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June 1981



Aaron Copland



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Piano Technicians Journal

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PIANO TECHNICIANS JOURNAL, the official publication of the Piano Technicians Guild, is published monthly and issued to members. Annual subscription price: \$60 per year; \$108 for two years; \$5.50 per single copy. *Editorial Offices:* 113 Dexter Avenue North, Seattle, WA 98109. Telephone (206) 283-7440 or 682-9700. **Closing date for copy and advertising is six weeks prior to date of publication.** Advertising rates are furnished on request.

Reprints of most articles are available from the Guild home office, 113 Dexter Avenue North, Seattle, WA 98109. Price per page (plus postage): \$1.25 for the first page of each *Journal* article researched, \$1.00 for additional pages of the same article.

Second Class postage paid at Seattle. US ISSN 0031 9562 Foreign and Domestic.

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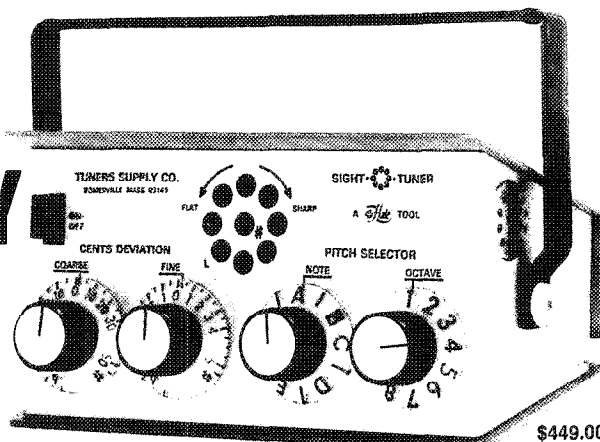
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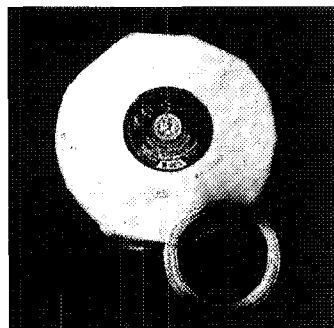
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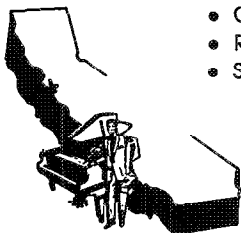
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EDITORIAL

Don L. Santy,
Executive Editor

One meets such interesting people in my business. Over the years I have had the pleasure of working with the owners of auto repair shops, auto wrecking yards and tow truck companies. Each of these companies could be broken down into subdivisions or separate and distinct types. The auto repair shops into general engine repair, transmission repair, radio electronics and tires and wheels. They eventually formed into what is known as the Automotive Service Council for purposes of unity and strength.

The wrecking yards broke down (no pun intended) into such specialty items as foreign cars, GM, corvettes, etc. etc., the tow truck companies into cars, trucks, mobile homes, boats, etc. etc.

We have served construction company owners such as floor covering people, dry wall contractors, roofing contractors, home remodelers, independent electrical contractors

and painting contractors, among others in the building industry. They in turn break down into subcontractors of all types, each inter-related one with the other sharing the same problems, hopes and aspirations.

We have worked with hardware retailers, paint stores, gift shops, pet shops and pesticide applicators. Each in turn had their differences and yet a great deal in common.

We organized the small boat builders, dry cleaners and coin-operated laundry firms. Our client industries over the past 44 years number in the hundreds. The common thread that runs through the entire fabric of the Association World is that, if and when they unite to work for the common good, they grow and prosper and their organization becomes more meaningful to both their industries and themselves.

Putting it as nicely as I have ever seen was an article by Don Galt in the Dec. 1977 *Journal*, reprinted in the Phoenix Chapter *Agraffe Graffiti* newsletter in March 1981.

"A Lantern on the Stern?"

"If men could learn from history, what lessons it might teach us! But passion and party blind our eyes, and the light which experience gives us is a lantern on the stern, which shines only on the waves behind us!" These words of Samuel Taylor Coleridge were written a century and a half ago. Like a lot of generalizations they are too broad. But it is true that people and societies seem to gain little wisdom about their futures from the past experience of others.

"Nevertheless, the light of experience can be much more than a lantern on the stern if we will let it. Don't most piano tuners and technicians accept the lesson of the past, that we all gain much more than we lost by sharing our experience and our wisdom with our colleagues? Do

most of us accept the further lesson that belonging to an organization of our colleagues, and working together in it, enlarges our own competence and prosperity, and helps us to a more satisfying view of our work?

"Passion and party have occasionally dimmed, if not blinded, the eyes. Individuals have thought it was better to go it alone. Groups have thought that the cure for differences of opinion lay in separate organizations.

"Scarcely twenty years ago two rival organizations competed for the interest and loyalty of piano tuner-technicians, and for the support of the other sections of the music industry. Wise people in both organizations came to realize that the interest of tuners and the support of the music industry were spread out too thin to be of much value. They came to realize that in competing for this interest and support they were in danger of losing it. They came to recognize the advantages of a single, strong organization. They came to accept the possibility of reconciling or submerging differences of philosophy to achieve these advantages.

"And so PTG was born, and proved its worth through two decades.

"Surely the light given by this so recent experience can do more than light the waves behind us. Surely it remains vivid enough to light the way ahead."

Thank you, Jim Coleman, Jr., for reminding us. It's certainly worth repeating. □



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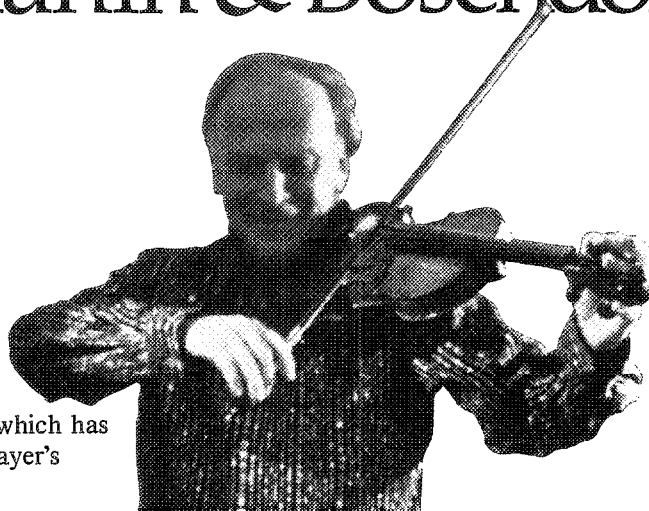
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PRESIDENT'S MESSAGE

Bob Russell, President



The Piano Technicians Journal is a wonderful means of communicating on a national level. We have received many compliments on this fine publi-

cation. This month I would like to offer some ideas concerning local communications that are also a necessary part of our Guild, chapter newsletters.

Recently I was asked how it is possible for me to anticipate what many Guild members feel. I answered that it wasn't hard. All I do is listen and observe. One way to do this is to travel as much as possible and meet as many members as possible. Another way that works best for me is to thoroughly read the many newsletters that chapters are so kind as to send me. These newsletters include local news and technical hints, some of which are pertinent to their particular area. Personal happenings, joy, new members, births, new shops, success stories and biographies are also gleaned from these pages.

Some newsletters are very professional, others semi-pro, and some are put together with a minimum of work, but they all do the same thing... they let me feel as if I am a part of their

chapter. Right back to that word again... communication. I know many of the Guild's members, but these newsletters give me the opportunity to follow a technicians professional development even though I seldom have the occasion to meet him. I also feel as though I know many members whom I have never met.

Through this insight, technical hints, and local events I receive from all over the Guild's international influence, I can't help but feel, "If this newsletter has this much meaning to me, what a great impact it must have on the chapter members and local area prospects."

Before you say, "But I can't write" or "We have nothing to say", etc. let me tell you that I enjoy the local slang, humor, personal touch and grammar as much as a professionally produced magazine. For example, perhaps you remember the St. Louis newsletter of a few years ago. Walt Thatcher was the editor and the humor and spelling were something



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to behold, it was great! He wrote, typed, and spelled in a manner that became his trademark.

Yes, there is a fantastic need for chapters to have a personal letter for members who can't make every meeting, for members to learn about coming events, tools and pianos for sale, local ideas concerning national policies, and, last but not least, it is a great means of communicating to everyone in your area. I believe every chapter should have some communication letter. It brings the piano technicians together both in spirit and professionalism.

If we add all of these ideas together we get a message that reads the same. Communication is a necessary quality in any successful organization. What better way than a chapter newsletter? Remember ... "Members that are kept abreast of their chapters activities will be better members of the Piano Technicians Guild."

Reader Feedback

Dear Mr. Santy:

Recent Journal editorials have stressed two basic positions: 1) that being a piano tuner, being self-employed and being a Guild member are all GOOD THINGS and 2) that OSHA is a BAD THING. I am not writing to dispute the first, but the second is not a view we all share, and I feel these pages should reflect that.

The safety record of private industry is horrendous. There are entire industries in which specific diseases are endemic, such as black lung among miners, brown lung among textile works, bladder cancer among dye workers, hearing loss among some factory workers, the list goes on. And these are only diseases of chronic exposure. Industrial accidents commonly result from

machinery being run without guards in place. Machinery is often antiquated or loaded past its rated capacity.

Not all of this is traceable to company neglect or policy decisions. But much of it is, and for one simple reason: safety costs money.

Yes, I'll repeat them. Safety costs money, and the parable of the pencil (April 1981 editorial) is right in pointing that out. Needless to say, many companies are not interested in paying for safety unless they are 1) trying to minimize down time, 2) afraid of civil suits brought by the victims or 3) forced to by law. If no mechanism refers the cost of hazards back to the company, they have no incentive to invest in safety.

But suppose we had agreement to invest in safety. (We don't.) And suppose further we agreed where the money should come from—corporate profits, consumer prices, wages, tax dollars. (Again, we don't.) We still have the question, "How much money is worth how many lives?" After all, no matter how much you spend, some people will still get maimed and killed. I heard one OSHA administrator say he would trade off costs against lives when Congress passed an act telling him what dollar value to place on one. Somehow I doubt they will.

In practice, however, these decisions are made daily, and they're made on a simple basis. If you're poor, if you don't have skills that are in demand, if you don't have a union that cares about safety issues, if you live in a one-industry town, or an area with high unemployment—then you take the job, you take the risks and maybe further down the road you pay for it. And that's why, even though we're all lucky to be tuners, a lot of people out there still need OSHA.

Michael Shapiro
Jamaica Plain, Mass.

Dear Mr. Santy:

First let me say that I think (and my colleagues here agree) that you have wrought miracles with your staff during your time with the Guild! I wish to congratulate you and thank you for the most competent and efficient management of the Guild's manifestations, happenings and services in spite of ever increasingly outrageous inflation and national and local dangers from anti-trust laws.

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Reader Feedback

(The following letter to Tom Reed was copied to me and appears here in that context.—Don L. Santy)

Dear Tom:

Regarding the subject of the Tuning Test. There have been many criticisms which have surfaced in the last three years. I suppose that the thing that bothers me most is that it is criticized from two extreme directions. One type of criticism is that the test is too easy to make Craftsman and the other is that it is too hard to pass and therefore it will hurt the growth of membership.

At first glance one might think that this proves that the test is not valid. However, the crux of the matter is that across the country we have widely divergent views as to what level a person should achieve to be called a Craftsman. This has created serious problems over the years when it came time to accept or reject transferees to one chapter from another. Our former president was trying to address this problem when he appointed us to work on a unified and more objective test. The written test has been expanded and now he and others are working on an expanded technical or bench test.

In your paragraph which begins "First of all . . .", we feel that there is now ample evidence to show that it is possible to establish an ideal tuning for a particular piano. If you get a chance to help in the "super tuning" of an examination piano, I believe you will become convinced this is so. Also we could show you privately the results of "super tunings" done in various parts of the country on the same model piano by entirely different groups of tuners where the results are so close that if one were graded according to one of the others as the master standard, the first one would receive 100% in all categories where computer scoring is used.

Another thing that I should mention here is that in general, where an applicant has taken the test and not passed, if he has immediately repeated the test, he has not done much better and in some cases a little worse. The reason I mentioned that we could show you the evidence privately is that we think that it would not be fair to publish or broadcast the readings on master tunings, because it could fall into the hands of people who could tune by *machine only* just

to get a very high or perfect score. Of course if one did this he would still have to make at least 60% in tuning the mid-section by ear to prove his ability to hear the intervals and to recognize if his machine had a problem on one note.

One other point on this phase of your letter is that in all of the master tuning preparations that I have had anything to do with, our differences of practice in the temperament area have been from .1 to .3 cents and we have always resolved these differences to our group satisfaction. To achieve this kind of ideal tuning, you must always have three or more tuners on the preparations committee.

In your next paragraph, you mention that "there is no single standard of excellence . . ." and to this I would have to agree only in so far as the extremes of the keyboard are concerned. I believe that as we collect more data in the years ahead, we *will* arrive at a general consensus, but for now we handle this by increasing the tolerances as you proceed in both directions from the center. Most modern piano factories are now assembling their pianos with jigs and fixtures so that the actual string lengths for one model are almost identical. Soundboards and ribs are planed to precision and checked with templates to ensure accuracy. These above things mean that the inharmonicity from note to note on any one model will be almost identical. Therefore, the ideal tunings will be almost identical.



It would seem to me from your letter that you have not had an actual experience in either taking this exam or in helping to give it. One of the things that assures us of the validity of the exam is that the aural verification of the scores is complete. By that, I mean that when the scoring of the machine readings indicates that a certain note was outside the established tolerances, you can almost invariably pick it up by comparison of the various intervals tests. If we did not have a huge history of this type of confirmation, I would wonder about the test validity myself.

In your next paragraph, the question of requiring a grand piano for the exam is brought up. Due to the poor scale jumps found in many smaller pianos, it was felt that we shouldn't be testing the piano but the applicant. We want to know as examiners that

the applicant understands the general theory of piano tuning and that he can produce a reasonably good tuning that is stable. If he were to tune a small-scaled piano he may not be able to do his best tuning because of some difficulties with the piano. In the case of some of these small pianos, I would have to agree that there is no one right way to tune even a temperament. So you see, it is largely for this reason that we suggested the use of a good quality grand 6 feet or better. Now I must confess that there are some good quality vertical pianos which would be adequate for the exam, but we would have to name brands and models and perhaps date of manufacture to be assured of the type scaling which would not create a handicap for the applicant.

Two other arguments which have often come up are that 1) Beginners don't tune many grands, and 2) it would be good to know how well an applicant can handle the normal problems he faces in the field. My standard answer to the first is that if one is to be called a Craftsman, he certainly should be able to tune a grand and also since the bench test and written test have always included items on grand pianos why should the tuning exam be exempt? My answer to the second is that there is no way to avoid subjective judgments when one tunes a poor piano. We feel that under the present testing system there is much less opportunity for the examiner's personal bias for or against the applicant to be reflected in the scoring. This has been our greatest motivating factor in the development of the test to date - to make it as objective, accurate and reliable as possible.

You may not be aware of this, but it is not absolutely essential that the test be scored with the aid of a computer. We have given instruction to many in the procedures of hand scoring and we have a section in the new examiner handbook which spells out all of this in detail.

In your same paragraph mentioned above you were wondering if we are testing how perfectly a person can tune a grand or how well he meets Guild standards. The answer is yes to both. In the first case, if one cannot tune a grand, well, we feel that we are deceiving the public with our advertising. If he cannot tune a grand well, he should be an apprentice or a student member and should not be allowed to advertise his membership. To the second point, we have over 400 tuning test records now and we know pretty well what is the stan-

dard of our present Guild membership and this can be clearly seen in the graphs prepared by Dr. Sander-son for the council session last summer. No doubt there will be new ideas and better ideas in the future, but it will be a long time before they will develop the history, data, charts, proof, etc. that will be necessary to win council approval. The committee continues to receive new ideas and suggestions. Some are undergoing experimentation now. Please send in ideas you have which you feel will work.



Your last paragraph brings up the subject of the pitch standard. A-440 is the only pitch broadcast by the Bureau of Standards for musical purposes. Besides the carrier frequency most of the day is spent alternating between 500 Hz and 600 Hz. These are used primarily for calibrating frequency counters and TV and Radio work. A symphony tunes only to A-440 unless they happen to be on a kick of 442 or some other. The others are definitely a minority. In my article where I mentioned the importance of using an A fork, I was merely trying to be helpful. You see, since we have accumulated such a vast amount of information on how the better tuners tune, we have found that after the readings are taken, and the fundamental of A is adjusted to 440 and all the other notes are adjusted the same amount and same direction the A is the *only one* with zero cents deviation from the theoretical equal-tempered scale. This is due to the inharmonicity inherent in all pianos and it is this which causes the need for stretching of the octaves even in the temperament area to give the best overall sound to the piano.

Now if a person uses a tuning fork other than A, he is dealing with a note which has an unknown amount of inharmonicity unless he has an electronic measuring device. So if he tunes a beautiful temperament which meets all the criteria mentioned in my article, he doesn't know if his general pitch level is correct at A-440. To thoroughly understand this, one must recall the original need for equal temperament. That was to provide a tempering which would equally graduate the out-of-tuneness of all intervals as they ascend through the octave so that no one interval would grab more attention than its neighboring parallel interval.

In this system each type interval

had its own distinct starting rate in an octave. This theory was developed with harpsichords and organs where there was little or no inharmonicity to contend with. The mathematical theory came right along with this to further define the ideal tuning for the new modulatory music being composed in the 17th and 18th centuries. With the advent of steel and cast iron plates, heavier stringing came along and with it came much more inharmonicity. Now theoretical and practical equal temperament make a departure. If one tunes the fundamental pitches of a modern piano to exact equal temperament, it will not sound like the original intent of equal temperament.

Now if this is what the knowledgeable musicians really want, then we should all forget all this nonsense about beats and just buy a machine and turn off our ears. Some of us who bought the earliest strobes thought we had it made finally. But alas, as we developed our ability to listen more acutely we began to suspect that something was not right. If one tries to tune a piano with a machine as mentioned above, he will find sudden beat jumps for each interval at least once each octave and perhaps more often if the string size changes. If one does not adopt some system of octave stretching, the treble ends up sounding terribly flat and the bass ends up sounding too sharp.

Now back to your last paragraph. It is not claimed that electronic tuning or measuring is superior to ear measuring. We have proven that one can detect a .1 cent change in a 3rd or 10th interval. Using the electronic equipment in the testing program is merely a means of getting some numbers for comparison purposes. Without numbers for direct comparison, we have the problem which has plagued the Guild for some time, that is: what one examiner would call a "lousy" tuning would be accepted by another examiner. Then you find that one chapter wants to run a very exclusive club where no one but a concert tuner can get in and they won't accept transfers from other chapters.

I liked your next sentence which says: "For the home, the concert hall, the music studio, the human ear is the important judge, regardless of what the strobe says." This probably will surprise you, but this is exactly how the new test works. Aural verification is the final judge but only after we have some comparison numbers to keep us honest. After the temperament section is graded, we ask the

applicant to check all the affected intervals that include a note which the computer or handscoring method has indicated as being outside the 1 cent tolerance. After carefully comparing, in most cases he can tell us if it was scored as being flat or sharp. In rare cases where the applicant has done a good job covering an error so that it is not obvious to the examiner that a mistake exists, then the error is not counted. You can see from this that the ear is the final judge. This is why we require that examiners must pass the test with 90% or better in all categories tuning by ear exclusively. Now we know that they can *hear* the errors. Except for the pitch score all other sections of the computer-scored parts are finally given the aural verification procedure. The unison test is primarily an aural test, but the machine is used to show just how far out they are. If a unison sounds like it will pass, it isn't measured. However to keep the examiner honest, we require that at least the three worst unisons be measured anyway. This is the most subjective part of the test, and if we find that some examiners are too lenient here, we may recommend mandatory measurement of more unisons.

Thanks for writing. It obviously motivated me to write what perhaps is a better clarification of some of the issues that others may be wondering about too. You might consider offering your help to whoever is going to be giving exams in your area. It will always be necessary to have at least three examiners, one of whom is a Certified Tuning Examiner. After becoming more familiar with the procedures, you may even want to qualify for CTE for a future appointment. In the meantime, keep writing as other thoughts occur to you. I may not be able to answer with as long a letter as this, but I will get back to you.

James W. Coleman, Sr.
Tempe, Arizona

Please stop at the Pro Piano™ Hospitality Suite at the Hyatt Regency during your leisure hours between classes at the San Francisco convention.

THE TECHNICAL FORUM

Jack Krefting, Technical Editor

Before we get into our technical discussion this month, I would like to say a few words about the Piano Technicians Guild Convention. Some of our readers have never attended a National Convention of the Guild, and it is particularly to those that these remarks are directed.

Each year in July, hundreds of technicians gather to share their knowledge, learn new techniques, make new friends, enjoy the friendly camaraderie of their peers, and improve their skills. They go home refreshed, recharged, and prepared to take on new challenges. The instructors include some of the finest independent technicians in the country, plus representatives of the major piano manufacturers. Classes are designed to give the technician what he or she needs to be able to do a better job and earn more money.

Speaking of money, every year there are technicians who do not attend because they cannot afford the cost. Believe me, it is no mere coincidence that those who do attend are able to afford it, year after year. My own gross income increased rather dramatically after my first convention, far beyond the cost of attending, and that knowledge is mine forever. When you think about it that way, can you really afford *not* to attend?

FOUR-PIECE CHICKERING BLOCKS

QUESTION: "I have a client who owns an old Chickering grand which has loose tuning pins. The block has evidently been doped, and I can see no real way to repair it other than

replacing the block. When I checked it from underneath, it is apparent that it is a four-piece block which is held in place by screws from underneath rather than through the top of the plate. I have heard that this is a tough one to replace. Any suggestions?"

ANSWER: This piano has a double stepped flange, which presents certain problems to the rebuilder who is not a good woodworker. **Figure 1** shows a cross section of the plate and block upside-down, as it would appear on sawhorses after it has been removed from the piano. Machine screws attach the block sections to the plate, which is drilled and tapped to accept them. This design has the advantage of allowing the plate, block, strings and tuning pins to be removed as a unit, once the tension has been lowered. This advantage is largely negated by the difficulty of fitting a new block, but if major soundboard or bridgework is needed the piano need not be unstrung.

Photo A shows a closeup of the top of the bass and the lower part of the tenor, viewed from underneath with the block removed. **Photo B** illustrates the top treble section of the same instrument. Flange and web areas in both pictures have been coated with blue chalk for fitting. Each section has a top and a bottom piece and, while it is certainly possible to make single-piece replacements, it is considerably easier to fit them individually and glue them together afterward.

The tenor section block is the most interesting because of its unique shape, as shown in **Photo C**, although all four are essentially the same in their overall design. The old block should be cut lengthwise as shown in **Figure 2** to separate the top section from the bottom. A bandsaw works well for this operation, producing two blocks from each section as shown in **Photo D**. The smaller top section is made first and fitted into its niche by removing wood wherever there are

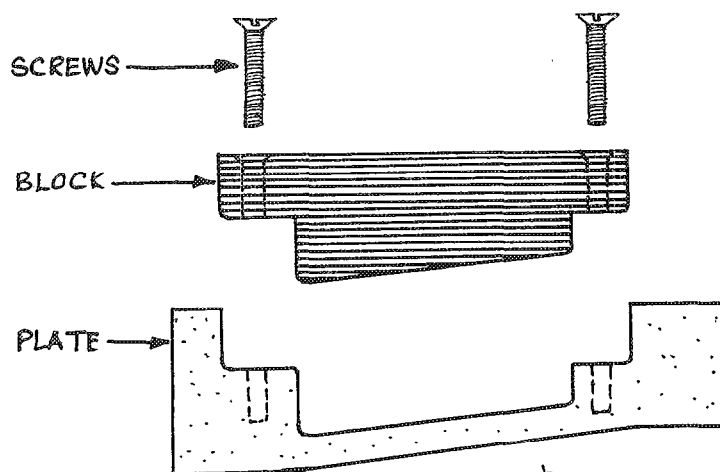


FIGURE 1. *kc*

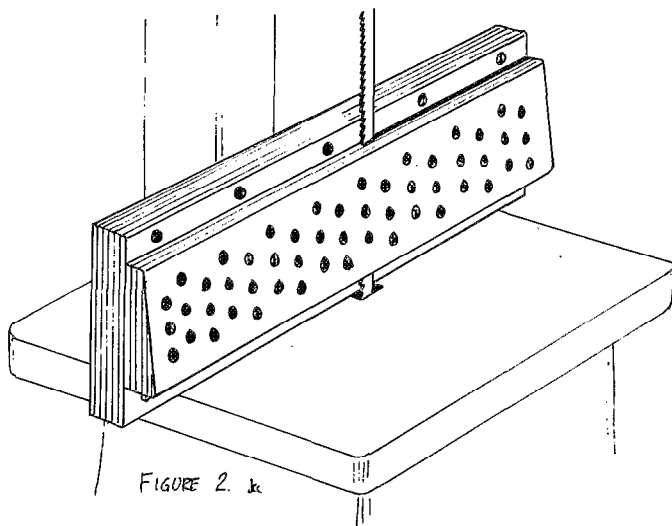


FIGURE 2. jc

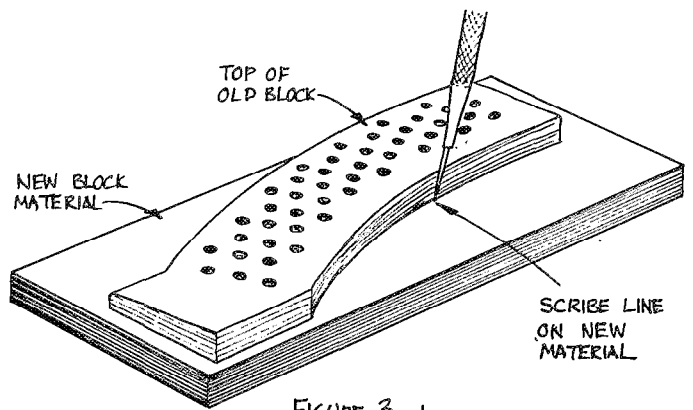


FIGURE 3. jc

contact marks, as usual. This block is more difficult to fit, though, because of the slanted top surface, the double flange, and the necessity of fitting it so that its step surface is precisely flush with the step on the plate. Cut the top section by laying it on the new block material as shown in **Figure 3** and scribing a line around it. Cut it out and fit it as shown in **Figure 4**.

Next, cut and fit the other half of the section in the same manner. When both are fitted, place dowel centers in each of the holes in the step so the holes can be drilled accurately (see **Figure 5**). Tap the block against the dowel centers, drill the screw holes and countersink the holes as shown in **Figure 6**. Dry fit the assembly to be sure that everything will fit and the screws will thread into the plate, and then glue the top to the bottom of each section. Clamp the joint right on the plate by inserting and tightening the screws. **Photo E** and **F** show the finished product as fashioned from Falconwood. When the glue is dry, the screws may be removed to allow the block sections to come out while the plate is being rebronzed, and then the assembly is mated for the final time.

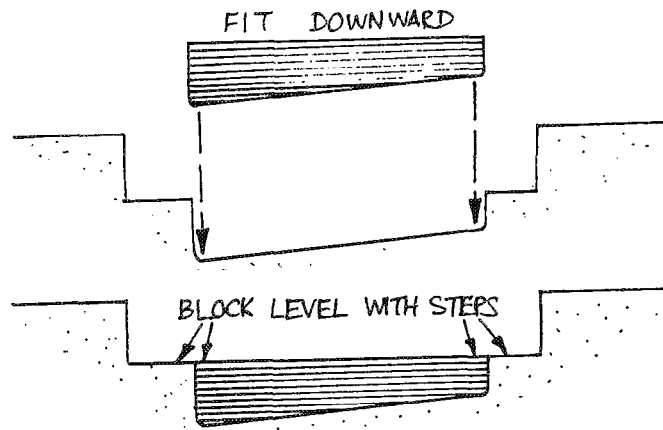


FIGURE 4. jc

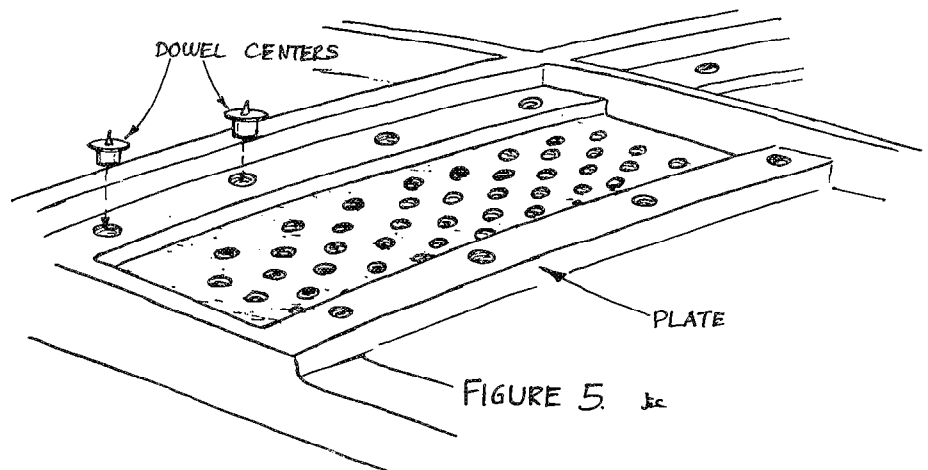


FIGURE 5. jc

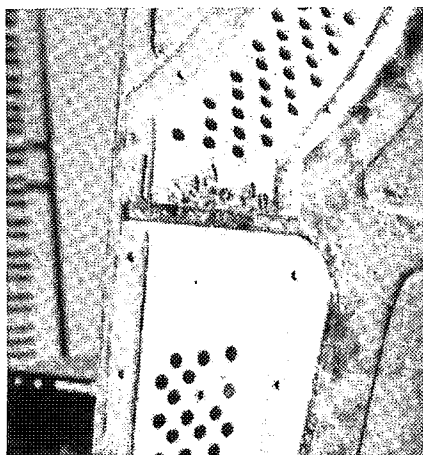
WOBBLING PIANO

QUESTION: "I have a customer whose grand piano wobbles back and forth when it is played. I checked the glue joints (everything seems OK there) and made sure that the cams are driven solidly against the insides of the leg tops. Could it be the casters?"

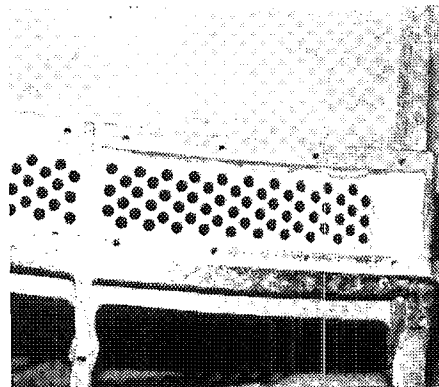
ANSWER: It could be, but I don't think it is. My guess would be that there is not enough clearance between the leg plates. These plates must not touch one another anywhere except at the wedge-shaped mating surfaces; if any horizontal surfaces are touching, then the leg top cannot bear solidly against our keyed or console. This represents a real safety

hazard and should be corrected without delay.

This can be checked in two ways. If the legs have not already been removed for inspection, get down to eye level with the leg tops and gently push the rim back and forth, watching for movement. If the leg top is moving at all against the keyed or console, there is a problem with the plates.



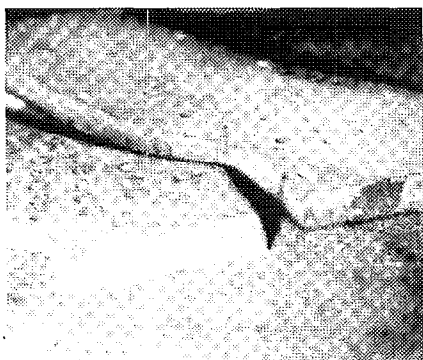
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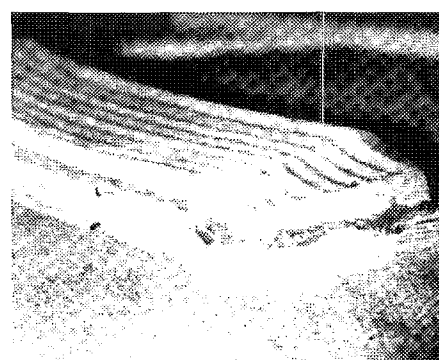
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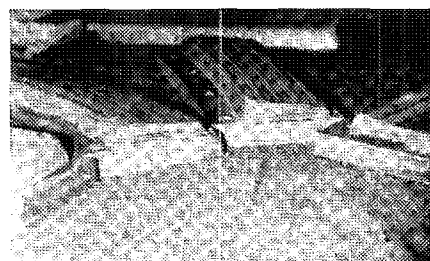
C



D



E



F

Block up that corner of the piano and remove the leg.

Inspection will probably reveal a broken plate or loose screws. Do not attempt to re-use a broken leg plate, even if extra screws are added, because it still will not hold. Leg plates are sold in matched pairs, the male portion usually being mounted in the leg top. If the screws have stripped in the wood, plug with maple and redrill. This is not a situation where toothpicks or bass string windings stuffed in the screw hole will do the job.

If the screws are tight and the plates unbroken, check them with a straightedge. If the perimeter of the male plate is mounted flush with the leg top, then the female plate must be inset into the keyed or console by about 1/16". In other words, hold the straightedge against the wood on either side of the female plate and be sure there is clearance between the straightedge and the leg plate.

If there isn't, the leg plate will have to come out. It should be a tight fit, too tight to allow removal by pulling with the fingers, but there is an easy way to

get it out. Simply remove the screws from the offending plate and place the leg back into position. The wedging action of the plates will put the unscrewed plate right out of its mortise with very little persuasion.

With any luck at all, you will find one or two veneer shims behind the plate, which will probably fall out with the plate. Reassemble it without one of the shims, and the necessary clearance will have been achieved. If there are no shims, the mortise may have to be deepened with a router. This makes a real mess if done in the customer's home, because the chips fly everywhere; so in such an instance I would prefer to reassemble the female plate to the keyed and remove the male plate from the leg using the same procedure.

If it is really a bad day and there are no shims there either, at least you can take the leg to the shop and rout the mortise without getting sawdust all over the customer's living room. When routing, take care not to widen the perimeter of the mortise; if this has been done inadvertently, shim the edges of the hole with hardwood veneer so that the plate fits very tightly once again. If you can replace it without a hammer, it is too loose.

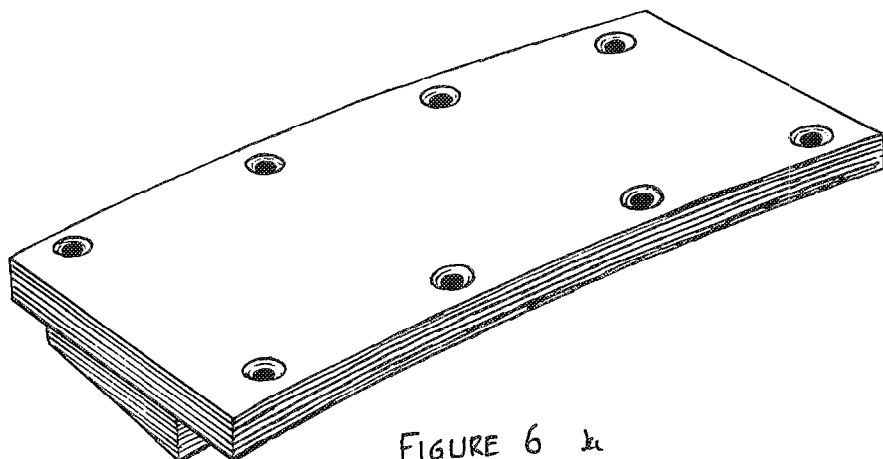


FIGURE 6

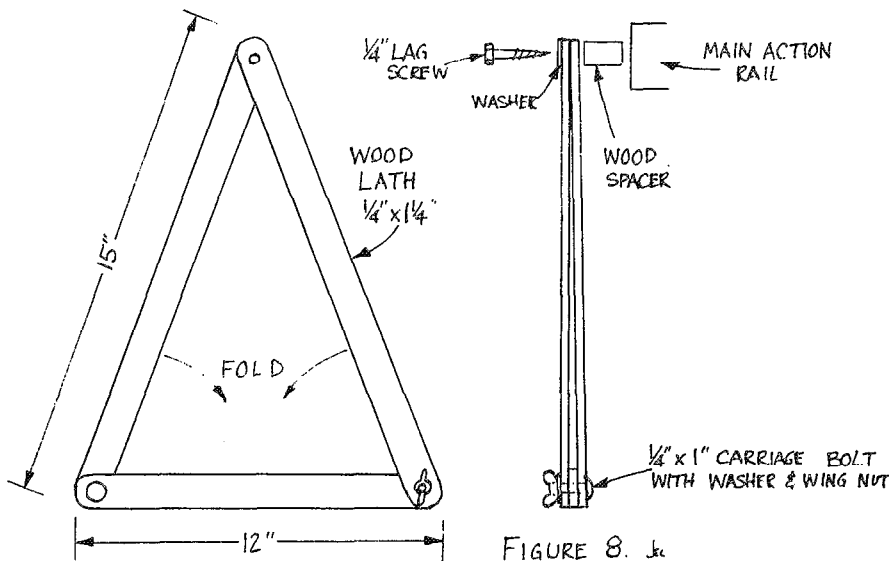


FIGURE 8. J.

GADGET OF THE MONTH

Gerald Foye of Lemon Grove, California, has devised another handy tool. It is a folding action cradle, illustrated in **Figure 8**, and his description follows:

"Shown is an action cradle tool used for servicing upright actions. Two are required to make a pair. Mount one on each end of main rail by drilling number 2 hole in each end and install with $\frac{1}{4}$ diameter lag screw.

"Lag screw lengths vary according to application. Sometimes a wooden spacer is required to clear sustain lever on some actions which requires longer lag screw.

To eliminate wrench required for lag screw, either slot end of screw to be used with heavy screw driver; or, add a lever with solder or epoxy serving as a crank.

"An alternative purpose is to use strip of wood between cradle with series of holes to be used for holding grand dampers.

"Two of the above units are required to make a pair. Mount one on each end of main rail by drilling a #2 hole for $\frac{1}{4}$ " lag screw. Lag screw lengths differ depending on application. Wood spacer is sometimes necessary to clear sustain lever when rotating action for service. Unit folds to make compact action cradle for servicing." — **G. F. Foye.**

READER COMMENTS

"Please do an article on moth-proofing both verticals and grands. I notice some back in the fifties, but none recently for the newer of us." — **Ted Whitting, Garden Grove, California.**

"... At the National, I had a chance to quickly mention to you that I have always been intrigued by the Mason & Hamlin screw-stringer piano. An article on its history and design and maintenance would be welcomed by some of your readers..." — **David E. Sylvester, Pawtucket, Rhode Island.**

TECH TIPS

Our first tip comes from Guy McKay of Indianapolis, reprinted from a recent issue of "Indy 440", his chapter's newsletter:

"Most of us have little odd lengths of shim stock lying around the shop gathering dust. I have found these to be useful for purposes other than poking in cracks in soundboards. Because they are usually very straight, light and easy to handle they work very nicely where a small straight-edge is needed.

"When hanging hammers you can break off a piece just the right length for one section of hammers. After setting your guides it is handy to maintain a straight hammer line.

"In regulating we need to line the hammers when setting the hammer height. A piece of the shim stock

standing on edge over the hammer shank flanges can give you something to sight over, making the line a little more accurate.

"Sometimes we need to correct the key level on just a few keys. A section of shim stock about 18 inches long makes a good straight edge for this purpose. It will stand up well, is light, and has a good clean edge next to the keys that is easy to see." — **Guy McKay.**

Our next tip is from Bill Pealer, whose Dulcitone action is featured in this issue. Bill suggests that we consider wiring an electric clock into the same circuit with the shop lights. Set the clock at 12:00 when starting a project, and turn off the lights whenever you take a break so the clock will register the exact time in hours and minutes spent on each job. This, says Bill, eliminates guesswork when billing customers for shop work that is charged for on an hourly basis.

Finally, we hear from Kirby Tucker of Charlottesville, Virginia:

"In the January 1981 Technical Forum, it was mentioned that 'a skilled technician can feel the difference even if it's less than a thousandth of an inch...' As we know, the craftsman who performs a certain task day after day will develop in time, to certain degrees, a host of skills as a kind of by-product of the particular work he is doing. But we also know, skill comes faster when we work directly on its development. A piano craftsman can develop sensitivity to great degree and, when tuning, can sense such things as the twisting of a tuning pin in the pin block, a string moving over the bridge and can sense even 'a thousandth of an inch.' Sensitivity is a prerequisite to good piano work and it is this that makes piano technology seem so esoteric to the student. I would like to offer a few tips to fellow craftsmen on developing sensitivity and if they practice these 'sensitivity exercises' regular-

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ly, they will be surprised as to the degree of sensitivity one can develop in a relatively short time.

"The next time you find yourself repinning a flange, take a moment to see if you can feel a difference in the half sizes of the center pins. If you can't, go up a couple sizes till you can notice a difference. Practice this until you can definitely feel the difference between, say an 18 and and 18½ center pin. The next step is to lay out several half-sizes of center pins on a flat surface and mix them up. By sheer sensitivity of the fingertips, see if you can sort them out and place them in order—from smallest to largest.

"Once this stage is reached, go over to the piano and lay different size punchings on the front rail and see if you can sense the differences in dip. Also, try changing the let-off slightly between two keys and see if you can feel the difference. Feel free to devise other exercises of your own ingenuity.

"These exercises should not only improve your regulating skill, but should also help to improve your tuning and general craftsmanship."

Kirby Tucker
Blue Ridge Chapter, VA

REPINNING ACTION CENTERS

Steve Gregg of Maywood, New Jersey writes:

"... there is a point of repinning flanges that no one seems to mention. Generally, to check if a hammer flange needs repinning an individual would check side play by letting the shank slide over their finger or screwdriver or whatever. I have found that this is not the only indication of a hammer flange needing repinning. If both sides of the bushings wear evenly, side to side play will not be apparent, but will make setting spring tension very difficult...

"... When the hammer flange pinning is too loose, the repetition spring cannot be adjusted accurately. A certain amount of friction is necessary or the spring tension is always too strong. If the spring is weakened to the point of not being too strong, the repetition is too weak to support the hammer." — **Steve Gregg.**

UNUSUAL INSTRUMENT

Bill Pealers has submitted the following item of interest:

"Dear Jack,

Recently I was commissioned to restore a musical instrument damag-

ed in shipment from England to the Washington, D.C. area. It belongs to World Bank representative recently assigned to this area. It is a "Dulcitone" made by Thos. Machell of Glasgow, Scotland (#3504 or #K126050).

"The Smithsonian has one in its collection of historical, unusual and antique instruments. The only reason that I accepted the job was to research and experiment with its unusual down-striking action. It weighs 43#, the legs fold underneath for easy transporting, is 37" long, 15" wide, 16" high when folded and 31½" standing. The tones are produced by 61 tuning forks and damped by 50 dampers. The action drawing (Figure 7) is full scale.

"Photos 1, 2 and 3 show the partially stripped-down instrument tipped up on the bench, the name "Dulcitone" scrollsawed out of the back case panel with a piece of grill cloth glued to the inside. Several forks have been removed to facilitate the repair of the soundboard crack in that area.

"The soundboard is glued to the rast along the full front back and right end. It floats free at the left or bass end. Photo 4 shows the damper assembly temporarily replaced and the action placed on the bench front. Photo 5 and 6 show the rear of the case and dampers. The dipping key contacts the 3/16" dowel capstan on the abstract wire, rocking the damper to sustain the individual fork vibration. Depressing the sustain pedal, attached to the right front leg, pulls down on a cord which in turn pulls

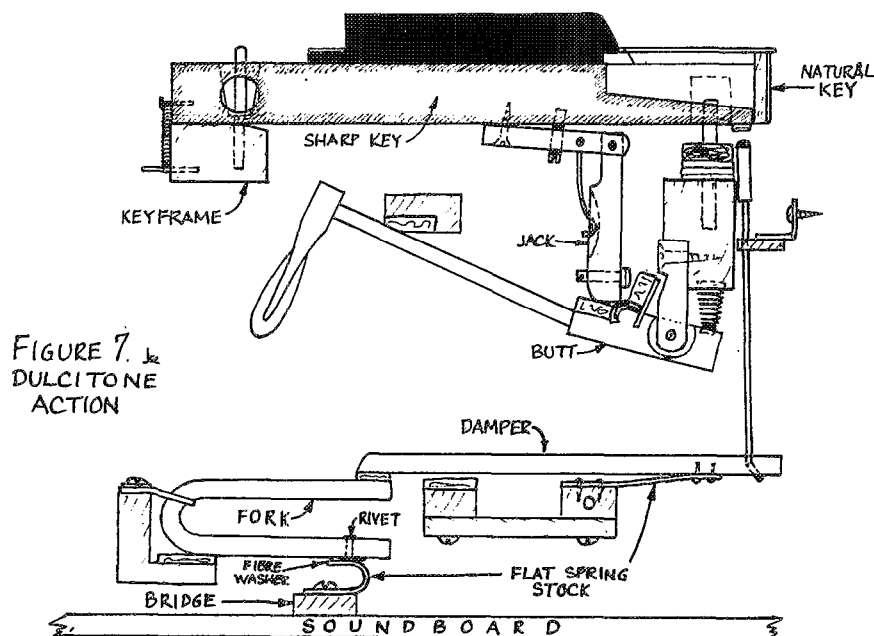
down on the ½" x 1¼" x 3" level seen attached to the treble end of the maple damper rail. This rail rotates, lifting all dampers simultaneously. Photo 7 shows the action turned upside down on the bench. Photo 8 presents the fully restored instrument ready for delivery.

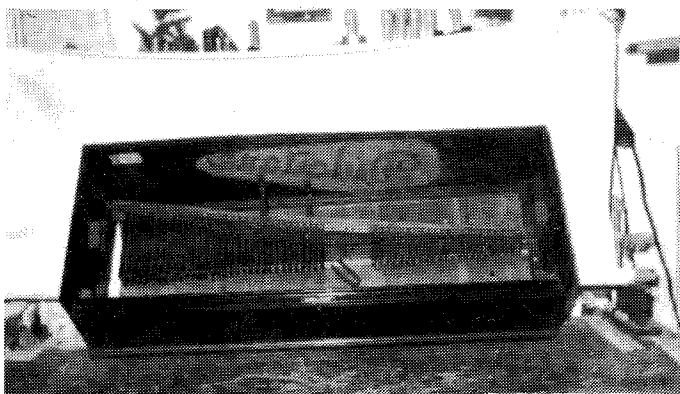
"The scale drawing shows the sharp length the same as the natural. There is only one row of front rail guide pins, not staggered as in a piano. The key body is tail width from back to front. The 5/32" wood overlay on the key tops and front allows the sharps to extend forward to their front rail guide pins and under the overlays. (The sharps must actuate the damper abstracts.) I would like to get into the regulation, etc. of the action, but I think the scale drawing is almost self-explanatory if studied." — **William E. Pealer, Alexandria, Virginia.**

IN CONCLUSION

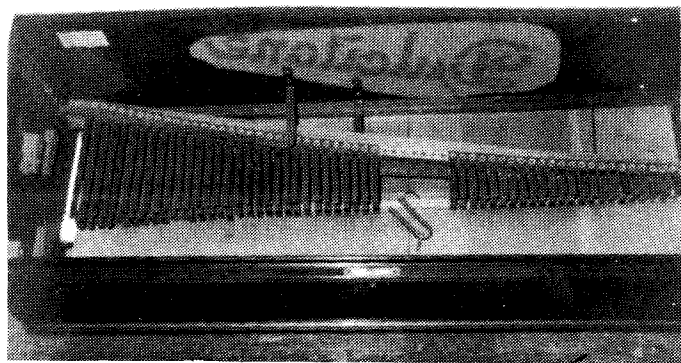
My own experience with both of the above has been spotty at best, so I would like to open these topics for discussion by readers who have a better working knowledge of them. Please send all technical material, questions, articles and comments to me at this address:

Jack Krefling
Baldwin Tech Service
1801 Gilbert Avenue
Cincinnati, OH 45202





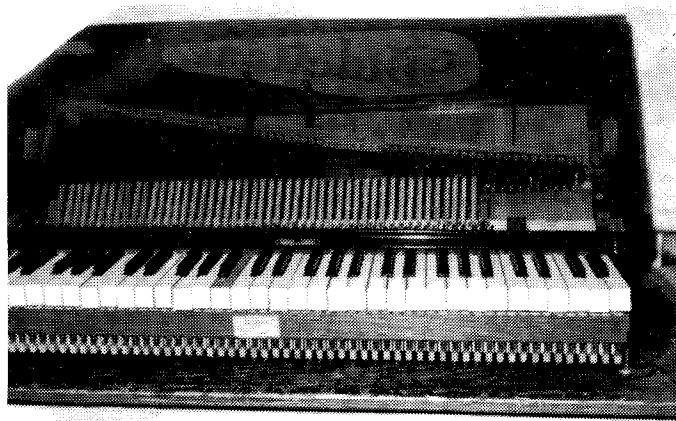
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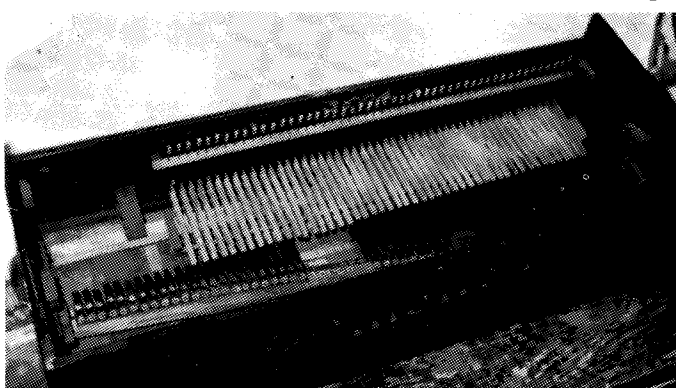
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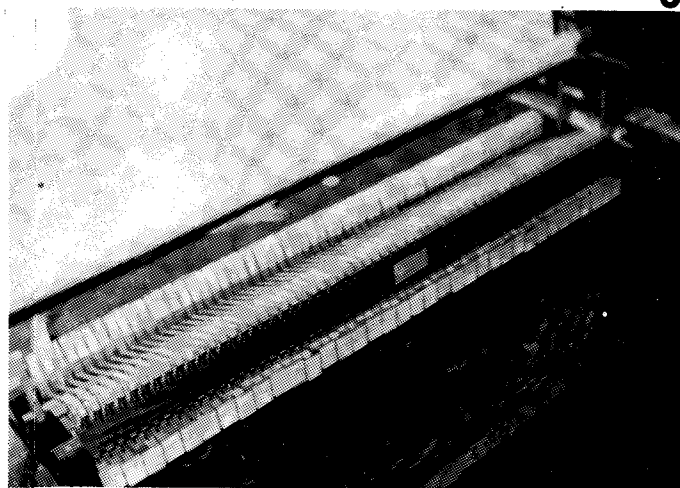
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Reader Feedback

Dear Mr. Santy:

As a member of the "silent minority", about which Ernie Preuitt wrote in his letter in the March 1981 *Journal* (Reader Feedback), I share the views concerning the tuning test expressed by Thomas Reed in his letter in the same issue of the *Journal*.

My objections to the test, in addition to those expressed by Mr. Reed are as follows.:

1. It is inordinately burdensome, time consuming, and expensive to prepare, administer and grade.
2. I have grave doubts about its validity. By this I mean that I don't think it measures how well a technician can tune a piano in the field. Worse - far worse - are my fears about its consistency, i.e. - can you take the test a second time in another location on another piano and score within a few percentage points of what you scored the first time? I think not! My personal experience has shown my own variation to be in the neighborhood of 20 percentage points difference from one test to another. A valid test would not show this much variation in score.
3. At the present time, the Guild seems unprepared to underwrite the costs of this monster. Also, I must question whether any applicant would be willing to lay down \$25 to \$50 of his own money to take this exam.

The Cincinnati Chapter had a very unpleasant experience at the last Ohio State Seminar in October 1980 when we offered this examination. To meet the requirements, we spent approximately \$300 to set it up. It netted us not one new member and engendered some hard feelings. In

addition, because of the test and its costs, and in spite of some very charitable people who came from Indiana and Kentucky to help run it, we came within an eyelash of losing money on the whole seminar.

Frankly, I don't think the future of the Guild will rise or fall on the basis of this test. I think the Guild will survive in spite of it. But I am not as charitable as Ernie Preuitt, who is working to promote it. I plan to sit on the sidelines and watch it die like the electronic dinosaur it seems to be. Then perhaps we can develop something simple and practical to take its place.

Ben McKlveen
Cincinnati, Ohio

Dear Mr. Santy:

I have just read "The Ugly Duckling Tuner" *Journal*, Feb., 1981) and was distressed to find out that not all new members have had the kind of warm welcomes which I have received into the Piano Technicians Guild.

I took my first tuning course last year under Vic Benvenuto at Temple University in Philadelphia. This course was designed mostly for pianists who wanted to know more about their instruments, and therefore was mostly theory. Even so, Vic made sure to "push" the Guild and the advantages of membership. When Vic found that I wanted to make tuning my second vocation (I teach public school "on the side"), he was most encouraging about getting into the business, and practically insisted that I join the Guild as a student member.

I was able to attend only one local meeting before I got to attend the national convention. I had barely finished my first solo tuning (a minimum of 20 hours of frustration trying to put theory into practice on my own piano) when I went to this meeting. I was immediately welcomed quite warmly by Walt Sierota (chapter president) and Hilbert Felton (chap-

ter vice-president), as well as the rest of the members. I was made to feel welcome at all meetings, and accepted as a peer (even though we all knew that I didn't yet know what I was doing, and barely knew a tuning pin from an agraffe).

I became one of the many "gofers" at the convention and was made to feel like a functioning part of the Guild. I was quite amazed at how helpful all of the "old-timers" were. In the workshops, the "old-timers" all took the time to pull me aside to explain anything and everything which was incomprehensible to me. Everyone was so encouraging that I really felt welcomed.

All of this has not changed in the last 10 months. I still get lots of help, advice, and encouragement from other members. The *Piano Technicians Journal* has also been an invaluable aid in learning my way around the "Rube Goldberg devices" which we call pianos.

I want to thank everyone who has helped me. I hope that all other new members will be able to say that their chapter treated them as well.

Sim Jackendoff
Philadelphia, Pennsylvania



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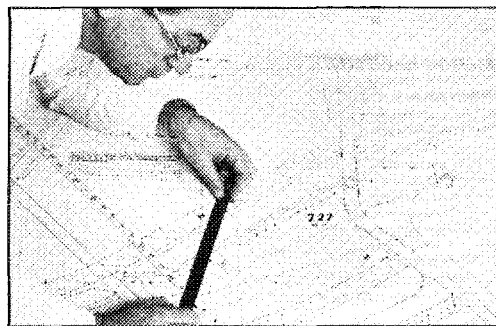
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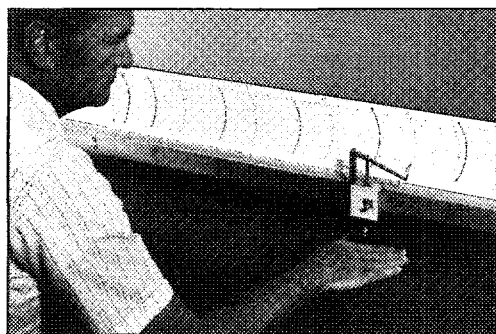
RESEARCH shows us why, as well as how, some things work better because we've taken a pioneering approach to piano improvement. We've substituted scientific testing and analysis for the unquestioning acceptance of traditional solutions. Some of the achievements that have resulted are treble termination bars (U.S. Pat. No. 3,477,331), the Acu-Just™ plate suspension system (U.S. Pat. Nos. 3,437,000 and 3,478,635), and vertically laminated bridges. Our patents are the most significant ones awarded for tonal improvements in grand piano tone in recent years.



ENGINEERING translates research into reality. To support our design innovations, we have produced our own testing and construction equipment and have expanded the use of precision tooling to insure that each Baldwin piano built will exactly match established standards of tone and performance. One example of this is a winding machine (U.S. Pat. No. 4,055,038) developed in connection with the SynchroTone™ Strings (U.S. Pat. No. 3,523,480).



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First in a series of informative ads on piano tone published by Baldwin Piano & Organ Company exclusively for the benefit of piano technicians.

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In the Field

BEN McKLVEEN

There are fine classes offered in voicing every year at regional and national conventions. These classes are highly organized presentations designed to give you a comprehensive view of the material in a very short time usually one to three hours. The instructors stress fundamentals and structure their classes to take you through voicing from start to finish. No matter how well these classes are taught, there are always some students who came away mystified because they have little or no concept of piano tone. The demonstrations give them only a fleeting glimpse of the tonal problems the instructor is attempting to solve. I would like to make some suggestions on how you can develop your own concept of piano tone.

Before I was a piano technician I was an oboist. I began the study of the oboe because I liked the sound of the instrument. To the average person the oboe sounds, as Danny Kaye once described it, like "an ill wind that no one blows good," but the serious student goes through endless travail to acquire the sound he likes. Dark oboe sounds are less nasal or not as reedy as light sounds. In contrasting the extremes of the color spectrum, my teacher felt that a sound that was too dark, for example, was in danger of losing the character of oboe quality and would sound almost like a flute or a clarinet. On the other hand, the reedy characteristic, carried to its extreme, would be offensively penetrating and would not blend with the other instruments of the orchestra. The oboe student, as he progresses, must develop a pleasing sound somewhere between these extremes. My teacher and I had long discussions about it.

I have related the foregoing personal experience for a couple of reasons. Piano tone has the same capacity for extremes as the oboe. Soft mushy hammers will give a

sound without much character, no definition, a lifeless sort of sound. On the other hand very hard hammers can produce a harsh edgy sound which most people would call "tinny." Good tone lies somewhere in between, capable of good articulation and brilliance, but also able to produce a warm sound with that elusive ingredient called "character." Any preference of tonal color is personal—it is very subjective—it does not have to be defended unless it violates the boundaries cited above.

How do you develop a concept of piano tone? Begin by listening to pianos. Don't just listen to the tuning; that's objective listening. Listen subjectively. Find some pianos you like and listen to them. I think that it is important to get an ideal tone centered in your mind. It is a place to start. Go on then to listen to all pianos critically.

Voicing is an art form. At its highest level it can be very involved, requiring a great deal of knowledge, experience, and a lot of very specific skills. These are the basis of the good voicing classes that are offered at conventions and seminars. Most of us are not required to practice voicing at that high level. Most painters are not Rembrandts or Picassos, but some very fine paintings are done by average painters. So with voicing, some very nice improvements in tone can be made by very average technicians with a good concept of what they want to accomplish, a little skill, and the confidence to work at it.

If you have never done any voicing get involved but start small. Equip yourself with a sandpaper paddle, some narrow strips of sandpaper and a voicing tool with just one needle in it. You really can't hurt a piano much with these things and you may even improve some of the worst instruments more than you would ever believe possible. Try taking one of those tinny monsters and easing it

back into the area of respectability. Practice smoothing out the break between bass and treble that exists in most small pianos. Try reducing the clang in the middle of a piano that has seen a lot of service.

Not all pianos need everything that is taught in a voicing class any more than all piano actions would need everything that is taught in a regulating class. To illustrate this let's follow a good grand piano from the factory to some point in its life when the hammers are worn out and see what steps might be necessary to keep the voicing acceptable.

In the factory, tone regulating precedes voicing. This includes the initial filing of the hammers, the fitting to the strings, squaring, string leveling, shank traveling—all the mechanical details that you have heard about. These operations may be done by several different people, each improving on the work of the one before him. After a number of tunings the piano is voiced. Evenness of sound throughout the scale is sought as well as an attempt to achieve a balance in brilliance, warmth, and character consistent with some company standard. But, I hasten to add, this judgment is in the mind of the voicer. It can vary slightly from day to day and especially from one voicer to another.

When the piano gets shipped to the dealer, it may sound quite different in the showroom and still different in the

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home after it is sold. Once I had to brighten the sound of a beautiful high quality console for a lady who thought the piano was too dull in the showroom. She bought the piano and placed it in a small wood paneled room and it shrieked like a banshee. I had to go out and tone it down again. But this was an exceptional case.

Most problems in voicing don't occur until the instrument has been used a few years. Some wear may require the hammers to be reshaped, surfaces squared to the strings and a little needling to even up the tone by cutting down on the bright spots that have developed.

As the hammers continue to wear, through the years, additional filing and needling may be necessary. Moving a piano to a new location may dictate some kind of voicing to make it fit its new environment. When the hammers get really worn and tinny, needling can keep the sound bearable until a new set is installed. Then the whole process starts over again.

Some points to remember:

1. Voicing is temporary. Really high quality voicing may last only as long as one concert, but any voicing deteriorates with piano use.

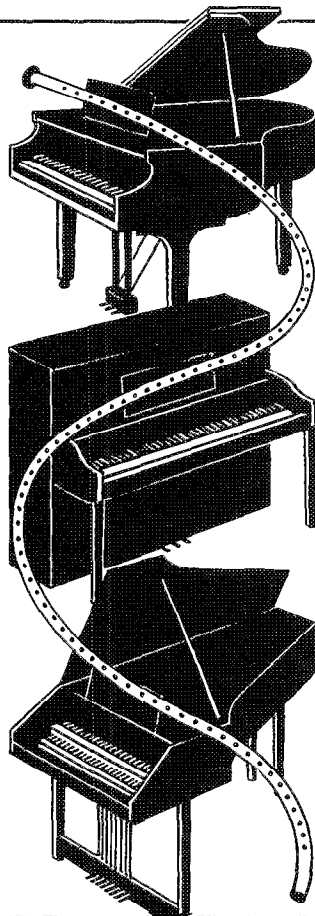
2. Piano tone can change when a piano changes location.

3. Much can be done with less expensive pianos that are not voiced as part of the manufacturing process. Some pianos have hammers that have never been filed! Some have hammers that are extremely hard, producing a very tinny sound. Filing or needling can improve these pianos.

4. Many piano owners do not know about voicing. They think they are stuck with the piano sound they have. It is necessary to draw them out, to talk about their likes and dislikes about their pianos and to explain that voicing is possible to enhance the tone.

5. Listening, establishing a concept of a tone quality you like, and practice toward achieving it builds confidence. I cannot emphasize enough the need for confidence in your skill. It is not automatic; you must work for it. It is an absolutely essential ingredient in the process of becoming a good voicer.

The effort to learn voicing is worth it. It opens new vistas to experience as well as giving you a new skill to practice. It is sensitive, interesting work. If you do it well, it will surely enhance your reputation as a technician and improve your income as well. I urge you to try it. □



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After Touch

David W. Pitsch

Whenever the subject of grand action regulating comes up, the thoughts always turn to benches, key levelers, and let-off racks. As others gloat about how they designed their own bench tops to try to duplicate the piano's keybed, I usually wander off shaking my head asking myself, why so much bother when they could just use the piano itself? I agree that many of the procedures in the 50-point checklist *must* be done in the shop. These include such repairs as rebushing keys, refelting the keyframe, replacing keytops, etc.

However, many of the steps that may be done in the shop can also be done at the piano, or at least in the customer's home. These would include such things as reshaping hammers, repairing action centers, polishing capstans, cleaning knuckles, etc. If the piano is not already in the shop for rebuilding, I much prefer to work right in the customer's home. I have no need for an elaborate bench top, let-off racks, or Jarvas type key levelers! As a bench, I use the keybed of the piano, or if need be, my lap or the piano's lid (padded of course with a moving pad). Instead of a let-off rack I use the strings themselves (far easier and more accurate). In place of a key leveler I use a small straightedge about 15" long which I carry in my case.

Also in my case is a good supply of punchings and other repair items so that I can arrive at a home to tune the piano, and end up staying there all day, reshaping hammers, doing action repairs, and a complete action regulation. I don't work out of a large van either. In fact, many days I work out of a motorcycle! With experience I know what to bring to be prepared for the day's troubles. In most cases, the customer would rather that I work on the piano in her home. She can watch what I am doing, the piano is not out of commission any longer than need be, and if any unexpected repairs crop up, I can consult with the owner while at the piano. It is certainly easier on me since I often work many miles from home, and it is awfully hard to

carry a grand action home on my motorcycle.

These reasons for working at the piano are secondary. Of real importance is the reduced time to complete the work (which means more money) and greater accuracy. Let us make a comparison of two equally fast working technicians, one who regulates at the piano, the other who carts the action back to the shop. Let's pick a ten-year-old piano which has had normal usage. All that is needed are the usual minor adjustments to the action as a result of a little wear and settling in of the action parts, reshaping and voicing of the hammers, and tuning.

The first technician, who regulates at the piano, immediately proceeds to reshape the hammers. This can be done by turning the action around in the piano with the hammers facing the technician, or else putting the action on top of the piano. He then takes apart the action, removes the keys, reinstalls the action without the keys, and cleans everything preparatory to bedding the keyframe. After bedding he aligns all of the action parts, using the strings of the piano as his guide. Next he regulates the action mechanism *in the piano*, and lastly tunes and voices it. Approximate time: one working day.

The second technician, who is going to regulate the action at his shop, takes the essential measurements of key height, string height, and touch depth. He then carts the action out to his vehicle (trying not to hit anything on the way out and hoping not to drop the action while opening the doors). After the long drive home he carts the action into his shop, clears off a working area on his bench, gets out his let-off rack and key leveler and begins to work. Approximate delay time: ½ hour plus the driving time! Another ¼ hour is spent trying to shim the action so that the key heights and key dip measurements he took in the piano are duplicated on the bench.

This technician also begins by reshaping the hammers (a good place to begin). However, he cannot bed the

keyframe as he is not at the piano. Hopefully the keyframe was already bedded correctly as he must now set the key level, adjust the blow, let-off, dip, etc. When this second technician realizes that the hammers and whippens are not aligned, it is too late, as he has already filed the hammers and removed all traces of the string grooves. With nothing to do any aligning with, he completes the regulation process as well as he can. When the action is returned to the piano he will bed the keyframe and do any aligning there.

Oscar Grope now returns the action to the home. Upon checking the bedding, he finds that the piano was never properly bedded at the factory (the studs were too far down, making the action rock). Upon correcting the bedding of the keyframe he checks the key level. Not only is it off, but the dip is now shallow and the piano won't even play! Two hours later after releveing the keys and resetting the dip, Oscar checks the blow and let-off. The blow is now off since he had to releve the keys, and the let-off is too far from the strings (he must have set the let-off rack a little too low).

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By the time Oscar the Grope has finished, he has had to reregulate the entire action, this time at the piano. Approximate total time spent, is twice as long as the first technician. Now I realize this may be an extreme case. The second technician could have saved much of the duplication if he had: 1) made sure that the keyframe was properly bedded to the keybed, 2) leveled the keys at the piano (a must), 3) set sample keys to the correct blow, let-off, drop, dip and back-check before removing the action to his shop, and 4) aligned the hammers to the strings while still in the home.

In taking these precautions, a technician can accurately regulate at the bench. Obviously though, more time must be spent in going back to the shop. Making sure that the keyframe is bedded to the keybed is not always a five-minute procedure. If the piano is like a Steinway where the glide studs are adjusted with a tuning hammer, one can grab hold of these studs and by lifting and tapping do a fairly good job at bedding. But what if the action is like a Mason & Hamlin where the studs barely poke through the keyframe and are adjusted with a screwdriver? You must disassemble the entire action to properly bed this keyframe! If you have to go to that much trouble, why not stay at the home and finish everything there?

Next month we will finally begin Section IV, *The Touch* portion of the 50 point checklist. As we talk through the various steps, I will be speaking from the viewpoint of doing everything at the piano, in the home. Even

though you do not use this method, I am sure that some helpful hints can be gained.

I remember once asking one of the older, wiser technicians who attended every guild meeting that he could, why did he continue to come so often, since he already knew so much? His response has stuck with me ever since: "I try to pick up on something that will help me in my jobs each day. I can usually learn at least one good idea. If not, then I can learn how not to do something so that I won't have to learn the hard way!" □



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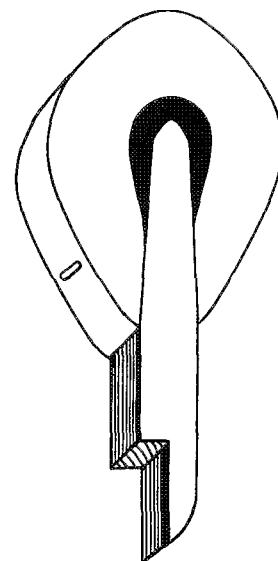
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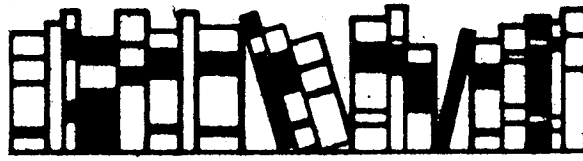
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References on Piano Technology



by Jack Greenfield
Chicago Chapter
Piano Technicians Guild

The *Piano Technician's Journal* contains articles on tuning and technology written at a professional level. Some readers may find it desirable at times to consult more basic and general references also. This column presents a survey of books on tuning and technology now listed in suppliers' catalogs. The prices quoted may vary to some extent.

The oldest book on piano technology still available is *The Piano Tuners Pocket Companion* by Oliver C. Faust (paperback, 3½" x 5", 132 pages, very small type, \$3.00). The copy reviewed was undated but from the amount of space devoted to square pianos, this book was probably written 80 to 100 years ago. Other evidence of antiquity are the quoted costs for complete sets of hammer heads: for Grand, \$6.00 to \$13.00, for Upright, \$5.00 to \$8.00, for Square, \$4.00 to \$6.00." This book may be useful to anyone interested in square and the several other obsolete actions discussed.

Next in chronological order is *Piano Tuning: A Simple and Accurate Method for Amateurs* by J. Cree Fisher (Dover paperback, 201 pages, 1975 reprint of 1907 edition, \$3.00). The subtitle is misleading since many amateurs would find these instructions inadequate. However, the chapters on square pianos and reed organs may be of value to anyone working on these instruments.

Probably the most widely-read book on piano technology is *Piano Tuning and Allied Arts* by William Braid White (295 pages, \$10.00). Originally published in 1917, this book has been revised at frequent intervals. The copy reviewed was the sixteenth printing, 1973, of the fifth edition, 1946. White included some theory and technical data and offered

principles of tuning tests which are the basis for some modified methods presented later by others. Also included is a 20-page chapter on repairs and a chapter on tuning to mean-tone temperament. In view of White's enormous influence on the industry and the field of tuning, this book is an essential reference for professional piano technicians.

Scientific Piano Tuning and Servicing by Alfred H. Howe (246 pages, \$9.00; 1st edition - 1941, 3rd edition - 1963) devotes less attention to theory



and tuning and gives more details on the repairs it discusses. The few technicians that may be called on to service accordions or small air-operated organs will find chapters on these instruments in this book.

How To Tune a Piano by H. Staunton Woodman (paperback, 63 pages, \$4.00, 1st edition - 1960, 2nd edition - 1963); *Professional Piano Tuning* by W. Dean Howell (136 pages, 1st edition - 1966, 2nd edition - 1969, \$8.00); and *Piano Tuning - A Practical Guide* by Dennis E. Kurk (26 pages - large size, \$3.50, 1971) are books primarily devoted to tuning. Woodman's book contains some theory and history of scale development and makes interesting reading. A small amount of other service information is pro-

vided. Howell's book goes into greater detail on procedures suitable for tuning under various circumstances. There is a chapter on tools and instructions for some supplementary service operations. Kurk's book covers tuning procedures only and goes into much detail on technique. An interesting study aid is the audio supplement, a 33 RPM, 30 minutes each side, phono disc, announced in 1978 (Liberty State Press, St. Paul, Minnesota, 55113 - write publisher for current price and availability).

One of the first books offering more advanced technology than the previous ones discussed is *A Guide to Restraining* by John W. Travis (paperback, 272 pages, \$9.00, 1961). Subjects covered include restringing, figuring scales, pinblock installation, repair of soundboards and bridges, and data on stringing scales for 338 different pianos. A later book by Travis, *Let's Tune Up*, (paperback, 372 pages, \$13.50, 1968) is a general text with a considerable amount of history, music and acoustic theory, and other background information covering tuning, repairs and regulation. There is also a chapter on installation of hammers. The text is supplemented with a large number of illustrations, charts, diagrams and tables.

Repairing and Regulating of Pianos by Tuners Supply Company (paperback, 155 pages, large size, printed in large type, \$5.00, 1971) is another general text with a section on tuning. There are no illustrations or drawings but this book is well worth its modest cost.

Piano Tuning, Repair and Rebuilding by Floyd A. Stevens (216 pages, large size, \$35.00, 1972) contains excellent illustrations and draw-

ings with good detail made possible by the large page size. Students will find the chapter on tools and supplies helpful. In addition to the instructions for tuning, repair and regulation of pianos, there are chapters on tuning of electronic organs and pianos, and troubleshooting and repairs of organs. The next book by Dr. Stevens, *Complete Course in Electronic Piano Tuning* (257 pages, large size, \$25.00, 1974) advocates use of electronic tuners as a means for beginners to learn to tune more rapidly. Although some of the author's views are debatable, this book also has value as a reference providing technical information in - harmonic tables and directions for seven different electronic tuning units available at the time of publication. Some of the procedures may be applicable to newer equipment as well.

Piano Servicing, Tuning and Rebuilding by Arthur A. Reblitz (187 pages, large size, \$14.50, 1976) is a comprehensive general text. It is well-written, concisely, with several illustrations or drawings on almost every page, thus presenting more specific information than other larger books. Included is a chapter on electronic pianos and brief instructions for regulating square pianos. Another book, written with the same degree of excellence as the preceding, although with more limited scope is *Piano Repairing for Beginners* by Dennis E. Kurk (paperback, 81 pages, large size, \$5.00, 1977).

The final reference to be considered is *Piano Action Repairs and Maintenance* by K. T. Kennedy (101 pages, \$12.00, 1979). This book, imported from England, covers primarily minor repairs on types of actions used in English pianos.

There have also been several "do-it-yourself" books recently published claiming to provide piano owners with instructions for doing their own tuning and repairs. One of these, less than 100 small pages, gives information on tuning, regulation, action repairs, and string replacement!

In my opinion and the views expressed by others, the best of these books is the one by Reblitz. The second choice is difficult to make, date of publication and cost are factors to consider. None of the sections on tuning contain information on some of the newer test techniques which have been presented in the *Journal* during the past few years.

In addition to books selected from

the preceding, a complete technicians library should include the Guild's *Piano Action Handbook* by Merle Mason (paperback, 55 pages, \$2.50) and *Piano Parts and Their Function* by Merle Mason (paperback, 98 pages, large size, \$10.00 for members, \$14.00 for nonmembers; \$4.00 additional for hardcover) and the service manuals and charts available from piano manufacturers.

Reader Feedback

Dear Mr. Santy:

I am a visually impaired Craftsman, and I truly appreciate the efforts of the Guild in making available technical material and the *Journal* on cassette tape. Please convey my thanks to Mr. George Defebaugh for his time and effort in reading the *Journal*. It certainly is a delight to listen to someone who has an idea what he is reading about

George Bartram
St. Catharines, Ontario

Dr. Mr. Santy:

I should like to call to your attention incorrect advice given on the handling and care of player rolls on page 23 in the October '80 issue of your publication.

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

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

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

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1981 TECHNICAL INSTITUTE

REPEAT CLASSES

AFTERTOUCH IN GRANDS & VERTICALS . . . The Yamaha team of LaRoy Edwards, Jack Caskey, Kenzo Utsonomiya and Joe Dennis.
VOICING AND TONE REGULATING . . . with Norman Neblett.
SHARPENING THE TOOLS OF THE TRADE . . . A "hands-on" class with Joel and Priscilla Rappaport.

VERTICAL REGULATION . . . (Spinets, Consoles, Studios) . . . Cliff Andersen, Bob Hill, Bud Corey, Lew Herwig and Larry Talbot of Wurlitzer. Models and "hands-on" experience.

SERVICING THE RHODES PIANO . . . with Harold Rhodes and Horst Absman.

GRAND DAMPER INSTALLATION . . . All details of this job and some "hands-on" experience presented and supervised by Willard Sims and Jack Krefting, Baldwin Piano.

SERVICING THE AEOLIAN PLAYER . . . with player expert Bob Snyder.

HUMIDITY CONTROL SYSTEMS INSTALLATION . . . Allen Foote and Wendell Eaton.

GRAND HAMMER INSTALLATION . . . hands-on, with models and all equipment under the guidance of Willis and David Snyder with assistance from Homer Wagman.

GRAND ACTION REGULATION . . . Roger Weisensteiner and the Kimball Collaboration . . . complete with models and "hands-on" work time.

TUNING!!! We will not name the Titles and Instructors for these "bread and butter" classes, but we guarantee a "smorgasbord," selection.

NEW CLASSES

AGRAFFES . . . Repair, removal and replacement with a new instructor, Paul Bergan.

BASICS OF PIANO TUNING . . . for the Student and Apprentice, with Leon Levitch.

BRIDGE REPAIRS, Usual and Unusual . . . with John Bloch.

BUILDING A SUCCESSFUL BUSINESS . . . Tips of organizing and maintaining a profitable Piano Service Business, Phil Bashaw.

DESIGN AND REPLACEMENT of Grand Piano Keys & Actions . . . with Frank Stopa, Wally Brooks & the Connecticut Crew.

FRICTION IN THE GRAND PIANO ACTION . . . The basics that must be attended to before Grand Regulation can begin, with Ed Whitting.

KEY RECOVERING . . . Ed Solenberger shows you how to build your own machine and recover your own keys.

PEDALS, LYRE AND SOSTENUTO . . . From the bottom up with Steinway's own Fred Drasche.

PIANO EVALUATION AND APPRAISAL . . . Ben McKlveen brings you up to date on the "how and why" of this very important part of your business.

REBUILDING THE OLD PLAYER STACKS OR "WHERE THE LEAK STOPS" . . . A must for all Player Service People, with Raye McCall, author of the Journal column, "Vacuum Line."

TROUBLE SHOOTING THE VERTICAL PIANO . . . From Casters to Top Hinges with Master Trouble Shooter, Ernie Juhn.

WHAT ARE ALL THEM FELTS FOR? . . . The answers will be forthcoming from you, the class, or Jim Harvey, Technical Manager, Kawai America Corp.

SPECIAL CLASS

COMPLETE GRAND REBUILDING . . . Theory, Practical and "Hands-on" with Master Builders Bob Burton, Ken Kadwell and Sheldon Smith.

PRIVATE TUTORING

Both Aural and Visual Tutoring will be available with such outstanding instructors as Newton Hunt, George Morgan, Carl Wicksell, Ruth Ann Jordan and others.

San Francisco

SPOUSE CALENDAR

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

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

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

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

(Auxiliary Center open to Members and Non-Members)

Tuesday — July 7, 1981

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

Wednesday — July 8, 1981

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

Thursday — July 9, 1981

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

Friday — July 10, 1981

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

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

*Activities for members only



MEMBER CALENDAR (Preliminary)

Saturday — July 4, 1981

1:30 pm- 6:00 pm Registration Open

Sunday — July 5, 1981

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

Monday — July 6, 1981

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

Tuesday — July 7, 1981

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

Wednesday — July 8, 1981

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

Thursday — July 9, 1981

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

Friday — July 10, 1981

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

1981 TECHNICAL INSTITUTE UPDATE

by George Defebaugh
1981 Institute Director

Just in case there is any misunderstanding about the number of classes at the 1981 Convention, created by the abbreviated list of some 24 classes which has run since our April issue, please be advised there is a lot more in store for you. As of April 15, we have scheduled a total of 37 classes plus the PTG Tuning Exam Concert, which will take place immediately after the closing luncheon.

Since we closed last month's "Update" with a remark about a "Grand Experience", perhaps we should continue in that vein and mention a few more Grand related classes at the Piano Technicians Guild Convention, July 6-10 at the San Francisco Hilton Hotel.

Most of our members in the West and Midwest have not seen Willis Snyder's class on Grand Hammer Installation, since there is a lot of equipment necessary for a "hands-on" class of this type and Willis has not previously hauled it all out West.

However, this problem has been ironed out and we will have Willis and son David with models, tools and paraphernalia to show you how you can make an old Grand action look and sound "better than new" with a perfect hammer hanging job.

While we're on the subject of Grand hammers, how many of you are tone regulating experts? So that you can become experts, we are once more bringing back "everyone's favorite" tone regulating instructor, Norman Neblett. We here in California know Norman quite well and accuse him of "teaching by intimidation," when we know he is a "pussy cat" at heart. No matter what your reaction may be, you will know that Norm has prepared his material for this class ... that he has had the experience and can do the job ... and you too will be better equipped to face the voicing challenge for the persnickety customer after you attend this class.

Still on Grands ... The class on soundboard repair by Cliff Geers is a

must, even if you have no immediate plans to shim a soundboard yourself. You should know the proper procedures for this repair and this class is where you get the correct information.

Also, don't forget Pedals, Lyre and Sostenuto by Steinway expert Fred Drasche. This is the part of Grand servicing we often ignore or put off until the last minute, yet it is of the utmost importance. As I write this I am reminded of an incident back in the '60s when Felix DeCola came to give a school lecture and concert where I had prepared the piano. He walked over to the piano, sat down and tried each pedal several times, then turned to me and said, "I can give my performance if the piano is a bit out of tune and probably very few will notice anything wrong ... but if the pedals don't work, I can't perform at all."

Think about that for a while and we'll try to give you another subtle hint next month to make you realize as we do ... **You can't afford not to go to a PTG Convention.**

About Conventions

by Norman H. Neblett

Many years ago this writer borrowed the money to attend a convention in New York City. The purpose was to take the voicing classes of Wm. Hupfer, chief concert technician of Steinway & Sons. I had earlier realized that to become a concert and recording studio technician voicing had to be mastered. Being inexperienced, the classes went over my head. With reservations, I approached Mr. Hupfer in the hall and told him of my dilemma and ambitions. He took me aside and spent many hours with me alone. A warm relationship developed from this experience and Bill and I met yearly until he retired. This event was the turning point in a young and unsure technician's career.

I met your present National Institute Director, George Defebaugh, at a San Francisco convention some 25 years ago. This chance meeting resulted in many collaborations as dual instructors, exchanges of tech-

nical ideas, shared Guild projects and a warm personal friendship, and there have been many more such experiences.

You are being told these stories because I believe that many of us have achieved our professional goals and status as the result of knowledge gained and contacts made at Piano Technicians Guild-sponsored events.

In addition to specialty classes, conventions provide an opportunity to get a different viewpoint of the same subject from equally well known instructors, and to meet suppliers, manufacturers and sub-contractors to the piano industry.

Convention attendance is the easiest pipeline to the manufacturer. They support us through their exhibits and ads in our magazine. The most valuable contact is a chance to exchange technical ideas, attend their classes and exchange information about their products. The fac-

tories send their technical representatives to us for this purpose.

Most manufacturer's representatives have little opportunity to participate in field experience. This is what we provide them. Many never see their product outside of the factory showroom.

So you see, this is a two-way street. Use the opportunity to "pick the brains" of the best technicians in the industry. If they appear obscure to you and preoccupied with their own thoughts, remember that they are busy people. Instructors and factory representatives are generally friendly people or they would not be successful in their roles. The responsibility of teaching a technical class to 90 of your peers is mind-boggling. It has taken many hours of preparation. When the class is over, instructors need peace and quiet. Later on, catch them informally. You will find that most are friendly, receptive and informative. See you there!

MEMBER REGISTRATION COPY

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

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

Spouse's Name _____
(if attending)

Nickname for Badge _____
(if not the same as above)

Children (names and ages) _____

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

TECHNICIANS

Guild Members

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

Non-Guild Members

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

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

Grand Rebuilding ☐ \$ 30.00

SPOUSES AND CHILDREN

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

OPTIONAL FUNCTIONS

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

TOTAL ENCLOSED \$ _____

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

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

HOME OFFICE REGISTRATION COPY

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

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

Spouse's Name _____
(if attending)

Nickname for Badge _____
(if not the same as above)

Children (names and ages) _____

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Children (15 and under) ☐ \$ 5.00
I Plan to Attend ☐ Auxiliary Tea
..... ☐ Auxiliary Luncheon

OPTIONAL FUNCTIONS

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

TOTAL ENCLOSED \$ _____

DO NOT WRITE HERE

Date Rec. _____ Priority No. _____
Amt. Pd. _____
Cash _____ Check _____ Money Order _____
Chapter No. _____ Member No. _____
Classification _____

Tuning Exams Offered at San Francisco Convention

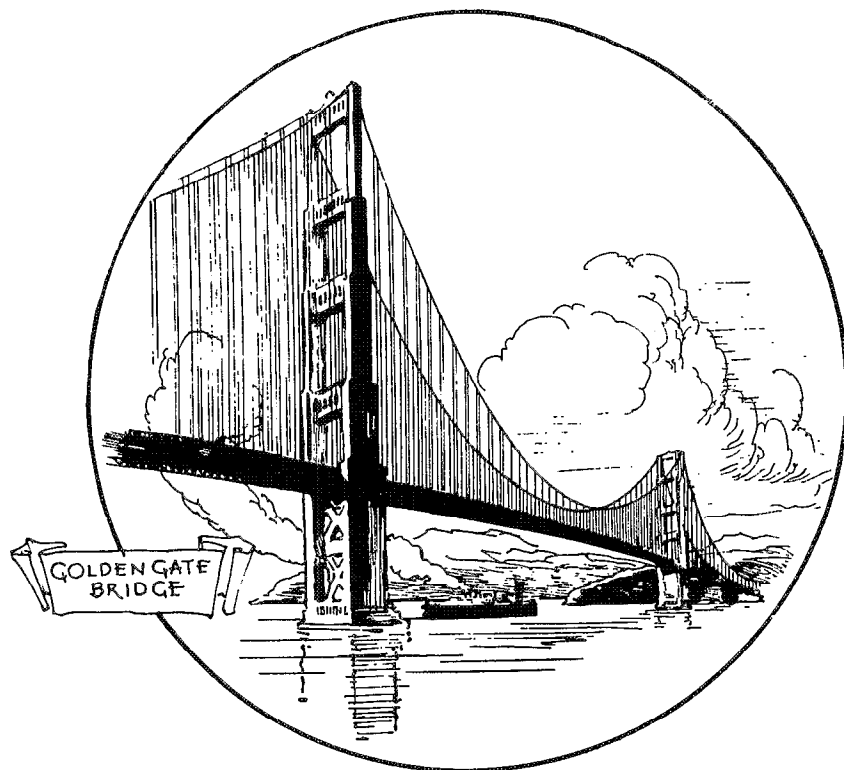
The new tuning exam will be offered at the San Francisco Convention. Due to the necessarily limited number of times available for testing, scheduling will be done in advance on a first come/first served basis.

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

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

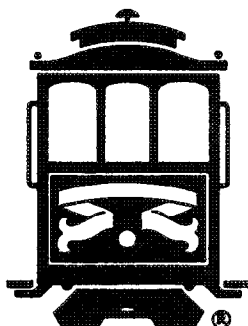
Those who have passed the exam with 90s and wish to learn how to give exams as the second step toward certification should present themselves at the exam area during the convention and will be assigned to work with an experienced CTE.

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



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

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



NAME _____

ADDRESS _____

PHONE (____) _____

PRESENT CLASSIFICATION:

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

Taking exam to become:

- ☐ Apprentice ☐ Craftsman
☐ Certified Tuning Examiner

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

Ron Berry
6520 Parker Lane
Indianapolis, IN 46220

ALOHA!

Post-Convention Tour Schedule of Events

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

HILTON HAWAIIAN VILLAGE, Honolulu

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

KONA HILTON, Island of Hawaii

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

WAILEA BEACH HOTEL - Island of Maui

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

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

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

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



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

TRAVEL TIPS . . .

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

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

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

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

For further information contact:
KAILANI WORLD TRAVEL

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

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

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

SEE YOU ON THE BEACH!!!

GOING TO HAWAII?

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

FARE SAVINGS

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

CONVENTION MEMBERSHIP BOOTH



Smit



Hawkins

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

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

See you there!

Dick Bittinger - NERV

STEINWAY & SONS HOSTING RECEPTION

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

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

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

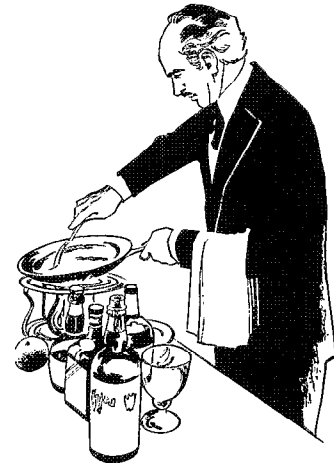
Dining in San Francisco

The first-time visitor to San Francisco might easily get the impression that the city consists solely of hotels, restaurants, shops and bars, since there seems to be one or more of each in every block. Hotels, both large and small, are everywhere, as are small specialty shops. Writing in **Gourmet Magazine**, Gerald Asher said: "Shopping is an amusement and a pastime in San Francisco. In Paris if someone has an interesting idea he paints or cooks it; in New York he might write a book about it; in London he rests until the idea goes away; but in San Francisco he opens a shop to sell it." It is the huge number of restaurants supported by this city, however, that seems incredible. And, surprisingly, most of them are quite good, perhaps because restaurants are reviewed by local media with the same scrutiny usually reserved for plays and concerts.

This seeming overabundance of hotels, restaurants, shops and bars is not totally attributable to the city's booming tourist business. Most of the many small hotels have many permanent residents; most restaurants do very little tourist business, and the shops cater mainly to locals. Those who survive and prosper do so because San Francisco has an exceptionally large percentage of single persons and childless couples. Much of its permanent population is made up of those who came to visit and stayed. When they get ready to raise a family they often move to the suburbs, but return to the city to shop and dine.

The large number and infinite variety of restaurants from which to choose make San Francisco one of those rare cities where dining is an experience rather than a necessity, and where that experience is almost always a pleasurable one. This can make selection difficult, but we will assist you with a guide book in your registration packet which will list establishments near the hotel plus some selected, recommended establishments in other parts of the city. It will include prices, rating, type of food, etc.

While the city is noted for the variety of cuisine available, it is most famous for seafood and oriental food. The best Chinese food anywhere in the world (including China) can be found in San Francisco. One can choose from Cantonese, Mandarin,



Peking, Szechuan, Mongolian or Hakka restaurants or one of the many tea houses specializing in dim sum and other light delicacies.

Seafood is available everywhere, but many houses specializing in seafood serve local varieties caught just a few hours earlier. To the big eater concerned with volume rather than gourmet quality, one of the many family owned Italian, Basque, German or Provincial French restaurants might be appealing. Huge complete meals at reasonable prices are served in a congenial and colorful, although sometimes inelegant, atmosphere. The adventuresome might wish to experience one of the many ethnic varieties seldom found in other cities—Armenian, Greek, Moroccan, Vietnamese, East Indian, etc.

The area near the hotel, since it is the theatre district, has some of the city's better sandwich and light order places. There are delicatessens, hofbraus, cafes, a popular spot specializing in hearty gourmet soups and quiches, and another specializing in crepes, all less than two blocks from the convention hotel. Also nearby are many breakfast places, including one of the city's more highly regarded cafeterias.

Full details on the above will be provided in your registration packet. We will also include some self-guided combination cable car/walking tours, so you can experience as much as possible of this fascinating city in the shortest time at the lowest possible cost. We plan to do everything possible to make your visit to Everyone's Favorite City an exciting, memorable and pleasant experience that you can treasure for years to come.

VON DER WERKSTATT

Priscilla and Joel Rappaport

Hold It! The Sostenuto System

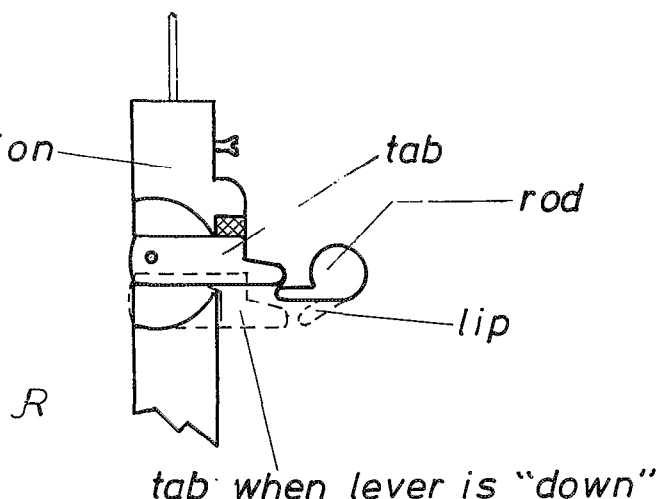
Judging by the condition of many pianos receiving regular service one of the least understood systems in the grand piano is the sostenuto system. Because even many teachers do not understand how the sostenuto works, we must be able to explain it to them and to adjust it correctly.

There are different types of sostenuto systems. The true sostenuto will hold up any damper that is in the "up" position at the time the sostenuto pedal is depressed but will allow the other dampers to move up and down as the other keys are played. A full sostenuto system is functional for all dampers from the first bass damper to the last treble damper. Another use of the middle pedal is what we call a "fake sostenuto:" all the bass dampers are lifted. This allows a pedal point to be sounded in the bass while the melody continues with regular pedaling in the treble. We are concerned with only the true sostenuto system. Let's discuss how the true sostenuto functions, then the prerequisites that must be met before any adjustments take place. At this time, it may be helpful to refer to **Drawing 1** to clarify the names of the system parts.

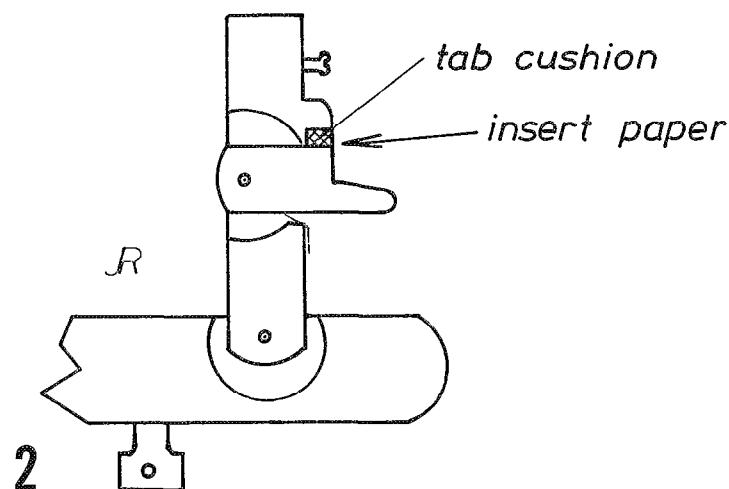
When the sostenuto pedal (usually the middle of three pedals) is depressed, a series of levers, dowels and couplers rotates the sostenuto rod from about the seven o'clock position to about the nine o'clock position from the perspective of **Drawing 1**. On its way, the lip should not touch anything, but swing freely and noiselessly. Any damper tab in the down position as shown by the dashed line drawing should not be touched. However, any damper already held up will then be held up by the sostenuto rod. As long as the sostenuto pedal is depressed, other notes are played and their dampers are allowed to go up and down with

lever in

"up" position



1



2

the keys or damper lift pedal-undisturbed by the sostenuto rod - because of a spring assembly in the tab or the neoprene construction of the tab which makes it flexible. With the release of the sostenuto pedal, all dampers return to the normal function.

This part of servicing the piano occurs near the very end of your routine. It is done after the action is completely regulated and after all

damper work (installation and regulation) is done. For the sostenuto to be adjusted, all dampers must lift at the same time and the tabs must be in a straight line. All tabs must also be in a straight line forward and back so that the rod can engage all tabs simultaneously. Of primary importance at this time is the straight line left-to-right of the tabs.

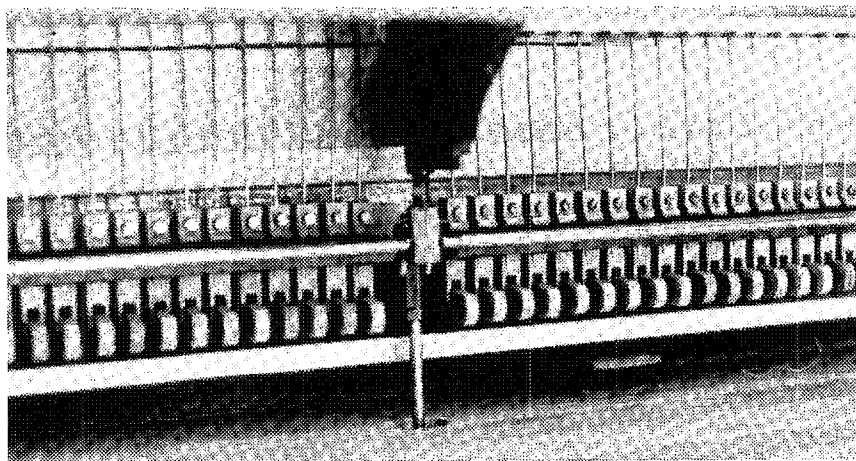
Damper underlevers with capstans as in **Drawing 2** make it easier to

accomplish both the straight line and the damper lift. **Drawing 2** shows the tab cushion which positions the tab. Small adjustments can be made here to raise or lower the tab. If the tab is too low, a thin slice of felt can be cut away from the cushion using a very sharp knife. If the tab is too high, one or (at the most) two strips of brown traveling paper can be glued onto the wood of the tab where it will contact the cushion. To avoid possible noises, if more than two pieces of paper are needed, replace with cushion with a thicker piece of similar felt and adjust.

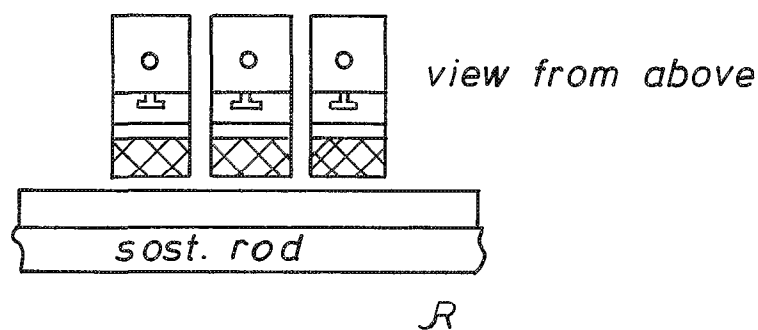
The preceding assumes that the damper lift of this particular damper is correct. In a damper system without capstans, repositioning the lever up or down on the damper wire and tightening the set screw is the way to adjust simultaneous damper lift. If there is no capstan present, the tabs are in a straight line, but a few dampers are slightly off during the damper lift test, there are things that can be done.

Leave the damper lever where it is; in other words, do not move it up or down on the damper wire which is the normal way to adjust damper lift in this type of action. If the lever rises a shade too early, the damper lift rail felt can be compressed by your finger or lightly ironed with a warm screwdriver so as to make the lever rise slightly later. If it is a bit too late, a strip of paper can be glued onto the damper lift rail under the felt. But please be careful. Both of these ideas can be overdone. We have seen so much paper glued onto the damper lift rail that it looked like a paper shredder had been emptied into the keybed. **Picture 3** shows how the tabs can be lined up against a sostenuto rod in the piano so that each tab just shows under the rod. With instruments that don't have the rod mounted in the keybed area, you must check the line by eye, correcting anything that is too high or too low.

Two more prerequisites can be mentioned here. The damper stop rail must be adjusted so that when any damper is raised by depressing its key, the damper still will have 1-2mm free motion above that. The second prerequisite refers to actions in which the sostenuto rod is attached to the action stack. The position of the key frame must be already fixed in the final position. Also, the frame may not be allowed to move forward and back in the cheek block plate that holds the



3



4

frame pin. Of course, repositioning the frame to adjust the sostenuto system changes the hammer strike point and should not be done.

Looking at the assembly from above - as in **Drawing 4** - the ends of the tabs should be equidistant from the rod. If any are not, the lever should be pushed or pulled, bending the damper wire, to line up the tab. Then the damper must again be regulated as to travel, springing and equal front-and-back lift.

Now the rod must be positioned. A general guideline is that the rod should be about 1mm above the tabs as you look straight at the damper levers and 1mm away from the tabs as you look from above. The rod can be positioned by loosening the screws that hold the rod's brackets to the case or action stack and moving the brackets. Some construction allows you to make fine adjustments by simply bending those brackets.

The rod position can be changed in two directions: forward-and-back and up-and-down. Understanding how the sostenuto system works and experience will tell you which adjustment is necessary.

The following tests are done to verify that the sostenuto system is functioning properly:

- I a) push damper lift pedal
- b) depress sostenuto pedal
- c) release damper lift pedal

All dampers should stay up.

- II a) dampers remain in "down" position

- b) depress sostenuto pedal

There should be no contact of the rod with any tabs.

- III a) depress sostenuto pedal

- b) play each note with a hard blow

Each damper should rise and fall normally; the tab should *not* slip above the sostenuto rod lip and be held up.

CROSS OVER THE BRIDGE

All New for 1980-1981

This year the booster club has a new format.

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

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

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

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

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

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

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

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

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

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DRAINE, Robert	24 ... 8
MARCIANO, William	15 ... 5
SMIT, Robert	18 ... 6

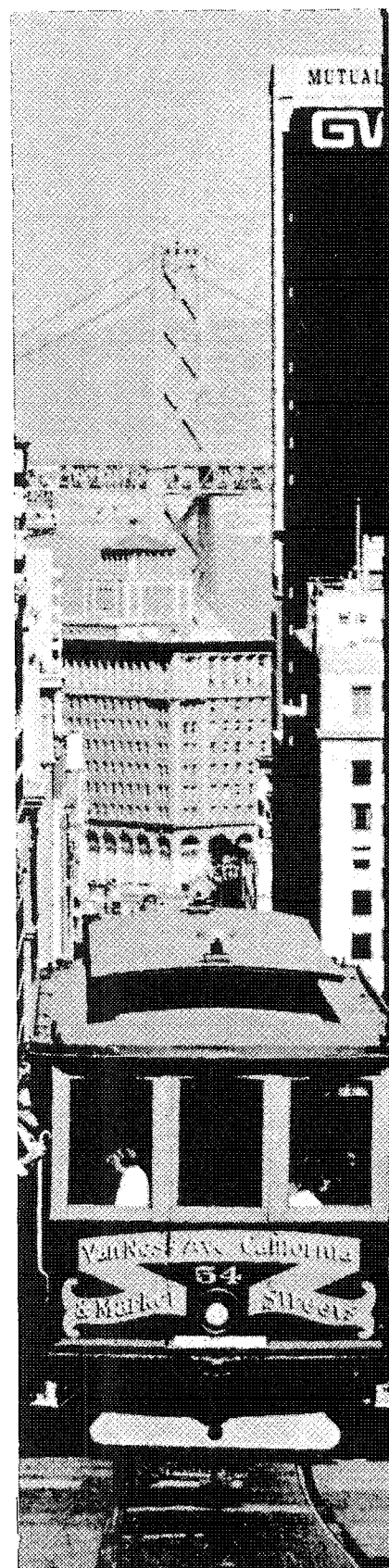
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COLEMAN, Sr., Jim
DeTAR, Brian
DUNCAN, David
FANNING, William
GOLD, Jimmy
MENSCHING, Dale
PREUITT, Ernie
SPRINKLE, Jack
WALKUP, Ken
WEEKS, George
WILLIAMS, Kenneth

Booster Club

Ackman, W. H.	3 ... 1
AFFLECK, Don	1 ... 1
ALLEN, Jon	1 ... 1
ANDERSON, Albert	7 ... 3
ANDERSON, Mark	3 ... 3
ASHMORE, Yvonne	1 ... 1
BAIRD, John	4 ... 4
BARRUS, Ralph	3 ... 1
BAUM, Patrick	3 ... 1
BECK, Jacqueline	4 ... 4
BENNETT, Wallace	3 ... 1
BERGE, Harry	3 ... 1
BITTINGER, Dick	17 ... 7
BRADY, Stephen	2 ... 2
BRATTON, Donald	1 ... 1
BROOKSHIRE, Jerry	1 ... 1
BROWN, Anson J.	1 ... 1
BROWNFIELD, Gary	3 ... 1
BURTON, Robert	1 ... 1
BUYCE, Harold	5 ... 3
CALLAHAN, James	1 ... 1
CLARK, Peter	1 ... 1
CLEVENGER, Wayne	4 ... 2
COLEMAN, Sr., Jim	7 ... 3
COLLINS, James A.	3 ... 1
CONOVER, Lester	3 ... 1
COX, Merrill	9 ... 3
CRABB, Larry	3 ... 3
CRAW, Stephen	1 ... 1
CUNNINGHAM, Jess	12 ... 4
DANTE, Richard	3 ... 1
DAVENPORT, Richard	1 ... 1
DeARMOND, C.E.	6 ... 2
DEFEBAGH, George	3 ... 1
DeTAR, Brian	4 ... 2
DORLEY, William	5 ... 5
DRAINE, Robert	28 ... 10
DROST, Michael	6 ... 2
DUNCAN, David	3 ... 1
EATON, Wendell	3 ... 1
EDWARDS, Laroy	3 ... 1
EDWARDS, William E.	4 ... 2
ERDMAN, James	1 ... 1
ESMONDE-WHITE, Oliver	6 ... 2

Pts Mbs



EVANS, Dan	4 ... 2	RICHARDSON, James	6 ... 2
FANNING, William	6 ... 2	ROE, Eugene	3 ... 1
FELTON, Hilbert	10 ... 4	RUSSELL, Bob, Sr.	8 ... 8
FINGER, Chris	9 ... 3	SAAH, Joseph	3 ... 1
FLEGLE, Sr., Richard	1 ... 1	SCHMITT, Paul	6 ... 2
FOSTER, Elmo	3 ... 1	SCHOPPERT, Robert	12 ... 4
FREIDIN, Irving	1 ... 1	SEITZ, Al	4 ... 2
FRITZ, Lloyd	3 ... 1	SEYMOUR, Ed	1 ... 1
FROST, Jack	6 ... 2	SIEROTA, Walter	3 ... 1
GARLICK, William	3 ... 1	SKOLNIK, David	3 ... 1
GARMAN, Dale	3 ... 1	SMIT, Robert	18 ... 6
GARRETT, Joseph	1 ... 1	SNYDER, Willis	3 ... 1
GEIGER, James	3 ... 1	SPEIR, Leon	3 ... 1
GENTRY, Kenneth	3 ... 1	STARES, J. H.	1 ... 1
GILLER, Evan	7 ... 3	STEELE, Joe	10 ... 4
GOLD, Jimmy	3 ... 1	STONE, Patrick	6 ... 2
GOYA, Emily	1 ... 1	STRONG, Douglas	3 ... 1
GRENNING, Albert	1 ... 1	SVEC, John	1 ... 1
GULLIXSON, Elisha	3 ... 1	THILE, Scott	1 ... 1
GUY, John	4 ... 2	UPHAM, Russ	3 ... 1
HANSON, Frank	9 ... 3	VARNADO, James P.	3 ... 1
HARMON, Clayton	3 ... 1	WAGNER, Lloyd	9 ... 3
HARVEY, Jim	3 ... 1	WAGNER, Robert	6 ... 2
HAUCK, Jack	1 ... 1	WALKUP, Ken	6 ... 2
HEDRICK, Ralph	4 ... 2	WEEKS, George	4 ... 2
HEINDELMAN, Lois	3 ... 1	WEST, Richard	2 ... 2
HENRY, Fern	1 ... 1	WICKSELL, Larry	1 ... 1
HERBERT, Curtis	3 ... 3	WILEY, John	1 ... 1
HERSHBERGER, Ben	3 ... 1	WILLIAMS, Kenneth	6 ... 2
HESS, Mark	3 ... 1	WILLIS, Aubrey	1 ... 1
HIPKINS, David	3 ... 1	WISENBAKER, Martin	1 ... 1
INGLES, Bob	1 ... 1	WOODALL, Dennis	3 ... 1
JACKSON, George	3 ... 1	ZEISEMER, Bruce	3 ... 1
JOHNSON, Eric	3 ... 1	ZELLMAN, Adelaide	2 ... 2
JORDAN, Wayne	3 ... 1		
KIMBALL, Michael	1 ... 1		
KINGSBURY, Richard	3 ... 1		
KOKTON, Paul	3 ... 1		
KREITZER, Mark	3 ... 1		
LAWRENCE, Paul A. U.	3 ... 1		
LEVITCH, Leon	1 ... 1		
LILLICO, John	13 ... 5		
LOEFFLER, W. J.	3 ... 1		
LURIE, Mordecai	6 ... 2		
LYNN, Frederick	6 ... 2		
McCLURE, Wallace	1 ... 1		
McGUIRE, Michael	4 ... 2		
McKINNON, Karl	1 ... 1		
MARCIANO, William	15 ... 5		
MARTEN, Gil	3 ... 1		
MATHESON, Duncan	1 ... 1		
MATTHEWS, John	3 ... 1		
MEEKINS, Joyce	3 ... 1		
MEHAFFEY, Francis	1 ... 1		
MENSCHING, Dale	6 ... 2		
METZ, Al	2 ... 2		
NEIE, Gary	3 ... 1		
NICOLAI, Jay	3 ... 1		
ODENHEIMER, Fred	6 ... 2		
OSBORNE, James	9 ... 3		
OSBORNE, Joseph	3 ... 1		
PERKINS, Robert	4 ... 2		
PERSON, Donald	1 ... 1		
PETERS, George	3 ... 1		
PETERSON, Gerald	3 ... 1		
PHILLIPS, J.	3 ... 1		
PREUITT, Ernest	4 ... 2		
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REQUE, Styrke	1 ... 1		

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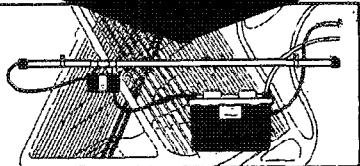
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Coming Events

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

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

October 9-11, 1981
OHIO STATE CONFERENCE
Dayton, Ohio

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

October 11-13, 1981
FLORIDA STATE CONVENTION
Daytona Beach, Florida

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

October 15-16, 1981
NEW YORK STATE CONVENTION
Howard Johnson's
Plainview, New York

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

October 16-18, 1981
TEXAS STATE CONVENTION & SEMINAR
Space Center Inn
Houston, Texas

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

November 7-8, 1981
BALDWIN/STEINWAY SEMINAR
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Baltimore, Maryland

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

March 26-28, 1982
PENNSYLVANIA STATE CONVENTION
Pittsburgh, Pennsylvania

Contact: Robert W. Wagner
1225 Saxonwald Ave.
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UPCOMING CONVENTIONS OF THE PIANO TECHNICIANS GUILD

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

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

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

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Luellyn Preuitt

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Editor, Auxiliary Exchange

LUELLYN PREUITT
4022 South Fuller
Independence, Missouri 64052

"Greetings. It has recently come to my attention that there are those who wish to attend the convention, but not register. Why register for a convention—any convention? The most obvious thing which occurs to me is that it gives you a name badge which allows others of like mind and persuasion to identify you, to speak to you, to include you in the planned activities.

"Everything costs more these days, including our services for which our customers pay us. That's all the more reason for us to take advantage of the \$35.00 registration fee—it's the bargain of the convention! Again, the first advantage it offers is a name badge. This badge allows you to attend all functions including the exhibit areas. You will be able to attend all planned activities, which are separate from the hospitality center this year. If you were to decide to purchase tickets for the President's reception and the auxiliary luncheon at the last moment, the price would be almost as much as the registration fee.

"Another bargain, offered as an option, is the planned Wine Country Tour. For only \$28.00 you are offered a five and one-half hour tour which is not limited to auxiliary members but is open to any Guild member or others who might wish to participate. After checking many tours and tour agencies, I chose this one because the price is comparable, and have left open time in the program for you to take some of the shorter tours of interest.

"Those of us involved in the planning of this convention have endeavored to put together as good a program as possible, taking into consideration different interests and especially trying very hard to get the most possible for as little cost as possible.

Remember, you can take all of this

into account at income tax time. Let's all attend, register, and participate to bolster the purpose of the Auxiliary!"

—Jewell Sprinkle

"This month, as your President, I must announce the retirement, effective with the August issue, of our Auxiliary Exchange Editor, Luellyn Preuitt, and the appointment of her replacement, Julie Berry.

"Luellyn has been a faithful servant to all of us over the eleven years of her editorship. When copy has been low she diligently filled in to be able to maintain our column. This is not, as most of us realize, an easy task to perform each month over a long period of time.

"Not only has Lu served as editor, but as those of us who have attended the convention and seminars know, she is one of the greatest 'do-it' persons alive. We who have served as board and committee members know that if we need help of any kind and ask Lu for assistance, she will 'do-it' to perfection with a smile.

"I'm sure that all of you who are acquainted with Julie know of her lively interest and concern for the Auxiliary. She too has a great talent for writing and will serve well throughout her term as editor.

"Thank you, Lu, for all your years of dedication to the Auxiliary. We wish you health, happiness, and success in your future interests.

Sincerely, Jewell Sprinkle,
President, PTG Auxiliary

We are happy to welcome Alice Nowark, as a new member of the Syracuse, New York Auxiliary. Alice lives at 127 Sheldon Avenue, Syracuse, N.Y. 13205. Her husband is Timothy, who passed Craftsman Status and Master Tuning Test during their October, 1980 convention. They have a five-year-old, Christopher. Marge Williams, their president, is really working hard to build up this chapter!

Your writer has an apology to Marge, also. While transcribing Marge's interesting article about the convention, she inadvertently omitted (you blame it on astigmatism or stupidity, whichever you wish) an entire line of names of ladies attending. So, with much regret at the oversight, and all the faith in the world that this time it'll be right, here they

are. Ladies attending the October 1980 New York State Convention at Syracuse, N.Y., in addition to those previously listed, were Ruth Juhn, Delores "Dee" Fairchild, Mary Danos, Jacque Grenning, Frances Bliss, Dominique Grey and Eleanor Ford. Marge tells further that although Eleanor was unable to attend many of the Auxiliary functions because of helping to man the Ford booth, she was still very much a part of the convention. In addition, Jacque Grenning and Fran Bliss were extremely helpful in organizing the Syracuse chapter. We do hope you don't blame Marge for this oversight.

By now you have all received dues notices from our efficient and sparkling treasurer, Belva Flegle, and surely you have all responded with your remittance as she requested, by April 30. If you haven't, be sure you take it to convention with you, and if you are not going, get out that checkbook right this minute! You will remember that the Auxiliary year was changed to January 1 through December 31 at the Council meeting last year in Philadelphia, this in order to correspond with the Guild year. This dues billing reflects that change, and the \$7.50 remittance will pay for your membership through December 31, 1982.

The Auxiliary still has a supply of Rockwell prints. They may be ordered at a charge of \$3.50 each, from Julie Berry, 6520 Parker Lane, Indianapolis, IN 46220. The print of the little red-headed boy watching the "piano tuner" is an admirable reflection of our heritage.

Your writer has been thinking of late on the subject of commitment,

especially as it applies to the Piano Technicians Guild Auxiliary. Webster's New Collegiate Dictionary gives several definitions, all with the same overall content but varying degrees of expression.

The first and probably the best known one is, "an act of committing to a charge or trust." The basic act here is one's commitment to another person, whether or not that person may be a piano technician. The technician may be a "retiree" who has come into the field of piano technology not as an afterthought but as an extension of activity and seeking "new fields to conquer." This applies whether that person is male or female, for the spouse commitment is alike in both instances.

There are others for whom the commitment is made in the flush of youth, and the feeling that the world is theirs for the asking. This commitment is at once the easiest and the most difficult. They are eager to have the partner succeed in whatever endeavor he or she may attempt, but personal desires run high at this time of life, they are brainwashed into believing they must acquire each new gadget as it is presented to them by the media, and baby needs new shoes.

Understanding the importance of an Auxiliary in connection with the organization to which the technician belongs may be a difficult task for both of these persons.

Suppose, however, each makes the commitment. Somewhat humorously, the next definition given by Webster's is "a consignment to a penal or mental institution". Now I'm

sure we all agree the Auxiliary is neither of the two mentioned institutions. First, commitment is voluntary and second, participation is voluntary. How many times, though, have those of us who have committed ourselves voluntarily to some task in the Auxiliary felt just a wee bit of claustrophobic panic as the deadline approaches? Yet it approaches, arrives and departs, and Lo! we are still alive, all in one piece, and eagerly anticipating the next encounter.

The only other definition which seems apropos at this time is the brief "something pledged". I am convinced that, as this column changes hands after eleven years, each and every member of the Auxiliary will consider her or his membership in the organization as "something pledged". "Something pledged" to your new board and editor, "something pledged" to the partner who helps buy shoes for baby and extra trips for mature age, "something pledged" to the parent organization and its members and officers, and most of all "something pledged" to the art we so fervently support. □

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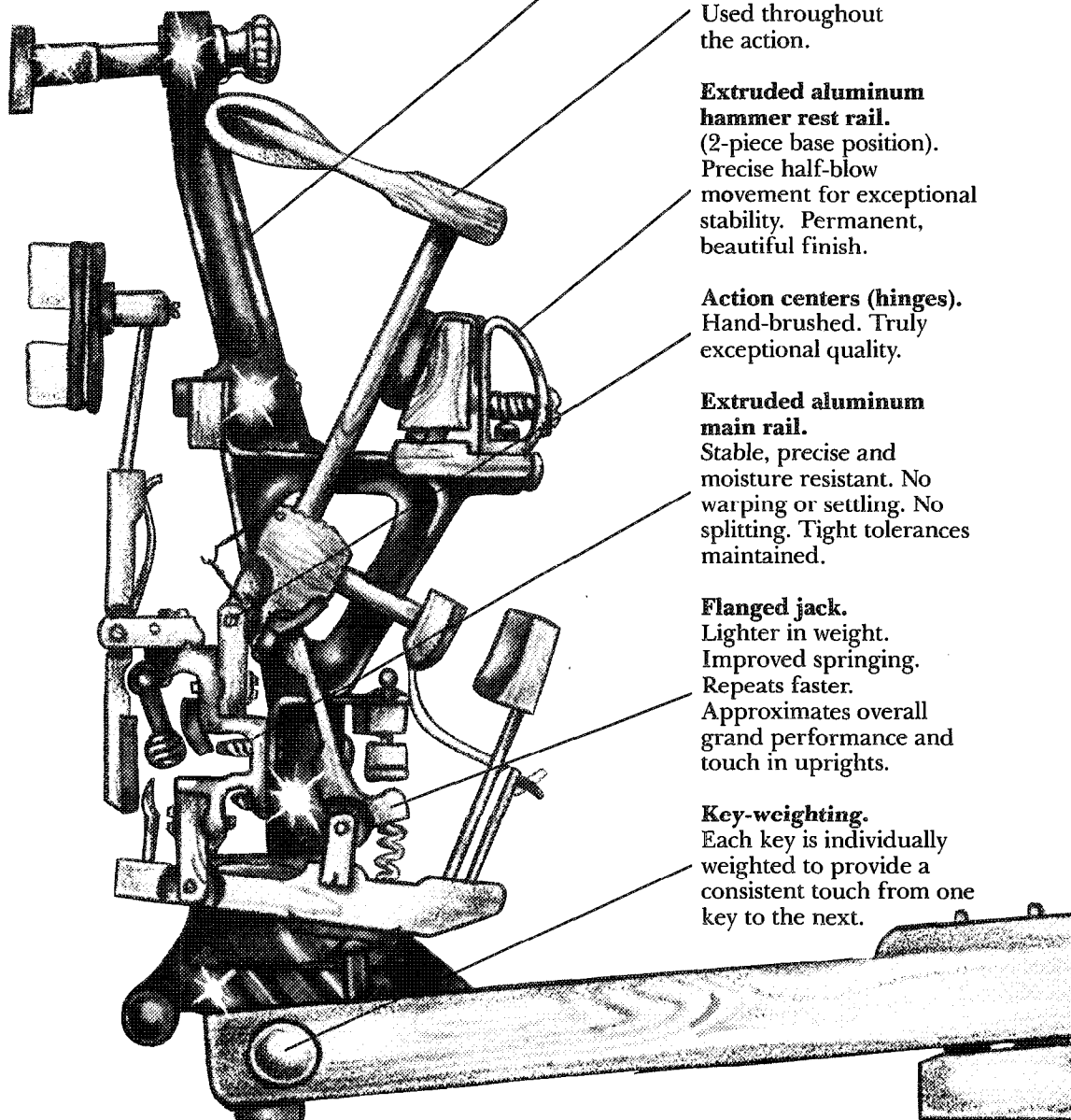
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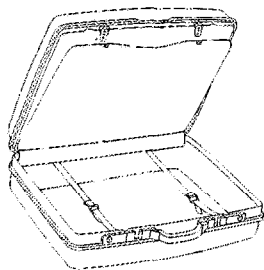
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PIANO TECHNICIANS GUILD

JUNE 1981 UPDATE

TUNING TESTING EQUIPMENT

Many of you know by now that when you purchase the new testing equipment, the cardboard boxes are pretty flimsy. As a matter of fact, they are downright dangerous to tote around to a testing center. There are, however, safer and better ways to carry this equipment. Al Sanderson carries his testing equipment in a big, soft, leather, open-top bag with suitcase handles. The PA State Conference and the Rdg-Lan Chapter have each purchased a Samsonite (Montbello II) molded suitcase.



The inside of this suitcase measures 6" x 15" x 20", while the outside measures 6½" x 16" x 21". Two nice features of this case include 1) room to store testing papers and instructions books behind the top flap, and 2) two tie-down straps, one of which may be used to secure the TI-59/PC-100C, and the other strap will secure the Sight-O-Tuner. An extra paper roll or two, extra batteries, a 25' extension cord, and the TI-59 canvas bag all fit well around the equipment.

To afford protection for the tuning testing equipment, one square yard of one-inch thick foam rubber should be cut and dry-fitted to the bottom, sides, and the top-facing flap. Carpet adhesive for foam-backed carpet may then be used to permanently attach the foam rubber to the suitcase.

The approximate cost of the Samsonite (Montbello II) suitcase is \$27.00 - \$33.00, depending on where you pur-

chase it and whether or not you are able to get it when it is on sale.

Dick Bittinger - NERVP

SOMETHING NEW!

Just received a welcome donation to the Steve Jellen Memorial Library: THE EQUAL-BEATING TEMPERAMENTS — a Handbook for Tuning Harpsichords and Forte-Pianos, with Tuning Techniques and Tables of Fifteen Historical Temperaments. By OWEN JORGENSEN. Raleigh: The Sunbury Press, 1981.

AGENDA BOOKS

The Council Agenda Books will be mailed to the chapter president this year. The agenda books should be displayed at a chapter meeting for any interested member to examine and then should be passed to the chapter delegate to bring to the council session.

Special Note: Any member who wishes to have a personal copy of the agenda book may do so by sending \$3.00 to the home office with a request for a copy. PLEASE INCLUDE CURRENT ADDRESS.

Should there be any spare copies of the agenda books these will be available at the convention for \$2.00, first come first served.

DELEGATE FORMS

Delegate forms for reporting election of council delegates by chapters were sent to the chapter presidents. Names of delegates received by the home office after the printing of the agenda books will be listed and presented at the opening council meeting, July 3rd.

Moving? Changing Your Address?

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

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

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

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

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

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

The Board of Directors has adopted a new policy:

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



REPORT OF THE BYLAWS COMMITTEE, PIANO TECHNICIANS GUILD

Charles P. Huether, Chairman

The following proposals for Amendment and discussion have been brought to the attention of the Bylaws Committee. The following report is presented herewith to membership for consideration.

I. ITEMS CONCERNING FINANCE

81-1 Dues Increase.

The Executive Board requests Council to approve for the year 1982, a dues increase of \$24.00.

Comment: The extraordinarily high rate of inflation for the last four or five years shows no signs of abating, in fact, the most recent figures (for March 1981) show it rising at an annual rate of over 16%. The modest increase approved last year hardly compensated for the increases in costs engendered by inflation during the years earlier. Efforts to reduce operational costs have been continuing, but when you operate lean for a considerable time, there is no more fat to reduce. If inflation continues as it seems to be doing, this increase, plus the possibility of a 10% increase each year if the next item is adopted, will still leave us behind and getting further behind each year. Also, if conditions do improve, the next item will allow for dues reductions when appropriate.

81-2 DUES RAISE BY BOARD ACTION

Last year's Council directed the Bylaws Committee to present a proposal providing for a possible dues increase by Board action.

Amend ARTICLE VI Membership Dues, Sec. 1 par. (a)., delete and substitute "Per capita dues for Registered Technician, active etc. . . shall be determined by the P.T.G. Executive Board each year. The amount of dues shall be not more than the previous year except that the Board may increase dues up to 10% on the vote of a 2/3 majority. Any increase larger than 10% must be approved by Council vote."

Amend ARTICLE VI, Sec. 1 par (c) . . delete and substitute: "Dues for Student members shall be handled in the same manner as outlined in paragraph (a) above."

Comment: The above proposal provides flexibility to meet emergency situations with the continuing inflation. It also provides safeguards against overreaction. It also provides for the possibility of dues reduction.

81-3 DUES IN ONE PAYMENT

To facilitate the collection of dues, reduce costs and at the same time provide flexibility of payment, the Home Office suggests the following;

Amend ARTICLE VI, Sec. 3 Collection of dues par. (b) . . delete and substitute: "Dues for Registered Technicians, Apprentices and Allied Tradesmen . . . shall be due Jan 1 of the billing year. Dues shall be considered delinquent if not paid by March 31. If no response is received in 30 days to the delinquency notice sent after March 31 deadline, the name shall be dropped from the membership rolls."

Amend: by deletion in its entirety, Sec. 6 Delinquent dues. Renumber Section 7 as Section 6.

Comment: This system would provide three months for payment, four months before being dropped for non-payment and, if you consider the additional time from the early mailing of bills in December, almost another month. In general, this should be sufficient time. The benefits would be several. A simpler system of records reducing possible mistakes and confusion. A completed paid-up roster before the middle of the year. No possibility that delegates to council will not be paid up for the year. Money saved and convenience to staff and to members.

81-4 CLARIFICATION OF AUDIT PROCEDURES

Since the Bylaws are not clear on the subject of frequency of Audit and the type of examination to be given, Board has requested that amendments be proposed to set guidelines.

Amend: ARTICLE XV PTG Home Office, Sec 2., par (g) delete and substitute: "Make all necessary records available for audit or other accounting examination or survey as directed by the Executive Board."

Amend: ARTICLE XII Executive Board Sec. 2, add (h) "Designate an independent accountant each year to oversee the organization's books and accounting system."

(i) "Authorize an annual accounting Review and Report by an independent accountant."

(j) "Authorize an Audit and Report whenever deemed necessary or requested by Council."

Comment: The accounting fraternity have refined definitions of the types of examinations given so that the terms "Audit" and "Review" have specific meaning. The examinations PTG has been having regularly every year is properly termed "Review". The Executive Board has ordered an "Audit" for the year 1980, a report of which has been circulated. In general, an "Audit" is more expensive, covers records and sources of figures in more detail and is a fuller representation of the accountant's opinion. It is felt that for the size of our organization, the "Review" which we have been having in the years past would be sufficient. These amendments provide for an "Audit" at any time providing additional advantages of surprise. The definitions used by accountants are as follows:

AUDIT: An Audit is an examination of the financial statements by independent certified public accountants that enables them to express an opinion as to whether the financial statements examined are presented fairly in accordance with generally accepted accounting principles. This report can take the form of an unqualified opinion; or if the accountants cannot express an unqualified opinion, they may express a qualified opinion, adverse opinion or disclaim an opinion.

REVIEW: A Review requires accountants to perform inquiry and analytical procedures that provide a reasonable basis for expressing limited assurance that there are no material modifications that should be made to the financial statements. A review may bring to the accountant's attention significant matters affecting the financial statement, but it does not provide assurance that the accountant will become aware of all significant matters that would be disclosed in an audit.

81-5 DISSOLUTION PROCEDURE TO COMPLY WITH IRS REQUIREMENTS

The Internal Revenue Service specifies the manner in which assets of chapters shall be handled in the event of a chapter dissolution. The following would put our Bylaws into conformity:

"ARTICLE VIII Section 9 - Chapter Dissolution. In the event of dissolution of a chapter by vote or other action of the chapter membership, the net assets shall be applied as follows:

1. All liabilities and obligations shall be paid or satisfied or adequate provision shall be made therefor.
2. Any assets belonging to members or others shall be returned or conveyed, if the assets are held under such requirement.
3. Any assets not obligated under the above shall be conveyed to the Piano Technicians Guild Steve Jellen Memorial Library in the name of the chapter."

ITEMS CONCERNING MEMBERSHIP

81-6 CLEVELAND CHAPTER PROPOSAL TO FACILITATE PROCESSING APPRENTICE MEMBERSHIP APPLICANTS.

Amend: REGULATIONS, Article IV Standard Tuning Test Qualifications for Membership, Sec. J Requirements, par. (3), Delete and substitute: "An Applicant who passes the bench and written tests by 50% or more in each category has the following options:

- a) Take an aural tuning test at Chapter level to be administered by at least two Registered Technicians. If he/she passes the tuning test at 50% or more, he/she can be accepted as Apprentice without further testing.
- b) Those applicants who pass the bench and written tests at 80% or better can proceed to arrange to take the official tuning test and if they pass at 80% or better they can be reclassified to Registered Technician.
- c) Those applicants who qualified as Apprentice under par. (a) above, also have the option to take the official tuning test if they so desire.

Comments: The Cleveland Chapter, in presenting this proposal explains: The new tuning examination is an expense to both applicant, examiner and Guild in terms of money and time. The situation might arise when an applicant is not yet skilled enough as a tuner to qualify for Registered Technician status. Therefore, it would be beneficial to all for an applicant to be appropriately tested at the local level before attempting to try for a Registered Technicians status at the official level.

Inasmuch as the local chapter is responsible for giving the written and bench tests to all applicants plus "evaluating" their tuning ability, this proposal would:

1. Officially define "tuning evaluation".
2. Serve to more effectively screen applicants and advise them whether they are ready to try as an apprentice if so qualified.
3. Allow an applicant to join immediately as an apprentice if so qualified.

81-8 CLARIFICATION OF STUDENT MEMBERSHIP

To make sure that there is a uniform policy concerning Student Membership, the Board has asked that a more precise definition of Student classification be drawn up.

Amend ARTICLE III, Sec., 2, paragraph "Student". Delete the first sentence and substitute: "Students shall be persons studying piano tuning and technology at a bonafide school or under the supervision of a Registered Technician or in a program acceptable to the Chapter who are not yet advanced enough to attempt the qualifying examinations for membership." The remainder of the paragraph remains the same.

Amend ARTICLE IV, Sec. 4 (b) second sentence. Change "shall" to "must be reviewed." Add the following sentence: "Membership can be renewed only if the student member is still a student as defined in Article III, Sec. 2."

Comment: This amendment makes it clear that the Student must indeed be a student in the real sense. Since Students join only for a year at a time and are not automatically renewed as other categories, it is reasonable and proper that their status as a Student be reviewed before they are permitted to continue as such for another year.

81-9 ALLIED TRADESMAN AS MEMBER-AT-LARGE

Amend ARTICLE III, Sec. 2, par. Allied Tradesman. Delete last sentence, "They must be mebers of a chapter."

Comment: This could permit Allied Tradesmen to be Members-At-Large. The Committee felt that this would not be in the best interest of the Guild because of the restrictions as to type of work and advertising which we impose of Allied Tradesmen. As Members-At-Large, they would have no one nearby to keep track of their adherence to these restrictions.

81-10 TRANSFER OF MEMBERSHIP

Amend ARTICLE VIII, Sec. 4 (c) delete paragraph and substitute: "The chapter shall accept the application on presentation of the transferee's membership card."

Comment: It is intended here to make interchapter transfers more uniform. As members of a national organization it would seem appropriate that membership granted in one chapter should not be revoked by another, not should a transferring member be subject to re-examination.

81-11 MEMBERSHIP FOR OLDER, INACTIVE MEMBERS

There is a continuing recurring situation where elderly members who are no longer active in business are compelled to drop their membership because of the cost of the annual dues. At present there is a relief provision for members over 65. This amendment is a refinement and extension of this situation.

Amend ARTICLE VI PTG Dues, par. (e) delete and substitute: "An active member over 65 and drawing Social Security who has been a member for ten years or more may maintain membership by the payment of one-half the normal dues.

An active member over 70 and drawing Social Security who has been a member for ten years or more may, upon making PTG the sole and exclusive beneficiary of the PTG death benefit insurance policy, continue membership with all dues being waived.

Comment: This will provide a double option for the older inactive technician. Half dues and retention of life insurance, or no dues with assignment of the life insurance to PTG. We will all benefit from the extension of our Fraternal spirit.

81-12 TO CLARIFY ASSOCIATE MEMBERSHIP

There is a contradiction regarding chapter handling of Associate membership application between ARTICLE III, Sec. 2, Associate and ARTICLE VIII, Sec. 4 (b).

Amend ARTICLE VIII, Sec., 4 (b) delete "Associate" from the first sentence. Add: "Associate members may be Members-At-Large."

This will provide the option for Associates to be Chapter members and Members-At-Large where this is appropriate and convenient.

MATTERS RELATING TO CHAPTERS

81-13 CHAPTER OFFICERS, TERM OF OFFICE AND TIME OF ELECTION

Amend: ARTICLE VII, Sec. 6 (a) delete and substitute: "Chapter Officers shall be elected annually and shall take office during the two month period November, December, of each year."

Comment: The intention here is to provide an up-to-date listing of chapter officers for the membership roster which usually is published in the spring. At present officer listings are meaningless because they are often out of date before the roster is circulated.

81-14 DEADLINES FOR PROPOSED AMENDMENTS

Amend ARTICLE XVIII, Sec. 1 (c) by adding: "The amendment deadline with the appropriate date shall be published in the Journal Update at least 200 days prior to the opening meeting of the Council session.

Comment: To make sure Chapters and members are alerted to this deadline and can get items for consideration in on time.

81-15 SIMPLIFICATION OF CHAPTER BUSINESS FUNCTIONS

Amend ARTICLE VIII, Sec. 8 (b) put a period after the word "depository" and delete the rest of the sentence.

Comment: This will allow Chapters to use their own judgment as to how they want to sign their checks. A small matter of limited significance.

MATTERS RELATING TO COMMITTEES

81-16 ROTATION OF MEMBERS OF EXAMINATIONS AND TEST STANDARDS COMMITTEE

Amend REGULATIONS ARTICLE IV, Sec. E (3) delete and substitute: Starting in 1981 1/3 of all members shall be appointed for one year; 1/3 for two years and 1/3 for three years. Thereafter each year appointments shall be made to replace those whose terms expire. All members after 1981 shall be appointed for three years. No member shall serve for more than three consecutive years."

Comment: This will cover the situation as we have at present where there is a larger committee. The six member committee seems to be best.

81-17 NOMINATING PROCEDURES FOR REGIONAL VICE PRESIDENT

Amend ARTICLE XI, Sec. 5 (b) delete ". . . in council session . . ."

Comment: This will make the Bylaws read as things are and have been done in actual practice. Nominations are always made in Caucus.

81-18 COMMITTEE DELETION

Amend ARTICLE XIII, Section 1 Standing Committees, delete: Piano School Committee

81-19 COMMITTEE DELETION

Amend ARTICLE XIII, Sec. 1 Standing Committees, delete: Government Affairs Committee.

Comment: Past experience has been this committee has had a difficult and frustrating time functioning.

MATTERS RELATING TO PUBLICATIONS

81-20 USE OF PRONOUNS

Amend ARTICLE VII, add paragraph (g) "In all publications to use in lieu of the pronoun he, his, him; to use the pronoun combinations: he/she, his/hers, him/her, or a suitable neuter pronoun wherever applicable."

Comment: An item held over from last year. The Nebraska Chapter which proposes this item feels it will make all publications conform to current literary practices.

81-21 AUXILIARY EXCHANGE

Not an amendment. The Nebraska Chapter asks Council to direct by an affirmative vote, the Executive Director and Editors of all PTG Publications that: The Auxiliary Exchange column be published as an addendum to the Journal and not in its regular pages.

REPORT OF THE NOMINATING COMMITTEE

The Nominating Committee submits this updated report:

For President: Sidney O. Stone

For Vice President: Ernest Preuitt

For Treasurer-Secretary: Charles Huether

Nominations received for Regional Vice President:

CWRVP - Richard Flegle

NEWVP - Robert Smit

CERV - Robert Perkins

SERV - Marshall Hawkins

WRVP - Dan Evans

PRE-COUNCIL BOARD MEETING

The pre-council board meeting will be held in the San Francisco Hilton Friday and Saturday, July 3-4, 1981.

New Journal Publication Dates

With this issue we are on our way to a new publication schedule for the *Journal*. Because of the often 28-day mail delay to the east coast, with the July issue we will be publishing issues the first of the month preceding issue date. For example, the July issue will be in the mail the first of June, so that it reaches everyone by the end of June, at the latest. Let the Home Office know is this new procedure is of any help.

MARCH CHAPTER MAILING

New printing of procedures for membership application

Membership application forms

Change of chapter officer notice form



Chapter Counsel Conclave

A highlight of the 1981 convention in San Francisco will be the *Chapter Counsel Conclave*, a session scheduled for Monday, July 6, 8:00 - 9:45 a.m.

Be sure your CHAPTER has representatives attending this interaction of opinions (COUNSEL) which will comprise an assembly of influential leaders (CONCLAVE).

This panel for this workshop representing six regions are: Dick Bittinger, Marshall B. Hawkins, Olan M. Atherton, Ben McKlveen, H. Dean Garten, Paul E. Schneider, Dick Flegle (moderator).

DON'T MISS IT!

APRIL CHAPTER MAILING

1981 Council Agenda Delegate form
New Tuning Examination Committee and Certified Tuning Examiners list
List of New Tuning Examination Test Sites

Convention:

Alternate housing at the convention

San Francisco Hilton registration card

Flyers on San Francisco

Convention calendar and registration folders

Chapter Notes

The Home Office is seeking more news from our chapters for use in the Chapter Notes section. Share your news with others through the *Journal*.

AID FOR THE HUNGRY

We hear it on the radio, we see it on TV, we read about it in magazines, newspapers, church bulletins. **We must share our food with the hungry of the world.** Look at the world, the country, your state, city, even your neighborhood. All the people in your neighborhood might be eating yet there are those that are not nourished. They are hungry for good body building foods and they don't realize it.

There is hunger in the piano profession too. Technicians who have been working for years and yet do not comprehend their lack of knowledge. This is a hunger of the mind, a hidden hunger sometimes difficult to overcome. Here is where you and I can give aid to this unique group of people by sharing with them the opportunity to join the Piano Technicians Guild. What better way can we serve people than by passing along the knowledge we received from another before us.

Talk to a non-Guild member in your community today. Present him with an application for membership. He might say no five times before he understands his hunger for more knowledge. But after he has become a member, you will be thanked many times over for caring about him, just as you thanked the person who asked you to join.

SPECIAL SECTION ON LAWS

If you are already in a hole there's no use to continue digging.

Walter's Law of Management

Before we can start this important task there is something else we have to do first.

Wolf's Law of Beginnings

Chapter Notes

... Russ Upham gave the **San Diego Chapter's** April meeting technical program on touch up procedures. He covers scratches with felt pens or artist's acrylic paint rubbed in with a finger or small brush. On old finishes that have become dull and dirty, he uses a mixture of light oil and Ajax to hand rub the finish. Pumice and oil or furniture rubbing compounds can also be used.

NOW!

A Map to the Treasures In Your Old Journals

Author and Title		
Epoxies		
— J. Arnold	Epoxies - V	
— James I.	Epoxies and T	
— Ch. Delwin	Epoxy Gluing of	
— Don	Quick 4-6 Minute E	
— John	Epoxy Bridge Repair	
— Harry W.	Epoxy Glue	
— Robert W.	Epoxy Cement on Loose P	
— John E.	Epoxy Soundboard Repairs	
Spreaders		
— James	Electric Glue Gun	
— Wald S.	Heat Gun Source	
—	Gluing with the Grease Gun	
—	Buzzes in Soundboard	
— John	Glue Spreader	
— John	Electric Glue Gun	
360 Waters & Ivory Cement		
— Hoskins, Leslie	Mussel Glue	PTJ
— Ramsay, John	Ivory Glue Formula	TPT 05
370 Tapes		
380 Softening Glues		
— Krefting, Jack	Replacing Upright Shanks	PTJ 11/7
—	Separating Glue Joints	PTJ 06/7
— Johnson, James L.	Glues and Solvents	PTJ 01/72
— Overdorff, Anson	Softening Glue	PTJ 12/70
— Scheer, John	Disappearing Acetone	PTJ 05/66
— Kegley, Paul	Softening Glue in Heated Sand	PTJ 08/59
— Koford, H. O.	Loosening Soundboard Glue	PTJ 03/58
390 Glue Removal		
— Scheer, Larry	Removing Glue from Uneven Surfaces	PTJ 09/77
— Scheer, Larry	Squeeze Out	PTJ 09/7
— Scheer, John	Remove Glue Uneven Surface	PTJ 02/7
— Overdorff, Anson	Softening Glue	PTJ 11/7
— John	White Glue	PTJ 09/7
— John	Glue Removal	PTJ 08/59
— Joe	Gluing Ivory Replacements	PTJ 03/58
— Charles	Remove Old Key-Top Glue	PTJ 09/77
— James L.	Lubricant WD40 Tested	PTJ 09/77
— John	Lubricants	PTJ 09/77
— Bernard	Emralon in Piano Actions	PTJ 09/77

\$25

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Chapter Notes

... Business success was the topic of guest speaker Mr. Kubic at the **San Diego Chapter's** March chapter meeting.

... At its February meeting the **Boise, Idaho Chapter** decided to take on the challenge of rebuilding a 9' Weber grand of 1905 vintage. During the first session, the strings and plate were removed. Meetings are held in the shop of Leon Graviat in Emmet, Idaho.

... Newly certified Chris Robinson presented the technical program at the **Connecticut Chapter's** February meeting. From the chapter newsletter, *the Keybed*:

"He opened the program with an observation on the differences in Steinway grand action rails. A change of 7/64" in the whip rail centers occurs about 1932 or the institution of the accelerated action. This explains why when replacing whips on an older action you might have trouble getting your regulation just so. Chris followed this with a demonstration of hammer filing. He starts with a moto tool to get rid of heavy excess felt followed progressively by 60-grit, 100-grit and finishing with a "shoe-shine" with 180-grit metallic cloth.

"The second half of his program, "Progressive Grand Regulating — Part I, was excellent. His amusing, slightly bizarre program produced an action actually working without essential parts. His visual effects showed exactly why each part was there and why it was needed. The only "measurement" he used for a standard was the key dip — everything else was relative."

... Richard Becker, Steven Craw and David Gaudieri represented the **Rochester Chapter** at the Piano Teachers Guild meeting held at the Cuttler Union March 1. Topics were buying a new piano and tips on how to buy old ones.

... The **Western Michigan Chapter's** newsletter recently contained this valuable report:

"After tuning for a new customer, (Tom Young) asks if the customer would like him to telephone when the next service is due. Most clients are agreeable; in fact, many will themselves ask to be called when service is due. Asking beforehand opens the way for a call that is appreciated by the customer as a helpful service rather than an annoying solicitation for business. Tom thinks that telephone calls are much more effective than

reminder cards.

"Tom tries to call each customer once a year. He finds he needs only to ask how the piano sounds rather than whether the customer wants him to come to tune it. He spends about 20 minutes each evening talking to seven or eight clients whose time has come up on the yearly cycle. If tuning is not wanted or needed right away, Tom asks when he should call again.

"Tom's system works well because it is based on a true understanding on the client's part of the nature of tuning stability in the piano. It is well worth the technician's time to help the client along the road to this understanding. It is exactly like the process of regularly going to the dentist every six months for a cleaning and checkup. Most of us know we need to get the reminder card in the mail.

"The way Tom runs his business insures good relations with his customers. Since he returns to the same pianos, he can continually improve their performance. Customers thus have the best opportunity to appreciate good work and so they let their friends and neighbors know. It's the best kind of advertising and it's absolutely free."



... The March technical meeting of the **Syracuse Chapter** featured a visitor from the **Southern Tier Chapter**. Ken Walkup gave an interesting and detailed account of refinishing techniques that do not require lacquers or spraying equipment. Starting with the outline for removing the original finish, Ken went through his step-by-step plan for a modern varnish finish. His discussion of wood types, refinishing supplies and suggestions for locating needed materials was a great help to the novice as well as the experienced rebuilder. Ken is the secretary-treasurer of the Southern Tier Chapter and can be found at Cornell University where he is responsible for the maintenance of the college's pianos.

... A select group of the **Cleveland Chapter's** finest got together at Don Dusenbury's shop recently and "super tuned" a venerable Weber grand as prescribed in the new tuning test procedure. Cal Dusenbury, Lenny Gotrich, Kevin Leary, Al Metz and Bob Russell participated and tuned the piano in less than eight hours. This illustrates the fact that a super tuning is

much more precise than a concert tuning. If five technicians agree that every note on a piano is tuned as good as it can be tuned, that piano has a pretty good tuning on it. With experience, they hope to trim the time down to between four and five hours. The group plans to do several more super tunings in the near future.

... Arletta Lombardo, reporter for the **Salt Lake City Chapter**, writes:

"After our "hands-on" soundboard repair (April 9 meeting) we were instructed on taking a pattern of the bass strings. Paul Stephens demonstrated use of the micrometer. It was decided to replace the hammers, ordering a 2 1/2" stock hammer. To determine this, we set the capstan. Hammer blow should be 1 7/8"; it was 2 1/8". We measured the center of the hammer shank to what is left of the striking point and subtracted. We rebushed a flange, detailing how to get the hole exactly in the center of the new bushing. These techniques, refreshed in our minds at our technical programs, reinforce the purpose of the Guild. What would we do without it?"

... The March meeting of the **New Jersey Chapter** was held at the Associated Piano Craftsmen of Emerson. Stefan Dusedau began the program with a discussion on knot tying and loop making. Steve Grega then presented an excellent program on stringing and restringing techniques. Steve has been able to string a medium-size grand in about three hours. The secret of Steve's success lies in his well organized work area. Steve keeps his most necessary tools close at hand on top of the plate on protective cloth. He used a three-pound hammer instead of the readily available two-pound hammer. He also tries to accomplish as many similar steps as possible in order not to have to keep changing tools — putting as many pins in before tapping them to rough height. One great tool was presented — a coil lifter fashioned from a player piano reservoir bellows spring — it will work in even the tightest places.

... La Roy Edwards was technical speaker at the **Los Angeles Chapter's** March meeting, speaking on "High Level Grand Regulation." Harry Berg says the slide presentation, with comments, questions and discussion should be filmed so that it would be available to every chapter.

