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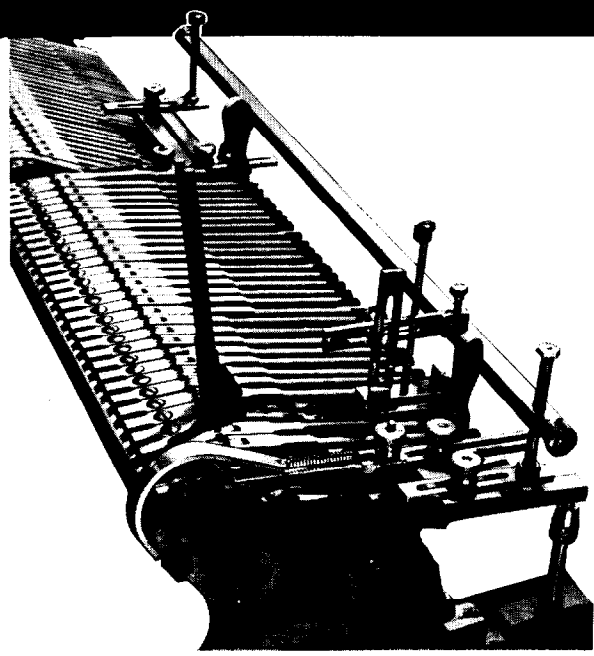

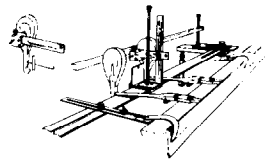

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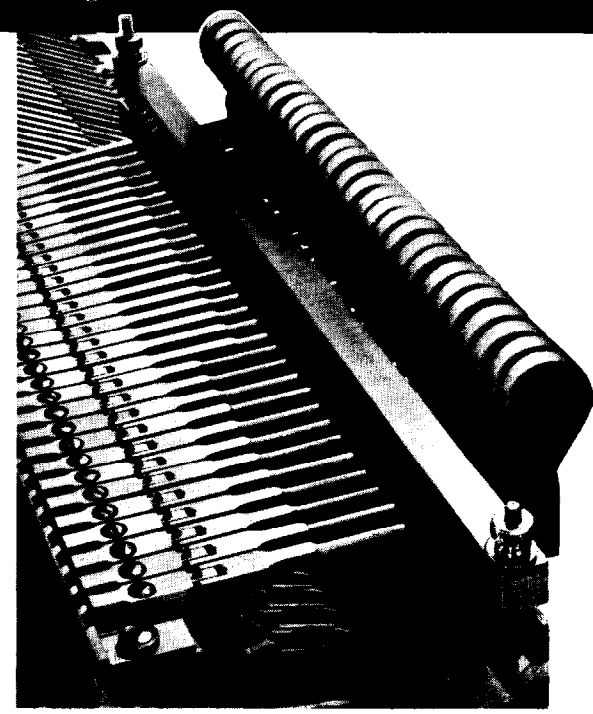

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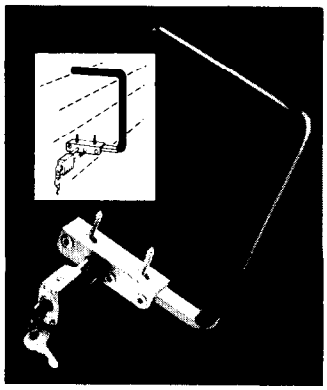

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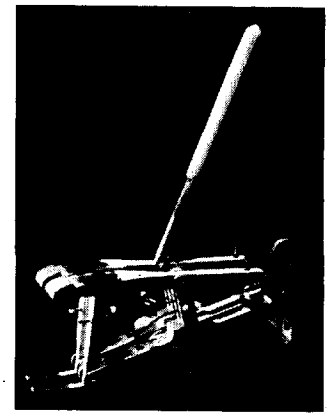

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Official Publication of the Piano Technicians Guild/September 1980 Volume 23 Number 9

Piano Technicians Journal

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COVER... A collage of some of the activity at the Flea Market at the 1980 Piano Technicians Guild Convention and Technical Institute held in Philadelphia, Pennsylvania, July 12-18. A special 8-page supplement to the **Journal** detailing the convention happenings can be found in the middle of this issue.

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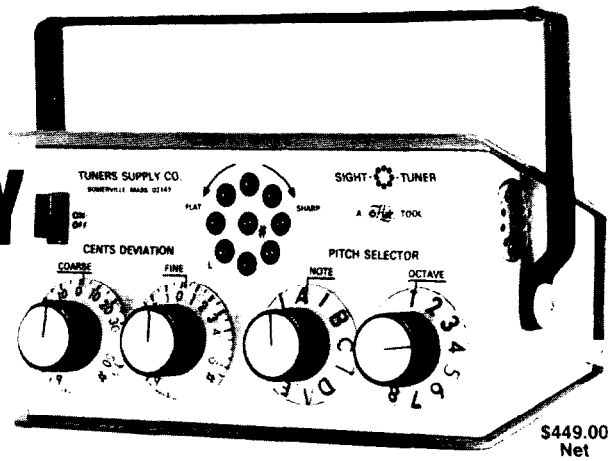

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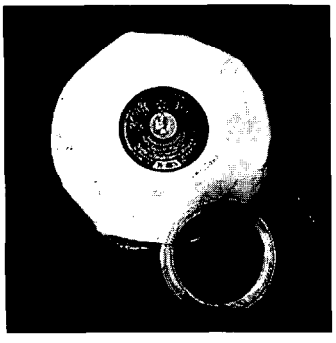

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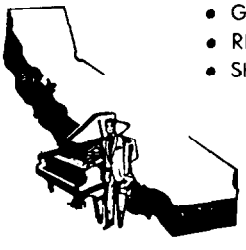

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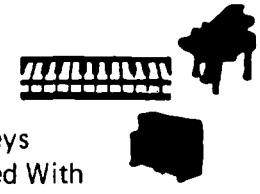

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EDITORIAL

Don L. Santy,
Executive Director

Upon observing the streets of Philadelphia this summer I began to come to the conclusion that our cities aren't really making that much progress when it comes to "livability," "comfort," and even "survival."

On most every corner — after business hours — there appeared a cluster of obviously unemployed and threatening-looking youths gazing at the crowds like predators checking a meat market. It was easy to see they were singling out the weak and unwary for whatever move they might be able to make in terms of pouncing on them to extract their valuables. This in spite of the fact that there was almost always a cop nearby waiting for them to make such a move. It was sort of a "cops and robbers" picture with both sides just waiting for the other to make a false move.

The utter filth of the streets, the pushing throngs, the sleazy shops and doubtful enterprises made one aware of the fact that maybe the writers are right — cities are dying. They appear to be dying of disintegration and depravity more than anything else. People just didn't seem to care about the various forms of garbage that surrounded them.

As I traveled to Washington, D.C. and New York afterwards, it was the same scene — dirt, drunks, confusion, poverty and everything moving at breakneck speeds to get to wherever it was they were going.

Oh yes, there were beautiful areas as well. Wide boulevards and tree-lined streets, slick-looking shops and interesting townhouses and apartment buildings. Here and there was a park or historical site worth looking at and people scattered about who looked like they had it all together. Unfortunately, these scenes were not easy to find and often one had to wade through the slums in order to get to them.

There are guards everywhere. Every apartment house of any quality has a security gate. Stores hire their own police departments to keep people from hauling away their merchandise. Jewelry shops have locks on their doors so you can be checked before being allowed to enter. Hotels also hire their own security forces to protect their guests. It looks like opposing armies ready to enter into combat at the drop of a night stick.

People who dwell in large cities take all this for granted. They know how to deal with it and just never let their guard down. They recognize these evils as those they must put up with for the many pleasures, conveniences and interests big cities have to offer. Like everything else, one must take the good with the bad.

Next year we go to San Francisco for the Piano Technicians Guild's 24th Annual Convention. We will see the seedy, the sinful and what most of us consider the "bad" side of life. But, we will also see the beautiful glistening San Francisco Bay, the magnificent parks and great museums. We will be able to wander among the most fascinating sights in this country and enjoy the unusual shops and curio centers. The city is clean (in most areas) and loaded with the most fascinating sources of entertainment found anywhere. Gourmet restaurants abound, theater is extremely sophisticated and varied, and there is nowhere like it in terms of panoramic views.

Around San Francisco Bay little villages lie on the hillsides and at the water's edge, and these loca-

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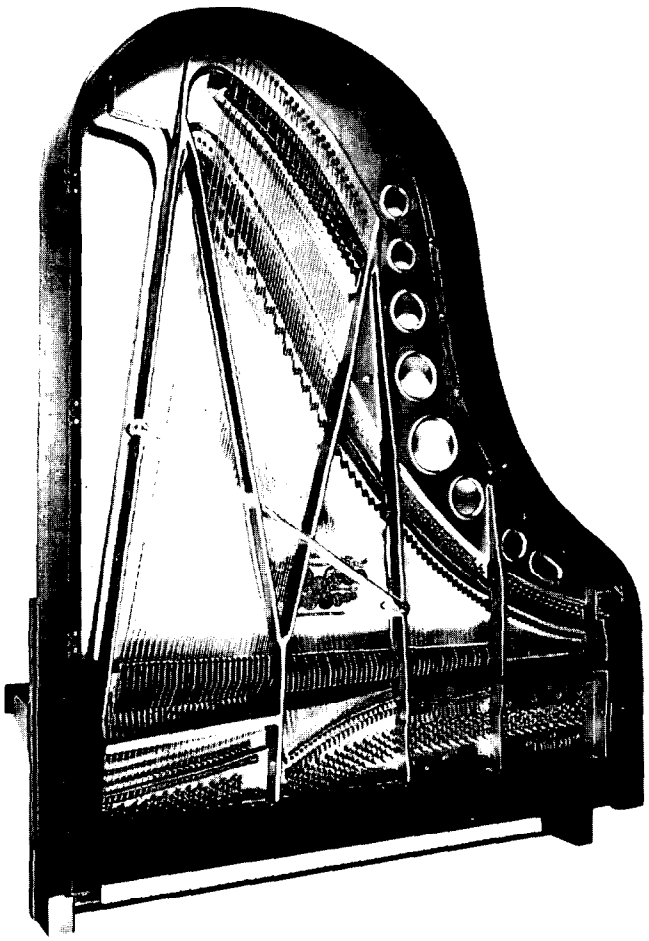
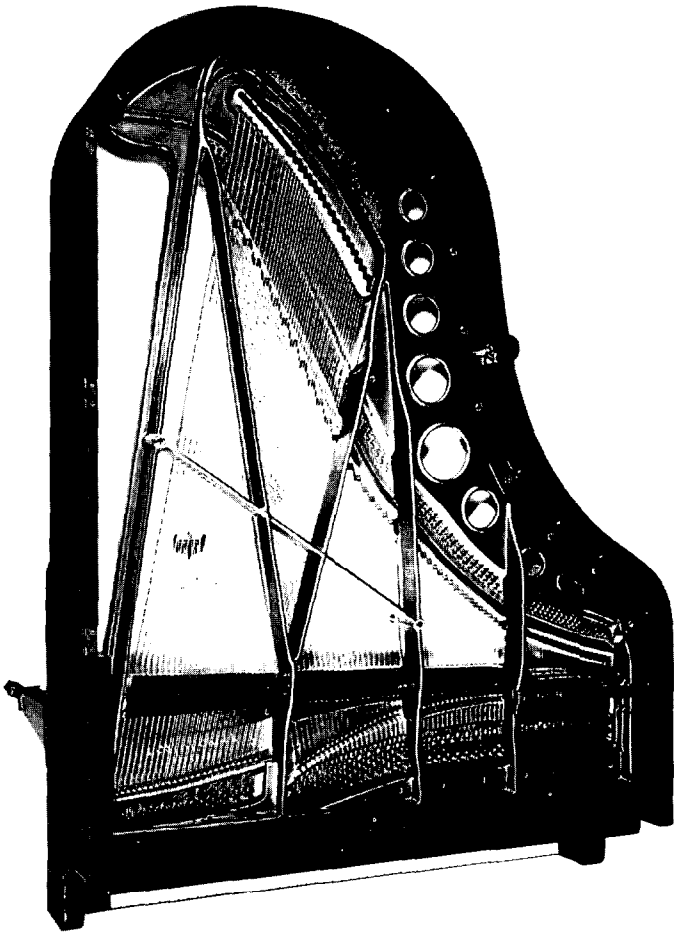


The Bösendorfer 6'7" Grand



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tions contain some of the country's most unusual artifact shops and galleries found anywhere. There is something for everybody in San Francisco. You won't want to miss it.

If one can overlook the obvious element of trash — both physical and human — and look beyond into the delights that are offered, one can make a big city a fascinating place to be.

Start planning to be there NOW! Next July! ☐

PRESIDENT'S MESSAGE

Bob Russell, President

At the 23rd annual Piano Technicians Guild convention in July, I was elected president of our fine organization for another year. Few men have been so honored by their peers and I'm sure this will be one of the greatest events in my life.

We accept a job expecting certain things to happen and we have a few definite goals. I believe that we have accomplished some of our goals this past year, and we will definitely attempt to implement the remaining goals during the coming year.

But I must confess that some of the goals that seemed important a year ago are now far down the list of priorities. There are so many different points of view to consider and, because one cannot think in a parochial manner, I must always consider the effect that decisions have on the *entire* Guild.

This responsibility has quite a sobering effect on one's life. I know the Guild will continue to prosper over the years ahead after my years as president are over, but every member naturally tries to leave their mark on the Guild as it grows. As members climb the Guild ladder, their mark becomes more indelible. So if a person, in the quiet of night, really searches his heart he will feel a tremendous responsibility, a frail balance of policies, and the fantastic warmth, love, and best wishes from everyone.

People ask me why I accepted a job that uses my time and energy and pays me nothing monetarily. I guess the answer or answers are many and varied, but if you have been reading the President's Message over the last year you might have an insight into the reasons. I really enjoy serving the Guild as president.

Again may I say, "Thank you for the opportunity to serve you as your president this coming year." □

THE TECHNICAL FORUM

Jack Krefting, Technical Editor

REFASTENING VERTICAL BACKS

QUESTION: *"One of my customers has a console piano that has developed a split almost all the way across the top of the pinblock. It has gotten worse over the past year, and I would like to know the best way of fixing it. Would longer screws help, or must it be bolted all the way through?"*

ANSWER: The usual procedure involves lowering tension and regluing the separation, reinforcing the new glue joint with carriage bolts. This may be done in a number of ways, depending on the way the piano is constructed, but I will describe the method which I know to be successful.

If the repair is to be effective, the plate and pinblock must be fastened to the backposts. This may sound elementary, and it is, but I have seen instances where the technician placed the bolts according to convenient working clearances between tuning pin sections rather than being necessarily in alignment with the backposts. Such repairs are not recommended because they do not offer the best solution. This is a structural problem, not a cosmetic one, and a structural solution must be found.

In **Figure 1** we see the construction of a typical vertical back. Note that the blocking is primarily intended as spacing material which fills the spaces between backposts. These blocks also help to keep the backposts from twisting, but they are not structural members in themselves. **Figure 2** shows what can happen if a bolt is placed through the blocking

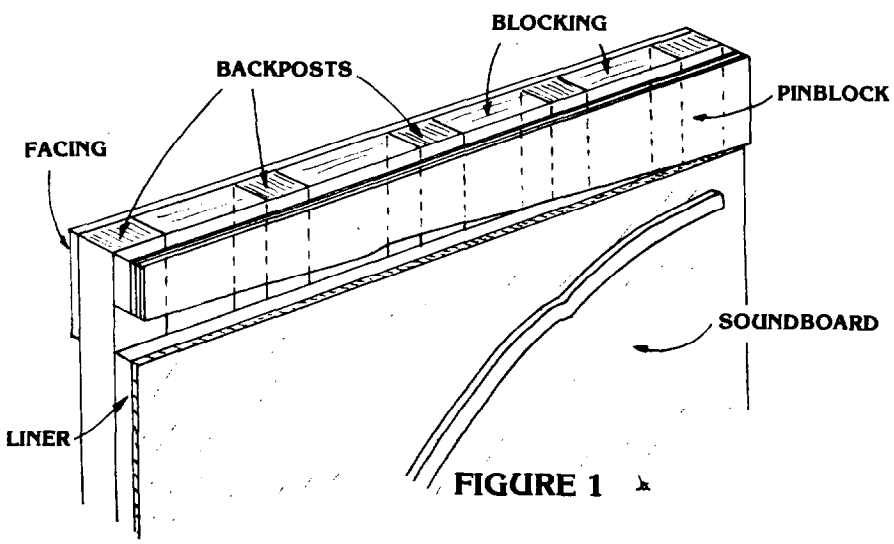


FIGURE 1

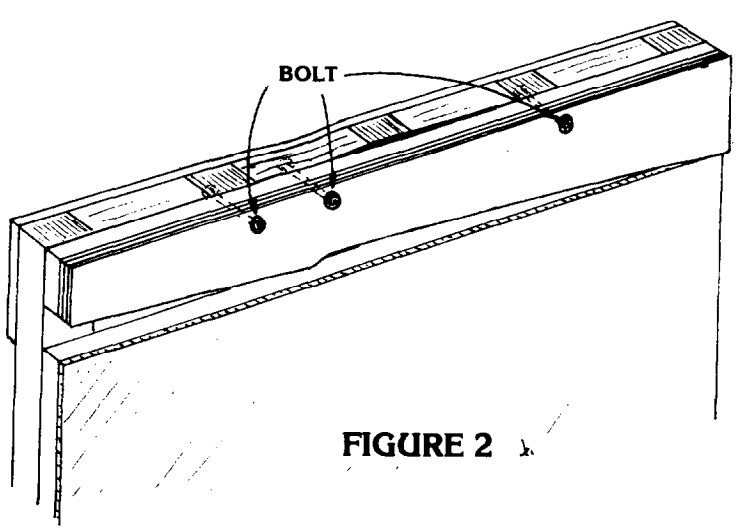
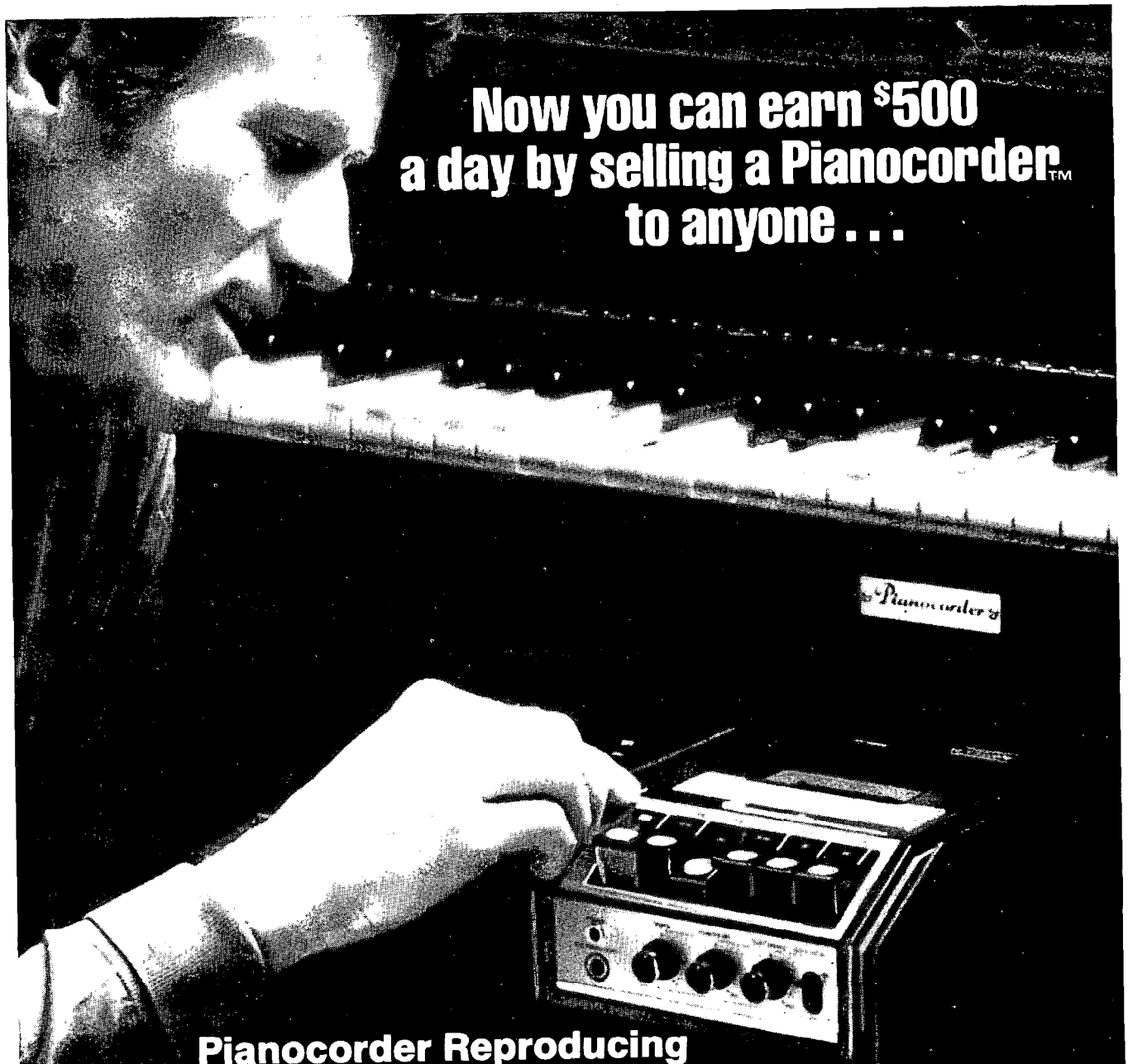


FIGURE 2



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rather than the backpost. This is an exaggeration, but to some extent the distortion will occur because the stress is misplaced and the thin facing is used as a structural member. It is not strong enough, and will flex under the string tension.

Sometimes the top of the pinblock is covered by a piece of felt or wood, hiding the tops of the posts and the blocking. If necessary, this may be peeled off for inspection; in most instances it would have to be removed to make the repair anyway.

It is important to keep chips and other foreign material out of the crack, as this would interfere with closing the open joint or crack. If the technician knows or suspects that this has already happened, it would be a good idea to lay the piano on its back and clean the opening as much as possible with a piece of music wire and compressed air.

After removing the lid and lowering tension (this last is optional — I prefer to relax tension but others have been successful without doing so), apply heavy clamps to the back as illustrated in **Figure 3**. Note that a scrap board is clamped on the back side. This is also optional, but I recommend it because it keeps the clamps from marring the back facing and, more importantly, prevents the drill bit from splintering the back surface as it comes through.

Remove the long plate screws that go into the backposts, one per post, and bore these holes all the way through the back. The wood chips will not clog the crack because the clamps are holding it tightly closed while drilling. I would suggest using a ⅜" electrician's bit for this, as these are readily available at hardware stores in 12" and 18" lengths.

Loosen the clamps and apply glue to the crack with a thin spatula, soundboard steel, or a piece of music wire. Then retighten the clamps, clean up any glue squeeze-out, and drive a ⅜" carriage bolt through each hole from the back. An ordinary hex-head cap screw with a flat washer would do the job just as well, but the head of the carriage bolt protrudes less and provides a better finished appearance. When the threaded portion comes through the plate, install a flat washer and nut. When all nuts have been tightened, the clamps may be removed and tuning can be commenced.

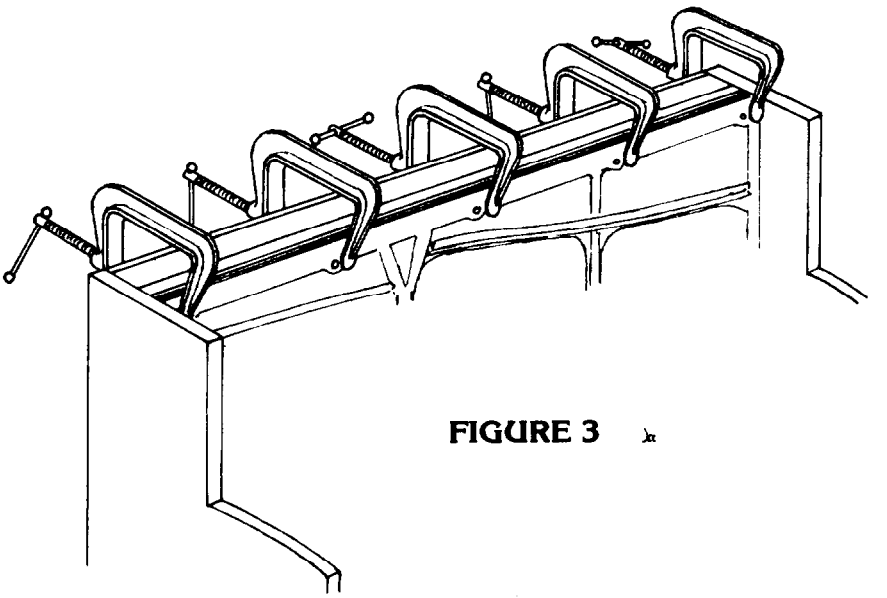


FIGURE 3

It isn't always quite so simple, unfortunately. Sometimes the arrangement of the tuning pins is such that there is no room for a bolt or screw above the tuning pins in the lower part of the scale. If the manufacturer failed to put a long screw into the backpost, that could be part of the reason the back separated, and we should try to improve on the design by finding room for a bolt. This probably will require placing the bolt below the V-bar, drilling a new hole in the plate, and installing a very thin nut which will not touch the bass strings. If this procedure is used, remember that the higher the bolt is placed, the more good it will do (see **Figure 4**); also remember the bolt must be above the soundboard liner.

An opening in the top of the vertical back is not always cause for alarm, since it could well be the result of shrinkage or a bad glue joint between the blocking and the pinblock, which really doesn't hurt anything. It only becomes a structural problem when the pinblock is separating from the backposts. If a feeler gauge can be inserted to any appreciable depth at a backpost, then there is no question about the need for repair. If the opening seems to be increasing in width and length, as in this instance, the piano probably won't stay in tune very well. Worse, the plate could bend to the point of breakage in an extreme case; and as the strings move toward the action, regulation will be affected also.

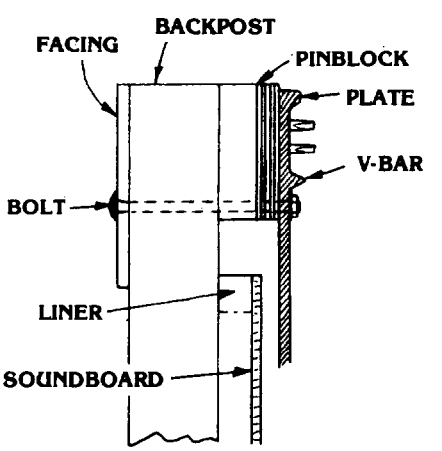


FIGURE 4

TECH TIPS

Our first tip comes from Salem, Oregon:

"My tip is probably not original but no one has ever mentioned it. Concerning tightening balance rail bushings, this is a variation of the old knife cut and shim method I see so often. I simply poke a hole on each side of the balance rail pin with a large needle mounted in a handle. I then dip a round toothpick in glue and insert it in the hole. With the key in the piano you can push the toothpicks in until the bushing snugs up just where you want it.

"This method is much neater and more accurate than the so-called 'bushing tightener' sold for this job. When the glue is dry, simply cut the toothpick off flush with the button.

"Naturally, if the bushing is shot it should be replaced, but this method is fast and has quieted down many clunkers for me..." — **William Stratton**

Our next tip comes from Newton Hunt of New York, regarding the spot voicing of verticals, especially spinets. Newton carries a short sandpaper file about two inches long that can be used on a spinet without removing the action. We often see spinet hammers that have been filed on the top surface only because of the inaccessibility of the undersides of the hammers. This creates an asymmetrical hammer with dead layers of felt on the bottom. The short file will do the job on a few hammers witout having to remove the action.

Our third tip comes from Ben Carlton of Winter Haven, Florida:

"Occasionally I have found a broken metal fork in the end of a spinet key, the one that holds the rubber grommet. A simple emergency repair is to flatten a brass Billings flange and use half of it as a substitute 'fork.'"

BEDDING THE BACK RAIL

QUESTION: *"When bedding the keyframe of a grand piano, it is necessary to have the "stack" firmly screwed in place. This usually keeps the back rail down against the keybed, but my question is, how would you bed the back rail, and how would you test it for proper bedding? The presence of the stack makes it difficult to use the usual method of knocking on the top of the rail. I understand that it also works to knock on the underside of the keybed directly below the rail, but this has never worked for me, and in the case of the back rail, the pedals and trapwork are usually in the way."* — **David Merrill, McMinnville, Oregon**

ANSWER: Of the three rails in the grand keyframe, the bedding of the back rail is the least critical. The balance rail, for example, takes the full force of the blow on the key, as well as the resistance caused by the inertia of the stack, whenever the key is in motion. Some of this weight and much of the force is transferred from the balance rail to the front rail when the key touches bottom, which is a far greater downward force than that exerted upon the back rail at any time.

If the balance rail glides are turned down too low, the back rail can actually be lifted off the keybed. This condition could produce a slapping of the back rail against the keybed on a staccato release, but more often causes the hammers in that vicinity to dance. Some power is lost, although not nearly so much as when the glides are turned up too high. In that instance, the keys will dance and the keyboard feels spongy to the pianist.

The front rail must also be perfectly bedded along its entire length to allow for smooth shifting without any knocking or clacking noises anywhere. The back rail, by contrast, is often neglected because minor discrepancies in bedding do not always cause such severe problems. Having said that, I also want to say that the back rail should not be neglected or ignored. It should be bedded also.

The procedure I recommend for bedding a keyframe is published in our October 1979 issue, pp. 16-17, and some may wish to review that article. Briefly, however, the back rail is bedded first, with *stack and keys removed* and glides turned all the way up. The keyblocks are fastened in position, and the technician taps along the back rail firmly with the fingertips, listening for slapping sounds. The underside of the rail is sanded wherever there are no knocks in the same manner as will next be employed to bed the front rail. The sandpaper is inserted between the back rail and the keybed, grit side up, and pulled out at an angle while the technician holds the rail down with the other hand.

After the back rail is bedded, the stack should be placed on the keyframe without the keys. Before screwing the stack down to the keyframe, carefully check to be sure that all bracket feet are touching the frame. If any gaps exist, the screws will pull the frame up at those points. This will destroy the bedding job which was just done on the back rail. Add shims as necessary between bracket feet and keyframe so that all feet touch evenly when the frame is resting on a perfectly flat surface, and only then add the screws. The front rail will be bedded next, followed by the balance rail. Both operations are described in detail in last October's "**Technical Forum.**"

I am still trying to think of a way to bed the back rail with the stack screwed in position. I suppose it might be possible to tap on the rail with a long felted rod inserted through the strings. I don't know how effective this would be, or even if there would be clearance for the rod; and anyway it would be tough to get the sandpaper into position with the stack in the way. The other possibility brought up by Merrill, that of tapping the bottom of the keybed, is entirely foreign to my training. I have not tried it, admittedly, but would tend to share his skepticism as to its reliability if for no other reason than that the keybed is so massive. It would almost have to flex, it would seem, for this method to work. If any of our readers can shed any light on this, we would be happy to hear from you.

VERTICAL REPETITION

QUESTION: *"In many new verticals, the action operates perfectly under normal playing conditions but won't repeat after a very slow release of the key. The problem seems to be caused by the tip of the jack hanging up on the butt leather partway back to its rest position. The problem can be solved by lubrication or by adding lost motion most of the time, but if the leather is lubricated might not the jack slip out on a hard blow? If lost motion is added, the better pianists might complain. Is there another solution?"*

ANSWER: The problem, illustrated in **Figure 5**, arises when the jack just touches the point of the butt so slowly that the jack spring cannot overcome the slight friction at that point. In new pianos this is often caused by compression of the blocking felt that supports the hammer rest rail. The piano might have been regulated very nicely at the factory, but during shipment the blow lengthened because the blocking felt settled under the weight of the rail and the bouncing of the truck.

I would suggest measuring the blow distance first, and adding a felt shim to the blocking felt at each bracket if necessary to restore the proper blow. This will not only raise the bottom of the butt for clearance, but will also change its angle slightly (see **Figure 6**) so the point of the butt protrudes less.

The tip of the jack should be smooth and lubricated, preferably with a very slight radius on its back edge as shown in **Figure 7**. It is impactical to reshape an entire set of jacks in the field, but if one or two are dragging because of a roughness or a burr, these should be smoothed with a small file and relubricated with soapstone or a teflon-spray coating. Graphite works well, but will not stick to any existing lubricant; so unless the entire jack tip is filed down to bare wood, a very unusual circumstance, graphite will not be much good. Incidentally, a No. 1 pencil is often useful for spot lubrication of spring grooves and other parts where graphite is needed. It

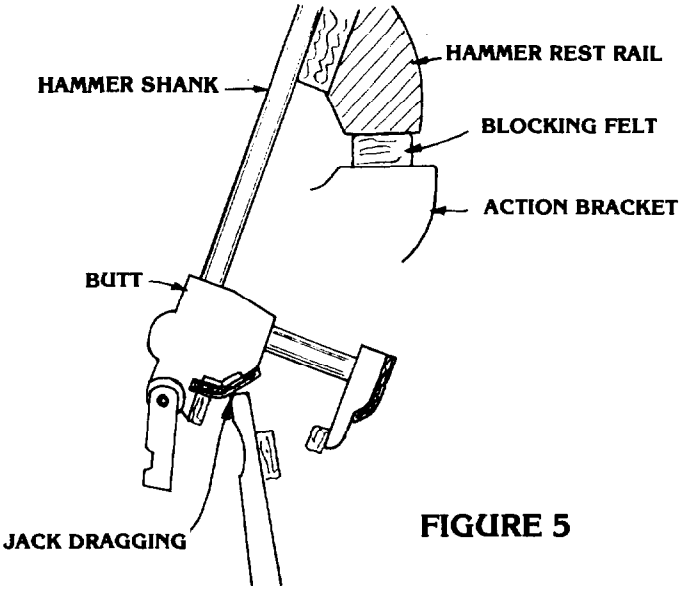


FIGURE 5

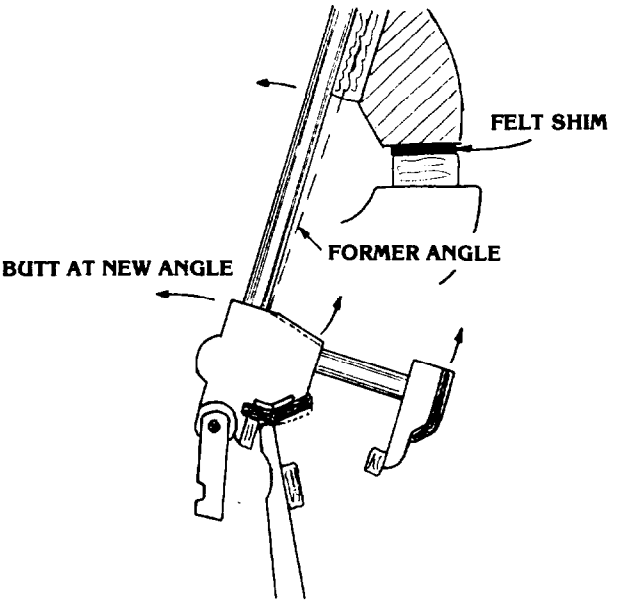


FIGURE 6

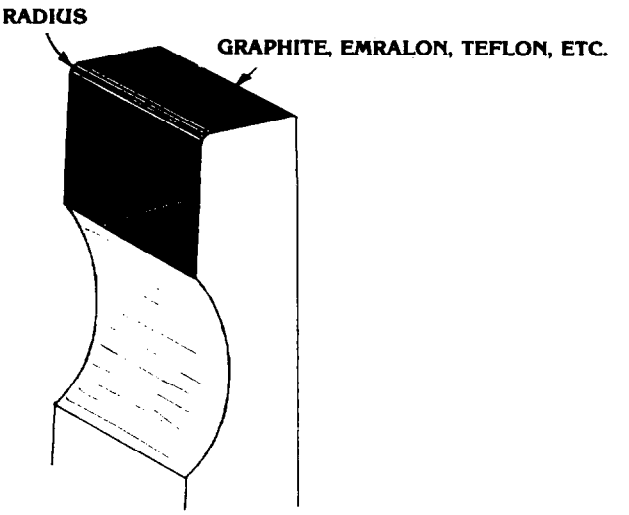


FIGURE 7

makes a handy addition to any tool case.

If the problem is with only one or two jacks, the technician should check for a tight jack center or a weak spring. The latter can be strengthened somewhat by stretching, and tight centers should be eased by reaming and repinning or by the application of a shrinking solution as recommended by the manufacturer of the instrument.

If the problem persists after checking all of the above, or if it seems to be universal throughout the scale, introduce a barely perceptible amount of lost motion by shimming the rest rail forward. One way to check for lost motion is to wink the hammers by hooking a finger over the rest rail and pulling it down. If all hammers "wink" or follow the rail away from the strings, the existence of lost motion is proven. The optimum amount of wink would be between 1/64" and 1/32", throughout the action.

I really don't think we need to be concerned about the jack skipping out on a hard blow, because after all the jack tip is lubricated already. So long as the angle of the jack to the butt is correct, this won't happen. As a matter of fact, on old pianos we often find that the jack has worn such a depression in the butt that excessive lost motion is necessary if the jack is to pass the point of the butt at all. One solution to this, provided the buckskin is still in reasonable condition, is to recondition the butts by threading a strip of bushing cloth above the buckskin as shown in **Figure 8**. This will require a certain amount of normal settling and some re-regulating, but at least it will be possible to eliminate excessive lost motion.

There is some controversy about the subject of lost motion in a vertical piano, and I will side with the moderates on the subject. I think you really must have some to get reliable repetition under all conditions, but I agree that anything more than what is absolutely needed could well be objectionable, especially to the accomplished pianist who is accustomed to playing a well-regulated grand piano. The winking test described above is an excellent way to check for uniformity, which is as important as anything to the pianist.

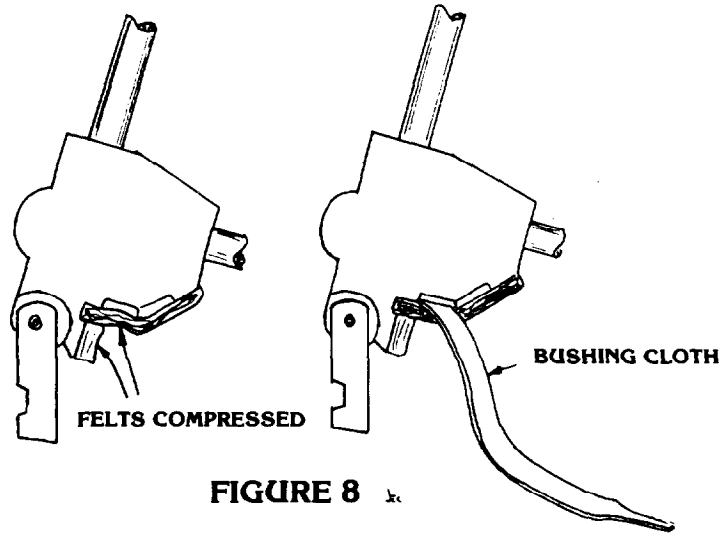


FIGURE 8

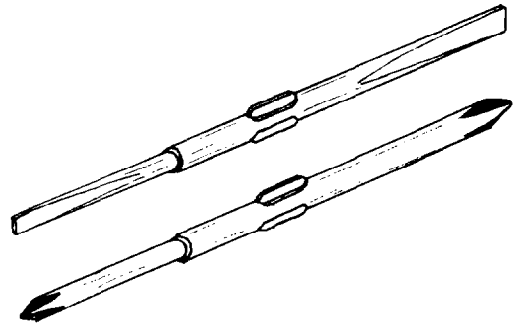


FIGURE 9

GADGET OF THE MONTH

Ben Carlton, who contributed an earlier tip in this issue, also shares this with us:

"I carry one of the handy, space-saving four-in-one screwdrivers which have two sizes of both common types of bits. The removable bit fits very nicely in the chuck of an electric hand drill."

Figure 9 illustrates the removable bits. Our thanks to Ben for his contributions to this issue.

BRIDGE LUBRICATION

In the June 1980 issue the subject of lubricating bridge pins was raised, and my response was generally negative, my reasoning being that any lubricant with sufficient penetrating qualities to get between the string and the bridge will probably also loosen the bridge pin. Since publication of that article, my good friend Dennis Kurk has written to offer another viewpoint, which we reprint here:

"Dear Jack:

"The issue of whether or not to lubricate the piano string at its bearing points is a very touchy one and I write with some apprehension. Nevertheless, I feel a word or two should be said in its defense. My intent is not to persuade a person either way but simply to offer some views.

"Any technician who has done re-stringing knows that he/she cannot take a downbearing measurement without first tapping the string so that it is seated on the bridge. Very often the string has ridden so high on the bridge pin that a reading without tapping the string will show very little or no down-bearing. But when the string is seated, a good down-bearing will be in evidence. Obviously, the fact that the string is not properly seated on the bridge certainly would have a relationship to the quality of the piano tone.

"The question to me was, why would a piano string hang up like this on the bridge pin?

"My guess is that it comes about in this manner: First, the expansion and contraction of the sound board is at times forcing the string upward. At some point in the sound board movement, through corrosive action, the string fails to follow the board down at its seasonal change and instead hangs on the bridge pin at the corrosion point. This, it appears, would be most likely to happen to pianos where the strings were infrequently moved by tuning or that are subject to high extremes of moisture and dryness. (If true, this would be even more reason for recommending frequent tuning and the use of moisture control devices.)

"At any rate, it seems to me that the objective here is to attempt some remedy that would, without the work of tapping every string (an unlikely approach, especially on verticals) re-seat the string to the bridge. And I believe that a light lubricant such as LPS #1 does just that. This material does not attract dust and there is very little, I would say almost none, of the dangers of creeping associated with the standard oil products.

"My opinion is that when used judiciously and properly, pianos so treated with this product tune far easier and sound better. My percentage of string breakage also is extremely low. (Most breaks are encountered on newer pianos, not treated with LPS #1, where the manufacturer sprays lacquer over the top of the finished bridge.)

"It is very understandable to me that technicians should be properly repelled by the use of the common 3-in-1 oils for any kind of piano work. But the very light and highly refined lubricants to me are a much different story. And I'm certain that my approach is not for everyone. But in the one-half tone pitch raisings on these 60-year-old uprights, it is the only approach for me." — **Dennis Kurk, Twin Cities Chapter.**

ANSWER: The question of whether downbearing would be greater or less when the string is seated on the bridge is indeed interesting, because my initial reaction to this statement was that the further the string is tapped down, or lowered by whatever means at the bridge, the less downbearing would be apparent. If the downbearing is measured as the total deflection of the string as it crosses the bridge, Kurk's statement would be wrong. This difference of opinion illustrates that two technicians can look at the same symptoms and arrive at opposite diagnoses.

Dennis lives in Minnesota, where temperatures from summer to winter might well vary by 130° or more, so in an environment where the humidity is uncontrolled, the soundboard could do a lot of rising and falling from season to season. The lower the string at the bridge, the less downbearing there will be, unless it is measured only on one side of the bridge. **Figure 10** shows that if bearing is measured on only one side of the bridge, Kurk's statement is correct. With the string seated as shown in the left-hand portion, there would indeed be more bearing at letter B than at letter D, because the string rises at point C. But if bearing is measured on the other side of the bridge, C would probably represent zero degrees and A would have a negative value.

If the forces of expansion and contraction have forced the string to climb up on the bridge pins, either there is negative bearing (and probably no crown) or the bridge has rolled. This would be more likely if the sidebearing is insufficient, either in the amount of stagger or in the angle of the pins.

Sometimes front bearing is referred to as *draft*, and back bearing is then called downbearing. Obviously, Dennis is thinking along this line, and is speaking of a piano with a rolled bridge, which would entirely account for the difference in diagnosis which had seemed insurmountable only moments ago. It should be mentioned at this point that a rolling bridge is a sure sign of transmission problems, because bridges always roll toward the tuning pins, decreasing the frontside bearing angle. The speaking length termination point is vital, and no amount of extra downbearing on the backside will compensate for a deficiency at the speaking length bridge pin. I like to see about twice as much bearing on the speaking length side as on the back side, but sometimes one must make do with what is possible. The manufacturers try to make a piano that will survive in any climate, and two identical pianos coming off the

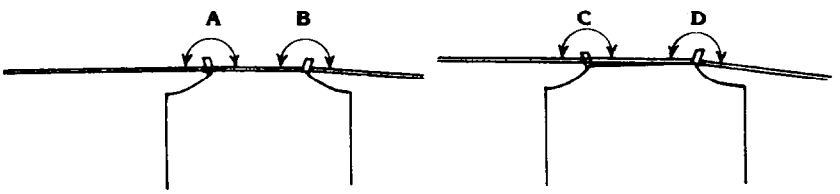
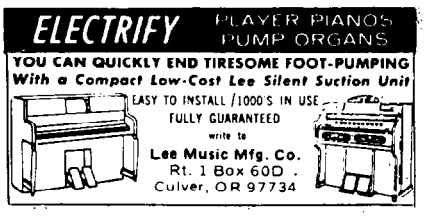


FIGURE 10

assembly line may have identical bearing readings but be destined for radically different environments. One may go to Florida, where it's always moist, and another might go to Las Vegas or Phoenix. Both must perform, as must the third piano which goes to Minnesota.

Regarding the application of lubricants, I still say that the technician is responsible for what he does to a piano, and that he should understand the properties and side effects of any lubricant used, except when specifically recommended by the manufacturer of the instrument. □



A PAGE FROM THE PAST

By Jack Greenfield
Chicago Chapter
Piano Technicians Guild

About 100 years ago, Alexander J. Ellis, an English scientist who did research in acoustics, recorded results of a test checking the accuracy of several professional piano tuners. Their data is included in the appendix Ellis added to his translation of H. L. F. Helmhotz *Sensations of Tone* (p. 485, Dover Publication, 1954 reprint).

Many tuners in England then used a c" (C_5) tuning fork from which c' (C_4) was set. The temperament octave was tuned in the order alternate fourths down and fifths up. The only test of accuracy was the agreement of the initial and final c'.

Line 1 in the table below shows the theoretical intervals in cents. Line 2 shows tests on Ellis' own piano, two weeks after tuning by one of Broadwood's "usual" tuners. Lines 3, 4, and 5 are for three different grand pianos tuned by Broadwood's "best" tuners. Line 6 shows the variation between lowest and highest values.

Unfortunately, since the tests were made on four different pianos, we do not have a direct comparison.

Piano Tuning Tests – About 1780

Line	C	C#	D	D#	E	F
1	0	100	200	300	400	500
2	0	96	197	297	392	498
3	0	99	200	305	411	497
4	0	100	200	300	395	502
5	0	101	199	299	399	500
6	0	5	4	8	19	5

Line	F#	G	G#	A	A#	B	C
1	600	700	800	900	1000	1100	1200
2	590	700	797	894	990	1089	1201
3	602	707	805	902	1003	1102	1206
4	599	702	800	897	999	1100	1200
5	598	696	800	899	999	1100	1200
6	12	13	8	8	13	13	6

Rebuilding Whippens

By Sally Kraus Jameson

REBUILDING WHIPPENS

Recently much has been said about the proper definition of a rebuilt piano. In the May 1980 issue of **Piano Technicians Journal**, the Rappaports offered as an example the standards by which airplanes are evaluated after overhaul. The older parts do not have to be replaced but must come up to the standards set by the manufacturer for the new part. I would like to concentrate on one part frequently replaced by rebuilders — the whippen. There are several reasons that I have not to replace parts but to rebuild them instead.

First, there is the convenience of not having to adapt parts possibly not made for the particular piano or that are not the same quality or size as the originals. Secondly, because of excessive action noise caused by teflon — I simply refuse to install teflon-bushed whippens into an old Steinway. Even if no definite clicks are present, there is still detectable noise in teflon whippens.

The ultimate product of a note played on a properly pinned, bushed and regulated piano is simply a bell-like tone escaping from the instrument with no evidence of mechanical means; and this can be more closely achieved with a cloth-bushed whippen.

Prior to regulation, a properly restored whippen saves on regulation and troubleshooting time, with no action noises to track down.

Lastly, the intrinsic value of the instrument, which may not be an antique now, but may be in 50 years has to be considered. Basically, antique collectors see the most value in a piece that has never been refinished or changed by a later craftsman. The highest prices paid for an antique of any sort are those for pieces in original condition. This has to be tempered of course by the function of an instrument. We want a piano to be playable with the least amount of change in the original design so that future generations will have examples of late 19th and early 20th Century instruments as close to the original as possible.

The first step is to space the hammers to the strings. This will insure that after removal whippens can be replaced accurately. Number all whippens upon removal. In many cases you will be replacing screws with a slightly larger one for a tight fit, but if you plan to save them keep them in order.

Usually an initial dusting off is required just for close examination of the part. This can be done prior to removal with an air compressor of after removal with a soft paint brush by hand. I use three-sided action trays with a row of numbered screw holes in the back for easy transportation of parts around the shop. Remove all felt and cloth that you have determined has to be disposed of for reasons of wear, moth holes, etc. Clean the spring slot with a toothpick or other wooden scraping tool and regraphite with a No. 3 pencil. Examine the spring to determine if it is too severely bent or corroded to use. New springs are available from supply houses. Remove the centerpin first if one exists (some only have the cloth bushing) and ream the hole.

The new spring should be threaded ontly the bushing cloth as it passes through the hole in the wood. Usually the springs can be cleaned with either very fine steel wool or metal cleaner. Use of the metal cleaner (Noxon) avoids any possibility of scratching the surface of the spring that rides in the slot.

Frictionless contact between the spring and the slot is crucial. Many times the reason the spring does not make the hammer walk up properly is that dust and dirt in the slot are causing sluggishness rather than a weak spring.

Prepare to graphite the top of the repetition lever and jack head and tail. Scrape the top of the repetition lever with a razor blade first to remove dirt and to even the surface if there has been wear by the knuckle. Apply the graphite (in stick form) and burnish with a polished steel burnisher until very shiny. Only the true nit-picky technician will realize the joy of shiny little jack tails all in a row upon reassembly. The commercial graphite suspended in alcohol solution contains gum arabic so it's not suitable for whippens. Even when burnished, the prepared graphite still has too much grab. After burnishing, remove excess graphite with a gum art eraser.

Look carefully at the whippen cloth where it contacts the capstan screw. If it is very moth eaten, saturated with paste graphite, or heavily worn it will have to be replaced. The new cloth can be glued with either white glue or contact cement but remember that the white glue will have to be clamped. Only the front and back edges of the cloth are glued as the middle goes over an underfelt and is not glued down. The easiest way to get a snug fit is to glue one end first and then stretch it over the underfelt tightly to the other end.

Use a brass bristle brush to clean and resurface the drop leather. These usually hold up well but if there is any foreign substance (glue, coffee, or liquor) on them they will have to be replaced. Needle and rough up with sandpaper (150 grit) the felt on the jack and repetition lever buttons. Check for looseness in the wood — they're a possible source of noise. If any are loose remove the screw, glue size with very thin hot hide glue, let it dry, and replace the screw.

There are glue joints to check. If the jack is in two pieces (Steinway) then make sure that they are all tight. If the jack has been hope-

lessly damaged then pin another in its place. Make sure that the repetition lever flange is also tight.

Very old Steinway whippens may have no jack buttons or spoons. These can be added by drilling and screwing in the parts. If the old felts are still there they can be salvaged and usually regulate very nicely. Jack position can be changed by peeling the felt slightly or by adding a small shim in the back. This may seem very tedious but many of these old felts never have to be touched to reposition the jack and hold their regulation very durably once properly positioned. I usually try to retain this feature for the sake of preserving the original mechanical design.

Make sure the spoons are tight in their holes and clean them if necessary to insure noiseless contact.

The Schwander-type whippen has a silk cord that holds the spring in place. These rot and have to be replaced with cord available from supply houses. Simply clean the hole gently with a tapered reamer and put the ends of the new loop in the hole. Press a toothpick dipped in white glue into the hole with the cord and break off the toothpick when dry.

The jacks may have become off-centered in the mortise. Rebushing or repinning may solve the problem so check first for sloppy pinning. If the jack is the proper tolerance then you may correct the problem by bending the pin slightly. Hold the proximal end of the whippen on the 90° edge of a table (on the side with the largest gap) with the jack hanging unsupported in the air. Gently tap the top of the jack, with a small hammer, on the edge that is farther away from the mortise. After correcting the position you will have to again check the pinning to make sure you haven't loosened it too much.

Check the pinning on all the centers. If there is a green deposit present in the wool bushing you will have to rebush. Weigh all the centers using gram weights to measure proper friction. This step is the basis for a fine even regulation. We all know that centers have to be free, but how free? Gram weights can be very accurate in determining this. Tie the gram weight with a light thread and hang it on the part to be measured and watch the speed with which it falls. The part should fall slowly with the weight attached. The repetition lever should weigh out at three to eight grams, the jack should be one to three grams and the whippen flange should be three to eight grams. Pin the centers tighter (more grams) in the summer and loser (fewer grams) in the winter. The really important point here is that all centers be the same tolerance from part to part. Besides the obvious problem of noise, a repetition lever center can be so loose that the spring cannot be regulated properly. The spring will appear too strong and there may be problems with backcheck. Weakening the spring on a Steinway will cause the jack to be too slow. The repetition lever center must be tight enough so the spring will cause the hammer to walk up slowly and still be strong enough for fast jack return.

Lastly, the rest cushion can get rather dirty-looking and still function if they're not falling over to one side. Many older instruments and some new ones have no cloth cover over the felt. I usually try to retain the type present on the action as I find it. Damper felt is fine for the underfelt and bushing cloth (thin) is fine for the cover. Glue on the white felts first and let dry. Then glue the front of the cover to the wood. Wrap the cover over the white felt and glue on the back. Glue is never applied between the white underfelt and the cover.

By now I'm sure you're thinking there is a mad woman in your midst, but don't judge this procedure too hastily. Not all whippens need all of the above mentioned restoration. Many only need examination for problems and a few repairs. Of course you have to decide when to replace a whole set of felts or when to do just a few. I usually try to match carefully the existing materials when there are just a few unsatisfactory items. If ther are more than several undesirables I usually replace all 88 of the objects in question. One may argue that the labor cost is prohibitive but the actual materials involved in restoring a whole set is a fraction of the cost of new parts.

Anyone can be taught to graphite a jack and the possibilities are limitless (spouses, children, friends, boring dates) as to who can be recruited for such exciting fare. Also if you have never embarked on a project like this you have missed an educational opportunity that will serve you well in future troubleshooting ventures. That occasional elusive click may turn out to be a loose part that you never dreamed could be the problem, and once you have refurbished a whole set of whippens you are better prepared for such events. □

Calculating Technician

Part XIII

Dave Roberts

Last month, this column continued our discussion of piano inharmonicity and special design considerations for wound strings. We discussed the concept of an optimum length for the unwound segments between the wrap ends and the bridge and agraffe terminations in order to minimize both inharmonicity and wildness in conventionally designed (swaged) wound strings.

We also discussed the purpose of adding wrap to a string in the first place and the special benefits and problems involved in doing this on the treble bridge in the smaller grands and verticals. It was suggested that available lightweight aluminum wraps seem to be the best solution to these problems in terms of achieving a smooth aural and tunability transition from plain to wound unisons on the treble bridge.

This month, let's discuss wraps for wound strings in more detail. Presently, there are three basic types available from the half dozen or so stringmakers in this country and Canada. These are solid copper, iron and aluminum. The iron is usually copper dipped or electroplated to prevent corrosion, although you have no doubt encountered older pianos with (dull) bare iron wraps and possibly even red brass and other materials. Currently available copper wrap gauges along with their diameters in mils (thousandths of an inch) are given in **Table I**. Please note that the Washburn and Moen (W/M) gauge numbers bear no resemblance to music wire gauge numbers. Most stringmakers offer copper wrap gauges from #36 through #14 (Mapes also has #13½, which is 84 mils diameter). In addition, Tuners Supply offers #37 and #38 and A. Isaac Pianos offers #37 through #43. Mapes also offers iron with 5 per cent (by weight) copper electroplate, which they call 'copper ply on low metaloid steel,' in gauges #36 through #15½. Schaff Piano Supply offers aluminum in gauges #24 through #28 and is currently the only supplier of aluminum wound strings of which I'm aware.

Table I. W/M Wire Gauges

gauge (W/M)	dia. (mils)	gauge (W/M)	dia. (mils)
14	80.0	26	18.1
14½	76.0	27	17.3
15	72.0	28	16.2
15½	68.0	29	15.0
16	62.5	30	14.0
16½	58.0	31	13.2
17	54.0	32	12.8
17½	51.0	33	11.8
18	47.5	34	10.4
18½	44.3	35	9.5
19	41.0	36	9.0
19½	38.0	37	8.5
20	34.8	38	8.0
21	31.8	39	7.5
22	28.6	40	7.0
23	25.8	41	6.6
24	23.0	42	6.2
25	20.4	43	6.0

To the best of my knowledge, stringmakers today make no distinction between iron and copper wraps when duplicating an old set of strings in copper, although, strictly speaking, they should. This is because the weight added to a string by either wrap material is roughly the same. Only the aluminum is significantly different in weight for a given gauge number. The precise equivalence of different wrap materials is a somewhat tricky subject because the weighting due to, say, an iron wrap compared to an aluminum wrap depends not only on the wrap gauge numbers but also on the core used and on the amount of distortion suffered by each wrap as it is being wound onto the core. There are still other factors to consider, including holding power and some more subtle matters, but the principal consideration is simply that they give the same added mass per unit length along the string. In this case, it can be shown that a wrap material of thickness d_1 wound onto a core of diameter d has an equivalent (alternate) wrap of thickness d_2 given by the formula

$$d_2 = \frac{d}{2}\left[\sqrt{1+4\,\frac{A_1}{A_2}\,\frac{d_1}{d}\left(1+\frac{d_1}{d}\right)}\;-1\right]$$

where A_1 is the 'weighting constant' for the original wrap material and A_2 is the 'weighting constant' for the equivalent wrap. These two values of the constant A are chosen from **A=.89** (copper), **0.79** (iron, plated or unplated) and **0.27** (aluminum). It is important to keep in mind that the wire dimensions d_1 and d_2 above are really the wire thicknesses perpendicular to the core *after* winding. This dimension is always smaller than the original diameter because of the distortion suffered by the wrap as it is wound onto the core. We'll assume here that the distortion is about 5 per cent, a number which is fairly typical although I have seen some values as low as 2 per cent and as high as 30 per cent. By 5 per cent distortion, I mean that the wrap wire (originally of circular cross section) is reduced to about 95 per cent of its original thickness perpendicular to the core wire and increases to approximately 105 per cent of its original thickness along the length of the core wire.

Thus, the cross section of the wrap becomes somewhat elliptical after winding, but the volume ratio of wrap material to adjacent air spaces remains about the same. Because of this fact, the weighting factor

$$B = A\left(\frac{D^2}{d^2}-1\right)$$

which we have often referred to and calculated in these articles, is quite accurate, regardless of the degree of wrap distortion. It is also accurate for double wound strings, because stringmakers almost always choose the underwrap and outer wrap to be suffi-

ciently different in size that there is no nesting of the outer wrap between the turns of the underwrap. Thus, the same volume ratio of wrap material to air spaces is maintained for either single or double wound strings. For your information, the outer wrap is usually two to three times larger in thickness than the inner wrap on double wound strings.

Let's give an example to illustrate the alternate wrap formula. Suppose we have a #19 core (music gauge!) wrapped with #36 copper (W/M gauge!) and we wish to know the equivalent aluminum wrap gauge. Typically, the copper thickness would be 9.0 mils (see Table I), less about 5 per cent due to distortion during winding, which turns out to be 8.6 mils. Thus we have

d_1=8.6 mils (after distortion)
d =43 mils (core)
A_1=0.89 (copper)
A_2=0.27 (aluminum)

The formula is therefore calculated as follows.

$$d_2 = \frac{43}{2}\left[\sqrt{1+4\,\frac{0.89}{0.27}\,\frac{8.6}{43}\left(1+\frac{8.6}{43}\right)}-1\right]$$

$$=21.5\left[\sqrt{1+2.64\,(1.20)}-1\right]$$
$$=21.5[2.04-1]$$
=22.4 mils (after distortion)

If we then add 5 per cent to this value, we will have the diameter of the (undistorted) equivalent aluminum wrap, which is 23.5 mils. This is obviously very close to #24 gauge, as you can see from **Table I**. Therefore, it should make little difference acoustically whether the 43 mil core is wrapped with #36 copper or #24 aluminum. I personally prefer the lightweight but rugged aluminum wraps to the more fragile copper gauges (#36 through #43) if I'm designing the transition from plain to wound unisons on the treble bridge, but you will no doubt want to make your own judgment. There is no reason whatsoever to use aluminum wound strings on the bass bridge because the shorter speaking length of the uppermost bass unisons compared to the lowest treble unison actually requires a heavier wrap for a proper transition.

For those of you who would rather not calculate equivalent wraps, there is a simple rule-of-thumb for finding the copper equivalent of an iron wrap: just add **2** to all iron gauges from #44 through #36 to get the equivalent copper gauges; likewise, add **1** to all iron gauges from #34 through #20 and add ½ to all iron gauges from #19 through #14. This rule applies for any core size from #15 through #26 music wire gauge.

The equivalence between aluminum and either copper or iron is a bit trickier. This is given in **Table II**. Remember, we're assuming all wraps suffer roughly a 5 per cent distortion during the winding process, so the actual overall diameter **D** of the wound string will be equal to the core diameter **d** plus twice the (distorted) wrap thickness, i.e.,

$$D = d + 1.9\,d_w$$

where d_w is the original (undistorted) wrap diameter as given in **Table I**. Suppose, for example, we have an iron wound string of overall diameter **D=60 mils** and 17½ music wire core (**d=40 mils**). Turning the above formula around, **d_w=(D−d)/1.9=10.5 mils**, which is the presumed original diameter of the iron wrap. This is close to W/M gauge #34, so the equivalent aluminum gauge according to **Table II** would be #24.

Although you may be tempted to specify the wrap size(s) in W/M gauge when you order strings for a new or modified scale, I have found it safer to specify the core diameter in (decimal) inches and the overall diameter the same way. This way, you talk the stringmaker's

Table II. Approximate Aluminum Equivalent of Iron/Copper Wraps

COPPER (W/M)	core (music gauge)	IRON (W/M)	core (music gauge)	ALUMINUM (W/M) (on same core)
35	15 - 17	34	15 - 19	
36	15 - 23	35	15 - 23	
				24
37	15 - 23	36	20½-23	
38	15 - 23	36	15 - 20	
39	15 23	37	15 - 23	25
		38	18½-23	
40	15 - 23	38	15 - 18	
41	17½-23	39	15 - 23	26
41	15 - 17			
42	17½-23	40	15 -23	27
42	15 - 17	41	15 -23	
43	15 - 23	42	22 -23	28
44	15 - 23			

language and you also have some recourse if, for some reason, he severely distorts the wrap while winding it onto the core. You'll know this has happened if the overall string diameters turn out appreciably smaller than you had calculated based upon the 5 per cent distortion factor.

He might make it over for you anyway, as most stringmakers are nice people and eager to please, but it's better to tell him what you want to end up with and let him decide how he's going to do it. This also applies to double wound strings — let him decide what combination of wraps he'll need to arrive at a certain overall diameter, at least until your experience indicates there is a better way.

In calculating these overall diameters, however, I would suggest you use the available wrap gauges indicated in this article and assume a 5 per cent distortion will take place, as discussed above.

Next month, we'll hopefully finish this protracted discussion of wound strings and then it's on to an example scale evaluation and a modification, so stay tuned to this column.... □

Reader Feedback

Dear Mr. Santy:

I just received the July 1980 *Journal* and put important chores aside to take a quick and eager look. After reading the article which appears on pages 34 and 35, I find myself saddened.

We try to teach our smallest children to take responsibility for their acts, and we technicians talk of ethics. Yet, here on page 35 of the July *Journal* is the story of a technician who, after soiling a customer's white carpet, put the blame on a poodle. The maid came to the rescue by dirtying the dog's feet and walking him through the tuner's soiled spots so that the owner blamed her dog.

The writer of this article says he himself "wasn't so lucky" (?!). After having chipped a plastic keytop on an otherwise perfect keyboard, he explained how he repaired it. I appreciated learning that. He said further, "To ignore it would mean the loss of the fee and the customer." I truly hope he repaired it because he broke it and not because he didn't want to lose a fee and a customer.

Maybe this was the author's idea of fun and sport, and I go along with that and try to get as many laughs out of life as possible. We are living in times when integrity is at a low ebb. Some of the younger technicians coming into the field have been raised in a climate of lesser sincerity and honesty than that of the ones who have been in the field for 20 to 40 years. For the younger ones who are deciding how trustworthy to be, is the article and others like it giving them the wrong direction? If so, it's no longer fun and sport.

I think piano technicians are the greatest people in the world and I sing their praises at every chance I get, because these are my true feelings. Yet, something twists inside of me when I hear techs brag about some coin of value or other goody which they "found" inside a customer's piano, pocketed quietly, and now carry as their "good-luck" (?) piece. Would that same tech pick up such items from other areas of the home? Probably not. Yet, something lost inside the piano — finder's keepers?

True, strings break. Those should be paid for by the owner. I've heard it said that technicians never break strings, yet we all have broken at least one string through error. While one may not like to 'fess up to a blunder, he should at least make repair or replacement without cost to the otherwise victimized customer.

Who is this customer? Someone we honor because he gives us an opportunity to exercise our talents and earn our living, or also an occasional sap when it serves our purpose?

Our customers cannot be expected to understand all aspects of their pianos nor all aspects of the work and tribulations of the technicians. We techs can, however, understand our customers because we are customers many times each day of our lives and have been since we bought our first piece of bubble gum. We know what the customer has the right to expect and what he should receive.

I feel certain most Guild members share my feelings.

While there may be among technicians, as among other persons, those who would simply pop if they could not pass along the latest Polish or ethnic put-down joke, I'm sure they sometimes work discretionary restraint and limit their audience to those they have learned appreciate them (to the embarrassment of others), and the discredit falls solely upon the teller. The *Journal* would have the wisdom not to print such material lest it appear to be an official stand. The *Journal* likewise should not make rascals of us all by publishing the likes of page 35 simply because it satisfies one man's sense of humor, and hopefully it does not reflect his integrity.

So, please, *Journal*, and please, editor, edit. If I had to enter the home of a customer who had just read that page, I'd be too ashamed of myself to face him.

Sincerely,

P. K. Glumac
Glumac Piano Service

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To

Published Piano Technology

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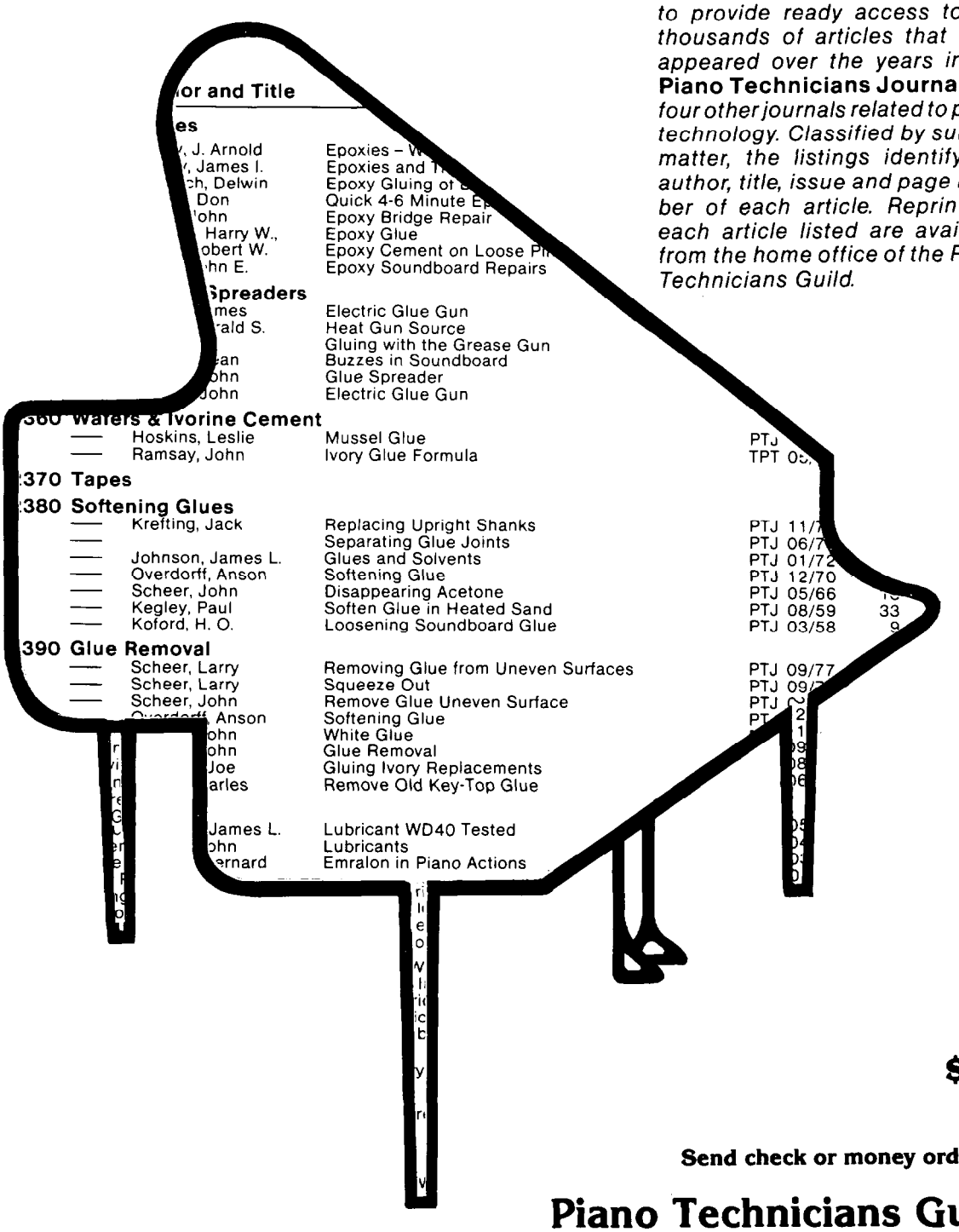

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After Touch

David W. Pitsch

50 POINT GUIDE TO GRAND REGULATION PART III

In this third part of our grand regulation guide, we will continue with discussing the Section II, The Top Action. Remember that action centers were discussed last month, so now we will begin by talking about hammer traveling, which is Point #16 on the 50-point checklist.

Point # one on the checklist was tightening all of the screws. Now if all of the foreign material was cleaned out from under the flanges, usually by using compressed air, we are now ready to travel the hammers. What we are looking for is a hammer that swings to one side as it is raised from the rest position to normal striking height.

I find it best to use a long rod such as an old pedal rod in traveling a whole section of hammers at one time. Insert the rod under the hammershanks near the hammer, at about the rest felt/rest rail area. Hopefully the rod is long enough so the ends will protrude over into the next section of hammers. If not, make sure the rod rests on at least one shank at each end so as to be level.

If any hammers are badly angled (Point #17), I find it easier to correct these first before traveling. On the other hand, if the hammers are traveling way out of alignment, then it might be easier to travel first, angle later. Anyway, keep in mind that a traveled hammer must be angled in order to keep the striking surface square to the string, assuming that the striking surface was square in the first place.

To find hammers that need traveling, lift the rod up and down approximating the hammer-to-string distance and watch for hammers moving towards their neighbors. All hammers should lift vertically, with no sign of movement to the right or left. If necessary, use a square or a board with vertical lines drawn on it as a guide to make sure the hammers all lift perfectly straight. Without the use of a guide it is possible to travel all of the hammers, but end up with them all moving slightly to the right or left. Any horizontal movement will result in a loss of power, abnormal wear on the hammer and its bushing, and voicing problems. Do not bother to travel the hammers any higher than a few inches, since they do not function any higher in the piano.

Any shanks which are moving to the right or left are corrected by placing a thin shim under the flange so the shank will travel vertically. The rule is to place the shim on the side of the flange toward which the hammer is traveling. In other words, if the hammer is moving to the right, place a shim under the right side of the flange. I prefer to take the flange off completely and place a gummed piece of paper such as packing tape or a strip of masking tape as a shim. This works better than just a piece of newspaper so often seen here, since they stay with the flange whenever it is removed in the future.

Also, in taking the flange off to shim it, I always check it to see if some foreign material is causing the hammer not to travel correctly. If more than two shims are necessary, filing the flange on the opposite side is preferred to installing many shims. In really bad cases, rebush the center. For more on traveling Steinway flanges, see the "Technical Forum," October 79.

Since shimming the flange actually tilted the hammer, now we need to go back and correct the hammer angle. In case you do not know what I mean by hammer angle, it is correcting those hammers which are leaning to the right or left. Do not confuse this with the angles which the hammers are glued on to so that they are aligned to the string angles. This is in a different plane. The angles we are talking about are caused by the shank warping or by shimming the flange to correctly travel the hammer. To correct the hammer angle, take a heat gun or an alcohol lamp and heat the shank by quickly passing the heat up and down the length of the shank. At the same time, apply a tilting pressure to the hammer head in the direction it needs to go to correct the angle. You will feel the shank twisting when it gets hot enough. Don't burn the shank!

Keep in mind that some pianos are designed for the hammers to be slightly angled a couple of degrees in certain sections, usually the tenor or bass. Note that if the same rod is used here in angling that was used in traveling, the hammers will all be uniform in height (remember that we have not gotten to regulation yet) and therefore easier to spot those which are misangled. Do not lightly pass over these two procedures, as they really make a difference when it comes time to voice the piano.

Next on the checklist is Point #18, reshaping the hammers. At some time in the future we will discuss when to tell if the hammer has enough life left in it to reshape it or if it needs to be replaced. In the mean time, refer to "Von Der Werkstatt," December 1979, for a complete discussion on hammer

filing. As this article is based mostly on reshaping in the shop, we will also discuss in the future how to reshape in the home. Remember that a well-shaped hammer not only sounds better, eliminates a lot of needless voicing and wears longer, but also makes more money and a better reputation for you. Note that after traveling and angling, the hammer striking surface must always be filed to square it to the string.

Regraphiting the jack top and balancier window is Point #19 on the checklist. The easiest way to do this is to brush on Dag 154. Keep in mind what we are doing here. Generally speaking, the less friction there is between the moving parts of the action, the better it works. Recently for this reason, many pianos manufactured today use teflon (often colored blue or green) at such friction places as the top of the jack and balancier. Teflon as used here is definitely superior to graphite. The knuckle never gets coated with teflon which has rubbed off like the graphite does. A knuckle should be clean and smooth to function at its best. If dirty with graphite, clean it! For this reason, after applying the Dag 154, take an old treble hammer and rub these surfaces, or burnish as it is correctly called. This helps in making the surfaces even slicker by polishing and takes off any excess graphite which otherwise would have worn off onto the knuckle.

Point #20 is spacing the jack in the balancier window. This was covered recently in the Technical Forum, July 1979, complete with how-to-do pictures. Remember to check and make sure the jack works freely after spacing it. Do not space Steinway teflon bushing jacks in this manner. Hammering on a teflon bushing will ruin it. Remove the center pin and put a slight bend in it, then reinstall the center pin.

Next we go on to repairing the knuckles, Point #21. Good quality knuckles have been hard to find in this country recently. Lately, our manufacturers have been able to get a better quality buckskin. But only in the past few months have really high quality knuckles become available, and these are only found from a small importer on the West Coast.

As a technician, you have to decide whether to use the old knuckles which the piano has or to install new ones. If the knuckles are of good quality and are just a little worn and slightly out of round, then it is acceptable to restore them. If the knuckles are of poor quality (some of late are not even buckskin but rather cowhide), or if they are very grooved or flat, replace them.

For the benefit of those technicians who work on Steinways, felt bushing shanks and flanges have now become available which are of the finest quality. These are not the remade Pratt-Read shanks and flanges from the East Coast (see "Substituting Shanks", Technical Forum, April 1979), but are from the West Coast, the same source as the good knuckles. Slightly flattened knuckles can easily be made round again. Purchase some good quality wool yarn (not synthetic) and a large needle with an eye large enough to hold a strand of yarn. Pass the needle with a few strands of yarn into the knuckle, at the point where the knuckle rests on the balancier. The new yarn goes between the leather and the knuckle core. The fibers of the yarn will intertwine with the core and become permanent. Cut off any excess yarn from the sides of the knuckle and you are in business. As a final check, squeeze the buckskin of the knuckle and look for any slack. The leather should be nice and firm, with no visible play.

If the knuckle is a little grooved, I like to file this groove away and make the surface smooth again. In later regulation, the whippen will have to be aligned to the knuckle. If this groove exists, any alignment of the whippen will result in the jack hitting upon a new part of the knuckle. The jack height will then vary as the jack makes a new groove, and repetition problems will result, if it no longer has the tolerance it needs.

Sometimes we find a hard knuckle. Usually this is from glue getting on the leather when the knuckle was made. The buckskin should only be glued at the very ends, the working part being free against the core to flex. To eliminate a noisy knuckle, prick the leather with your voicing tool. If this does not work, replace the knuckle.

When replacement is in order, be sure to glue it in proper alignment. Nowadays knuckles are often seen which vary in their alignment. The core should be at a 90° angle to the shank, but I have seen many where the rosewood was so far bent out of shape that the knuckles were 1/16" off from the neighboring knuckles! Combine this with cowhide being used instead of buckskin and you have a piano that not only plays unevenly, but cannot repeat since the jack hangs up on the rough fibers of the cowhide. The only remedy here is to replace the knuckles with ones which have good buckskin and to properly align them. The same goes for the felt knuckles which Steinway used for a while. Next month we will continue with Point #22. □

In the Field

BEN McKLVEEN

Since the last time we visited, I have become a statistic. While I was spending a pleasant Sunday afternoon at our local zoo, a cretin with more guts than brains smashed his way thru the passenger door of my new hatch-back car and carted off all the tools, equipment and supplies that I normally carry to do my work.

I will spare you the details of this insult and injury since it was painful and I was homicidally angry. I have worked for over 30 years under a number of assumptions regarding security, protection and insurance, some of which were naive, wrong or downright stupid. To say that I have suddenly become an expert in security would be an exaggeration, but this misfortune has caused me to rethink my way of operating with an eye toward better security and certainly more protection.

If by writing this article, I can persuade you to examine your own operation and save yourself the grief of a robbery, then my time will be well spent.

Two out of three of my friends and acquaintances have been burglary victims at least once. Burglary is costly. Not only are stolen cash, merchandise and equipment seldom recovered, but the damages caused by the break-in are often extensive. Moreover, insurance premiums are likely to go up following a burglary. Repeated break-ins may result in cancellation of the policy altogether.

With almost 80 per cent of all burglaries going unsolved, prevention must begin with you. By you taking measures to increase security, the burglary can be prevented, or at least deterred.

The modern automobile is equipped with locks. Use them without exception. Don't do as a refinisher friend of mine did. On a recent Saturday, he was working on a music desk in his kitchen. His car was parked in his back yard. When he went out to get some of his equipment from the trunk, he toughtlessly left his keys in the trunk lid lock. Thieves came by and cleaned him out. Locking your car prevents the casual thief from getting started. On the street, in parking lots, shopping centers or in front of customers' homes — wherever your car is exposed to numbers of people who pass by — an open car is an invitation to steal.

On the other hand, do not consider a locked car the equal of a safety-deposit box. One friend of mine was visiting relatives in a large eastern city. His cousin lived in an apartment with a lighted garage and his car was equipped with a burglar alarm. My friend left his clothes and camera in the car overnight. In the morning he found that some real pros had been thru during the night, stealing all four mag wheels and tires, and by deftly removing the rear window so as not to trip the burglar alarm, had stolen everything inside the car as well. If you are up against a professional thief, nothing is safe or secure. Moral: if your car must sit out overnight, empty it of valuables.

Cover your valuables, especially if you drive a greenhouse such as a station wagon or a hatchback that has no covered trunk. I did manage to save my electric drill and two boxes of expensive bits that were hidden under a piano pad in the back of my car. Use whatever you can as a cover — an old blanket, quilt, or piano pad — but bear in mind that dark colors blend with the interior of your car and the more ordinary and casual looking a cover is, the less interest it will create in the eyes of a potential thief.

Spread out your tools and supplies into a number of containers. Make it tough for a thief to get everything in one grab. My tool case was full and weighed over 30 pounds. I really carried too much. My plan now is to go to a smaller case and put my tools together according to their specialized use. If your business needs are such that you must carry alot of stuff, then construct a

large flat container to carry it all and bolt it to the interior of the car. Have a lid on it and a lock on the lid.

Mark your tools with your name or some identifying mark. This makes disposal by a thief more difficult. And while you are at it, check to see that you have a spare for each of your most used or most difficult to replace tools. Certain of my tools that were stolen were almost indispensable to me and their loss caused me a great deal of inconvenience. When I replace these items I will buy duplicates.

Much has been written about ways of keeping track of what you own so that in the case of theft you can account accurately for what was stolen. The simplest beginning is to make a list. This can be extended to cover your shop tools and home furnishings. This is invaluable for police reports and insurance claims.

Another way of "listing" is to photograph everything and date it. This gives insurance adjusters a clear picture of what you lost. Recently, the practice of videotaping has begun to replace photographs. The advantage is that videotape doesn't lie. Videotape blends tools, shop, furniture and appliances with your house and you can describe the items while taping. A local firm in my area is doing this job for a surprisingly reasonable charge and the tape can be stored in a safety deposit box until it is needed. Whatever system of accounting that you use, it should be reviewed yearly to bring it up to date.

I must say a few words about insurance. Car insurance does not cover lost or stolen articles unless you have a special rider clause in your contract. Generally speaking, homeowners, renters or condominium protection policies cover articles carried in an automobile. It seems like a long way around to get protection but that is the way it works, as I learned to my sorrow. Even if you have insurance there is the spectre of a thing called "depreciation" to deal with. Tools, especially hand tools, will last for years. Depreciation deductions, coupled with the inflated cost of new tools, makes a loss by theft even worse because the difference between what you are paid and what you must spend to replace a loss gets larger every year. There is a way around this problem that is worth examining. Available for a modest extra premium is an optional endorsement called Replacement Cost Coverage. Added to your homeowners' policy, it will pay for full cost of replacement or repair at current prices.

The theft of your tools and supplies does not include the theft of your brains and skills, I am happy to say. Nevertheless, a burglary is a dreadful inconvenience and upset. With the prevalence of robbery today and the low rate of recovery of stolen property, some hard thoughts about your own protection are very worthwhile. □

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.*

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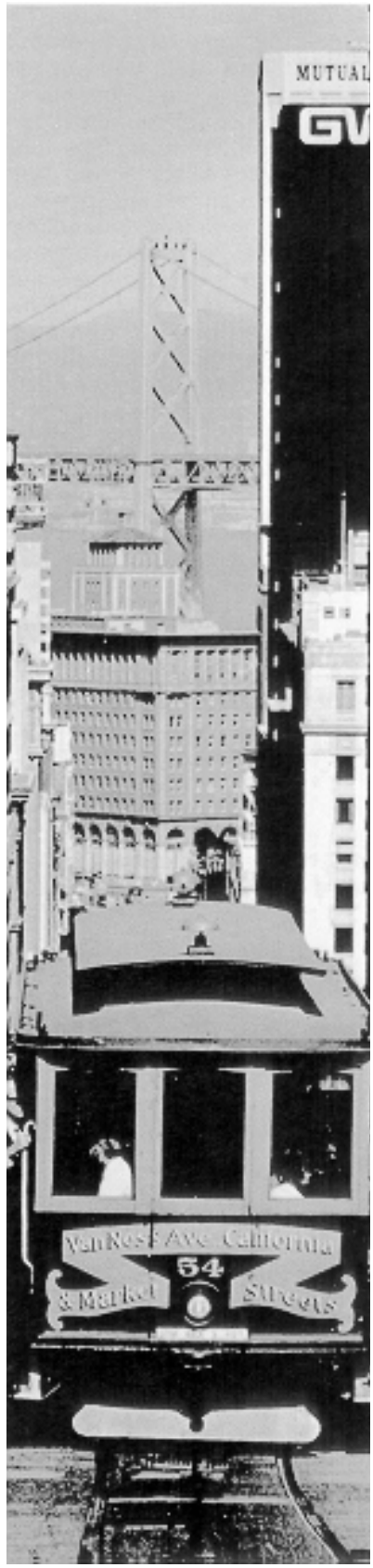

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512 Chestnut St.
Lebanon, PA 17042

Western Maryland Chapter
BLACK, THEODORE W.
1137 Hamilton Blvd.
Hagerstown, MD 21740

SHOCKEY, JOHN E.
The Shockey Furniture Co.
28-30 Summit Ave.
Hagerstown, MD 21740

STUDENT

Detroit-Windsor Chapter
PIPHO, ALFRED R.
209 Arbor Ave.
Monroe, MI 48161

Denver Chapter
SMITH, RONALD L.
P.O. Box 1871
5126 Black Gore Dr.
Vale, CO 81657

Fall Cities Chapter
CAMMELOT, JOHN F.
1704 Sadie In. #8
Louisville, KY 40216

DAVIS, MERRILL L.
9005 Royal Oak Dr.
Louisville, KY 40272

Hutchinson Chapter
POLSON, EDDIE W.
700 W. Commercial
Lyons, KS 67554

Montreal Chapter
McNICOL, ANDREW M.
Lakeshore Dr., P.O. Box 664
Sackville, NB E0A 3O0

Phoenix Chapter
DIAMAN, DAVID B.
6405 E. Indian Schl. Rd. #9
Scottsdale, AZ 85251

Puget Sound Chapter
CRAVEN, SCOTT H.
3003 So. Windon
Tacoma, WA 98409

San Diego Chapter
COMBS, KATHY
3717 Sioux Ave.
San Diego, CA 92117

COTTRELL, DIANE B.
18716 Kornblum
Torrance, CA 90504

ZOCCO, SALVATORE J.
8351 S.W. 47th St.
Miami, FL 33155

HALL, RANDALL V.
2354 Eastman Dr.
New Brighton, MN 55112

AFFLECK, ROBERT L.
1525 Pasadena Rd.
Kelowna, BC V1X 4P7

Obituaries

Richard A. Olson
Salt Lake City Chapter

Rex Rockwell
Central Pennsylvania Chapter

Lewis Claude Amps
Central Pennsylvania Chapter

Reclassifications

REGISTERED TECHNICIANS

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Rt. 5, Box 5870
Nampa, ID 83651

GILLIES, BRUCE N.
5140 M. Royal Drive
Los Angeles, CA 90041

GRANT, ALAN R.
3545 Edison Ave. #22
Sacramento, CA 95821

GRAVIET, LEON A.
2715 Mesa Ave.
Emmett, ID 83617

HOLLINGSWORTH, JEFF A.
2271 Spring Valley
Printersville Road
Xenia, OH 45385

LEIDING, MARLIN C.
599 County Road G2
Shoreview, MN 55112

MIKESH, MILT R.
3124 W. 4th Street
Waterloo, IA 50701

MOREHOUSE, ROBERTA
19 Colonial Drive
Weatogue, CT 06089

RUEMMLER, ROBERT L.
203 S. Madison
Trenton, IL 62293

SUSSMAN, PEGGY
2721 Fieldston Lane
Jacksonville, FL 32207

SYLVESTER, DAVID E.
213 Newell Ave.
Pawtucket, RI 02860

WILKES, MICHAEL W.
6159 Blanchard Road
Jacksonville, FL 32216

APPRENTICE

ANDERSON, DONALD W.
Route 2, Box 256-E
Tappahannock, VA 22560

CONRAD, STEVEN R.
3845 Brownhill Road
Randallstown, MO 21133

HECKMAN, HELEN H.
7500 So. 19 Road
Bozeman, MT 59715

RIDLEY, WILLIAM T.
1012 Berea
Boulder, CO 80303

SANFORD, RONALD R.
1503 Harding
Pasadena, TX 77502

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.**

September 19-21, 1980
WISCONSIN DAYS SEMINAR
Milwaukee, Wisconsin
Contact: Jonathan Moberg
2420 N. Bremen Street
Milwaukee, WI 53212

September 27, 1980
POMONA VALLEY SEMINAR
California State Polytechnic Univ.
Pomona, CA

October 5-7, 1980
FLORIDA STATE CONVENTION
Jacksonville, Florida
Contact: Barney J. Johns
3546 Oleander St.
Jacksonville, FL 32205

October 11-12, 1980
OHIO STATE CONFERENCE
Cincinnati, Ohio
Contact: Willard Sims
c/o Baldwin Piano & Organ
1801 Gilbert Avenue
Cincinnati, OH 45202

October 16-18, 1980
NEW YORK STATE CONVENTION
North Syracuse, New York
Contact: Arthur W. Smith
13 Homeland Road
North Syracuse, NY 13212
(315) 458-6143

Oct. 16-19, 1980
New York State Convention
of Piano Technicians Guild
Contact: William Moonan
811 Amherst Drive
Rome, NY 13440

October 17-18, 1980
TEXAS STATE SEMINAR
Dallas, Texas
Contact: Martin Wisenbaker
808 Cordell
Houston, TX 77009

October 17-19, 1980
TEXAS STATE CONVENTION
Dallas, Texas
Contact: Martin Wisenbaker
808 Cordell
Houston, TX 77009

October 18, 1980
SALT LAKE CITY SEMINAR
Downtown Holiday Inn
Salt Lake City, UT

Nov. 7-9, 1980
CENTRAL WEST
REGIONAL CONVENTION
Wichita, KS
Wichita Chapter

Vacation Wonderland!

THE FLORIDA STATE CONVENTION

of
The Piano Technicians Guild
Jacksonville, Florida
October 5-7, 1980

Near: Disney World

Atlantic Beaches

Contact: Barney J. Johns
3546 Oleander St.
Jacksonville, FL 32205

THE AUXILIARY EXCHANGE

Luellyn Preuitt

Following Dessie Cheatham's report in April, President Jewell decided to ask the other officers of the auxiliary to submit their reports early, rather than wait until the time of the council meeting in July. Thus, they are included here for your information and reading pleasure.

We hear first from First Vice President Julie Berry.

"Between July 1979 and June 1980, I received 73 letters and wrote 105 letters as first vice-president and membership chairman of the auxiliary. Now I begin to grasp the importance of the communication among members and prospective members which continues throughout the year.

"Each month the Guild home office has very kindly sent me lists of the new Guild members. I have tried to contact each new member individually to invite people from his/her family to join the auxiliary, but I can see I need a more efficient (albeit less personal) system of contacting these people. As much as I shy away from form letters, I think the Guild is growing in membership at such a fine pace that a form letter has become the only feasible way to keep in touch with the new members.

"Four times during the year I submitted articles to Luellyn Preuitt for the Auxiliary Exchange column. I would like to write for the column more often even only short little items, because I see how important the column can be for communication among our members. It would also be nice if enough of us would contribute to the column so that Lu could coordinate articles on a month-to-month basis and never have to worry that one month she would run short of copy.

"During the year I represented the auxiliary at some local Guild events, among them the Ohio State Seminar in October, the Pennsylvania State Convention in April, and the Michigan State Conference in May.

"It has been my pleasure to serve this fine national organization of people who are related to the piano-service industry. I would like to thank the Guild and the home office for their support." — **Julie Berry, first vice president, Piano Technicians Guild Auxiliary.**

We now have the report of second vice-president, Kathryn Snyder.

"As keeper of the stationery, I distributed stationery to all the officers at the convention, mailed a packet of stationery to Julie Berry.

"I was keeper of the Idea Books, mailed four to Minnie Slocum, took some of the books to the Pennsylvania Seminar, sold three and gave some on consignment to Ginny Russell.

"I attended the Pennsylvania State Seminar in Altoona, April 18 to 20. Attended the convention planning meeting and gave a slide presentation on piano technilogy at this seminar. I will show the same slides at the convention in Philadelphia. (*Auxiliary editor's note — we know the time of the convention is past, but when this was written the presentation was still in the future*).

"I attended the annual party of the Lehigh Valley Chapter at the home of John and Barbara Zeiner in Allentown, Pennsylvania, on August 24, the banquets of the Reading-Lancaster Chapter on November 27, the Pittsburgh Chapter on December 1, and the Philadelphia Chapter on May 11.

"Made the tickets for the auxiliary tea and luncheon, with the aid of the members of the Reading-Lancaster auxiliary." — **Kathryn Snyder, second vice president.**

Here is recording secretary Bert Sierota's report.

"As recording secretary, I have recorded the minutes of the board meeting, opening assembly, council meeting, member-at-large meeting, and post board meeting of the 22nd annual convention at the Radisson Hotel in Minneapolis, Minnesota.

"A summary of the council meeting was sent to the *Journal* for publication. Delegate/alternate credential, chapter activity and officer change forms were sent to local chapters. All data received has been duly recorded in the books.

"In September it was my privilege to attend the convention planning meeting at the Benjamin Franklin Hotel. Preliminary plans were discussed and the rapport between the Piano Technicians Guild and Auxiliary was remarkable.

"During the year several meetings were held with Shirlie Felton, convention chairman to finalize auxiliary activities planned for the

convention in Philadelphia. The year, needless to say, has been a very busy one and we hope the convention proves to be enjoyable for all. (Again, the report was written well before the time of the convention).

"It has also been my pleasure to attend several seminars and social events in the Pennsylvania area during the past year. The hospitality and cooperation of all is what makes the auxiliary the great organization it is." — **Bert Sierota, Recording Secretary.**

Here is Agnes Huether, corresponding secretary.

"The bylaws and standing rules of the Piano Technicians Guild Auxiliary declare, 'It is the right and responsibility of the Corresponding Secretary to conduct such correspondence of the Auxiliary, as the President shall direct. Thus, some of the tasks involved writing 'thank you' notes to the chapter presidents and their officers/associates, who played significant roles in the successful events and activities carried out by the auxiliary at the conventions in Cincinnati, Ohio, and Minneapolis, Minnesota. Messages of sympathy, enclosed in condolence cards were also sent, as well as get-well notes and greeting the auxiliary members, or their spouses, at the request of the president in behalf of all of our membership.

"Each year, to the honorary life members of the auxiliary, large greeting cards, signed by each member attending a national convention, are sent, with 'thinking of you' messages. Throughout the year, it is the pleasant activity of the corresponding secretary to send greeting cards to these life members at Thanksgiving, Christmas, Easter, and if the date is known, on the occasion of their birthday. Although none of these ladies was personally known to this secretary, an effort to personalize the 'Hallmark' card was made. A little note on a separate sheet was prepared with some topical comments about the season, the weather, their health, and perhaps some news item about an auxiliary member, or such. From the responses received these 'billet doux' made a big hit.

"You all may recall the fine account of the auxiliary convention reported by Arlene Grimley in a fall issue of the *Journal* following the Minnesota convention. With the realization that most of our life members do not receive the *Journal*, this writer asked the Guild home office to send the Auxiliary Exchange excerpt to each of our honorary members. This was very much appreciated.

"The corresponding secretary also serves as chairman of the 'sunshine committee', proposed in 1977. At this time the committee has four members from the four major areas of the states. Rose Zena Siewert is the committee member for the West and Southwest; Mabel Hiatt covers the Southeast and Gulf quadrant; Marion Damon corresponds with auxiliary members in the Central West and this writer sends greetings and congratulations to the members in the East and Northeast. The committee as such, is still in the infant stage and the areas are not as clearly defined as Guild regional vice presidents. This committee could use, and would greatly appreciate assistance from other members of the auxiliary. It is a rewarding and satisfying service to our friends and members across the country." **— Agnes Huether, corresponding secretary.**

We are happy to print President Jewell's report.

"In my goal of communication, during the 1979 post-board meeting in Minneapolis, I asked my board to write short articles for the auxiliary exchange. We worked out a schedule of entries for the year. I'm very appreciative and pleased with all their input. I also asked other members who were planning to attend various seminars and regional conventions to submit reports about the auxiliary activities at such events. Unfortunately, very few responded, but there were some excellent reports forthcoming and I give my applause to those who shared these happenings with us.

"After returning home from the Minneapolis Convention, being elected as your President, I sent to all the officers of the Guild a letter of congratulations and gave them the support of the auxiliary.

"In September, I attended the convention planning day in Philadelphia, with the convention planning committee. We had very little time to make definite plans, but we at least laid a good foundation.

"Each month I wrote an entry into the auxiliary exchange. In October, I attended the Florida State Convention and April the Pennsylvania State Convention, where five of the auxiliary board were present. During this time we were able to finalize many of our plans for the convention.

"It has been an honor and a pleasure to serve as your president this past year. Thank you." — **Jewell.**

Your writer also has a report. She wishes to thank all who have contributed to the column during this past year, and wants to include her formal report along with the officers.

"Your writer was made very happy one year ago in Minneapolis, Minnesota, when the auxiliary council voted to change the name of the column from 'Wives' Lives' to 'Auxiliary Exchange.'

"She feels that the new title has done more than simply re-name the column. It has placed the function of the auxiliary in perspective with the parent organization, the Piano Technicians Guild.

"Here, I wish to give credit to the lady who suggested the title. Last year, in Minneapolis, she said 'sh-h-h-h-.' Now I am not going to 'sh-h-h-h-.' Thank you, Ruth Pollard!

"During the year, I have been fortunate to print such articles as the one from Martha Riley, RTT, concerning the future of the auxiliary, and have received several interesting and thoughtful articles from Julie Berry, first vice-president of the auxiliary. These, I was also happy to print.

"It was my sad duty to inform readers of the death of Paul Cheatham, husband of our beloved treasurer Dessie.

"President Jewell has been an invaluable help during this year, sending her gems for display in the pages, and urging members of the auxiliary board to contribute from time to time. Thanks to all the

board members for their help. An especial 'Thank You' to Rose Zena Siewert of the Phoenix chapter for reporting their activities, and to all who sent reports of seminars and state conventions.

"Thanks to all who have helped so ably. This has been an 'easy' year for me as editor." — **Luellyn Preuitt, Auxiliary Exchange editor.**

Bert Sierota asked me if I thought this column was an appropriate place to thank piano companies and suppliers who contributed door prizes for the convention. What better place!? Even though they will undoubtedly receive individual letters of thanks from the Guild, and will be recognized in the convention program, let's "Play It Again, Sam." These fine people need to know that we are all appreciative of their support. When this writer receives a call from a lady who was referred by a local piano dealer, she needs to thank him! So, to the Cunningham Piano Company, Dampp Chaser Electronics Inc., Jacobs Music, Kimball Piano & Organ Co., Kohler & Campbell Inc., Ronsen Piano Hammer Co., Inc., Schaff Piano Supply Co., Tuners Supply Co., Wurlitzer Co., a great big THANK YOU from the Piano Technicians Guild Auxiliary.

Bert also has sent chapter activity reports and officer changes which she has received. With your permission, we will note only chapter presidents and then go on to activity reports. If you wish a more full report of chapter officers, let me know and I will be happy to send them to you.

CHAPTER PRESIDENTS: — Kathryn Snyder, Reading-Lancaster. Shirlie Felton, Philadelphia. (An addition here is Marge Meyerman as treasurer). Helen Doerflein, Richmond, Virginia. Irene R. Johns, NE Florida. Margaret Frazer, Dayton, Ohio. Helen Pearson, Daytona Beach. Merle Sanford, Houston. Betty Graber, Hutchinson, Kansas. Phyllis Cady, Minn.-No.-Iowa. Dessie Cheatham, Wichita, Kansas. Maxine Buckman, Twin Cities. Mrs. Jim Coleman Jr., Phoenix.

Of the activity reports received, we are going to excerpt a few. Perhaps the first one printed here will provide a clue as to "how to keep an auxiliary active." From South Central Pennsylvania, "Except for our meeting at the 1979 Christmas banquet, we have been sadly inactive since the 1979 Gettysburg State Conference. We'll do better next year." — **submitted by Rosanna Hess, president.**

Before you all write and say, "Why pick on them?", remember my rationale at the beginning. Read on.

Reading-Lancaster says — "We made our flea market project. — We made the tickets for the auxiliary tea and luncheon to be used at the national convention in Philadelphia. We enjoyed a dinner with the men of the Reading-Lancaster Chapter at the Black Angus Steak House. We attended the Pennsylvania State Conference where Kathryn Snyder gave a slide show on piano technology. We had an excellent showing at the musical program at the Church of the Brethren in Lancaster. Our own Bill Lain and Don McKechnis built the harpsichord used on the program. The program featured different musical groups of Lancaster County." — **Pearl Kreitz, secretary.**

Now, of course you can say, "Oh well, certainly they are working hard. Aren't they going to have the national convention in Philadelphia this year? If we were having it, we'd work hard too." Read on.

The Twin Cities Chapter reports. "We rested this year after planning the convention last year! One night we had a talk presented by the telephone company. Under activities, we can report a summer picnic, a Christmas party. We provide a light lunch and coffee for the Guild members' meetings." — **Helen Desens, Secretary.**

From the Houston Chapter — "We met with and served lunch to the men at an all-day meeting which they had when Scotty Welton gave a special technical session." — **Beva Jean Wisenbaker, secretary-treasurer.**

Daytona Beach reports — "We have a special dinner meeting in December to which all the wives are invited." — **Helen Perason, president.**

The Richmond, Virginia, Chapter says, "A picnic was held at the Hiatts in September for the Guild and auxiliary. Attended meeting of the Guild in October — speaker's subject was 'Anti-trust laws.' Christmas party at the Leache's." — **Mabel Hiatt, secretary.**

Phoenix Chapter — "The gals had a wonderful time at the seminar in January. Each lady received a wildflower corsage made by the ladies of the Phoenix chapter. The corsages that were left were sold to the men for $1 at the banquet. We recovered the entire cost of all flowers for our treasury this way. Under activities, we arranged a pot luck dinner at the Jim Coleman, Sr., home. We have pretty much agreed to a three-to-four meetings a year schedule. It is good for all the gals involved." — **Patricia Coleman, president.**

From Philadelphia — THE TWENTY-THIRD NATIONAL CONVENTION!!!

Lest anyone reading the foregoing thinks I have been printing trivia, I have not. Let me challenge anyone — Guild member or auxiliary member — who thinks that I have been printing trivia to write directly to me his/her objections and I will be happy to read, and answer. I probably cannot convince you, but I will certainly try. The object of the Piano Technicians Guild Auxiliary is "to become better acquainted with our associates in membership; to dignify, enlarge and strengthen our organization; to promote friendship, education, understanding and goodwill in the world of music; and to provide for annual auxiliary convention entertainment."

As far as this writer is concerned, this is exactly what we have been striving to promote in all the years she has been associated with the auxiliary.

I lift a quote from the July 1980 newsletter of the Clay County Rose Society (Missouri). This writer also edits that newsletter, and a long ago friend and member gave her this quote. I cannot credit it, because I do not know from whence it came: "Forgiveness is the perfume that the trampled flower casts back upon the foot that crushed it." □

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MISCELLANEOUS

LOST AT THE CONVENTION — blue, plastic PTG portfolio with all my notes. Disappeared from the Garden Terrace Room (exhibit area) during Friday clean-up. My name was on some of the papers inside. Please call collect. **Hester Lox (415) 524-6200.**

Questions

From Contemporary Keyboard

(Editor's note: The following article, reprinted with permission, is from the August 1980 edition of *Contemporary Keyboard.* That magazine features a regular monthly column written by Dominic Milano in which questions about keyboards from readers are given detailed answers. In this instance, the subject was learning to tune a piano.)

I'm tired of paying expensive technicians to tune my piano. How can I learn to tune it myself?

Most professional tuners we spoke with feel, not surprisingly, that it would be best to leave the job to the experts — themselves. The president of a local chapter of the Piano Technicians Guild, an organization of piano servicemen, said, "I doubt that anyone could ever learn to tune a piano if they just practiced on their own. If you don't work on a variety of instruments, you might damage your tuning pins and pin blocks with poor hammer technique, or break your strings by overstretching them."

But Arthur Reblitz, author of *Piano Servicing, Tuning, & Rebuilding* [Vestal Press, 320 N. Jensen Rd., Vestal, NY 13850],, also a Guild member, is more encouraging:

"If he or she has a little mechanical ingenuity and a great deal of patience, there's no reason why the average pianist shouldn't be able to learn," he insists.

The deciding factor seems to be your own self-confidence and the condition of your piano. It's important that your instrument be in good shape, that the strings not be rusty or the pins loose, before you work on it, so that you don't inadvertently damage it. A good first step would be to invite a technician in to check the piano out and tune it. Watch as he or she works on the instrument; notice the posture and how the tuning lever is handled. Get hold of a good book on tuning, like Reblitz's, Floyd Stevens' *Piano Tuning, Repair, Rebuilding* [Nelson-hall Co., 325 W. Jackson Blvd., Chicago, IL 60606], or other publications recommended by the Guild [Box 1813, Seattle, WA 98111].

Be prepared to invest from twelve to fifteen dollars for a decent tuning lever, eight to ten for tuning forks, and a few more dollars for mutes and a temperament strip; you may be able to buy these second-hand from a working technician. Then, with whatever book you choose as your guide, learn how to use the lever, how to listen for beats, and so forth. You can teach yourself on any kind of piano, although grands, with their longer strings, are easier to work with than spinets or uprights.

If you would feel more secure with an instructor, call various local tuners and technicians; they are listed in the Yellow Pages, and some hold classes. Correspondence courses are offered by the Niles Bryant School of Piano Tuning [3631 Stockton Blvd., Sacramento, CA 95820] and the Aubrey Willis School of Piano Tuning [Box 15190, Orlando, FL 32808]. You can even earn a college degree in piano maintenance; Brigham Young University, for one, offers a BA in Piano Service.

It will take many hours of work to learn how to set the pins and tune the unisons so that they stay where you want them once they settle; this is your most important basic task. But once you've mastered it, you may find yourself on the road toward developing a whole new hobby, or even livelihood, as a tuner/technician. Good luck. □

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To mail a duplicate copy means double Journal costs plus the return postage notice cost plus around $1.00 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.

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Membership Pin — lapel-type, gold with blue and white logo-1/$3-3/$6-12/$18

Tie Tack — gold with blue and white logo-1/$3-3/$6-12/$18 .....

Tie Clasp — bar type, gold with blue and white logo-1/$3-3/$6-12/$18 .....

BUSINESS AIDS

Teacher Recital Program Covers — 100 for $5 (special price) .....

Billing Pads — 2-part with logo imprint, 50 per pad-1/$2.50-3/$6 .....

What is a Registered Piano Technician? — card with Code of Ethics — 7¢ each

Service Stickers — red and blue with logo-Plain-100/$4-200/$6-500/$12 .....
Imprinted with your name/address-$45/1000 .....

Logo Rubber Stamps — mounted on wooden handle, all sizes are priced the same: 1/$3.75-2/$6.50-3/$9.50. Indicate size/type: 1¼" round, ⅝" round, ½" round, 1¼" piano or ⅞ piano .....

Logo Metal Cuts — reusable metal on wooden blocks — all sizes are priced the same: $15.00 each. Indicate size/type: 1¼" round, ⅝" round, ½" round, 1¼" piano or ⅞" piano .....

Logo Cut Prints — all styles on one sheet 50¢ sheet .....

MISCELLANEOUS

Logo Stickers — peel-off backing, blue/gold/white — A and B styles.
A — for inside glass
B — regular
8½" logo – 1.$3-2/$5-6/$10 .....
3½" logo — 1/$1.50-2/$2.50-6/$5.50
1½" logo — 10¢ each (Min. order 10) (B only)

Coffee Mugs — white pedestal/blue logo — 1/$4-2/$7.50-4/$12-6/$16.50 .....

Flashlight Pens — gold, comes with battery-1/$4.50-2/$8 .....

Bumper Stickers — yellow/blue/white $1 each .....

Pocket Protectors — white vinyl with blue logo-3/$1.25-6/$2 .....

Logo Emblem Patches — colorful 3" sew-on patches, all are priced the same: 1/$1.75-3/$3-6/$4.50. Indicate colors: blue/white, blue/gold, black/gold .....

Dash Cash — emergency coin dispenser, white with blue logo-$1.75 each .....

Key Ring — heavy plastic with laminated blue/gold logo-1/$1.50-3/$4-6/$7.50 ..

For use by all members

BUSINESS AIDS

Piano Service Appointment Forms — small, green 5-part — 50/$4.50-100/$8-500/$30 .....

Piano Service Contract — letter-sized, 3-part 20¢ each .....

Piano Service Sales Agreement — letter-sized, 2-part 10¢ each .....

MISCELLANEOUS

Ballpoint Pens — gold, writes blue and red-1/$3.50-2/$6 .....

JOURNAL Binders — brown with gold letters-$6.50 each .....

Key Ring — heavy plastic with laminated blue/gold logo-1/$1.50-3/$4-6/$7.50 ..

LITERATURE

Pamphlets —
10¢ each/100 for $8/500 for $35
Care of Your Piano
Piano Pointers
Reminder Cards
"How Often Should My Piano Be Tuned?
The Unseen Artist
A-440 and Your Piano
"Should I Have My Piano Tuned in the Summer?"
Baldwin Postcard
The Tuner To Turn

Piano Action Handbook — by Merle Mason-$2.50 each .....

Piano Parts and Their Functions — by Merle Mason —
Members-$14 hardcover-$10 softcover .
Nonmembers-$18 hardcover-$14 softcover .....

Chapter Publicity Manual — $5 each ....

PAMPHLETS AND CHAPTER MANAGEMENT AIDS

All items below are available free from the Home Office.

The Piano Technicians Guild-"The Facts" ..
Members Benefit List .....
Magic Kingdom Club Application .....
"Thank You for Your Membership Inquiry ..
Lending Library List .....
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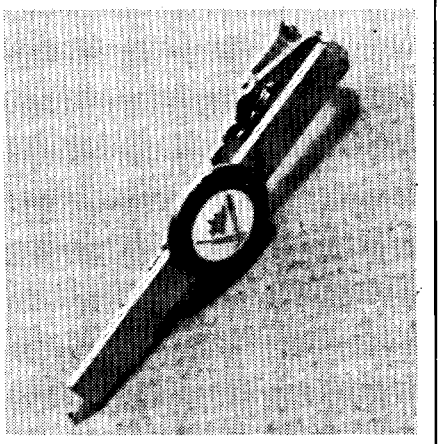

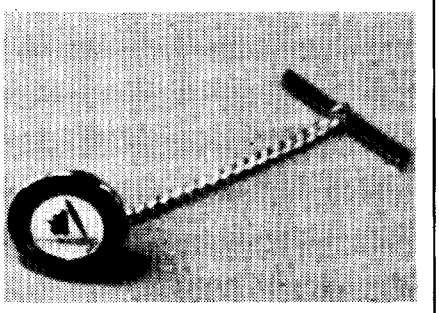

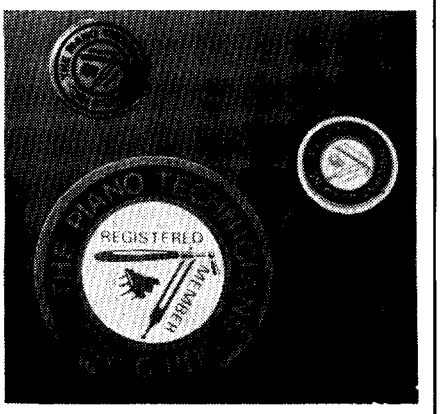

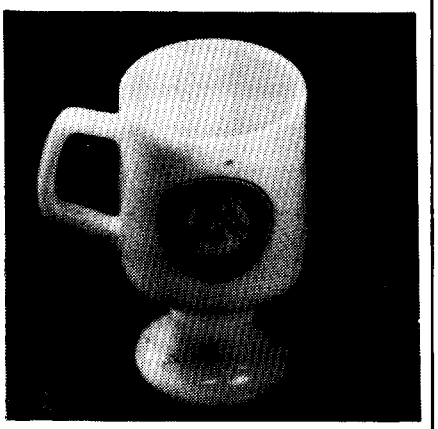

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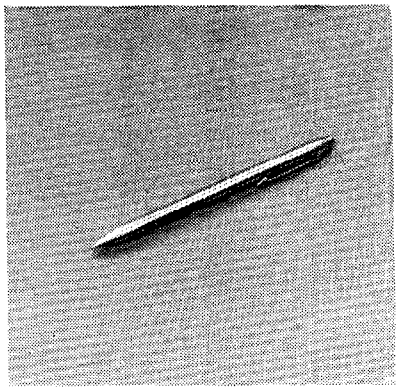

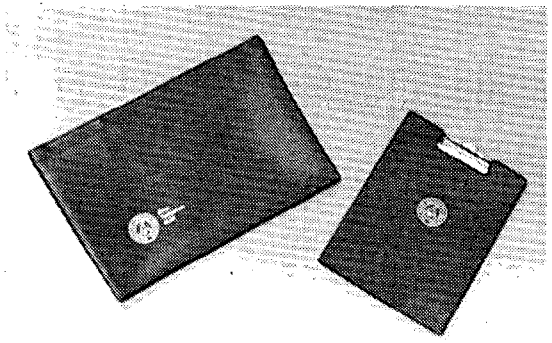

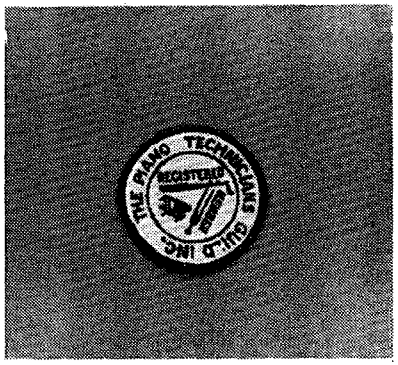

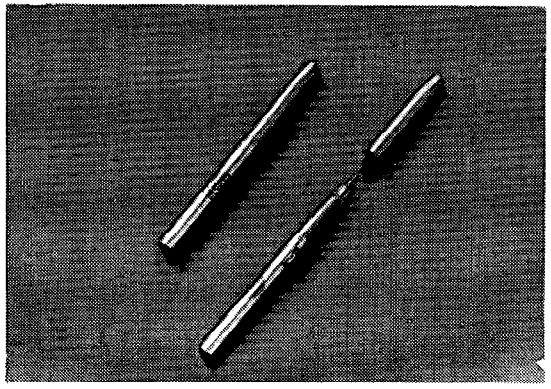

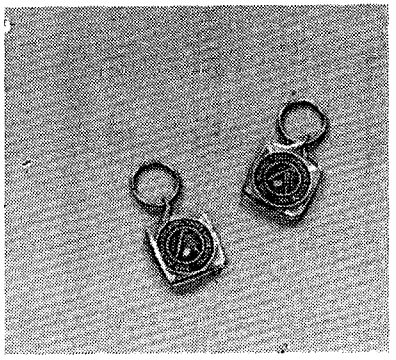

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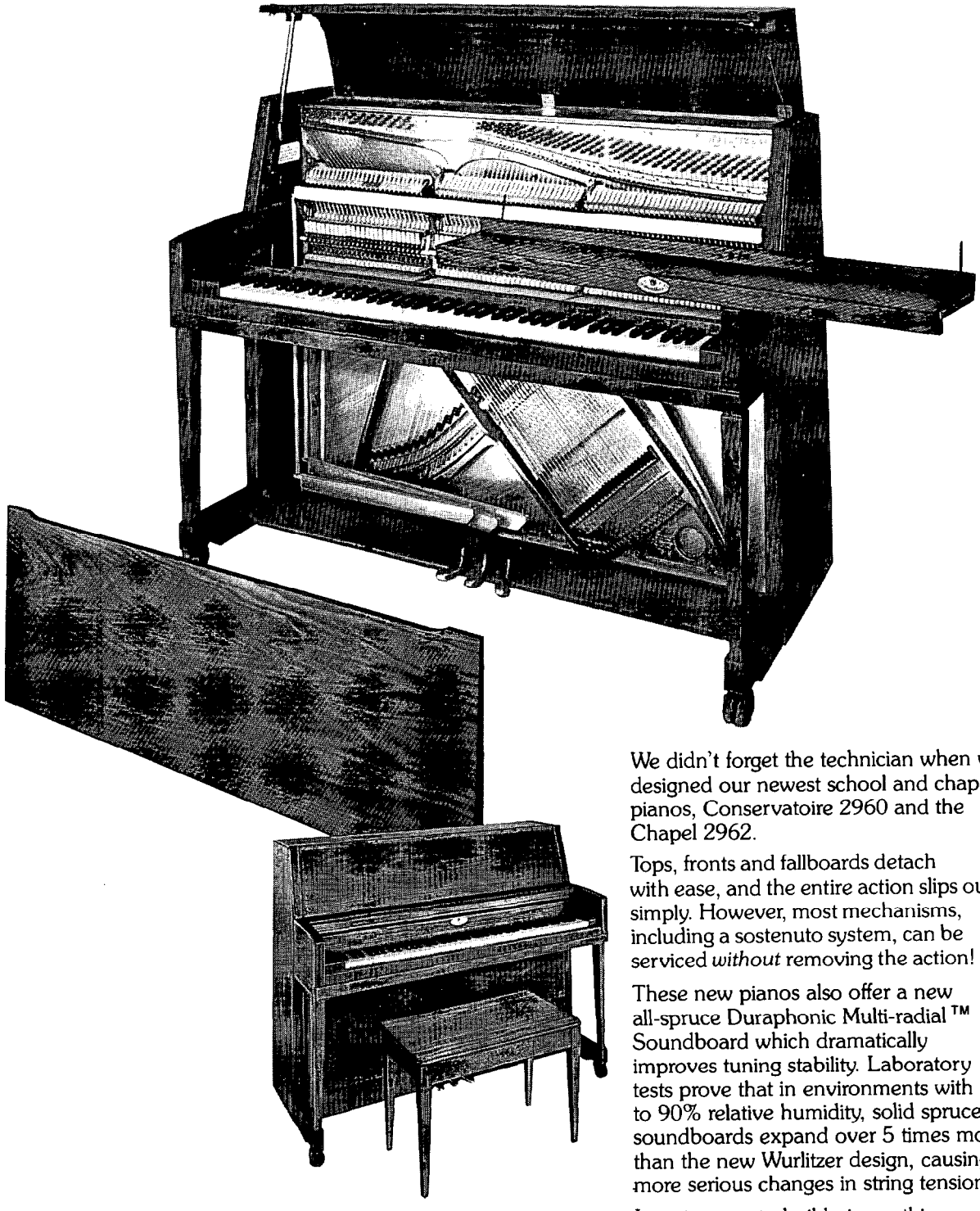

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Supplement

CONVENTION REPORT 1980

By John F. Bloch
Denver, Colorado Chapter
Piano Technicians Guild

Welcome to where it all began, Philadelphia, Pennsylvania. Registration started at 1:30 p.m., Saturday, July 12. Sunday morning, July 13, the tuning test procedures were covered. Council started session at 10 a.m.

Monday, July 14, had the chapter workshop going, classrooms being set up, regional caucuses, registration open again, and council in session. The council re-elected the present officers of the Piano Technicians Guild to serve for the coming year. They are: Bob Russell, president; Sidney O. Stone, vice president; Charles Huether, treasurer-recording secretary; Dick Bittinger, northeast regional vice president; Walter Kerber, southeast regional vice president; Tom R. Blanton, south central regional vice president; George Peters, central east regional vice president; Ernest S. Preuitt, central west regional vice president; and Daniel A. Evans, western regional vice president.

Monday at 7:30 p.m., the opening assembly convened. Charles Huether did the roll call of the states. Sid Stone presented the awards for the top bell ringers (boosters). Ben Franklin (or someone who looked like him) welcomed us to Philadelphia. Don Morton (past Guild president), co-president of the International Association of Piano Builders and Technicians, told us of the Guild's membership in this group.

Bob Russell introduced the board (listed above). Jewell Sprinkle, President of the Auxiliary, introduced her executive board: Julie Berry, first vice president; Shirley Truax, second vice president; Bert Sierota, secretary; Agnes Huether, corresponding secretary; Belva Flegle, treasurer; Helen Pearson, past president; Ginger Bryant, parliamentarian; Luellyn Preuitt, editor.

We met the people involved with running the convention. Walter Sierota welcomed us with information on how the convention was to work. Ernie Juhn told about the institute classes he would direct.

The famous Mummers of Philly played for us prior to leading President Bob Russell and his wife Ginny down to the exhibitors' room. The others at the opening assembly followed and watched the ribbon cutting by the president.

The exhibitors had a fine display. All the way from England came John York and his son to man the Alfred Knight Piano exhibit. Other exhibitors from overseas were Kawai Piano, Yamaha Piano, and Young Chang Piano. From the United States were American Piano Supply, Aubrey Wi..is School of Piano Tuning and Repair, Baldwin Piano, Dampits, Inc., Dampp-Chaser Electronic, Everett Piano, Ford Piano Supply, Kimball Piano, Kohler & Campbell Piano, Lowry Piano, McCall-Monroe Piano Service, O. E. Shuler Key Covering, Pacific Piano Supply, Perkins School of Piano Tuning & Technology, Ronsen Piano Hammers, Schaff Piano Supply, Steinway & Sons Piano, Walter Piano, Wurlitzer Piano, and Sciortino Tools. We thank these exhibitors for their part of the convention.

Tuesday morning, the institute classes started in sessions which continued until Friday noon. Walter Sierota wanted me to note that Frank Salicondro donated many of the pianos for the technical institute.

Thirty-five different classes were given. At the same time classes were in session, private tutoring was being given. Of the 35 classes, three were called product clinics. Over 900 people were registered, so the classrooms were overflowing. The response to the classes by 59 top-flight instructors was very good. This technical institute was the main event, providing a hands-on experience.

Tuesday night was a free evening. Many members went out to try the good Philadelphia restaurants.

All day Wednesday the classes were in session. The auxiliary had its council meeting in the morning, and a talent show and president's tea in the afternoon.

Wednesday evening was the banquet. Awards were given by the president. Ernie Juhn received the Golden Hammer Award. Dr. Albert E. Sanderson and Willis Snyder each received the Man of Note Award. Ed Menke received the Hall of Fame Award. Jim Campbell received a President's Citation. Chapter awards were as follows: small 2nd place, W. Massachusetts; small 1st place, Wichita; medium 2nd place, Dallas; medium 1st place, Reading-Lancaster; large 2nd place, Connecticut; large 1st place, Washington, D.C.

The Pianoforte Tuner Association from England was recognized. Their president was Ralph E. T. Long, Secretary W. James Smith and Treasurer William V. Kreis. By the way, Ralph Long also passed his test and joined the Guild during the convention. Ray La Motta was recognized from the Virgin Islands and a member of the southeast region.

To conclude the banquet we

were entertained by Joe Agnello, Hummin Dingers, Lynt and Alan Pogson, Kevin Lukens, and others. The A440 Band then took over with dance music for the rest of the evening.

On Thursday classes were in session all day. The auxiliary had the luncheon, and the exhibits, of course, were open.

Thursday evening was the big Block Party-Flea Market Buffet. Chapters had booths from which to sell their wares. There was a circus atmosphere: clowns, organ grinder with monkey, cotton candy, popcorn, prizes, etc.

Friday morning classes and exhibits continued. The closing luncheon was a big affair. The front table was lined with the main officers and wives, Ernie Juhn, the institute director, Walter Sierota, head host, and Don Morton, past Guild president and now co-president of IAPBT.

Bill Stegeman was awarded the Ulys Rodger Award. Jim Bryant invited us to the next Guild convention in San Francisco in 1981. A barber shop "quartet" of many people sang a song about the coming convention. Dick Flegle auctioned off to Wendell Eaton the piano the Technical Institute had rebuilt.

Charles Huether gave a tuning concert as the final class Friday afternoon, and this ended the Piano Technicians Guild 1980 Convention. □

The entire board of directors of the Piano Technicians Guild was re-elected at the 1980 convention in Philadelphia. Shown above after their re-election are: (seated, left to right) Bob Russell, president; Sidney O. Stone, vice president; Ernest Preuitt, central west regional vice president; (standing, left to right) Walter Kerber, southeast regional vice president; Dick Bittinger, northeast regional vice president; Daniel Evans, western regional vice president; Tom R. Blanton, south central regional vice president; Charles Huether, treasurer-recording secretary; and George Peters, central east regional vice president.

Note of Thanks

It has been enlightening to receive letters of appreciation from members who attended our Philadelphia convention. All the work involved has paid for itself in knowing that all our efforts were not in vain.

There were two items in particular which were overlooked, and I would like to make a personal apology to these people:

1st — Our ladies were not mentioned and their contributions were more than we realize.

2nd — The exhibitors were not mentioned or thanked for their contributions.

A national convention is only as good as the people that participate in it.

I wish to thank all of you for your cooperation and help in making this a most pleasant and memorable occasion.

Hoping to see you all in San Francisco.

Walt Sierota
Local Host Chairman


























Photographs by John F. Bloch and Paul Jordan.

Walt Sierota (right), president of the Philadelphia Chapter of the Piano Technicians Guild, receives the mayor's proclamation declaring July 12-18, 1980, as Piano Technicians Week in Philadelphia. Sierota, who served as local host chairman for the Guild's 23rd Annual Convention and Technical Institute, receives the proclamation from Hal Freeman, representing Philadelphia Mayor William J. Green. Green made the proclamation in honor of the convention held that week in Philadelphia. The complete text of the proclamation is printed below.

CITY OF PHILADELPHIA

Proclamation

Whereas . . .

The Piano Technicians Guild, a non-profit organization of professional craftsmen, is the only international organization devoted to serve the best interests of the piano industry, piano owners, the music loving public, and piano technicians; and

The Piano Technicians Guild, a non-profit organization of professional craftsmen, is the only international organization devoted to serve the best interests of the piano industry, piano owners, the music loving public, and piano technicians; and

WHEREAS . . .

The Piano technicians Guild promotes quality piano service by registering as Craftsmen those who qualify and keeps its members informed about technical and economic developments affecting the profession; and

WHEREAS . . .

The Piano Technicians Guild will hold its 23rd Annual Convention and Technical Institute in Philadelphia, July 14 - 18, 1980, where the "greats" of the piano industry will be assembled to conduct meetings and display educational exhibits about pianos:

Now, Therefore . . .

I, William J. Green, Mayor of the City of Philadelphia, do hereby proclaim the week of July 12 - 18, 1980 as

PIANO TECHNICIANS WEEK

in Philadelphia, and urge my fellow citizens to recognize the professional standards of the Piano Technicians Guild which enables the world to enjoy the artful sounds of the piano, and to appreciate the cultural contributions of the piano industry.

William J. Green

MAYOR

Given under my hand and the Seal of the City of Philadelphia, this ninth day of July, one thousand, nine hundred and eighty.

23rd Annual Convention and Technical Institute July 14-18, 1980

CASSETTE TAPES ORDER FORM

The following programs were recorded at the Convention on standard cassettes.

Copies are available by mail order from Cassette Recording Company.

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- ☐ **Servicing the Teflon Bushings** Fred Drasche **$6.50**
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- ☐ **Rebushing Workshop** Evan Giller **$6.50**

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