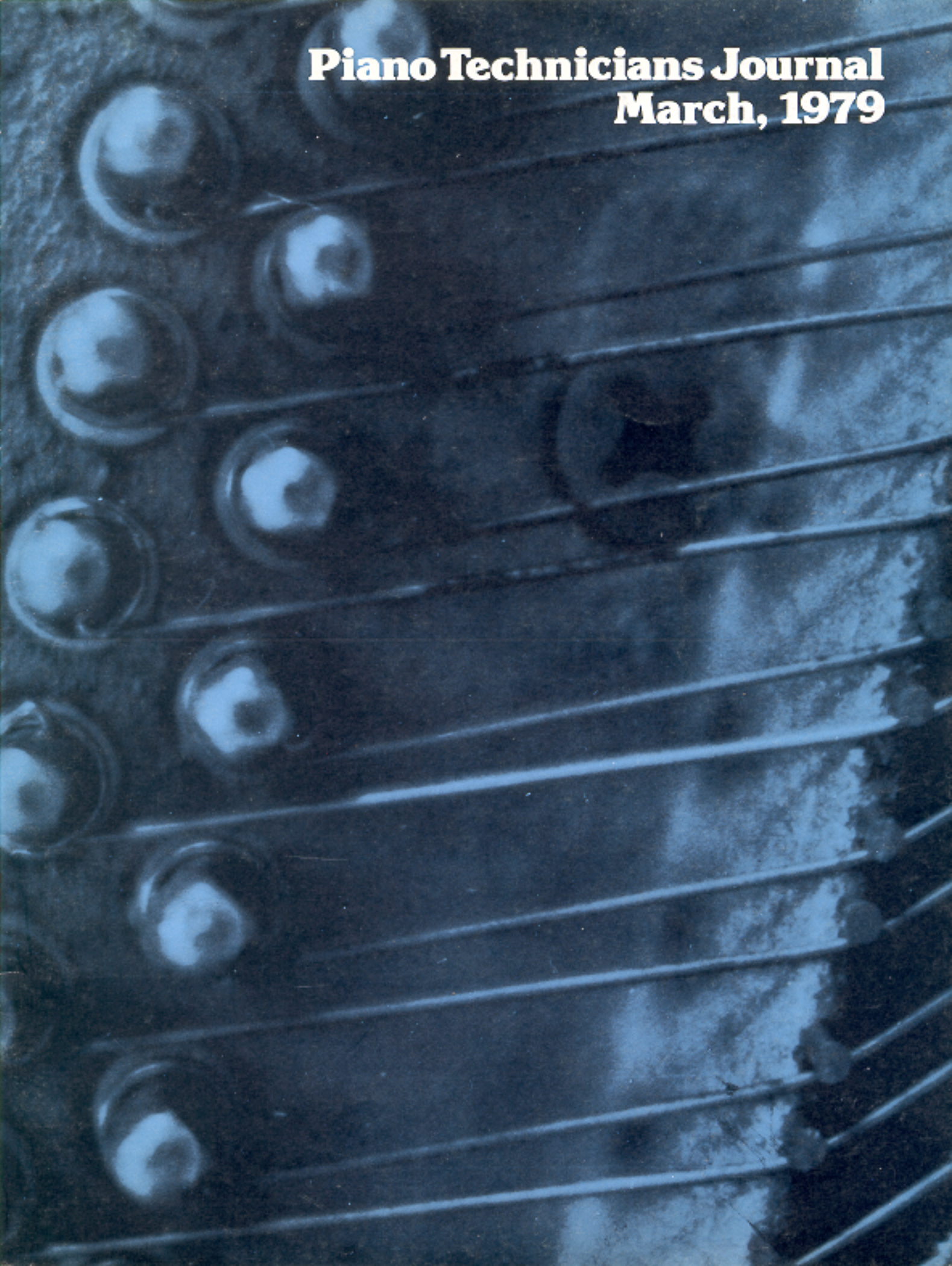
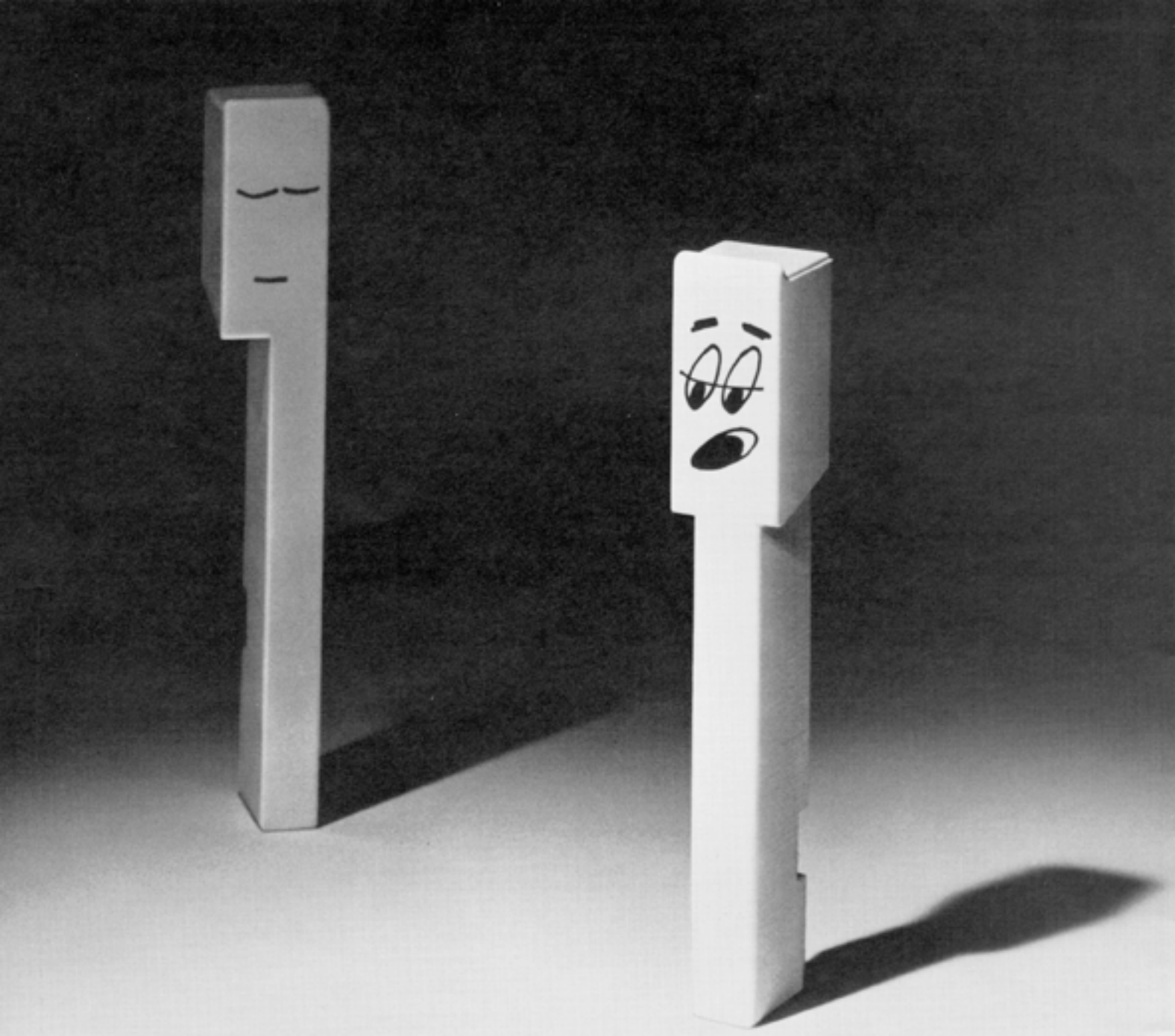
Piano Technicians Journal
March, 1979





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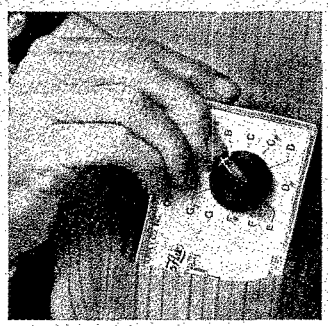

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Piano Technicians Journal

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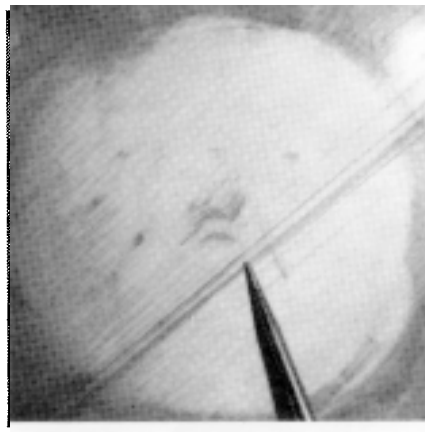
Articles



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EDITORIAL

There was once a zoology professor. He was a world renowned expert on the subject of worms. Indeed, he was so preoccupied by this subject that he could hardly talk about anything else. Day in and day out he deluged his students with data about worms, worms, worms.

One day a student contingent came to see him and made an appeal to get on with other subjects since worms had long ago become quite monotonous. The professor finally relented and agreed to change his subject. Elephants were suggested, so the professor agreed.

The next day the professor started off by explaining to his students that elephants were large beasts known as pachyderms and were found primarily in Asia and Africa. He further explained that they were particularly charactertized by huge ears and wormlike trunks. He then went on to say "Now worms are divided into the following classes. . . ."

A subject which preoccupies me, and one which I will share with you for a moment, is the plight of the small businessman in our current complex socioeconomic climate. The average member of PTG is a small businessman; hence this subject appears to be appropriate.

First a few facts. There are approximately a million and one-half corporations in the United States; 1 percent (or 15,000) of these control over 80 percent of the assets in this country; 500 control 50 percent of the assets. The 500 largest corporations have ten times the assets and sales volume as the second-largest 500.

Representing the work force of well over 60 million people, about 20 million (or one third) work for the largest 750 corporations. Of all workers, 22 percent work for the government. (A few years ago it was 20 percent.) In other words, one half of all workers either work for the government or for the 750 largest corporations!!

What chance does a small businessman have today to survive? Probably as much as a caveman had 9000 years ago. A CPA wrote a book sometime back called *Where Have All the Wooly Mammoths Gone?* He likened the plight of the small businessman today to the caveman of antiquity. He explained that the solution to their problems of survival was to band together; combine their strength; and innovate weapons, defenses, and new methods of doing things for the common good.

Isn't survival what our Guild is about? We get together for the same basic reasons, but with considerably more sophistication. This is why the unions were formed to combat big business and oppressive working conditions; and this is why laboratory technicians, nurses, and other paramedical personnel get together to upgrade and improve their lot in the hospitals. The problem of survival is why millions of business owners form trade and professional associations — to protect their rights, increase their ability to withstand unfair competition and oppressive governmental regulations, and fill in the voids of information and training with which so many are faced.

Getting down to economics, PTG (like other businesses) hires secretaries, bookkeepers, and clerical help. From time to time, we all have need for tradesmen, service representatives, and professionals. The amount of money we can pay our employees (and those who provide us with service) is primarily limited by the amount of income we are able to generate; after all, the small businessman just gets what is left at the end of the month.

Harry Berg, editor of the Los Angeles Chapter's "Chapter Notes," recently reported on a program presented by Fred Odenheimer at a chapter meeting entitled "It Ain't All Yours!" Fred's presentation gave some facts and figures in two vital areas of interest — **income** versus **expense**. The figures were supplied as being applicable for a "typical piano technician" (if there is such a thing!) and are most interesting. In the final analysis, he estimates that the "average technician" receives about $8.80 per hour for his time and skill. We are running a detailed account of this program as he outlined it in the "Update."

Let's look at a few facts. Carpet cleaners in Seattle earn $17.50 for their time and $27.50 for the use of their truck and equipment. Washing-machine repairmen earn $18 for making the trip and $30 per hour in suburban Seattle. A recent memo tells us that the hourly price for an architect's services has risen to $45 per hour, and lawyers are now charging $60 to $90 per hour.

How much do plumbers, electricians, and truck drivers earn for their work? How can we compete if the big corporations and the government set the wage standards for us? How can we match the government's retirement, health and welfare, insurance, vacation, and other overly generous employment benefits? We can't of course, because we are restricted somewhat to small fees for our work and limited markets for our goods and/or services.

So what do we do? We do like the caveman did. We stick together. We innovate, learn, and function as a team instead of a lone voice in the wilderness. It was once said that a **beginning** is when people come **together. Progress** is when people **stay together. Success** is when people **work together.** Let's keep that ever uppermost in our minds.

— DLS ■

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DON MORTON

PRESIDENT'S REPORT

The other day, during a tuning lesson, an old-timer interrupted with this remark: "Why be so critical? You know the piano will be out of tune tomorrow or the next day." He's right of course, in the sense that the piano will not stay perfectly tuned very long. (For that matter, it is impossible to tune a piano absolutely perfect in the first place.) What, then is wrong in his concept of tuning? — his attitude. Suppose your doctor had this attitude toward helping you get well; he would then say, "Why get well, you're going to die anyway."

Let's talk about attitude. Our attitude is important if we expect fulfillment and success. The dictionary defines attitude as a state of mind or feeling with regard to some matter. The important words here are "mind" or "feeling." Is it possible to change our attitude? Yes, it certainly is possible, but to meet with any measure of success we have to *want to change*.

Recently it was my sad duty to fire an employee. For one year I tried to help this person help himself; he was likeable and his workmanship was good. But, there were problems, not the least of which was absenteeism. Finally, I conceded that I could not help him change. My answer to his final question, "Why are you firing me?" was attitude.

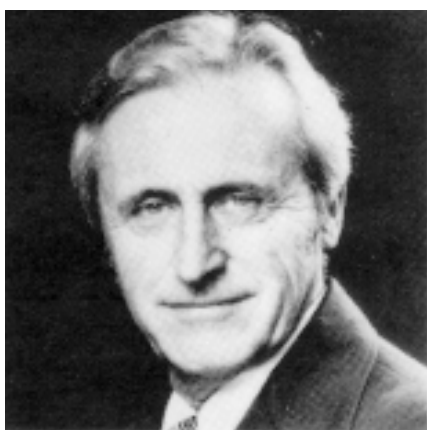
A bar which I pass every evening (notice I said *pass*) on my way home from work has a sign which states, "Attitude Adjustment Hour — 5:30 to 6:30 p.m." Unfortunately, that type of change is a trap. Booze will (and does) change your state of mind, but it compounds the reasons our attitude was wrong in the first place. The next day the same circumstances and stresses are present — plus the depressed feelings of the hangover.

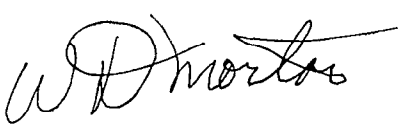
To really change our attitude for the better we must begin with a clear and forthright analysis of why we think and behave as we do. Each of us has our own little private set of rules which we have developed based on experience, training, and environment. At the very heart or basis of our rules is the struggle for survival. Combined with survival is a need for love, companionship, and recognition or self-expression. The psychologists tell us that there are two basic emotional needs which must be fulfilled if we are to maintain the desire to live: (1) the need to be loved and appreciated by someone someplace, even if it is only a pet animal; and (2) the need to feel useful. If either or both of these needs are unfulfilled, the reasons for living do not seem important. Imbedded, then, in our own private set of rules are these very personal needs. They are so personal the tendency is to place them on a competitive level with all of our daily experiences, always making sure the personal needs are receiving proper attention. It is generally agreed among those involved in the behavioral sciences that a giant step forward is accomplished when we break out of the small self-centered world and quit placing our personal needs and recognition in first place. As you might know, this type of change does not come easily, but it can happen. After all, attitude is a state of mind, remember?

I am concerned about people's attitudes, especially regarding morals, marriage, home, government, and the future. I hope you are also concerned about these conditions, and the general public's attitude regarding them. A typical picture of today's average working American is an employee who is the first one out the door at 5 p.m., rushes home and reaches for their favorite drink while flipping on television, then spends the rest of the evening watching television and criticizing the government. Thank God not all attitudes fit this picture; but the point is *that too many do*.

On the other hand, there are many great changes, events, and discoveries taking place constantly. Rest assured these accomplishments would not transpire if it were not for the "doers" and the "positive thinkers" — those who have moved out of self-center by taking charge of their attitude. Someone once said that you can measure a person by their conversation: "Small people talk about themselves, mediocre people talk about people and places, great people talk about things and ideas."

Attitude may not be everything to everybody, but show me a happy successful person and I will show you an attitude denoting unselfishness, appreciation for others, and a willingness to work towards the preservation of the things granting freedom and security for all. ■





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JACK KREFTING, TECHNICAL EDITOR

TUNER-TECHNICIANS FORUM

Suppose you were flying in an airliner, when suddenly you noticed a crack appearing in one wing. You holler for the stewardess, who assures you that everything is all right and then runs toward the cockpit. The aircraft immediately begins a descent, and a voice on the intercom advises the passengers that an emergency landing will be made at the nearest airport. Meanwhile, the crack widens. The plane shakes violently, but somehow lands safely. You watch while a crew of workmen applies some kind of putty to the crack, sands it down, and applies a coat of aluminum paint to the repaired area. It glistens like new, and the voice on the intercom announces that the plane will take off in 5 minutes. **Question:** *Will you remain in the plane?*

Neither would I. Yet, in our own field, we often see soundboard repairs that can only be described as cosmetic. Like the workmen in the fictitious story above, the piano technician who made such a "repair" obviously was thinking mainly of the outward appearance rather than structural integrity. While the true craftsman's work is pretty to look at, that outward beauty is only the frosting on the cake.

In order to work properly, a soundboard must satisfy four basic requirements: (1) It must have good tonal characteristics for proper dispersion and amplification of sound. (2) It must have sufficient flexibility for freedom of movement. (3) It must have sufficient stiffness to withstand the pressure created by downbearing. (4) It must have structural integrity, meaning that glue joints between flitches must be solid, as well as those between the board and its attendant parts — ribs, bridges, bellyrail, and rim.

To satisfy the first requirement, the manufacturer of high-quality pianos will pay quite a bit of attention to scaling the board before it is installed in the case. Scaling is often thought to consist solely of wire diameters and speaking lengths, but there is more to it than that. A very important part of scaling involves the placement and shaping of the ribs, including the thinning of the rib ends. Of equal importance is the manner in which the soundboard is thinned. The draftsman or designer knows that thinning will provide greater flexibility, but only at the expense of strength.

If the board is thinned for maximum flexibility, it will cave in under the downpressure of the strings, which amounts to hundreds of pounds. If the board is made thick enough to ensure crown maintenance under any and all conditions for the life of the instrument, it may be too stiff to respond. So, as in string scaling, a compromise must be reached. The areas that can be safely thinned are carefully delineated on a pattern, and the "island" thus created is drawn on the soundboard. The bellyman thins the board outward from the island, checking his work with an outside caliper at various check points.

Unless we install a new board at the time of the rebuilding job, we are concerned primarily with the fourth requirement, that of structural integrity. We can't do much about the original scaling, but we can certainly make sure that everything is buttoned up tightly. Cracks in a soundboard are the most visible candidates for repair work, but in importance they rank a distant fifth — well behind loose ribs, bridges, edges, and compression ridges.

Before any repair work is done, the board should be thoroughly dried so that it will shrink to its practical minimum dimension across the grain. This can be accomplished by the use of a small electric heater placed under the piano. Heavy moving blankets draped over the rim will concentrate the heat in the soundboard area while allowing the moisture to escape through the cloth. Plastic drop cloths will not work because they keep the moisture contained inside. The amount of time required to bake the board depends on its current state of dryness (time of year), and also on the size and temperature setting of the heater. As a rule of thumb, bake until the cracks approximately double in width or until you hear a popping sound (a rib letting go), whichever comes first. Keep the heat on during the repair procedures.

If the crown is subpar, temporary wooden wedges can be tapped between beams and ribs toward the center of the board, pushing it upward. The heat will tend to warp the ribs upward a bit, and any cracks will be widened a bit. When the shimming is done, the crown will be somewhat enhanced because of the wedges. Care should be taken, though, not to wax overenthusiastic when hammering wedges in, because if you crack a rib you're worse off than when you started. A judicious tap or two is indicated, not a home run blow. As the board shrinks with the heat, the wedges will become even tighter, but leave them alone. After all repairs and shimming are done, and the heat is removed, the board will belly up and the wedges will practically fall out. That will prove an increase in crown, in case you needed reassurance after all that work.

Check the edges of the board all around to be sure it is glued solidly to the rim and bellyrail. If it isn't, reglue it. To clamp the joint, take your choice of three options: clamping, fastening with screws, or weighting. Along the bellyrail, clamping is easy because the ceiling of the damper action cavity provides good purchase for an ordinary C-clamp. Lacking this, the guide rail itself can be used as a clamp, with shims if necessary to compensate for areas on the bottom of the rail that do not touch the board.

Around the rim, panhead sheet metal screws are ideal for clamping purposes. The flat underside of the head will pull the board down without splitting it as a flathead screw might. This is a more positive clamping action than would be provided by weights, and is an alternative to the investment in special rim clamps or a go-bar deck. So long as the screws are not visually unattractive or interfering with the positioning of the plate, they may be left permanently in place.

Next, the ribs should be inspected for any possible separation from the board. If there is separation, it will usually occur in the vicinity of a crack in the board. One way to detect separation without even climbing under the piano is to run a finger back and forth across the crack. The slightest difference in the level of the board from one side of the crack to the other is a sure indication of separation.

Any separation anywhere should occasion a thorough inspection of all glue joints, because whatever caused one joint to fail has probably affected other joints as well. If a rib has separated near a crack in the board, the other ribs that intersect that crack are usually loose also.

One way to refasten loose ribs is to use rib jigs like the one illustrated in our January issue on page 21. Drill a small hole (1/16 inch or smaller) through the center of the crack, all the way through the rib. Run the wire through from the bottom, and position the jig over the crack. Put the wire in the becket hole and turn the pin enough to take up some slack, but don't tighten it yet. Repeat this process for each rib along that particular crack. You want to glue and clamp all of them at once because, if one rib is tightened before glue is applied to neighboring ribs, there will not be enough clearance to get the glue between rib and board.

Apply the glue with a thin piece of metal, such as a flattened piece of piano wire, then tighten the clamps. It is very important to keep the heat under the board during the entire procedure, because the moisture in the glue will have a swelling effect on the wood anyway and we want to minimize this.

There are other ways to refasten loose ribs than the method described above. A go-bar deck is probably the best way of all because its use requires no holes at all in the ribs; its disadvantage is its cost. The other methods require some arrangement of screws, bolts, or dowels, with a relatively large hole in the rib. The more wood removed from the rib, the more it will be weakened. Even if such holes are subsequently filled with wooden dowels or plugs, strength is lost because the continuity of the grain is interrupted. The other disadvantage of these methods is that the completed repair is visible. With the wire-and-jig method, the tiny hole will be completely hidden by the shim from above, and its weakening effect on the rib is probably negligible.

In my opinion, soundboard toggles should never be used. They may be convenient to use for on-the-spot repair work, but the permanent damage caused by a 1/4-inch hole through the rib outweighs any convenience, at least to me. This is how I would rate the various methods.

(1) *Excellent:* Go-bars on soundboard, with ribs supported

(2) *Very Good:* Rib jigs with wires passing through tiny holes in ribs

(3) *Fair to Good:* Wood screws (the smaller, the better) through board into rib

(4) *Fair to Poor:* Bolts used to pull the board, bolt holes then doweled

(5) *Very Poor:* Soundboard toggles

Bridge refastening is another matter entirely. For one thing, we are dealing with hardwood; and for another, the board doesn't vibrate under the bridge like it does elsewhere, so screws and dowels added here won't hurt a thing. In the case of a canted bridge, refer to our January "Forum," pages 20 and 21. For a simple refastening, drill for screws and refasten with glue if at all possible. Sometimes there is simply not enough clearance between the bridge and the board to get glue into the joint without damaging one or the other. In such cases, simply use screws with buttons from underneath. Remember to stay clear of the bridge pins. If the bridge is 1-1/4 inches high and the thickness of sound board and button is, say, 9/16 inch, then a 1-1/8-inch FH No. 8 wood screw would be just about right. If it were much longer, it could interfere with the bridge pins; and if it were much shorter, it wouldn't get enough of a bite in the body of the bridge.

Shimming has been called an art — maybe rightly so — mostly by people who don't know how, It is a fairly high-skill operation, but certainly not beyond the capabilities of an experienced technician who has a reasonably low klutz factor and understands his tools and materials. First, we must understand why we shim a crack at all.

We shim to restore the structural integrity of the soundboard. We fill a gap between two pieces of wood with another piece of wood of the same type and glue it tightly in place. If the shim extends all the way through the board and the glue joint is solid, it becomes a part of the board rather than just something added to the top for the sake of appearance. It becomes another flitch, though admittedly a very narrow one; but there is no good reason to consider a properly shimmed board any weaker than a new one.

By adding wood where there was none, we have also added minutely to the effective vibrating area. And if we do the job neatly, we have also improved the appearance of the board — which is a reasonable secondary objective.

Picture A shows some of the hand tools commonly used in soundboard repair. Clockwise from the top: A triangular shavehook, particularly useful for scraping bridges; soundboard scrapers made from plane irons; shimming knives, narrow and wide

angles; a regular knife; a triangular burnisher for rolling wire edges on a scraper blade; a small razor knife; and a chisel.

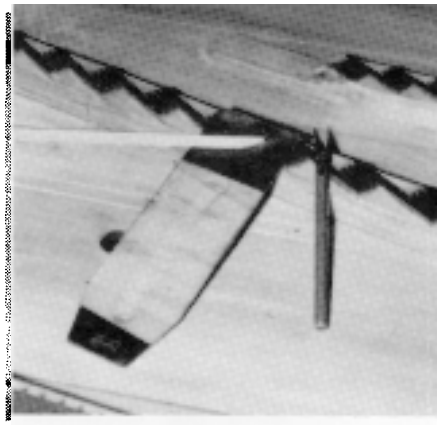
Before shimming, it is important that the soundboard and the shims be dried to the same moisture content. If the shims are drier than the board, they will rise above the board's surface a few days after the board is finished; and if they are wetter, they will recede. The easiest way I know to equalize the moisture content is to lay the shims on the board and leave them there during the entire time the board is being baked.

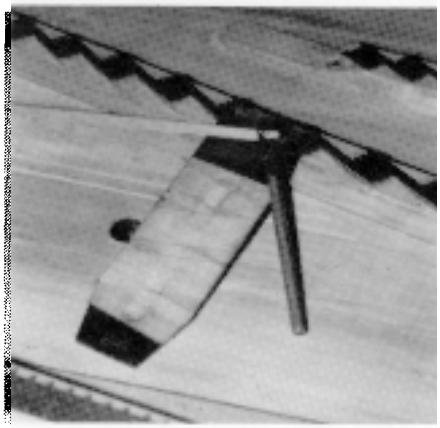
Before starting, be sure all tools are sharp. Spruce is not a forgiving material like maple and will behave badly if assaulted with a dull edge. Maple can be pushed and plowed quite a bit, but spruce must be cleanly cut.

Examine the cracks in the board. A crack that starts at the rim and terminates at a bridge or another part of the rim will require a double-ended shim, the most difficult type to fit. A crack that starts at the rim and runs to the bellyrail requires only one fitted end, because the other end will hang off the front edge of the board to be trimmed later. This is much easier to fit. The easiest of all is a crack that starts at the bellyrail and terminates at a nosebolt hole, as neither end need be fitted. If a crack starts at the rim in the area of the rear lid hinge and runs toward the bellyrail but stops somewhere in the middle, it should be cut all the way to the bellyrail. If it isn't, the crack will almost surely open up beyond the end of the shim at some future time. The unevenness of expansion/contraction between the shimmed and unshimmed lengths of the annular ring line is compounded by the added moisture of the glue in the shimmed portion, which usually causes the previously uncracked portion to open up within hours or days. Had the technician extended the crack artificially and shimmed the entire length of that grain line, the expansion/contraction would have been in balance, and no further cracking would have occurred. This is a very common error.

There are various ways to fit the end of a shim, and I won't presume that my way is the only good way to do it; but it works for me, so I use it. I shape the end like the bow of a boat (Picture B illustrates the first step). Using a hobby knife or other very sharp blade, carve a radius on the bottom of the end of the shim. Then point the end by relieving the sides as illustrated in Picture C, maintaining the angle of the sides of the shim.

Fair the end (make a smooth, even curve), both upward and inward, on both sides with a piece of sandpaper laid face up on the board or other flat surface (see Picture D). Assuming this is a single-ended shim, the preliminary preparation is now complete.





Using a shimming tool, cut the crack to a V-shape which will match the angle of the shim. Be sure the tool is sharp, or it may merely spread the crack without cutting. Spreading only crushes wood fibers, creating dead pulpy wood on either side of the shim. This dead wood will crack during the next dry season, so if you spread the crack you have created two more potential cracks while repairing only one. Such techniques are more reminiscent of federal bureaucracy than of good workmanship.

Be sure the shim goes all the way through the soundboard. Fit it without glue, notching it wherever it touches a rib. If the grain of the board is wavy, tight spots will have to be carefully relieved with a knife. If there is a crossing grain pattern at the surface of the board, some annular rings will have to be severed individually. This is the tricky part, and the technician is sorely tempted to resort to some kind of resin filler at this point. Nonwoodworkers have even attempted to justify their use of fiberglass or other resins for shimming by claiming that the fiberglass has equal or even superior sound transmission properties to those of spruce. If that were true, one wonders why entire soundboards are not molded from such materials. Resist the temptation to use synthetics, and I believe you will have a better job.

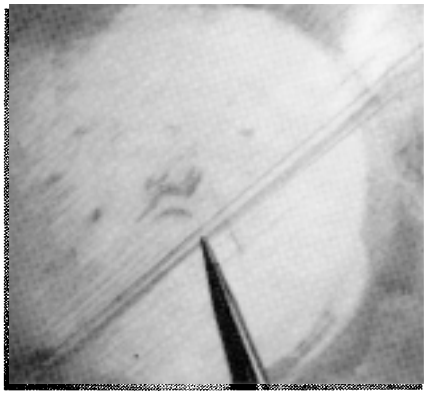
When the shim fits tightly, with no gaps anywhere, it may be glued into position. The glue joint should be clamped with go-bars or weights. Large tin cans filled with old tuning pins work well for this purpose if go-bars are not available.

Techniques vary, but I prefer to do all shimming before scraping the board. The reason for this is that the glue squeezes out on either side of the shim, and on bare wood it has a tendency to lift the grain. By leaving the old varnish on while shimming, this problem is avoided because the glue won't stick to the old varnish. Before applying glue, make a pencil mark on the board at right angles to the shim and a corresponding mark on the shim. This allows perfect alignment of the shim even though the glue hides the ends of the V-cut in

the board. Another useful tip involves marking the shim according to grain direction before cutting it to fit, especially if one end will be butting against the rim. Install it so the rising grain is toward the rim, thus providing plenty of clearance for the chisel when trimming the top of the shim after installation.

Trimming is easy, provided you go the right direction. If unsure of this, test the shim by making a tentative cut in the top of the shim. If the blade wants to go deeper into the shim, you are going the wrong way. Sometimes the grain will wave up and down. If this occurs, trim it with a very sharp chisel at a 45-degree angle rather than parallel with its length. Don't try to hog too much material in one pass; let the feel of the blade in the wood warn you of any change in grain. You may have to change directions two or three times on a single shim. When the shimming is complete, turn off the heater and remove any wedges under the ribs.

Picture E shows a compression ridge, with its accompanying multiple cracks. Obviously, we cannot use standard supply-house shims here, because we would end up with shims on top of shims and the underside would be kindling. This is dead pulpy wood. It must be removed and replaced with new wood. What is needed here is either a giant shim about an inch wide or a new section of soundboard material. We will make our own shim from select, seasoned, quartersawn spruce that has approximately the same annular ring count as the wood around it. Our new shim will be far too stiff to bend and, since we are cutting such a wide area out, we cannot follow the grain line; hence, we cannot use a regular shimming tool.



With a straightedge, mark the area to be cut out and cut it very carefully at an angle (like a shim) with a very sharp blade. Carefully pull it loose from the ribs and use it as a rough pattern to make the new shim. Cut the shim oversize and gradually file or sand to fit. Clean the old glue from the tops of the ribs and be sure the bottom of the new piece will seat firmly on both edges as well as on the ribs. Glue it in place with weights, jigs, or go-bars. When dry, trim and sand it flush with the board. Gaze on the results with pride, because you have just accomplished the most difficult of all soundboard repairs.

PLASTIC KEYTOPS

Question: *What causes plastic keytops to crack? I just recovered a set of keys that had anywhere from one to eight cracks in almost every white key. The cracks were all crosswise (parallel to the keyslip) and some of the pieces of plastic were curling up at the edges. The wood seems fine underneath. Also, I have a minor problem with the new molded keytops. They look great but they are so much thicker than the old ones that I have no clearance at the nameboard felt. Should I raise the key strip or file down the back edges of the keytops?*

Answer: The cracking you describe probably was caused by a chemical reaction of some kind. I saw the same cracking condition 3 or 4 years ago in a 25-year-old spinet. This particular piano had not been played for six months due to the illness of the owner, and the key cover had been kept closed during that period. It had been serviced twice a year since it was new, and had not been abused in any way. It was in a humidity-controlled environment, and the regular technician had even installed two moth cakes (one at each end of the action) six months prior to my visit. The only reason I was called was that the regular technician couldn't give the customer an answer to the cracking problem.

The moth cakes, manufactured by a reputable firm which markets brushes and other household products, were inscribed with the printed warning: DO NOT HANG OVER PLASTIC TILE. For want of a better answer, I concluded that the keytops had been damaged by the fumes from the moth cakes. The continuously closed key cover could have concentrated the fumes in the area of the keytops, if indeed the cakes were the cause. I removed the cakes and had the keys recovered, and there have been no further problems with the instrument.

The only other cause for such a condition, to my knowledge, would be the application of silicone. Silicones are present in some polishing products, and are coming into widespread use as a lubricant. Unfortunately, they possess two characteristics that make their use risky at best in piano work.

In the first place, silicones will not stay where they are put. They have a marked tendency to creep and, since they are invisible, the technician can't tell where they have gone. Silicone solutions cannot be stored in plastic bottles because they will creep right through the walls of the bottle, so a glass bottle with a rubber stopper is needed. A metal jug will serve as well, provided the lid is entirely made of metal, rubber, or glass; even the presence of a plastic gasket in the lid allows the silicone to escape.

The other disturbing property of silicone is that it is a stress-relieving agent. When a keytop is glued to a key, various invisible stresses are inevitably induced in the plastic. The application of silicone in any form to the keytop will cause it to crack wherever it is stressed.

Silicone, once applied, cannot be removed by washing or any other means. It cannot even be sanded off because of its penetrating characteristics. If applied to any part of a piano, it becomes a part of the instrument. It can even penetrate and ruin a pinblock, or cause bass string windings to loosen. To my mind, this more than offsets any benefits in lubrication or polishing which silicone products possess. I do not recommend their use around pianos.

The second part of the question involved the installation of molded keytops. These are likely to be anywhere from three to four times as thick as the original keytops, so it is small wonder that a clearance problem exists. Raising the keystrip is likely to cause interference or misalignment with other case parts, so that is not the best answer. Filing the back ends of the keytops might work, but that will not solve the problem of the sharps being swallowed when depressed. At full dip, the sharp should be 1/8 inch above the naturals. If a thicker keytop material is used on the whites, the sharps will be too low in relation to them. If the technician attempts to compensate for this problem by adding punchings to the balance rail under the sharps, two new problems arise: (1) The action geometry between key and whippen is altered for the sharps, especially in a direct blow action; and (2) the wood of the keys just behind the sharp tops will also contact the keystrip, because the entire key was raised instead of just the keytop.

The right way to replace white keytops is to mill the keys down (remove wood) so that the top of the new keytop is the same height as the top of the old keytop. The thicker the new keytop material, the more wood must be removed. Similarly, old fronts must be removed if new fronts or front-top molded units are to be installed; otherwise the new fronts are likely to bind against the keyslip. The dimensions of the key are thus maintained, original regulating specifications will still apply, and the keys will fit into the piano.

Unless a technician owns specialized key-recovering equipment, he will usually find that it is economically impractical to do his own key recovering. In the time it takes me to properly recover a set of keys, I can tune five or six pianos, install a new pinblock, or install and regulate two sets of grand dampers. Considering the low prices charged by key-recovering shops, I simply can't afford to do my own key recovering. Our time is the main thing we have to sell, so we might as well sell it at a reasonable profit if we can.

When sending keys out for repair or recovering, It's a good idea to insure them. Willard Sims once related a sad story about a lost set of grand keys. It seems he and another technician were rebuilding a piano, and the trucking company lost their keys. They had to take measurements, make a scale stick, and ship the keyframe to an action manufacturer. When the new keys were delivered, they were bushed and covered — but without capstans, backchecks, or wires. The trucking company paid $500 as compensation for the loss. This amount just barely covered the technicians' expenses and time (without profit); that was several years ago.

Sims isn't the only one with a sad story to tell. The following letter comes from Jim Geiger of Springfield, Ohio. Jim doesn't say whether Handel's *Water Music* is a part of his performing repertoire, but. . . well, I'll let him tell it:

In the December 1978 issue, you advise the use of heat to take off plastic and ivory keytops, I agree. However, a word of caution is in order. If the keytop looks like plastic, but is out of a piano more than 30 years old, it is probably celluloid and not plastic. Celluloid has a very low combustion point, and a steam iron turned to medium heat is more than hot enough to catch it on fire. It blazes way up, is very hot, and makes a very black, sticky, acrid smoke. My experience with celluloid happened several years ago, and I was lucky not to burn my whole shop. I extinguished the fire by throwing the keys in the john.

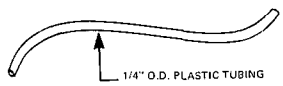
Geiger goes on to offer a solution to the damaged keytop problem brought up by Walt Thatcher:

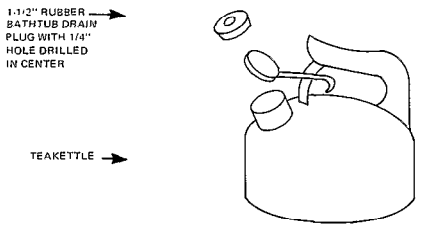
. . . I often obtain good results by repairing them with epoxy. I keep several kinds and colors of epoxy around, and some whitener can be mixed in. If the damage is a chip out of the end of the keytop I use tape to form a mold, fill with epoxy, let set, and file to shape and buff if needed. If it is a cigarette burn I clean out the char, fill, let set, file and buff. Even if the epoxy is slightly off color, that is better than to have a whole keytop flashing away.

WARPED KEYS

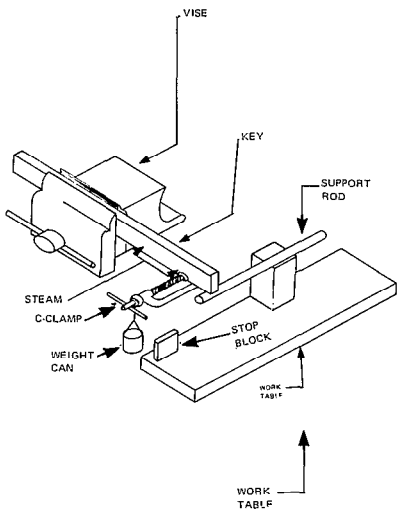
Occasionally we find a key that is warped or twisted to such a degree that it must be straightened with steam. This is the way I do it.

To make the steamer, use an ordinary closed metal teakettle with a 1-1/2-inch rubber tub drain plug jammed in the opening. Drill a 1/4-inch hole through the plug and insert a length of plastic tubing. When the water in the teakettle is heated over a hotplate or burner of some kind, the steam will come out of the end of the tubing, to be directed wherever needed. The steamer can be mounted under or near a workbench (see Figure 1).





If the key is twisted, do not attempt to untwist it by steaming the entire length of the key. If you do, the pressure exerted by the jig will probably break the key in half at the balance rail hole. Instead, clamp the key firmly near the key button and twist one or both ends (see Figure 2).



Note that a C-clamp is used as a twisting lever, with weight added to pull the key back into alignment. Note also that a stop block is employed to prevent the key from being twisted too far. The support rod (an old lyre rod or something similar) is very important when using weights to twist the key. If no support is provided, the steaming and the weights will cause the key not only to untwist, but also to warp downward. If that happens, you have created a new problem while solving the original one.

Before applying steam, check the weight to be used. It should be heavy enough to cause a slight twist in the key without steam, but not so heavy that wood fibers are snapped. A coffee can on a string works well, because weight (old tuning pins or key leads, etc.) can be added or removed readily as necessary. The actual weight depends on the size of the C-clamp used because, not only will the leverage angle increase with clamp size, but the weight of the clamp itself becomes a factor. A standard reach clamp larger than 6-inch capacity may need no additional weight whatever. In general, the shorter the span of key length to be twisted (the distance between vise and clamp), the more weight required.

When the steam has been applied continuously for a couple of minutes or so, the key will begin visibly twisting. Don't let it go too fast; remove some weight if necessary, and keep the steam hose moving around to all surfaces of the key. When the key has twisted a bit beyond the desired point, the clamp should touch the stop block. Remove the steam and let the key set awhile in that position before removing the clamp. If the key is not perfectly straight when the clamp is removed, adjust the stop block height accordingly and repeat the steaming process.

The steam may have loosened the keytop, and almost certainly will have loosened the bushings. Rebush when dry, and check the keytop.

CENTER TIGHTNESS

Question: *Which of the centers in a grand whippen should be the tightest?*

Answer: The jack center. The support flange center is next, and the repetition lever flange center is the loosest. Let's look at the six centers in the grand action for a moment. Rather than use the terms *tight* and *loose*, let's talk in terms of *firm* and *free*.

Because of the short distance between the knuckle and the hammershank center, as well as the shock of string rebound and the weight of the hammer, the hammershank flange center must be firm. How firm? That depends on the weight of the hammer. Since the bass hammers are heavier than those in the treble, the centers in the bass should be firmer than those higher in the scale.

To check for proper torque, remove the flange from the rail and hold it with one hand in a vertical position. With the other hand, swing the hammer and shank to a perpendicular position (that is, parallel with the floor). Let go of the hammer and watch it swing back and forth. Count the swings, saying a new number each time the hammer changes direction (even the slightest movement at the end counts as one swing). It will go back and forth like a pendulum and stop. If it stops after seven swings, it is exactly right. Fewer than five swings is too firm, and more than nine is too free.

The jack center is second in firmness, but must be far freer than that of the shank flange. The spring tends to mask the problem of a tight jack center, and on some pianos the spring is not easily removable without bending it out of shape. This center must be firm enough to drive the knuckle reliably without rocking in its cradle, yet free enough to provide instant repetition.

Third in the order of firmness is the whippen support flange center. To test the torque, remove the whippen and hold it so the flange is roughly horizontal. Now put the flange screw in its hole. The flange should move downward of its own weight with the addition of the screw.

The other three centers (repetition lever flange, underlever top flange, and underlever flange) should be very free. With all springs and weight removed, none of these should register any resistance that could be measured on a gram resistance device. For those without such equipment, it is difficult to describe an alternate test; but in the case of the underlevers, there is one: With the damper action removed from the piano, any rocking motion of the entire assembly should cause the top flanges to fall back and forth quickly, with no hint of hesitation or resistance. A swinging motion of the tray should cause all underlevers to swing also, assuming the tray is upside down and helper springs are disengaged. Although all three of these centers should be very free, if I had to select one center to be the most free it would be the underlever top flange center.

PLATE STRESS

Hugh J. Manhart, Omaha, Nebraska, writes:

. . . one evening on PBS-TV, I saw a program that combined the uses of the laser and the hologram principle to demonstrate, or to locate and show, the different areas of pressures on metal and other materials. One particularly outstanding example was a plain saucer (or cup) where the reseacher just touched the saucer and the lines of refraction (or whatever they are called) plainly moved or bent, demonstrating the ability to show the slightest change in pressure.

This whole experience seemed to be adaptable to a large area, and I began to wonder if it could be used to study the plate of a grand piano when the string tensions are changed during tuning. The refraction lines would be visible on the surface of the plate. If it would work, what a wonderfully clear picture it would give to all the controversy about what is the best way, or sequence, to tune a piano (i.e., where to start and where to finish in order to maintain the proper balance and end up with a stable tuning).

As you know, each tuner thinks his way is best, yet **none really knows,** *nor has any scientific means been developed to actually demonstrate which way* **is** *best. I wish I knew who con-*

ducted the experiments on TV. Maybe you could ask around via the Journal. *Meantime, I will call our local ETV station and ask them if they can dig up any names from their records.*

I agree, this would be a fascinating study, especially if it would give an indication of the total stress on various parts of the plate. If so, it would be especially useful to the piano designer. Plates could be made stronger without being heavier by removing excess iron from one spot and adding it to a more highly stressed area.

It would be interesting for the tuner to be able to observe changes in plate stressing during tuning, but I'm afraid it wouldn't give us all the answers we might like. While plate stress is undoubtedly a factor in tuning stability, the soundboard is probably an even greater factor because it moves more. Unless that and several other variables (string elasticity, friction, pin torque, and pin spring come immediately to mind) could be included in the equation somehow, the refraction lines would only tell part of the story.

One intriguing possibility would be to use this technology to determine whether a plate is overstressed at any point during chipping or pitch raising or, for that matter, unstringing. Some technicians maintain that one should never unstring a piano without carefully and evenly letting down the tension; others simply cut the strings off the piano, starting at one end and working straight to the other. This latter method is unquestionably faster, but is there a risk of plate breakage here? It certainly stresses the plate unevenly, and it would be interesting to know just how much risk is taken in so doing. As Manhart says, we just don't know. At least I don't. If any reader can shed further light (or even refractions of light) on this subject, we will all be in his debt.

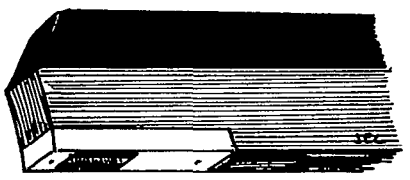
Technical Tips

With due apologies to Parkinson, here is a parochial adaptation of his famous law: *Every piano shop accumulates enough pianos, tools, supplies, and miscellaneous junk to completely fill the available space.* When did you last hear a technician say that his shop was too large? I never have. With that in mind, here is a tip from an old issue of the *Tuner-Gram*, published by a supply house:

Attach a piece of 3/4-inch plywood to an old ironing board. This makes a handy portable workbench for light-duty jobs such as key bushing work or assembling fallboards. It can be folded up and put aside when not in use.

The following item was reprinted from the *Cincinnati Newsletter*:

A key button makes a great repair for a split-out section of front rail mortise on black keys. Notch out a section to fit and glue and brad the button in place [see Figure 3].



Our next tip comes from Herman O. Koford of Los Angeles, and refers to the problem of pedal prop nuts which loosen in vertical pianos. My own remedy is to adjust the nut and add a second nut, turning it down against the first nut to lock it in place. This works, but what if you don't happen to have a spare prop nut in your toolcase? Koford has the answer:

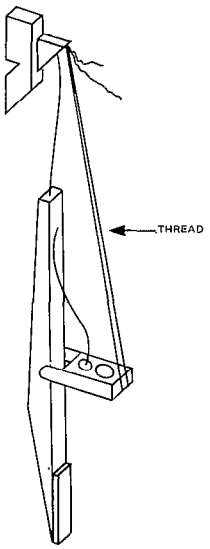
If the prop nut turns loose from vibrations, put some glue under the felt punching. The nut imbeds itself in the punching, and will not turn.

Like most good tips, this one is simplicity itself. We will have more from the inventive mind of Mr. Koford later. Meanwhile, Wendell Eaton of the Washington D.C. Chapter suggests a way to clean old ivories for spot replacement. Eaton's tip is reprinted from the *Alpha News*:

Soak ivories in water and liquid detergent for 15 minutes. Remove from solution and rinse. Place ivories between two straight blocks of wood, clamp and place in an oven at 250 degrees for one-half hour. You will have nice, clean ivories, and they won't be warped.

Our Tip of the Month is by Herman O. Koford:

It is sometimes necessary to replace a damper spring in a drop action. Removing the damper is no problem, but replacing it with the action in the piano is difficult unless it is done this way: Take a piece of thread about 15 inches long, double it and slip the loop end around the flange screw, under the flange, up over the end of the flange and wind the two ends around the set screw in the damper head [see Figure 4]. *The thread will hold the flange at a 90-degree angle and also keep the screw from falling out. Replace the damper in position, give the flange screw a few turns, then remove the thread by pulling one end off the set screw. Finish tightening the flange screw, and the job is done.*



We will hear more of Koford's ideas in future issues. Meanwhile, how about sending in some of your own tips? This section of the "Forum" is gaining popularity, judging from mail received; so we want to accumulate a backlog of good, usable tips for inclusion in future issues.

Reader Feedback

The following letter was written in response to our section on "Removing

the Cup-Shape from New Hammers" in the December issue. The writer is Ed McMorrow of the Seattle Chapter. In part, Ed writes:

. . . The description of piano tone that I prefer uses three factors which are interrelated, not totally complete, and ultimately inseparable, but for our discussion purposes we will affront cosmic unity and define it.

Brilliance — balance and proportion of upper partials to the fundamental.

Power — strength or volume of the fundamental.

Sustain — the rate at which the tone attenuates.

The surface of the hammer is the single most important source of variation in the brilliance. The mass of the hammer is a major source of variation in the power and, to a lesser degree, the sustaining character. The density of the felt has a good deal to do with the relative stability of the voicing.

A piano hammer made from wood in the normal piano hammer shape can be made to sound so similar to a normal one that even we piano technicians cannot pick it out from its neighbors. (I've done it and fooled quite a number.) All that is needed is to add a thin layer of felt over the striking surface to absorb brilliance.

This little test serves as one proof for the following "model," in the scientific term, of hammer design and function. The compression felt makes the inside of the hammer hard and dense for power. The tension felt leaves the surface a little soft to damp the higher partials.

[**Editor's Note:** The above is one of Ed's main points, as I stated that the tension felt is relatively hard and the compression felt springy and resilient.]

Felt by its very nature is good for this in that we can change its density and tension with needles or lacquer. In other words, it's adjustable. Needling releases compression and tension. Lacquering reduces tension layers. Lacquering does not increase the compression in the felt. However, it can have much the same effect as it increases the mass which makes the strings feel like the compression has been increased within the hammer.

[**Editor's Note:** I spoke of layers of felt on the hammer. As we will see, Ed disagrees with me.]

Layers in felt are somewhat fictitious and it would be better to speak in terms of grain. The long fibers tend to be stretched around the hammer, thus forming a sort of grain. Since the layers are really a grain within the felt, it is best to work within that grain. There are more effective tools than needles to use to combat the cupping phenomenon. What is desired is a uniform grain of tension felt around the surface of the hammer. Simply lightly shaping the hammers in a manner to assure continuous grain around the hammer is all that is needed.

The interface between hammer and string is of paramount importance for evenness of power and brilliance. The hammer must equally transfer its energy into the strings. A careful and fine job of traveling hammers and shanks, spacing hammers and strings, shaping hammers and leveling strings pay rich dividends in all the parameters of piano tone.

One has to approach voicing from a musical standpoint and always keep in mind that evenness of voicing is a mirage as once you hone your voicing achievements to one level your perceptions rise to another and that goal is elusive once again. Our minds learn to differentiate awareness of things at an amazing rate if we allow it. Voicing can be an enervating experience.

Understanding acoustical phenomena always has its subjective side. However, knowing a little about standing waves and learning to differentiate the power, brilliance and sustain characteristics of piano tone are needed by every voicer. A working model of hammer and piano design should be forefront in the mind of every piano technician so that one has a mental standard to refer and refine.

Our thanks to Ed McMorrow for this interesting letter. Next, from Grand Junction, Colorado, Robert E. Musser writes in reference to our item on plastic keytops. Musser recalls the late Forrest Steward's key recovering class in the 1950's in Chicago:

. . . To remove ivory he used a damp cloth and a hot flat iron. The ivories were literally steamed off and could be saved.

For plastic he used a thin sharp-edged spatula and lacquer thinner. As you say, teased them off. Be sure to check the direction of the wood grain. Go with the grain, not against it.

He made his own glue (for plastic keytops) by dissolving 3 ounces of camphor gum and 1 ounce of plastic chips in 1 pint of alcohol. It takes about three weeks to dissolve, but keeps forever. I used some today that I've had for 20 years.

This type of glue is slower to set, and does not wrinkle the 0.050-inch plastic. Glue a blank on and clamp it for 15 or 20 minutes, then put it away until tomorrow.

And finally, we hear the final chapter saga of the transient dead notes. The writer is Art Reblitz of Colorado Springs:

I just noticed the "Transient Dead Notes Revisited" in your November column, reminding me that Donald Dun in Spain recently wrote to me with the solution to his own problem.

It seems that in his old piano, the hammer shank flange bushings are made of extremely thick and soft bushing cloth. When the humidity changed, it affected the cloth so much that the impact of the hammer on the string was actually changed, altering the tone. Uneven expansion and contraction of the cloth was moving the hammer just enough to change the tone. When the cloth was replaced, the problem disappeared. This problem would probably never occur in a conventional American piano because of the thinner, harder bushing cloth.

All I can say is the pinning must have been awfully loose! We were told the instrument had been rebuilt, and now we find that the original shanks and bushings were still in the piano. Obviously, the term *rebuilt* was used rather loosely in this case (double meaning intended). Anyway, our thanks to Art Reblitz for passing the word along to us. It's nice to hear how these mysteries get solved, even though I feel a bit foolish for having scoured the far reaches of left field for a solution that was right under my nose all the time. Ah well, that's how we learn. ■

NEWTON J. HUNT

ACCENT ON TUNINING

I am writing this on a cold rainy Sunday afternoon — the kind of day that impels one to stay at home and be lazy, bundled up, and warm.

I am departing from my earlier format to share an experience that was impressive, wonderful, exciting, and an amazingly successful party.

It all began at the Cincinnati convention when I attended Owen Jorgensen's class on historical temperaments. Over the years I had been told by piano players that different key signatures had varying tonal colors and differing emotional effects. This made no sense to me, since I could hear none of it in my tunings or in their playing. I relegated the subject to the "old wives' tales" category **until** Mr. Jorgensen played Bach on a piano tuned in well temperament. I was astounded at the difference of something played in the key of F compared to something, say, in the key of E. I decided then that I would have to buy his book, *Tuning the Historical Temperaments by Ear*, and learn to tune some of the temperaments myself.

I went away from that class excited about what I had heard, but without any particular direction for my excitement until one evening a long-time friend who is a concert pianist (as well as a composer, teacher, and writer) and I were having dinner. I had heard him give an interpretation master class using a piece from the "Well-Tempered Clavier" as a subject for analysis. We discussed how different the interpretation might be if the music was played in well instead of equal temperament, and how well tempering might influence his approach to composing.

We talked about it but did nothing. Then one day I was speaking about the concepts to a new customer and friend (a young, gifted, and much sought after concert pianist) who was excited about the possibilities.

Yesterday afternoon I tuned a 4-foot 7-inch Fischer grand in equal temperament (because it is for sale and I would not like a prospective purchaser thinking ill of the piano because it was "out of tune"). I then tuned my personal Yamaha P2F studio in well temperament using Jorgensen's book and his recommended "Theoretically Correct Aron-Neidhardt" on page 311.

Two other friends (a lovely lady piano tuner who is an ethnomusicologist and a dancer neighbor) made up the rest of the party. After three bottles of wine and mounds of Hunan Chinese food, the music began. None of us had more than a superficial experience with any other mode of tuning and, as the evening progressed, it became a lesson in exploring whole new musical concepts, new areas of musical expressiveness, and astonishing new responses to old and familiar music.

Four of the six fifths are pure as are five of the eight fourths and one third. You might be able to imagine what happens to the sixths, thirds, and minor thirds. Some of the minor chords are less dissonant than some of the major chords. In playing Mozart some resolutions came out as real cliff-hangers instead of expected relief.

I am not a musician, and not a good music critic, but I do appreciate music and enjoyed exploring, with experts in the field, this "new" sound of music. The interest was so high, comments just flew back and forth. We tested and felt this or that key, experimenting with one piece of music and then another. Time slid by and before we knew it the party had continued until almost 2:00 a.m.

The consensus is that well temperament is an area worthy of exploration and development. The young concert pianist previously mentioned wishes to explore it thoroughly at his leisure and after this — who knows where it may lead! All this is to say that I had fun, enjoyed music in a new manner, and a similar project is worthwhile for a small party — or even for a chapter meeting.

I spoke to Mr. Jorgensen, who reluctantly confined himself to the following general (but not necessarily accurate — historically and musically speaking) five tuning modes: (1) For music composed from the early 1500's to 1695, use the Grammateus found on page 240 of his book. (2) Most composers (before Bach) from the early 1500's to 1722 used the Aron Meantone temperament found on page 177, except for the English, who preferred the listing above. (3) From 1722 to 1809 the Aron-Neidhardt on page 311 was used by Mozart, Hayden, and early Beethoven, as well as Bach. (4) Marpurg "I", 1809 to 1828, Schubert and late Beethoven. (5) From 1828 equal temperament began to be used, mostly as a result of scale and instrument improvements. I refer you to Mr. Jorgensen's article in the January 1978 *Journal*, and to his book for more detailed information.

A few technical observations: (1) I recommend that, if you are planning a direct comparison (as I did), use two similar pianos so the tone change does not become bothersome. (2) If you use a C fork, tune about two beats sharp so you change the basic pitch of the instrument as little as possible. (3) If you use an A fork, tune on pitch. In that case, from A tune E and from E tune C; then follow Mr. Jorgensen's procedure. (4) Preferably use a piano you know and one that has a low and well-controlled inharmonicity.

It is my feeling that the more we know about tuning, historical as well as present modes, the better tuners we all will become.

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CONN | continental music

DENNIS KURK

CONVENTION '79

In this report on Convention '79 I would like to acquaint everyone with the hotel that will harbor our activities during convention time. We honestly feel that the facilities provided us by the Downtown Radisson Hotel are amongst the best ever offered for a PTG convention. To begin, the management has informed us that the entire hotel is at our disposal for the entire gathering. This means that, providing you register early, you will be assured of a room at this hotel for your entire stay. And of course the room rates are discounted for PTG registrants, as is standard practice.

However, it is important to point out that, because of our centralized location, we are expecting a record turnout for this event. I cannot emphasize enough the fact that you would be wise to get your reservation in early. Early registration is a tremendous assist for everyone on both the local and national levels — as anyone who has ever been involved in this knows. We here in the Twin Cities Chapter would really appreciate your early response as soon as you receive your registration notice.

The hotel address is 45 South 7th Street, but I will give you full directions on how to get there under the heading of "Transportation." It should be pointed out that the Radisson is actually two facilities in one. The Radisson Hotel is one part and the Radisson Mart, which is located directly across the street, is the other. The two are connected by a skyway so that walking between the two from the mezzanine floor is the same as walking down a corridor. A floor plan of the hotel will be in your convention package and will give you a good idea of the arrangement.

The Mart is the location for nine of our teaching rooms — three on one floor (the second) and six on another (the third). Each of these rooms will accommodate up to 150 persons, so we should have no problem with overcrowding here. The exhibitors will also be located on the second floor of the Mart. The balance of the teaching rooms (plus the banquet, assembly, and Auxiliary meeting rooms) are all located on the mezzanine floor — which should make it very convenient for everyone.

A ramp for wheelchairs will be installed where needed, and I have been told that elevator controls will be numbered in Braille to assist the visually handicapped. If you need directions or information, you will find a Message and Information Booth near the registration area for this purpose. This booth is being set up for our convenience by Northwestern Bell Telephone Company. To reach the convention by phone, make a note of these numbers:

Message Center: 1-612-338-3891
Hotel: 1-612-333-2181

Additionally, other personnel will be roaming the convention area to offer assistance. You can recognize them easily because each will be wearing a large white sash with the word "Information" on it. We are also formulating plans for a Fellowship Meeting Place in the mezzanine area with tables, chairs, coffee, etc., which can be used by everyone for camaraderie. Plus we will have a piano available here on which anyone is welcome to display his or her talents.

A special room, the Gold Room, has been set aside for the activities of the Auxiliary. This is a fairly good sized, tastefully decorated room, and should provide a comfortable atmosphere for their functions. Two rooms have been set aside for Operations. One (the Radisson Room) will be used for headquarters of the institute director, and the other (Lasalle B) will house the PTG home office during the convention.

TRANSPORTATION

Getting to the hotel should be fairly easy for everyone. If you plan to come to the convention by plane, you should know that our Minneapolis-St. Paul International Airport is served by 10 major and 5 third-level carriers. The airport is 12.5 miles from the hotel and limousine service for the trip is $2.50. Two facilities are also available at Minneapolis-St. Paul International Airport for those who might wish to fly in with their own private plane. For information and details on this, I would recommend that you call them directly. They are

Page Airways
1-612-726-5214
Northern Airmotive
1-612-726-5700

If you plan to drive, the major highways coming in will be 35W from the south, 12 from the west, 94 from the east and northwest, and 35 from the north. The hotel entrance is located on the left side of 7th Street (a one-way street) between the Nicollet Mall and Hennepin Avenue.

Highway 35W — South

Coming in on 35W from the south, look for the "Downtown" exit sign. Following this will take you right onto 5th Avenue South. Follow 5th Avenue to 7th Street. Turn left on 7th and drive 1-1/2 blocks to the hotel.

Highway 12 — West

Coming in on Highway 12, look for the "Downtown" exit sign. Follow this and watch for 10th Street. Turn right on 10th and drive for 5 blocks to Marquette Avenue. Turn left onto Marquette, drive 3 blocks to 7th Street, and turn left on 7th to the hotel.

Highway 94 – Northwest

Follow 94 to 494. Then follow 494 to 12 and proceed from those directions.

Highway 94 – East

As you come in on east 94, you will pass through St. Paul. Stay on 94 to Minneapolis and watch for the 5th Street exit to your right. Follow 5th Street to 11th Avenue. Turn left onto 11th and go 2 blocks to 7th Street. Turn right on 7th and travel 11-1/2 blocks to the hotel.

Highway 35 – North

Above the Twin Cities, Highway 35 divides into 35E and 35W. Stay on 35W and follow this into Minneapolis. Watch for "Washington Avenue" and exit here. On reaching Washington, turn right and travel 2 blocks to 11th Avenue. Turn left onto 11th and follow it to 7th Street. Turn right on 7th and travel 11-1/2 blocks to the hotel. And by the way, in Minnesota right turns on a red light are permitted except where signs say otherwise.

PARKING

The parking ramp is located adjacent to the hotel. Look for the large "Park" sign just after you pass the hotel entrance. This is a "park-it-yourself" ramp, which means that you have easy access to your vehicle anytime. The ramp has a clearance height of 6 feet 9 inches, and I have been told that it will accommodate most vans unless the van has a bubble. If your vehicle will not fit here, you can park in an open lot on Hennepin Avenue, which is only a block from the hotel. Just turn left at the corner of 7th and Hennepin and you will see it on your right.

Sorry, but the ramp parking fee is not included in the hotel room registration fee. The current rate for parking is $4 per 24 hours. I would like to add, however, that "in-and-out" privileges without extra charge will be available to PTG registrants. For this service be sure to take your parking ticket to the front desk at the hotel. They will then give you a white ticket which you can use for the in-and-out privilege.

CAMPING

Many families who camp like to include the convention in with their vacation. Minnesota has an abundance of campgrounds, most of which border on our many beautiful lakes and rivers; fitting this in with the convention would be just ideal. Of the two campgrounds that are located in the immediate area, one is only 3 miles from the loop and is very close to bus service that goes directly downtown. If you want a schedule for this route (No. 1), just write to me and I will send you the information. Both of these campgrounds, by the way, are members of MACO (Minnesota Association of Campground Operators), and are state licensed and inspected. And for $1 you can have a confirmed advance reservation. For complete information on this, the facilities available, and other campground details, write to **MACO, Box 22499, Robbinsdale, MN 55422**, and ask for their Minnesota Camping Guide.

MISCELLANY

Being in the heart of downtown Minneapolis means, naturally, that you are near all of the interesting activities of a busy city. The Downtown Radisson Hotel is joined to many other shopping and business areas by the skywalk system; you will be only one-half block away from our quite famous Nicollet Mall, which I am sure you will want to visit. And because of the additional events going on during Aquatennial Week, this area will be even more attractive and inviting.

There are many fine places for dining and entertainment, both in and near the hotel, which we will acquaint you with after you arrive; but we especially recommend that you try to see The Golden Strings in the Radisson Flame Room. These are violin virtuosos that provide exquisite entertainment – a real delight for both the ear and eye. Ed Fesler, who is also editor of our newsletter, *The Sound Board Buttons*, is preparing a wining and dining guide that will help you locate your favorites in eating and entertainment. And for those of you who are partial to health foods, a health food restaurant is located directly across the street from the hotel in a place called "The 7 Markets." Here you can also order special ethnic dishes of English, Italian, Mexican, and French origin.

Many times registrants bring items of a promotional nature on which they would like some exposure during the convention. There will be a table available in the mezzanine area for the display of this material (subject to our review, of course). So if you have handouts, brochures, leaflets, etc., relative to our activities that you'd like people to see, bring them along and we'll display them.

And by the way, the hotel does have a storage area to accommodate conventions. If you have anything that must be shipped here in advance, just address it to **Radisson Hotel, 45 South 7th Street, Minneapolis, MN 55402**, and mark it "Hold for Piano Technicians Guild Convention." And when you are registering for your sleeping room, you should inquire about the rapid check-out service that is available which will save you a great deal of time and inconvenience when you are on your way out.

So why not start making your plans to join us at the Radisson Hotel in Minneapolis. We have the place for a great convention, but we need you to complete the picture. We know you'll be pleased with the accommodations and we are looking forward to helping make your stay with us a memorable one here in the "Land of Sky Blue Waters." ■

MICHAEL J. WATHEN

FAMOUS CONCERT PIANIST AND HIS TUNER

We've heard many stories, some of them true and some legend, about the famous concert pianist and his tuner. Many of these stories involve last-minute desperate but incredibly heroic solutions. Those that were not heroic failed miserably and doomed the technician forever to oblivion. Such might have been my own fate.

I'll never forget my first recital tuning, which was nothing but a grade school play put on to entertain the parents. It must have been that for such novice actors they should only use a novice tuner. How was it that I could have been so nervous over such a thing? I exercised my aural abilities more at the performance listening for unisons that were out than I did during the actual tuning. By the standards I hold for myself now, I'm sure I failed miserably, and I should have been doomed also to oblivion forever.

But in the passing of time I found myself in that strained relationship between heroic success and disastrous failure more and more. I became one of the staff piano technicians for the Aspen Music Festival. Besides taking care of practice room pianos, there were concerts and recitals everyday for nine weeks during the summer. Every visiting artist was supplied a piano at his lodging which also needed care. If I had remained as nervous as I was at that first recital, I'm sure I would be dead. The mystique of the artist and the performance began to disappear. Now I felt it was necessary to take a closer and clearer look at this relationship between artist and technician.

Since winning the first International Rubinstein Piano Competition in 1974, Emanuel Ax has recorded five albums for RCA. His all Beethoven album was named by *Time* magazine as one of the "five best recordings of the year." His other albums include The Dvorak Quintet with the Cleveland Quartet, "The Record of the Year 1977," an all-Chopin recital, a sampler of works by Liszt and Chopin, and the recently released recital works of Ravel. A Polish-American, Mr. Ax has captured other prizes, including the coveted Michaels Award and prizes in Warsaw's Chopin, Belgium's Queen Elizabeth, and Lisbon's Vianna da Motta competitions.

He regularly performs with such orchestras as the New York Philharmonic and the Chicago, Cleveland, Pittsburgh, Los Angeles, and St. Louis symphonies, as well as with the London Philharmonic and New Philharmonia orchestras. He has toured South America and Central America, and has given European recitals in Munich and Vienna. He is a regular performer at the Aspen Music Festival,

which was where this interview was granted me.

Wathen: How many concerts do you perform each year?

Ax: Between 75 and 80. I'm presently booked for up to a year and a half from now.

Wathen: And who is your agent?

Ax: ICM, Shelton Gold, which is the same as many of the artists here — Itzhak Perlman, Pinchas Zukerman, Misha Dichter, etc.

Wathen: How do you feel about all the traveling involved?

Ax: I like it. I haven't been doing it that long, so I haven't really had a chance to tire of it.

Wathen: Do you own a tuning hammer?

Ax: Yes. I've tried tuning and haven't learned how to do it properly, and this really shows up. Actually, I'm very bad at it. I suppose I'll try to take some sort of course in tuning and regulating in the near future.

Wathen: Have you ever approached the people at Steinway about this?

Ax: Yes. That is who I was thinking of, especially Franz Mohr. I believe it must be a real advantage for any concert artist to know more about the instrument he plays. Otherwise you have no idea of what you need. You know something is not exactly right with a particular piano, and you have no way of communicating what is right to the technician.

Wathen: So you are a Steinway Artist. What does that mean?

Ax: This means that I play only the Steinway piano. At least, that is what it's supposed to mean. Sometimes, Steinways are not available, so I must play whatever is there. But generally it is the Steinway.

Wathen: Then do you know in advance what kind of piano will be available?

Ax: Yes. They let us know because it is a part of any contract we agree on.

Wathen: Are you ever taken back or surprised by the instrument you must concertize on?

Ax: Surprised by the quality very often. Most of the time to the worse rather than the better. It doesn't much matter which part of the country I might be in either.

Wathen: What about in Europe and South America?

Ax: In South America they are awful, and in Europe they are pretty well maintained.

Wathen: How often do you have a choice between two different instruments? When you do have that choice, what sort of guidelines do you use for making a choice?

Ax: In the smaller cities you must settle for what is there, but in the larger cities you usually have a choice. I look basically for a good sound and a well-regulated action — not too dull for the treble and not too powerful for the bass — which is what I usually find. Care hasn't been taken in the voicing of the intrument. The technician often will find a note that sticks out, or he might find a note which is duller than the ones around it. Instead of trying to voice the dull one up, he just dulls the ones in the area around, which of course is much easier. You just stick those little prongs in it and bring everything down. What eventually happens is that the whole treble becomes dull, especially in contrast to a powerful bass, and this situation is very undesirable.

Wathen: Do you think there is a difference between what you hear and what the audience hears?

Ax: Very often, yes. It depends a lot on the hall. I play a piano that to me sounds very good under my ear and my wife, who sits in the audience, will say to me that it is too dull or that it is too bright for the hall. The piano I think is too harsh for me is actually better suited. Also, it has a lot to do with how comfortable you are with the instrument because, if it is not comfortable, then no matter how well it sounds in the hall you aren't able to do with it what you want. Then I must take into consideration the type of piece I will be playing. If I play a Rachmaninoff concerto, I need a piano which is a bit brighter. If I play a recital with piano only, I would like a little less sound — a more mellow tone quality.

Wathen: You recently recorded "Gespard de la Nuit" on an album with other works by Ravel. What sort of piano would you use for that?

Ax: Well, I have my choice from the Steinway basement. I pick the one that I want and it is delivered to the RCA studio along with one of their technicians, either Ruby Balenhof or Bill Huffmeyer. For "Gespard," it took us around 4 hours. I play through the piece; then we listen and go through it again till we have what we need.

Wathen: Is the piano technician required to stay the whole time?

Ax: Yes, he must stay. It doesn't matter whether he listens or not, but he must be available all the while in case of a necessary adjustment; otherwise, you can't record.

Wathen: It's remarkable how good most pianos sound on these recordings.

Ax: Well, the technician must stay and work between takes.

Wathen: Do you think in the recording situation you have a better piano than you would find for yourself in a concert hall?

Ax: That depends on which concert hall. I would probably use the same piano that I use in the studio for recording if it is a concert to be given in New York.

Wathen: Being a Steinway Artist means that the expense of all this is theirs?

Ax: No, Steinway provides the service, but at a cost which I must pay unless it's a recording which is paid by the studio.

Wathen: Horowitz is accompanied everywhere by his own piano and a technician. Could something like that be advantageous for you?

Ax: Sure, that would be terrific! But only Horowitz can afford it. Maybe someday I will become very wealthy. I'd love to have the same piano and technician everywhere I go.

Wathen: What sort of piano did you have when you were studying?

Ax: Same as everyone else — practice room pianos. When I was 18, my family bought a Steinway M, which is the piano I have today in my apartment in New York.

Wathen: Did you notice an improvement in your playing once your family got the grand?

Ax: Not really. Oh, I enjoyed practicing more.

Wathen: Could you play a piece very successfully like "Gespard" on an upright piano? It's a very technically demanding piece — lots of quick repetition of notes.

Ax: I wouldn't be able to perform a piece like that on a vertical piano. It's very tonally demanding. That is the real problem. It's not that there are a lot of notes; there are, but the important thing is that you need to get colors out of the piano, and for that you need a good instrument. But as for the repetition, I think that that should not pose a problem unless, of course, the piano is not well maintained.

Wathen: Are you familiar with the Piano Technicians Guild?

Ax: No, but I guess I always assumed something of that sort existed. I'm sure that I know people who are in it. On the whole, I find piano technicians to be good people to know. The problem comes when you say that this piano is bad and don't know why. If you know and are able to tell, for instance, that the soft pedal does not function properly or this note is dull and unresponsive, then they are only too happy to accommodate your requests. ■

AILSA THOMPSON

PARLIAMENTARY WISE

This is a new feature on parliamentary procedure. You are invited to send in your questions, and those of general interest will be featured in future articles.

Question: *Often members take the floor and start speaking, or make a main motion, without waiting for recognition from the presiding officer. Is this permissible or proper?*

Answer: If the presiding officer and the members make no objection, then they are permitting the informal procedure. This is not a good practice though, and is against the interests of the member who takes the floor in this manner.

Why? When the member is granted the floor by the presiding officer, this automatically ensures certain rights — protection from unauthorized interruptions and the right to the floor for the full time allowance. Unless granted the floor, a member may be interrupted by the chair or another member and the floor can be given to the member who has followed proper procedure.

Question: *Who may second a main motion, and may that seconder speak and vote against the motion?*

Answer: Any voting member may second the motion. He may both speak and vote against it.

Why? Seconding a motion indicates that the seconder believes the motion **should be considered and acted upon** by the assembly, not necessarily that it should be adopted. Generally, however, the seconder usually favors the proposition.

Question: *If there is no second from the floor, is a main motion "lost for lack of a second"?*

Answer: No. The chair should ask if there is a second, repeating the motion if necessary so that all may hear it. If there is still not a second, the motion is not placed on the floor for consideration and action, but "dies for lack of a second."

Why? A motion not voted upon cannot be "lost." There is a rule that lost motions cannot be introduced again at the same session, except through reconsideration. A motion which died for lack of a second never came on the floor as official business and, therefore, may be introduced again at any suitable time.

Question: *Is it still correct procedure for the presiding officer to say "Are you ready for the question?"*

Answer: Yes, although preferred modern usage is now "Is there any discussion?"

Why? Many members do not know the older form means "Are you ready to vote immediately, or does anyone wish to discuss the motion before the vote is taken?" Everyone recognizes the modern usage as an opportunity to debate, or to continue to debate, the issue.

Question: *What happens when there is an equal number of votes for and against a motion? Should the vote be taken again?*

Answer: A tie vote means the motion is lost for lack of a majority vote. The vote should not be taken again.

Why? When the voters have taken action, the decision must stand as a part of official business and cannot be changed except through parliamentary motions or provisions (reconsider the vote, rescind, etc.).

Question: *Should the chair vote to break a tie?*

Answer: Not necessarily. If a voting member, the chair may do so or not — depending upon the circumstances.

Why? Unless the laws expressly require that all tie votes be broken by the presiding officer, each situation requires careful consideration. Unless the motion is one where the presiding officer especially wishes to go on record with a vote, or the motion is one which warrants breaking the tie for specific reasons, it is usually better to let the tie vote stand as the decision of the membership. A presiding officer who regularly shows partiality by breaking tie votes may cause alienation of half the membership — which could have been avoided by regularly refraining from breaking ties except in unusual circumstances.

Question: *In a ballot vote, may the chair break a tie?*

Answer: No.

Why? No member has the right to vote more than once on any motion or business, unless the laws or rules of the association expressly permit this right.

Question: *Should an ex officio member of a committee vote in committee meetings?*

Answer: The member may vote on all committee motions.

Why? Ex officio means "by virtue of office," and ex officio members have all of the rights and obligations of other members. A president who is an ex officio member enjoys all of the rights of committee membership, but is excused from the obligation to attend every committee meeting.

Question: *Is it proper to vote for oneself in an election?*

Answer: Yes. In cases where the candidate is quite confident of election, however, it would be acceptable to refrain from voting, or in a ballot vote to cast a blank ballot.

Why? Accepting nomination for election carries with it an understood responsibility to those who nominated. To vote against oneself is to act in opposition to the nomination, and one who does not wish to be elected should decline the nomination. ■

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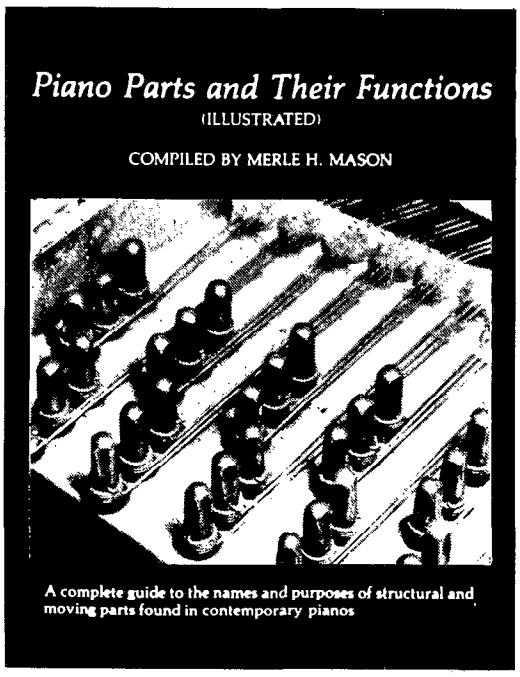

Inside this definitive text you will find everything you need to know about the functioning of that magnificent musical instrument — the piano. Answers to questions such as "What does a dag look like and where is it located? What is a middle belly bar? Where are the 46 rails located and what is a reconditioned piano? *Piano Parts and Their Functions* is a basic book long needed in every piano technician's library. This first and only publication in English is an essential book no student, teacher, or technician should be without!

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PIANO ALLEY

PETER M. PEREZ NAMED STEINWAY PRESIDENT

Peter M. Perez has been named president of Steinway & Sons, it has been announced by Robert Campbell, president of the CBS Musical Instruments Division. Steinway is a unit of the division.

Perez formerly was executive vice president of CBS Musical Instruments. At Steinway, he replaced Robert Bull, who has left the company.

"We are most fortunate to have within our organization an individual as capable and experienced for this key assignment as Peter Perez," said Campbell. "Steinway's position of world leadership, the excellence of its product, and its time-honored traditions will be in the best of hands."

Said Perez, "I have been entrusted an international treasure, a product and a company unique among all others in our great music industry. I am quite humbled by the challenge and importance of this new assignment and I look forward to my association with the world of Steinway."

Heinz Z. Steinway, a great-grandson of the company's founder, remains active in the business as its chairman of the board. Other active family members include John H. Steinway, vice president, and Theodore D. Steinway, chief engineer.

HAROLD RHODES – HIS PIANO IDEA WAS A QUARTER-CENTURY STRUGGLE

All of us envy the rewards that accrue to successful inventors and we admire the creative genius of such folks. What we don't often appreciate is how they usually had to battle along the way. This is the previously untold story of some of the soul-stirring problems and disappointments faced by the man who developed the electric piano.

It was 1948 and opportunity didn't just seem to be knocking for Harold Rhodes; it appeared ready to kick down his door. The postwar economy had erupted. And Rhodes, then 38, had come away from life in the service with a promising musical instrument invention (at the time, called the "pre-piano"), plus all the patents for that invention and abundant recognition in his chosen field.

For his work in developing the instrument and teaching wounded servicemen to play it in hospitals across the country, he'd been called back to Washington D.C. and singularly decorated by the Secretary of War himself.

The *International Who's Who* listed him as follows:

> RHODES, HAROLD, music educator, author; b. San Fernando, Calif., Dec. 28, 1910; s. John DeWitt and Eunice Etta (Sutton) R.; ed. pub. schs. and music schs.; m. Helen Clark, June 28, 1942; 1 dau. Linda Suzanne; music teacher, Los Angeles since 1930; invented the three-octave training piano, 1942. Author: Army Air Force Manual No. 29, 1944; Army Service Force Manual No. 28-10, 1945. Sit Down and Play, 1947. Home: 155 S. Vermont Ave., Los Angeles 4. Office: 6917 McKinley Ave., Los Angeles 1, Calif.

What's more, music retailers at the National Association of Music Merchants show the year before had been

enthusiastic about prospects for selling his "cute" piano miniature.

Now for the reality of Harold Rhodes' 1948 world: It was a shambles. The corporation he and four Los Angeles friends had formed to market his invention had gone bankrupt. The pre-piano – being built for the corporation by an outfit with the improbable name of The U.S. Propeller Company – had been the victim of poor construction quality and had lost its market acceptance. Rhodes himself was broke, demoralized, and ultimately "left flat in Kansas City." In solemn tones, he recalled, "The bubble had burst."

For a man who had already come so far in the world of music – not mentioned to this point is that he also had owned and operated a national chain of music teaching studios before the war – and for a man who had so much further to go, this was a low-water mark. It was a time for serious reflection and possibly career change, he decided. So, at the invitation of an acquaintance, he packed up all his earthly possessions and moved to Dell City, Texas. He was going to try to sell farm implements in cotton country – neither of which he knew anything about.

Rhodes learned the new business and his new job well enough to eventually manage to buy his own cotton farm. Then disaster beset him once

again: In 1953, the government imposed severe restrictions on cotton growing and he consequently lost the farm.

A lesser man at this point might have begun cashing in his chips accumulated while playing the harsh and unpredictable game of life. Rhodes, instead, just got off something on which he'd been sitting. "Tucked in my back pocket when I went to Texas," he said, "was a special tone bar design I'd developed. It was still in the pocket when I left, and I made up my mind to take it back to Los Angeles."

Reflecting on that move, he continued, "If you've got what you believe to be a good idea in the back of your mind, you just can't give up on it." He had one (a good idea) and he didn't (give up). He doggedly persevered, however, and the Rhodes electric today has become successful.

CHARLES HUETHER

THE DISSATISFIED CUSTOMER

Dissatisfied customers are a fact of life in any business and piano service is no exception. We all have them to some degree. It would be wonderful if we could eliminate or at least reduce this business problem, and this article and its companion are aimed at offering some considerations concerning this ever-present problem.

The reasons for customer dissatisfaction can be many — real and imagined. The real complaints, based on actual deficiencies in our work, we can correct. All the rest, based on our customer's unreasonable expectations, have to be resolved (or prevented from happening in the first place) by a combination of determination, tact, diplomacy, goodwill, patience, and humor.

Consider the underlying reason for all customer dissatisfaction. Simply stated it is this: results which do not come up to the customer's expectations. It is as simple as that. Where does the fault lie if your customer has unreasonable expectations? Another simple answer: with you!

To the extent that you are responsible for the unreasonable expectations of your customers, you are indeed your own worst enemy, for you plant and cultivate the seeds of dissatisfaction in their minds.

We do this in two ways: (1) We fail to listen and learn from our customer's conversation what they are looking for, what hints they provide as to their needs and overall expectations for the piano. We fail to "read" them and to adjust our concept of the job to their concept of it. (2) We oversell the work and the results in our enthusiasm to sell ourselves and get the job. We let the sales pitch build in the customer's mind a picture far beyond reality.

To illustrate the first situation, your customer speaks about the piano you are examining. You know from experience that it is in poor condition, never was much of an instrument, and cannot be repaired to deliver sound or touch beyond what was originally designed and built into it. Yet some things can be done, and in your mind you set the limitations. You also decide that, within these limitations and the original limitations of the instrument, you can do a reasonable job. While you are coming to these conclusions, your customer is dropping hints about what a wonderful instrument it is, how grandma was a fine pianist, and how the family was always so proud of the beautiful instrument. You might also learn who will be using it — a talented child, some talented or critical friends. If you don't pay attention to what the customer is saying or hinting, and attempt to reconcile what they think with the realities you see and know, you are helping to create a dissatisfied customer.

The second situation is the reverse. Your customer doesn't think too highly of the piano. You feel they are just shopping for a low price so that a quick job will get Junior back at his piano lessons. You feel it is necessary to justify the work you legitimately see as being necessary, so you start off by building up the instrument. You do this in order to justify the cost. And by the time you finish, you have painted a picture and developed some expectations which just might not jibe with the final results. You know where reality lies, but does your customer? Did you overdo it all just a little bit?

Overstating and overselling may work in high volume situations where there is a high turnover and salesmen don't have to deal with the customer again, but in our business — where we are salesman, technician, and complaint department — we cannot afford to risk dissatisfaction. Too much of our time has to be used to correct impressions we have oversold.

In each of these situations, we are responsible for our troubles if our customer ends up dissatisfied. There are enough things which can happen and do happen over which we have no control without adding to them through our own overeagerness.

Learn to listen to your customer, and do not oversell the job. As you develop these qualities, you will be helping yourself by reducing the number of dissatisfied customers before they become such. Instead of being your own worst enemy, you will become your own best friend. ■

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EDITORIAL
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113 Dexter Avenue North
Seattle, WA 98109

PRESIDENT'S REPORT
Don Morton
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Newton J. Hunt
124 West 93rd Street
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STRAY THOUGHTS
Leslie J. Hoskins
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Jesse Lyons
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Seattle, WA 98115

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Luellyn Preuitt
4022 Fuller
Independence, MO 64052

PARLIAMENTARYWISE
Ailsa Thompson
113 Dexter Avenue North
Seattle, WA 98109

ELOISE M. ROSS

YOUR SECURITY BLANKET

At random!

The winter of '78-'79 will long be remembered for its severity. It is also relative to various locales; at the moment I am in Lahaina on the island of Maui. For them it has been an unusually severe winter — cold (50 degrees), wet, and *very* windy. Weather on the Big Island, Hawaii, was severe; the Mauna Kea and Mauna Loa volcanos have snow much deeper, and lasting much longer, than usual. Snow was predicted in Seattle, and Portland had a silver thaw (ice rain) which lasted the better part of a week. Californians had to stop a golf tournament due to severe wind and rain. And so it goes across the nation!

Always on the alert for Piano Technician Guild members, I noticed that in the yellow pages for Kona (which has grown like you wouldn't believe) there were two listings under "Pianos — Tuning and Repairing." The Maui, Molokai, and Lanai Directory has three listings. It would seem that, with all the "live music," piano fans, etc., on these islands, the need would be terrific! Perhaps we should instigate and initiate a PTG chapter on each island.

The last couple of months I have received some gracious words of thanks for our help with insurance problems and medical and dental claims service. We had a letter on a death claim from which I quote in part:

> Received the group insurance check of $769.35 concerning the death of my husband for which I am very thankful. It helps me out greatly as I had big expenses. Please convey my many thanks to everyone who had a part in helping me get this check. Also for the sympathy they have extended to me. Thank you again.

It is an occasional letter like this that makes it all worthwhile.

We still hear from members who were unaware of the excellent insurance plans available on a voluntary basis. If you have an idea on how we can get the message over, please let us know. (We send a letter of congratulations with brochures and applications to each new member.) We have given each regional vice president a kit, and we attend the conventions. In fact, for the first time we will be at the California regional meeting in February.

Just in case you haven't heard, on a voluntary basis we offer a Comprehensive Health and Dental Plan, an Accidental Death and Dismemberment Plan, a Tool and Bailees' Customer Plan, *and* a Supplemental Group Life Insurance Plan.

A memory jogger to those of you who have the Tool and Bailees' Customer and Accidental Death and Dismemberment, if you haven't already, **do mail your renewal premium!**

Aloha for now! ■

SOMETHING TO NOTE

Home office noticed the following article in *The Redwood Chips* and thought others might enjoy it.

The Tuner of Yesterday

In our modern society today, we rarely hear anything about the Tuner of Yesterday. Transportation and telephones make present day technicians much more accessible to their customers. We don't have to rely on going door to door seeking to sell our services. Every once in a while though, you'll hear of an event which brings a little of this history to life. Hence this story:

Not long ago, in a town not far from here, a Piano Technician stopped at the only store in town to inquire about anyone who might be needing his services. He was given the name of a family who had four pianos, but when he called them, he found out that they had a technician who lived with them. When it was learned that he knew this technician the family invited him down for dinner. After they had finished eating, the two technicians went in and sat by the fire to discuss the problems of the trade. As the discussion lasted far into the night, the visiting technician was invited to stay overnight. He accepted, and then it was agreed that they would finish tuning the piano that they had started. After a breakfast of homegrown sausage and homemade bread and strawberry jam, they proceeded to finish the piano. When it came time for the technician to bid farewell, he hadn't gotten any new customers, but he had shared a delightful time with a family that he had now gained as friends.

The town: Hawkins Bar

The family: The Frank Larsons

The technicians: Mark Mestman and Stephanie Cadra

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Route 2
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Goulds, Newfoundland

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FROM THE *KEYBED*, BY CHRISTOPHER S. ROBINSON

SELF-ESTEEM

Some time ago a friend of mine related to me that someone he had invited to a PTG chapter meeting had responded with the following remark: "Oh, I don't think I'll go; they're just a bunch of super-craftsmen on a super ego-trip." Needless to say, my initial reaction was the same as my friend's — one of being greatly taken aback. However, a moment's pause for thought revealed a substantial amount of truth in the offending statement.

Many of the people who go to the monthly meetings (this writer included) go not for the educational value of furthering their technical skills, nor for promoting the development of the piano trades as a means of livelihood, nor for the very pleasant and invigorating social contact with people of similar interests. Of great importance to some of us is the milieu where we can share with people who "understand" what it is to chase down an elusive problem and who experience the same victories and defeats which make up our everyday lives. When a fellow tradesman creates a tool to deal with a very specific problem, he wants to share his creation with someone who will respond to it and (he hopes) compliment his ingenuity. Without a question, this is an ego-function. But it is terribly important for human beings to feel a sense of recognition related to what they do, since what they do is in turn connected to what they "are."

Ever wonder why the model citizen works so long and hard in the community for scant remuneration? Amongst the many altruistic explanations of his or her behavior must be added the need for recognition, approval, and love within the community. All of this is tremendously important because it adds to the individual's sense of his or her own personal "value" and self-esteem.

There is nothing egotistical about this, nothing self-centered to the exclusion of other personalities. We seem to be able to "share stage" with each other. Let's call it "ego-interaction."

Fraternally,
Chris

CARL WARMINGTON

BOOKS

For many years the piano trade, piano technicians, and hobbyists have needed a standard guide on piano nomenclature as well as assistance in locating each part on well-illustrated plates. Adding to the confusion of terms is the wide variation of names used by piano technicians for the same parts.

Piano Parts and Their Functions, a 98-page book with 25 well-illustrated plates keyed to an alphabetical listing of all parts in vertical and grand pianos, is information enabling everyone to use the same language — piano dealer, technician, piano teacher, and student. In addition, there is an extensive glossary that defines numerous parts that need more than a visual presentation.

Piano Parts and Their Functions, by Merle H. Mason, can be purchased from the Piano Technicians Guild; 113 Dexter Avenue North; Seattle, WA 98109.

Hard cover edition $18, soft cover $14, postpaid. Members — $14 hard cover, $10 soft cover.

JESSE LYONS

LYONS' ROAR

The following article, written by Danny L. Boone, Baylor University technician, was submitted by Jimmy Gold, president of the Texas Chapter of PTG.

If you've ever had trouble using a spoon bender to regulate from the front of an upright action you may be interested in how to regulate dampers without going through this frustrating procedure. This idea is not original with me, but through its refinement and restatement perhaps it can become even more clear and usable to others.

1. **Regulate the Capstans.** This method will only work when the capstans have been properly regulated so that the jack is as close to the hammer butt as possible but will easily return to rest position under the hammer butt.

2. **Align the Dampers to the Strings.** Every damper must be aligned to its particular string(s) in every dimension. First, side-to-side: bend the damper wire to center the damper felt directly in front of and in line with its string(s). Second, in-and-out: the top and bottom of each damper should touch its string(s) simultaneously. Bending the damper wire at the top will accomplish this.

3. **Set the Damper Line.** The dampers must now be aligned with each other [in a straight line] with each follow-through on the strings. A damper should follow its string(s) at least 1/16" when the string is pushed toward the soundboard with your finger. This regulation is accomplished by bending at the bottom of the damper wire. If it takes more than a slight bend to accomplish this a bend in the opposite direction at the top of the wire should be made in order to keep the top and bottom of the felt equally touching the string.

a. Remove the pedal rod from the damper rod and place a felt or rubber wedge between the damper rod and the action rail so that the majority of the dampers just barely touch the strings but do not follow the strings in.

b. Set guide dampers at the end of each section by bending the damper wire at the bottom so that all guide dampers just barely touch the string(s). The first and last damper of each of the following sections should be set as guides: the single-string dampers, the double-string wedge dampers, the tri-chord wedge dampers, and the end damper of each section of flat dampers.

c. Lift the damper rod by hand so that it engages the guide damper levers and remove the rubber or felt wedge. Make sure that all the guide dampers lift at precisely the same time. [Incidentally, if the damper rod hook bushings or hangers are loose you cannot accomplish an even lift of all dampers simultaneously.]

d. Now, replace the rubber wedge between the damper rod and the action rail and fix the guide dampers in the position of just barely touching the strings. Remove the action to the workbench and using a straight-edge align all remaining damper felts to the guide damper felts, bending at the bottom of the wire. When this is properly done all dampers will move the same amount when slightly pushed with the straight-edge, at either the top or bottom of the damper felt.

e. Replace the action and remove the wedge and check to see that all dampers lift simultaneously when the rod is moved up and down by hand. Further adjustments may be made while the action is in the piano in order to perfect the damper-line lift. Also, check to be sure all dampers follow-in their string(s).

4. **Regulate the Damper Spoons.** Now comes the easy part.

a. Place the rubber or felt wedge between the damper rod and action rail again and fix the dampers in position so that they all just barely touch the strings.

b. Place another rubber or felt wedge under the hammer rest rail and fix the hammers in position at half the distance to the strings.

c. Remove the action to the workbench. Now, by lifting the whippens with your finger you will move the hammer and damper. The hammer and damper must begin to move at precisely the same time and this is accomplished by bending the spoons (now easily accessible). Simply tap the bottom of the whippen to make the hammer and damper just "wink" simultaneously. If the hammer moves and the damper doesn't, bend the spoon toward the damper, and visa-versa. Make sure that all spoons are centered in the damper levers and that the damper lever felt is not worn completely away.

Finally, don't forget to remove the wedges, be sure to screw the action in the piano tightly and properly adjust the pedal and you have a well-regulated damper system. Believe it or not, this entire operation can be completed in less than an hour. ■

COMING EVENTS

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

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CHAPTER SEMINAR
Baltimore, Maryland
Write: Morris Millman
8326 Scotts Level Road
Baltimore, MD 21208

MARCH 22-24, 1979
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PACIFIC NORTHWEST
CONFERENCE CONVENTION
Olympia, Washington
Write: *Al Seitz*
PNW Secretary-Treasurer
1517 Medfra
Anchorage, AK 99501

MARCH 24-25, 1979
CENTRAL WEST
REGIONAL SEMINAR
Lincoln, Nebraska
Write: Richard West
Westbrook Music Building
University of Nebraska
Lincoln, NE 68588

MARCH 30-APRIL 1, 1979
PENNSYLVANIA
STATE CONVENTION
Gettysburg, Pennsylvania
Write: Dick Bittinger
107 West Main Street
Brownstown, PA 17508

APRIL 27-28, 1979
CONNECTICUT/NEW
ENGLAND SEMINAR
Hartford, Connecticut
Write: W. Dean Howell
258 Airline Road
Clinton, CT 06413

APRIL 27-29, 1979
MICHIGAN
STATE CONFERENCE
Write: Dale R. Newhouse
3674 Wentworth Drive SW
Wyoming, MI 49509

APRIL 27-29, 1979
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STATE CONVENTION
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Springfield, Missouri
Write: Rodney W. Murdaugh
2762 South Campbell
Springfield, MO 65807

MAY 5-6, 1979
WASHINGTON D.C.
REGIONAL SEMINAR
Washington D.C.
Write: Ruth Ann Jordan
4 East Granville Drive
Silver Springs, MD 20901

MAY 11-12, 1979
INTERMOUNTAIN CONVENTION
Write: Lynn H. Hansen, President
1120 Elm Avenue
Provo, UT 84601

MAY 18-20, 1979
ROBERT FAIRCHILD
MEMORIAL SEMINAR
Long Island, New York
Write: Richard Dante
12 Magnolia Drive
Kings Park, NY 11754

JULY 23-27, 1979
PTG NATIONAL
CONVENTION
Minneapolis, Minnesota

OCTOBER 7-9, 1979
SOUTHWEST FLORIDA
STATE CONVENTION
St. Petersburg Beach, Florida
Write: *Walter Kerber*
615 Lafayette Court
Sarasota, FL 33577

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

APRIL 11-12, 1980
NEW ENGLAND SEMINAR
Sheraton Inn
West Lebanon, New Hampshire
Write: George Wheeler
11 Cherry Hill
Springfield, VT 05156

APRIL 18-20, 1980
PENNSYLVANIA
STATE CONVENTION
Altoona, Pennsylvania
Write: Fred Fornwalt
1333 Logan Blvd.
Altoona, PA 16602

BOB RUSSELL

Get Hooked With PTG!

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.

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(1 to 23 points)

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Buck, Gene — Sacramento Valley 1

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Carr, R.V. — Central Florida 6
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Coleman, Loring — Las Vegas 1
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Crabb, Larry — Atlanta 2
Cunningham, Jess — New Orleans 14

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LESLIE J. HOSKINS

STRAY THOUGHTS

When you are hospitalized for 10 days, as I was last December, you have lots of time to think. Inevitably, your thoughts will stray back to earlier days and old friends. Mine did.

I dwelt briefly on the years when the headquarters of the American Society of Piano Technicians was in Milwaukee and I was the executive secretary. Those were lean years; the national economy was beating back from the depression of the 1930's, and piano service orders were not as plentiful as they should have been. There were frequent visitors to the office then — some with problems and many just to chat when there was little else to do. My thoughts, however, focused on one man in particular, a local technician named Walter Dryburgh.

In the hey-day of vaudeville, Walter's orchestra played daily in the pit at the Majestic Theater. I didn't know him then, and I don't remember learning why he turned to piano service when vaudeville died. Perhaps it was because he had been a pianist, or because a gimpy leg would have barred him from any work requiring much walking or standing. I thought of him while reminiscing because he always seemed to be busy. He would stop in at the office often on his way through town, usually just to say hello and goodbye; but sometimes we did a bit of talking. I was curious about his activities and once asked him bluntly why he seemed to be so much busier than his fellows.

"Maybe they don't know how to merchandise," he replied, thumping my desk for emphasis. "You've got to merchandise; people don't buy piano service; you've got to sell it to them."

Walter knew how to sell himself. His name appeared regularly in the household section of the city and suburban newspapers where he was credited with useful hints concerning the piano and its care, history, etc. Ingenious in contributing items, his articles would appeal to the editors as well as the readers. Also, as a union musician, he had a wide acquaintance in that field (including the radio stations), and he cultivated these and other sources with little or no out-of-pocket expense. (I believe he was also a member of the piano teachers organization.)

I thought of Walter because he was the only person I ever heard use the word "merchandising" in connection with the piano service profession. I wonder if there may not be many young technicians just beginning their careers as piano technicians who would find the going a lot easier if they knew how to merchandise. For what does it profit a person to have his head filled with complex formulas and figures that he cannot use until he has established a substantial market for the basic skills — tuning and repairing.

Tuning and action repairing have always been the bread and butter of the piano service business (**business? — profession!**) and probably always will be. The experienced men built up these fundamentals in a near-depressionproof practice of their art; and most of them learned how the hard way. Of course piano technology is a profession but, unless the practitioner thereof is also an astute businessman, the tools of his trade will not last a long time.

I have often thought that a few minutes of a technicians' chapter meeting could profitably be devoted to customer relations and selling techniques — perhaps a question and answer period or personal experiences. There is a lot to be learned from books, but nothing that equals personal experience.

Anyway, that is what I thought about when I lay ill. It kept me from thinking about the nurse who was always popping in with a pill or a hypodermic.

———

Now here is something we all should think about. The transistor radio was invented in the United States, but today none are made here. The Japanese can do it for less.

———

Thought for the Month: "A man who has no horse doesn't buy a saddle." — Old Proverb. ■

CHAPTER NOTES

BOSTON CHAPTER

The Boston Chapter reports that, through the dedicated efforts of their members, the special project is due for completion by late spring. Many of the technicians who had not rebuilt a player were fascinated and stupefied to discover that there are 18 distinct steps to recovering one pneumatic for a Simplex player mechanism. During their process of restringing, they had a little contest (for fun) to see who could restring the quickest. Apparently Bob Draine slightly edged Al Sanderson for the fastest time of 22 seconds for stringing one bass note.

The Examinations Committee for the Boston Chapter held its second monthly meeting. They are looking for an instrument that can be used temporarily until permanent arrangements can be made. The committee has asked members to send them any questions membership feels could be used to upgrade their written examination. For example, Steve Coltrara suggested a diagram of a grand action which would require the applicant to name all the parts. Another suggestion: How many beats per second (or cents) are required to change the pitch of a piano from A440 to A442?

The Boston Regional Conference Committee will elect its chairman (or chairwoman) and start planning for the 1981 New England Regional Convention in Boston. Agenda items included the following: (1) Prepare for a one-day technical conference this fall. (2) Start locating people and companies to attend the Boston New England Regional Conference in 1981. (3) Locate a convenient hotel or other facility for use by the Boston Chapter for these meetings. **Talk about being ahead of the 8-ball, Boston does it!**

BUFFALO CHAPTER

Chuck Erbsmehl, Don Roth, and Laverne Griffith picked up Sandy Hartley's piano for Buffalo Chapter's next special project. They hope to start on this grand after completion of their present upright project sometime in March 1979.

On the new grand they will be (1) reinstalling a new pinblock and restringing, etc.; (2) installing new hammers and action regulating, etc.; and (3) regluing the ribs to the sounding board and main piano frame, etc. — Marty Turkiewicz, Jr.

CINCINNATI CHAPTER

Jim Campbell, author of "Soundboard Vibrations" in the *Cincinnati Newsletter*, reports that National Public Radio network recently began broadcasting a new weekly series called "Grand Piano" with Fred Calland. The program series features not only some of the most acclaimed pianists of the concert stages of today, but pianists from earlier times and places. These concerts are aired locally each Saturday morning at 10 a.m. over station WGUC, located on the radio dial at 90.9 FM.

The 2-hour programs are designed to show the many different facets and styles of playing the piano, as well as show-casing the instrument itself. In accomplishing this, the series makes use of historical recordings, live on-tape performances, interviews, and conversations with the performers themselves. The stated goal of the series of 13 programs is to provide a view of how piano performances have evolved over the years.

CLEVELAND CHAPTER

Butts & Flanges, the Cleveland Chapter newsletter, proposed a rather interesting idea that might help other technical newsletter editors. They are requesting that every Craftsman member of the Cleveland Chapter submit an article for future publication. This way, instead of working month-to-month on the technical newsletter, they will have a library of technical information from a widely varied number of authors. Members are free to select the topic of their choice — whether it be related to technical matters, practical business management, or the philosophy of the piano technician's quest for excellence. They also suggest members submit a few things they would like to sound off about. The ultimate goal is a journal that reflects in its writing the sum total of its membership. Everyone will eventually be contacted about contributing their efforts.

CONNECTICUT CHAPTER

On November 15 the Connecticut Chapter was treated to an interesting and educational guided tour of the Cornwall & Patterson Company in Bridgeport, where most of the small metal parts of pianos are made. President Richard Kelly, former president Preston Carns, vice president Robert LeCount, and other personnel (including Paul Collins, Carl Burgquist, and Vic Passalaqua) welcomed them and guided them through the factory, explaining the various operations and complex machinery. Members who knew little about the miracles of technology were fascinated by machines into which a spool of wire is fed at one end and completely finished objects, such as jack springs, continously come out the other end. Each member received, as a gift from Cornwall & Patterson, a kit containing an assortment of screwdrivers, an awl, a chisel, and a prying tool — all of which fit into an accompanying combination handle.

Vivian Brooks has been inducted into the Connecticut Chapter as a Craftsman member. Vivian made history by being the first applicant to have taken and passed the new Craftsman Tuning Test.

The chapter will purchase an old Sterling grand for its next chapter project. Members suggested that, after rebuilding, the chapter keep this piano for use in tuning tests and for other purposes.

HAMPTON CHAPTER

Vice president Roosevelt Porter recently planned the technical program for the Hampton Chapter. The technical included a "show-and-tell" tuning session by RTT's Blair Blanton and Rudy Griffin. Ron Tindall set his Vorsetzer Pianocorder at Gene's new Astin-Weight console piano and treated us to a recital of music from Chopin to Joplin. Gene later handed out brochures on the piano, which features a very large soundboard running behind the pinblock to the full height of the piano. Ron indicated that he is prepared to install Pianocorders in both grands and verticals, giving the pianos "instant replay" capability; or he can supply the Vorsetzer version to "sit in front" of any piano. Both units use cassette tapes for recording, and an extensive library of prerecorded tapes comes with the Pianocorder.

In December the press was invited by the Hampton Chapter to attend one of their work sessions on the player piano being rebuilt in president Stuart Conner's shop as a training and fund-raising project by their chapter. The result was a full page of photos and text in the *Daily Press* (the morning newspaper), which generated many phone calls and favorable comments to Hampton Chapter members. — Garland Goodwin.

LONG ISLAND-NASSAU CHAPTER

Norman Heischober gave a speech covering various aspects of customer relations (including bad breath, body odor, politeness, removing objects on top of the piano) and all the ways to collect the New York State Tax. — Stan Lipson.

LOS ANGELES CHAPTER

At the recommendation of the Board, Los Angeles Chapter members voted to suggest the following national officers as nominees for the coming election: Bob Russell, national president; Sid Stone, vice president; and Frank Desmond, secretary-treasurer. The chapter also suggested the nomination of Sam Pearlman as western regional vice president.

In their upcoming state convention, there will be 21 classes offered, all of which have never before been offered in a state convention.

The Los Angeles Chapter will host the National Convention board members at a dinner meeting soon.

Chapter members have nominated Willard Davis to the Hall of Fame.

NORTHERN VIRGINIA CHAPTER

Northern Virginia Chapter has planned a session with piano teachers during January. The session will be given by a panel consisting of Bill Pealer, Orville Braymer, and Carl Root, who will be showing, telling, and dispensing good information and good will for the Guild. Another session is in the works for February or early March.

RHODE ISLAND CHAPTER

Rhode Island Chapter reports that Mr. Herbert Wood has been appointed as examiner for new members.

Preparation of a directory and by-laws covering operation for the Rhode Island Chapter was touched upon by Joseph Loiselle; however, definite action has not been taken as yet.

Mr. James Hayes and Miss Mary Montori from the Connecticut Chapter were guests of the Rhode Island Chapter recently. Mr. Hayes gave a technical session; his illustrated topic was "The Behavior of Strings." A most outstanding feature during his speech was a demonstration of the breaking point of a string, using the 440 pitch. Another feature was a step-by-step demonstration of splicing a string, showing how to make a knot in a string. After the demonstration, an illustrated sheet covering his topic was distributed to all members to be used as a guide for splicing strings. — Roma Roy Gaudreau

READING-LANCASTER CHAPTER

The Reading-Lancaster Chapter recently had their 18th Annual Banquet where they recognized past presidents and gave their guest of honor, Larry Scheer from the Philadephia Chapter a sweater with his name and the PTG logo on it. Larry is holder of a PTG Golden Hammer Award.

SAN DIEGO CHAPTER

San Diego's Southern California Piano Technicians Guild Awards Program Committee will be holding its next meeting sometime during the state convention. Each chapter will sponsor one or more candidates. In addition, one award will be made — selected from all chapters represented. Special recognition will be given to Auxiliary members and wives for outstanding help afforded PTG spouses. Ed Whitting, Jr., was drafted to choose a site for the dinner. The tentative date is July 8, 1979, for awards and installation of officers. — Russ Upham

SAN FRANCISCO CHAPTER

The second Constitutional Committee meeting was held to discuss the regulation portion of the chapter's proposed bylaws and regulations. Both sections have now been thoroughly discussed, amended, and revised; copies of the document, as it now reads, will be distributed at the next meeting as well as mailed with the newsletter. Members have been asked to read it carefully and take the time to submit any suggestions to the Board in writing by their next meeting.

The chapter has located two 7-foot grand pianos to be used for their examinations. It will take members some time to prepare the pianos, but when they start using them they will be able to give a really first-class tuning examination — in fact, two exams at a time. The necessary computer and printer, now owned by the chapter, perform admirably and will be a great time-saver in the future.

San Francisco Chapter reports that Peter Wolford has written a simplified guide to the use of the Sight-O-Tuner. You might be able to get a copy by sending Peter a self-addressed stamped envelope. His address is 11 Ardmore Road, Larkspur, CA 94939. (There may be a slight charge involved here.)

The Chapter Roster is now out (thanks to Laura Farber). They apparently had a little bit of the same problem home office did in preparing the Directory — things change!

San Francisco Chapter reports a missing Yamaha G-3 in polished ebony, Serial No. 253203. The piano is the property of Mills Music, Inc. Fred Mills, owner of Mills Music and a long-time Craftsman member of the Guild, is concerned about retrieving the instrument if at all possible and is asking the cooperation of all Guild members and dealers to keep on the alert for it. If anyone locates this piano, Fred would appreciate it if that person would inform him immediately of its whereabouts. The possibility of its being in another state must be taken into consideration as well. Contact: Fred Mills, Mills Music, Inc.; 3219 Pierce Street; Richmond, CA. Phone (415) 526-3167. Reward Offered.

SOUTH BAY CHAPTER

Jim Collins reports that the South Bay, Pomona, San Diego, Los Angeles, and Orange County chapters all endorsed the Annual Chapters Award Dinner. The affair will be held on July 8, 1979, at which time officers will be installed.

SYRACUSE CHAPTER

The Syracuse Chapter is anxiously awaiting Al Grenning's detailed drawings (and measurements) of the "Godoi" (phonetic spelling) grand piano made by Broadwood in late 1700. Godoi was a Spanish prince and the grand piano is adorned with medallions inset in rosewood. This is the first grand piano made by the English manufacturer.

Syracuse Chapter is holding its Installation Banquet on June 19 at Sackett's Restaurant in Brewerton, New York.

VERMONT CHAPTER

The Vermont Chapter reports that, since last spring, their meetings have essentially been technical sessions. In July, Bill Ballard of the New Hampshire Chapter, gave a technical on constructing a laminated bass bridge from scratch. At another meeting, Dave Christensen gave a short technical on soundboard repair and shimming. Most of their sessions, however, are more informal — they simply pool their information and techniques, then proceed according to consensus opinion.

The chapter project is an old Ivers & Pond upright — and in pretty rough condition. Members generally work on two or three things at once, like soundboard shimming and key recovering; individual members concentrate on the procedures they are least familiar with.

The Vermont Chapter is already in the process of organizing the 1980 New England Regional Seminar, which they are sponsoring. It is to be held in Lebanon, New Hampshire, on the 11th and 12th of April, 1980. There are going to be some interesting new topics, professors, and classroom approaches, as well as some of the "old favorites." Vermont says: "Plan ahead. This is going to be a seminar you **won't** want to miss!" — Steve Eardley

LUELLYN PREUITT

Wives' Lives

Take a Giant Step Forward! is the general theme of the Piano Technicians Guild convention to be held in Minneapolis July 23-27, 1979. Although it is primarily to encourage technicians to augment their skills in the field of piano technology, it is also a challenge to members of the Auxiliary to **dignify** our organization, **enlarge** our horizons, and **strengthen** our friendship with one another and the Guild.

From Helen Desens of the Twin Cities Auxiliary Chapter comes this invitation:

> Dear Auxiliary Members and Friends,
>
> Greetings from the Twin Cities of Minnesota. We are all anxiously preparing for the exciting 1979 convention. I have been busy with a tour agency arranging a tour of our beautiful Twin Cities area. You will see our famous Nicollet Mall, which is only a half block away from the Radisson Hotel; it will be full of artists displaying their crafts that week since it is also our great summer event — the Minneapolis Aquatennial. If it's too hot outdoors, you can stroll from building to building through our remarkable skyway system. Minneapolis has 14 — they link together 32 downtown blocks. We will cruise the shores of some of our spectacular lakes — 11 of these are in the Minneapolis city limits! On to St. Paul, to the breathtaking sight of the Minnesota State Capitol, inspired by Michelangelo's design for St. Peter's. Then the St. Paul Arts and Science Center, which has its own space-age Omni Theater.
>
> All these, and many more interesting surprises, await you when you come to Minnesota this summer. I encourage everyone to take this exciting tour. I hope to see all the great friends I met in Cincinnati last year, and meet the new friends I hope to make this year.

Doesn't that sound exciting? Helen didn't mention that those skyways contain dozens of interesting shops! All in all, there are probably so many interesting places to see and things to do that no one will be able to begin to accomplish them in the short time we are there.

A welcome letter was received from the newly organized South Central Pennsylvania Chapter of the Auxiliary. Shirley Truax writes:

> As secretary of the newly organized South Central Pennsylvania Auxiliary Chapter, I'd like to tell you what we are doing these "weathered-in" days.
>
> We are a small chapter, but our technicians have taken on the responsibility of host chapter for the 1979 Pennsylvania State Convention. The need to organize an auxiliary was apparent, and here we are. Since the organizational meeting, we have had several sessions together, and we anticipate receiving our charter at the state convention in Gettysburg March 29-April 1, 1979.
>
> In January we met at president Roseanna Hess' home. This was a work session at which we learned to make the "handcrafted" gift we plan to present to each lady attending our luncheon at the convention. Versatile Guild chapter president Jim Hess made the looms and National Board member Kathryn Snyder made the "yarn buy." Thanks to these really great folks!
>
> Chairman Bittinger's enthusiasm is infectious, and we have all caught it. Many thanks to Celia Bittinger for lots of help, especially in the scheduling.
>
> Speaking of scheduling, the convention classes (many of them include the spouses) and activities are really exciting. They provide just the kind of anticipation needed these dull months of January and February.
>
> Now, as I sit by the fire, loom in hand and yarn flying, the time not only doesn't drag, it zips by; and the time for the convention draws swiftly closer. We are looking forward to seeing all our PTG friends in Gettysburg!.

Shirley made the remark that she is a person of "few words." Even so, she managed pretty well to stir our interest in the South Central Pennsylvania Chapter and its part in the convention. It just proves that one doesn't need to be wordy in order to arouse interest or convince others of a good thing. How about some others of "few words" letting us know what you're doing out there?

Here's the "nontechnical technical" I've been promising you for some time. More reading in *Men, Women and Pianos, A Social History* by Arthur Loesser, has brought me to the chapter on "Pianos — and Stencils — for the People." His premise is that a pure businessman, one Joseph P. Hale, took advantage of the trend of making specialized parts in a piano factory. His mind was blank on the subject of music. All he could see was that the piano business could be extended far beyond the notions of what he considered to be the soggy minds of those Dutchmen in New York. He therefore proceeded to take the piano apart (how many craftsmen did he dupe into helping him do this?) with the thought of how it could be reproduced cheaper. He began by buying an interest in a small factory — then to start a small shop of his own on Canal and Hudson Streets in New York, as early as 1860. Mr. Hale's precise movements are difficult to follow, but it appears that he was able to buy a variety of cases, keys, actions, plates, legs, etc., at rock-bottom prices from specialists by paying spot cash on delivery. This, plus his ability to organize the assembly line, enabled him to turn out an intrinsically cheaper upright than any of his competitors. Was it better?

Even more startling were his sales methods. Instead of disposing of pianos through a system of agents with exclusive rights to sell a given make within a given territory, Hale sold to anybody who paid him — private individual, dealer, or jobber anywhere. So what else is new? Some liberal minds may decry this as discriminatory business methods. Again, is this better? Thus ends our "nontechnical technical" for this time. We hope it hasn't led you to the brink of Auxiliary disaster! **Take a Giant Step Forward!** ■

CLASSIFIEDS

Classified Advertising Rates: Classified ads are 15 cents a word, with a $3 minimum. **Copy due** the first of the month preceding publication. **Address:** Managing Editor-Art Director/Charlona Rhodes, PTG, 113 Dexter Avenue North, Seattle, Washington 98109. Telephone: (206) 283-7440.

HELP WANTED

POSITION AVAILABLE — Leading high-quality piano manufacturer is seeking a qualified Action Department Supervisor. Must be experienced in all operations from side glue through regulation and be an effective supervisor. Excellent opportunity with comprehensive wage and benefit program. Send resume' with salary expectations to: **Piano Technicians Journal Classifieds; Piano Technicians Guild, Inc.; P.O. Box 1813; Seattle, WA 98111. — BC**

AN EXPERIENCED PIANO TECHNICIAN WANTED — Tuning-repairing, rebuilding, refinishing, in- and out-of-store servicing. Store has excellent service reputation and top-line pianos and organs. Base salary at $12,000 plus service and sales commissions and referrals plus experience allowance. Excellent benefits, good solid future. Begin immediately. **Paulsons' Piano and Organ Co.; Box 366; Huron, SD 57350 or phone (605) 352-2451.**

WANTED — Piano tuner-technician full time for music dealer in sunny Florida. Write: **Bobb's Pianos & Organs; 304 West Hallandale Blvd.; Hallandale, FL 33009 or call Mr. Bobb (305) 456-7800.**

WANTED — Piano Tuner and rebuilder to run rebuilding shop for grands and uprights. Salary and percentage plus outside tunings should total $10,000 plus. Write direct to: ***The Piano Shoppe; 89 Parsonage* Street; Pittston, PA 18640.**

HELP WANTED — Experienced piano technician-tuner, full time. Excellent wages and working conditions, Anaheim, CA. Mailing address: **Piano Warehouse; 8081 Starr Street; Stanton, CA 90680. Phone (714) 821-3311.**

POSITION DESIRED

WANTED — Apprentice desires work-learn situation with craftsman tuner-technician. Prefer southern Indiana area, but will consider anywhere. **Danny Evanoff; 4539 East 25th Avenue; Lake Station, IN. Phone (219) 962-2141.**

FOR SALE

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

FOR SALE — French and English pianos for sale. Contact: **Cesar O. Arnayus; 12221 South 25th Avenue; Omaha, NE 68123.**

FOR SALE — Hale Electric tuner that has never been used, $300. Contact: **Patrick Q. Mehan; 6 Ring Street; Rennsselaer, NY 12144.**

FOR SALE — 1830 Broadwood Piano Forte. Contact: **Jane Whearley; 2333 Ivanhoe; Denver, CO 80207. Phone (303) 333-9594 or 573-6073.**

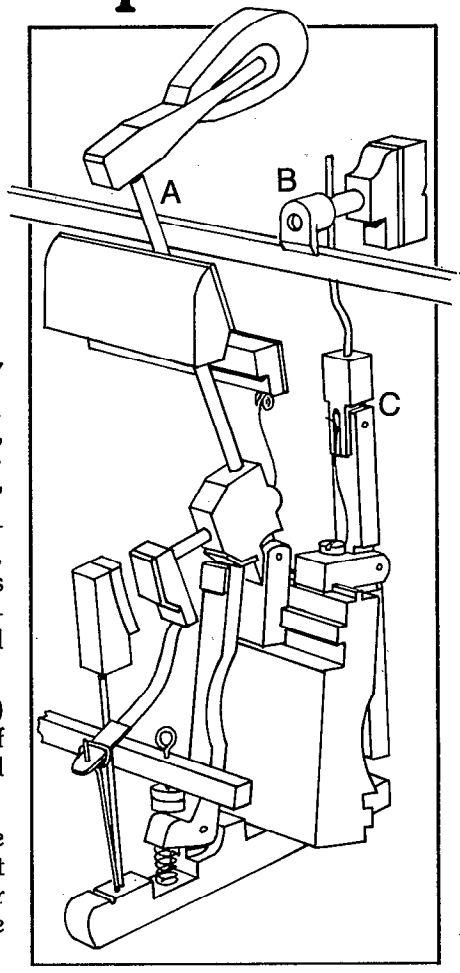
advertiser's index

WANTED

WANTED — Starrett center pin gauge or H&S Company T-hammer with wood handle and detachable shank. Please send offers to: **David C. Stanwood; 73 Gibbs Avenue; Wareham, MA 02571.**

WANTED — Early pianos made prior to 1850. Also purchasing out-of-print books, manuscripts, advertising, posters, etc., dealing with pianos and harpsichords. Please send photos of pianos if possible — will reimburse for expense. **Leo Martyn; P.O. Box 49263; Los Angeles, CA 90049.**

The Wurlitzer sostenuto system –so simple to service



INSTANTLY ACCESSIBLE FOR SERVICE

The sostenuto feature, a popular option on all current Wurlitzer studio, school and chapel pianos (Models 2962 and 2960), follows the principles proved in fine grand pianos and is even easier to service.

Operated from a sostenuto bar (A) actuated by the center pedal, any of 68 dampers may be picked up and held for sustained tones.

A Neoprene sleeve (B) on the damper block shaft has a lip that catches behind the sostenuto bar blade to hold the damper. Neoprene is a virtually indestructible material.

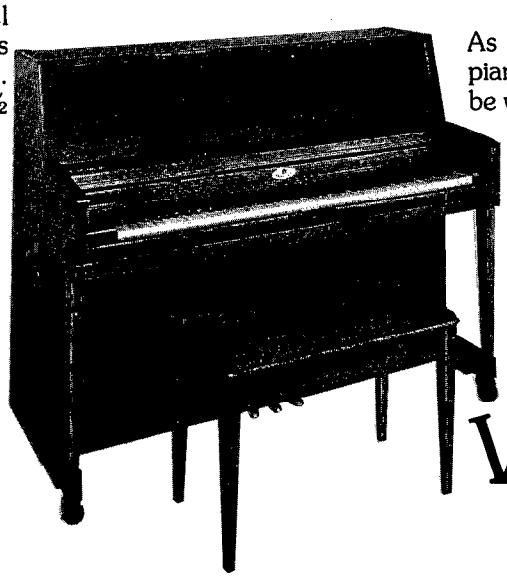
NO NEED TO REMOVE THE ACTION

Technicians will be pleased to know that all adjustments may be made from the *top* of the piano. It is not necessary to pull out the action.

Another fine point is our unique damper lever (C) which is made in two pieces, hinged and sprung to provide flexibility and make adjustments easier.

A new all-spruce Duraphonic Multiradial™ Soundboard improves tuning stability. In tests with up to 90% relative humidity, solid spruce expanded 5 times more than the new Wurlitzer design, causing more serious changes in string tension.

Wurlitzer Conservatoire Model 2960 with optional sostenuto meets all known school specifications. Maximum string length is 48½ inches.



As you continue to service our pianos, your comments will always be welcomed.

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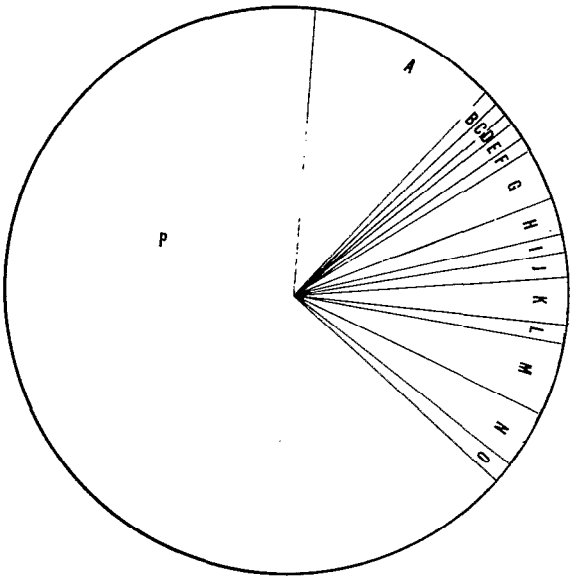
DeKalb, Illinois 60115

1979 PIANO TECHNICIANS GUILD
MARCH UPDATE

Everyone Gets A Slice Of Pie...



Harry Berg, editor of the Los Angeles Chapter's "Chapter Notes," recently reported on a program presented by Fred Odenheimer at the chapter's November '78 meeting. Entitled "It ain't all Yours," Fred's presentation gave detailed facts and figures for two areas of interest: gross annual income versus expense, and a similar breakdown for a typical repair job. The figures were supplied as being applicable for a "typical" piano technician - if there is such a creature - and they are most interesting. The figures are shown in the graph and are represented as (A) Car Expense: $3500, excluding insurance, estimated at 20,000 miles per year. To earn this you must work 260 hours. (B) Dues: $150. (C) Donations to Charity: $150. (D) Professional licenses: $180. (E) Advertising: $250. (F) Stamps and Office Supplies: $250. To earn B, C, D, E, and F you must work 73 hours. (G) Tools and Supplies: $800. You must work 60 hours to earn this. (H) Shop Rent: $750. You must work 56 hours. (I) Utilities: $360. You must work 27 hours. (J) Social Security: $360. You must work 27 hours. (K) Accounting Expenses: $950. You must work 70 hours. (L) Upkeep: $300. You must work 22 hours. (M) Telephone: $1,600. You must work 118 hours. (N) Medical Insurance: $1,200. You must work 90 hours. (O) Miscellaneous Expenses: $500. You must work 37 hours. (P) Net Income: $23,700, excluding federal and state income taxes. To earn this you must work 1,760 hours.

In the final analysis he estimates that the average technician receives $8.80 per hour for his time and his skills.

Fred also presented facts on how time is divided into many small segments for a single piano job, such as the changing of plastic elbows. Here are some of those segments.

Remove case parts	10 min.	Put action in piano	20 min.
Clean piano	25 min.	Regulate lost motion	25 min.
Trip to shop	20 min.	Check piano	15 min.
Order materials	30 min.	Adjust pedals	3 min.
Remove old elbows	10 min.	Discussion	15 min.
Clean & tighten action screws	30 min.	Time for trip to make estimate	30 min.
Replace elbows	60 min.	Miscellaneous	10 min.
Take action to the home	10 min.	TOTAL: Approximately 5 hours	

If the technician charged $100 for this job and the elbows cost him $21, that leaves only $79 for his time and expenses - pretty slim!

REPORT ON MID-WINTER BOARD MEETING

Your Board of Directors took several "Giant Steps" forward on behalf of PTG and its membership.

Foremost, a proposal to increase death benefits from $750 to $1000 after a study is completed on the increased cost to the Guild.

Funds allocated for production of more technical films under Ernie Juhn's supervision.

Policies were formulated in the production of the Journal which will bring this publication up to an even higher standard of membership information. More money will be allocated for its production and content.

Convention institute instructors to receive more benefits as an incentive to participate.

Next year's mid-year Board meeting will be held in the Home Office city, Seattle, Washington. Board members will see first hand how the administrative arm of the Guild operates.

Facts & Figures

Jack Greenberg's "World-Wide Piano Production" section of The Whippen Post reported some rather interesting facts and figures:

"Four large companies (Aeolian, Baldwin, Kimball, and Wurlitzer) account for about 70 percent of present United States production. The balance is produced by about one dozen other firms."

"It is of interest to note that in 1976, United States sales of domestic and imported instruments totaled 220,000 electronic organs, 23,000 electronic pianos, and 18,000 synthesizers, giving a total of about half a million keyboard instruments sold in the United States.

A surprise in the world statistics is the number three country (Russia) with a total of about 170,000 in 1972 - a rise from 10,000 in 1910. German production, which stood at 170,000 in 1910 totaled 26,000 in 1972.

England accounted for 20,000, France 25,000, Austria 1000. Total Western European production was about 60,000 in 1973.

PLEASE NOTE IN REFERENCE TO THE MOST RECENT PTG DIRECTORY THE CONSITUTION WAS PRINTED ALONG WITH THE BYLAWS. THIS DOCUMENT IS NO LONGER VALID WITH THE BYLAW CHANGES AND SHOULD BE REMOVED.

MILESTONES...

GEORGE MORGAN, past PTG President requested this information be put in the Journal:

The Admiral Piano Shop in the Journal: The Admiral Piano Shop in Seattle has ceased all sales business and the shop has been leased to another firm. George Morgan will continue Personal Piano Service.

OSCAR SCHMIDT passed away October 24, 1978. He was a long-time active craftsman member of the Detroit W Windsor Chapter and a former president of that group. He is succeeded by his wife, Florence, and a married daughter, and a number of grandchildren. Oscar began his long musical career at the age of nine as organist in his Ann Arbor church. He was a well-known teacher of organ, piano, and voice in Pontiac where he also served as choir director in various churches. He was a member of the Masonic Order and a leader in the Pontiac Baptist Church where many original musical works composed by Florence and himself were first presented. Oscar was born in 1897 and through most of his life practiced in our profession. His warm friendly personality will be long remembered-Detroit-Windsor Chapter

Publications

In November of 1978 I became extremely concerned about how late the Journal was being received by members. We go to press on approximately the 11th of each month, the Journal hits the mailer on approximately the 20th of each month, and usually reaches the Post Office no later than the 25th of each month. This should mean that most members would receive their Journal the second week of the following month and no later than the third week of the month. Home office was receiving complaints from everywhere - Journals were two and three months late. It's true that the Directory set us behind our deadline a little, but we were caught up in November and members should be receiving their Journals on schedule. The complaints, however, are still coming in. As of November we have had the Seattle Postal Department running tracers on the Journal, covering everything from the way its printed to the way its packaged and mailed. They can't come up with any faults by home office that would effect the date you receive your Journal. The end result was a conference on January 31 in which the following was proposed by Seattle Postal Department.

UNITED STATES POSTAL SERVICE

IN REPLY REFER TO
530:MJR:as

Seattle, Washington 98134

February 6, 1979

FEB 9 1979

Ms. Charlona Rhodes
Piano Technicians Journal
P. O. Box 1813
Seattle, WA 98111

Dear Charlona:

At the conclusion of our meeting on Wednesday, January 31, 1979, concerning timely delivery of your publication, an agreement was reached whereby your office would furnish the Mail Classification Office in Seattle an updated mailing list for the March issue of Piano Technicians Journal.

The Manager, Mail Classification will pick random addresses from their list and request a publication watch at those destinations chosen to determine time of delivery. If information compiled from this investigation proves that your publication is not receiving prompt delivery, we assure you that corrective measures will be taken.

Sincerely,

M. J. Robbins
Manager, Mail Classification Center

HOW TO: Readability

The following news item, which could have been printed in a newsletter, is written in story-telling fashion. The headline gives no real clue to the content of the article, and the first two sentences do not contain any news. The reader must read the entire article to discover the important facts, which may or may not be of interest to him:

GOOD WORK, SAM

Our chapter's project piano has been in the works for two years and we're still not out of the woods but a big milestone has been passed. We had problems because some of the parts were unavailable, and then Charlie Smith threw the damper action into the trash by mistake. Nobody knew what to do until Sam Jones figured out how to fix it with standard parts which he had to modify. Sam said that everything works fine now and John Doe made a big announcement about it last month at our chapter meeting. Sam changed the spring and fixed the mounting brackets and moved some of the underlevers so they would line up with the keys by plugging and redrilling the rail. Charlie said he was sorry.

To make this story more readable, let's change the headline to one that will be more meaningful to the average reader. The headline should tell what the story is about so the reader can decide whether or not he is interested in reading the article. Next, we'll "pyramid" the article so the most important information appears at the beginning. The second paragraph will contain supplemental information, and the final paragraph will recap the background briefly for those who don't know what's been going on. For easier reading, let's put the story in a single column:

PROJECT PIANO PROBLEM SOLVED

Who did it? Important facts first.

Sam Jones, our new transfer member from Smalltown, has solved the damper problem on our project piano. President Doe congratulated Jones at our last meeting for his ingenious modification of a standard new damper action.

Details for interested readers.

The modifications included plugging and redrilling the rail to make the underlevers line up with the keys. Jones also altered the mounting brackets and installed a different type of return spring.

Background for unaware readers.

All work on the piano had been stopped several months ago when the original damper action was misplaced.

Line drawn to justify margin.

Indent 7 spaces instead of 5.
Squeeze the word 'Smalltown'.
Leave 3 spaces instead of 2.
Leave 2 sp. each side of 'Jones'.
As is.
As is (end of paragraph).
Indent 6 spaces instead of 5.
Squeeze 'rail' or 'make'.
As is.
As is.
As is (end of paragraph).
As is.
Leave 2 spaces somewhere.
As is (end of paragraph).

This version provides more information in less space than the first version, and it also avoids embarrassing poor old Charlie Smith, who feels badly enough already. If we wish to justify our margin, we draw a line and retype it like this:

PROJECT PIANO PROBLEM SOLVED

Sam Jones, our new transfer member from Smalltown, has solved the damper problem on our project piano. President Doe congratulated Jones at our last meeting for his ingenious modification of a standard new damper action.

The modifications included plugging and redrilling the rail to make the underlevers line up with the keys. Jones also altered the mounting brackets and installed a different type of return spring.

All work on the piano had been stopped several months ago when the original damper action was misplaced.

Note the extra half-line spacing between paragraphs in this final version. It is easier on the eyes than the second version.

Justifying margins is not always as simple as this. Certain words present problems, such as the word thought. This word contains seven letters, but cannot be hyphenated because it contains only one syllable. The word antidisestablishmentarianism is far easier to justify because, though ridiculously long, it has many syllables. Hyphenate only between syllables, and substitute synonyms if necessary to avoid extremes in spacing.