on the bag recommends pre-heating the clamping plates, but another set of instructions inside the package describes the "Hale Vulcanizing Process" which allows you to avoid handling hot plates. I use a modern version of this "vulcanizing" procedure. With all due thanks to Hale, here it is: Trim the wafer to size and soak it briefly (about 20 seconds) in cold water. Remove it from the water and let it stand on edge for a few seconds until water on the surface of the wafer is absorbed and it becomes limp. It should be saturated but not soggy. Place the wafer on the key, the

ivory on the wafer and the ivory plate on that. I use two clamps per head — it helps counteract the tendency of the ivory to slip sideways as pressure is applied. The head plates have a lip on them which forces the head back against the tail so at least one clamp is angled to do that. (The tails, if loose, should be reglued first, using a square to line them up with the notch and the other tails). Once the ivory is perfectly aligned and the clamps tightened, a heat gun is used to heat the plate until glue begins to bubble out from under the ivory. The ivory is rechecked for alignment and set aside to cool. The original vulcanizing process called for a small lump of solid Sterno ("purchased . . . at 10¢ a can.") to be ignited on the plate. However, the heat gun is safer and a useful tool for this and other heat applications; several supply houses carry them. The advantage of heating the plate afterwards is that it allows as much time as necessary to align the head before the glue is activated.

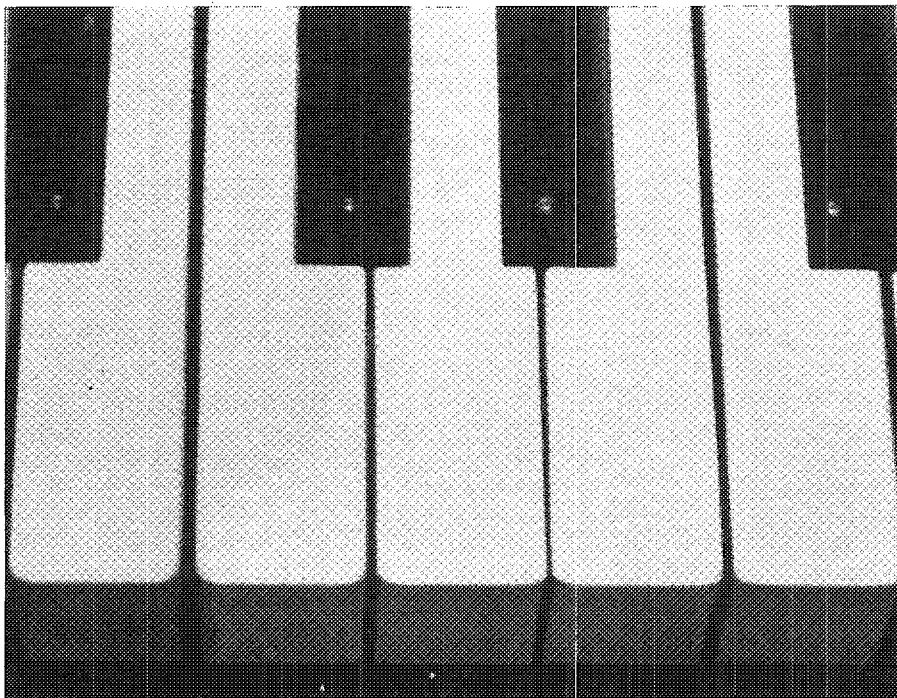
The ivory cement is simpler to use. It is heated by immersing the jar in hot water until it becomes runny. A thin coat is applied to the key and the ivory is clamped using the clamps and plate as before. If the glue cools and thickens as you fiddle with alignment, the plate can be heated slightly to re-liquify the glue so the clamps can be tightened down.

As you tighten the clamps, watch for overhanging side edges, which usually indicate that the head is skating around. The sides can be sanded flush but if the ivory is on crooked there will be a gap at the head/tail joint which will be very visible. *Patience!*

According to Hale, vulcanized keys are dry in 15 minutes but I usually leave them clamped overnight to be sure they don't curl from the moisture in the glue. This tendency to curl is one reason for using a fast-setting glue such as hot hide or cement, and for using glues which dry hard and not flexible such as PVCE. I have experimented with PVCE but was not happy with the result: the glue has too much give, allowing slight curling at the edges. Do not use epoxy to bond ivory — this job should be reversible.

When the ivories are dry, excess glue should be sanded from the sides and cleaned from under the lip. If the head and tail are of differing thicknesses, they must be sanded level. Do this holding the key upside down and working it on a sheet of 220 garnet paper glued to a flat surface. This will prevent unevenness or rounding off corners which can happen working with a

### 3. Replacement of chipped D & E



hand-held sanding block. The head and tail must be perfectly level to the touch as well as to the eye. After this is accomplished, the key must be sanded "down the grits" — sanded with progressively finer papers (320, 400, 600) to remove all scratches. All sanding must be done lengthwise as crosswise scratches are very visible.

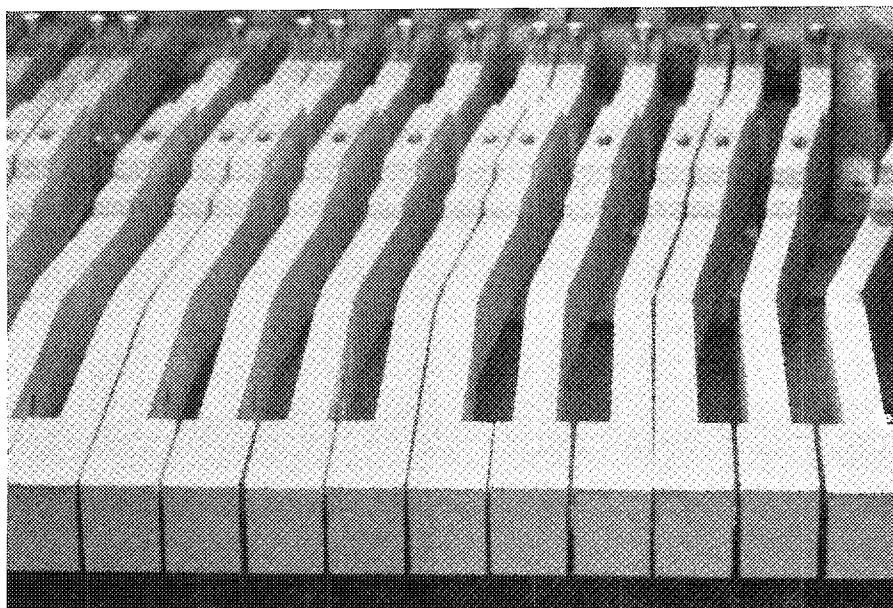
When the keys are done, put them back on the frame and sand to match the original keys. Any which are too long should be sanded even with the rest. (Any which are too short shouldn't be used — don't sand all the lips off). Next, sand to match the bevel of the sides and the front corners. It is important that these areas be rounded, smooth and uniform. The replacement ivories will already be beveled at the notch but be sure they match and there are no sharp corners. Matching these edges is a matter of feel as well as sight, and is worth extra time to do carefully.

When the final shaping is done, buff the keys. Frank Stopa recommends that ivory be buffed at no more than 350 rpm.; otherwise heat is built up which can raise the grain. This speed is much slower than most bench grinders. Depending on the type of motor in your grinder/buffer, you may be able to reduce the speed or you may need a separate motor which can be operated at that rather slow speed. You should have "white only" buffing wheels (use two together for more work surface and to prevent heat build-up). Buffing compound, confusingly enough called white rouge, is necessary — the dead white kind, not the slightly yellow which will streak. I buff in three passes: two moving the key from side to side and one final lengthwise pass.

Some customers prefer a more matte finish, in which case the keys can be scuffed very lightly with 4/0 steel wool; it is still advisable to buff them first to seal the surface against dirt.

All right, all right, you say, but I have a set of keys in good shape, just yellowed from age. What can be done about these without removing and regluing them all? Everyone seems to have done some of this but there is a certain reluctance to recommend a particular procedure. I've done two things to whiten yellowed keys and I'll tell you what they are with the caution that both methods have hazards which you must consider.

One possibility is to bleach the ivories while they are on the keys. I asked Frank about this; he strongly recom-



**4. After repairs & sanding—ready for final clean-up & buffing.**

mends *against* it. However, I have done it with good results, although I think a lot of my success is due to hot and predictable California sunshine. I take the keys off the frame and lay them on a table in the sun. Using hydrogen peroxide (from the drugstore — 3%) in a plastic spray bottle, I mist the keys lightly. Getting them wet will loosen them for sure, so I just apply a fine uniform mist. Then the keys sit in the sun. The peroxide evaporates quickly and after a few hours it is reapplied. I may do this for several days. The sunlight aids the bleaching and evaporates moisture before it has a chance to cause trouble. The ivories must still be carefully checked afterwards to be sure none have loosened — don't do this if there are signs of weakening glue joints or you'll find yourself regluing the whole set. This bleaching does not return the keys to their original whiteness but it does improve them considerably. After the bleaching and sunbathing is over, I sand lightly to remove bleach crystals and buff as before.

The other thing which technicians do to old yellowed ivories is to sand or scrape them. Obviously, this thins the ivory and must be done cautiously or not at all if the keytops are worn. Ivories which are dished-out from use, for instance, would completely wear through at the edges before the center came in contact with the sanding. Keys which can be sanded can be done one at a time, by hand, the same way they are sanded to level out replacement heads; holding the key upside down and working it on a sheet of garnet paper glued to a flat surface. They must then

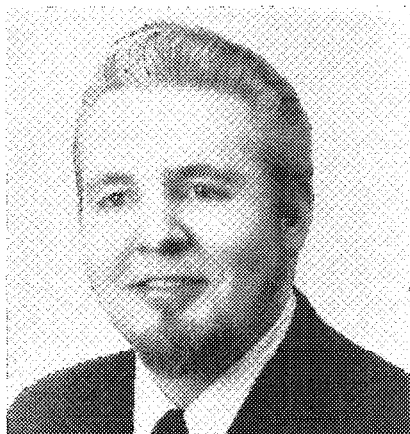
be worked down the grits; doing all this by hand is a lot of work. You'll find yourself wondering if it's worth it before you're done but don't be tempted to use coarser paper — it will leave deep, indelible scratches. Skipping the finer papers will also give a poor result.

Sanding can also be done with the keys still on the frame (sharps removed) using an orbital sander. Slide a piece of stock (the hold-down strip is usually a perfect size) between the rows of front-rail pins. This holds the keys up but not completely off the pins — the pins help stabilize the keys while the support levels them. Avoid getting dust on the punchings by placing a sheet of newspaper over the top of the front rail pins and pushing the keys down so the pins punch through but the punchings are covered. The keys can then be gang-sanded with 220 garnet (or aluminum oxide — use a good paper) on an orbital sander. Although the sander does move across the grain in its orbit, the small circular marks it leaves are easily sanded out as you smooth the keys with finer paper. These final sandings must still be done by hand. Remove the keys from the frame for this since it must be done lengthwise-only, which would elongate the balance rail holes if the keys were on the frame. The sander does not strain the holes because of its speed, the pattern of movement, and the fact that it is used with little pressure.

With either sanding method it is possible to remove some but usually not all of the yellowing, and care must be taken not to get the edges too thin

*Continued on following page*

# Know Your Officers



**Bob Russell,  
Immediate Past President**

Bob was born and raised in Cleveland, Ohio. During his teenage years, Bob had many jobs, from building five homes with his father, to directing his own band for school functions, plus parties, weddings, etc. Many helpful skills were learned during these formative years.

Formal education began for Bob at the Cleveland Institute of Music and Case Western Reserve University. This training prepared him for music instruction, sales, and he gained the knowledge and ability to own and operate several music stores in Cleveland. After some years in this vocation, piano tuning and rebuilding fascinated him, so he returned to school and discovered a new and exciting experience in piano tuning. In this new found craft he could utilize all his past skills plus his new found skills.

Bob's professional life includes such facets as: keyboard instructor for 29 years, still instructing a few students; self employed businessman since the age of 21; salesman for everything from pianos and music lessons to houses; member of several music organizations; full time piano tuner and rebuilder.

Bob's Piano Technicians Guild background began with the Cleveland chapter where he served as President 1969-70, Vice President 1967-69, 1972-73, newsletter editor five years, seminar chairman five years, examination chairman 1968-82, technical chairman 1967-69, 1979-80.

The advancement into National office was preceded by many years as chairman or member of sixteen different national committees, which

adds up to forty-five years of service. Along with this he was instructing at many local, state, and national conventions. These and other Guild activities prepared him for the position of Regional Vice President, Vice President, and President. Now, as Immediate Past President, Bob is beginning to spend more time on committees again.

As a board member of the National Piano Foundation (an arm of the National Piano Manufacturers Association) his liaison with the Piano Technicians Guild is very good for public relations.

This July will see the end of seven years on the National Piano Technicians Guild board, but it will also see the return of normalness to the Russell family.

Bob met his wife Ginny at the Institute of Music. Ginny is also a piano instructor and works with the tuning business. They are the proud parents of five musical children. The seven Russells have camped the forty-nine continental United States, Canada, and Mexico. Their son, Bob Jr. is also a RTT. And of course, due to the need for spending money, all the children learned to repair pianos.

## Shoptalk

*Continued from previous page*

or to create dips in the surface of the key. Whichever way you do the initial sanding, you must carefully finish off the keys one at a time with lengthwise sanding with finer papers. Then rebevel the edges and corners and buff.

These are not methods which can be universally recommended; however, I've done them and other technicians whom I respect do them. Sometimes in this business it helps to know the experimental methods so I have included them; if you have a piano of your own or a special circumstance you might want to try them. If you want to be sure of a first-class, non-destructive job of redoing ivories, remove, bleach and reglue as Frank Stopa does; I thank Frank again for his help and information.

If you're lucky and have keys which are in good shape but just a little too dirty to clean with a damp rag, try a little toothpaste or Brasso. Be sure to tell all your customers with ivory keyed pianos to leave the fallboard open — exposure to light helps prevent yel-

lowing. If nothing else, do a little ivory work from time to time and at least be competent to do an occasional replacement. Save old ivories and practice working with them and some day you may be a real hero to someone, saving "antique" piano keys.

## Sound Background

*Continued from page 17*

Northern Michigan University Press, 1977) include ancient Chinese and Greek scales in their comprehensive presentation of history and specific tuning details for scales from ancient through modern music. Barbour gives fractional ratios and cents measurement of intervals, Jorgensen gives instructions for aural tuning.

## THE SOUND OF ANCIENT MUSIC

**T**he ancient scholars and philosophers provided many writings on music theory and the effects of music on listeners, but the composers and musicians left very little music in writing. A few examples which have been transcribed in modern music notation are given in *Historical Anthology of Music*, Vol. I, by Archibald T. Davison and Willi Apel (Cambridge's Harvard University Press, 1949) which contains music of a short Chinese hymn from about 1000 B.C. and ancient Greek hymns from about 138 B.C. and 130 A.D. There are also recordings of fragments of ancient music on reconstructed ancient instruments. The *New Oxford History* and *Pelican History* mentioned previously contain lists of such recordings. *Musical Six-Six Newsletter* Issue 28, (Kirkville, MO, 63501: Six-Six Music Company, Vol. 10, No. 2 1981) a publication with frequent articles on ancient music, includes a review by Tom Reed of a 12" disc recording, with 24 pp. book, of the oldest known written music — reconstructed from a tablet with cuneiform inscriptions from about 1800 B.C. found in Syria. *Sounds From Silence* by Kilmer, Crocker, and Brown (Berkeley, California: Bit Enki Publications, 1976). The music recorded was played on a lyre built to a design reconstructed from archeological remains. It is believed the tablet is evidence of the earlier existence of scale patterns used in Greece over 1000 years later.

The absence of practical application does not diminish the value and historical, mathematical, and musical interest of ancient music theory.





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## WASHINGTON, D.C., "A CAPITOL VIEW IN '82"

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 during this 25th Anniversary celebration of the Guild.

### Exhibits

This year, arrangements have been for approximately 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 and others. This year the exhibits will be located right in the heart of the Institute classes in the Capital Terrace area of the hotel. Coffee breaks will be extended one-half hour to allow more exposure for exhibitors.

### Banquet

Each year the banquet serves as the convention's social highlight. The entertainment planned promises you a memorable evening. You won't want to miss this event . . . To be held in the Presidential Ballroom on Wednesday evening.

### Registration

#### Cancellation Policy

Full registration will be refunded if cancellation is received postmarked no later than June 1st. After this date a 30 percent cancellation fee will apply to all refunds made prior to July 1, 1982. There will be no refund made on any registration cancelled on or after July 1, 1982.

### Non-Member Specials

Non-member 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. Non-Member spouses may use \$6.00 of the registration fee as Auxiliary dues at the Convention.

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### Be A Winner

Register early (by April 30th) and be a winner! There will be two free dinners at The Capital 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 Capital Hilton Hotel 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 30th.

### Special Tours

The Washington, D.C. Host Chapter has put together some very exciting tours to help celebrate in fine style. . . . July 4th (Optional Tour) — a four hour tour with country supper, champagne and viewing the fireworks from the Lincoln Memorial. Who would want to miss this one. Check the registration form in this brochure for more information and prices. Smithsonian Museum of American History . . . (formerly Technology) in the Hall of Musical Instruments a lecture-recital on antique keyboard instruments. Another winner . . . see details and prices included in the registration form.

The Ladies Auxiliary have also made exciting arrangements. Imagine riding a double-decker bus seeing the sights of Washington. This will be an all-day tour with lunch on your own at the Smithsonian Museum. All tour tickets should be purchased in advance at the Auxiliary Center.

### 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 for "A Capitol View in '82."

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

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#### SPOUSES AND CHILDREN

Auxiliary Member ..... ☐ \$ 40.00

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Children (15 & Under) ..... ☐ \$ 10.00

#### OPTIONAL FUNCTIONS

Banquet ..... ☐ \$ 25.00

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July 4th, 1982

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(Formerly Technology) In the Hall of Musical Instruments a lecture-  
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**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.*

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Classification \_\_\_\_\_

## MEMBER CALENDAR (Preliminary)

*Saturday, July 3, 1982*

1:30 pm - 6:00 pm ..... Registration Open

*Sunday, July 4, 1982*

9:00 am ..... Worship Service

9:00 am - 6:00 pm ..... Registration Open

10:00 am - NOON ..... Council in Session

1:30 pm - 5:00 pm ..... Council in Session

*Monday, July 5, 1982*

7:00 am - 6:00 pm ..... Registration Open

8:00 am ..... Complete Institute Office Setup

8:00 am - 9:45 am ..... Chapter Council Conclave

9:00 am - 4:00 pm ..... Classroom Setups

10:00 am - Noon ..... 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 ..... Ribbon Cutting/Exhibit Opening

*Tuesday, July 6, 1982*

7:30 am - NOON ..... Exhibits (Drawing)

7:30 am ..... Membership Services Open

7:00 am - 6:00 pm ..... Registration Open

8:00 am - NOON ..... Institute Classes in Session

9:00 am - 10:30 am ..... Board Committee Appointments

1:00 pm - 6:00 pm ..... Exhibits (Drawings)

1:30 pm - 5:30 pm ..... Institute Classes in Session

5:45 pm - 6:45 pm ..... Feminine Technicians Meeting

6:45 pm ..... Young Technicians Meeting

*Wednesday, July 7, 1982*

7:30 am - NOON ..... Exhibits (Drawings)

7:30 am ..... Membership Services Open

7:30 am ..... Registration All Day at Office

8:00 am - NOON ..... Institute Classes in Session

1:00 pm - 6:00 pm ..... Exhibits (Drawings)

1:30 pm - 5:30 pm ..... Institute Classes in Session

6:30 pm - 7:30 pm ..... Hosted Cocktail Reception

7:30 pm ..... Banquet

*Thursday, July 8, 1982*

7:30 am - NOON ..... Exhibits (Drawings)

7:30 am ..... Membership Services Open

8:00 am ..... Registration All Day at Office

8:00 - NOON ..... Institute Classes in Session

1:00 pm - 6:00 pm ..... Exhibits (Drawing)

1:30 pm - 5:30 pm ..... Institute Classes in Session

*Free Evening*

*Friday, July 9, 1982*

7:30 am - 11:00 am ..... Exhibit Finale (Drawings)

7:30 am - 9:00 am ..... Membership Services Open

8:00 am - 9:00 am ..... Committee Meeting

8:00 am - NOON ..... Institute Classes in Session

12:30 pm - 2:00 pm ..... Closing Luncheon

2:30 pm ..... Tuning Concert

## AUXILIARY PROGRAM

*All non-technicians attending this convention are invited to register for and participate in the Auxiliary Program.*

*Sunday — July 4, 1982 (PTG Council in Session)*

The Auxiliary Center will be open while Council is in session. A special Fourth of July celebration has been planned for the evening by the Washington, D.C. Chapter of the Guild.

*Monday — July 5, 1982 (PTG Council in Session)*

The Auxiliary Center will be open while Council is in session. When you arrive at the hotel, stop by the South American Room to say hello. During the afternoon various projects, including leather tuning fork case kits, will be available.

*Tuesday, July 6, 1982*

8:45 am Sights of Washington from a double-decker bus! People going on the morning tour or the all-day tour meet in the South American Room. Buses will depart promptly at 9:00 a.m. People on the all-day tour will have lunch on their own at the Smithsonian Museum.

1:45 People going on the afternoon tour meet in the South American Room.

The afternoon tour and the all-day tour end at 5:00 p.m. All tour tickets should be purchased in advance. The Auxiliary Center will be open all day.

For advanced tickets contact Ginny Russell, 1414 Lander Road, Mayfield Heights, Ohio, 44124. (216) 449-5212.

Half-day tour (offered in morning and afternoon — \$14.00 [adults], \$7.00 [children under 12])

Full day tour (lunch on your own) — \$25.00 [adults], \$12.50 [children under 12]

*Wednesday, July 7, 1982*

9:00 - 10:00 am The Auxiliary's Opening Assembly

10:00 - 11:45 am Break (Members-at-large will meet during this time.)

10:15 - 10:15 am Auxiliary Council

1:30 - 3:30 pm A Silver Anniversary Reception (light refreshments) with music and entertainment by the Cameron String Quartet. Open to all who register for Auxiliary activities.

3:30 pm Rehearsal of the "Key Notes." All interested singers invited to participate.

*Thursday, July 8, 1982*

9:00 - 10:00 am Morning session with exhibitors and manufacturers

10:00 - 11:00 am The Auxiliary's panel of piano service experts answering your business questions.

1:00 - 2:30 pm Installation Luncheon (included in registration) with piano music by Deanna Grove

2:00 - 3:30 pm International debut of the "Key Notes"

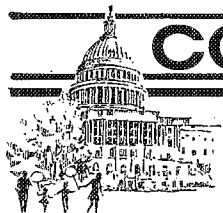
*Friday, July 9, 1982*

9:00 - 10:00 am A special event: Sylvia Symington (Mrs. James Symington) will share her insights about life in the Nation's capital.

The rest of the morning the Auxiliary Center will be open so you can relax and visit some before the end of the convention.

*Bring your family to Washington, D.C., the Auxiliary has planned lots of activities with them in mind. Anyone can register for these activities, and each registration includes the Silver Anniversary Reception and Thursday's Installation Luncheon. There will also be business classes, social activities, the "Key Notes" chorus, a morning with Mrs. James Symington, special surprise gifts, and a piano related craft project. Please invite those people who encourage you in your business all year long to come and enjoy your convention with you all week long at Washington's Capitol Hilton Hotel.*





# CONVENTION

## A Capitol View in '82

**Ruth Ann Jordan**  
Local Host Chairperson

### For Non-Sighted Members

The Washington, D.C. Chapter will provide an escort service for all non-sighted members who wish aid in orienting themselves with the layout of the hotel and classrooms. Would you please mark your reservation card to the hotel so that you may be placed conveniently in good room situations. Our members also will be happy to escort you to convenient and reasonable restaurants in the immediate area and generally will do all we can to help enhance your visit to Washington, D.C.

### Limited Dormitory Space Available

A nearby university has been contracted to provide dormitory housing for those who require less expensive accommodations. All reservations must be made directly with Ruth Ann Jordan. The fee is \$20.00 per night per person. Most rooms are double, but some singles are available. Please send deposit for one night along with your dates for arrival and departure to Ruth Ann Jordan, 4 East Granville Dr., Silver Springs, MD 20901, (301) 587-7757. Please make your checks payable to the Washington, D.C. Chapter, PTG.

\*You may pay in full when registering at the convention. Remember to get your reservation in early as space is very limited.

### Early Stringed Keyboard Instruments and the Development of the Piano in America

This will be a very enlightening and entertaining event to be presented by a foremost authority on antique\* instruments, Miss Helen Hollis of the Smithsonian Institution. Many of you may already own her excellent book on the history of pianos and if not you may purchase it at the Smithsonian Bookstores. (\*keyboard) She will give a lecture accompanied by slides and then perform on some of the restored instruments on stage in the Hall of Musical Instruments\*\*. There will also be time for a question and answer per-

iod. Because the Smithsonian Museums will not have late hours this summer except for Air and Space Museum, the time of Friday, July 9, at 3:30 p.m. has been selected as the best opportunity for everyone who wishes to attend. The fee is a modest \$4.00 and the capacity is 225 with the possibility of standing room also available. (\*\*in the Museum of American History) Fill in the proper box on the reservation form early to assure yourself of a seat at this most unusual event.

### Washington At Night Sunday, July 4, 1982

When the sun goes down, Washington lights up, and you will have an entirely new look at the Capital City, especially brilliant on this evening of Independence Day, 1982.

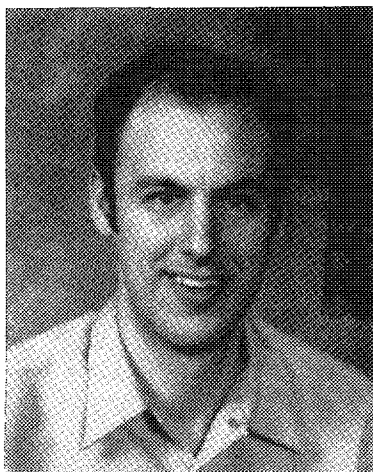
The monumental core of the city, with its beautiful and impressive public buildings is a reflection of the ongoing city planning which has contributed to making Washington one of the most beautiful cities in the world.

In our luxury motorcoach, we will glide along some of the Capital's most beautiful avenues viewing all of the Federal City from the White House to Capitol Hill. You will see the Smithsonian Museums, The National Gallery of Art, The National Archives, The U.S. Supreme Court, the Library of Congress, The Kennedy Center, The Einstein Memorial and much, much more, all while enjoying a special lively narration.

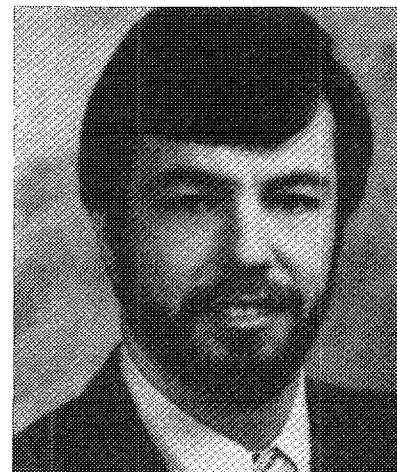
Several important stops are included in the tour for closeup viewing. We will stop at the magnificent Victorian

*Continued on page 33*

### Convention Membership Booth



**Jim Hess**



**Don Pahl**

**SPECIAL NOTICE:** To all non-members planning to attend the National Convention in Washington, D.C., July 4-9, 1982, at the Capital Hilton Hotel. Jim Hess (South-Central PA Chapter), and Don Pahl (Balt., MD Chapter) 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 — Membership Committee**

# Technical Institute Preview, Part IV

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The die-hards, those who think there is nothing more to know about the piano that they have not mastered, will not be there. For them, the Piano Technicians Guild is always an uncomfortable subject, about which they seem to protest too much while they turn key-pins, dope pinblocks, raise plate suspension bolts and grease knuckles. Come July, the rest of us, more modestly still considering ourselves students of piano technology, will be rushing through breakfast at the Capital Hilton in order to get good seats for the eight o'clock classes.

It is no exaggeration to call the Technical Institute at the National Convention the major yearly forum for state-of-the-art knowledge about piano engineering, servicing and reconstruction. Salaried technical representatives of the major manufacturers; independent rebuilders of nationally-known reputation; emerging local and regional instructors of outstanding merit; and personalities who combine expertise and charisma to make them what the Europeans call "master teachers," are presented in an extensive, four-day bill of fare.

The more than 1,000 piano technicians assembled there will find the schedule both challenging and frustrating. Our art, too, is long, and time short. At the risk of once again perilously enticing those who, reading this, have still not chosen to arrange a seat for themselves at this feast of information, here is yet another sampling of the 'intellectual menu' at the Technical Institute in D.C., '82.

## **HARPSICHORD SERVING Robert Taylor**

A workshop offered by the author of a harpsichord service manual and long-time harpsichord importer/factory-authorized technician. "Modern makers have utilized designs and materials which differ from one another and the early makers. We will examine jacks and mechanisms of different manufacturers and their problems." 1 1/2 hrs.

## **TONE REGULATION Jim Coleman, Sr.**

A slide presentation, demonstration and question/answer session covering hammer shaping with paddle and strip; needle voicing for dynamics; string voicing to eliminate noises; lacquering, ironing and some of their dangers. Overlacquered and very dull hammers will be inserted in a good piano and voiced.

Jim Coleman is a former concert tuner, factory troubleshooter and artist liaison who has trained voicers, regulators and tuners for Baldwin, and is now on the staff of Arizona State University. "Although anyone is welcome, the class is intended for advanced technicians with some experience in hammer voicing." 3 hrs.

## **INSTALLATION OF UPRIGHT HAMMERS, SHANKS & BUTTS Bill Brandom**

Procedures for doing an accurate, professional-looking job of replacing upright shanks and hammers. A representative of the Everett factory, Bill Brandom, will teach production techniques used in installing complete sets of vertical action parts. "This is applicable to any technician who does action rebuilding. The method will speed up replacement time and give quality results." 1 1/2 hrs.

## **GRAND DAMPERS LaRoy Edwards et al**

The premiere of a comprehensive damper class produced by Yamaha for beginners through expert technicians. It consists of four parts: 1. Theory of Damper Engineering, with slow-motion sequences of a damper stopping a string. 2. Installation in a Grand, beginning from scratch and using a new wire bending jig. 3. Damper Troubleshooting, including repair of bent dampers. 4. Complete Damper Regulation.

The meticulous attention which the Yamaha team gives to the preparation of their classes is no secret. These pre-

sentations invariably turn out to be classics in the systematic analysis of the piano's workings. In addition to enriching our technical store of knowledge, they are outstanding examples of first-rate pedagogy in the education of piano technicians. Is it presumptuous to ask when they will be printed — at least initially in the *Journal* — for the benefit of a professional which is crying out for solid technical literature?

3 hrs.

## **GRAND REGULATION Roger Weisensteiner et al**

A Kimball-sponsored class combining lecture, slides and audience participation. As teaching aids in a step-by-step approach to keyboard and upper action regulating, grand models by Pratt-Read, Schwander and Renner as well as regulating tools will be provided for each student. Work will center on specifications, procedures and problem-solving. 3 hrs.

## **VERTICAL PIANO TROUBLESHOOTING Ernie Juhn**

A reputed "sellout" at last year's Convention, the class features the inveterate intellectual entertainer himself on the trail of sticky keys, buzzes, rattles, metallic jars, squeaks and other noisome items which perturb customers and confound piano technicians. Prior to the cure, emphasis is put on the condition for the possibility of troubleshooting: understanding and interpreting the customer's complaint. What do they really mean? What is the correct sequence for tracing the problem through the piano? Then, in what ways can it be corrected? Ernie has been a troubleshooter for so long that it is usually less trouble for him to fix something than explain it, but he does a wry and articulate job of the latter. 1 1/2 hrs.

## NEW ADVENTURES IN FINE TUNING Steve Fairchild

With 16 National Conventions behind him, Steve Fairchild is an assiduous teacher of tuning theory and a distinguished exponent of its practice. "This class will review the scientific basis of piano tuning — the partial series — and then discuss how to create a perfect temperament. Other topics include tuning the low bass and high treble with the same ease as tuning unisons in the center. We will also discuss the incorporation of electronic equipment into oral tuning and the latest Sight-O-Tuner conversions."

3 hrs.

## GRAND HAMMERS Willis & David Snyder

In the first half, the lecture presentation uses high-magnification photography to examine the nature of felt, the hammermaking process and the breakdown of hammers in actual use. Then an outline of the replacement procedure considers ordering hammers by taking dimensions from the piano itself; the boring of one's own hammers; preparing rail and shank; hanging apparatus; dry fitting; bass angle problems; glues; shank cut-off and tail finishing. The second half is a "hands-on" workshop where students, grouped around tables with hammer installation equipment, pair off to travel, fit, hang and finish several new shanks and hammers under critical supervision.

3 hrs.

If the above is old-hat to you, I should be going to your convention.

— Teddy Primack,  
New York City Chapter

*Washington At Night*  
*Continued from page 31*

treasure, The Library of Congress where you will have a tour and see the Great Hall and the magnificently soaring Main Reading Room, and some of the Library's priceless treasures which range from the world's smallest book to the rarest of musical instruments.

Not only will we stop at the Lincoln Memorial, but it is here, beside the reflecting pool of this most revered of all Washington monuments, that we will have our picnic supper and enjoy

the spectacle of one of the most famous fireworks displays in the world — Washington at Night on the Fourth of July, 1982.

What a way to celebrate our nation's 205th birthday, with Piano Technician Guild friends, enjoying their company and sipping champagne.

Our picnic supper is catered by the

Capital City's most famous caterer, frequently called in to serve the White House on special occasions.

Time: Approximately 4 hours

Cost: \$28 per person for Adults

\$24 per person for Children  
12 & under

## Tuning Exams Offered At Washington Convention

Tuning exams will be offered at the Washington 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 before taking the tuning test. All chapters have copies of the "Application for 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 cou-

pon 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 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 contact Ron Berry at the above address so you can 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 the 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, 1982 for scheduling at the Washington Convention.

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_

### PRESENT CLASSIFICATION

Nonmember \_\_\_\_\_ Student \_\_\_\_\_

Apprentice \_\_\_\_\_ RTT \_\_\_\_\_

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

# 1981-1982 Membership Booster Club

## On Membership



**By Ernie Preuitt**  
**Vice President**

### "GROW UP WITH US"

Once there was a little boy who had a tricycle. One day he said, "Wait 'til I grow up, I'll get a bicycle," but when he reached that age he decided he would grow a little more and get a motor bike. Then he decided what he really wanted was a car, so he would wait a little longer. He kept waiting and waiting for the right car, and the right buy, until he was too old to drive it.

Then he stopped to think, "Why did I not get that bicycle when I was a young boy? Then I could have gotten a motor bike and then a car. I never seemed to grow up enough to have anything I really needed or wanted."

Haven't you known people who have this same personality? They know what is best for them but they never seem to know just when is the best time for a move. In other words, they never seem to grow up.

There are many people in our field who feel they would like to be a part of the Piano Technicians Guild, but feel it is not the right time in their career. In other words, they want to wait until they grow up.

If you are in the piano trade, no matter at what level, the time for you to seek membership is now. If I were

the devil's advocate I would tell you — "Sure, join the Piano Technicians Guild, but don't do it today, wait until tomorrow." Don't be like the little boy in this story, and ride a tricycle the rest of your life, for if you wait until you grow up, you may be too old to pull a tuning lever.

Yes, the best way to grow up is with the Piano Technicians Guild.

## Booster Club

## Pts.Mbrs.

ANDERSON, Robert A.	1	5
ASHEN, J.G.	1	1
BAKER, Elizabeth	1	1
BALGIAN, Agnooni	4	1
BARRUS, Ralph	1	1
BENEDICT, Herb	1	3
BITTINGER, Dick	1	1
BRADY, Stephen H.	5	1
BRIDGES, Nate	1	4
BUCK, Gene	1	4
BULLOCK, William	5	1
CALLAHAN, James J.	1	1
COLEMAN, James W., Sr.	1	1
CONNOR, John	2	10
CONOVER, Leslie	1	4
COX, Merrill W.	1	1
CRABB, Larry	3	3
CUNNINGHAM, Jess	1	3
DeTAR, Brian S.	1	4
DEUCHAR, William	1	1
DROST, Michael A.	1	1
DUNCAN, David	1	1
ERICKSON, Richard	1	5
ERWIN, Harold	3	1
EVANS, Daniel A.	1	1
FARRELL, John	5	1
FLINT, Neal R.	1	5
FOX, Lee	5	1
FRANZ, Dennis	1	1
GARRETT, Joseph A.	1	1
GILLER, Evan	10	2
GOLDBERG, Binese	1	4
GOODWIN, Garland	5	1
GREENWAY, Alton, William	5	1
GRENNING, Albert	5	1
GROSSMAN, Matthew	1	4
HAINES, Roy	1	1

HARMON, Clayton C.	1	1
HARRIS, Dale	5	1
HAUSMAN, Donald	1	1
HAWKINS, Marshall	5	1
HENRY, Fern L.	5	1
HERWIG, Lewis	3	1
HESS, James	5	1
HIGBY, James H.	5	1
HILBERT, Felton	1	1
HINSON, W.L.	1	5
HOFSTETTER, Robert	1	1
HUFF, Dana	1	5
HUNT, Newton	8	2
JESCHKE, Alfred	10	2
KEAN, Kerry	4	1
KOKTAN, Paul	8	2
LAFON, William I.	5	1
LUY, George	1	1
MARCIANO, William	3	11
MASTAGNI, Angelo	1	1
McANNINCH, Daniel	2	6
McKAY, C. Guy	1	1
McKLVEEN, Ben	5	9
McMORROW, Edward	5	1
MEEHAN, Joseph	1	1
MEHAFFEY, Francis	1	1
METZ, Al	1	1
MIZELL, Wade L.	1	5
MOBERG, Jonathan	1	4
MORTON, Don	1	5
MUCKALA, Marla	1	1
MULLER, George W.	1	4
NEIE, Gary	5	1
NELSON, Robert	4	1
ODENHEIMER, Fred	1	1
OLIVER, Stanley	1	3
ORRICO, Gerard	1	1
OUSLEY, Robert	5	1
PARKER, James	1	1
PERKINS, Robert	1	1
RAUDENBUSH, Fred R.	6	2
RICE, Fred O., Sr.	1	1
ROBINSON, Marion	5	6
ROBY, Thomas	2	10
RUSSELL, Bob	1	1
SANDERSON, Albert	1	5
SCHULTZ, Gary H.	10	2
SCIORTINO, Joseph	1	5
SCOTT, Dennis	1	1
SELLER, Marion P.	1	1
SEWELL, Arnold M.	4	1
SIVEL, Richard F.	2	4
SMITH, Harold	1	1



SPEIR, Leon	1	5
STONE, Sid	1	1
SYLVESTER, David E.	1	1
THILE, Scott E.	1	1
TUBLITZ, Evan	1	1
WALKER, William H.	1	1
WALKUP, Kenneth	5	1
WEST, Richard	2	2
WHATMOUGH, Alan	5	1
WHEELER, Clifford J.	1	5
WILEY, John	1	1
WILLIAMS, Kenneth A.	1	1
WINSLOW, Allyn S.	1	1
WOLF, Robert	5	1
WOLTZ, Randall	1	1
YAKOBOSKY, Walter	4	1
YONLEY, Fred, Jr.	5	1

## Restorer's Club

CRABB, Larry B.  
 GREENWAY, Alton William  
 HAWKINS, Marshall  
 HUFF, Dana  
 McKLVEEN, Ben  
 MIZELL, Wade L.  
 NEIE, Gary  
 OUSLEY, Robert  
 WOLF, Robert

## 1981-1982 Reclassifications

### Reclassification to Registered Technician

*Capitol Area Chapter*  
**REED, Lance P.**

*Indianapolis Chapter*  
**SPEARS, Brian M.**

*Seattle Chapter*  
**JOSE, Joselito G.**

### Reclassification to Apprentice

*Sacramento Valley Chapter*  
**GOLDSMITH, Maryll**  
**SIMONS, David**

## New Members

### Registered Technicians

*Atlanta Chapter*  
**CARDWELL, Harry J.**  
 2373 Poplar Springs Dr. NE  
 Atlanta, GA 30319

*Boston Chapter*  
**BURAK, Catherine M.**  
 688 Hale Street  
 Beverly Farms, MA 01915

*Los Angeles Chapter*  
**MORROW, Hope E.**  
 2418 Glencoe Ave.  
 Venice, CA 90921

**SLATER, Alan P.**  
 44838 15th St. W.  
 Lancaster, CA 93534

*Raleigh-Durham Chapter*  
**MINTON, Luther E.**  
 Rt. Box 269M  
 Clayton, NC 27520

*San Francisco Chapter*  
**KANE, Richard A.**  
 16 Welch Street #3  
 San Rafael, CA 94901

*Santa Barbara Chapter*  
**SLOAN, Michael T.**  
 2150 Foothill Lane  
 Santa Barbara, CA 93105

*Vermont Chapter*  
**GIROUX, Richard C.**  
 177 North Ave.  
 Burlington, VT 05401

**TENNANT, Martin**  
 31 Elmwood Ave.  
 Burlington, VT 05401

### Apprentices

*Detroit Windsor Chapter*  
**HAWKER, Rebecca E.**  
 1902 Ardmore Ave.  
 Royal Oak, MI 48073

*Minnesota-North Iowa Chapter*  
**KIRK, Douglas A.**  
 1209 West Ave. So.  
 La Crosse, WI 54601

*Sacramento Valley Chapter*  
**HARDY, William G.**  
 852 4th Avenue  
 Rio Oso, CA 95674

*San Diego Chapter*  
**MANNINO, Donald E.**  
 4243 Blackton Dr.  
 La Mesa, CA 92041

*Western Massachusetts Chapter*  
**CROWE, David S.**  
 156 Maple Street  
 Springfield, MA 01105

*Allied Tradesmen*  
*Alaska Chapter*  
**RITTGERS, Parker J.**  
 P.O. Box 10-818  
 Anchorage, AK 99511

*Detroit Windsor Chapter*  
**DUNBAR, Harold L.**  
 29171 Sherry  
 Madison Heights, MI 48071

*Philadelphia Chapter*  
**ONESTI, Ralph J.**  
 6 Roxborough Place  
 Willingboro, NJ 08046

*Students*  
*Detroit Windsor Chapter*  
**WINSTANLEY, Rose M.**  
 408½ Main  
 Rochester, MI 48063

*Philadelphia Chapter*  
**LOVELESS, George H.**  
 233 Dogwood Drive  
 Levittown, PA 19055

*Salt Lake City Chapter*  
**MEANS, Ava A.**  
 1250 Marilyn Dr.  
 Ogden UT 84403

*Twin Cities Chapter*  
**FRUHSTUCK, Charles B.**  
 732 W. Wheelock Prkwy  
 St. Paul, MN 55117

# AUXILIARY EXCHANGE

## 1981/82 AUXILIARY BOARD

### Officers

**JULIE (Mrs. Ronald) BERRY**

*President*

6520 Parker Lane  
Indianapolis, IN 46220

**BELVA (Mrs. Richard) FLEGLE**

*1st Vice President*

400 Groveland Avenue #1011  
Minneapolis, MN 55403

**SHIRLEY (Mrs. Richard) TRUAX**

*2nd Vice President*

R.D. #8, Box 40-E Heather Drive  
York, PA 17403

**BERT (Mrs. Walt) SIEROTA**

*Recording Secretary*

5201 Whitaker Avenue  
Philadelphia, PA 19124

**AGNES (Mrs. Charles) HUETHER**

*Corresponding Secretary*

34 Jacklin Court  
Clifton, NJ 07012

**GINNY (Mrs. Bob) RUSSELL**

*Treasurer*

1414 Lander Road  
Mayfield Heights, OH 44124

**JEWELL (Mrs. Jack) SPRINKLE**

*Immediate Past President*

6033 North 19th Road  
Arlington, VA 22205

### Editor, Auxiliary Exchange

**JULIE BERRY**

6520 Parker Lane  
Indianapolis, IN 46220

## President's Message

Dear Friends and Members  
of the Auxiliary:

This month my message is directed to all the technicians who take the time to read the Auxiliary Exchange column, for you are special people. By reading this column in addition to the technical material in the *Journal*, you say to me that you are interested in the implications and spin-offs of your piano tuning business as well as in the day-to-day torque and twist of tuning pins. I think you probably realize the importance of having people around you who support you in your desire to be a successful piano technician. Please know that we appreciate you for the fascinating field of endeavor you have chosen to be your profession. We are glad you enjoy your work so much. And we certainly appreciate your understanding and support of those of us in the Auxiliary.

*See you in Washington!*

**Julie Berry**

## Nominating Committee Report

Bert Sierota, Chairman of the Nominating Committee, has submitted the committee's slate of officers for publication in the *Journal*:

*President. . . . . Julie Berry*  
*First Vice President. . . . . Belva Flegle*  
*Second Vice President. . . . . Norma Lamb*  
*Recording Secretary. . . . . Ruby Discon*  
*Corresponding*

*Secretary. . . . . Agnes Huether*  
*Treasurer. . . . . Ginny Russell*

## Greetings from Ginny

Are you a good public relations person for your piano technician? Did you ever stop to think of the many ways you can help publicize your technician's business? Let's look at some of the ways you can earn money for your piano technician.

I am sure that about 90% of you answer the phone at one time or another. Perhaps it is a business and

you answer, "Good morning, 440's Piano Service." Maybe it is your home and you say, "Hello." The customer on the other end of the telephone asks for the piano technician and you say, "The technician isn't in at the moment, may I help you?" Simple? Of course! But, with these few words you have given the customer a mental image of the piano technician. This is the first impression, the most important impression, that the customer will receive concerning the person that will return the call and/or be hired to perform the job. The manner in which you answer, the tone of your voice, the friendly, courteous, trustworthy feeling that the customer feels when communicating with you is perhaps the biggest asset to your business. From there, the road leads to the courteous, reliable, honest, fine work of the piano technician.

When you attend meetings, parties, or any other group function it never hurts to mention that you are aware of a good piano tuner. Many people feel more comfortable and confident when dealing with people they know.

This is also a good opportunity to promote the Piano Technicians Guild and Auxiliary. You can suggest to the group that the Piano Technicians Guild offers a program on pianos and their care, using the Music of Sound film, action models, etc. If your technician doesn't offer this service, I'm sure someone in your area does and will be glad to perform this service in the name of the Piano Technicians Guild. But remember, YOU have opened the door for the Piano Technicians Guild and fine craftsmanship.

By attending seminars and belonging to the Auxiliary you will expand your piano knowledge, and your scope of friends, and become a better public relations person.

On our piano we have a sign that reads, "Life is like a piano . . . what you get out of it depends on how you play it." The Piano Technicians Guild Auxiliary is exactly the same. We must lend our support to the growth and strength of the Auxiliary in its efforts to reach its goals and support the Piano Technicians Guild. So you see, you make the difference!

I hope to see many more of you attending Auxiliary functions at local seminars, conferences, and national conventions. We have great times and we always enjoy meeting new people. Togetherness is the name of the fame! See you soon!

— Ginny Russell

## Avoiding Those Tax Time Blues

Since most of us are just recovering from an April 15th tax deadline, what we would like to do most is put taxes out of our minds for another year. End of the year tax accounting has got to be one of the biggest headaches thrust onto small business. Once all the paperwork is over and the necessary funds have been scrounged, people want a break from taxes at least until Christmas. Unfortunately, taking such a break has just become considerably more expensive with the onset of the twenty percent tax penalties.

Even if you are not directly involved with your piano technician's business, you are usually involved at tax time. You may wonder why you always have to pay such high taxes just because you have a business. And without realizing it, you may be adding to the technician's stress about taxes with your complaints about how you used to get refunds before you got involved with the family-owned business.

What can you do now to ease some of this tax time tension so things will go a little bit smoother next April 15th? Here are some suggestions:

First, sit down together and calmly read through your 1981 tax return, whether your prepared it yourselves or not. Turn to page two of the 1040 and see if there is a number on line 48. If there is you will have an immediate explanation for part of your astronomical tax bill. Because the technician is self-employed, no one is around to collect Social Security Tax (also called FICA) during the year. The federal government has combined the collection of a year's worth of Social Security tax with the federal income tax return. Therefore, once your tax preparer figures out exactly how much profit your business made that profit figure is multiplied by 9.3% to arrive at the amount of Social Security tax you owe for the year.

Find the page titled "Schedule C, Profit or Loss from Business or Profession." This form is not difficult to understand, and it will give you a clue as to how much money your business

is actually making. This form is logically organized. Part I details the income from the business, starting with the total number of dollars which came in (line 1) and subtracting the cost of materials and supplies (line 2) to arrive at a gross profit figure. Just for fun, take the number on line 33 and divide it by the number on line 1c. Write your answer in the form of a percentage. This will give you a rough profit percentage which may help you anticipate next year's tax bill. If you discover that 75% of the piano business money which comes in the door ends up being taxed, then you will be able to plan ahead during the year. When the time comes for the next quarterly installment of taxes (June 15, 1982) you can take the number which represents all the money your business has taken in so far and multiply that number by your profit percentage to determine your net profit in dollars so far in 1982. Multiply this net profit estimate by .0935 to see how much Social Security tax you will owe so far. Then multiply your net profit estimate by your general income tax percentage. (How do you get a general percentage for your income tax bracket? Take the number on line 37 of the 1040 and divide it by the number on line 34 of the 1040. This will give you an overall percentage for the rate you are taxed on your total income.)

If you can sit down together and unravel some of the mysteries of your tax return you won't feel like such a victim of the system. Tax time may never be an enjoyable time around your house, but at least you can avoid many unpleasant surprises by learning how to anticipate how much you are going to owe. If you have a good idea of how much you will owe at the end of the year, you can lessen the blow by paying some of that money through quarterly installments.

The government has supplied us with more significant reasons to sit down and plan; as of February 1, 1982, the penalty for underpayment of taxes jumped from 12 percent to 20 percent! A few years ago this penalty was just 6 percent and people didn't worry about it much. Now at 20 percent we will be quite aware that we are being penalized.

When will this penalty affect us? It will be assessed if we fail to make large enough quarterly payments (on April 15th, June 15th, September 15th, and January 17th throughout the year before the return is filed on April 15th). How big is large enough to avoid a penalty? The government says there will be no penalty if your balance due is

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less than \$200, or if your total amount of dollars withheld (line 62 on the 1981 1040) is at least 80% of the total tax you owe for the year (line 54 on the 1981 form).

Even if the IRS tries to assess a penalty against you, you may be able to avoid the penalty by using the form 2210. One easy way to plan this year in such a way as to avoid a penalty next year is by paying ahead of time (through estimated quarterly installments) an amount equal to the total tax you owed on last year's return (line 54).


Somehow all of these things are much easier to discuss 11 months before the tax return is due than they are the night of April 14th when you know you don't have the money together to pay what you owe, penalty or not. One of the nicest things you could do to help the family business and everyone's temper and blood pressure might well be to sit down with your technician now that the immediate crunch is over and review your tax situation with an eye toward planning calmly for the coming year.

— JB

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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.

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**FOR SALE, A GUIDE TO RESTRINGING** — Travis. Final 150 copies, first edition, special clearance sale. . . . \$5.86 each. **John W. Travis, P.O. Box 4359, Takoma Park, MD 20910.**

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**BALDWIN CONCERT GRAND,** SD-6, serial #145053, \$10,500. Anderson Piano Service, 611 Central, Nebraska City, NE 68410. **(402) 873-5728 or 873-3724.**

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**FOR SALE: HALE SIGHT-O-TUNER.** Used 6 weeks. \$375. Write: Debbie Schopfer, 1105 8th Ave. North, Great Falls, MT 59401. **(406) 453-1987.**

**FOR SALE:** Exceptionally beautiful burled walnut grand (6'x6"), by Schiedmayer & Soehne, Stuttgart. Completely restored and refinished. Photo and details on request. **Roland Grittani (J.R.), 427 Waterloo, London, Ontario, Canada. (519) 434-0027.**

**KEY BUTTONS FOR STEINWAYS.** The finest basswood Key Buttons available for older Steinways grands and other makes with 0.162" Balance Rail Pins. \$49.95 plus shipping & handling. Order direct from the manufacturer. **New England Piano Action Co., 6 Vernon St., Dept. T, Somerville, MA (617) 628-1591.**

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**THE BUSINESS OF PIANO TUNING AND REPAIR.** A comprehensive text written exclusively for your piano tuning business and finances. "A must for every tuners library." \$12.50. **ELREC INT., 3605 Artic No. 512, Anchorage, AK 99503.**

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**1895 CHICKERING 9', #80600.** Rosewood case, restrung, new hammers, knuckles, key bushings, keytops, etc. Must sell! \$4,000.00. Call 602-967-3852 or write: **Worthy, 103 W. Balboa Drive, Tempe, AZ 85282.**

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## Wanted

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**WANTED —** Foreman for a complete piano rebuilding shop with Jordan Kitts Music in Washington, D.C. Minimum of five (5) years experience with pinblock installation, sound board repairs, stringing, setting bearing, installation of action parts, vertical and grand action regulating, tuning and voicing. Must be able to motivate technicians, organize work, and maintain quality. Overall shop supervision is provided by Wendell Eaton. Job includes complete benefits — paid holidays and vacations, health insurance and retirement. **Send resume to: Jordan Kitts Music, Attn: Wendell Eaton, 9520 - Baltimore Blvd., College Park, Maryland 20740.**

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**USED SIGHT-O-TUNERS** wanted. Any age, any condition. Call for quote. Also used Sight-O-Tuners for sale. Completely repaired, recalibrated, and modified by installing ten-turn Knobpots to give .1 cent accuracy. **David Pitsch, (801) 225-0156.**

**THE DOUGLAS COLLEGE BASIC PIANO TUNER —** Technician Program in New Westminster, Canada, is seeking back issues of the Journal. Anyone who knows the whereabouts of old Journals or has some they would like to donate, loan, or sell, please contact: John Wiley, P.O. Box 2503, New Westminster, B.C., V3L 5B2, or phone (604) 521-4851. **Your support will be greatly appreciated.**

## Miscellaneous

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**— PIANO TUNER TECHNICIAN —**  
Newton Hunt and family wish to relocate during the spring. Contact me with suggestions, for resumes or references at **124 W. 93rd St.: New York, NY 10025: (212) 662-3625.**

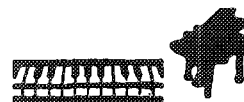
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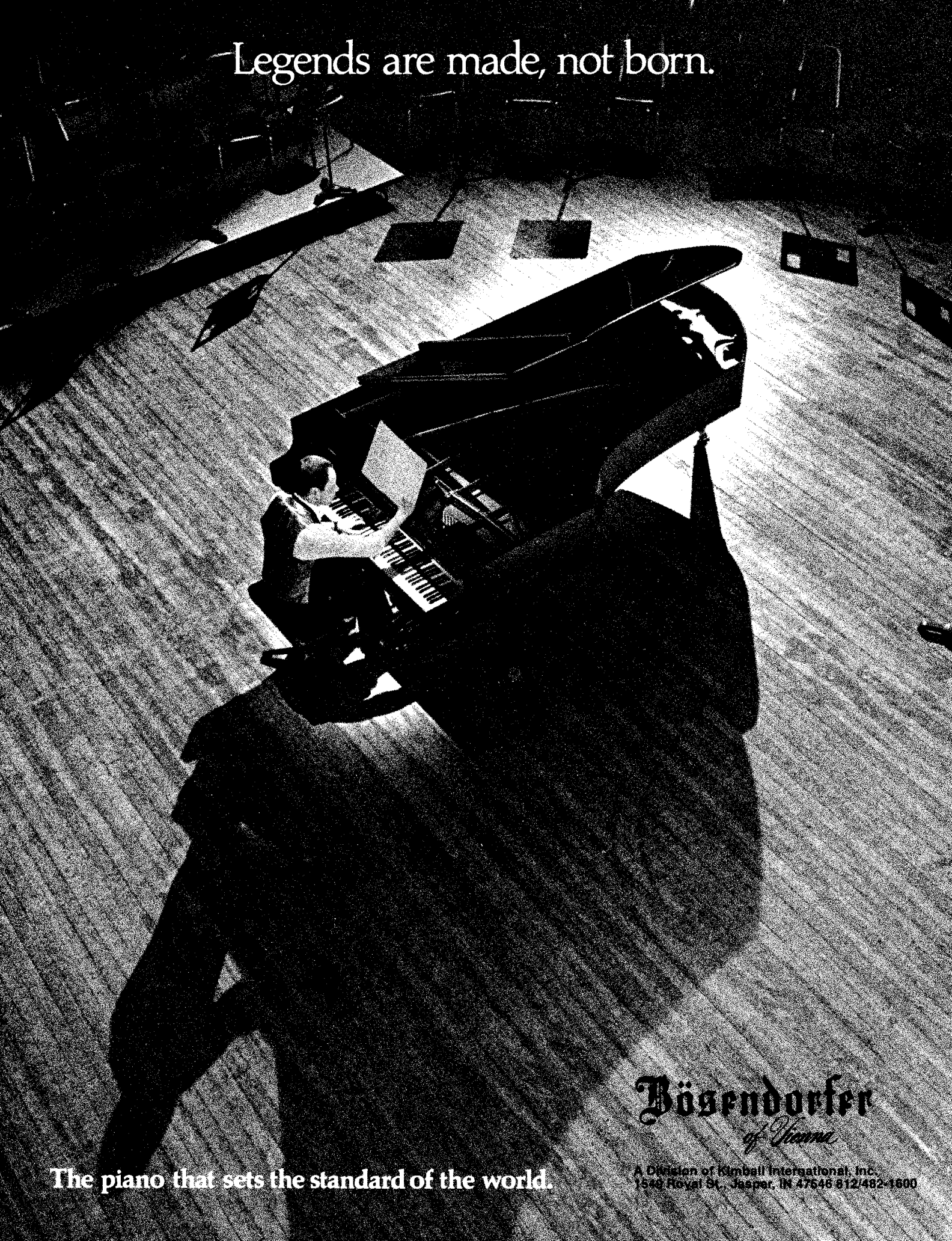
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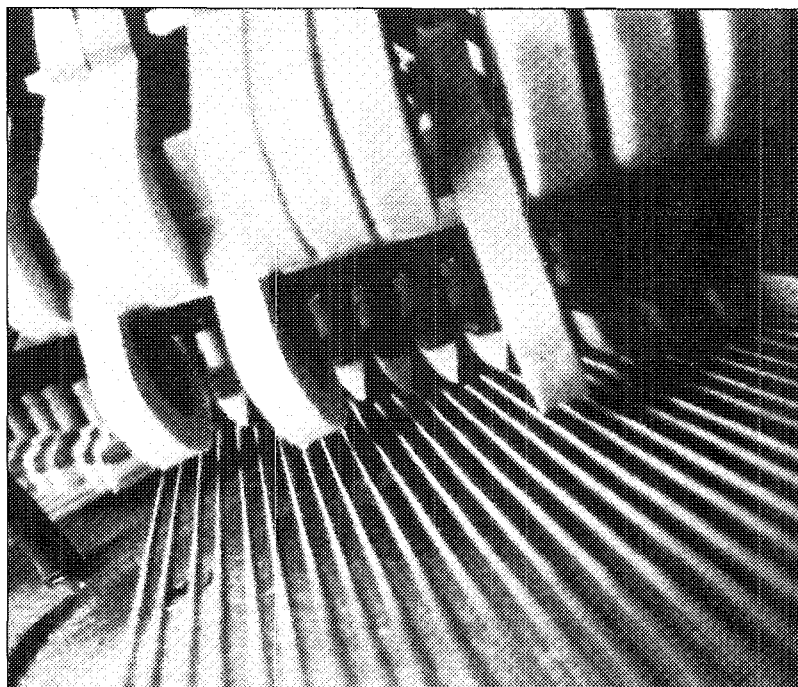


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# Piano Technicians Guild

## 1982 May Update

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### MARCH CHAPTER MAILING

This information was sent to all chapter presidents in the regular March Chapter Mailing:

**1982 Roster:** Full name and address printout of each chapter member and notice that the last date for notifying the Home Office of changes has been extended to April 19th.

**Golden Hammer & Man of Note Award:** Request from the committee chairman for nomination for these awards.

**Convention Air Fares:** Pamphlet explaining a special incentive offer by the travel company which would give each chapter the opportunity of one or more free air fares to the Washington, D.C. convention.

**Dues Not Paid:** A list of all in the chapter who have not yet paid the 1982 Guild dues.

**Change in Chapter Officers:** Form to use in notifying the Home Office when new chapter officers have been elected.

**Resignations:** Affected chapters received a list of members who have requested resignations. These are processed and will be made final unless the chapter advised the Home Office of any reason why the member must be dropped rather than permitted to resign.

### GUILD DUES ARE NOW DELINQUENT?

A notice of unpaid Guild dues has been sent to all whose PTG dues are not paid for 1982. IF YOU HAVE NOT RECEIVED A 1982 BILLING, PLEASE NOTIFY THE HOME OFFICE. We have records of all billings mailed last December through the month of March, 1982.

**Drop Date:** On May 1st, the PTG bylaws require that all members whose

dues are not paid are dropped from the membership. These dropped members automatically lose the PTG Group Insurance and also any other insurance, Supplemental Life, Medical, Dental, Tool & Bailees, etc.

**Reinstatements:** For reinstatement a member must pay a \$30.00 fee and obtain consent from the chapter. The chapter may demand that the examinations be taken again.

**Canadian & Affiliate Members:** The PTG policies require all payments to be made in U.S. funds. The Home Office cannot accept a payment unless:

1. The payment is made by cashier's check or money order in U.S. funds.

2. The payment is made on a bank check which has the words "U.S. Funds" printed, NOT HAND-WRITTEN beside the amount.

### In Memorium

Lynn Hansen

Lawrence Levi

James Jeffers

Utah Valley Chapter

Indiana, IN Chapter

Prescott, AZ Chapter

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## PTG Calendar

**April 10**

**DELEGATES** Chapters elect delegates and alternates to the 1982 Council session, Washington, D.C. next July. Send completed credentials form to the home office.

**CREDENTIALS** Closing date for receipt of completed delegate credentials forms for inclusion in the Council Agenda Book.

**REPORTS** Closing date for receipt of Guild officers' and Guild committees' reports for inclusion in the Council Agenda Book.

**April 15**

**SUSTAINING MEMBERSHIP** Closing date for receipt of applications.

**April 19**

**ADDRESS CHANGES** Extension of closing date for notifying the home office for the 1982 Membership Roster.

**April-June**

**CHAPTER ELECTIONS** Bylaws presently require them to be completed by the end of June. Send notice to the home office promptly following elections.

**April 29**

**COUNCIL AGENDA BOOKS** mailed to chapter presidents for review by all chapter members.

**May 1**

**DROP DATE** for all members whose dues are not paid and who have not contacted the home office.

**May 26**

**1982 ROSTER** Completion Date.

**June 5-8**

**NAMM EXPO** Atlanta, GA

**July 2-3**

**BOARD MEETING** in Washington, D.C. pre-council session.

**July 4-5**

**COUNCIL SESSION** Washington, D.C.

**July 5-9**

**CONVENTION AND INSTITUTES**, Washington, D.C.

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# Chapter Notes

The **Orange County Chapter's** March meeting was attended by fourteen members and four guests. Bill LaFon was unanimously selected as the alternate delegate to the National Convention in July.

The technical session was off the cuff. Steve Sherlock demonstrated his beat counter and one of our guests, Bob Chavez, showed us a key dip device, mercury loaded that would be a good tool to demonstrate to a customer the need of key regulating, etc.

The Technical Program featured Ken Churchill and his modified Sight-O-Tuner. Ken got off to a good start with his demonstration but due to the instruments' sudden case of malfunction, he was not able to complete his Sight-O-Tuner program as planned. Being undaunted by this problem, Ken continued with a lively discussion on temperaments, octave tuning, pitch raising and a wealth of tips. Ken answered a multitude of questions and certainly presented us with a great program.

— **Charles Saunders, Secretary**

At the **Los Angeles Chapter's** March meeting, it was voted to continue giving scholarships to prize-

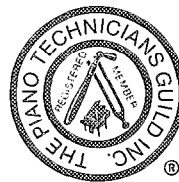
winning piano students. They will be awarded to college, high school and elementary students. Roy Haynes and Fred Brune were welcomed in to the Craftsman classification and students Steven Billington and Howard Crawford advanced up to Apprentice classification.

The chapter's national delegates will be Norman Neblett, with Alvah Brown as the alternate.

The ten minute "appetizer" was given by Fred Odenheimer on the subject of rescaling a piano, and the Technical Session was led by Alan Cate who spoke on the subject of "Dealer preparation of piano, spinets and other verticals." Following this program, chairman Norman Neblett showed a 15-minute film on "action centers," a superb piece of photography and commentary. The entire chapter will benefit by it.

— **Harry Berg**

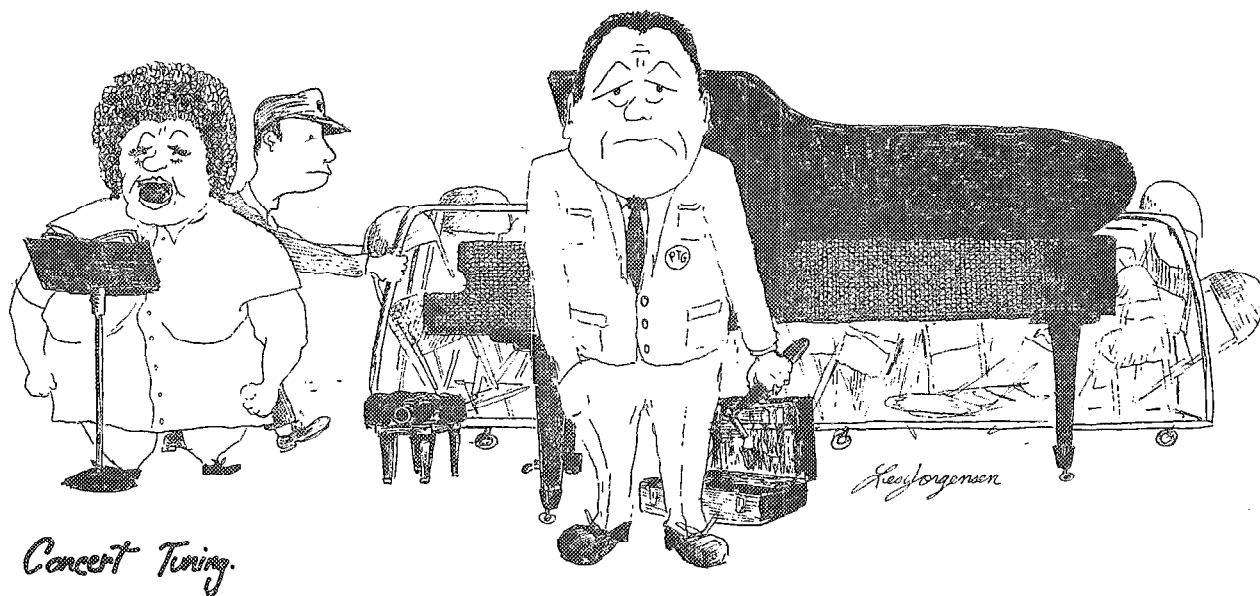
The February meeting of the **Atlanta Chapter** at Larry Crabb's shop was attended by only nine hearty members who enjoyed home-made refreshments, had some lively discussions and a chance to see Larry's shop all re-



arranged. Unfortunately, our "Sneak Preview" film did not arrive, but has been rescheduled for our April meeting. Instead we discussed some alternate methods for key covering, held a technical quiz, which is always good for a lively give and take, and transacted some business. Larry Crabb was appointed as our Chapter Delegate to the annual Convention in Washington, D.C. in July. Alton Greenway was named as Larry's alternate. Harry Day was appointed Chairman of the Nominating Committee for officers for the coming year, and Harry Cardwell and Emmett Daudelin were elected to serve on the committee.

We were saddened to hear of the passing of Jack Cofer on March 13th. He and his father, Leon, were active in the A.P.T.A. group which preceded the formation of the Piano Technicians Guild in Atlanta in the '50s.

We're glad to hear that Jim Alverson is recovering nicely from surgery in February.



*Concert Tuning.*

## Erma Bombeck on Conventions . . .

One of these days a new sport will be added to the Olympic Games, called simply, "Convention." Hardened athletes from all over the world will come together to compete in one of the most grueling events in sports history: Surviving a convention.

The event will be a combination of marathon running, drinking relays, freestyle lying, and a creamed chicken eatathon.

But all eyes will be upon the winner of the Convention Decathlon — a series of 10 events to test the physical and mental endurance of the athletes:

1. 100-Meter Elevator Dash: Two elevators are situated in a hotel boasting 525 rooms and hosting 1,500 conventioners. The meetings are scheduled in the Promenade Room, which is on the third and fourth floors, and is served by elevator No. 1 between the hours of 3:00 and 6:00 a.m. No one knows this.

2. Outlasting the "Keynodder" Speaker. This has been compared to waking up in the recovery room and being asked to applaud. A conventioneer in Miami once sat through 15 key-nod speakers in four days. They say his cigar burnt right through his index finger and he didn't even feel it.

3. The Name Tag Hurdle. Some smart-aleck will always leave his name tag in his room and you are forced to look at his face. This could throw a "lapel man" who goes through the entire convention smiling and conversing with chests.

4. The Surprise Visit From The Wife High Jump. The record for this one was set in 1954 by a cookbook salesman from Gary, Ind., who tried to convince his wife he was nearsighted and thought the sign read, "Message Parlor."

5. Small Talk Bull Throw. A five day, non-stop talking competition in which the talkee must carry on a conversation without saying anything worth repeating.

6. Challenging The Great Divide. A week of dividing dinner checks 20 ways, dividing room service 40 ways and bar bills nine ways. This is culminated by dividing the cost of a taxi ride to the airport in which Frank got off at TWA, Fred rode on Eric's lap, Harvey went to Braniff, Rod to American and Neal left his luggage at the curb at the hotel.

7, 8, 9, 10. The last four events are related to one another. After the conventioneer has overeaten, overindulged, overstayed and overestimated his

worth to the company, he must return home and explain to his employer why the seal on his convention kit is still not broken and why an item on his expense account reads, "Tongue shaved . . . \$5 plus tip."

## Piano Tuning As An Occupation

Connie Chesebrough  
Ex-President  
Cincinnati Chapter

### Reprinted from The Cincinnati Newsletter

I have had several occasions over the past few years to speak to junior high and high school students about piano tuning as an occupation. Sometimes these have been impromptu sessions which have arisen while I have been tuning at a school. At other times I have been asked specifically to speak to "Career" classes. I enjoy the opportunity to talk about my line of work on a non-technical level and have developed a format which some of you may find useful if presented with a similar situation.

### I. Introduction

Tom Jones once told me that he used to think piano tuners were little old men who smelled musty and came to work on your piano every year or so. My first concern is to dispell the above myth by way of my demeanor, appearance and professional treatment of the subject. I introduce myself and briefly describe what I do for a living, and then establish some sort of rapport with the group by asking how many own and/or play pianos and how many have ever watched a piano being tuned.

### II. Piano

Nothing catches students' attention faster than disassembling a piano in front of them. Make sure everyone can see. Better yet, if the class is small enough, have them gather around. I make a quick survey of the major components of the piano (ie. soundboard, strings, hammers, pins, block, keys, and pedals), then I run through the basics of tone production and the functions of the various parts. If I have time, I will open up the talk to questions about the piano from the class.

### III. Tuning

Tuning is essentially the tightening

or loosening of wires to raise or lower pitches. I keep this very simple, demonstrating the process by putting a unison blatantly out of tune and then pulling it back, by tuning a note to the fork and by explaining muting. This is the perfect time to discuss the necessity for tuning and maintaining a piano and what factors contribute to the need. I like to use the analogy of automobile care to bring the subject to a more understandable level.

### IV. Occupation

Once a student asked me if I could make a full-time living by tuning pianos. He seemed to doubt that the world could hold enough pianos to keep tuners busy, and in some parts of the country (such as the White Mountains of New Hampshire) that is probably true, I, however, list the places where tuners work, including schools, concert halls, churches, stores, private homes, recording studios and night clubs, and then talk about the other jobs technicians perform such as repair, regulation, refurbishing and rebuilding. I also mention that most technicians work for themselves, but that others work fulltime for piano dealers, piano manufacturers, universities or in someone else's shop.

### V. Training

I am convinced that most people believe that piano technicians are born with tuning hammers in their hands. Granted, we have an aptitude for it, but from there it takes hard work and frustrating practice. I tell the students that one can go to school to learn, one can take a correspondence course, or one can study or apprentice with another technician. whatever the method, learning the trade takes a large investment of time, money and energy, just as learning any other occupation does. The students always want to know how I personally got into the business — my first encounter with Ben is consistently a crowd-pleaser!

### VI. Questions

This is usually the best part of my lecture. If I have forgotten to mention something important, chances are that a curious student will ask about it. I have received such memorable questions as, "What do you charge for a tuning?", "Do you have perfect pitch?", "What do you wear when you work?" and "Has anyone ever given you trouble when you were on a job?" I will let you decide how you would answer those inquiries. *Be creative!*

# BYLAWS COMMITTEE REPORT

*The following items were referred to the Bylaw Committee for consideration. The items were referred by Council, Board, and Chapters. The Bylaws Committee has prepared Amendments and offered comments where deemed applicable.*

## 1. INTERNATIONAL ASSOCIATION OF PIANO BUILDERS AND TECHNICIANS:

It has been pointed out that the Piano Technicians Guild has never passed an official resolution stating it is a member of the IAPBT, an organization we were instrumental in starting with the Japanese Association of Piano Technicians in Minneapolis. To correct this situation: Amend: Regulations, Article III Sec. G., add 6) "The Guild shall be a member of the International Association of Piano Builders and Technicians."

## 2. VISUALLY HANDICAPPED CERTIFIED TUNING EXAMINERS:

*Syracuse Chapter submits the following:*

Amend Regulations, Article IV, g), 2) c) delete and substitute: c) "Successfully complete instructions in procedures used during the test, use of qualifying measuring equipment and performance of required calculations, except that visually handicapped persons need not perform those aspects of instrument use which require eyesight."

*Syracuse offers these supportive arguments for the amendment:*

- 1) The present requirements of Reg. Art IV, g), 2. c) automatically excludes the visually handicapped from achieving the status of Certified Tuning Examiner.
- 2) An outstanding pool of tuning skill exists among the visually handicapped, many of whom have already made valuable contributions to the success of the new tuning test and who have qualified for the status of Certified Tuning Examiner in all other respects than the ability to use electronic equipment designed for use by sighted persons.
- 3) The purpose of the amendment proposed is to make more explicit the permissibility of approval by the Board of qualified visually handicapped members as Certified Tuning Examiners.
- 4) The integrity of the test will not be placed in jeopardy by such recognition by the requirements of Article IV, h) . . . "If one of the non-handicapped C.T.E. present." (It is assumed the sighted individual will operate the electronic equipment used.)
- 5) The change of wording from "required measuring equipment and computer, etc." to qualifying measuring equipment and performance of required calculations" is proposed to allow for the performance of the required calculations utilizing an assortment of other suitable measuring equipment, computers, talking calculators, or non-programmable calculator using pencil and paper to record the results, as long as the required calculations are faithfully performed.

**COMMENTS:** *This seems to be in the right direction to clarify the confusion over the acceptance of visually handicapped members who qualify as tuners and wish to function as C.T.E.'s. The present regulations seem to be in contradiction.*

## 3. COMBINING THE "CHAPTER MANAGEMENT" AND "CHAPTER ACHIEVEMENT" COMMITTEES.

*This has been recommended by both the committees and the Board Amend: Regulations, Art I, Sec B 4) and 5). Delete both and substitute:*

- 4) Chapter Management and Achievement Committee. There shall be a Chapter Management and Achievement Committee which shall function to develop programs whereby chapter officers can develop management skills and participate in interchange of chapter management ideas. A Chapter Achievement award shall be given for categories of chapter size annually. This award shall be part of the program of the committee to promote chapter activity and vitality.

Renumber the remaining items.

ALSO: Amend Regulations, Article III, Sec A, Awards: add 3) Chapter achievement awards shall be given each year by the Chapter Management and Achievement Committee, the awards to be developed by chapter size and to be graded for effort, success and merit of yearly activities.

**COMMENT:** *The two present committees felt that this combination would provide a better and more effective committee.*

## 4. DUES FOR ASSOCIATE AND AFFILIATE MEMBERS:

*Board recommends the following:*

Amend Article I, Sec. I, b). Delete last part starting with ". . . shall be one half etc., . . ." and substitute: ". . . shall be the same as for Registered Technician."

Adjust other references to Associate and Affiliate dues as needed.

**COMMENT:** *Board felt that in view of the increased costs in publication and distribution of the Journal the current dues rate of one-half was insufficient.*

## 5. DELEGATES AND ALTERNATES TO COUNCIL AS FRANCHISED MEMBERS:

Amend: Bylaws, Article X, Sec 3, add b) "Delegates and Alternates must be franchised members of the Guild."

**COMMENT:** *To make it clear that those who act in behalf of franchised members of chapters, voting at Council, must themselves be franchised members.*

## 6. MEMBERSHIP FOR OLDER INACTIVE MEMBERS:

Last year's Council sent a proposal back to the Bylaws committee for reconsideration. This proposal reflects what has been an ongoing policy at the option of the Home Office for many years. It would seem that this should be made official policy for those who qualify, rather than having it an option of the Executive Director.

A proposed new provision to permit longterm members who must resign in good standing because they are no longer able to pay the annual membership dues.

At present such members may continue membership by paying half the annual dues and signing over the Guild insurance to PTG. Another option is for the chapter to pay one-third of the regular annual dues for the member who then keeps the insurance.

For those members who do not want the chapter to pay dues for them and yet cannot pay even the half dues themselves:

A member may continue membership and pay no annual dues provided the following requirements are met:

1. Be over 65 years of age and have a minimum of ten years membership in good standing as a registered technician.
2. Have a history of chapter attendance and support of chapter activities.
3. Be totally unable to make any payment of Guild dues because of lack of income.
4. Sign an agreement making the PTG Emergency Reserve Fund the sole beneficiary of the PTG insurance policy for as long as the Special Dues Waiver continues.
5. Be in good standing and request this Special Dues Waiver through the chapter. On approval by the chapter the Special Dues Waiver shall be in force and shall continue provided the chapter annually approves the special dues status.

**6A** *This is an alternative proposal received from a committee member and based on a form of membership in use by another professional association.*

A member may continue membership and pay no annual Guild dues provided that the member:

1. Has a minimum of twenty years continuous membership in the Guild.
2. Is no longer engaged in any form of piano work.
3. Agrees to pay the cost of the Guild death benefit insurance or consents to drop from the insurance program.
4. Agrees to pay a cost established by the board of directors for receiving the Piano Technicians Journal or consents to drop from the Journal mailing to members.

## 7. CHANGE IN APPRENTICE PASSING GRADE:

The Examinations and Test Standards Committee proposes that the passing grade for Apprentice be raised from 50% to 70%. The reasons given are that 50% in the tuning test is relatively easy to achieve and is not as high a standard as the 50% as generally interpreted in the old tuning test. They feel that 70% is more the level of Apprentice entrance threshold as under previous standards. In the interests of uniformity, the 70% would also be applied to the written and bench tests.

*Amend: Where ever appropriate by inserting the new passing grade.*

## 8. ADVERTISING PROBLEMS:

*To make it clear who can and who cannot use the Piano Technicians Guild logo, etc., and advertises membership in the Guild, the following amendments are proposed:*

AMEND: Article III, Sec 2, par. Registered Technicians: Change last sentence to read: "Registered Technicians shall have the exclusive right to use the Piano Technicians Guild name, emblems, trademarks and other similar devices and the exclusive right to use the following titles: . . ."

Amend: Article III, Sec 2, par. Associates. Delete last sentence and substitute: "Associate members may not publicly advertise their membership in the Piano Technicians Guild and may not use the Piano Technicians Guild's name, emblem, trademark or other similar devices."

AMEND: Article III, Sec 2, paragraph: Allied Tradesman. Delete second sentence and substitute: "Allied Tradesmen members may not publicly advertise their membership in the Piano Technicians Guild and may not use the Piano Technicians Guild's name, emblem, trademark or other similar devices."

**COMMENT:** *Clair Davies RTT, who submitted this suggested revision to meet along standing problem states: In many places non-franchised members use the Piano Technicians Guild name in promoting their business, while employing untested non-members for service work on piano. This is blatantly dishonest and undermines the Piano Technicians Guild's influence on improving service standards. In the mind of the public a member of the Piano Technicians Guild is a fully tested and registered tuner-technician. In order to*

*strengthen the credibility of the Piano Technicians Guild, the RTT should be the only one allowed to use the Piano Technicians Guild name, etc.*

## **9. REVISION OF HALL OF FAME COMMITTEE**

The Hall of Fame Committee this year, through its Chairman, has submitted suggested changes in the Regulations covering the committee and its operation. These are submitted as a complete revision. Amend: Regulations Art 1, Sec B No. 12.

12) Hall Of Fame — There shall be a Hall of Fame to honor those who have shared their talents, time and loyalty to our profession so that we may have what is ours today. Therefore, the Piano Technicians Guild has instituted this Hall of Fame record wherein the names, with profiles and tributes to the honored ones may be preserved and remembered.

A) The Hall of Fame Committee shall be composed of no less than five Piano Technicians Guild members and one Piano Technicians Guild member from the piano industry appointed by the President.

B) Committee members must each be from a different region.

C) If a chapter nominates a committee member to the Hall of Fame, the committee member must either resign from the committee, or withdraw his nomination.

D) Only chapters may nominate candidates for the Hall of Fame, and resume of candidate must accompany the chapter's choice of nomination.

E) After committee chooses the recipient, or no more than two per year, the chairman *may* request more information for the Hall of Fame Record Book (if needed, from other sources throughout the country other than the recipients chapter, or other nominating chapters).

F) The Hall of Fame Committee shall complete its work by March of each year. The persons so honored, will be recognized at the following National Convention, during the opening session.

G) They shall be presented with a certificate suitable for framing and a lapel pin, if living and present. If the honoree are not present, the awards shall be forwarded to the local chapter president who will bestow the honors in an appropriate manner.

H) If the honoree is deceased, the award shall be made to a member of the family. (In this case, the certificate only would be adequate.) If the award to the deceased cannot be made at the convention, then the certificate shall be forwarded to the local chapter president nearest the recipient who will present the award in an appropriate manner.

I) All persons elected to the Hall of Fame shall be additionally honored by having a picture, if available, and a short history outlining their contribution to the piano industry included in an honor roll to be displayed in a prominent position at each convention. After the convention the book will then be returned to the national office for safekeeping.

J) Eligibility qualifications for a person to be considered for nomination to the Hall of Fame should include the following.

1. Long-term dedication to the causes, ideals, and purposes of the Piano Technicians Guild.

2. Outstanding personal and professional integrity to the point of being an inspiration to others.

3. Outstanding contributor and implementor of ideas, programs, etc., resulting in a definite improvement and upgrading of the piano industry as a whole.

K) Suggestions for nomination shall be solicited through a form letter in the monthly chapter mailings, with the chapter form completed and a resume of the nominee to be sent to the committee chairman, no later than December 31.

L) After convention send back resumes of nominees to chapter for them to update the resume and again submit the following year, if so desired.

**COMMENT:** *The Bylaw Committee has no comments on this proposal, having received the material too late to circularize the committee.*

## **10. REVIEW BY THE PIANO TECHNICIANS GUILD ATTORNEY OF THE BYLAWS FOR POSSIBLE VIOLATIONS, ETC., OF STATE AND FEDERAL FAIR TRADE LAWS, ETC.**

The Piano Technicians Guild Attorney reviewed our Bylaws, Regulations and Codes and in January while in Seattle for the Mid-year Board Meeting, an opportunity was available to go over the attorney's report. The following suggested changes were the result of the Attorney's advice to make our Bylaws less susceptible to criticism. It was encouraging to see that the Piano Technicians Guild has always tried and encouraged conduct and behavior in accordance with the principles of fairness and non-exclusivity.

ITEM: Amend the Preamble, first sentence, delete the clause "... and to effectively promote and technical, economic and social interests of piano technicians ..." and substitute "... To effectively promote and improve the piano tuning and servicing industry generally ..."

ITEM: Amend Article IV, Sec 1, c) delete "and references" and substitute "completeness." d) delete in its entirety.

Comment: The above would be anti-trust violations in so far as they would allow members to reject an applicant for other than legal membership requirements.

ITEM: Article VII, a) add the words "and industry" in the first sentence.

ITEM: Regulations Article II, C, 2) delete.

ITEM: Codes:

1) is clearly illegal and should be deleted

3) add: "If such fee is taken, disclosure will be made to the customer unless such a fee is illegal under local law."

"If not illegal under local law and such fee is taken, disclosure must be made to the customer."

4) probably illegal as being in restraint of trade or competition.

5) place period after "misleading" and delete the rest.

6) End it at the end of the first sentence.

7) The rest of the old #6

renumber the rest of the items.



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## THE SILVER ANNIVERSARY REVIEW

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You are invited to advertise in the Silver Anniversary History and 1982 Convention Program.

This special printing will be distributed at the convention in Washington, D.C. next July to everyone who registers. We plan to have a number of copies available for sale so that you can pick up copies for your friends back home and for use in your business.

The Silver Anniversary Review will be a quality production listing the highlights of the Piano Technicians Guild in its first twenty-five years. Everyone will want a personal copy but we can only promise one to those who send in an order before we go to press.

We have invited every one of the commercial advertisers who were in the 1958 first convention program to join us in our twenty-fifth celebration program. The full page ads are now coming in and we hope that you will want to be a part of this very special production, too.

### Advertising Areas

Full Page .....	8 1/2" x 5 1/2" .....	\$175
1/2 Page Horizontal .....	4 1/4" x 5 1/2" .....	\$100
1/2 Page Vertical .....	8 1/2" x 2 1/4" .....	\$100
1/3 Page .....	2 3/4" x 5 1/2" .....	\$ 67
1/4 Page Horizontal .....	2 1/8" x 5 1/2" .....	\$ 50
1/4 Page Vertical .....	2 1/4" x 4 1/4" .....	\$ 50
Business Card		
(reduced to) .....	2 5/8" x 1 1/2" .....	\$ 20

### Deadlines

Reserve Space — April 30, 1982

Art Work (non camera-ready)

— May 10, 1982

Camera-Ready Artwork or Negatives

— May 14, 1982

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## THE SILVER ANNIVERSARY REVIEW

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### Twenty-Five Year History & 1982 Convention Program

A special Silver Anniversary History and Convention Program is being produced and will be given to everyone registering at the 1982 convention in Washington, D.C., this July.

The program will contain articles, pictures and information on the achievements and historical highlights of the Guild since its formation in 1957. This will be a high quality production on dark blue linen cover stock with title and logo embossed in deep silver. The edition will be 24 pages or more on white linen finish paper. Every member will be proud to own this special 25th Anniversary printing.

A limited number will be available for sale in addition to those to be given to all who register at the convention. Orders for the Silver Anniversary Program can be made now and will be filled in order of receipt. Orders will be available at the convention for those who want extra editions for themselves or friends who cannot attend.

### SILVER ANNIVERSARY REVIEW

Please reserve \_\_\_\_\_ editions of the Silver Anniversary Review. I enclose \$5.00 for each edition.

Orders may be picked up at the convention. If not picked up, orders will be mailed after the convention.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

## CHAPTER EXAMINATIONS FOR APPRENTICES

New members can join the Guild at the Apprentice level without taking the new tuning test.

The chapter can give the usual written and bench tests and also the regular chapter tuning test. If the applicant passes these chapter tests at 50% or better the chapter can accept the new member as an apprentice and send the application form and entry fee to the Home Office.

A student may be reclassified to Apprentice by taking the same chapter examinations and passing at 50% or more.

Only those who wish to be classified as registered technicians are required to pass the new tuning test. This test is only given at an approved tuning test site under the direction of a certified tuning examiner.

New members can join the Guild at the Apprentice level without taking the new tuning test.

The chapter can give the usual written and bench tests and also the regular chapter tuning test. If the applicant passes these chapter tests at 50% or better the chapter can accept the new member as an apprentice and send the application form and entry fee to the Home Office.

A student may be reclassified to Apprentice by taking the same chapter examinations and passing at 50% or more.

Only those who wish to be classified as registered technicians are required to pass the new tuning test. This test is only given at an approved tuning test site under the direction of a certified tuning examiner.

## NEW on ADDRESS CHANGES

If you are moving south for the winter or making an address change for a few months only and plan on returning to your permanent address within twelve months or so, please note:

The home office is no longer able to handle this kind of frequent address change and still guarantee your Journal delivery.

If you have a regular or permanent address which you use for approximately half the year we shall maintain that address in the files and on the computer listing. It will also be used for any updating of the membership roster.

You are asked to make arrangements with the local post office for your Journal and other PTG mail to be forwarded to you.

We regret that we are not able to guarantee a duplicate copy of a missed or undelivered Journal. Due to high costs of printing and paper we have reduced the overage of Journal copies each issue.

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## Council Agenda Book Order

All chapters will receive a copy of the 1982 Council Agenda Book. The chapter is urged to encourage any chapter member who is interested to examine the Agenda Book. The book then should be given to the chapter delegate to bring to the Council meeting.

Any individual member who would like a copy of the agenda book should complete the form below and send it to the home office by April 5, 1982.

Please send me a 1982 Council Agenda Book. I enclose \$3.00 toward the cost of shipping and handling.

Name \_\_\_\_\_ Chapter \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State/Province \_\_\_\_\_ Zip Code \_\_\_\_\_

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