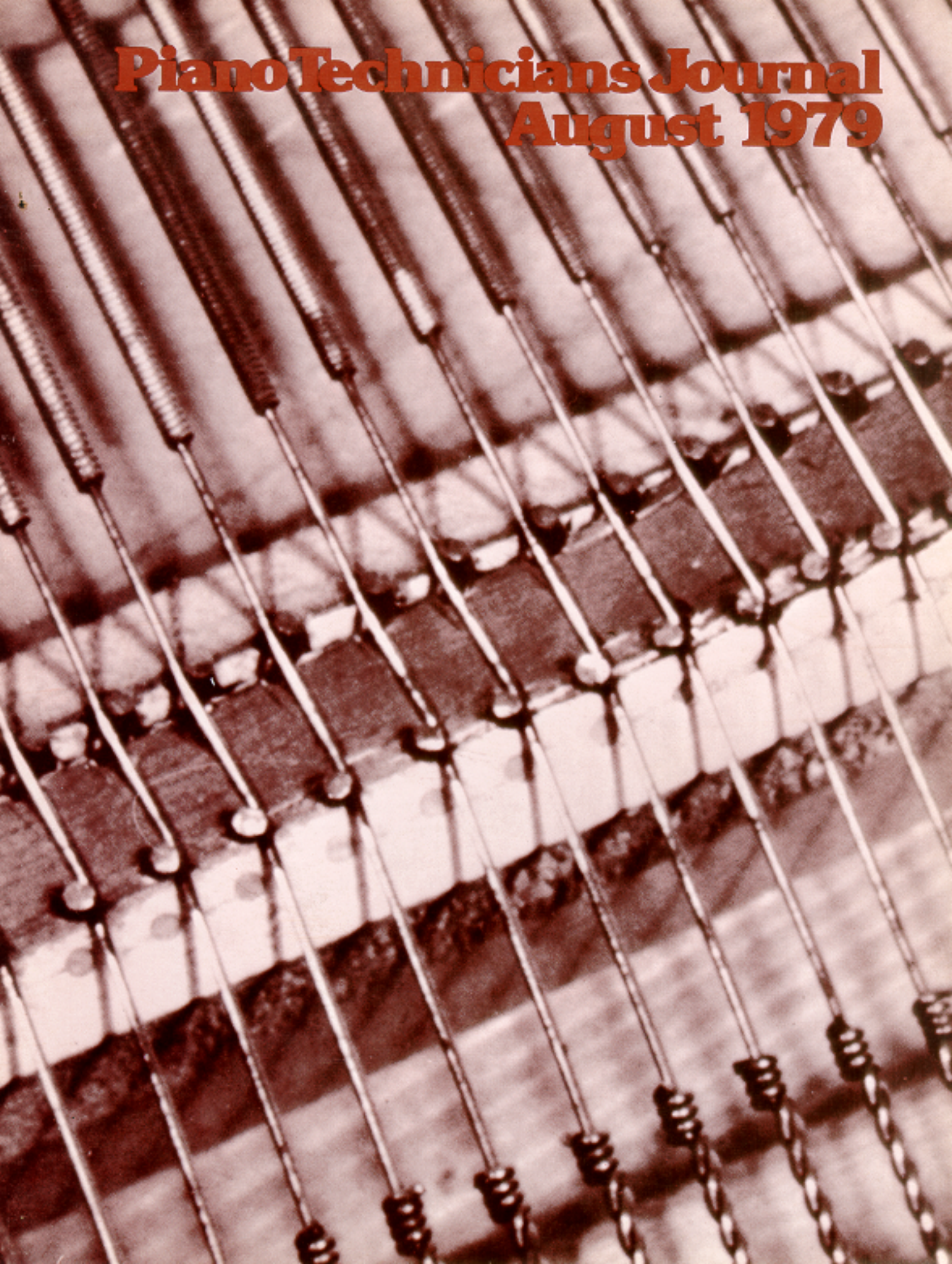
Piano Technicians Journal
August 1979



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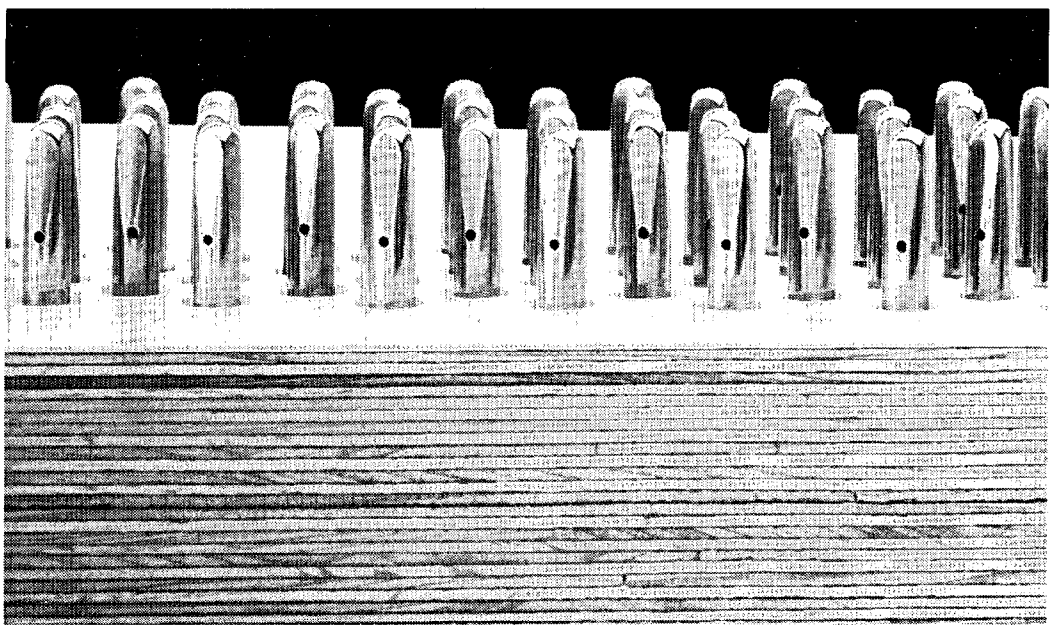

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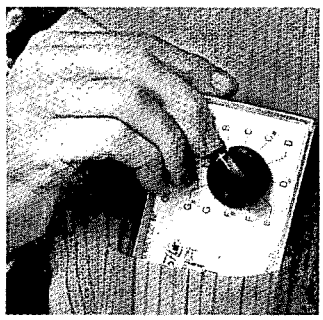

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Piano Technicians Journal

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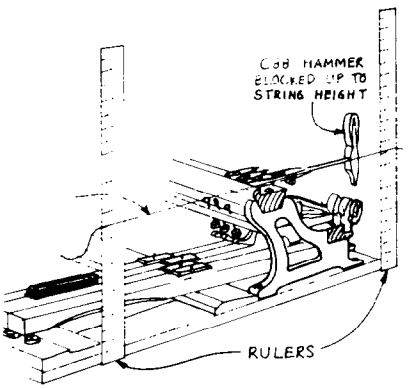
Articles



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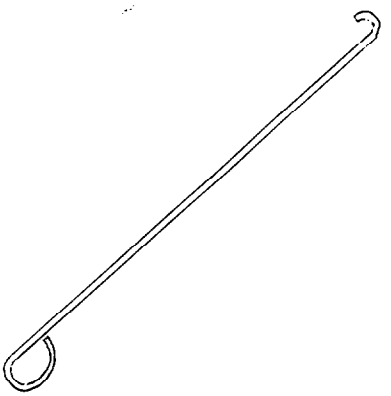

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Journal Staff

PTG Logo And Its Use

It has come to our attention that the official PTG logo and emblem are being used by people who are not craftsmen members of PTG.

It is extremely important to know that this emblem is officially registered and is the protected trademark of the Piano Technicians Guild, Inc.

It cannot be used by any individual or firm unless they are fully qualified and accredited by this guild through proper competence testing procedures. Any illegal use of this emblem should be reported to the home office immediately for proper action.

EDITORIAL

A piano technician became quite successful working in the suburbs of a large city and had several people working for him. One day he was being queried by an official from the employment security department. He was told rumors had gotten around that besides not giving enough benefits to his employees and being lax on OSHA rules, he was paying starvation wages.

"I am, huh? Well, there's Jake over there. He's my wood refinisher; ask him how much he makes."

"$200 a week, sir," said Bill.

"Now how about the janitor. Ask him."

"I get $100 per week," he said.

"All right, any more people around here?" the inspector snarled.

"Well, no," replied the business owner, "there's only that half-wit who gets a few bucks for a 15-hour day, room and board, and some piddling living expenses."

"Ah," said the inspector, "I want to talk to him."

"Well," the technician said, "you're already talking to him. That's me."

Most technicians are in business for themselves. Most are limited in their incomes by what they can personally produce. The amount of time and effort they are willing and able to expend determines their lifestyles and security. Some take jobs with music houses, some teach, some sell, some even follow pursuits entirely outside the music industry for extra income. The purists (those who *just tune and rebuild*), have only their time and their skills to sell. Needless to say, a piano technician can never get rich by confining himself to just what he can produce himself. Like everybody else, he just has so much time.

Most people who are in business for themselves sacrifice the comfort and security of a regular paycheck for the independence and freedom of self-employment. It isn't all a bed of roses and sometimes sleepless nights and nerves as tight as a string are part of the game.

A technician knows how many pianos he can tune in a day or how much labor he can expend on a difficult rebuild job, and the amount of income they will produce. He has to turn that time into buying a home, food, transportation, medical protection, clothing, education and recreation, etc., and somehow have enough left to retire on. How can he keep ahead of the game and survive financially? If he charges more money for his time and skill will his competition beat him out?

He knows that there is no service or product but what someone is willing to cheapen it a bit and sell it for less. He knows that the guy down the street will ask for less and give less, but does the customer know that? So he faces a dilemna. How can he keep up with the increased costs of the goods and services he provides? But if he does raise his rates, how much should they be?

The antitrust laws tell us that to even discuss and agree with associates on a fair market price for time is a criminal offense punishable by five years in prison and a $5,000 fine -- and they are putting people in prison and fining them for just that. If your chapter discusses prices and even suggests a figure for tuning a piano, your officers and board can be thrown in prison and your chapter fined up to $100,000. So what do you do? You stumble around and try to figure what's fair, what you can live with, and what the market will bear, all by yourself! You hope you are in the ballpark and *if* and *when* you go broke, you go down wondering what in the hell happened and why couldn't you inform yourself more intelligently and share more information in order to get some idea as to how to survive in this business.

A technician works hard to establish a reputation for skilled and honest service among his constituents and in his community. He forms an organization to help establish high standards so people will know who to go to for honest, dependable, skilled work and a fair price. He gets his organization going and they set up a Code of Ethics to live by to insure the public that those who pledge to it can be trusted. So some flack comes along and decides to use the logo (which after all is just a sign of good quality) and claims he is a member, and even quotes the Code the real members aspire to. He isn't a member, he doesn't live by the Code, he doesn't pay his dues, he contributes nothing to the industry and does harm to the image of the piano tuner wherever he works. The public is taken in because they think he is tested, qualified, accredited and established as an integral part of the industry. Can you stop him? Not really! The antitrust laws are highly tilted in his favor. He can claim that you are keeping him from making a living by not letting him use *your* logo, *your* literature, *your* Code of Ethics, and *your* guild. He cries "restraint of trade." He gets by with it and you pay the bill for all his public relations, education and advertising through the payment of your dues -- he pays nothing. He is a freeloader.

Say a guy moves into your neighborhood and goes into business after reading a manual on piano tuning. Every job is bad. Most customers complain and call governmental regulatory offices and the local Guild chapter president. He decides to join your chapter. Can you keep him out? Just try. You have to bring charges against him, prove he is crooked, incompetent, and go to a great deal of trouble to convince the government that he does not belong in this business -- or at least

in your Guild. The government takes the stand that the more valuable it is to belong to your Guild, the less right you have to keep anyone out. You may find yourself in combat with the awesome strength of the United States Government with the burden of proof on your shoulders. You can be found guilty of restraint to trade. Innocent until proven guilty? It is not more true here than it is in the criminal justice system.

If you have the feeling the government has gone too far, you are right. Practically every organization I am with considers the two greatest threats to small business are the proliferation of government regulations and unreasonable demands of organized labor. Government red tape costs every man, woman, and child in the United States about $25.00 per month. It adds $800 to the cost of a car and $2,800 to the cost of a home."

If we can't "talk turkey" at our meetings, what can we do? Well, it brings to mind the story of the guys standing around at the funeral of an ornery, mean, nasty, stingy, thoroughly disliked, old reprobate who had just passed away the day before. The few who attended the funeral stood around embarrassingly, first on one foot, then the other. Finally the preacher said, "Well, does anyone want to say anything on behalf of the deceased?"

"Well," one guy finally said, clearing his throat, shifting to the other foot, "as long as nobody else has got anything to say, I'd like to give a talk on Los Angeles." – *D. L. S.*

BOB RUSSELL

President's Report

On July 23rd the PTG Council elected me to the office of President. I am most honored and happy to serve you in this capacity for the coming year. As most of you know, I believe in the Guild, its high standards, and its goals for the future. I am well aware of the time, energy, and work that this high office entails and I am looking forward to the challenge because I know that all of this effort is directed towards positive progress for PTG.

PTG FLEA MARKET

I would like to invite all chapters to begin preparing for the 1980 PTG FLEA MARKET to be held at the Philadelphia National Convention in July. This is your chance to SELL items that your chapter has made throughout the year. We will supply the items for sale. These items can be anything, i.e., technical items; action models; handmade tools; teeshirts; craft work; hobby items; etc. Anything can be sold! Remember . . . you make them . . . you sell them . . . you keep the profit!

Your Auxiliary is also a part of this event and they can see a profit, too. It will be an exciting experience to sell and share our tools and/or crafts with our friends. The 1980 PTG FLEA MARKET will be a fun and rewarding night for all. Start now to get your items ready for the convention.

Bob Russell

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JACK KREFTING, TECHNICAL EDITOR

THE TUNER-TECHNICIANS FORUM

Some parts of the country are becoming flooded with piano technicians and part-timers/hobbyists who claim to be technicians, and I'll wager that not one of us hasn't, at one time or another, been tempted to become a little defensive about our fees. When the caller haughtily asserts that the same service can be had for half the price elsewhere, the startled technician might be prone to (1) hang up on her, (2) tell her to go ahead and hire the other technician, or (3) cut his price. Sometimes the caller may be merely baiting the technician by deliberately quoting a 10-year-old price, in which case the technician might be justified in cutting the caller off short; but more often, the caller really doesn't understand what is involved and simply wants to avoid being taken. This attitude is entirely understandable, and we must know how to handle the situation.

As Paul Seabern recently said in the Pomona Valley Chapter's newsletter, it has been proposed that the new national flower should be the cost-of-living rose. You can't afford to cut your prices, especially in these inflationary times, without cheating your own family out of a decent standard of living. You know how much you have to charge in order to make ends meet, but you can't take the time to recite all the facts and figures to every random caller that questions your fees, so you must find another way to quickly and effectively handle the situation.

Whenever a caller informs me that she can get the same service elsewhere for $10 less than the figure I quoted, I simply agree with her. She is entirely free, I assure her, to buy whatever level of service she wishes to buy. In fact, if she is really only interested in the price, she can get an even lower level of service for even less money. The choice is entirely hers, and I tell her so.

By this time, the idea that the price somehow reflects the quality begins to percolate, and the caller may ask about this. I politely inform her that tuner-technicians have no union and do not fix prices, and that the best judge of the value of a service is the person who performs that service. Each technician charges what he feels his services are worth, and the piano owner is free to pick and choose among them. If the caller is still on the line by this time, she is interested in more than just price, and you will more than likely get the job; if not, you really haven't lost anything, so don't worry about it. People generally get what they pay for, and the piano service business is no exception.

FRONT RAIL KEYPINS

John J. Novacheck of Brooklyn, New York, has submitted eight questions for our consideration, one of which concerns the oval shape of the front keypin. Novacheck writes:

Why couldn't the oval keypins be made in a hexagonal shape instead of the way they are? If the three opposite sides were each made, let's say, 0.175, 0.180, and 0.185 inch, there would be a better adjustment for wear than with the oval shape without increasing the wear on the felt as it is now when you turn the oval pin.

Out of curiosity, I miked the flat sides of keypins in several keyframes around the shop. (The smallest measured 0.144 inch and the largest 0.149 inch.) I determined that the pin clearance could be decreased by as much as 0.010 inch by turning the pin slightly. Beyond that point, the relatively sharp edges of the pin begin to bear on the bushing, causing rapid wear and tear. I have never been an advocate of pin-turning and, in fact, I started to write this segment with the express purpose of cautioning against such practice. Now I am beginning to wonder whether that taboo is always valid.

Figure 1 illustrates a sloppy front bushing, seen from underneath. In Figure 2 we see that, by turning the pin slightly, we have not only widened

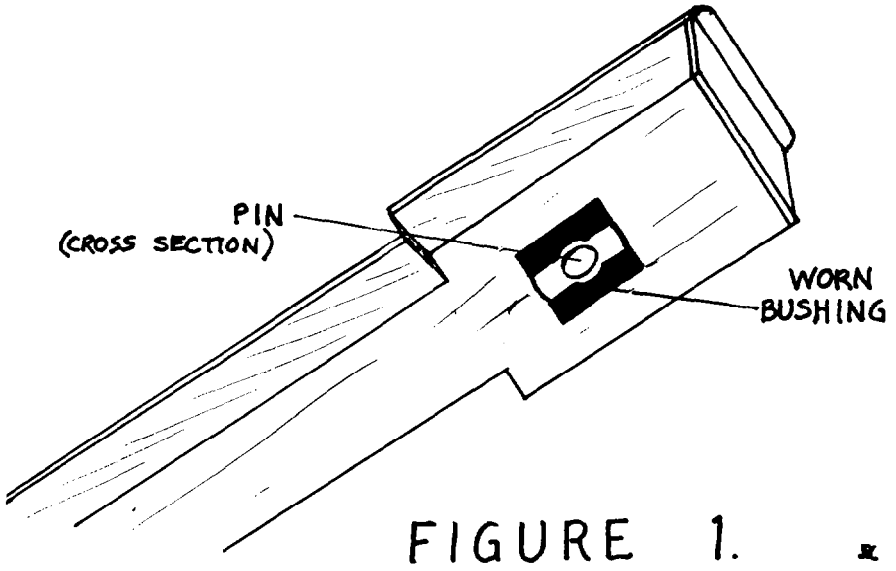

FIGURE 1.

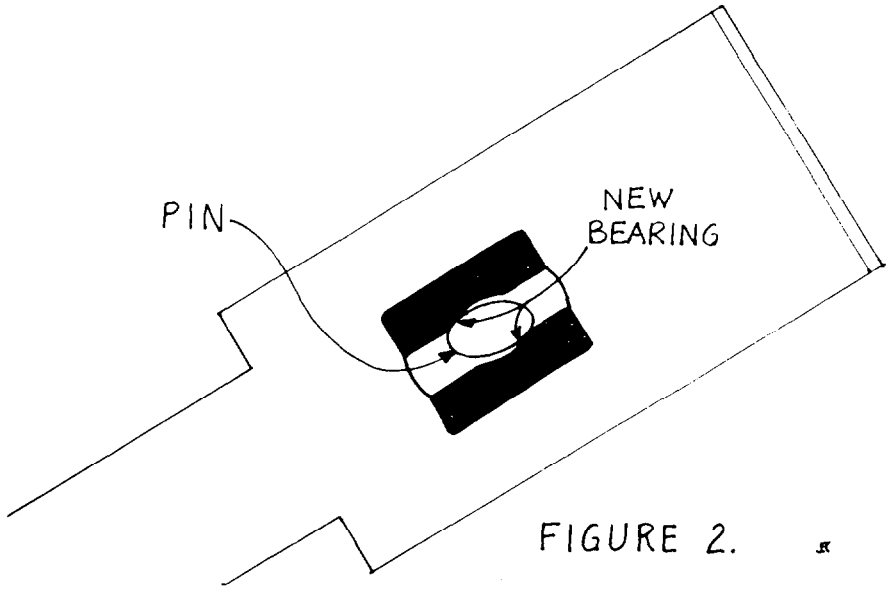

FIGURE 2.

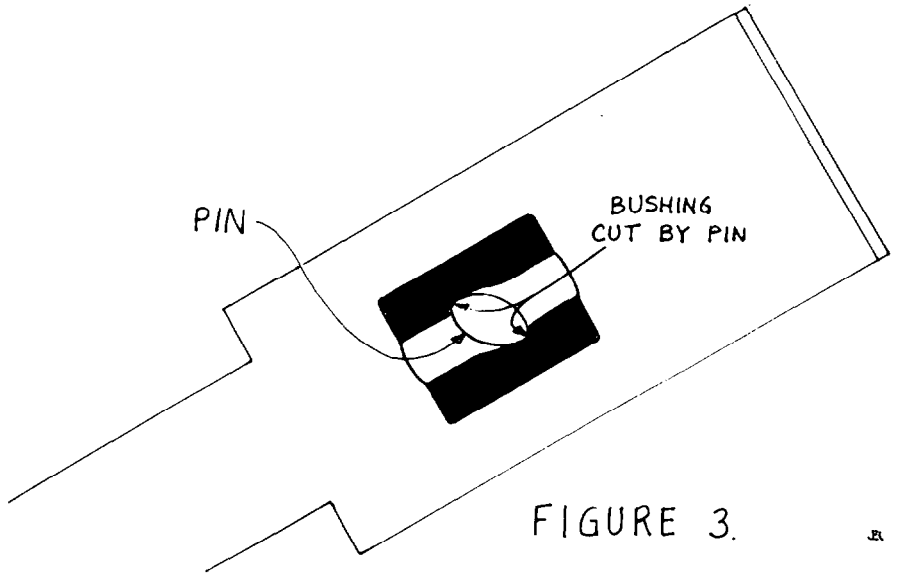

FIGURE 3.

its dimension but also caused it to bear on a different part of the bushing. If the bushing is not badly worn, this could actually increase its useful life. Figure 3 illustrates what happens when the pin is turned just a bit too far – the edges of the pin quickly cut into the bushing and destroy it. Suddenly, the bearing surface is reduced to a fraction of what it once was. This is the reason given for never turning front rail pins – turn them *just a bit too far and the bushing is* ruined. But if the bushing will have to be replaced anyway, and the technician wants to prolong its life temporarily by a slight turning of the pin, I see no real harm in that – just don't overdo it, that's all.

Novacheck's idea of a hexagonal pin (see Figure 4) seems to have some merit, although it involves certain manufacturing and service problems. With only a 0.005-inch difference in width from one flat side to the next, how would the technician be able to tell which was the wide side? He would have to mike the pin, which is not easy when the pin is in position because the other pins get in the way of the micrometer. Then there would always be the probability that some technicians would turn the pin only a sixth of a turn instead of a third and, once again, the bushing would be quickly worn out.

Another problem with this idea would be that, if the key had been spaced properly by bending the pin, turning that pin would radically misalign the key. Naturally, it would be more expensive to manufacture than the standard oval pin. Still, with all these objections, it isn't a bad idea. At the very least, it represents a new approach to an old problem, and the thought behind it can't be all bad.

Let's keep those ideas coming.

PIANO WIRE

Question: *In browsing through my different catalogues, I notice that three of my American supply houses furnish only one type of piano wire, as does the Canadian supply house. However, a catalogue from the United Kingdom (Fletcher & Newman) lists three types with quite a differential in price. They are* Brunton's Tartan Label Rust Resisting, Roslau Red Label *plated German wire, and* Roslau Blue Label *polished German wire. Now the question is, what is the significance of the different types? Is it tonal quality, strength, or strictly cosmetic? Why don't I have a choice at our supply houses? Which type has the majority of technicians in the Guild found to be best? Does the Guild recommend any brand or supplier?* – John M. Ross, Windsor, Nova Scotia

Answer: The Guild is not in the endorsement business, nor has any such study or poll been conducted, to my knowledge at least. Those who prefer German wire claim that it tends to be more uniform in diameter and roundness than American wire. I cannot confirm or refute that claim, but I do know that German wire is not the same size as its American counterpart.

German wire is measured metrically, and is usually smaller in diameter by a minute amount. No. 17 American wire, for example, measures 0.039 inch in diameter. The equivalent German size is 0.975 mm, which works out to 0.0384 inch, a difference of 0.0006 inch between the two. As a practical matter, I'm not sure whether such a small difference in diameter would have any measurable effect on

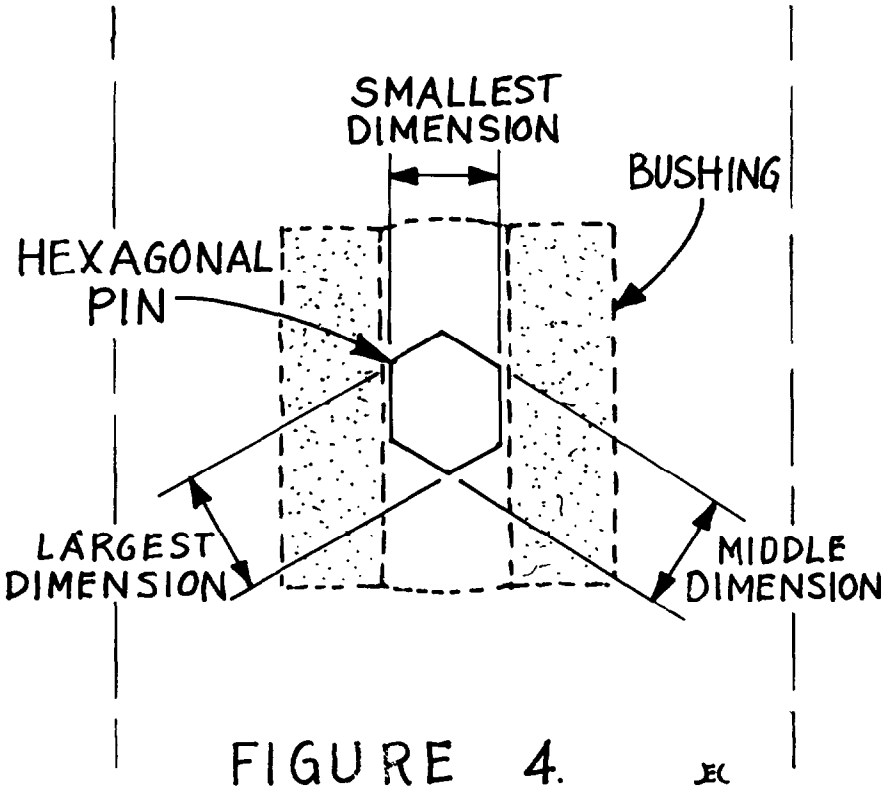

FIGURE 4.

tone quality or scaling, but this could be an argument for not mixing the two in a particular unison. On a very high-tension scale strung with German wire, the installation of American wire could conceivably lead to wire breakage if the string were pulled too high, but this is pure conjecture.

Prior to 1950, virtually all piano wire in this country was made by United States Steel Corp. In the scramble to find another supplier when this company discontinued making piano wire in the early 1950's, Baldwin ended up buying Roslau Blue Label for its grand pianos, which they still use in the treble. Interestingly enough, their bass strings are made with American wire, primarily because the scaling of the bass was designed around English or inch-type core diameters; so Baldwin grands are built with American bass strings and German treble strings.

Plated wire, such as the Roslau Red Label, is presumably intended for use in instruments destined for tropic zones where humidity will be high and the technicians few and far between.

OVERRING OR ECHO

Question: *What do you do when you have a piano that seems to have an echo and sounds as if all the dampers were not touching the strings? The dampers were in perfect condition and properly adjusted.* — John Novacheck

Answer: First of all, try to determine exactly what you are hearing. Is it a continuation of the fundamental with harmonics, or are you hearing partials only? This is very important, because you can't cure the problem until it has been identified. Play a series of staccato chords, listening carefully between chords. If the same chord in the same range (i.e., not higher) echoes back, then I would suspect that the dampers may not be pressed against the strings hard enough to fully stop the sound.

Slowly depress the damper pedal while watching the damper heads. If there is no lost motion, adjusting the trapwork should cure the problem. If not, press each unison of strings away from the damper (downward on a grand, toward the plate on a vertical) with your thumb and watch the damper head to be sure it follows the strings. If the dampers pass these and the other usual tests for proper regulation, and if the felt is soft enough to do the job, then we can discount regulation as the problem.

Oddly enough, this phenomenon is more often found on the very good pianos rather than on the average pianos because the really good instruments have a better singing quality built into them. Since no two pianos are exactly alike, once in awhile we find one that simply refuses to be effectively silenced.

But before we happily avoid the job altogether by the simple ruse of congratulating the customer on the quality of his piano, there are a couple of other possibilities to explore. If the piano is a grand, the waste ends might be overreacting, especially in the middle section. They will probably already be taped out in the tenor area, but on a particularly "live" piano the upper middle aliquot segments can be objectionably noisy. In this event, if proven by temporarily muting these segments, the technician might want to tape them out entirely up to the next scale break. I have had to do this on a few occasions, after demonstrating to the client the difference in effect between muted and open aliquots.

Some rebuilders have used this very occasional problem as an excuse to dress up the plate with lots of extra understring felt and stringing braid, but there is good evidence to indicate that this can be undesirable. The felt has a tendency to hold moisture, causing the string to rust at the point of contact, and any plate felt that the string bears on can be a source of tuning instability. Hitchpin punchings (for instance) are undeniably cute, but worse than useless from a functional standpoint.

If the piano is a vertical, a special problem rears its ugly head; that is, the strings cannot be damped at the point where the damping would do the most good. Presumably the damper scaling was carefully worked out in the drafting department of the manufacturer, and further improved on the production line — but, then again, maybe it wasn't. Or maybe the design was great, but the installation

References furnished on request

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was faulty, and the damper may have to be moved up or down a bit to damp properly.

The length, shape, and thickness of the damper felt represent an important part in the scaling of the piano, and should not be changed arbitrarily or capriciously. Ernie Juhn, noted damper expert from New York, has been quoted as saying that a little bit of felt in the right place is better than a lot of felt in the wrong place. He is absolutely correct, and the technician should not attempt to change the damper scaling unless he really understands the principles involved. This is not to say that this scaling cannot be improved – some scales can, indeed – but a larger piece of felt is not necessarily the answer to every damping problem. For one thing, the damper head will only exert a certain amount of pressure against the string and, the larger the contact area of the felt, the less pressure will be exerted in the right spot. Installing oversize damper felt arbitrarily is not unlike dancing in snowshoes, or walking a tightrope while wearing water skis.

As you all know, strings vibrate in strange ways. The vibration of the entire speaking length results in the sounding of the fundamental, but the string divides itself into aliquots as well. These produce the partials which help to color the tone, and are bounded by nodes on the string. The location of each node can be measured mathematically, because each represents a precise division of the length. Violinists and other string players use this principle every day, sounding high notes by touching nodes on a string with just enough pressure to divide the string's effective vibration into a fraction of its normal speaking length.

Figure 5 illustrates what happens when the back edge (bottom edge in a vertical) of the damper felt rests exactly on a node of the string. This is relatively common in small verticals because of the foreshortened scale and the lack of strike-point damping. The bottom of the bass strings will react sympathetically when a note in the middle range is struck, because the frequency of that segment of the bass string coincides with the frequency of the higher note sounded. Moving the damper to a higher or lower point on the string will usually solve the problem (Figure 6) because that will cause the felt to bridge the node rather than define it.

Finally, there is the remote possibility that the plate itself is causing the problem. If cast in the wrong chemical proportions, the plate could be transmitting string energy and developing harmonic, sympathetic vibrations of its own. This is known as "plate ring" or "plate noise" and, short of replacing the plate, I doubt that anything can be done about it.

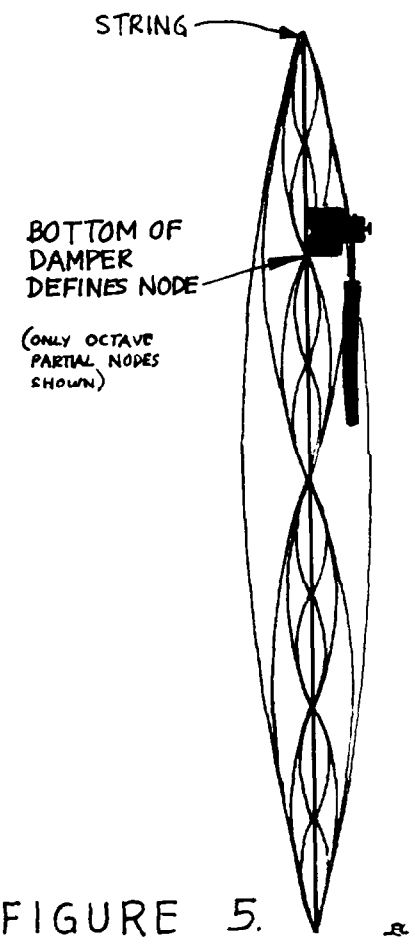


FIGURE 5.

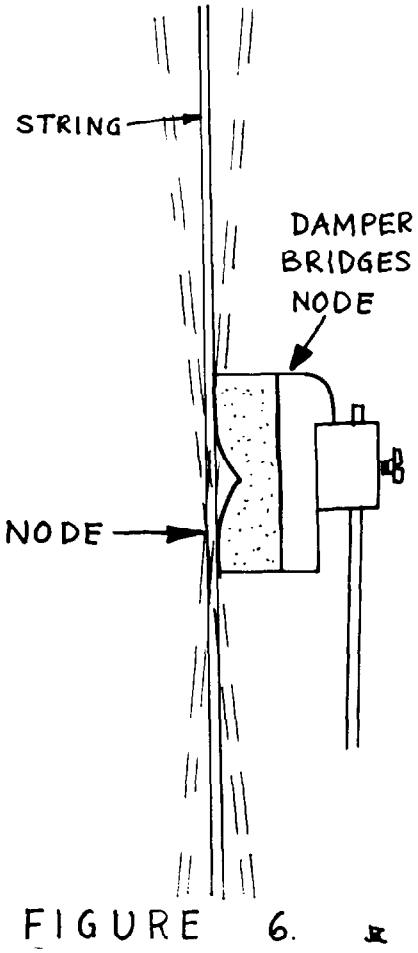


FIGURE 6.

EASING TIGHT ACTION CENTERS

Question: *I keep hearing conflicting reports on the advisability of using WD-40 for easing tight centers. What is your opinion?*

Answer: WD-40 is a petroleum distillate and, as such, is definitely not recommended for this purpose. Oil in any form should be kept away from the wooden parts of the piano. This product is excellent as a penetrating agent and temporary lubricant in metal-to-metal applications, and I keep it around the shop for freeing rusty bolts, trapwork, and casters. If used as a centerpin lubricant, it will work only temporarily. The gummy residue it leaves in the center will ultimately make the center even more sluggish than before application.

In my opinion, action centers should not need any lubrication. They will be reliably free only if there is sufficient clearance between the pin and the bushing and, since we cannot install smaller pins without loosening the essential grip of the birdseye, we must find a way to enlarge the bushing. If lubricants could be made to stay in place without evaporation or gumming, I wouldn't make that statement; but I know of no lubricant that will fulfill this requirement. Sooner or later the lubricant will fail and the

customer will call back with a complaint of "sticking keys." Callbacks cost money.

Cloth bushings can be ironed with a centerpin heater, shrunk with a solution of water and alcohol, or reamed. The ironing process increases the inside diameter of the bushing by scorching some of the wool fibers; the water/alcohol solution increases this dimension by shrinking the cloth away from the centerpin; and reaming cuts away some of the fibers. All three methods are effective and can be used alternately, depending on the situation.

Ironing is unquestionably the quickest and easiest, but requires an expenditure of around $35 for the tool. It is also tricky to control because the bushing will usually be sufficiently ironed within 1 to 2 seconds after the contact is made. The pin can become loose in the birdseye if contact is sustained much beyond 2 seconds, so a certain amount of finesse is required. Interestingly enough, I have found this method successful in centers containing verdigris, when no shrinking solution would do the job.

In the case of a newer action with uniformly tight centers, I like to use a solution of three parts alcohol to one part water, with a few flakes of Ivory soap stirred in. The alcohol acts as a vehicle to get the water into the bushing, and the water does the shrinking. The more water in the solution, the greater the shrinking effect; but even on very tight centers the solution should not contain more than 50 percent water. The reason for adding the soap is that some bushings are made of unwashed wool cloth, and the lanolin that is naturally present in the wool acts as a waterproofing agent. Lanolin is great for keeping sheep dry in a rainstorm, but we cannot shrink the bushing unless we can get the water into it and the soap will cut through the lanolin. Some action makers wash their wool and others do not; since you can't tell whether it has been washed by looking at the bushing, use the soap as insurance.

After the solution has been applied to both sides of all tight centers, it will evaporate within a few hours or days, depending on the relative humidity. This evaporation process can be speeded up tremendously by the application of warm air from a hair dryer. When dry, the centers should be free enough. If not, repeat the process with more water in the solution.

If the bushings have been contaminated by lubricants and are gummy and tight, the only solution might be to ream and repin each center. This process allows the greatest degree of control over bushing diameter and pin clearance, but is also the most time-consuming. If only a few centers are too tight, reaming and repinning is an obvious choice, but I hesitate to ream an entire rail of centers if one of my other options is feasible in that instance.

Whatever method is used, the pin clearance should be just great enough for reliable performance when relative humidity is high. This will depend on the piano's environment, and will differ somewhat from one home to another. This is a matter of professional judgment but, as a working technician, I have no confidence in the long-term reliability of any flange lubricant. So long as the center is uncontaminated, proper pin clearance and humidity control will solve the problem every time.

FISCHER ACTION BRACKETS

Question: *I recently encountered an old grand piano with some extreme action problems. I noticed, early on, many cracks in the pot metal action brackets, but the action rails seemed to be solidly in place and I expected no serious problems in regulating. I soon realized that regulating the let-off would be an impossible task. The jacks were displaced by at least 3/8 inch toward the rear of the action from under the knuckles.*

Of course, there was not sufficient space in the repetition lever slot to compensate; if the jacks were adjusted forward to their proper position under the knuckles, there would be no space for the jacks to trip. Furthermore, many of the jacks were slipping off their knuckles to the rear rather than tripping forward. Obviously, deterioration of the action brackets was not limited to cracking, but the metal had expanded substantially.

The solution: New action brackets. However, with no service manual or specifications for an older model such as this, how am I to determine if shimming of the action rails is necessary in order to achieve the proper relationship between the whippen center and the hammershank center? — George F. Emerson, Muncie, Indiana.

Answer: If specifications are unavailable, you will have to work out the positioning of the rails as you would solve an algebraic equation — find the unknown by its logical relationship to the known.

Install the new brackets on the keyframe and temporarily fasten the rails into their approximate positions, with at least the C88 whippen and hammer assemblies mounted. We will fix the position of the hammer flange rail first. Place the action into the action cavity and raise the C88 hammer to the strings. Allowing for hammer wear, is the hammershank parallel to the strings? If not, the rail is too high or low. Adjust accordingly and try again (Figure 7). If this cannot be determined in the piano, remove the action to the bench and block the hammer up to striking position, again being sure to allow for hammer wear. Stretch a thread across the action, parallel to the blocked-up shank, between two rulers, holding the thread at the same height on each ruler. The shank (Figure 8) should be the same height on each end, as checked by the thread. Raise or lower the rail until the centerpin end of the shank is the same height as the hammer end, and that should do it.

Now we must set the fore-and-aft position of the hammershank rail. We will again use C88 and position it, at least tentatively, according to the best strike point we can achieve with the keyframe secured in its usual position. I say tentatively because, if something doesn't work out later, we may have to change this again; but this will at least get us into the ball park. When this has been set as closely as possible, set the action on the bench and place a

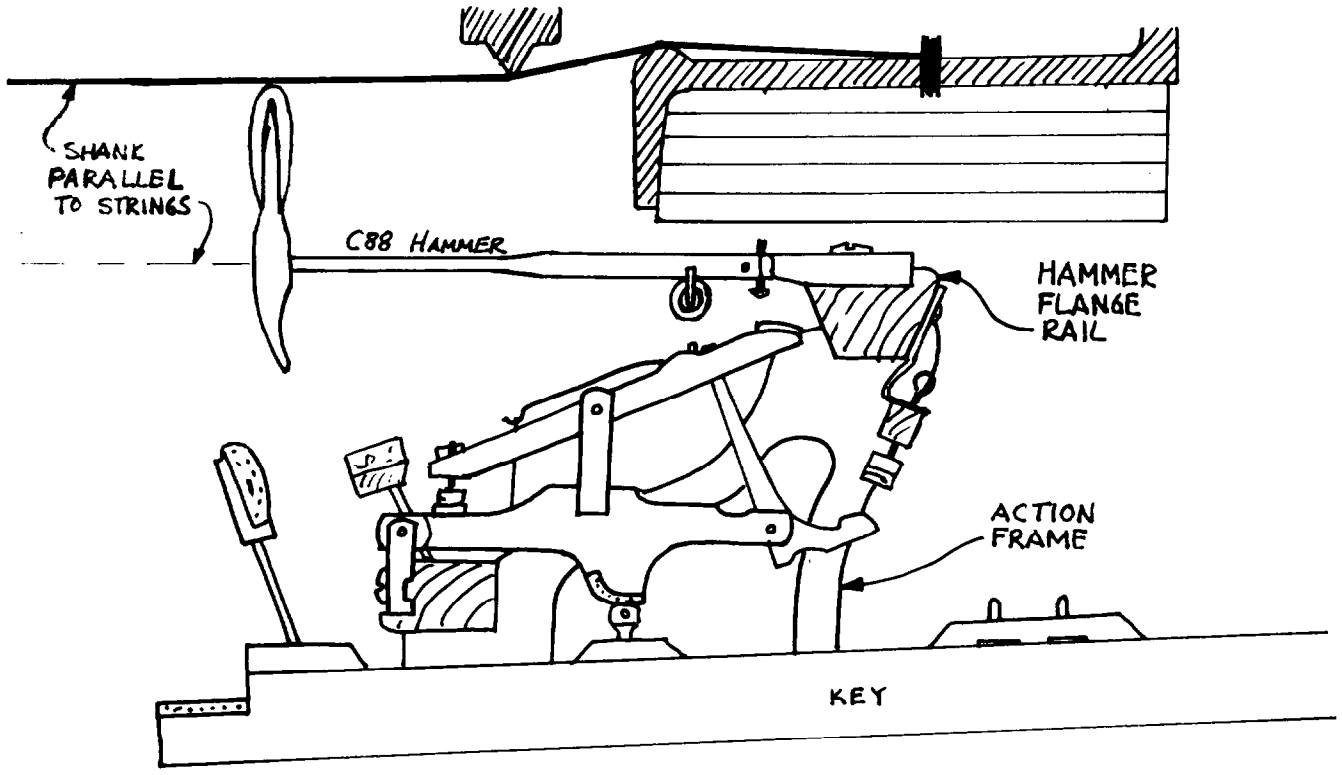


FIGURE 7.

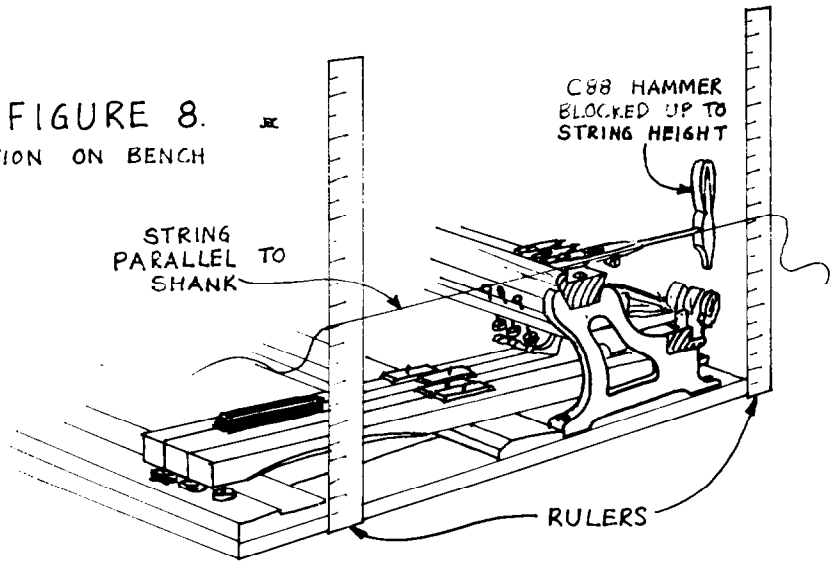


FIGURE 8.
ACTION ON BENCH

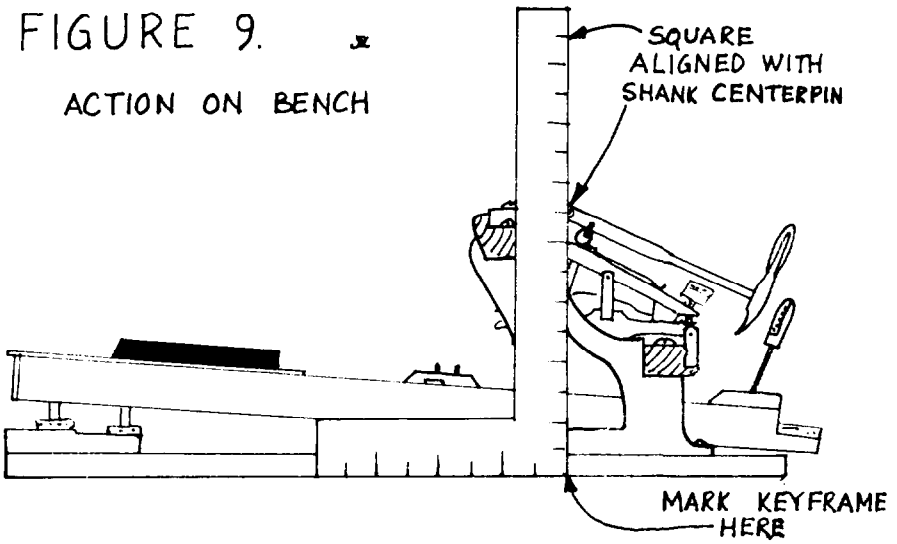
square on the bench next to the treble end of the keyframe. Align the edge of the square with the hammershank centerpin (Figure 9) and scribe a line on the end of the keyframe. Measure the distance from this line to the front of the keyframe, transfer that measurement to the bass end, and scribe a similar line there. Using the square, align the A1 hammershank centerpin and fasten the bass end also. Sighting down the rail from one end to be sure it is straight, fasten the intermediate brackets also.

The hammershank rail should now be in position. Double-check the height of the rail at each bracket using the thread and rulers as before; if all appears well, we can assume for now that the rail is where it should be. Next we will establish the position of the whippen rail.

For the fore-and-aft positioning, our known relationships include the points of contact of the knuckle, regulating button, and capstan. If the old brackets had not expanded, I would suggest that this position could be established pretty accurately by aligning the worn spot in the whippen heel cushion with the capstan; but they **have** expanded in this case, so that method cannot be trusted.

Depending upon the way the regulating (let-off) rail was mounted, we may be able to use that as a guideline. If it is the type that is mounted on the brackets, we cannot trust its position now; but, if it had been mounted on the hammershank rail and has not been disturbed, line up the tenders with the let-off buttons for a preliminary fore-and-aft whippen rail position.

Now adjust the jack on one or more test whippens so the back of the rosewood lines up with the back of the jack, and then observe the angle of the jack in relationship to the hammershank. They should be perpendicular. Move the whippen rail forward or back as necessary, and temporarily fasten it in place. Regulate the entire action train on one or more



test notes; if everything comes out, you may be in business with that rail position.

It probably won't (if your luck is anything like mine), so we must adjust the height of the whippen rail. Piano actions are designed so that a straight line running from the bottom of the balance rail hole in the key to the whippen support flange centerpin will exactly touch the top of the capstan when the key is half-way depressed (Figure 10). This is a hard thing to check because the brackets are in the way but, if you suspect that the whippen rail is too high or low, it's the only way I know of to prove it. By removing a dozen or so keys, whippens, and shanks from the left side of C88, an 8-inch straightedge might be inserted to check this out. Remember to block the key at half-stroke, and that this measurement will mean nothing if the capstan has been turned up to compensate for hammer wear. Lower the capstan to where it would have been by estimating hammer wear and check the straightedge again.

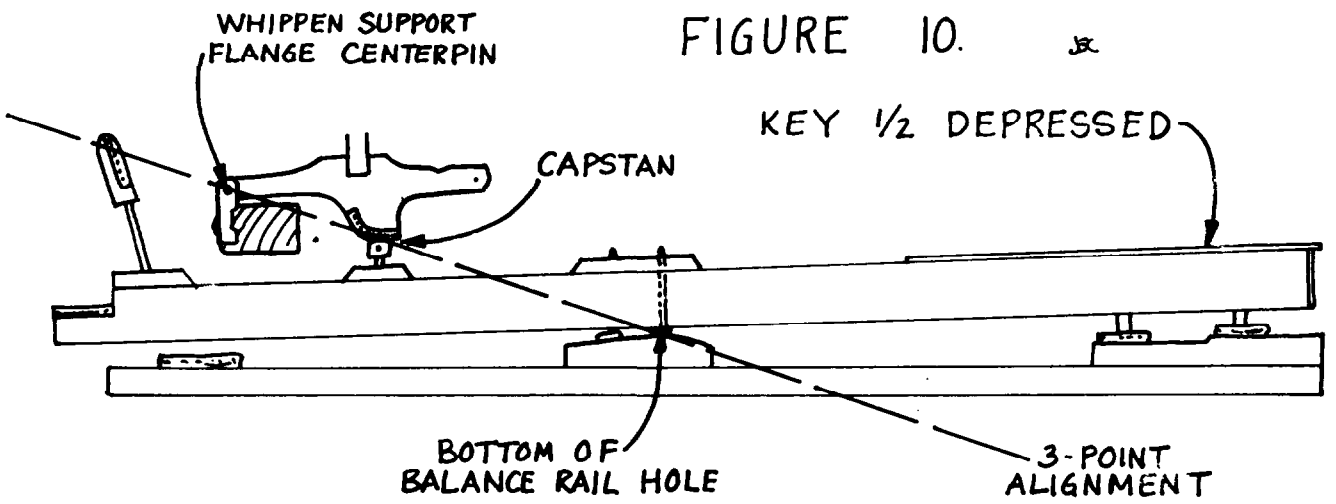
I can sit here all day and say what should work, or what probably will work, but you are the one who will have to make it work. If there is a problem, work it out by rechecking the relationship of parts downward from the strike point and upward from the key. For instance, suppose the whippen supports are striking the whippen rail on return of the key. That means the whippen rail is too high; but if it is lowered, it also must be moved forward to maintain the distance between hammer center and whippen center. Conversely, if the repetition levers are scraping against the hammerflange rail, the whippen rail must be too far forward; move it back and up a little at the same time. If the hammershank rail has been set first in its proper position relative to the keyframe, as proven by the strike point and the relationship of the shank to the string (as outlined earlier), it is easier to position the whippen rail than it would be if done the other way around. At least it gives you one more known constant from which to work, and I'll take all of those I can get on a job like this.

NO MORE HOUSE CALLS

Russ Black of Los Angeles, with his tongue clamped securely in cheek, offers the following solution to the gasoline shortage:

A recent telephone call from a potential customer has diverted my thinking about the tuning of pianos toward an entirely different trend from the normal. I will enlarge upon this later on in this article.

The potential customer explained that her spinet piano had three broken keys, all the bridle straps needed replacing, and the piano required tuning. I inquired of her when it would be convenient for me to come to her home to do the work, to which she replied that there never was anyone home because they all were working every day. Somewhat frustrated, I then asked her (as diplomatically as possible) how she expected to get the work done if no one was ever home. My potential customer was very quick to respond that this would be no problem at all. She said they had a pick-up and two strong men available and could easily load the piano on the truck and "bring it to me." Then, of course, when it was finished



they could pick it up again.

I must admit I was somewhat taken back and at a loss for words for a moment. I had never before received an offer to bring the piano to me for tuning and, in my hasty search for a reply, I stated that I did not wish her to bring the piano to me and suggested that perhaps she should find someone else who was more receptive.

Several times since this incident, it has crossed my mind that this trend in piano tuning might have great possibilities. Inasmuch as my previous "brilliant innovation" of tuning pianos by telephone had proven a complete bust, this might be an opportunity to redeem myself in the eyes of my fellow practitioners, and thus contribute to the ever-continuing search for new ways and the general advancement of our profession.

It is my enthusiastic belief that, with a lot of hard-hitting advertising and much word-of-mouth customer education and salesmanship, I can become the first **piano tuner who does not make house calls!**

Any inquiries from my fellow practitioners are welcome, and all will be answered. — Russ Black

Tip of the Month

Once again we are indebted to Larry Scheer for the following gadget:

This gadget will keep the jack out of the way while getting to the butt screw. To use, lift the whippen. This will throw the back-check toward the jack, which at the same time moves toward the back-check. While holding the whippen in this upward position, insert the gadget (Figure 11) beside the jack as a common door key, hook upwards, and turn it 90 degrees. This locks the jack in a tripped position for easy access to the butt screw. To make the gadget, use soft wire that will bend easily and retain its shape. Material such as baling wire or bared electrical wire would be most suitable.

Scheer was kind enough to send me a sample of the gadget, made from 0.054-inch baling wire. It works so well that I have conveniently forgotten to return it to him.

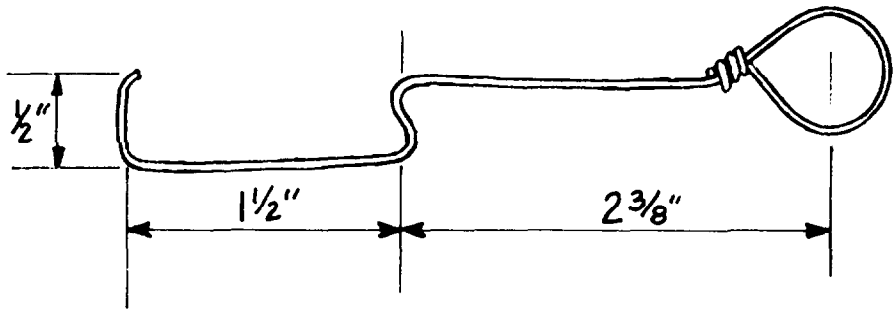


FIGURE 11.

CHAPTER TECH PROGRAMS

The April meeting of the New Jersey Chapter featured John Holder, whose topic was replacing key bushings. The writer is Jeffrey J. Seise.

Using keys from a Steinway L grand, John demonstrated his method for replacing front key bushings. John reviewed the reasons for replacing key bushings: (1) excessive rattle, and (2) excessive play. To remove old bushings, mildly soak wedges of hammer felt and, without contacting surrounding wood, insert into the bushing hole so as to loosen the existing bushing. Wait 15 minutes and you should be able to remove the bushing easily. John emphasized that, before doing the above operation, dirt should be removed from the bushing area so as not to leave watermarks. Remove the dirt with a razor blade, using a brushing stroke. Do not use sandpaper or steel wool as this tends to work the dirt into the pores of the wood.

Before installing a new bushing cloth, test for the correct thickness by using a micrometer to determine the size of the pin (test with a drill bit shank one size smaller). The fit should be snug enough to have a slight drag when removed. Insert the new bushing without getting excessive glue deep into the bushing hole or inserting too much cloth in addition.

John has a jig which he devised for inserting the new bushings. It holds the key in position and keeps the remaining cloth out of the way until needed. **One last hint: Keep your wedges clean and waxed so the glue won't stick to them.**

Yvonne Ashmore submitted the following report on the April meeting of the Sacramento Valley Chapter:

John Fuller and Maryll Goldsmith presented the first part of our technical session — a demonstration of timesaving techniques they have developed for vertical action rebuilding. Using a stopwatch, it was determined that the two of them, working together, could remove a hammer butt assembly, repin it, dress the butt leather, install a new brass plate (this was a continuous brass flange rail), and replace the hammer butt assembly in 45 seconds. This also included checking the pin for enough free play to allow for 3-1/2 full swings when the hammer head and shank were released from a horizontal position. If the pin proved to be too tight with this test, then Francis Mehaffey's "Zapper" was employed to remedy the problem.

Next we hear from Harry E. Berg, reporting on the April technical program of the Los Angeles Chapter.

Our technical program was presented by Ed Whitting of the South Bay Chapter. His topic was "Friction Points." To his dismay, after spending much time in preparation for this lesson, the topic was thoroughly discussed in the current JOURNAL, which arrived shortly before our meeting. His lesson was very much the same as the article ("Lubrication of Piano Parts," by Ben McKlveen, April 1979, pg. 9). It was a very fine presentation and showed careful planning so that important methods of remedying possible problems would not be overlooked.

And finally, Gene Wilkison describes the May session of the Orange

County Chapter. The topic was "Keys to a Well-Maintained Piano," and the speaker was Norman Neblett.

Norm warned against sanding the ivory keytops to remove the yellow – instead, apply "3 volume" hydrogen peroxide, then dry them in the sun. Be careful not to soak them, though – the gelatin glue is easily dissolved. Norm suggested making your own buffing wheel by folding an old bedsheet until there are about 20 layers, about the size of an LP record. Punch a hole in the center, mount it on a mandrel, and dress it circular with a rasp. He refinishes sharps by block sanding the tops and sides down to the bare wood, then staining with black shoe **dye** *(not polish!). He then gives them three or four coats of French polish and removes the gloss with fine steel wool. Some other points that Norm made:*

1. *A* **good** *key recovering job is cheap no matter what it costs because of the positive effect on the customer.*
2. *Always have the fronts recovered and the sides cleaned.*
3. *It is imperative that the vertical dimension of the key* **not** *be changed when recovered – this causes real regulation problems.*

After listening to Norm for a while, you sort of get the idea that he knows what he is talking about.

Newsletter Tech Reprints

Last month we reprinted the first of a two-part article on teflon bushings from the *Indy 440*. Here is the second part, written by Guy McKay.

In the last newsletter we were talking about the three types of teflon bushings used in the Steinway action. The first type used was shown in Figure 12(A) enlarged. Since the sides were smooth, they had a tendency to become loose in the wood and make noise.

This was replaced by the second type (B). These were approximately the same size, but had concentric ridges (somewhat resembling screw threads) around the outside diameter. They called this the ribbed bushing and used it throughout the action.

The third type (C) is like the second, except that the stem is much thicker – meaning more teflon is used in the hole. This bushing is in current production, but is used only in the hammershank and whippen flanges. All other centers use the smaller ribbed bushing. If you simply use the same type that they did, you should have no problems.

When you repin, you will usually have to use at least a 19-1/2 pin to get a good fit in the flange. If you have also replaced one or both of the bushings, you will find that they are too tight and will have to be reamed. You will need a set of reamers sized 19, 19-1/2, 20, and 20-1/2 to correspond to the pins available. Reamers are available from Steinway at their cost; however, if you work only occasionally with these, you can make your own reamers from regular pointed centerpins. By rolling a pin between two files you can produce a surface that will cut the teflon, for a while at least. These can be held nicely in a pin vise. John Ford has one with holders on each end, so two of these are all you need.

When reaming, assuming that you are using the precut pins, it is necessary to push the pin only far enough to insert the reamer on one side. Then you can push it the other way and ream the other side.

You can now see the advantage of the precut pins. They permit pushing the pin both ways without damaging the bushing. The jack pins are shorter, and these pins are available also.

Steinway suggests that the hammer swing, when held by the flange, be two and one-half or three times. For our work we find that four or five swings give the action a better feel, although you may get a little clicking once in awhile and have to repin. If you have loose bushings in the damper underlever, the noise will occur on release of the key. You will need to remove the damper and underlever to do your repinning. These need to be quite free, but not free enough to click. For these, as well as all the other centers, the procedure is the same as for the hammer centers.

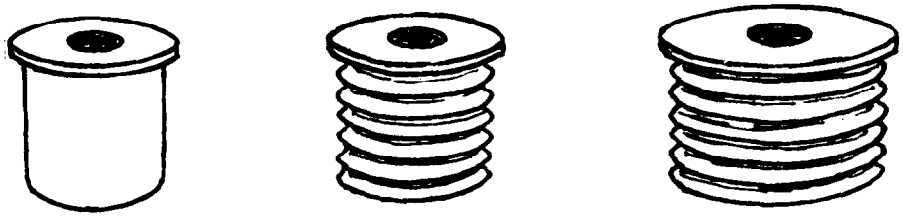


FIGURE 12.

Reader Feedback

In our May issue, James Dinwiddie raised a question about stress deformation of vertical pianos, with a resultant change in pitch of a given note. James Burton of Cle Elum, Washington, offers the following explanation.

I think I know the explanation for the problem you described in the May JOURNAL of a new vertical piano going out of tune just because it was moved a couple of feet after tuning. Fifteen years ago I had a similar experience, but shortly thereafter had the opportunity to put the question to Charlie Stein. Without saying a word, Charlie pulled a business card out of his pocket and put his thumbs and forefingers on the four corners. Slowly he twisted the ends of the card back and forth in opposite directions while he watched my expression. Charlie enjoyed it as much as I did

when he could see the answer dawning on my face. His teaching technique was to make us think for ourselves, and it usually worked.

It's probably safe to say that any piano supported by more than three legs is subject to this kind of deformation of the back and plate structure to some degree whenever the distribution of weight on the legs is changed. The net result is that the tension on the bass strings is raised or lowered, depending on the direction of the twist, and the tenor strings are altered in the opposite direction. It provides the best reason I know of for schools and auditoriums that must move their pianos around to mount their verticals on stage trucks that leave none of the weight resting on the front legs.

A word of caution in testing pianos for susceptibility to "racking," which is the term Charlie used for this phenomenon. If you notice no drift in the tuning when you lift at the left end of the keybed, don't assume that the piano is immune to racking until you've tried lifting at the right end. The front weight of the piano may already be almost all on the left leg, and further lifting there won't add to the existing twist. Hardly any floor is absolutely level, and probably no four piano casters are mounted precisely in the same plane. Add to this the generally lighter back construction of modern verticals, and we have a problem to be reckoned with.

James F. Ellis of Powell, Tennessee, adds the following:

I would like to answer James Dinwiddie's "Open Question" regarding strain tests and tuning stability (JOURNAL, May 1979, pg. 27). Yes, for the past 14 years, I have routinely used the knee-under-keyboard strain test when tuning vertical pianos. To properly perform the test, the knee must be placed under the front of one extreme end of the keyboard. Gently lift one end of the keyboard, then the other, as the tuning across the bass-to-tenor break is tested. Because of the overstringing pattern, this is the area of the vertical piano that is most sensitive to this particular strain. Since the bass strings lie forward of, and slanting in the opposite direction to, those in the tenor, a twist in the plate will increase the tension in one group and decrease it in the other. Lifting the bass end of the keyboard will raise the pitch of that section relative to the tenor and treble, while lifting the treble end of the keyboard will have the opposite effect. There can also be a slight shift in the relative bridge/plate relationship that will extend into the midtreble region and affect the tuning there too.

This is all a function of the rigidity of the whole piano. If a given piano (as opposed to a given make and model) is particularly unstable, I would suspect a defect in the heavy wooden framing structure, which would allow the whole piano to twist when put under stress. A loose or improperly mounted plate could also be at fault.

I might like to address this matter in greater detail in some future issue of the JOURNAL, if there is sufficient reader interest. ■

NEWTON J. HUNT

ACCENT ON TONING

This may seem to be a strange topic for this column, but if you will refer to the JOURNAL, December 1978, page 9, you can see the relationship of tuning to voicing, regulation, and the basics. The basics refer to structural integrity, regulation to action efficiency, and voicing to tone control. Tuning ties them all together into a cohesive whole whose potential surpasses the merit of each.

"You can't have one without the other" applies so well in this context. You may have the finest piano in the world — well regulated, with good basics, and finely tuned. But if it is poorly voiced, it can be far inferior to the poorer instrument that is beautifully finished.

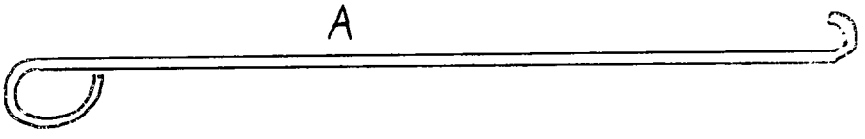
Good tone and level of voicing are matters of opinion, and one person's demand is as valid as another's — except at the extremes. Overly hard hammers tend to contribute to string breakage and raucous tone; overly soft hammers wear and tear the action excessively because too much force is needed to get too little from the piano. Some general meeting in the middle is far more practical and aesthetic.

Aesthetics is the key to good voicing. In a concert hall a slightly brighter tone is best for projection, but in a smaller living space a more mellow tone is best. These are important considerations which must be balanced with time, money, space, need, quality, desire, type, style, etc. — all elements having influence.

From the purely practical viewpoint, voicing takes on an entirely different perspective. When I have a major change to make, I view it as taking a chunk of material and carving something different from it. I have 88 blanks and I want 88 nicely graduating tones. If, on the other hand, there are only a few that depart from the pattern, matching becomes far less of a project.

The shape of the hammers is all important for good tone. It is not so important whether a ball, egg, or pear shape is preferred by the manufacturer; however, it is important that you duplicate what was intended by the designer. More important than shape is evenness of shape; do not file the hammers so that there is more felt on one shoulder than on the other. I know that many hammers come from the factories out of balance, but do not compound the problem. File them to restore the balance as much as possible, without destroying the useful life of the hammer. If they are badly misshaped, replace them.

The first chore after basics, regulating, tuning, and deciding about tone is to mate hammers to strings. This is checked by lifting each hammer to its strings; with the damper lifted, the strings are plucked separately to determine if the hammer is touching each string with the same amount of pressure. Some voicers do this by pushing up and back on the bottoms of the jacks. I find that I cannot control the pressure of the hammer on the strings as well as I can with a 7-inch hook made from a coat hanger.

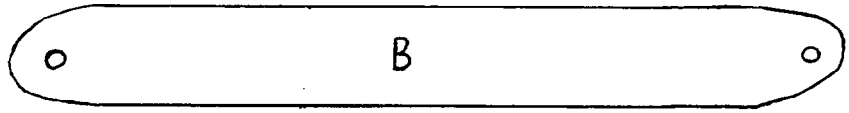


If one string is not being struck by the hammer with the same amount of force and at the same exact microsecond, it will be out of phase with the other strings — which will cause a distortion of the tone and a severe loss of volume, and will sound like a unison that cannot be tuned pure.

I have found that many tuning problems stem from this, and that most voicing problems can be resolved by mating hammers to strings most carefully. It remains to be determined if filing the hammer to match or lifting one or two strings will be the best solution. You must bear in mind that the hammers must mate when the action is shifted, so use the approach that is best for both positions. Mating the entire scale permits faster voicing. Voicing can change the mating; but it usually can be heard as zinging weak tone or unisons that cannot be cleaned up.

"Tiredness produces mistakes" is a maxim that applies to voicing more than in other efforts. If you are tired you can voice your fingers (a bloody bore), break needles, voice in the wrong place (a sticky wicket), or break shanks. When your body gets weary, stop and do something else for a while. Ear fatigue sets in early and fast. When you cannot tell if it is acceptable or not, voice in another section of the piano for a while, mate hammers, or take a break.

Working with three hammers at a time is usually the best approach, whether mating hammers or voicing. I start at the top of the middle section and needle those three hammers until I have the tone desired. After needling, I refile the hammers to shape, taking care not to file the top, which would change the mating. I then recheck the tone and decide what needs to be done with those or the next three hammers. Often I will work the three below the first three, and then the three above, alternating below and above going out to the ends. This way I can main-



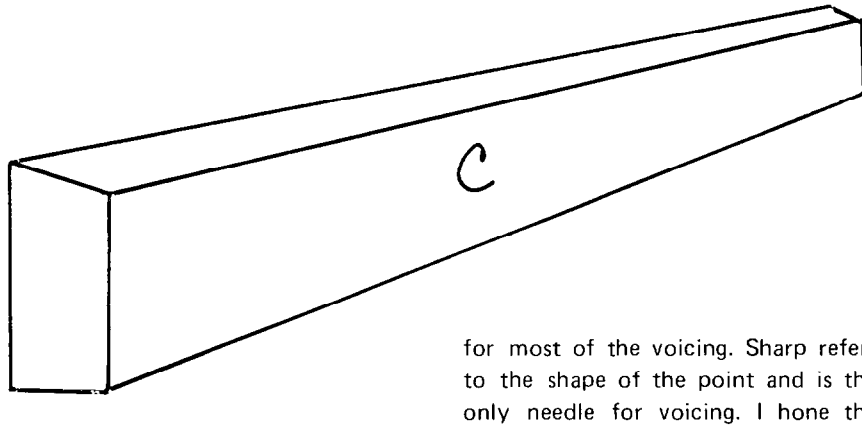
tain a more consistent tone image in my mind, reducing ear fatigue.

When I am voicing a grand piano, I have a leather handle that is screwed to the edge of the key frame. This allows me to give a sharp pull to the handle and I have the action in my lap.

I use an 18-inch voicing block, which gives me the best support I have yet found. It is 3/4 x 1-5/8 inches and one edge is beveled to conform to the hammer shanks when they rest on the block. It is made of beech, a heavy hardwood.

You need to search for garnet, open coat paper of 50, 80, and 100 grits. Light pressure and very fast strokes are better than heavy or slow strokes. If you get the cloth-based double-faced carpet tape to make up your sand files, it is quite easy to renew the paper.

Nos. 4, 5, 6, and 7 sharps are the best needles. The No. 4 is quite large and suited for single-needle rough voicing, and the No. 7 is thin and excellent for four- or five-needle shallow needling. No. 6 is what I use



for most of the voicing. Sharp refers to the shape of the point and is the only needle for voicing. I hone the points on the back of my leather handle and comb my hair several times with the needles to lubricate them. It makes it so much easier to voice very hard hammers.

Do not be dismayed if you must voice a hammer 30 or 40 times in each shoulder before the tone begins to evolve to what you want. The real secret of good voicing is patience; thoughtful observation of change; feel of the felt with needles, fingers, fingernails, and file; and listening to the tone with the mind as well as the ear.

Every time you tune a piano, voice it — if only one hammer with a coffee stick with a needle glued to it to pass through the strings. A poorly voiced piano cannot be well tuned. Once it is well voiced, the tuning becomes far easier and more pleasant.

Voicing is simple once you understand it. ■ **(to be continued)**

JOHN BLOCH

CHIPS OFF THE OLD BLOCH

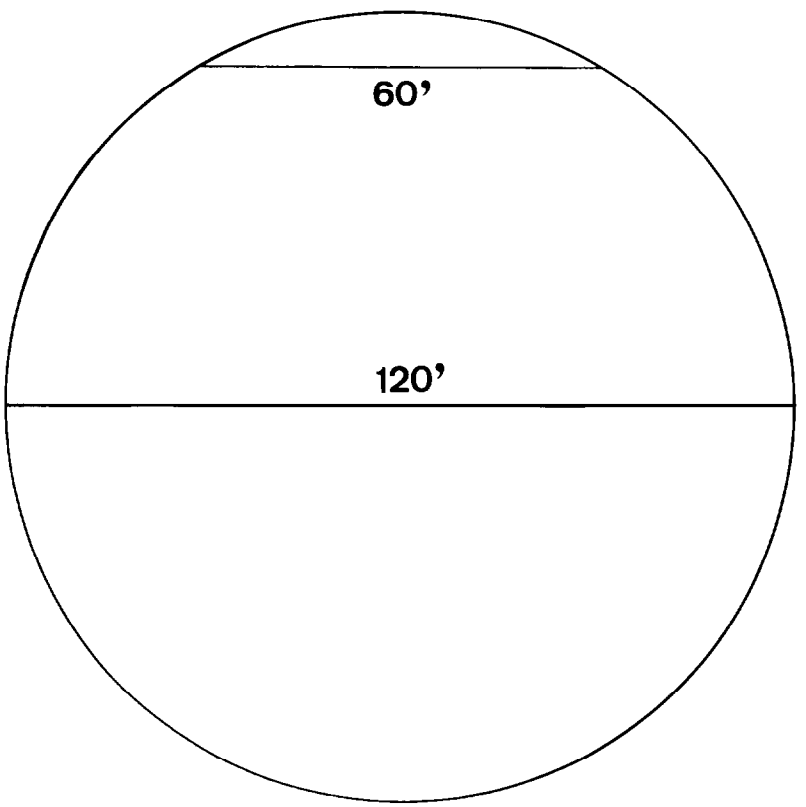
Now that we have finished the symposium, Can a Soundboard be Recrowned, perhaps we should review what we have learned. Refer to the glossary in **Piano Parts and Their Functions** and note the following definitions:

1. Downbearing — The deflection of the string toward the soundboard as it crosses the bridge.

2. Crown — The spherical curvature of the soundboard, with normal radius being about 61 feet. This arch is the resistance on which the string must work for optimum performance.

From **A Treatise on the Art of Pianoforte Construction** we can find a further explanation of crown: "The usual curvature equals a segment of a circle of about 60 feet radius." (About 90 feet radius for a Mason & Hamlin piano soundboard. As you know, they have the "spider," correctly called the "tension resonator.") See diagram below.

In building the crown of the soundboard, some manufacturers produce the crown through preshaping the ribs, and others through the heat and/or humidity treatment. I am not stating which is better, since I would involve us in an endless argument at this time. I prefer the preshaped ribs and press them into the soundboard at an approximate rise of 1/8 inch per linear foot (from perimeter to center). This will fit the planned bridges that Charles Stein mentioned in the symposium. Now, Aeolian spruce soundboards are also tapered approximately 1/32 inch from top to bottom, permitting the lower end of the treble bridge and the entire bass bridge to be mounted in a thinner part of the wood. The Steinway spruce soundboard is tapered from 8 mm thickness in the center to 5 mm at its edge.



In the symposium, A. Hoffman (foreman at Steinway) talked about putting in a soundboard and fitting the plate. He stated the many times the plate is in and out, and that they do adjust their nosebolts even after they have been tightened. You must remember that they have another plate around the corner — we do not. Also, on a new soundboard we have a lot more crown because it has not had any string downbearing on it yet. No allowance is made for the fact that the soundboard is not compressed. Our technical editor has written in the JOURNAL about a bridge on a new soundboard even touching the plate bars.

I love Erwin Otto's remark about restoring the crown on an old soundboard: "It is, however, a question of should it be done? If you really think enough of your old piano, then put in a new board."

Robert Hayward made some interesting comments. If we can get the equipment to put in a new soundboard, maybe that is the way to go. (Right now Warren Groff of the Denver Chapter is having a rough time getting solid spruce boards. It will be very interesting to talk to Lew Herwig of Wurlizter about their new spruce laminated boards.)

If you find the tone of the piano is "tubby" (no resonance) and the strings sound "dead," most likely the reason will be that the soundboard has lost its crown and the strings have no downbearing. However, under certain circumstances, it may be only the strings which are dead and you may find that you have a perfect soundboard, pinblock, bridges, ribs, and back. If you have a downbearing

of about 1/16 inch in the center and 1/32 inch at the ends of the bridge, you have a comparatively easy job on hand. However, if you find that you have no downbearing (or less than 1/32 inch), then you are in for a more extensive job. It is a good sign if the bearing improves after removal of the strings, or the soundboard is still springy and resistant.

The downbearing can be improved by lowering the plate, recapping the bridges, or producing a new crown. The easiest way is to lower the plate. Factors to watch when lowering the plate include action clearance, damper guide clearance, and fallboard clearance. In altering the bearing of a piano, one of the things that must be watched carefully is increasing the bearing too much in the extreme upper register. This area will not have lost as much bearing in the first place and, if it is increased too much, the soundboard will be too stiff. On larger grands, this grain in the soundboard will be the same one under the bass bridge and take its life away; or, if there is too much bearing on the bass bridge, it will kill the treble for the same reason. The downbearing is not all; the board must respond to the upward movement as well. Bridge pins should be well staggered.

In the symposium they tried to say that it might be cheaper to install a new board than to do all the work necessary to recrown the soundboard. Ted Gose started out saying, "In many shops pianos with flat soundboards are being restrung, and the public is made to feel that a complete rebuilding of the piano has been done." I know of a craftsman who will put in a new soundboard and use the old pinblock with 7/0 pins. I also know a craftsman who will put a new pinblock in and lower the plate with a flat soundboard.

John Challis, harpsichord maker, really got us going about no crown, but the second time he talked he sort of cleared up some of the things he was saying. C.C. Chickering said that a board will buckle in places. So, if you have a flat board with no crown, it will be raised in one place and hollow in another.

Dr. White told us about really gluing tight the edges of the soundboard with the crown up before any string downbearing is added or trouble will be down the road. You must correct this when you are rebuilding. If you put crown into the ribs and soundboard, you get the bridge higher at the speaking length bridge pin — you need no reverse tilt. The same is true if the soundboard has already been strung and tuned to A440. Be sure and check that when rebuilding the piano. Len West, from Aeolian, always stressed this.

Many thanks to Robert Burton and Erwin Otto for previous articles written on this subject. As Robert Burton said, "While some shop men will say that the crown cannot actually be restored to a flat board, I am not always willing to give up without a try." ■

SID STONE

THOSE STICKY STICKING KEYS

One of the most common complaints piano technicians hear is "sticking keys." The customer may refer to any malfunction in the key or action as a sticking key. In this paper the possible causes are broken down into three categories: case, keys, and action. The No. 1 rule for any repair is, "find the cause of the problem before attempting to remedy." In the case of sticking keys, look for a visible cause (i.e., a spring out of place, a broken or loose action part, or a foreign article in the action or between keys).

Most causes for sluggishness result in the jack failing to get under the butt. Sometimes mother doesn't remember which keys little Suzie has been complaining about, but the tuner can detect these by depressing each key, lifting it slowly, then striking the key quickly. (Depressing the damper pedal helps.) On some new spinets and consoles, the striking distance is too great (No. 85), keeping the jack from seating under the butt every time. Rather than lowering the capstans to have the whisper of lost motion between top of jack and butt, simply add one or two thicknesses of nameboard felt (self-adhesive) to the hammer rail felt.

The striking distance is not the same on all pianos; some manufacturers' specs vary slightly. An easy-to-remember formula for striking distances is: on uprights, 1-7/8 inches; consoles, 1-6/8 inches; and spinets, 1-5/8 inches.

CASE

1. Keyslip warped
2. Keystrip warped
3. Keystrip felt (nameboard felt) loose or bunched
4. Keystrip bolt out of position
5. Keystrip bolt nut (on bottom) worked out
6. Key block out of position

KEYS

7. Foreign article between or in front of keys
8. Key frame warped
9. Key broken
10. Key warped
11. Key not sufficiently weighted (especially Nos. 1 and 88)

12. Key not spaced properly (rubbing against neighbor)
13. Key rubbing against action bracket
14. Front key bushing swelled
15. Front key bushing bunched
16. Front guide pin turned
17. Front guide pin too close to end of key opening (especially in antiques)
18. Balance key button loose
19. Balance key pin rusty
20. Balance key bushing swelled
21. Balance key bushing worn too much on one side
22. Balance key hole tight against pin
23. Key weight expanded or worked out
24. Capstan too high
25. Capstan too low
26. Capstan roughened, needs polishing
27. Capstan rocker loose
28. Capstan dowel out of alignment
29. Spinet pickup finger disconnected
30. Spinet rubber grommet not in fork correctly
31. Black key contacting nameboard felt or keystrip

ACTION

32. Foreign article in action
33. Whippen felt worn
34. Whippen flange pin tight
35. Upper whippen/sticker pin loose
36. Lower sticker center pin tight
37. Sticker broken
38. Elbow pin loose (worked out)
39. Elbow pin too tight (on wooden elbows)
40. Back-check wire broken
41. Back-check checking too far back
42. Back-check checking too far forward
43. Back-check felt worn excessively
44. Bridle wire broken
45. Bridle wire too far back
46. Bridle wire too far forward
47. Bridle wire contacting adjacent back-check wire
48. Bridle strap disconnected
49. Bridle strap hooking on regulating screw
50. Bridle strap hanging on top of jack
51. Bridle strap cork pushed in too far (catching on jack rail)
52. Bridle strap on Baldwin "gooseneck" wire worked down
53. Let-off button too high
54. Let-off button too low
55. Regulating rail loose
56. Jack spring missing
57. Jack spring weak
58. Jack spring broken
59. Jack spring out of jack hole
60. Jack center pin too tight
61. Jack center pin loose (worked out)
62. Jack flange loose
63. Jack stop rail not in proper position
64. Whippen center pin tight
65. Spoon out of regulation
66. Spoon catching on damper lift rod
67. Spoon roughened
68. Spoon felt (lower damper lever) worn
69. Hammer butt tender loose
70. Hammer butt leather worn
71. Hammer butt flange pin tight
72. Hammer butt flange pin loose (worked out)
73. Hammer butt spring broken (missing)
74. Hammer butt spring out of groove
75. Hammer butt spring weak
76. Hammer butt spring replacement too strong
77. Hammer butt spring rusted in groove
78. Hammer butt plate broken
79. Hammer shank broken
80. Hammer shank cracked
81. Hammer rubbing adjacent hammer
82. Hammer hanging on celeste (practice bar) strip
83. Hammer catching on top of damper (especially with damper pedal down)
84. Hammer catching on action bracket
85. Hammer striking distance too great
86. Hammer stuck between bass strings due to missing strings
87. Hammer rail hook too far out (or rail shifted)
88. Which one did I miss?■

Steinway & Sons

MICHELE INGRASSIA
WASHINGTON POST-LA TIMES WIRE

It is late on a Monday afternoon when Maurizio Pollini, the young Italian pianist, descends into the cavernous basement of Steinway Hall, New York City. He is fresh from a triumphant recital at Avery Fisher Hall, but his mood appears dark, his manner determined.

Pollini is searching for piano that is mellow, yet brilliant enough to cut through an orchestra. So, like Vladimir Horowitz, Arthur Rubinstein, Van Cliburn and the countless other pianists who have trodden the redwood basement floors, Pollini comes to Steinway. The firm has long maintained a "piano bank," with 500 pianos now available to artists in 160 cities across the nation.

Steinway's devotion to accommodating such artists as Pollini is a costly and burdensome phase of its operations. But it is a tradition that dates back to William Steinway, who, with his father and brothers, founded the firm. Steinway, in the late 1800s, was in the business of managing artists as well as selling pianos to them, and the bank was a valuable way of promoting his product.

Steinway & Sons, Inc. was purchased by the Columbia Broadcasting System in 1972, but the company is still very much a family operation: John H. Steinway, the founder's great-great-grandson, is the company president; his brother, Henry Z., is chairman of the board, and until his retirement on March 31, brother Theodore D. was chief engineer. The family now has a new generation in the business: Henry's sons, Henry E. and William T.

Franz Mohr

The banks, which spread from New York to San Francisco, Chicago and such places as Mason City, Iowa, have from one to 40 pianos each, guaranteeing an artist visiting any of the cities the use of a Steinway concert grand. The idea revolves around what William's son, Theodore E. Steinway, called "an experiment in loyalty": A pianist allows Steinway exclusive use of his name for publicity and in return has use of Steinways; his only expense is hauling the piano to the concert hall.

Shortly before Pollini's arrival at Steinway Hall — the ornate West 57th Street home of the New York retail store and piano bank — two pianos (No. 95 and No. 409) have been readied for his inspection. Sauntering through a brightly lighted basement room in which 13 ebony grands are nestled rim to rim, Franz Mohr, Steinway's master piano technician, explains the preparations.

"In working with an artist for years, we know him," says Mohr, who is regarded as one of the nation's foremost technicians — so skilled that neither Rubinstein nor Horowitz would let anyone else tune their pianos. "We know the piano; we know

the artist; we know the hall (where he will play) . . . Sometimes we say nothing. For example, Rubinstein was wonderful. He sat down at the piano and right away had a relationship with it."

Mohr often will tell a pianist if the fingers of Horowitz or Cliburn once graced the piano he is considering. But not today.

"No. 95 is the old Rubinstein piano," says Mohr. "He took it on tour and did quite a few recordings with it. I'll show it to Pollini, but I won't tell him. Artists can get very jealous." Pollini eventually selects No. 409, which was once used by Alicia De Larrocha.

"We often refuse to disclose whose piano is whose because there are so many old wives tales," says John H. Steinway. "We once had an artist — I won't say who — tell us that a piano in a certain town was impossible. We brought it to New York, and when he returned, he chose the piano for a New York concert . . . It's so subjective. If an artist has a bad bellyache or a fight with his wife, it's the piano's fault; if the reviewer says he's the next Horowitz, it's him."

David Rubin, the manager of Steinway's concert and artist division, explains the sensitivities another way: "What an artist wants is what he hears in his ear. Steinway takes that and tries to make it a physical reality. If we get 70 or 80 percent of what he's looking for, it's wonderful. Our job is to provide him with the quality of piano that matches his inner imagination."

In 1870, Steinway & Sons purchased between 500 and 600 acres of land in Long Island City not only for a factory, but also for what became an early corporate town. "The community was part of the Germanic idea of happy workers in happy cottages, which fortunately didn't last too long," said Henry Steinway. The family sold homes for $500 each, taking $400 mortgages at 6 percent. Steinway Village, as it was known, had all the comforts — a bath house, kindergarten, ferry and even its own post office. "The town dribbled away as communications got better and others developed this part of Long Island," Henry Steinway says.

Steinway's factory is still situated on 10.3 acres of that land in Long Island City. (A second plant, in Hamburg, Germany, opened in 1880.)

The site is hardly the stuff sonatas are made of — in fact, Steinway's neighbor in the conglomeration of factories along Steinway Place is a clanging, banging oil tank manufacturer.

Steinway refuses to disclose how many pianos it makes each year or just how much it earns. But in the 126 years since Henry Engelhard Steinway and his sons formed a partnership, the

company has produced only 450,000 square, upright and grand pianos. By comparison, all the domestic companies together produce about 200,000 pianos annually, of which Steinway accounts for only 2 or 3 percent.

Yet the Steinway name has become as inextricably linked to pianos as Stradivarius to violins and Cartier to jewels. Its customers are those looking for Steinway quality, and who are able to afford Steinway's price — from $3,670 for a 40-inch contemporary-style ebony upright to $18,250 for a 9-foot concert grand.

"Horowitz and the others are only the froth on the top. Our business is really the smaller grands and uprights that go to people who want the finest in their homes," says John Steinway, a genial, bespectacled man who acts as spokesman for Steinway: "Our customers are victims of a secret vice. They like to go home, close the door and play the piano. They're never going to put Horowitz out of business."

Steinway is not the world's only piano manufacturer, nor is it the only manufacturer of quality. There are artists who swear by Baldwin, Bosendorfer, Yamaha, Mason & Hamlin or Knabe, and others who argue that a Steinway isn't what it used to be.

Through gritted teeth, the Steinways occasionally will admit to a clinker. The most grotesque Steinway, John Steinway says, was "made for Edward Doheny, who was involved in the Teapot Dome Scandal. He had on each end of the keyboard little carved statues of the heads of his two little children."

But it is likely that the life of a serious pianist will be marked by Steinways: One of every four concert grands sold is a Steinway. Virtually every major music school and conservatory buys Steinways — Juilliard has 200; Oberlin, 160, and Indiana University, 100.

"We like to say that the secret of our quality is cussed Dutch persistence," John Steinway says. "For 126 years, we've been making the finest quality we know how . . . We make quality and then price it, rather than trying to make a $1,000 piano."

In a letter to the company in 1890, Thomas Alva Edison explained it this way: "Gents," began the note, which hangs in Steinway Hall, "I have decided to keep your grand piano. For some reason unknown to me it gives better results than any so far tried. Please send bill with lowest price."

The gleaming Steinway grand that might grace the stage of Carnegie Hall or Lincoln Center starts its life among the massive stacks of lumber — walnut, mahogany and maple — piled outside the factory. The wood sits there for a year while it is air dried; it then is transferred to a kiln, where it is dried at 120 degrees for one to five weeks.

But the piano does not begin to take shape until the rim-bending phase, in which six men transform layers of hard rock maple into the elegant S-Shape of a grand. The rim — the outer case — is formed by gluing together several quarter-inch layers of maple, topped by 1/32nd inch of American walnut veneer "for prettiness." Then the process of coaxing the stubborn, yet pliable, wood around a brass press begins.

The center of the plank is placed against the back end of the press. Then Anthony Simicic, the 7-foot-tall foreman, rumbles, "Push." His men thrust the weight of their bodies against the press and quickly tighten the first of the metal clamps that will hold it secure. The process is repeated from the back of the piano outward to each edge. As clamp after clamp is attached, a worker "dances" on the wrench handle — bouncing on it with the force of his body until his feet are off the floor.

Using electrodes, the rim is then heated and left on the press for at least 1-1/2 hours, then left in another room for 10 weeks with a metal brace.

"We've been bending this way since 1870," says Steinway, who has done every job in the factory. "It was an invention of my great uncle (C.F. Theodore Steinway). It was a great revolution in piano making (which paved the way for the grand). Before, you had planks and joints. That's why old pianos had square corners and that funny boxy look."

When the piano is ready for "road-testing," it is taken to one of two closet-sized rooms that house the "bangers" — 88 rubber fingers attached to a cam that, in an hour, provide the equivalent of two to three years of hard playing. "You turn that on and run like a rabbit to the door," Steinway says, "because it makes the god-damnedest racket you ever heard."

Then, and only then, is a piano ready for Ralph Bisceglie and the men in small, acoustic-tiled rooms. For the past 30 years, Bisceglie, a cheery, wiry man in jeans and bifocals, has been "voicing" pianos, the exhausting process of ensuring that they leave the factory with just the right sound.

"Voicing is a subjective thing," Bisceglie said. "There's not a person who likes 100 percent what the others like. What is pleasing to Horowitz may not be to me. There's the European tone vs. the American — they (the Europeans) like pizzaz. When it says triple forte, they want it loud.

"The last thing I do is play the last act of 'Tosca,'" he says, as he passionately runs his fingers across the board. "If it bounces back at me — Ah! — I'm happy!" ■

PIANO ALLEY

IMPORTS CLOSE TO THE $200 MILLION MARK

The total value of imported musical instruments and parts in 1978 was $199 million, a 39-percent increase over the previous year. Although total units in many categories have not increased substantially over the past 10 years, and in some cases have fallen, dollar values have soared, reflecting the worldwide inflationary spiral.

A fifth of all dollar volume in imported instruments went for pianos. Over 28,000 pianos were imported for a value of over $31 million. Units were up 12 percent over 1977 and dollars were ahead by 35 percent. Nearly 10,000 grands were imported in 1978, representing a 50-percent increase over the previous year. Shipment of pianos from Korea nearly doubled, accounting for more than 3200 units.

Last year was a good year for imports in almost all categories, and 1978 figures show unit and dollar increases. Violins and other bowed strings were ahead by 12 percent in units; nonamplified guitars were up 16 percent in units (a total of 1,256,883 guitars). Korea and Taiwan now supply more guitars than Japan, and imports from these two countries account for $15 million in dollar value (about 65 percent of all dollars in this category) and 72 percent of all units. Mouth organ imports rose by 58 percent in units; even accordions and concertinas moved ahead in units during 1978 for the first time in years – although dollar value dropped.

In the electronic area, guitars were ahead by 38 percent in units for a total of nearly 234,000 units at a value of over $11 million; nearly $8 million in electric pianos and synthesizers were imported, and almost $18 million in electronic organs. Electronic organ units were up by 51 percent, and dollars were up by 44 percent. Over 15,000 units valued at more than $500 were imported, the average value of an imported unit being $992.

Fewer brass and woodwind instruments were imported in 1978 than in 1977, and the unit volume of imports in these categories is sharply down from five years ago. ■

PRISCILLA AND JOEL RAPPAPORT

VON DER WERKSTATT

BLACK KEY DIP IN UPRIGHT REGULATION

Sometimes it is interesting to take a good action regulation and see what goes wrong when individual adjustments are changed first one way, then another. When we had a course in piano technology at Bowling Green State University, one lab session involved putting certain regulations out of adjustment on an action model that had been regulated to perfection the week before — first too much, then too little. When the blow distance (for example) was substantially reduced, loss of power was very evident and increased aftertouch could be easily felt. Excessive let-off would create an unsettling feeling; although the key would have aftertouch, lack of power in the action was very noticeable. Late let-off, of course, caused the hammer to block against the string.

The students, as pianists, were not particularly interested in being able to put a do-it-yourself regulation on the pianos they played. However, by being able to recognize and compare the feel of a good regulation, and by feeling the difference as the regulation went out of adjustment, they became aware of what a good regulation represented. At the same time, they realized that unregulated pianos do not function efficiently, but they can be fixed. Incidentally, emphasis was placed on having a professional do extensive work such as complete action regulation. The students learned that, when you as a trained professional charge a fee for your work, they are paying for training, education, and experience — something that took years to obtain.

Part of that training and experience is understanding how the action works — the whole picture. We need to know and understand how each adjustment affects the regulation. Last month we worked backwards to adjust the black key dip on a grand; this month we would like to continue by focusing our attention on the black key dip in uprights.

The basics of the regulation are set up first with the alignment of the hammers to the strings and the jacks to the butts. The blow distance is set and the key height is checked. Lost motion is eliminated and the white and black keys are leveled. Let-off is done and the dip is adjusted on the white keys using the dip block as a guide. The dip (or how far the key travels) is confirmed by aftertouch.

In setting the dip and the aftertouch, compromises are often necessary. For example, we mentioned that the dip block be used as a guide to get the distance the key travels downward in the "ball park" and as uniform as possible. The measurement of this dip block is directly related to the theoretical 5:1 ratio between the hammer blow distance and the key travel distance. If the hammer blow distance measures 47 mm, the dip will be 9.5 mm. Although a dip block measuring 9.5 mm is an average size, dip blocks that measure slightly less than 9.5 mm, or as much as 9.8 mm, are also valid — it simply depends on how one uses the block, and on what kind of instrument you are working.

Key dip can also vary greatly if the dip block is not pushed down consistently with the same amount of "weight" or "feel" by the person doing the work. Through routine, practice, and development of the feel for how hard to push the block down, one can achieve an even dip. However, how valuable is the perfect dip if the aftertouch is nonexistent or excessive? In many cases you can't go by the book; you have to make compromises in the regulation so that the action feels right and plays as efficiently as it can under the circumstances.

Many actions will "dictate" more or less dip than the dip block indicates. In order to get aftertouch, which is just as important in an upright as in a grand, punchings must be either added or taken out to achieve your goal. Other possible adjustments to increase aftertouch in an upright include increasing the let-off and decreasing the hammer blow distance slightly; both of these adjustments contribute to some loss of power in the action.

Regulating upright back-checks and black key dip can often be frustrating. But, if the basic regulation that we have just discussed is set up correctly, there should be no problem following through with the rest of the procedure. At this point we must concern ourselves with several straight lines in the action. The hammer moldings, as the hammers rest on the hammer rest felt, are in a straight line as are the leather catchers. Both the leather of the catchers and the back-check felt must be in good shape and not excessively worn. If these are uneven, the back-check line will be directly affected. The back-checks at the ends of each section should be adjusted so that the hammers check approximately 12 mm from the strings.

To clarify: The keys at the ends of each section used to establish back-check line consist of five keys, three white and two black. After regulating the back-check of the sample white keys to catch the hammer at the proper distance, the back-checks of the sample black keys are adjusted to be in line with those of the whites. Then front rail punchings are added under the black keys so that those hammers catch in the same line as the neighboring whites. The aftertouch of the blacks should match that of the whites. This procedure is repeated for the sample end keys of each section. Then, using a straightedge, line

up the remaining back-checks in each section with their respective samples. Add punchings under the blacks and whites as needed to establish the hammer line as it is caught by the back-checks. For appearance and alignment, pay attention to good spacing between back-checks and the vertical alignment of the back-check woods.

We would like to emphasize that achieving the correct black key dip is dependent upon a solid regulation procedure. Every step in the regulation affects the next. Good black key dip with the right amount of aftertouch is one of the rewards of a fine upright regulation.

As we end this month, we want to appeal to you for reactions to the column. Have there been any puzzling procedures brought up that we could clarify? Is there anything you would like to hear about? If you have any questions, please let us know by writing us, either directly or through Technical Editor Jack Krefting. Please don't wait for the other fellow or gal to write; they are waiting for you to do it! ■

Readers may contribute material to "Von Der Werkstatt" by writing Priscilla and Joel Rappaport; P.O. Box 8482; Austin, TX 78712. Material may also be sent to Jack Krefting, Technical Editor; 6034 Hamilton Avenue; Cincinnati, OH 45224.

BEN MCKLVEEN

IN THE FIELD

"What 'cha got in the box mister?"
"Tools."
"What kinda tools?"
"All kinds. What do you need?"
"Nuthin'; just askin'. Can I see 'em?"

This dialogue, or a reasonable variation of it, takes place between a small child and me at least a half dozen times a year. Since my column deals with the working technician in the field, the first line of dialogue is an appropriate question early in this series of articles. Just what do we have in the box? Do we have enough? Too much? What supplies and expendables do we carry? What parts?

The answers to these questions are as varied as the number of technicians who read this article. There is no set standard. Certainly, all of us carry a number of the same basic tools. The variations become endless when we consider the type of clientele we serve, distances traveled from home, differences in age and physical condition, previous training, and accumulated skills. This month I will play show-and-tell about the tools I carry. I hope it will be interesting to the young technician readers, and that it will jog the thinking of the more established craftsmen – causing them to examine their tool cases with an eye toward improvement.

Let's start with the basic tool case. My first case, acquired as part of my equipment when I took my training, was an aluminum "tackle-box" type with four self-rising trays. There are many of these still in use today. In the late 1950's the leather "briefcase" container with two or three trays in the bottom was introduced, and I bought one of these. This case gave me a prestigious feeling when I carried it into a home, but the main problem with both cases remained – the tools were just piled in and difficult to organize.

Toward the end of the 1960's, the "attache case" style of tool container was introduced. It had a compartmentalized bottom containing clear plastic trays; in the top there were two tool pallets and a literature pouch. The advantages for me were clear – a chance to organize my tools and have supplies within easy reach. I bought one and am using it today. Since my work is with many kinds of pianos, this type of case offers me the most organization and flexibility.

The "clarinet case" tool container is worthy of mention at this point. This case is light and compact, but limits the number of tools and supplies carried at one time. It works well for a technician who services mainly high-quality pianos, either in institutions or private homes. The tools carried would be more or less confined to tuning, voicing, and regulating rather than tools and supplies connected primarily with piano repair. These supplemental tools could be carried in another container and left in the car.

Since my work often involves groups of good pianos located in schools or churches, I have isolated a group of tools that I use all the time. These are carried in a rectangular canvas bag which fits one of the compartments in the bottom of my tool case. When I get to a piano, I open my case and take out the bag (add lid prop, if necessary). I have everything I need to do an average tuning. This bag includes the tuning hammer, fork, strip mutes, two wedge mutes, four screwdrivers (wide blade, long shaft, regular blade, and a Phillips), tweezers, and a pointed capstan wrench.

Another canvas bag in my case has pouches for various regulating tools. This group includes the usual regulating screwdriver (female), spoon-bender, offset key spacer, three sizes of capstan wrenches, a good quality 6-inch ruler, a Mason & Hamlin wrench, and a friction tool handle (instead of the large combination handle). The bag also carries a pair of scissors, two small files, and a center pin bushing reamer.

The two tool pallets carry a wide assortment of gripping and cutting tools, wrenches, and specialized repair tools and gauges. The most frequently used are on the forward pallet, those less often used on the back pallet. They include

- Long and round nose pliers
- Vice grip and key-easing pliers
- Mechanic's pliers
- Expandable jawed pliers (10-inch)
- Center pin pliers, case, and gauge
- Capstan pliers (Mehaffey special)
- Hammer-head removing pliers
- Crescent wrenches (4- and 8-inch)
- Hammer shank cutter and clamp
- Bearing and music wire gauges
- Dip block
- Leather knife
- Nicholson file (4-inch)
- Pin setter
- Drill bit (7/32-inch)
- Damper bushing easing tool
- Voicing tool (swivel head)
- Split blade screwdriver
- Small pallet knife
- Small oil stone
- Pair of good-quality scissors
- Very stubby screwdriver
- Touch weight

A ball peen hammer, dust brush, and short straightedge are carried loose in the case, usually resting on top of the plastic boxes containing various supplies. I carry a spare tuning hammer because I have had several accidents with my regular hammer during my career. Also, I have found tight situations in some pianos where the regular hammer does not fit. The spare hammer has a No. 1 head, is somewhat smaller than my other hammer, and gets me through these tight situations. Under the plastic

boxes I carry a small saw. When I need it, nothing else will do — it has been very useful.

The three plastic boxes contain a variety of supplies and expendable materials. One box contains only hardware: an assortment of screws, small bolts, various sizes of hinge pins, regulating screws, repair clips, brass flange plates, agraffes, an assortment of small nails, and copper wire scraps for plugging stripped screw holes. Another box contains leather and felt: bushing cloth, front and balance rail punchings in various thicknesses, scraps of buckskin, blocks of felt, scraps of action and backrail cloth, a few vertical dampers, and some grand damper felt. The third box holds wood parts: hammer shanks, various flanges, balance rail buttons, and things of that nature.

The basic philosophy behind this assortment of supplies is mostly to take care of emergencies or one or two broken parts — get the piano working again! I don't want to carry enough to do anything major. If the problem is that extensive, I take it to the shop.

Along the left side of my case is a compartment that runs front to back. Here I carry the lid prop, sandpaper paddles, a small bottle of Titebond glue, a medium bottle of contact cement, a small container of lubricant (tallow and chalk), a small container of graphite, a spool of thread, several books of matches, some butcher string, a piece of chalk, a couple of corks, and some scraps of steel wool (fine and very fine).

Behind the tool pallets is a compartment much like a briefcase. Here I carry sheets of garnet paper (60, 80, 100, 120, 220), small sheets of various thicknesses of cardboard for shims, and a supply of leather drum head for broken keys. A notebook on regulation, some billheads, and business cards fill out this compartment.

My answer to the original question is, "That's what I have in the box, kid." It is not the whole answer, however. I would like to discuss some of my favorite tools and why I like them. I have not covered emergency things like broken strings, nor have I mentioned standby items carried in my car, nor other tools on standby in my shop that sometimes go out with me for service in the home.

"What's all that junk in the back of your car, mister?"

"Come back in a couple of months and I'll tell you." ■

DEAR ROSETTE:

Dear Rosette:

Hardly a day goes by without someone telephoning to ask, "How much do you charge for piano tuning?" My husband is a member of PTG and he charges more than the non-member competitors. What should I say to these callers who are shopping around? Even some of the PTG members are $5 less and one is $10 less for tuning. Why can't the PTG members get together and charge the same rate? — Confused

Dear Confused:

You have asked two different questions, which calls for two different answers. When a "shopper" calls our house and the telephone is answered by Flange, he tells them what he charges and then adds, "If you are looking for a cheap tuner, I can give you a name or two." When I answer the phone, I do not automatically dismiss it as a shopper, but I do try to keep the caller on the phone by asking what kind of piano it is, when it was last tuned, and perhaps a word about the advantage of having a member of the Piano Technicians Guild service her piano. The longer you talk the more apt you are to get a new customer.

The other question you ask is a much more serious question than you think. PTG members cannot agree on a price for tuning simply because that would be illegal — price-fixing. PTG members cannot discuss prices at any of their meetings. They cannot say anything about tuning rates — past, present, or future — in their newsletters or any other communication. Even an informal agreement whereby one member agrees to stay out of another's territory will constitute a violation of the antitrust laws. This word of warning should be given to every chapter in PTG.

JESSE LYONS

LYONS ROAR

REPINNING FLANGES

This article deals with almost all types of flange repinning – probably the most critical, and the most abused, of action repairing procedures.

Perhaps you have noticed some new pianos have a certain amount of loose or tight pins, and sometimes even bent flange pins. Fortunately, this seldom requires a return to the factory; however, during my 45 years of servicing pianos, I have recommended the return of two actions on two separate occasions. I consider this a high batting average for manufacturers. In both instances the piano makers agreed that my diagnosis was correct, and readily adjusted the matter.

When repinning flanges on older actions, you must remember that the wood might be brittle. Sometimes the pin becomes loose in the solid part or stationary piece of wood. This is true in hammer butts, jacks, extension guides in the older "sticker type" actions, etc. Due to extreme dryness, the pins work out enough to cause the flange bushing on one side of the flange to wear more, or even become damaged. When I see several of these flanges wobbling all over the place – whether it be hammers, whippen or jack flanges – I mark them and begin disassembling those parts from the action. I make sure that I keep them in rotation by placing a check mark on each and numbering them. Can you imagine my dilemma when a helpful customer decided to get things ready for me by taking out all the keys and stacking them in a corner like stove wood? **It pays to number everything.**

One rule for repinning flanges to stationary parts applies to all flange repinning. I first determine the tightness I want in the stationary part by testing with a pin. I press it into the hole by putting the pin down on a solid surface, such as a vise or table top, and pressing firmly. The pin should offer considerably more resistance than you would encounter by trying to force it through with your finger. If you can press it through with your fingers, it is too loose. Consequently, it would be unstable and cause the attached part to wobble from side to side. Now that you have determined the desired tension of the pin in the solid part, remove the pin and size it to your flange pin holes. If it will push through the most worn side of the flange snugly with just the pressure of your fingers, you are ready to size the tight side of the flange to the same pin.

This is where you use the perfectly round burnisher. It is graduated in size so as to accommodate different sizes of flange pins. Don't overdo this critical operation. Push the burnisher into the felt bushing, ever so slightly, and turn it a round or two. Remove the burnisher and insert the flange pin to see if you have pressed the bushing cloth out enough to allow you to push the flange pin snugly into the hole. Repeat this operation as often as you need to until you have a snug fit, but a fit that will allow the flange to operate freely.

One test for "freeness" is to put the flange screw in the flange and hold the hammer in a horizontal position. See if the flange will slowly drop. If it won't, it is too tight. This is the art of repinning. Be sure you have the same tension of the pin in each flange bushing so that you will have no side-to-side wobbling of the stationary part (hammer, jack, whippen, etc.).

When you replace with a new flange, never assume that the pin which comes with that flange is the exact size for the stationary part. **It rarely is.** Inexperienced so-called technicians cause a lot of problems by not knowing the above fact. Therefore, when the flange is attached to the rail, you still have the wobbling flange – not so much in the flange as in the stationary part. Another thing to remember when repinning is to keep the pins dry. Use some kind of chalk or talcum powder to prevent hand moisture from coming in contact with the pins.

Frequently in repinning, you will need to rebush the flange. Some technicians have started using teflon replacement bushings in older pianos instead of rebushing. This creates problems for the following technician, especially if he has to lubricate the flanges for dampness. When you don't know that there are teflon bushings scattered throughout the action and you lubricate in the usual manner, you have problems. Sometimes the flanges will stick; other times (after the wood has dried out) the teflon bushing rattles like crazy. Only after you remove the offending flanges do you find out that you have tried to lubricate something which is supposed to need no lubrication.

Needless to say, I remove the teflon replacements, rebush the hole with flange bushing cloth, and try my best to look peaceful and happy. Brother, it ain't easy! If a law could be passed to force every technician to put a note in plain sight which states that "teflon bushing replacements are in this piano," I would turn political and run for Congress – just so I could vote "yes" for it! ■

LUELLYN PREUITT

Auxiliary Exchange

A FAREWELL NOTE

As we begin the new year with the Auxiliary of the Piano Technicians Guild, let us hear for the last time as Auxiliary president, words of wisdom from Helen Pearson.

"Years ago, my little niece remarked, 'Helen is either coming or going.' This childish wisdom, though simple, is profound. It applies to every aspect of life, both the good and the bad. The knowledge of it makes us appreciate the joys, the pleasures, the peaceful moments. We would like to hold on to them forever. The awareness of it enables us to bear the misfortune, the pain, and the upsets. We know they will pass.

"Notice that the little one did not say 'has come' and 'has gone.' 'Gone' is final but 'going' is progressive. Yes, I am going out as president, but I'm going into the job of immediate past president, where I look forward to serving another two years. From there I shall go on to take my place in the membership, contributing to the Auxiliary to the best of my ability.

"During my term of office I have endeavored to get as many members involved as possible. Instead of having a few active members do everything, I searched the membership to find those who could contribute ideas, time, and effort. If those I found turned me down, the Board members were always ready to step in at the last moment, so that from an onlooker's point of view, everything was carried out.

"The two conventions during my term were two of the best in the history of the Auxiliary, in my opinion. For this I do not take the credit. Their success goes to the fantastic job done by the local Auxiliary chapters in Cincinnati and Minneapolis-St. Paul. I thank them here, personally, and if you members could realize just how much these chapters contributed, your praise would be heard echoing and re-echoing down through the Guild for years to come.

"Let me say a big 'thank you' to all members who served on committees, on Council, on Board, in programs, in classes, in entertainment, in chapel, in correspondence, or just by adding a smile and a cheery word. You have been wonderful to work with and have made being a part of you a rewarding experience.

"Let us give our new president the same support. She will be doing the best for you. You must give your best to her if the Auxiliary is to grow. It is your organization, and it will be whatever you as individual members make it.

"We have become better acquainted. We have been more dignified. Now let us promote friendship, education, understanding, and good will.

"This is the concept of the Piano Technicians Guild Auxiliary.

"Sincerely, Helen."

MISSOURI STATE CONFERENCE

This writer attended the Missouri State Conference in Springfield, Missouri, over the weekend of March 23-25. It began not too well as the 1969 "Conti" gave up the ghost in regard to its air conditioning about 25 miles down Old Seventy Highway on a mild Friday afternoon. As the odor and the vapor from the hood became more apparent, this writer said "that's us," and Hizzoner driving said "yes," and skillfully pulled the car off the road onto the shoulder. Between his know-how and some piano tools he pulled out of the kit in the trunk, we inactivated the entire air-conditioning unit and went on. We're really not too sure yet what the trouble is, as we've still (this is early June) to take the problem to the mechanic. Call it inertia, or just a reluctance to deal with the energy crisis, but we'll probably have it solved by convention time.

Once there, all I could think of was, "Why did not more ladies attend, and why did not those who were there participate?"

Jan Rhodes worked hard to complete a wonderful entertaining schedule for the gals (or if there had happened to be a "friend," certainly, we would have known enough to follow the Auxiliary rules).

If you're not interested in river changes of the Ozarks, perhaps you would be interested in telling us why you were not there. Because river changes of the Ozarks were what we followed throughout the day. Then, too, we gained a first-hand glimpse of a fellow who refused to be intimidated by the United States Government and offered alcoholic drinks and gambling at his establishment between 1925 and 1933. Of course, he spent many years in jail as a result. But the beauty of his offerings is still there, the river laps at the edges of the front lawn, and people in search of food and history still roam about his grounds in search of sustenance.

Thanks to Jan for her heroic efforts in our behalf, and to all the ladies who not only attended but participated!

NOTES ON ENERGY

The savage wind and rain storm, with winds up to 80 miles an hour, hit Independence about 6:30 p.m. Monday evening, June 4. By 7:04 p.m. the electrical power had gone off in the Preuitt household and remained off until about 1:15 p.m. Thursday, June 7. During that time

there was no way to cook, no way to type, no way to refrigerate. No, we didn't lose all our food. Some friends stored the frozen foods for us, and we bought ice to fill the traveling ice chests and held the eggs, butter, cheese, and many of the vegetables.

The telephone came back the next day, so we were not incommunicado. We know, too, that we were not without power or telephone as long as many others. We had almost continuous gas and water, and the gas explosions which ripped through a section of Independence were far from us. Another fortunate aspect was that the main gas line down our street had just been replaced the preceding week and all leaks stopped. Now the bare strip down the edge of our lawn looks like a fortunate accident, which we are going simply to accept and wait for grass to come back.

By now, the purists are probably muttering, "What's this have to do with tuning a piano?" Answer as follows. Not once during this time did we have to accept a cancellation because the instrument could not be worked on. All it took was some natural daylight and craftsman technique to accomplish the task. Also, guess what was one of the few "machines" here which kept working during the so-called crisis? You're right — the piano. Also the violin, the cornet, the autoharp, even the chromatic harmonica would have played had anyone cared to pick it up and blow into it.

The "energy" crisis affects all of us, whether we believe in it or not. Here in Missouri we are finally getting started on gasohol production. This is bitterly opposed by the oil producers, who claim that it takes too much gasoline from normal usage to produce. If this is true, this type of conservation is a waste. Then, this writer's brother (who is no dummy, either) tells her seriously that we have enough coal in this country to last for 400 years, and that South Africa has been producing gas from coal for several years. If this is so, why aren't we getting started on that? Maybe we are, but where is the information on it? The advocates of solar power are, to this writer's way of thinking, on the right track. And wonder of wonders, the usually do-nothing Missouri General Assembly is in the midst of passing legislation designed to protect a home owner who installs solar power from being cut off from his source by anyone — neighbor, high-rise apartment builder, or whatever!

Let's get back to tuning a piano, or what might be termed the need to have a piano tuned. This tuning takes energy. Whose? From what source? Of course from an individual source, which comes from life itself. This is energy which no one can take from us. If it is lost it is because we ourselves surrender it.

Now I know this is not the "nuts and bolts" so many of our conferees so dearly love, but where would they be without it? What advantage is it to know what to do about a cracked pinblock if nobody cares to have it fixed? What advantage is there in being able to tune a piano so well that there are no "cracks" for a singer to hide in, if at some point along the line the wife of a piano technician who also happens to be an officer in the Federation of Music Clubs has not publicly held her nose upon hearing a piano which has not been tuned for two years?

Where do we direct energy? Let's try directing it by thoughtful, wise analysis of the needs of society. Never mind that usually society does not recognize its needs. There's no need to hit anyone over the head. As my minister said in last week's sermon in regard to another need, "Let's just keep on keeping on."

The energy we have to offer is one of self help, self instruction, self reliance, self support and cooperation of and with other selves — self realization.

Of course playing a well-tuned piano is not self realization for everyone. It is, however, that for thousands, perhaps millions, of persons. We have not touched that energy. We have (a la Mrs. Malaprop) "missed the boat."

So let's catch the boat. Let's encourage those with talent to use it. Let's take advantage of the fact that energy is personal. Each individual has it. Each individual can use it as if it were forever — which indeed it is, when we know from where to draw. ANYONE can play the piano! But it should be well tuned. ■

VIRGINIA SELLER

Dossal Screen

Many of us who attended Marion Seller's organ recital were privileged to see the wonderful dossal (altar) screen at the Olivet Congregational Church. Virginia Seller, who worked on the screen, submitted the following report for publication in the JOURNAL.

In the autumn of 1975, the congregation was making preparations to receive a new pipe organ, the gift of Mr. and Mrs. Robert H. Tucker as a memorial to Mr. Tucker's parents. The men of the church began an ambitious program of refurbishing the chancel to accommodate the instrument. As the work progressed, the women discussed plans for focusing attention on the communion table as a visual center for the front of the church. They decided that a dossal screen would bring the eye to the table, and at the same time screen the musicians during services. Joan Cox and Nancy Mackenzie, two members of the congregation, undertook the task of designing the screen.

Taking into account the stunning organ case and the scale of the room, they fixed on a size of 6 feet x 6 feet 4 inches for the screen. They chose needlepoint as a medium. Not only did this medium make it possible for many people to participate, it also provided the necessary flexibility for executing a detailed design.

The designers set to work in February of 1976. After several weeks of working out and discarding various schemes, they chose a general theme of the history of salvation and chose a tryptych format — a design that featured 500,000 holes to be filled. They were concerned to work the design in keeping with the architectural detail of the room; they incorporated the borders of the stained glass windows into the borders of the two outside panels, and repeated a cross which appears throughout the church in carvings.

They first drafted the design to scale in pencil. A second full-size cartoon was made in paint to work out the color scheme. They chose 75 different colors of 100 percent wool French tapestry yarn. They wanted a variety of stitches to give texture to the finished piece, but the problem of selecting just the right stitch for each portion of the design presented some difficulty. At last they picked 20 different stitches and several variations, some of them invented along the way.

The design was then transferred to tissue paper. Over this final cartoon, No. 10 mesh interlocking mono canvas was placed, and the meticulous task of dotting each intersection with color began, all the while being careful to accommodate the various stitches chosen for each part of the design. Acrylic paints were used to ensure color fastness in the blocking process. The tissue paper cartoons were then coded with the corresponding color number of yarn, and instructions for the stitches were written in.

About this time, the congregation was saddened by the untimely death of one of the workers, Alfhild Heffron. The stitchers proposed that the project be a memorial to her, and gifts to the church in her memory provided needed funds for its execution.

Because many of the stitchers had never before worked in needlepoint, Connie Nelson, a church member, offered classes. Each class member produced a sampler, and each piece of work was then evaluated to make sure that each worker would be assigned that part which she could do best.

The stitching began in June of 1976. Three work sessions were held each week to accommodate varying schedules, and each stitcher worked at least once a week. By the beginning of July, the group had dubbed itself "The Olivet Stitchers *and* Rippers." The side panels were executed first. The canvas was cut into separate medallions. Two people worked each section, one on the figure, the other on the background. The central panel was stretched on a frame, allowing as many as 14 stitchers to work, and *talk*, simultaneously.

The final stitches were made in September 1978. The tapestry was then joined, blocked, and mounted on plywood panels. Lynn Dobson, who had built the organ, devised a beautiful frame for it which complements the organ case.

As the project progressed, with women spanning 60 years in age working together, the friendship and camaraderie which developed became as important as the goal. The tapestry project provided the church with another means of cementing the church family and sharing in the lives of one another. Many events will be remembered, including the arrival of seven babies. A spirit of pioneer women gathered around the common quilt was captured, and will always remain a part of the fellowship of the congregation. ■

LATEST ADDITIONS AND CHANGES TO:

TAKE A GIANT STEP

Everyone wants a chance to receive prestigious President's Club awards or to sport a Booster/Restorers Club ribbon at the 1979 Annual Convention. To ensure that every Booster Club point is credited to your account, and that every Restorer of a former member is recognized, the Membership Services Department requests the following:

1. Please **print** your name after your signature when you endorse a person's membership application. (Many signatures are difficult to read.)

2. If the member is a restored member, please **write this fact on the application**. (Many of the Membership Services Department's "inactive files" are inadequate and only retained for a certain number of years.)

The following points are scored for signing up the various ratings: Craftsman, 6 points; Apprentice, 5 points; Allied Tradesman, 4 points; Associate, 3 points; Affiliate, 2 points; Student, 1 point. When you get a total of 24 points you become a member of the President's Club; all others are Boosters.

PRESIDENT'S CLUB

Bittinger, Dick — Reading-Lancaster 26
Cunningham, Jess — New Orleans 27
Harris, Vaughn — Las Vegas 27
McVay, James — Vancouver, B.C. 35
Schoppert, Robert — S. Dakota 24
Seller, Marion — Twin Cities 42

BOOSTER CLUB
(1 to 23 points)

Abbott, William — Minnesota/ Northern Iowa 5
Aguirre, Julian — Member-at-Large 1
Atherton, Olan — Dallas 1
Avolese, Frank — Long Island-Suffolk 11

Bach, Philip F. — Twin Cities 7
Bailey, Nelson — Youngstown 1
Balconi — Rochester 6
Ballard, William — New Hampshire 11
Baskerville, Henry — Richmond 19
Bell, Hamilton — Cleveland 1
Berg, Stephen — Kansas City 5
Bible, Dana — Greensboro 5
Bittinger, Dick — Reading-Lancaster 26
Bliss, Syracuse — Syracuse 6
Bloch, John — Denver 1
Boyd, Thomas W. — Philadelphia 1
Brandom, William S. — Kansas City 12
Brookshire, Jerry — South Florida 6
Brownfield, Gary — Boston 6
Buck, Gene — Sacramento Valley 1
Bullock, Jr., Wilbut — Mississippi Gulf 6
Burgstahler, Neil — Redwood 6

Carbaugh, Bob — Chicago 5
Carr, R.V. — Central Florida 6
Caskey, Ralph — Greensboro 5
Cate, Allan — Los Angeles 1
Churchill, Ken — Orange County 6
Clopton, John — Blue Ridge 2
Coleman, J.W., Sr. — Phoenix 1
Coleman, Loring — Las Vegas 1
Conner, J.S. — Hampton 6
Corey, Crahles — Memphis 4
Crabb, Larry — Atlanta 7
Crowe, James — Washington D.C. 1
Croy, Ronald — Nashville 6
Cunningham, Jess — New Orleans 27

Dante, Richard — Cristofori Brotherhood 15
Dege, Ernest — Los Angeles 5
Deptula, Walter — East Texas 6
Desmond, Frank — Dallas 17
Dightman, Richard — Montana 6
Donelson, James H. — San Francisco 1
Drewa, Edward — Twin Cities 1
Duncan, David — Greensboro 5
Dye, William — Santa Barbara 11

Eaton, Wendell — Washington D.C. 1
Edwards, William E. — Detroit-Windsor 1
Epman, Lawrence — Wisconsin 5
Erlandson, Robert — Nebraska 6
Evans, Dan — Los Angeles 6

Finger, Chris — Denver 4
Flegle, R.H., Sr. — Twin Cities 6
Franz, Earl — Central Washington 1
Freeman, Marion — N.C. Louisiana 6

Garrett, Joseph — Portland 16
Gaudette, Oscar — Daytona Beach 1
Geiger, James — Dayton 11
Gerber, Kenneth — St. Louis 4
Giller, Evan — New York City 10
Goetsch, Lawrence — Dallas 1
Gold, Jimmy — Texoma 6
Grace, John — Puget Sound 1
Graff, Edward — Montana 1
Griffith, LaVerne — Buffalo 8

Haino, Henry — Western Michigan 18
Hanson, Lynn — Utah Valley 1
Hanson, Sigurd — Houston 1
Harris, Vaughn — Las Vegas 27
Harvey, Jim — Los Angeles 1
Hauck, Jack — Phoenix 1
Hayes, James — Connecticut 11
Heischober, M. — L.I.-Nassau 5
Hendrickson, William — Santa Clara 1
Herbert, Curtis — Falls City 1
Hershberger, Ben — South Bay 1
Hess, James — South Central Pennsylvania 5
Hess, Marty — Wichita 1
Higby, James — Tri-City, Iowa 4
Higgins, Richard — Hawaii 11
Hipkins, David — N. Virginia 6
Hofstetter, Robert — Santa Clara 1
Hohf, Robert — Madison 3
Hollingsworth, Francis — Dayton 5
Hopperstad, J.M. — Sacramento Valley 1
Howell, Dean — Connecticut 1
Huff, Dana — San Francisco 5

Hulme, Gregory – Kansas City 6

Jackson, M. – Philadelphia 1
Jeffers, James – Phoenix 5
Johns, B.J. – Northeast Florida 1
Jones, Joel A. – Madison 11
Joseph, Paul – Philadelphia 21
Juhn, Ernie – Philadelphia 6

Kast, Frank – N. Virginia 5
Kelley, Allen – W. Massachusetts 12
Keller, William – Reading-Lancaster 6
Killberg, George – Twin Cities 5
King, George – Colorado Springs 6
Kimball, Richard – New Hampshire 6
Kinser, William – Central Pennsylvania 5
Kirkland, Oscar – Knoxville 6
Krefting, Jack – Cincinnati 5
Krystall, Darwin – Los Angeles 1
Kuraya, Ben – Hawaii 12

Lake, Robert – Santa Barbara 1
Lamb, D.E. – Los Angeles 5
Lawrence, Paul A.U. – Blue Grass 12
Leach, W.F. – Richmond 10
Leary, Kevin – Cleveland 4
Lott, Charles – Youngstown 4

Macchia, Allen – NW Indiana 5
Macchia, Frank – NW Indiana 6
MacConaghy, Henry – San Diego 12
MacKinnon, Karl – Nebraska 1
Magee, Paul – Sacramento Valley 1
Marciano, Bill – New Jersey 16
Marten, Gilbert – Central Iowa 6
Martin, Barbara – Indianapolis 4
Matley, Wayne – San Francisco 1
McAninch, Daniel – Falls City 2
McCollom, Angie – Kansas City 6
McDonald, Robert K. – Mississippi-Gulf Coast 5
McGuire, Michael – Detroit-Windsor 1
McIntyre, John – Lansing 6
McKlveen, Ben – Cincinnati 5
McNeil, Thomas – Lansing 6
McVay, James – Vancouver, B.C. 35
Mehaffey, Francis – Pomona Valley 1
Mensing, Daniel – Chicago 5
Mensing, David – Chicago 10
Miller, D.L. – Minnesota-North Iowa 6
Moburg, Jonathan – Milwaukee 5
Monroe, Paul – Orange County 7
Moore, Donald – Fresno 6
Morton, W. Don – Los Angeles 4
Murdaugh, Rodney – SW Missouri 1

Neie, Gary – N.C. Louisiana 5
Novinski, Tony – Wichita 12

Orr, Ronald – Youngstown 1

Persons, Glenn – Tucson 6
Peters, George – Central Michigan 6
Peters, Patricia – Central Florida 1
Peterson, Clarence – Santa Cruz 1
Peterson, Gerald – Western Michigan 12
Peterson, Jerry – Western Michigan 7
Phillips, Webb – Reading-Lancaster 4
Pizza, Anita – Miracle Strip 6
Poetker, Don – Sacramento 6
Pool, Nick – Western Michigan 6
Preuitt, Ernie – Kansas City 6

Ralon, Carlos K. – Washington D.C. 7
Reineck, Ed – North Central Wisconsin 6
Rhea, Lee – Wilmington 10
Richardson, J.W. – Idaho West 10
Richey, Charles – Dallas 1
Rooks, Michael – Ozark 5
Russell, Bob – Cleveland 5

Saah, Joseph – San Francisco 4
Sankey, Lee M. – Houston 1
Schecter, Mark – San Francisco 6
Schneider, William – Lansing 3
Schoppert, Robert – S. Dakota 24
Scoville, Glenn – Pomona Valley 5
Seabern, Paul – Pomona Valley 10
Seller, Marion – Twin Cities 42
Seitz, Al – Alaska 6
Serviss, Ken – Portland 6
Sierota, Walter – Philadelphia 13
Sims, Willard – Cincinnati 3
Sinisi, Mario – Long Island-Suffolk 5
Smith, Virgil – Chicago 5
Snyder, Cecil – South Bay 6
Stegeman, W.J. – Minnesota-North Iowa 1
Stern, Walter – St. Louis 6
Stone, Sidney – San Francisco 1
Story, Everett – E. Washington 6

Tandberg, Ralph – Orange County 1
Tapp, Kenneth – West Memphis 18
Thatcher, Walter – St. Louis 6
Tinker, Mary – St. Louis 6
Tipple, Robert – Member-at-Large 6
Truax, Richard – South Central Pennsylvania 4

Upham, Russ – San Diego 6

Weisensteiner, R. – Springs Valley 6
Welton, Scott – Connecticut 6
Wheeler, Clifford – Boston 6
Wheeler, Richard – Portland 5
Whitby, Elmer – Paducah 6
White, T.E. – Northwest Florida 6
White, Walter – Baltimore 6
Wiegand, Robert – Lansing 6
Williams, Robert – Central Michigan 6
Willis, Aubrey – Central Florida 11
Winslow, Allyn – Boston 6
Witting, Edward – South Bay 1
Woitasek, Walter – Boston 1
Wood, Dennis – Dayton 5

Zehme, Uwe – South Florida 7
Zellman, Adelaide – Connecticut 1
Zoller, Richard – Norfolk 5

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Notice of seminars will be accepted for insertion in issues no sooner than six months before the event. One free display ad of 2 columns X 2½ inches deep is available for all PTG seminars, etc. It is the responsibility of the advertiser to submit copy for ad to home office. MATERIAL MUST BE RECEIVED BY THE 1st OF THE MONTH PRECEDING PUBLICATION.

NOTE: All seminar dates must be approved by the Conference Seminar Committee. Please submit all dates to home office on appropriate Request for Seminar Approval Form.

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Write: Binese Goldberg
36 Kenwood Terrace 8
Springfield, MA 01108

OCTOBER 7-9, 1979

SOUTHWEST FLORIDA
STATE CONVENTION
St. Petersburg Beach, Florida

Write: Roberta Jacobs
627 Hand Avenue
Sarasota, FL 33582

OCTOBER 13-14, 1979

OHIO STATE SEMINAR
Columbus, Ohio

Write: Benjamin F. Wiant
865 Bryden Road
Columbus, OH 43205

OCTOBER 19-21, 1979

TEXAS STATE
ASSOCIATION CONVENTION
Fort Worth, Texas

Write: Tom Blanton
P.O. Box 8
Sherman, TX 70509

JANUARY 11-12, 1980

ARIZONA STATE SEMINAR
Tempe, Arizona

Write: Carl Bates
4112 West Caron Street
Phoenix, AZ 85021

APRIL 24-25, 1981

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Write: Kenneth N. Hagberg
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SOLINGER, TOM D. - *Apprentice*
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HOWENSTINE, RICHARD W. - *Student*
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Alliance, OH 44601

SHENGLE, MARK A. - *Student*
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Canton, OH 44709

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San Francisco Chapter

DUNCAN, STEPHEN R.
Greensboro-Charlotte Chapter

GROGAN, SR., WILLIAM J.
Washington D.C. Chapter

HATCHER, JOHN K.
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Minnesota-North Iowa

PARTRIDGE, STEVE
San Francisco Chapter

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Southwest Florida Chapter

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Washington D.C. Chapter

ELOISE M. ROSS

YOUR SECURITY BLANKET

The term "insurance" should not create a mental block in the minds of those not in the business! An excerpt from Webster's dictionary: "*n* **1**: act of insuring **2**: a contract whereby one party undertakes to indemnify or guarantee another against loss by a contingent event **3**: the business of making such contracts."

Let me carry on a bit regarding the contingent form of insurance — one in which **you** can become the insurer (Webster again: "**insurer** *n* : one who or that which insures"). Learn cardiopulmonary resuscitation (CPR). CPR is big in the Seattle/King County area.

It is reported that one's chances of surviving a heart attack are greater in Seattle and King County than any other place. Why is this a fact? According to statistics, 217,000 of the 1,000,000 residents in King County (one out of 4.60) and 148,000 of the 500,000 residents of the city of Seattle (one out of 3.38) are trained in CPR! They have saved thousands of lives!

Seattle Fire Department's Medic II program has met with wide acceptance by various associations and organizations. They have promoted classes where the knowledge and technique of CPR are taught. Not only do the instructors lecture, but actual training participation is a part of the course. The Seattle Life Underwriters, the Rotarians, Kiwanians, and various churches are among some of the groups that arrange for classes — a minimum of 30 is required. The instructor for the class our family was in also taught the choking and drowning resuscitation techniques. The idea that we could possibly save someone's life is there. We have talked about it, shown our friends and relatives, and encouraged everyone to look into the classes. Check with your local fire department or Red Cross and take the course. Chances are, the life you save will be that of a relative or close friend. ■

CHAPTER NOTES

NOTE: Technical information submitted in chapter newsletters has been forwarded to Jack Krefting, Technical Editor, and will be included as part of the Technical Tip section of the Forum, as space permits.

DENVER CHAPTER

The new Denver Chapter officers are Dave Wilson, president; Dick Frederick, vice president; Ray Froid, treasurer; and Lou Day, secretary. Lou Day was also elected to represent the chapter at the National Council Meeting as primary delegate, and Richard Capp and Chris Finger were elected as alternate delegates. — Mile High Soundboard

INDIANA CHAPTER

Indiana (Marion) Chapter has covered many new topics since last September: bass strings and how they are produced, the use of various grades of sandpaper files to attain levels of brilliance in tone, grand keybed extension rails, a convenience in servicing the grand action in the customer's home, etc.; and a great program with Ari Isaac on his methods of producing bass strings and his research into the piano hammer.

We must give credit to Ralph and Bill Balmer in Findlay, Ohio, for the use of their shop facilities for our September and May meetings. A special thanks to Sara Balmer for the wonderful family-style dinner we were served in the Balmer home on both occasions.

During a trip to Toronto Bill Balmer paid a visit to Isaac, and at our September meeting described the many new ideas and techniques used in production of bass strings. In the afternoon, Ralph demonstrated his technique for building up the brilliance in piano tone, commenting that the students at Findlay College prefer a considerably more brilliant tone than the faculty members. Is this typical of the growing loss in sensitivity of hearing in young people? We fear that it is, and that the hyped-up disco-style audio systems are to be blamed for it — assuming increased exposure to these exists.

In November we were in Fort Wayne to learn more about using the keybed extension rails while servicing a grand action in the home. A set of the rails was donated to the chapter by Renner (Stuttgart, Germany). Proceeds of their sale went to our treasury. The new hammers from Renner were in place on an 1898 Bechstein grand action that has rocker arms. These seem complicated, but don't sell them short! Given the task of designing an action of maximum speed (keeping inertia at a minimum), this is undoubtedly what a computer would arrive at. The linkages from key to hammer are center pinned throughout; the sideways inertia of the whippen is very closely controlled by the little abstract or link pin offering additional support and control at a point on the whippen about 1-1/2 inches in front of the whippen flange pin. There is no sliding capstan screw friction.

Our chapter discussed replacement of brass flanges for the whippens of an old Chickering grand action. The tongues of the replacement flanges must be ground or filed down a little. Note that many of the original units are traveled with paper slips — the new ones should be traveled in the same way as those they replace. The new flanges are a few thousandths of an inch less thick than the old — regulate accordingly. Finally, the old cracked flange has imposed uneven wear upon the center pin bushing of the whippen. Some repinning and even some rebushing in this area are very much indicated.

We covered the topic of replacement plastic "ivory" heads by Vagias. Terry Zimmerman recommends the use of titanium oxide in your contact cement to provide a white background for your replacement. Also, procedures for adapting a short carriage bolt threaded in the grand piano keybed in the front rail area were shown. This can be adjusted with a screwdriver from underneath.

At Toody Corso's shop in Logansport during March, Toody demonstrated the use of Miracle Erasers to remove old finishes. These are supplied through the General Mail Corporation of Greenwich, Connecticut. Miracle Erasers resemble the familiar blackboard eraser in size, shape, and color. They consist of tiny plastic "bubble" formations that crumble as the "eraser" is applied to the finish. The remaining sharp edges seem to remove the finish quickly in a completely dry process that avoids messy solvents and thinners. They contain a sulphur chemical, but the finish is left uncontaminated and ready to work.

We were back at the Balmer's for our May meeting — a grand finale to our year's activities. Ari Isaac was our guest instructor and we had all morning and most of the afternoon to partake of his knowledge. We are preparing an article on this excellent program.

Our new officers are Bill Balmer, president; Tom Deaton, vice president; and Terry Zimmerman, secretary-treasurer. Terry will be our delegate to the national convention in Minneapolis. — Ian McLuckie

INDIANA CHAPTER

The Indiana (Indianapolis) Chapter recently elected the following officers

for next year: Barbara Martin, president; Dave Dixon, vice president; Lloyd Olson, secretary; and Guy McKay, treasurer. Ron Berry was elected delegate to the convention in Minneapolis, with Guy McKay as the first alternate and Doug Strong as the second alternate. — The Indy 440

LOS ANGELES CHAPTER

At the time of our June meeting, several of our members, including President Dan Evans, were in Europe.

We were saddened by announcement of the passing of Les Hoskins. Our chapter voted to give a special memorial gift to his church from our treasury because he had done so much for us and for PTG.

October 6 will be a work-and-advancement day for those wanting to upgrade their status.

George Defebaugh announced that there will be an opportunity to take the Examiner's Exam during the Minneapolis convention for those who are interested. George will be leaving Kawai Company soon to become the western region technical representative for Steinway & Sons. Jim Harvey will be taking George's place with Kawai.

Following the technical question-and-answer period led by Harry Berg, Harry presented a technical program on the subject of "Lead Weights in Keys." Even touch on every key was the objective for weights. Find out what the pianist wants (hard, heavy, or light touch); then check the average gram weight. When overhauling new hammers and shanks, set the touch according to what the pianist wishes. All centers must be checked first and regulating must be done; then the final touch is with the weights. One can do an almost perfect job of this, even on an old grand. New grands should not need any work done on leads. If the touch is uneven, check action centers, etc., first. — Harry Berg

NEW JERSEY CHAPTER

The annual dinner of the New Jersey Chapter was held on June 13 at the Robin Hood Inn in Clifton. The guests of honor were our chapter treasurer, David Williams, and his charming wife Adele. Dave is a native of New Jersey, an esteemed colleague, enviable Craftsman, and our perennial treasurer. He attended Newark College of Engineering and then began working for the famous Colonel Ranger (inventor of the flat-disc process for recorded chime hymns).

After serving during World War II, he continued his studies at Chicago Musical College. There he studied with Dr. William Braid White and tuned for the noted pianist Rudolf Ganz. Since that time (for the past 32 years), he has been tuning locally. A humble and respected man, Dave Williams is indeed "a treasurer we can all treasure."

Following dinner, Dave honored us with several Bach compositions at the piano. We concluded our program with the harmonica music of Al Pogson (Al has played for the Broadway production of Shenandoah) and his vocalist partner Roselyn. — Jeffrey J. Seise

ORANGE COUNTY

Ken Churchill has been nominated as honoree at the forthcoming Chapter Awards Dinner. Our nominee for extraordinary service to the piano profession is Francis Mehaffey, and Norman Miller is our nominee for extraordinary service to the music profession. — H. Gene Wilkison

SACRAMENTO VALLEY CHAPTER

The Sacramento Valley Chapter elected new officers at their June meeting, which was held at the Piano Workshop of Bob Brandenburg and John Fuller. Officers elected were President Yvonne Ashmore, Vice President Don Poetker, and Secretary-Treasurer Fern Henry. After a brief business session, Bill Spurlock, John Fuller, and Yvonne Ashmore gave a series of minitechnical sessions which covered repairing chipped ivories with epoxy, damper regulation jigs, and exotic tools.

Ken Winters was appointed committee chairman, along with Maryll Goldsmith, for finding a suitable project piano to be used for training student members and bolstering the treasury. Bob and Sonja Lemon, who operate Lemon's Player Piano Service, have graciously offered shop space for the project piano during its restoration. — Yvonne Ashmore

WASHINGTON D.C. CHAPTER

The following is excerpted from the welcome address given by Ruth Ann Jordan at the Southeast Regional Seminar, held in Washington D.C. on May 4-6, 1979.

When we first started to plan this venture, I promised the chapter members that, if they would do all the work, I would do all the worrying. Well, it all turned out very well. They did a lot of work and I did absolutely no worrying. Not one bit. (I crack an excellent whip.) Seriously, we do work hard here in the Washington D.C. Chapter. We work hard for you, for PTG, and for ourselves. Why? Because we believe in excellence. What does that mean? I'll try to explain. . . .

Why do you attend meetings, seminars, and classes? Because **you** believe in excellence. When the members of PTG come together to share their knowledge and experience, they are practicing their belief in excellence. When you are out working hard in the home, school, or concert hall, you are practicing your belief in excellence. You may come across a problem you don't feel confident in solving yourself, but you know where and how to get the necessary help to do the best job — from other members of the Guild. Again you are practicing your belief in excellence.

But that's only half of it. When you are doing your very best, when you are remaining true to your ideals of excellence, you are also creating an atmosphere that allows you to demand excellence from everybody else. You are creating a positive force in this world that is necessary to the quality of life. Without it, we are just another

mediocrity in a world where that is gaining superiority in our way of life. We cannot fight that with sword in hand, but we can give and demand excellence wherever we go — whenever we are in touch with another human being. That is why, whenever members of PTG come together, it is with a renewed vigor that we share again our goals of excellence.

Washington D.C. Seminar

The Washington D.C. Chapter presented its first Southeast Regional Seminar on May 4-6, 1979. Assisted by Joyce Meekins, able institute director, Wendell E. Eaton succeeded in obtaining as instructors such luminaries in the world of piano technology as Fred Drasch (Steinway), Willard Sims and Cliff Geers (Baldwin), Frank Stopa and Wally Brooks (Pratt Read), Jack Caskey (Yamaha), George Defebaugh (Kawai), Willis Snyder, and Dave Pennington (Aubrey Willis School). In addition, local members displayed their multitalents with classes by Ned Dodson, Larry Bowen, Bill Pealer, and Errol Floyd. Classes were in session all day Saturday and Sunday.

Registration totaled 184, with participants coming from as far north as Canada, as far west as Michigan, and as far south as Florida. Those who arrived early enough on Friday afternoon were able to attend a very informative open VIP forum moderated by Wendell Eaton and paneled by the seminar instructors.

Chapter President Ruth Ann Jordan warmly welcomed members and guests at the opening assembly on Friday evening, and formally introduced the instructors. A regional report was given by Henry Baskerville, southeast regional vice president; a national report was given by Bob Russell, national vice president; and all were tied neatly together by Orman Pratt, master of ceremonies. On Saturday morning, a breakfast meeting took place at which Marshall Hawkins, guest speaker, discussed "Getting the Business and Keeping It."

The banquet on Saturday night was preceded by a lively cocktail hour with string quartet music provided by the Cameron Quartet. After dining, we were honored by a concert from the gifted 10-year-old Donna Lee (a local student-artist), who was accompanied by her parents. This was followed by dancing and a drawing for many door prizes.

The spouse activities included a tour of the White House on Saturday, with stops at Ford's Theater, the Capitol Building, the Smithsonian Institute of Technology and the new east wing of the National Gallery, the Lincoln and Jefferson monuments, the Kennedy gravesites at Arlington National Cemetery, and a motor tour of other important areas of the city. On Sunday there was a visit to the National Cathedral for the "Kirking of the Tartans" ceremony.

Exhibitors were American Piano Supply, Dampp-Chaser Electronics, and Ford Piano Supply. For those who could find the time, hospitality rooms were open day and evening.

In the final analysis, the slogan — "A Capitol Idea for a Monumental Seminar" — proved to be an apt description of three very productive, enjoyable, and enriching days provided by PTG's Washington D.C. Chapter. — Libby Blatt

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MISC. WANTED

WANTED – Steinway upright action parts (old Models V or K): whippens, damper levers with metal plates, and/or hammer butts. Contact: **Glenn Brown; 1108 West 19th Street; Tempe, AZ 85281. Phone (602) 966-3023.**

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WANTED – A plate for an early Model A 6'2½" Steinway grand. Call collect or write: **Tom Kuntz; Rt. I, Box 201; C.d.a., ID 83841. Phone (206) 667-1205.**

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WANTED – Tunemaster or Sight-O-Tuner. Please write offer, giving price and whether instrument needs repairs. **D.L. Dyer; 8 Locust Lane; Bronxville, NY 10708; (914) 337-3335 (nights).**

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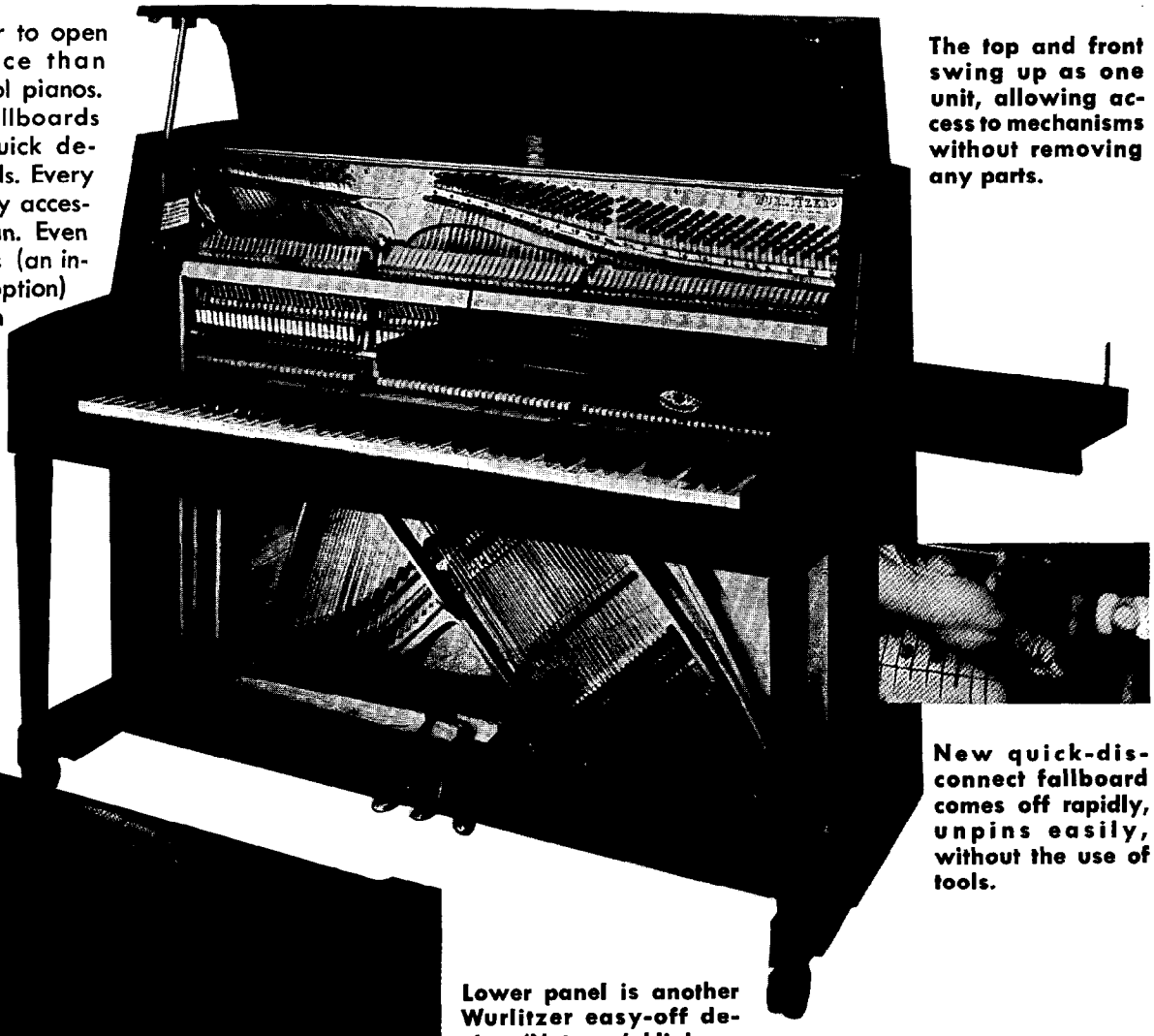

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Lower panel is another Wurlitzer easy-off design. (Note pedal linkage to sostenuto bar).

The Wurlitzer Conservatoire Model 2950 has the longest bass strings in any 45" piano (48½" maximum speaking length). The 1963-square-inch soundboard is solid spruce and its dimensions exceed those for many grand pianos. NEW 68-NOTE SOSTENUTO IS OPTIONAL.

Although the entire action slips out easily, you will seldom need to remove it, because all parts normally needing service are visible and easily reached. It costs more to build a piano this way, but we believe that a quality instrument must be well maintained. Recognizing the importance of your work, we try to do ours just a bit better.

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