

PIANO TECHNICIANS Journal

Official Publication of the Piano Technicians Guild

March 1998

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Inside:

- ***Installing a Grand Piano Stage Truck***
- ***The Pneumatic Bridge Press – Part II***
- ***World-Class Junk***
- ***Grand Hammershank Geometry***
- ***Humidity Control and Piano Soundboards***
- ***The Tuner's Life***
- ***Providence Convention News***
- ***TT&T, Q&A & Much More***

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EDITORIAL PERSPECTIVE

Are You Experienced?



Steve Brady, RPT
Journal Editor

Once in a great while someone will step back and look at a field of study in a whole new way. In *Harmonic Experience*, W.A. Mathieu does his best to reinvent music theory in general and the study of harmony in particular. Terms like "cadential energy," "virtual return," and "quasi-functional comma" signal that this is no ordinary music theory text. Strange-looking "lattices," harmonic maps of musical themes and compositions, add weight to the impression that this writer is up to something really different.

At several levels, Mathieu draws from Eastern musical cultures in an attempt to redefine Western music. For instance, he uses numerous Sanskrit musical terms, and quotes Sufi master Hazrat Inayat Khan as having said, "If two strings were ever actually in tune they would break." In a homily sure to raise a few eyebrows, Mathieu writes:

Meanwhile, it can be astonishing to notice how forgiving, under certain circumstances, the ear can be. The out-of-tune pianos in restaurants and nightclubs are good examples. In fact, the sound of a honky-tonk piano with its built-in wailing dissonance has come to represent a kind of uplifting defiance: We can't afford a piano tuner but we can damn well play good music. I once happened upon a piano that had been abandoned in the damp woods for a year, yet had somehow defied its own disintegration. It was wonderful to play on because, although music was hideously and hilariously distorted, it was still recognizable. For me that experience was a cartoon representing the truth that nothing manifest is free from distortion. Existence is a piano in the woods.

One might be tempted, by such philosophizing, to dismiss *Harmonic Experience* as a mere "New Age" guide to music theory. But it is much, much more.

A Review of *Harmonic Experience: Tonal Harmony from Its Natural Origins to Its Modern Expression*, by W.A. Mathieu. Inner Traditions International, Rochester, VT, 1997. 563 pp., glossary, source list, index. Contains numerous musical examples and tables.

Far from New Age fluff, Mathieu's radical recasting of the elements of tonal harmony partakes of a quality I can only call "brilliance." Mathieu's understanding of commas (differences between two series of different intervals started on the same note) and how they affect music and our impressions of music is simply light-years beyond what I have come to expect from college-level music theory teachers. He is certainly more comfortable talking about commas and cents than are most piano tuners. Although the material is sophisticated and challenging, Mathieu's writing style is warm, friendly, and entertaining.

Although Mathieu contributes to the perpetuation of a cherished myth when he states that, "A generation after (Bach's) death in 1750, equal-tempered tuning was becoming the rule rather than the exception," at least he doesn't claim that Bach wrote the Well-Tempered Clavier for equal temperament; in another passage he even concedes (in a brief, positive review of Owen Jorgensen's *Tuning*) that "Precise equal-tempered tuning was not fully accepted until the early 20th century." Elsewhere, he also notes that "Many musicians have fought (equal temperament) heart and soul along the way. It has been railed against, despised, and excoriated in many languages, right up to the present time." Whereas he erroneously states that inharmonicity is caused by string tension (rather than by string stiffness), at least he makes mention of inharmonicity, which may be a first for music theory and harmony textbooks.


Perhaps the most valuable thing about the book is Mathieu's use of hands-on exercises which guide the reader through singing against the drone of an open guitar string and deep listening to the overtone series, chord structures and harmonic progressions, encouraging awareness of how different musical struc-

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tures make us feel. This results in the industrious reader gaining an understanding of how music really works, not just from a music-theory standpoint, but from a real-world, experiential point of view as well.

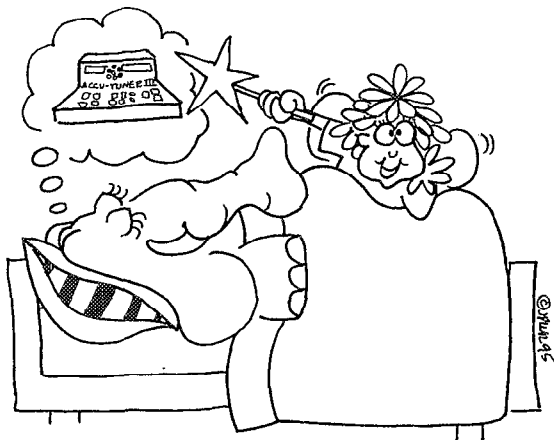
Mathieu's fascinating "harmonic map" method of musical analysis provides an appealing and practical alternative to Schenkarian analysis. Erected on "spines" of 5ths and 3rds noted on musical staves, these maps show where the notes in a given phrase or composition actually come from in terms of the overtone series. Unlike Schenkarian analysis, this type of mapping also accounts for the effects of commas upon the music and helps to clarify musical "spellings" (Is that D# or Eb?). The system can be used to analyze the key structure of an entire piece or the relationship of notes in a single melodic phrase.

Refreshing amid today's welter of "historical-tuning zealots" and "equal-temperament zombies," is Mathieu's rational and deliberate exposition of the strengths and weaknesses of equal temperament as well as the pros and cons of just intonation. "The reason twelve-tone equal temperament has been so generally accepted," he says, "is simple: It makes Bach and Beethoven and Mozart sing. It renders Rayel and Bill Evans soaring and translucent. It lets Stravinsky and Bartok open us as we have never been opened. At some very useful level, it works." On the other hand, "The twelve tones of equal temperament give a lot, but they also make the ear work overtime with little rest.... The ear gets tired and restless in twelve-tone equal temperament ... the systemic limits of twelve-tone equal temperament have long been reached and overreached." Just intonation receives similar objective treatment here: "The farther you move from the center, the more territory is involved. More and more notes sprout up, and the system becomes increasingly complex, until the ear can no longer distinguish among its elements. How to transcend those limits?"

How indeed. Dr. Overtone (Mathieu's mysterious alter-ego) concludes the work with a prescription to "Sing a few pure tones against a drone per day, and send me a postcard in a month." Mathieu himself follows with suggestions for overcoming both the limitations of equal temperament and the (paradoxically) overwhelming complexity of just intonation. But to learn what those suggestions are, you must read the book for yourself. 

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FEATURES

- 16 — **Installing a Grand Piano Stage Truck**
Veteran RPT Ben McKlveen demonstrates, in words and pictures, how to get the piano onto the "spider" all by yourself!
- 18 — **The Pneumatic Bridge Press — Part II**
In part 2 of 3, Clair Davies, RPT, shows how to build the body of the bridge press, including the pneumatic fixtures.
- 22 — **World-Class Junk**
Susan Kline, RPT, explores the world of "Fasteners That Don't," while a sidebar by Conrad Hoffsommer, RPT, documents a rebuild that didn't.
- 26 — **Grand Hammershank Geometry**
Oberlin Conservatory's Ken Sloane, RPT, relates how he made a piano that played like a truck handle like a sports car.
- 28 — **Humidity Control and Piano Soundboards**
Does it hurt a soundboard to be humidity-controlled from one side only? Ruth Brown, RPT, gets the answer from Professor Bruce Hoadley.
- 29 — **The Tuner's Life**
Ever feel like you swallowed a pill and fell into "Thigummy Land?" So does Anita Sullivan.

COLUMNS & COMMENTS

- 2 — **Editorial Perspective**
Are You Experienced?
By Journal Editor Steve Brady, RPT
- 6 — **President's Message**
Beethoven's Legacy Looms Large
By PTG President Marshall B. Hawkins, RPT

DEPARTMENTS

- 8 — **TT&T**
How to tune a piano to an organ if you don't use an ETA and you're all alone; a clever mixture for removing ink stains from piano keys; a tip for easier squaring of keys; and how to avoid the aches and pains common to piano tuning.
- 10 — **Q&A**
Do those piano string covers really work? What's the best way to move pianos around town?
- 14 — **Letters**
Rob Kiddell responds to "Bridle Strap Function," by Jim Ellis.

IN ADDITION

- 31 — **Grand Illusions**
- 32 — **PTG Review**
Articles and information dedicated to the news, interests and organizational activities of the Piano Technicians Guild. This section highlights information that is especially important to PTG members. This month: How Do the Blind Fit into PTG?; What Can You Count on from Social Security?; and Calendar of Events; Reclassifications; New Members; Passages; and In Memory.
- 32 — **Providence Convention News**
In this issue: Life-Long Learning: Outside Experts: Hoadley, Tax Seminar Return to Institute, Soundboard & Belly Workshop in Providence, Hands-on Rebuilding Skills Workshop, Some History of Rhode Island and Providence, Better Bread & Butter.
- 36 — **Foundation Focus**
- 40 — **The Auxiliary Exchange**
- 41 — **Classified Advertisements**
- 44 — **Display Advertising Index**

COVER ART

RPT Ben McKlveen advises using a back-up system for safety when singlehandedly installing a stage truck. See his article beginning on Page 16 for all the details.

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"Michaelangelo of Music," is one of the composers responsible for a large amount of this music. His colossal genius will without a doubt live on forever. As we approach the turn of the century and the 300th anniversary of the piano, there will be many concerts, written materials and articles being produced and much of the music of Beethoven will certainly be involved.

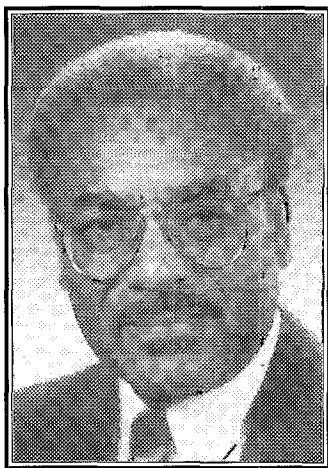
During the early part of his development, much of his music reflected the simple Classical style of Haydn and Mozart. Although Mozart had died before Beethoven could study with him, Haydn helped him become familiar with the instruments of the orchestra and the sonata form. His first three piano Concertos, along with the Pathétique Sonata and Moonlight Sonata, were penned during that period.

The compositions completed a little further along in his development are thought of by many to be the period of his best known works.

His music continued to pour forth, and between 1815 and his death in 1827 his compositions probably demonstrated the most powerful expressions of his soul. His technique in the use of instruments increasingly grew in perfection and detail so that his works gained in grandeur and ushered us into the Romantic period. The culmination of his genius gave the world the Choral Symphony No. 9. Nothing in musical literature has equaled the sublime excellence of this symphony. All of his life Beethoven had planned to use Schiller's 'Ode to Joy,' the poem which inspired this work, and here it burst forth in triumphant song.

In March we celebrate *Music In Our Schools Month*. Would it be reasonable to say there are few youngsters who have not heard or had occasion to sing the melody of the 'Ode to Joy'? The Music Educator's National Conference has chosen "**Music Power**" as its theme for this year. In conjunction with this theme, those of us involved in the piano service business have an excellent opportunity this month to share the broadness of music with others.

As you incorporate one or all of these elements in your conversations with clients and associates, you will not only be promoting music but you will also be helping to promote the piano and PTG as well.



Marshall B. Hawkins, RPT
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Tips, Tools & Techniques

Tuning to an Organ

When tuning pianos in churches, and occasionally in homes, we are sometimes required to take the pitch for the piano tuning from the organ. For users of electronic tuning devices, this poses no problem. But if one is tuning aurally—and a helper is not handy—it can be difficult, especially when the keyboards of the two instruments are not close together.

Here's a tip (and I learned it so long ago I can't even remember where I heard it) that served me well for many years. First, turn on the organ and engage an eight-foot stop. If you're tuning to a real pipe organ, it's a good idea to let the organ warm up for a few minutes while you're getting set up to tune the piano, because the pitch of the organ may go slightly flat as it warms up. When you're ready to tune, depress the note A49 (or C52, if you are a C tuner), take one of your rubber wedge mutes and wedge the note down by inserting the mute between the A and a neighboring key, as shown in Figure 1. Then go tune the corresponding A on the piano to transfer the pitch of the organ to the piano. Once that's done, remove your mute from the organ keys and tune the piano to the A you just captured from the organ. Remember that octave stretch should be kept to a bare minimum on the piano when tuning to an organ, because organ tone has little or no inharmonicity.

— Steve Brady, RPT
Journal Editor

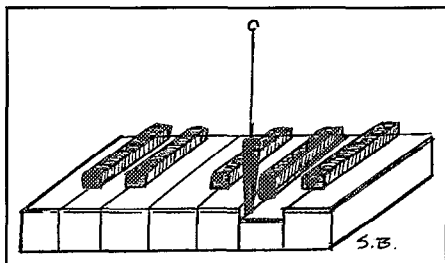


Figure 1 — Holding down reference note on organ keyboard with rubber mute.

Cleaning Ink Stains From Keytops

In the December issue of the *Journal*, Susan Kline wrote an article on cleaning keys and case parts. On page 22 she wrote that if note names had been applied with felt-tipped pens, it would never come off. Interestingly enough, this article was the first thing that came up at our December meeting, and I said how I had found something that worked. When everybody was eager to hear how I did it, I thought I had better share this with the readership.

The local music store purchased a used piano for resale without having me inspect it first. When I finally saw it, (a Conn, made by Kimball) the first thing I noticed was the note names written in felt-tip indelible ink, and I thought about how that would probably reduce the resale value significantly. I knew that the ink from those pens can creep right into the plastic. Sure enough, the first time I tried cleaning them with a regular cleaner, I got a little off, but they were still clearly visible. I went home, regrouped, and came up with something which really worked!

What I did was take some water-based silver polish paste, (Wright's) and put some in an empty 35 mm film case. I then

added as much bleach as I could without letting it become runny. When I got to the store I simply dipped a small scrap piano hammer in the paste and used it like an eraser. I thought that I was going to have to spend at least an hour on it, but in 15 minutes I was done and there was absolutely no trace of the writing left.

Here's how I think it works; the silver cream is nothing more than a very fine abrasive, one that won't scratch. I added bleach to it because if the ink made its way into the plastic, I wanted something that could go in after it. What I ended up with is a very fine Comet™-type cleanser. Using hammer felt really worked well. Try it!

— Kevin E. Ramsey, RPT
Pomona Valley Chapter

Squaring Keys

"Squaring" keys is the process of making sure that keys are "square" (90 degrees to the keybed). That simply means that we are looking for the keytops to be horizontally straight. Of course, the way to adjust this is to bend the balance-rail pin with a wooden or plastic tool.

The problem is that it is always difficult to check this with a straightedge due to poor light or the light coming from the wrong direction. The answer is simple. Get yourself a small battery-operated fluorescent light. It is available from hardware stores in the form of a small flashlight. Place it across the sharps (see Figure 2), and you will be surprised how

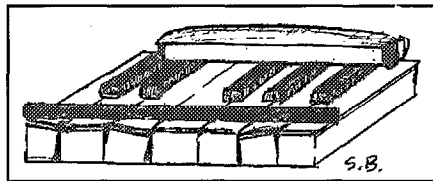


Figure 2 — Squaring keys with fluorescent flashlight.

well you will be able to check the white keys. After that, do the sharps by centering them at the key buttons between the adjusted white keys.

— Ernie Juhn, RPT
Long Island-Nassau Chapter
(Reprinted from NewsLINC, chapter newsletter)

Stress Relief

Even after 15 years of tuning and servicing pianos, the majority of my work is still the tuning of verticals. A few years ago, my left shoulder had begun to ache, even when away from work for a few days. After some thought about how I was using my left arm (which was contrary to how the joint is designed), I began standing while tuning, for all my verticals—even spinets—and turning a bit to the right, therefore pushing and pulling the hammer, rather than using the traditional left/right motion while sitting. Slowly, after a while, my shoulder pain disappeared, and hasn't returned.

However, a couple of years ago, my left elbow began to ache after tuning; and, during that time, while reading my Woodcraft Supply catalog, I came upon the "Tennis Elbow" support, claiming to "reduce strain and injury caused by re-

Continued on Page 14

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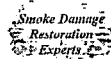
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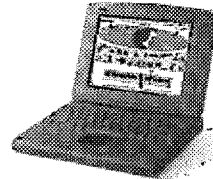
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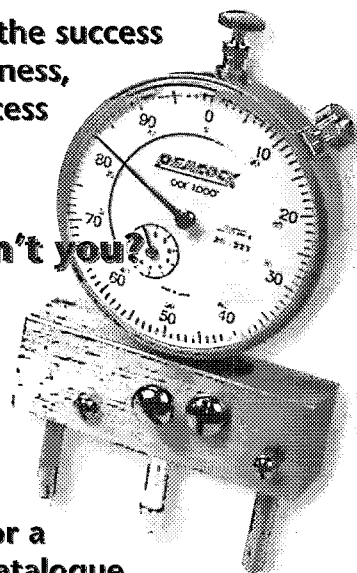
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Q&A/EDITOR'S ROUNDTABLE

Salty-Air Question

Q Recently, I have seen some cloth covers in grands only — these owners claim that a previous tech had suggested the use of this cloth on the strings to help protect against the salty air here in Florida. This cover just lays on the strings and covers the damper heads. It has the appearance of a custom-made cover, and I've seen three different colors, black, red, and beige. I have my doubts as to its effectiveness.

I wonder what this tech said to the owners of new verticals (probably nothing) he probably saw a payday with new grand owners wanting to protect their investment. Anyone care to chime in on this subject?

— Phil Bondi

A Susan Kline, RPT: On the Oregon coast, at least, these seem to work very well, and several customers with good grands have them. They must be real wool. I hear that synthetic fabrics actually hold the moisture against the strings.

I don't "see a payday," since the cost is fairly high to begin with, and a big markup would keep some people from buying them. I pass them on with only a minimal profit, because I like to see the pianos protected. (Well, it's one way of doing it...)

The only drawback I've encountered was one day when I took one off and found a fresh mouse dropping under it. The cover allowed the little critter to hide in comfort. We took it off for a while, trapped the mouse, and then put it back on.

Years ago I did tune an old upright from back east which had a big box over the tuning pin area lined with woolen felt about an inch thick. The rest of the piano was quite rusty and dirty but everything under the box was totally immaculate, as if fresh from the factory. Has anybody else encountered these boxes?

A Paul McCloud: We use/promote these covers (called "String Covers") here in San Diego for just the reason that you state, that the salt air will corrode the strings. They keep the plate, soundboard, etc., clean, and stabilize the tuning. They work. I have seen six-year-old pianos look like they were just delivered from the showroom. You just can't keep them as clean without a lot of work with the vacuum, etc. They should be made of 100 percent wool, or they will trap moisture under the strings, causing more rust than they are supposed to prevent. I have sold many, as have some of the best tuners here in San Diego and you can also sell them and make some money for your trouble. Contact Edwards Pianos (See the *Journal* classifieds) and they will send you a miniature cover to show, along with swatches of different colors. Also, they will print brochures with your name on them so you can easily sell them. It's a great deal! You may have found a very good thing — and not have been aware of it.

Moving Pianos

Q I am not generally in the piano-moving business, but on reviewing my records for the past two years, I have discovered that in the course of repairs/restorations, etc., I have done more than 30 moves, each one in a rented truck. The cost adds up, and I am considering alternatives. One alternative is a large enclosed trailer.

Can anyone recommend a particular type of trailer? What are the pros and cons of using a trailer for piano moves?

— Frank Weston

A Jim Coleman, Sr., RPT: Two of my sons use trailers for piano delivery. Pete is in the piano-moving business, and he has a fully enclosed trailer which he has modified to have a separate section up front for storing grand legs, lyres, music desks, and benches. There is a side-door entrance to this section. There is a square-sectioned bracing fence between this area and the rear area where two grands and some verticals can be tied down. He has steel rail fixtures along each side where he can tie down the grands. He uses modified car seat belts for quick tie down straps.

The advantage of a trailer over a large truck is that you don't need a hydraulic lift gate; a ramp will do. You also get better gas mileage when you are not moving a piano by leaving the trailer home. Jim Jr. uses an open-bed low trailer with a box enclosure on it for inclement weather moves.

A Bob Davis, RPT: When we were in retail, we had a truck with a lift gate. It was lovely, would hold multiple pianos, but was terrifically expensive to operate and insure. Now that we move fewer than one a month, it's unnecessary. We don't move for hire, just our own pickups and deliveries.

Most small trailers we saw had door openings too small for wider grands, so we had a trailer maker make a taller one (5-foot wide by 8-foot long, 66-inch tall door opening, top foot of nose slanted back at 60 degrees to reduce drag), and I installed a tie rail to strap the pianos to. A friend uses an open trailer, but I don't like the idea for several reasons. There's always the sudden rain shower, bugs, flying debris, etc., but there's also the idea of customer confidence — the closed trailer just looks more professional. Speaking of which, I imagine that a horse trailer would work very well. It's just that it looks like a horse trailer. Anyway, ours is just right for pianos up to seven feet. My wife and I don't like to move anything larger, so we refer them to a friend. We also don't need to move more than one at a time, because the car wouldn't handle it.

The cost of the trailer was about \$1,800, I think, and it has paid for itself already. We just hook it up to the car (takes three minutes), and drive away. I love it. It's easy to load, as it's not much higher than the dolly, and the piano slides right in. We have a sheet of Masonite™ (smooth-side up) covering the plywood floor. The wheels are on the outside (with fenders) so there's no problem with wheel wells on the inside.

Love it, love it, love it.

A Jim Kinnear: I have to agree with both Bob and Jim about trailers. They are the *best* way to go for moving one piano at a time. I have used one now for about eight years. I had one specially built with twin axles, 42"-high walls, steel floor (it makes it easier to slide in a piano with a broken caster) removable tailgate, and a steel frame/fitted vinyl tarp roof. The axles are offset, or dropped about eight inches below the center of the (old VW Rabbit) wheels, leaving the deck about a foot off the ground. When the piano is on the dolly, tipping it puts one end into the trailer!

This summer, I towed a Steinway player from Ontario to

Continued on Page 12

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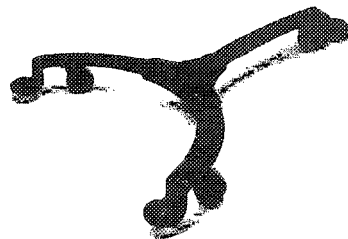


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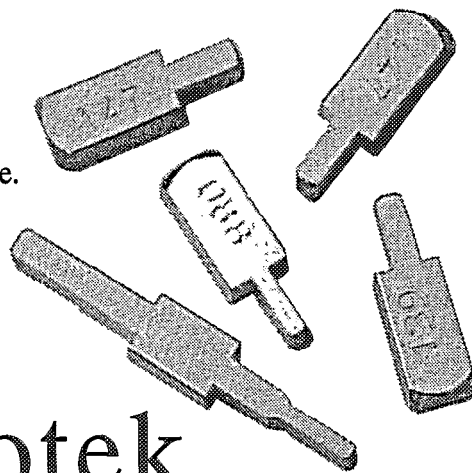
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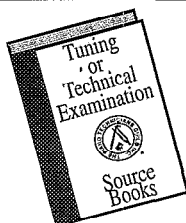
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Q&A/EDITOR'S ROUNDTABLE

Continued from Page 10

British Columbia with my Honda Accord, and you wouldn't have even known it was there. The tandem axles also allow you to unhook it from the vehicle, and still move the trailer around easily with a piano on it.

A Warren Fisher, RPT: Frank, the best way to move a piano in my opinion is an open trailer, not a closed one. Most have side rails about two and a half feet tall which is perfect for strapping down both uprights and grands on skids. Also it is much safer because the most dangerous part of the move is when you are rocking the piano either off the bed on to the ramp or the same place going the other way. If a piano is going to be dropped anywhere, it's there. If that sounds like the voice of experience, you got it. A 600-lb. upright darn near landed on my foot! Fortunately I owned it. Loaded it back up and pushed it off at the nearest dump!

The reason it is safer with an open trailer is that you don't have to crouch over if you are the one on the back of the piano and the people on the ground can reach over the side of the trailer to steady it.

Another thing I like about trailers in general is that if you back it up to the driveway so that the wheels stay in the gutter rather than running up on the driveway you get a situation where the tailgate of the trailer is about 4" off the concrete which makes it a snap to get off whether you have a ramp or not.

Talking about ramps. Get one! A seven-foot ramp costs about \$140 and is worth its weight in gold! Many people will let you back right up to their door. You just stick the ramp between the tailgate and their porch or front door and roll it right in on a piano dolly. Down in our area, many old houses have 10 to 15 steps to the main floor (which is really the second floor)!

Many people won't consider an open trailer because of the chance of rain. We made a series of hoops of electrical conduit that fit into u-brackets on the side of the trailer. We rented the conduit bender from a rent-all place. A specially made tarp fits over everything and I've never gotten a drop on anything! The piano has its own moving cover that is padded and waterproof. I had hand openings sewed into strategic areas so you can reach the lift points on each end.

I've rented several closed trailers from U-Haul and the various other places, and you have to get a really big trailer to have a tailgate opening tall enough to accommodate a grand on a skid, particularly if there is very much angle between the ramp and the trailer bed. You'll catch the upper cheek on the top every time!

So when you get a trailer tall enough to use, it's like towing a vertical barn door behind you on the highway. Mileage goes down the tubes! Not the least of which is the crosswind hazard in which a quick strong gust can literally blow you off the highway if you don't have 60 percent of the weight in front of the trailer center line! With an open trailer you won't even know it's back there unless you happen to look in your mirror occasionally! A recommended procedure! With a piano in an open trailer, you know instantly if your straps come loose rather than finding out when you get to your destination.

A David Ilvedson, RPT: I just purchased an open trailer (brand new) 4-foot by 6-foot. I will be installing siding and I don't worry about rain too much. I just

won't move it if rain is a possibility. The trailer cost me \$600 including documentation and license. I love it and I can haul trash to the dump (that includes pianos) and go pick up fire wood, just to name a few!

A Wim Bles, RPT: I have often thought of buying a trailer to move my pianos, but up to now have decided against it. I have investigated buying one, but found out that in order to get one that you can use for moving pianos, you have to get a custom-made one, with a back door high enough so that it can accommodate a grand on its side. You can buy one for your needs for roughly \$2,000.

But the cost of buying one is not the only expense. Insurance, upkeep, and extra wear on your car, (not to mention your back), can make owning a trailer more expensive than either renting a trailer once in a while, or having the move done by professional movers.

The other reason I have not owned a trailer is the workman's liability for the person who helps me. If he slips, or hurts his back helping you move, it could cost you a lot of money. Just my two-cents worth.

A Danny Moore: Interesting that the moving discussion came up at this time. I just got my 1T cube van back from having a new motor installed. During the month it was down, I used a very nice 5-foot by 8-foot by 6-foot high enclosed trailer for moving. Les Bartlett uses a 5-foot by 8-foot lowboy for moving. I've used about everything one can use to move the savage beasts, and I must say, I was really glad to get my truck back!

Like everything else, we all have our own personal preferences.

A Larry Fisher, RPT: Well, hiring to have all your moves done is a smart way to go, however, there are some drawbacks if you've got a healthy body to do moves yourself.

First off, you miss out on the gravy like I got on Christmas Eve, when someone barbecued their house with an unattended candle and wanted the piano removed immediately, and the insurance company was willing to pay extra considering what day it was, etc. I took the shell off the back of my pickup and loaded that puppy up (small grand) with the help of the disaster-restoration guy. He didn't have to do much more than simply tug a bit here and there and steady the beast now and again. I did the rest. I then spent the rest of the day cleaning the piano in my shop. I made some nice money doing an easy move, a bit for the cleaning, and storage fees started as soon as I finished doing whatever else they wanted me to do to the piano while I had it. I couldn't have done all this with a rented trailer because that place wasn't open, and the time factor was critical.

Secondly, if you own a trailer, they don't take much more room than a small car, the upkeep isn't that critical because you are making extra income dollars every time you use it. Also, if someone wants to borrow it, you charge rent. Licensing is cheap considering all the income it creates and rental it eliminates.

I'll be building my own someday. I've been watching for back halves of pickups, mobile home trailer axles, and one place had a bunch of old axles from an assortment of things,

Continued on Page 14

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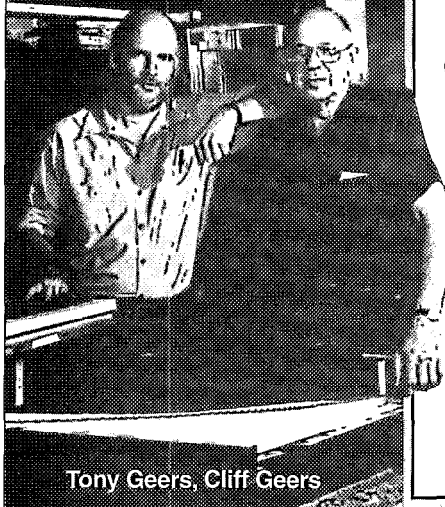


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Letters

Bridle Strap Function

Re: "Bridle Strap Function" by Jim Ellis, RPT; *Piano Technicians Journal* Dec. 1997.

Jim presents a compelling argument and thoroughly complete experimental results to prove that the primary function of vertical bridle straps is to aid in hammer repetition. What is interesting is that this has been marginalized in the last 40 years, primarily through PTG literature and contributions by RPTs (myself included), as well as test questions (I got that one right on the written exam).

Historically, I am also aware of the Robert Wornum "tape-check" action development, and the subsequent development of what is the modern-day bridle strap. In my article on bridle strap replacement, I stated that their only function was to keep the jacks from dropping below the butt felt when the action was removed. This has been proven wrong by Jim's excellent article. Also, when regulating verticals, I can easily tell when a bridle strap is disengaged by the change of "feel" when the key is played, partially due to the hammer returning slower and bouncing on the rest rail.

However, when I wrote my article on bridle strap replacement, I had in my mind the many times I have come across

regulated verticals where the bridle straps were pulled taut, because of poor hammer return. I have heard technicians describe this as a fix for sluggish repetition, and have often (not always) found tight action centers, broken or nonexistent hammer return springs, tight key bushings, tight balance rail holes, etc., to be the reason for slow repetition. I have found yanking back the bridle straps has been an abused "fix-it" and possibly one of the reasons for steering technicians away from equating them with any kind of repetition function.

Jim nails the function of the bridle strap squarely when he describes the "assistance" in repetition that the strap gives the hammer and jack mechanical assembly. Also, Jim is careful to mention that the straps must be regulated correctly for them to function as intended, both in the repetition aspect, and in the secondary aspect of keeping the jacks up. This was my intent when I described choosing the correct length of replacement strap, i.e.: one that will not be too long and interfere with hammer checking, as well as negating the hammer return functions that Jim has documented; or too short, causing keys to drop and lost-motion related problems.

— Rob Kiddell RPT
Edmonton, AB Canada

Q&A/EDITOR'S ROUNDTABLE

Continued from Page 12

some with trailer platforms attached that I could build my own top for. But then there's the time and money thing: when I'm busy and have the money, I don't have the time and when I have the time, I'm broke. The idea continues to prosper in my mind.

A *Del Fandrich, RPT:* I've been using an enclosed 6-foot by 12-foot Wells Cargo trailer for about eight years now. It is about half the weight of the typical U-Haul of the same size which saves considerable wear and tear on the tow vehicle. It is watertight and easy to use. It tows very well, especially considering its size. In general, it works quite well, but ... Were I doing it over again I would get the 5-foot by 12-foot, which is still long enough to hold a nine-foot grand – the extra length is useful for the working space it gives you, but with a bit less weight and wind resistance.

Also, I'd recommend the wind-reducing bubble for the front of the trailer. You'll get better gas mileage. I would also order it with a taller door.

It can get a bit tricky loading a large grand. We've evolved techniques that work, but a taller door would make life easier. I'd also get the heavy steel commercial tie down strips along both walls – you can easily move two pianos at one time with this trailer – along with straps to match. Nothing beats the knowledge that your piano is firmly tied down. We made our own ramp out of plywood with a couple of maple stiffeners. Fairly inexpensive and quite durable, though a bit heavy. You'll want brakes on the trailer. Mine are electric, but I'll not recommend a particular brand of controller. I'm getting ready to replace the one I have.

Shop around – check with the RV dealers – for a compact and reliable unit. I would also get it with a couple of interior lights. Very helpful on dark and stormy evenings.

Tips, Tools & Techniques

Continued from Page 8

petitive and forceful motion." Last February, I decided to give it a try. Made by SafetyMates™, it's an elastic support, cinched by a Velcro™ closure, that fits on the forearm, a little bit below the elbow. Apparently, it acts to absorb shock resulting from impact, before it hits the elbow.

Having tried it at least a few times every week since then, I can report that it does indeed make things quite a bit more comfortable. At first, I was a bit disappointed that it didn't do more to alleviate the pain that was already there – but it doesn't claim to be remedial. However, as the body will heal itself, given the time to rest (and certain limitations), my overall pain has decreased, as I'm no longer continuing to injure it every time I tune a vertical. In short, for me, it works. I cer-

tainly wouldn't hesitate to recommend it, even to those who aren't yet experiencing elbow pain: every time we engage in any kind of forceful, repetitive motion, we're risking damage that sometimes can only be treated surgically, as in carpal tunnel syndrome.

The catalog also describes SafetyMates™ back and wrist supports and anti-vibration gloves. The cost of the elbow support (from my August, 1993 catalog) is \$17.50 plus shipping. The catalog can be ordered from Woodcraft, 210 Wood County Industrial Park, Parkersburg, West Virginia 26102-1686.

— David Flanders, RPT, R.I. Chapter
(Reprinted from *Vibrations*, newsletter of the Rhode Island Chapter)

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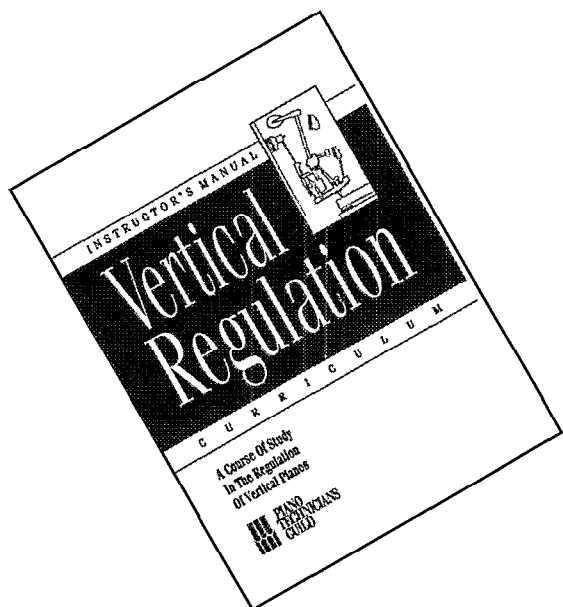


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Installing A Grand Piano Stage Truck – Singlehanded

By Ben McKlveen, RPT
Cincinnati Chapter

To the average piano technician, the most frightening thing next to moving a grand piano is installing a stage truck under one.

These are heavy unwieldy pieces of equipment, but they are necessary and desirable for institutional pianos, especially if these pianos have to be repositioned frequently. The installation process conjures up in the mind a team of stevedores (or piano movers) holding the piano off the floor while someone crawls underneath and does what he has to do to make everything fit properly. I suspect that more stage trucks would be sold and installed were the specter of installation not so daunting.

To this end, I have written this article. The process to be described was illustrated and discussed in my class in Dearborn in July, 1996. With this procedure, the most difficult job is carrying the parts in from the car. The "great equalizer" that lifts and holds the piano up while work progresses is a now-obsolete automobile bumper jack. They were standard equipment in all the days when all cars had bright chrome bumpers. There are thousands of these jacks languishing in junk

yards (excuse me – auto recycling shops) in every part of the country. They can be bought for \$5 or \$10, depending on their condition and availability. The jack consists of a base plate, and a lifting head that travels up and down a toothed metal bar. They are wonderfully simple, durable and easy to store.

We begin the process with Photo 1 which shows the truck parts, tools and the jack. The truck used in this installation was an older one rehabilitated with new casters and a new finish. It uses only one center plate rather than two as the more contemporary models do now. The tools include a pair of heavy-duty vise-grips, a wrench (I used a pipe

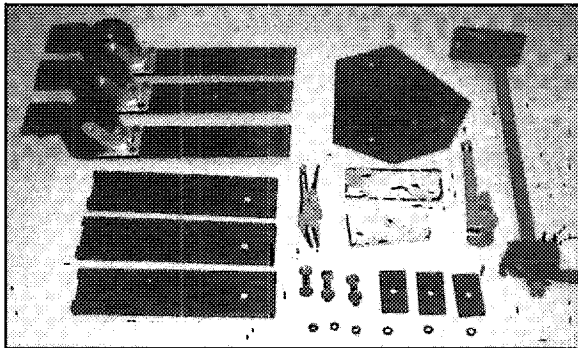


Photo 1

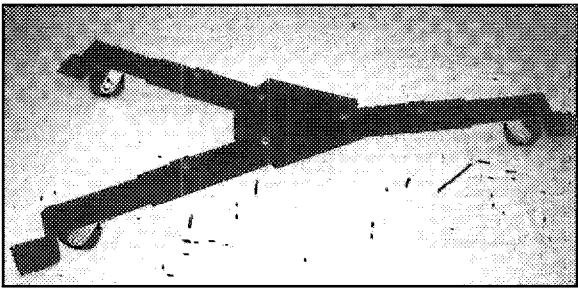


Photo 2

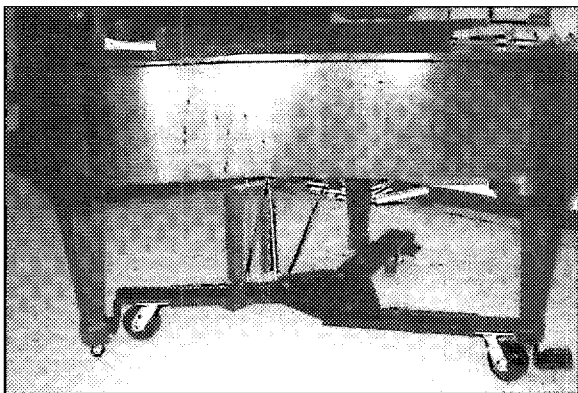


Photo 3

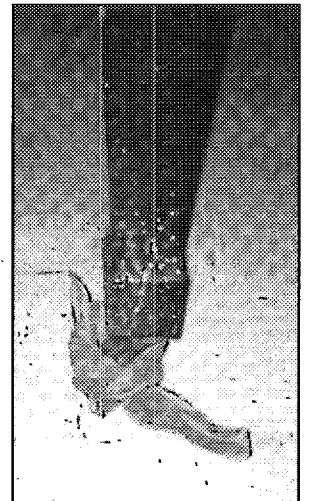


Photo 4

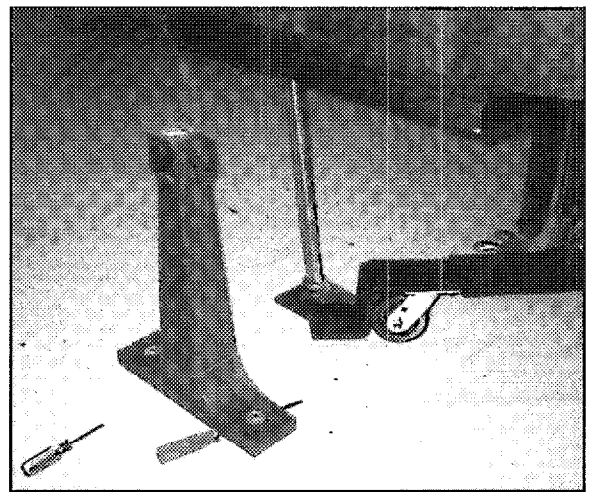


Photo 5



wrench; *Photo 6 (above) & Photo 7 (right)* one can use a large crescent wrench), two blocks of wood and (not pictured) a large heavy-duty screwdriver. I used the screwdriver to raise and lower the jack. The original jack handle was a combination lug wrench and pry-bar, long since lost.

Photo 2 shows the truck assembled and ready to be positioned under the piano. The piano used in this demonstration is a small 5'2" grand in a high school choir room. The truck used here was a small model, for use on pianos from 4'8" to 5'11" in length. There are two larger sizes to fit correspondingly larger pianos; for example, the middle size handles pianos from 6' to 7'6" and the large size is for concert grand pianos. It is important to match the truck to the piano.

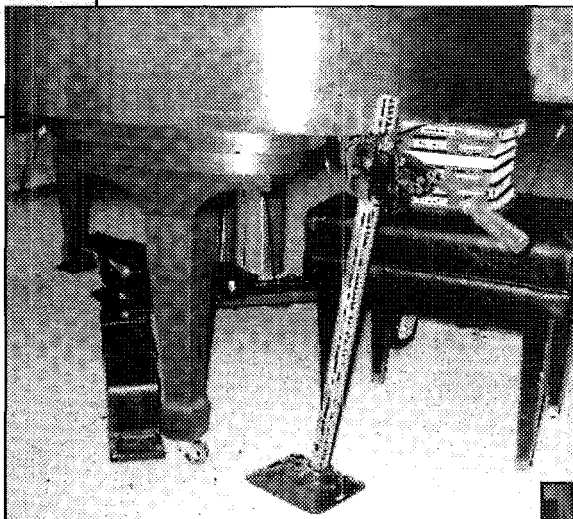
Photo 3 shows the truck placed under the piano in the approximate position it will occupy when mounted. Notice that the telescoping legs are contracted to their fullest and that in order for them to fit the piano, the center plate has been rotated to make them even shorter.

Personal safety as well as the safety of the piano are prime considerations in this operation, so before raising the right front leg to start the mounting process, it is necessary to block the left front leg so that it will not roll across the floor. Photo 4 shows this leg with a piece of cloth tied around the caster to immobilize it.

Photo 5 shows the bumper jack under the keybed raising the piano so that the right front leg can be removed. The use of this jack has raised the question of indenting the underside of the piano or scratching the finish. The lifting hook of the jack is quite blunt and does not make

any significant distress marks on the piano when used carefully. A cloth or felt pad between the jack and the case can protect the finish, but as with all tools, skill in using them is necessary to prevent damage to the piano.

This piano uses casters with sockets that are screwed to the bottom of the leg, so each leg must be removed from the pi-



ano, the caster socket unscrewed and removed and the leg replaced. On some grand pianos the caster can be pulled from the socket without removing the leg from the piano. With the caster removed and the leg replaced, the truck leg



cup is positioned under the leg. Before lowering the piano, place a block of wood under the truck leg cup. This supports the weight of this part of the piano and keeps the dolly from raising up in the air when the piano is lowered on the truck leg cup. See Photo 6.

The jack is now repositioned, the rear leg is removed, the caster taken off, the leg is replaced, the truck cup blocked with wood and the pi-

ano is lowered onto the truck. See Photo 7. Again, in the interest of safety, any time the piano is raised and a leg is removed, I always use a backup support system in the form of a bench with a stack of books on it to support the piano in case of disaster. This support is shown in Photos 7 and 8.

Moving to the left front leg, the process is repeated again. Reposition the jack, position the truck near the leg, raise and remove the leg, remove the caster, position the cup under the leg, and lower the jack. It is not necessary to block the truck cup with a piece of wood this time because the weight of the piano is now on all three legs. This weight shift also frees up the other two blocks of wood, making it easy to remove them.

Now is the time to tighten all the truck nuts and bolts. They have been left a little free so that the truck could be moved into position under the piano legs without effort. See Photo 9. Also, make a final check of the leg bolts or cams for tightness and security. See Photo 10.

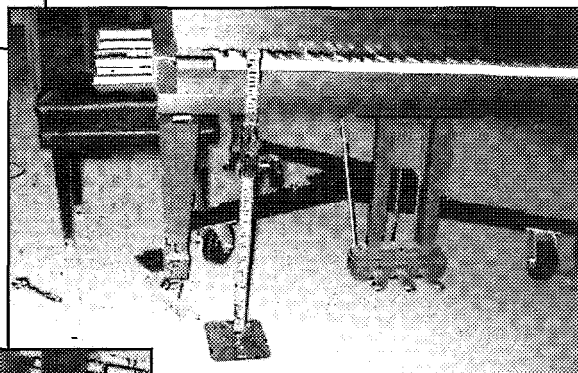
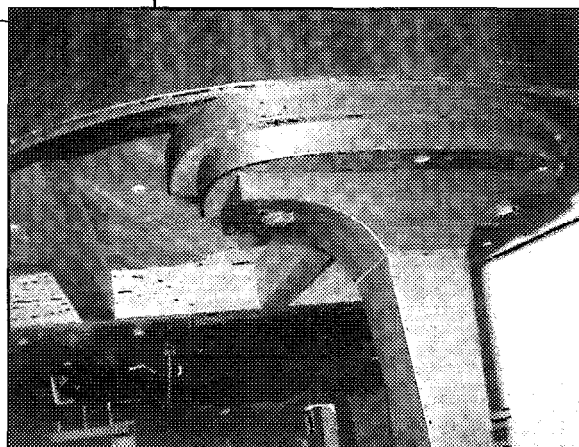


Photo 8 (above), Photo 9 (left) & Photo 10 (below)

This job can be done in this manner in about an hour, once one learns the procedure. It is a useful technique to know and an important customer service. ■



The Pneumatic Bridge Press — Part II

By Clair Davies, RPT
Bluegrass, Kentucky Chapter

Building the Press Body

A lot of time and effort can go into developing a new aspect of piano technology. Almost as much time can go into writing about it. Why go to so much trouble? Is it just attention-seeking? Is it mere ego satisfaction?

Undoubtedly, these familiar human failings play a role, but I think in most cases, in this journal certainly, it's more than that. I think it reflects a deep desire to be helpful, to make friends, to be a friend. If that is true, then any effort is justified and worthwhile.

When I was no more than eight or nine, my mother's brother, Red Murdock, gave me a priceless wood-working tip. I forget now what I was working on, but Uncle Red stood over me for a while watching. Seeing frustration in my efforts, he hunkered down beside me and confided that the board wouldn't split if I'd hammer the sharp ends of the nails a little and blunt them before I drove them in.

It worked! How can a kid be so lucky? The right word at the right time. More than five decades later I still use that tip, and every time I do I remember that man's face.

I was in love with wood even at that early age. Wood held such possibilities, and it could make you money! The

first successful venture with wood that I can remember was in cleaving pieces off a pine board, shaping them into toy knives, carving decorations on the handles and selling them for a nickel each to the other kids.

I still love wood, and pine in particular. The smell of pine! There's something atavistic about it, an association with time long past, something that recalls all the ancestral connections. I suspect that pine wood, in one way or another, has been a friend to the race as long as fire and the dog.

You'll notice that the bridge press, except for the hoses and hardware, is made entirely of yellow pine. Even the plywood in it is yellow pine. Although somewhat unforgiving — a hammer will

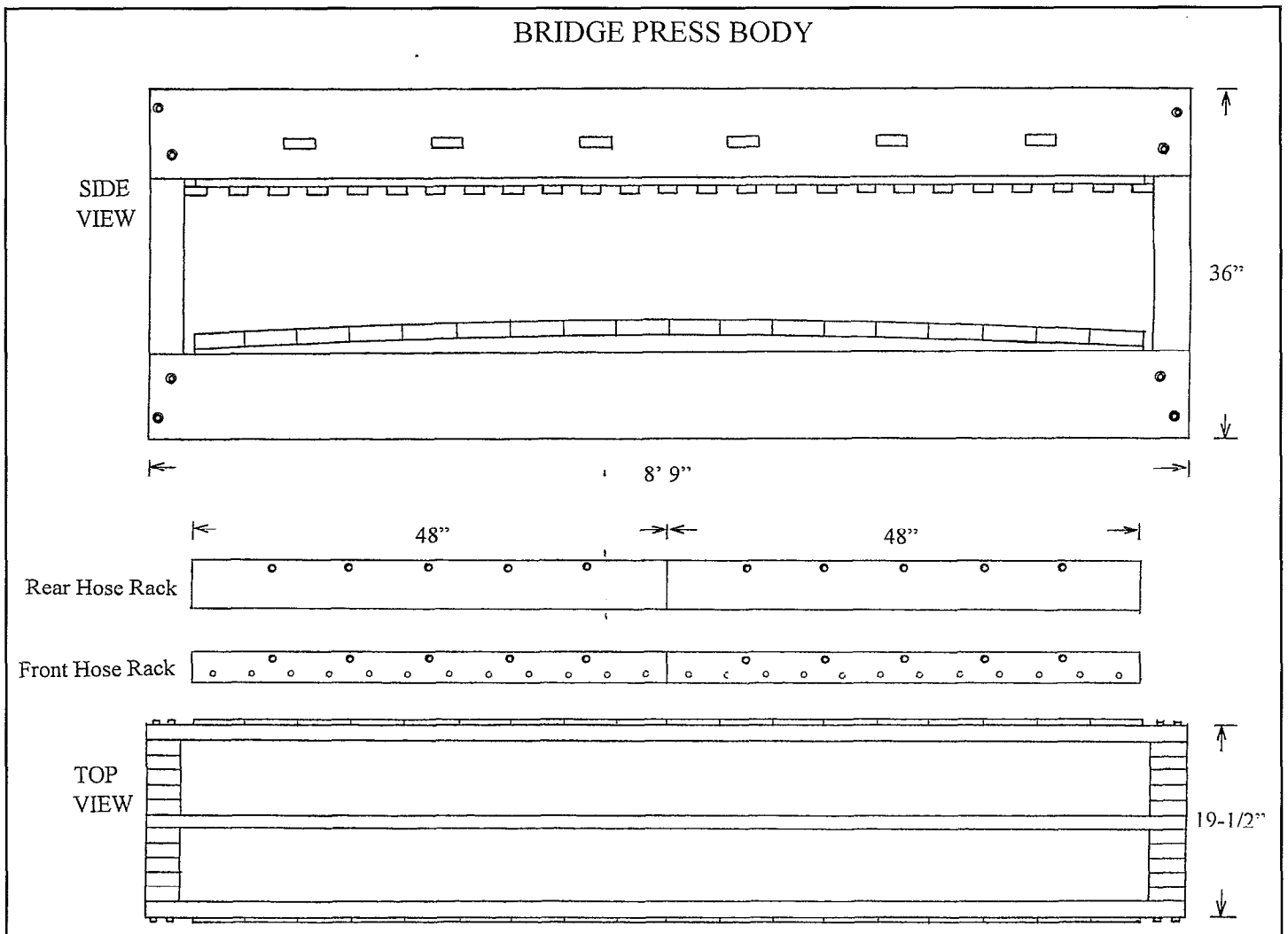


Figure 1

dent it, a nail will split it, a drill bit will wander off the extremely hard latewood grain — yellow pine is nevertheless quite workable, if given the proper respect. And it's cheap.

The beauty of yellow pine is almost always marred by some degree of checking. Luckily, this fault has little or no effect on its strength. As rigid as hardwood and relatively lightweight, pound for pound yellow pine is stronger than steel. It's hard to imagine any other material that would serve so well for this job.

In the parts list last month I specified 10 long two-by-tens. Six of these planks are used more or less whole for the press body, simply being cut to length and the edges planed a little. The other four will be cut up for the smaller parts.

The logic in buying lumber in larger dimension is to have more clear wood when selectively cutting it into smaller dimensions. Obviously, it's not possible to do the cutting and milling of such big pieces without a table saw, jointer-planer, drill press and bandsaw. Becoming well equipped is essential for a good outcome on any project, especially one of this size. Any money invested in tools and machinery comes right back. (See my article, "Go Buy the Tool," in the August 1983 *Journal*.)

As seen in the drawings, these six long beams will need to be tackled first. Choose the best three for the lower deck of the press. A hand-held circular saw will cut them to length if a piece of board or

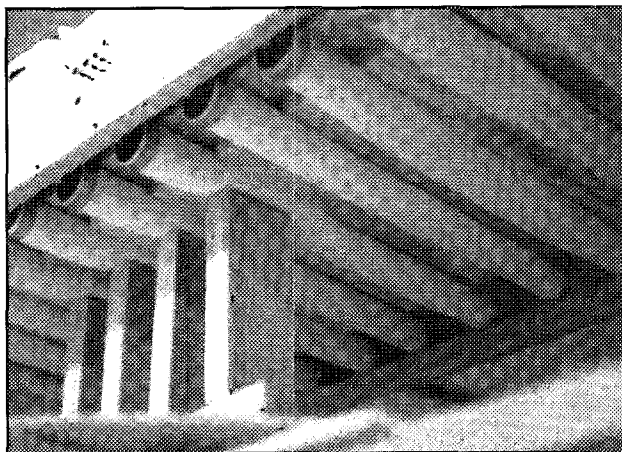


Photo 1 — Bridge press in operation, showing air hoses and spacers.

plywood is clamped on the plank as a fence. A radial arm saw would be better, of course, but for these initial cuts the smaller saw will do.

One edge of each lower deck plank should be as straight and true as possible, and the three need to be the same width. This is so their upper edges will all be level with one another when in place on the carriage. The easiest way to achieve this is by clamping them together and working the edges as necessary with a hand plane. For a guide use a taut

string and a good eye. Don't be afraid to reach for a new skill with the hand plane. It all adds up. You can have stronger rib joints, for instance, if you have the ability to get rid of jointer scallop with a single deft pass over each rib with a jack plane before gluing it on.

The holes

in the ends of the long bed planks need to be drilled separately in each piece, using a template as a locator — the same with the spacer blocks and the studs that support the upper deck. It doesn't work to try to drill the holes through everything at once with a super long drill bit. You can control where the drill goes in, but not where it comes out.

Hold things together with jiffy clamps as you assemble the decks. The threaded rods will have to be driven through because of all the friction, so put a nut on the rod's end to protect it from the hammer. One person can put the upper beams in place if it's done one end at a time. Just hold the first end up with one threaded rod while raising and securing the second end with a clamp or another threaded rod.

Alternating the relative positions of the threaded rods effectively

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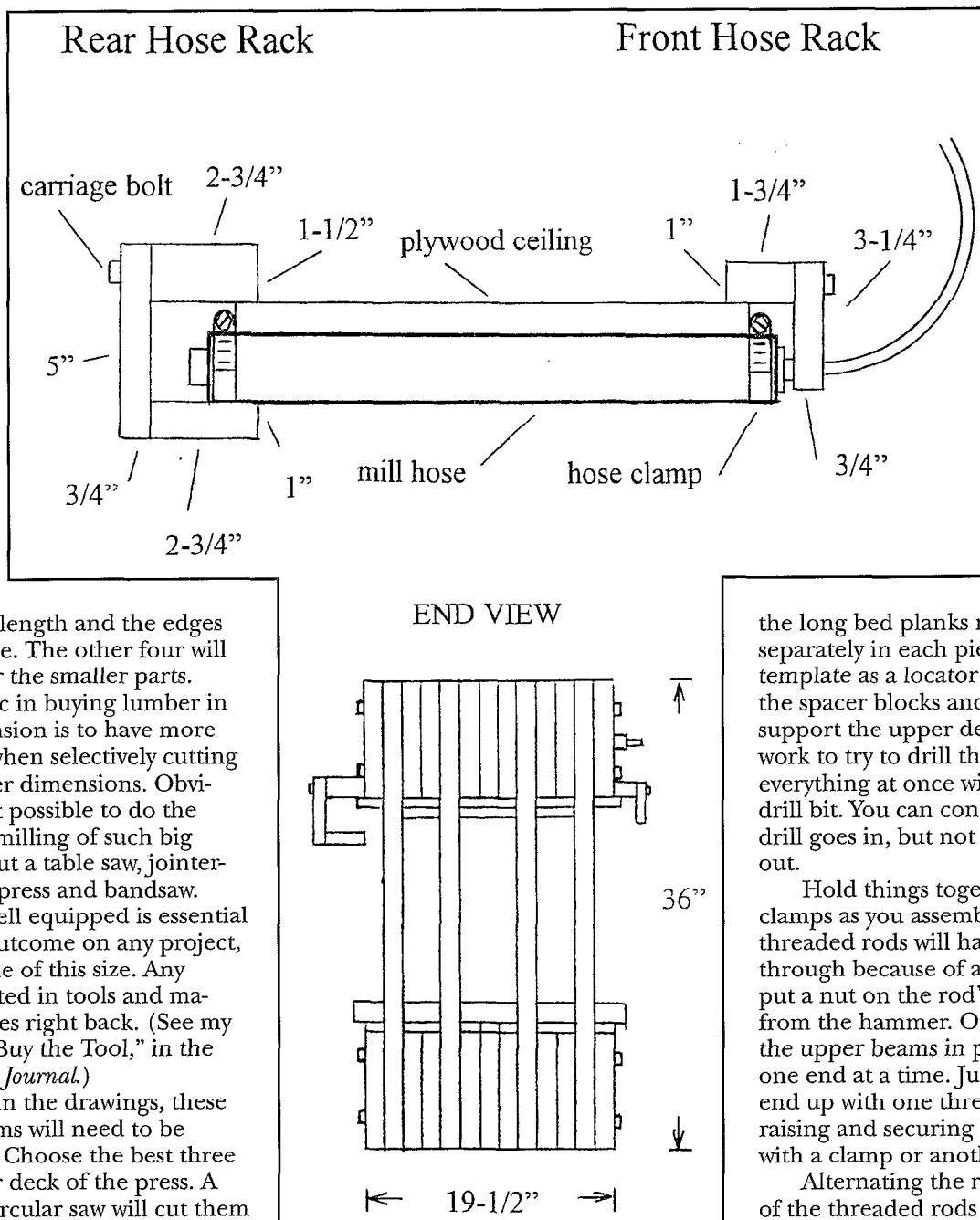


Figure 2 — Rear Hose Rack—Front Hose Rack.

The Pneumatic Bridge Press

Continued from Previous Page

triangulates the corners of the large rectangle, virtually eliminating the

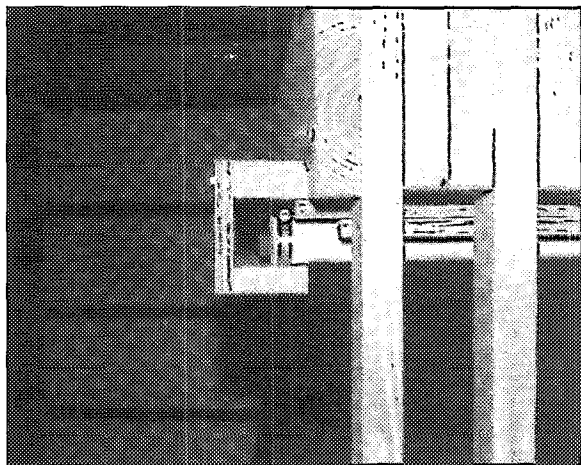


Photo 2 — Rear hose rack seen from end.

danger of racking, without the use of diagonal bracing.

Nail the 25 plywood hose spacers (3/4" x 2" x 16") to the plywood ceiling before putting it in. Hold up the ceiling with a pair of jacks or two piles of boards while screwing it into place. These spacers may be seen in Figure 1 and in Photo 2.

The crown in the lower deck helps maintain the existing crown in the bridge body. It doesn't do anything else towards crowning the soundboard itself. The thickness of the crowned rails is 1-1/2" at center, decreasing to 5/8" at the ends. The curve is more nearly parabolic than circular and is created by tracing the edge of a long slat that is flexed into a shallow bow and clamped in place. Under load a parabolic curve is stronger than the arc of a circle, and I wonder whether the soundboard crown itself should probably also be parabolic. I've observed that ribs crowned with a parabolic curve diminish the upward distortion of the soundboard on either side of the long bridge.

The lower deck was originally 3/4" plywood like the ceiling, but was found to have too much give. The short two-by-sixes (18 pieces, 21" long) do a better job of withstanding the pressure. The three-inch screws that hold each board down are well countersunk so that a hand plane and a belt sander can be used to smooth out the curve.

For clarity, the hose racks are not shown attached to the press body in the top and side views. As can be seen in the side view, the rear rack gives a one-inch clearance at the end of the


hoses, which allows them to lengthen when pressurized. Without this extra room, the hoses push out on the racks and twist them alarmingly.

There are 24 hoses, spaced four inches apart, enough to apply the full 100 psi to both the long bridge and the bass bridge on a concert grand. The little barrels of the hose clamps, positioned on top of the hoses and hooked behind the ends of the plywood ceiling, work with the

racks to keep the hoses in place.

For installation, the rear ends of the hoses can be slipped in at one end of the rear rack and then slid along to their respective positions. The lag bolts of the front hose rack should not be fully tightened until all the tubing has been threaded through and all the hoses have been installed. The holes for the tubing in the front rack are 5/16" diameter. The valve connector fittings are put on after the tubing is threaded through. Also, put all the little brass fittings on the six little manifolds before screwing them to the side of the press (see Figure 3 and Photo 4).

Next month I'll tell how to make the special cauls that transmit pressure to the bridge. I'll also discuss the

duckboards that provide support between the ribs and I'll give some tips on operating the press. 

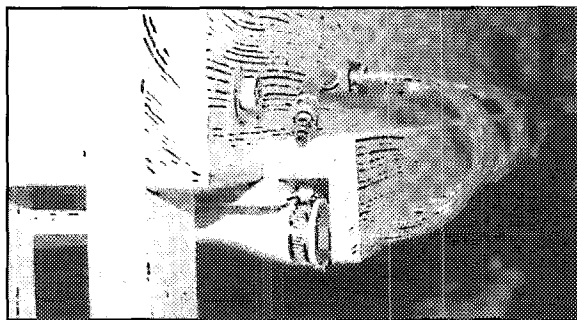


Photo 3 — Front hose rack showing quick-disconnect fitting.

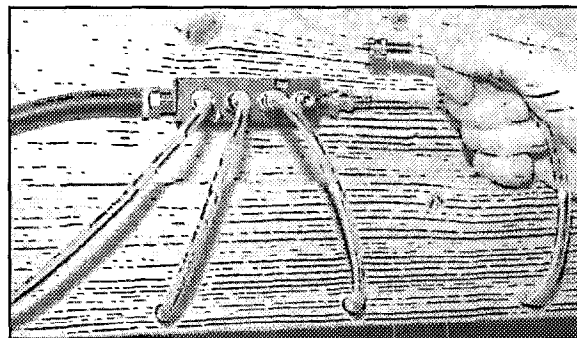


Photo 4 — Miniature manifold in the air supply line.

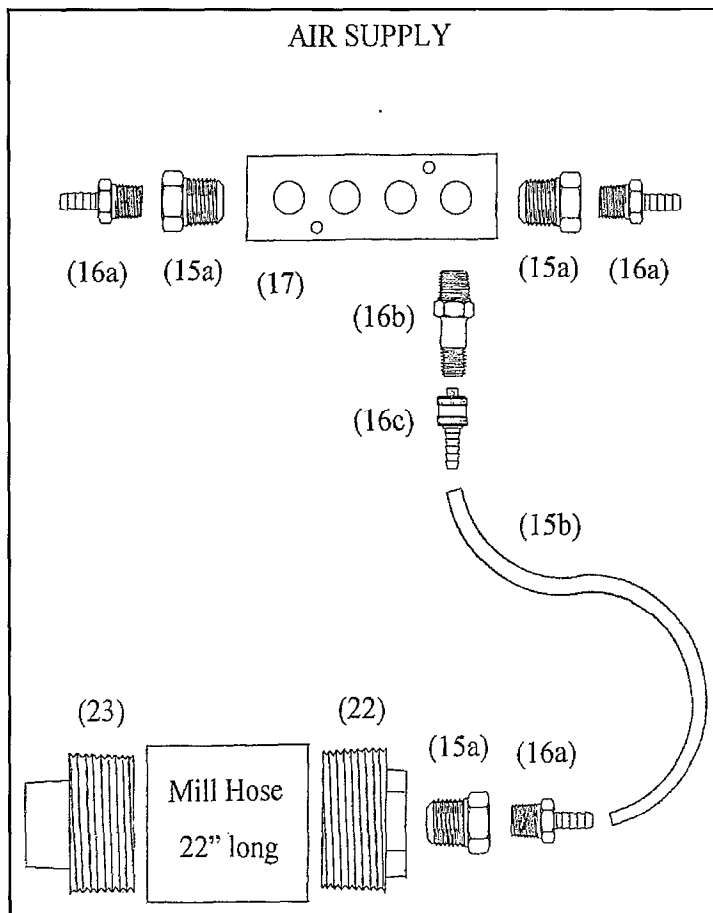
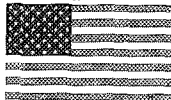


Figure 3 — Air Supply — Part numbers refer to materials list in Part I of this article, beginning on page 17 of the February, 1997 PTJ.

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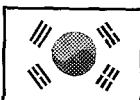
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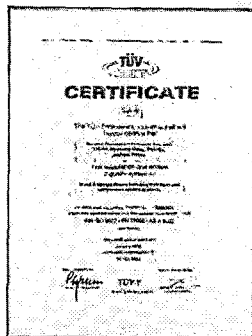
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By Susan Kline, RPT
Eugene, Oregon Chapter

Fasteners That Don't

There is a body of conventional wisdom, a series of tactics that people use to deal with common problems. It's too bad that a lot of these tactics don't work well. The most common tactic for screws that have gotten loose is to put in a larger screw. Never mind that it's a drywall Phillips screw which is too long, or a flathead screw in place of a roundhead, or that it is so oversized that it is seizing in the piece it is trying to attach, while still loose at the pointed end.

(Remedial Technology 1A: Most of the time a screw is intended to pass freely through the part which is being attached, and thread firmly into a base. For instance, a flange screw will pass freely through the flange, but thread firmly into the rail.)

The screw didn't get smaller; the hole got larger. Therefore, let's put something into the hole to get it back to its original size. (I'm sure you're all with me this far.) My method of choice was putting bits of toothpicks into the holes, with dabs of white glue. For knobs that were falling off, I would enlarge the hole further with my 7/32" hand-drill and glue in a bit of hammer shank, then make a proper-sized pilot hole. When I was going all out I epoxied in the hammer shank insert. I also used pieces of popsicle stick when the holes were too large for toothpicks.

This is all well and good, except that none of it works for more than a little while. The grain of the inserts runs in the wrong direction, so that when the screws press against them the threads chew them to sawdust in short order. When I returned to the schools where I had threaded knobs into pieces of hammer shank, I almost always found that a neat 7/32" hole was all that remained. Even if the glue joint had not failed, fastening into end grain is always weak, so the knobs would have come off again.

If you really need to plug and re-drill a hole, you need to get a plug-cutter and make pieces with the grain going the same direction as the wood you are repairing. This is straying dangerously far from the scope of these articles, towards what one would do to a good-quality piano. So, what can you do when the screws on the derelict old upright from the school auction are loose, and you have five minutes to fix them?

Leather: Try it, you'll like it!

This repair was described to my chapter by Jeff Hickey, RPT, of Coos Bay, Oregon, and I've been using it happily ever since. Luckily, you can read what he said to us in "Q&A/Editor's Roundtable" of the September, 1997 *Journal*, page 12. The part you want is where Jeff Hickey says, "You guys are working way too hard!" This just about sums it up, all right.

Consider leather: when it gets wet (for instance, with white glue) it gets soft and can be molded by whatever shape confines it, such as screw threads. When it dries it hardens. It gets so hard that a few centuries ago it was used to cover shields. Leather is tough, but has give.

This leather repair came originally from Steinway, to use for stripped flange screw holes in their metal-covered rails. The spinets, consoles, and aging uprights don't need to know that. It works just as well for them.

As a small example, consider the pilasters (you know, the pillars that attach to the insides of the case above the music shelf on big uprights, with pins or hinges from which hangs the music desk). I don't know why their screws should get loose, but they do. They often have overturned screws and "repaired" screw holes. Take the pilasters off, and sometimes the previous repair stands in air. There is the bit of match wood or hammer shank, gobs of dead glue still adhering, sticking out from the case, proof that someone tried to fix a loose screw without taking off the pilaster first. The "insert" just seized the screw in the part it should pass through freely, leaving the end still loose. This is a "fastener that doesn't" [fasten].

So, take a piece of leather and cut off a strip. Use tweezers to put it in the hole, and if it sticks out shorten it till it fits in. Put some white glue on it and put it in the hole. Then, rub a little VJ-lube on the screw threads, so they will rust a little later on, instead of today. Start turning the screw into the hole, being sure it isn't just pushing the leather deeper in. When all seems okay, turn it back out of the hole, put the pilaster in place, and screw it down like normal. If it feels fairly firm, leave it. It will get firmer yet as the glue sets. If it still feels loose, you can add another strip of leather, or take the first one out and put in a larger one.

When you return a year or more later, the fastener should fasten just like any of the others. You may not even

remember that you needed to do the repair.

By changing the thickness of the leather and the width and length of the strips, you can adapt this repair for everything from tiny music desk hinges all the way up to lyre repairs.

Large Craters

The leather trick is for holes that are a little bigger than they should be, not for huge gaping pits. Fallboard screws on school pianos in particular can chew away at key blocks for years. No one knew about leather. They were told to tune the piano, and they tuned it and left. Pitch is firmly chained to A=440, while the case parts are literally falling off. I can't imagine working for years and years while exercising so little initiative. Anyway, I imagine many of us have seen holes in the backs of key blocks that are almost 1/2" wide and exactly as deep as the screws can reach.

When filling that large a gap, I reach for five-minute epoxy. I also fill most of the hole with something, such as a small block of wood. Then I completely fill the hole with epoxy, embedding the block of wood. I drill a pilot hole once the epoxy is good and hard, and reinstall the screw.

This is not an elegant repair, but it's much better than leaving the fallboard flopping all over the keys.

The Hamilton Leaning Knob

I don't know why they lean, but I've seen many that do. They eat into the key cover, deeper and deeper, at a steeper and steeper angle. The little machine screws that hold them in get hopelessly bent.

I replace the machine screws, and sometimes the knobs as well. There still remains the deep, crooked recess. I take a brad-point bit in a hand driver (not a power drill), and drill the recess till the bottom of the hole is straight. Then I embed a phenolic washer, using epoxy again. (I bought a whole set of phenolic washers years ago, to repair key balance holes, but I've never used a single one for that purpose.) I take the key cover off, back the hole with masking tape, and stand the key cover upright so the epoxy won't drip back out before it hardens. I drill a pilot hole

large enough so the machine screw will pass freely. Then I thread the new machine screw with a lock-washer and washer, put it in the hole, add another small washer, and twist on the new knob. If the knob can't thread on far enough to be tight, I add more washers inside the cover. Sometimes I have to grip the new knob with pliers to get it tight enough, but I put heavy leather in between the pliers jaws to keep from marring the side of the knob.

So far, knock wood, the new knobs have still been there, straight, when I've come back later.

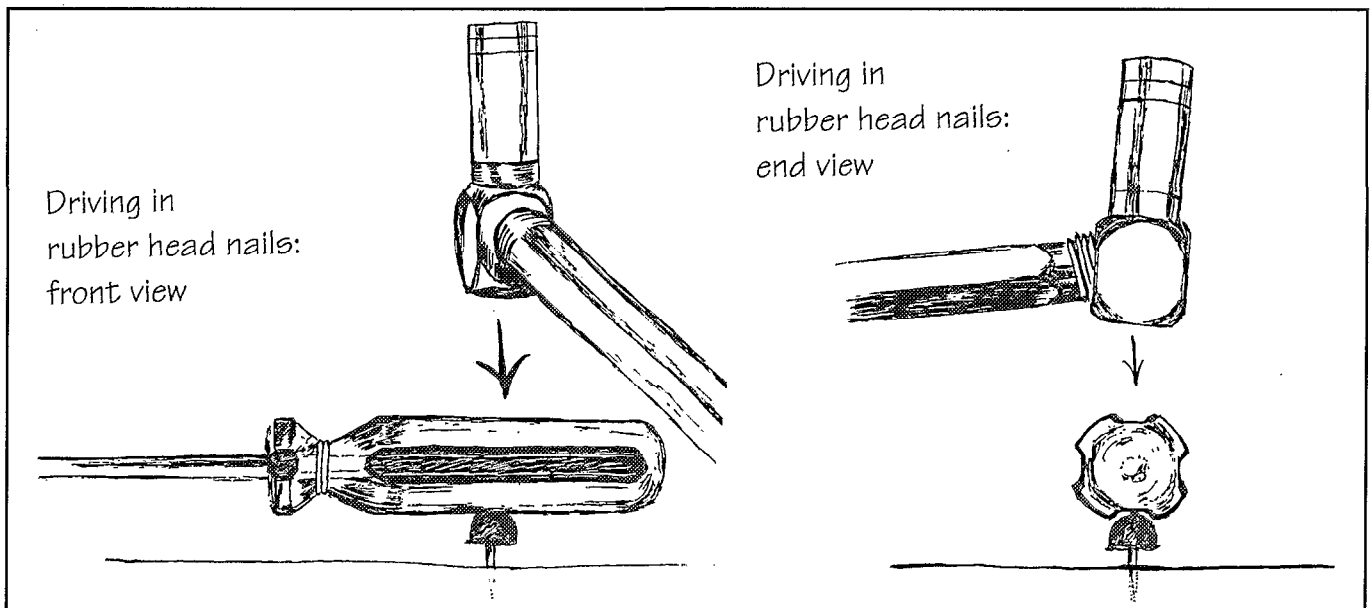
The Disappearing Rubber Button

Like all rubber parts, buttons harden and crumble away. When case parts are closed, a euphonious "thunk" turns to an obnoxious "clack." Good assortments of rubber buttons are available, and easy to keep in the car.

At one point when I ordered rubber head nails I received very pretty ones which were made of hard plastic instead of rubber. These I consider useless. When I asked the supplier about it, I learned that the standard rubber head nail was hard to install. When pounded in, the nail would punch through the rubber top. There is a trick which helps a little with this problem. I use the side of a screwdriver handle, and set it so that one of the grooves is centered over the nail head. Then I pound the screwdriver handle rather than the rubber dome, usually with the reversed head of my tuning "hammer." Although the groove is still wider than the curve of the rubber head, for some reason fewer are destroyed when I do this, and of course there's much less chance of denting the case.

If the hole for the old nail was straight, the replacement will go in straight. Sometimes, though, the hole is crooked, or it is too large. I sometimes install the rubber head nail in a new hole right next to the old one. It goes in straighter if the hole is first marked with a center punch of some kind. I carry an awl in my kit, which will start assorted pilot holes when tapped with (yes) the back of my tuning lever. (I do own real hammers, but they are usually in the car, and for small jobs I reach for what is handy.)

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World-Class Junk

Continued from Previous Page

Mushroom-style Rubber Buttons

I've daydreamed for years of making myself brad-point hand-drills with built-in stops which leave just enough drill showing to provide clearance for rubber buttons. It would be so easy, then. A few twists of the drill, and the new button would just snug into the hole.

Since I've never made myself any drills like these, I clean out the old holes, and dry-fit the new button. If the hole is too big, I shim it with a little slice of business card, with white glue on the outer surface. (Remember, this is after dry-fitting. Getting everything right before you add glue is one of those sovereign remedies for frustration.) After I have wet the card shim with glue and smoothed it around the inside of the hole with a small screwdriver, I then smear just a little white glue on the inside, add a drop of CA glue to the bottom of the rubber button, and insert. (My first article in the October, 1997 *Journal* talked about this glue trick.)

Assortment Dynamics

Dear Readers: Commit random, senseless acts of kindness: replace missing or mangled fasteners. The person who follows your work may be – you! (or me!) Of course “we” are never the ones who maul screw heads or use worn-out screwdrivers.

As a bonus, replacing bent, chewed, rusted or missing screws will give you the chance to observe the “dynamics of assortments” in action. It's common sense. When you first acquire an assortment of anything, be it screws, washers, rubber buttons, knobs, or hinge pins, there are some of many sizes. Not all these sizes will be equally useful. Therefore, every time you take something from any assortment and use it, the percentage of useful parts remaining will diminish. Unless willpower and a parts supplier or hardware store intervene, the usefulness of the assortment will approach (but never quite reach) zero. Picture opening a desk drawer looking for something which writes, and finding dead ball-points, red pencils, buttons, old unidentified keys, mechanical pencils without leads, and a 10-centavo coin ... you get the picture.

Individuality enters here. Some very organized people have spare hardware sorted by size in containers such as fishing tackle boxes, and regularly renew the bins before they become empty. Others, if they have spares at all, have them all dumped together in a bulging cardboard carton, or roughing it in the bottom of their kits. Most of us are somewhere in between. My rule of thumb is that if I can find a good, wholesome, right-sized whatever-it-is when I need it, within five minutes, I am organized enough. If I need to scrounge, or reuse bad fasteners, or leave empty screw holes, or (horrors) make a return visit, improvement is needed.

To conclude, these are in with my basic supplies:

- Zip-loc™ bag with assorted pieces of leather
- Small bottle of white glue
- Small bottle of CA glue, frequently replaced (“Quick Tite™” by Loctite™ is my favorite brand)
- Business cards
- Swiss Army knife to cut leather and card awl (with a wooden handle)

- Assortments in plastic tackle boxes with cardboard covers (carried by APSCO):
 - round head screws
 - flat head screws
 - hinge pins (includes spinet music desk mounts)
 - rubber buttons
 - knobs
- Scrap box of who-knows-what, mainly screws
- Box of large screws, such as key slip screws
- Small box of assorted washers and lock-washers
- VJ-lube for screw threads (or I borrow bar soap)
- Several good screwdrivers, of different sizes and types: large slot-head screwdriver with square shank, and a crescent wrench to turn it tuning “hammer,” (soft-faced hammer, rubber mallet, and small tack hammer in trunk, seldom used)

An Exercise to Restore a Sense of Proportion (“SOP”)

I imagine that the large number of us who work on junk get a little down in the mouth from time to time. We tune our customers' little spinets and brand new consoles full of false beats, and we say to ourselves (or, rather, I've been known to say to myself) “hunka junk.” I propose that this is because we've forgotten what real “World-Class Junk” actually is, so I got permission to reprint this little reminder.

This interesting list of discoveries recently showed up on the “pianotech” e-mail list, sent in by Conrad Hoffsommer, RPT, of Decorah, Iowa. It made me smile for several reasons. In their journey of exploration, I pictured his chapter (Minnesota/North Iowa, #551), getting deeper and deeper (“surely this is all?”) finding more and more... and yet more. I also felt a little glow of reminiscence, as I compared his Brambach to the one which had come my way many years ago.

Mine was much luckier than his: it had only spent about two decades in a barn. Surely everyone new in the field deserves to resurrect a Brambach grand! It's so educational, and there's so little to lose! The owners, a very upwardly mobile couple just out of school (a lawyer and a stockbroker!) asked my advice, and dealt with the ruined finish and peeling veneer, restoring the PSO (“piano-shaped object”) to a decent basic black. I helped them with replacing a cracked leg plate and heaps of case hardware, and I repinned, replaced cloth, leveled and bushed keys, and generally did what it needed. It was the first time I had regulated a piano from scratch, or replaced and regulated a whole set of grand dampers, on my own. Getting the pedals to work was a revelation all by itself! When the sweat was wiped away and the worst of the trauma had faded, there was a small but working piano, and a happy couple with a sense of accomplishment.

Conrad's Brambach has a different role to play. The plate cracks (see sidebar photo) sealed its fate. It has already been very educational for those seeing it, a graphic and horrible example of what not to do, and why not to do it. Come Spring, the rim is going to return to earth as a flower bed edging, which will be easier than expected, since this piano has no beam structure under the soundboard. Brambach, RIP.

There was a fuss on the e-mail list over whether everyone was sneering at the hapless person who did the

original rebuild. My view, corroborated by reading a few very early *Journals*, was that ignorance was very widespread a few years ago, and very, very expensive for the possessor. Even doing a terrible rebuild is an immense

amount of work! This unnamed "expert" is probably long gone. If his example can prevent anyone from following in his footsteps, he will have done some good. ■

The Horrible Brambach

By Conrad Hoffsommer, RPT

Here's a little fluff for your day.

The following are the results of an inspection at a chapter meeting and recent tear-down of a 4'9" Brambach PSO of unknown age:

"You know your PSO has been rebuilt by an expert when ..."

- Top sections of hammers have been replaced but not the bass section.
- Hammers usually strike at least two of three strings in any given trichord unison.
- Hammershanks protrude through most (replaced) hammers 2 or 3 mm — those that don't are short by a similar amount.
- Una corda pedal doesn't shift action because both lyre screws and one leg screw extend into keyframe.
- Understring felt not replaced, but

rather is covered by nameboard felt.

- Keys show no evidence of rebushing.
- Damper wires have some curious bends.
- Strings #3 and #4 go to the wrong tuning pins.
- Some pins lean at 5 to 10 degrees toward bridge. Others angle left or right.
- Many pins show 8 to 10 mm. of thread above the plate.
- Bottom of pinblock shows most tuning pins poking through, and those you can't see are hidden by splintered bottom ply.
- Pinblock ends floating 8 to 10 mm. above inner rim.
- Plate webbing split throughout bass pin area.

- Pinblock fit "improved" by inserting 8-mm.-thick pine wedge at notch, and using up to 8-mm.-thick application of "Plastic Wood" between it and flange. Some of that application oozed up to 2 mm thick on top of plank.
- Several plate screws bent by string tension.
- One plate screwwhole so close to edge it looks like a "cut-away view".
- Have not thrown scale numbers into the computer yet, but 14 unisons of 17 gauge and 20 unisons of 13 gauge, with no 13 1/2 or 14, will probably produce an interesting graph.

Postscript: The scaling actually wasn't so bad! This implies that the original design of plate and bridges was quite cockeyed, given the gauges listed.

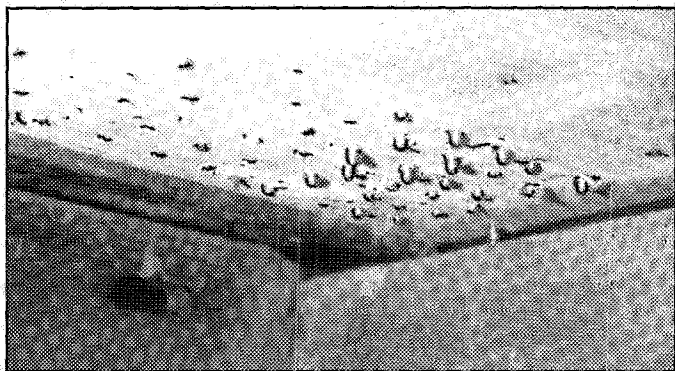


Photo 1 — Underside of pinblock floating above rim, decorated with lower ends of tuning pins.

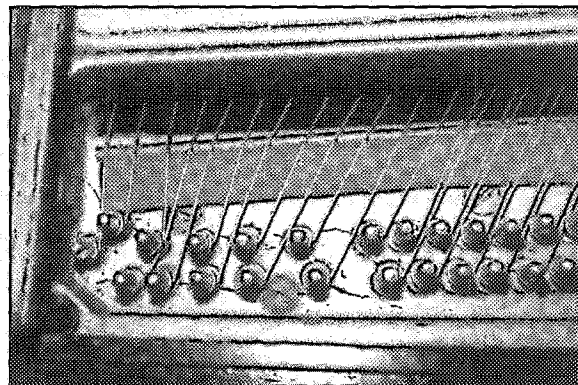


Photo 2 — Plate cracks in the bass section. Note strings #3 and #4.



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Grand Hammershank Geometry

**By Ken Sloane, RPT
Cleveland, Ohio Chapter**

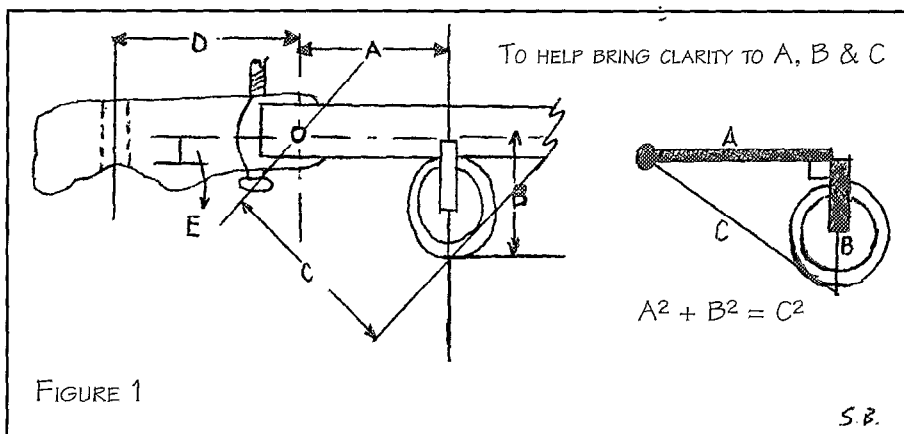
This article was inspired by an experience I had with a recently rebuilt Steinway B. The work on the piano was completed at the Oberlin Conservatory shop; and though belly work was done to the instrument, this article will examine only a portion of the action work – specifically, the style of shank used as a replacement.

Steinway sells replacement shanks for their pianos made by their New York manufacturing facility and Renner of Germany. I know, for a fact, that the Renner-made shanks can be bought with two different dimensions for the "A" distance shown in Figure 1, but I am not sure about the New York-made shanks. The two dimensions for the Renner-made shanks are approximately 39/64" and 21/32", and Steinway recommends the smaller dimension for pre-1984 pianos and the larger for the rest. Taking into account possible deviation from set to set (this does occur slightly), the "A" dimension can vary as much as 1/16" between the two different styles.

A little history on the piano in question: it has serial number 384544 (built in 1963), was a first-generation Teflon™ piano (had small, un-ribbed Teflon™ bushings), and was rebuilt with the original wippens. I did not save the old shanks but recall that most of the first-generation Teflon™ shanks that I have measured have had an "A" dimension of about 5/8" (somewhere in between the two Renner styles offered).

I prefer to use the shanks with the longer “A” dimension because I have had better success in producing pianos with acceptable touch resistance levels when using these shanks. A negative aspect associated with this style, however, is that they tend to be more problematic with repetition. The reason for this is that the longer “A” dimension requires more key travel per unit of shank travel (offers better leverage, less touch resistance) but

does not permit the key and hammer to cycle as fast as the style with the shorter dimension (requiring less key



travel per unit of shank travel). However, these “shank induced” repetition problems are more common to larger pianos whose longer keys have more mass. The additional mass affects the ability of a key to cycle quickly and exacerbates the “shank-induced” repetition problem.

To gain some perspective about the dimensions in Figure 1, I think it is safe to assume that they all have varied to some degree (for all manufacturers) throughout the years as production jigs were slightly, manufacturing errors were made, and action designers and creative workers introduced subtle changes to try to improve performance. Because of this, replacement parts made to fit some sort of "universal" model or models sometimes have to be adapted to fit particular instruments. It frequently takes a little technical creativity on the behalf of the installing technician when confronted with such a situation – and I don't want to get into specifics here – but be careful to not make changes where none are necessary or to make radical changes where something as simple as shimming a flange might suffice. Be cautious and don't overlook the simple alternatives because human nature frequently encourages us to assume the perfect alternatives to

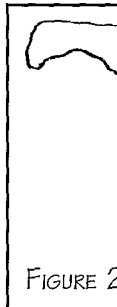


FIGURE 2

be the most complicated.

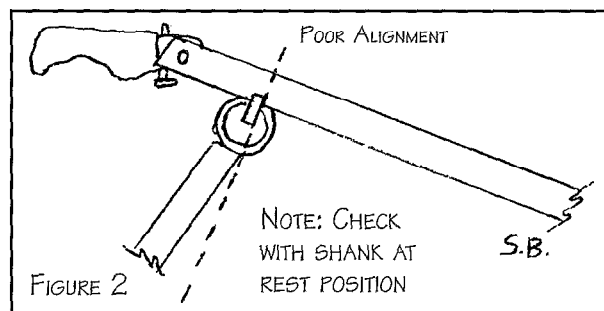
But how does changing the various dimensions in Figure 1 affect the action? This is a complicated question; the complications easily seen when

realizing that the limiting points can not only be changed one at a time, but two or more at a time, and moved in various directions. The permutations are infinite and changes in position of the various dimensions relative to the other action parts can be very confusing. But for simplicity (hope-simplification), let's

fully not an over-simplification to focus on the following:

- Changing “A” and/or “B” affects “C” which is very critical to touch perception (“C” is an important factor in determining how much key travel is needed per unit of shank travel).
- Changing “E” affects the theoretical bore of hammer.
- Changing “E” and/or “D” affects the spread measurement.
- Changing “E” and/or “B” affects how high the capstan is adjusted (it should not be excessively high or low or skating can occur between capstan and wippen; the analysis of this is associated with the standard straight line relationship between the wippen center, capstan, and balance rail pivot).
- Changing “A” and/or “D” affects how the jack lines up with the knuckle – see Figures 2 and 3.

So, back to the instrument in question; for reasons stated in paragraph four of this article, I prefer to use the shank style with the long "A"



dimension. I always check, however, the relationship the jack has to the knuckle (see Figures 2 and 3; the correct relationship is shown in Figure 3) and the height of the capstan when adjusted for the proper blow distance (see two paragraphs back for further explanation). Though there are additional checks one could use, both of these simple, visual inspections are possible indicators of parts incompatibility and/or action rail position problems. Be advised that inspecting the spread measurement alone (distance between action centers on hammer and wippen rails) is not a conclusive check. Also very critical are the height of the action rails relative to the keyframe and one another and their "tilt;" these can be off and yet the spread measurement appears to be just fine. All of this serves to confound attempts to analyze action problems thoroughly, and the more I try to familiarize myself with the intricacies of action modification, the more I realize how complicated it really is. This has led me to be very cautious about making changes related to a piano's action geometry, and I have become much more inclined to look for simple, visual alignments to guide me in parts selection and action analysis rather than resort quickly to action or part modification.

So, once again, what about our Steinway, serial number 384544? When trying to fit shanks with the long "A" dimension, I found the relationship between the jack and the knuckle was like that shown in Figure 2. The short "A" dimension shank looked much better in this area, and my other visual checks also looked okay. So we hung a set of hammers on these shanks, did all the requisite shaping, spacing, regulation, and voicing, and came up with a piano that came to be known as the "tendinitis B." To put it mildly, it had so


much perceived touch resistance, it was basically unplayable. It felt heavy during pianissimo playing; it felt heavy during forte playing; it felt heavy playing fast; it felt heavy playing slow; it felt heavy playing staccato; it felt heavy playing legato; it just plain felt real heavy. There were several factors contributing to this, but before I go into them, I want to quote from an article that Darrell Fandrich and Chris Trivelas published in the December, 1988 *Journal* ("Differences Between Grand and Vertical Actions"). The quote is very pertinent to the issues at hand and I suggest reading the entire article if you have not already.

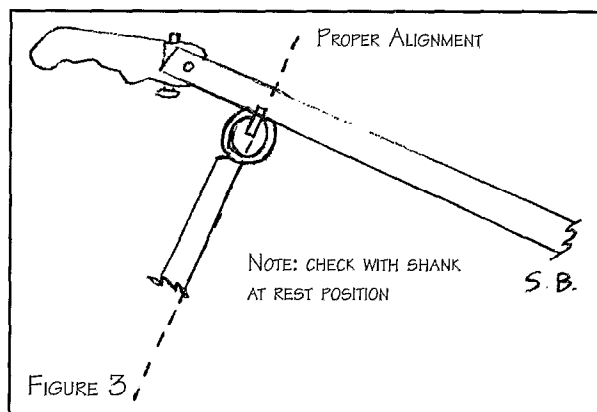
Touch resistance is a complicated affair. Some of the factors that affect touch resistance are familiar and measurable such as down weight and friction.... With an action of good design and in good condition, the down weight as measured with gram weights is an indication of touch for pianissimo play. As the key is played with increasing force, this perception of resistance or weight also increases because of inertia. This is what makes the touch pressure-sensitive. Pianists much prefer a touch that allows dynamics to be controlled with variations of pressure rather than speed, and with the right amount of inertia, the touch is pressure-sensitive throughout the entire dynamic range. With too little inertia, the touch is more speed-sensitive, like a spinet. Too much inertia gives the touch a massive, unwieldy feel. Soft, rapid play is difficult and loud; forceful play is tiring and even painful. With the right amount of inertia there is a very desirable linearity between the pressure applied to the key and the volume of tone perceived.

With the exception of friction problems, my B had it all. The downweight was grossly excessive (for an example, number one key had 86 grams downweight, 38 upweight and number three key had 83 grams downweight, 36 upweight) making pianissimo playing quite awkward. Two options in normal situations to reduce downweight are to remove mass from the hammer and/or to add leads to the keys; but with this piano, I would have had to remove felt far beyond the margin of acceptability, and the keys

were already so full of leads (there was barely any room left in the bass keys for installation of more) that adding lead would have introduced extra inertia to a system that already had too much (key leads are about 25 times as heavy as the wood they replace).

So here I am, stuck with a piano that everyone says sounds beautiful but can't be played. I can't drop back six and punt, but I can bring the piano back to the shop and scratch my head for a while. The finger movement over the head stimulates the brain, and I think about the shanks with the long dimension "A" that I prefer to use because they help to give an action a lighter touch. Could they help with this truck, even though they didn't seem to fit visually into the confines of this piano's action dimensions as well as the short dimension shanks currently installed? Guess what? With the same hammers, no weight removed, installed at the same length on the shank as with the first set, the problem completely disappeared. The measurable change in touch weight for the two keys used as an example in the preceding paragraph was dramatic: from 86 downweight, 38 upweight to 66 and 33 for key #1 and 83 downweight, 36 upweight to 60 and 31 for #3 key. The perceived change in touch resistance from the pianists who tried both sets of shanks was no-less dramatic. We suddenly had the same beautiful piano in front of us, but now it could be played; and we had touch weight dimensions to work with that would give us the flexibility, with a little artful hammer shaping and/or key lead removal, to make it work even better.

I could talk more about what contributed to this dramatic change and advise you to also check key ratios when searching out potential touch resistance problems in a piano, but the article is getting too long already. Suffice it to say for now that the different degrees of leverage provided by the two styles of shanks produce a dramatic contrast on the way the mass of the hammer affects the touch weight and inertia levels of an action. You can also read the excellent Fandrich and Trivelas article from which I quoted to gain even more perspective on what transpired with my B. Oh, and by the way, think twice about what you put into that piano in your shop; sometimes it pays to scratch your head a little, and maybe, just maybe, your job might turn out a little better, too. 



Piano Humidity Control & Soundboard Moisture Content

By Ruth Brown, RPT
Southeastern Pennsylvania Chapter

What happens when moisture is added to only one side of a soundboard? Or the opposite takes place: one side of the soundboard is dehumidified? Does it do damage to the wood structure?

That question arose during last July's special all-day wood seminar given by noted wood expert, lecturer and legal expert Professor Bruce Hoadley. Hoadley is author of the popular book, *Understanding Wood*. As he was not familiar with the modern method which has been developed for humidity control in pianos, he did not have a ready answer. I was interested to know his thoughts, since I have actively used humidity control in pianos for many years and have found them, through field experience, extremely effective when properly installed and maintained. But what would an expert in the whys and wherefores see that was beyond my knowledge? So I followed up after the convention, and spoke with him on the subject.


Bob Mair, president of Damp-Chaser, Inc. had done some testing after the same question arose about a year and a half ago at a convention in Lincoln, Neb. For his experiments, he set up samples in his test room—several cut from a new soundboard panel, and others cut from that of a 70-year-old upright. He alternated relative humidity in the room from 20 percent to 73 percent, where it would stay for periods of seven to 30 days. There were a total of nine separate tests, four at the low end of R.H., and five at the high end. He measured equilibrium moisture content (EMC) on both sides of the soundboard, i.e., the one exposed to the

Damp-Chaser system, and the side not exposed. The difference from one side to the other was the number he sought. For the standard humidity control system, this turned out to be less than 1 percent (ranging from .4 to .9 percent). Bob also tested the company's most effective humidity control systems, the Ultra Vertical and the Backside 11-part, looking for the same information—difference in EMC from one side to the other. It was slightly higher, ranging from .4 percent to 1.3 percent. Mair also wanted Hoadley's input.

Given these results, the three of us discussed the particulars of this situation. The thickness (or thinness, actually) of the soundboard is an important aspect. We also discussed the design of the humidity control system, to clarify how moisture is created and dispersed, and the dehumidifying part of the equation, and how they work together. We asked Professor Hoadley's opinion whether or not the 1.3 percent difference (as that was the most extreme moisture content difference Mair could produce) could create a problem, given a 1/4" to 3/8" soundboard. Would that difference cause damage to the wood? Hoadley said that it would not create a problem. He described this as something like sitting on a couch, which is meant to be sat on, and which will eas-

ily recover from that stress. Professor Hoadley confirmed that even the 1.3 percent is well within the limits of the wood's ability to withstand damage from moisture gradients.

For those of you who weren't able to attend the class, the repeated theme was the importance of understanding and working with relative humidity as the main factor in providing stability: in the factory, in the shop, and at the final destination. Prof. Hoadley related a story about a friend whose acquisition of a particular saw was enviable. The friend showed how wood could be sawn to a tolerance of thousandths of an inch. A sample piece was cut, 9.836" in thickness. But after a few days passed and this sample was re-measured, it had grown by .032", rendering the machine's capabilities moot, unless the next step of environmental control were to be taken. This reminded me of our use of .001" punchings—while keybeds rise and fall capriciously—and tuning to 1/20th of a cent tolerances—while a piano section can easily go from 50 cents sharp to 50 cents flat with seasonal changes.

Evelyn Smith, PTG's 1998 Institute Director, has already asked Hoadley to teach again at the Annual Convention in Providence, R.I.; I encourage everyone to partake of this opportunity. 

Series	Date	Facility Humidity	New Wood Specimen		Old Wood Specimen	
			Humidified or Dehumidified Side	Side Exposed to Facility Environment	Humidified or Dehumidified Side	Side Exposed to Facility Environment
1	9/5/96 – 10/4/96	20%	6.7	6.3	6.3	6.1
8	2/20/97 – 3/3/97	72%	8.2	8.2	8.0	8.4
9	3/4/97 – 3/26/97	22%	7.3	6.4	6.9	6.3
			Backside	Front Side	Back Side	Front Side
2	10/7/96 – 10/14/96	20%	8.1	6.8	7.8	6.5
3	11/1/96 – 11/12/96	73%	7.2	8.4	6.9	7.5
4	11/13/96 – 11/25/96	73%	7.0	8.3	6.9	7.3
5	12/6/96 – 12/19/96	73%	7.0	8.2	6.8	7.5
			Front Side	Back Side	Front Side	Back Side
6	12/30/96 – 1/20/97	21%	6.8	6.4	6.7	6.1
7	1/22/97 – 2/7/97	73%	7.9	7.5	7.2	7.0

Thigummy Land

By Anita Sullivan
Eugene, Oregon

She is a monarch, surrounded by a horde of small hard subjects. Relentlessly, they demand identity and location. Screws, mostly. Ranged in rows along the rug, along the old yellow sheet she has laid out under the piano to protect the rug. “Where is my screwdriver?” is her mournful refrain. Next, after the screws come the nuts, the tiny bolts, the circlips of felt, the brass hinge pins, the brass center pins, the tiny conical files for these pins. Anyone watching her work would be convinced she was absolute bonkers. Sometimes she stands up, rising from the rubble around her feet, around the piano, and moans slightly, putting her hand to her back. Then she crouches again, sits cross-legged under the keyboard with her head bent forward at a chiropractically hazardous angle, hunches her shoulders, attaches her vise grips to a pedal bolt and tries to turn the rusty nut on top with her bare hands. Doesn’t work, of course. To avoid having to go out to the car for the proper wrench, she emerges carefully from under the piano, turns around slowly and begins shuffling through the stuff on top of the piano bench: needle-nosed pliers, large tweezers, small tweezers, pin vise. “Where is my screwdriver?” She pulls the autopsy knife carefully out of its cork sheath and begins to slice small wedges of felt like a chef at work on a heap of mushrooms.

When you’re up to your elbows in small objects, tasks, and sub-tasks, and sub-sub-tasks, all of them requiring precision, requiring parts and tools which must be taken from and put back into tiny boxes and sheaths and slots and compartments which in turn must be put into larger sheaths, slots and compartments – after a while you feel – just plain dizzy. You gaze up from the bottom of your pyramid of thingamajigs and whatchamacallits, at the piano – and suddenly it looks absolutely enormous. As if you were Alice, gone

down the rabbit hole, and swallowed something which

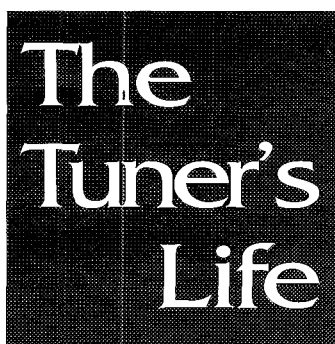
gave you the perspective of a mouse.

The piano is too big for you now. You can’t even remember what it’s for. Music? What’s that? (*Where is my screwdriver?*) You, after all, have been listening to the delicate “piff!” of a screw loosening its grip on the wood on the backside of a pedal rod. You can hear the “ploggle, ploggle” of the hammers as they return to the hammer rail, the “whroing!” of the dampers when they achieve lift-off as one unit from the strings, the little “tink!” of the hammer-rail spring – which weighs about as much as a feather – when it drifts down among the wippens.

These are all the subversive sounds of music, the sounds which the brilliant chords of a piano concerto will later totally obliterate. Later, that is, after you have worked your way back up the pyramid, growing inch by inch as you glue and bolt and twist and maneuver the whole thing back together, and *Where is my screwdriver?* because the last part involves screws which are about four inches long and half-an-inch wide and heavy enough to keep the music book open on the music desk, and you don’t want to drop one on your foot by mistake. Then, finally, you’re done. You can stand up and find that you and the piano are shoulder-to-shoulder again. You can pull up the bench and stretch your fingers out over the ivories you just glued back on, and discover, as so many human beings have done for the past 200 years, that this large mechanical musical device really is greater than the sum of all of its many, many, many parts. ■

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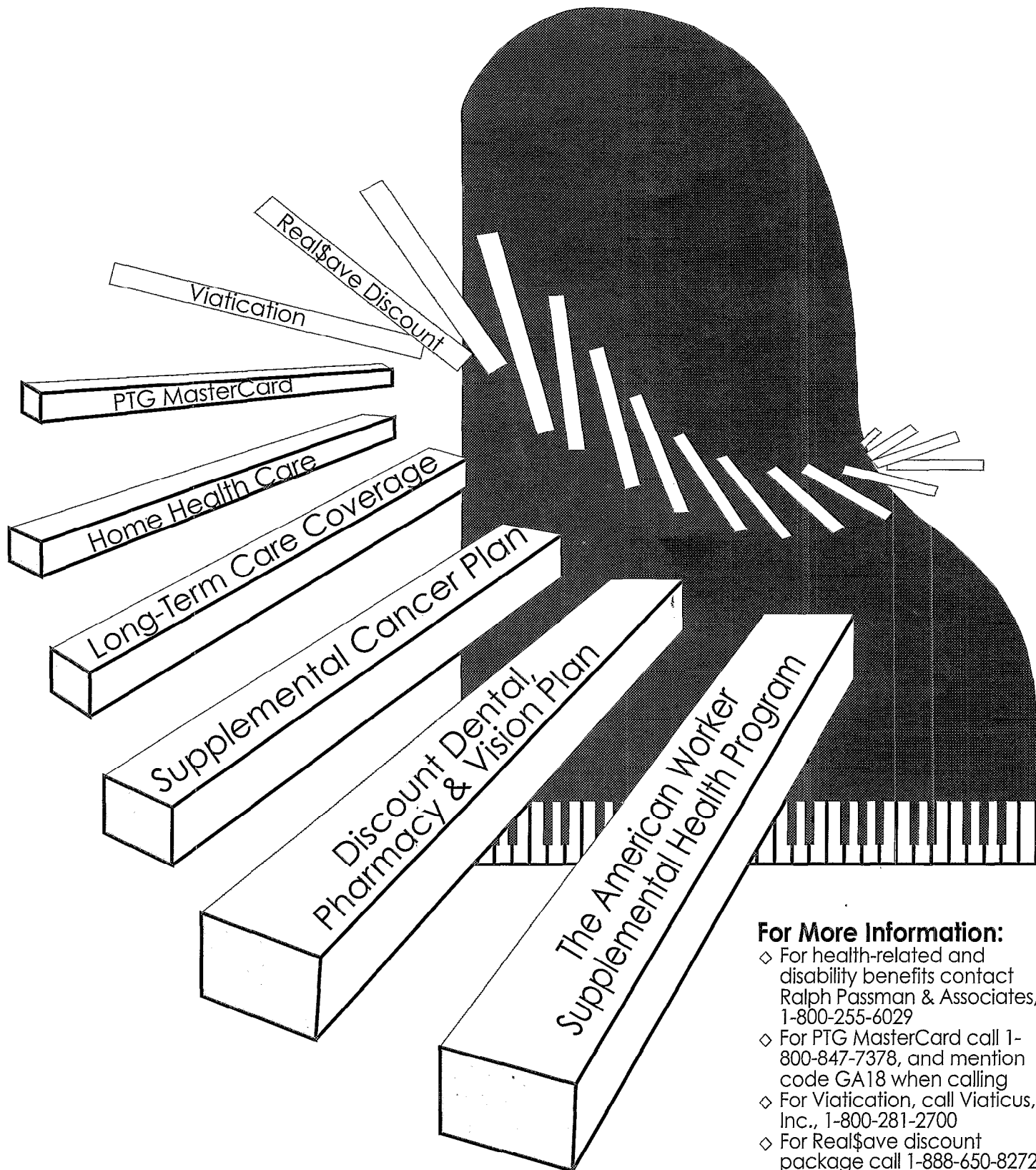
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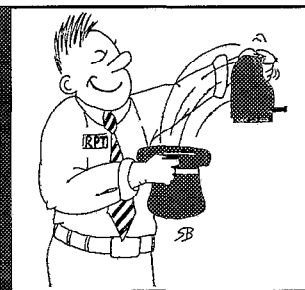


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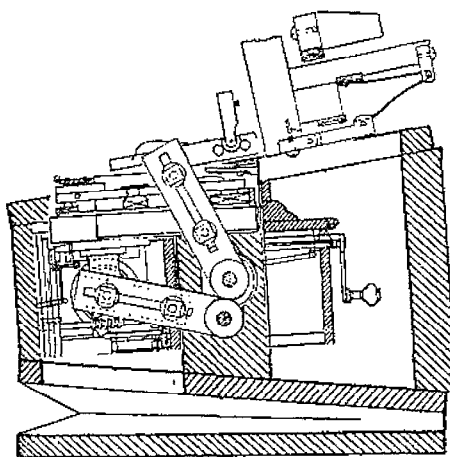
THE PAGE FOR SERIOUS CASES



Power Napping — Key To Success

By Doug McKay

I know better than anyone that you get tired in the middle of a long day of tunings. Sometimes you just want to lie down on the customer's couch for a while. But you can't do that. So I suggest a pair of our special trapwork goggles. They look like welder's goggles — dark lenses so no one can see in. They say TRAPWORK in big letters on the front. So when you're tuning a grand, and you want to take a nap, just slip on the trapwork goggles, lie on your back underneath the piano, and catch a few z's. She'll think you're working real hard. Every now and then, pump one of the pedals up and down with your hand, just to make it look good. ☑



We found a whole box of these in the back of the warehouse. We don't know what they are, but you can have one for \$20.

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We're constantly filling needs that you didn't even know you had. ♦ Take the emerging field of tuner security. We established ourselves as the leader with our Toon-O-TunerII® with auto-dialing alarm. ♦ Now we're introducing Dog-A-Way® pet repellent, Out-A-Here® child repellent, the Whang!® car alarm (repeatedly makes the sound of an over-lacquered hammer), and above all, the Toon-O-Tuner III® with Armed Response. That's right, a pair of uniformed Toonertronics employees will *make sure* you get your machine back. ♦ So do we care about your security? Sure. If you've got lots of money to spend. ☑

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Hey, Pinhead!

Tuners have tiny brains. So say the researchers at the Institute for Non-Profit Grant Writing in Massachusetts. They studied a group of one hundred piano tuners and found that nearly all of them had brains the size of Rice Krispies.

"Their heads are the normal size," explains Dr. Will B. Senior, "but their brains are floating in an immense amount of empty space. Basically, they're pinheads."

The researchers agree that the empty space acts as a kind of resonating

chamber. But they aren't sure whether this pinhead syndrome is genetic or is caused by tuning pianos. They are now studying babies with tiny brains to see if they grow up to be tuners. ☑

Doug McKay and Joe Mehaffey may be contacted c/o RPT Mark Stivers, Sacramento Valley, CA Chapter

PACE Plus

By Joe Mehaffey

The PACE checklist, which lists the basic tools we need for our profession, is good as far as it goes. Here are some other tools you Associates are going to need.

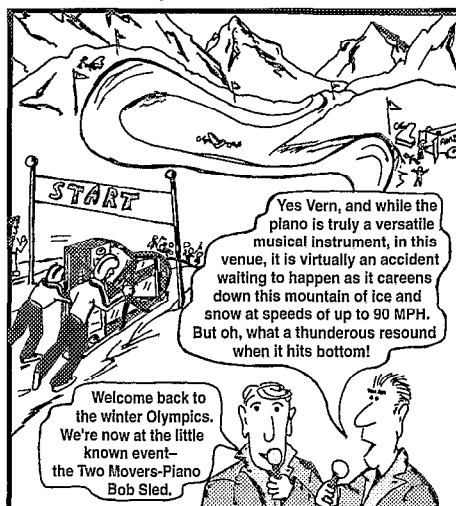
- Flashy yet comfortable shoes
- Business card of attorney
- Business card of chiropractor
- Anti-dog spray
- Touch-up Magic Markers
- Nose hair clippers
- Exploding cat toy
- Phony cellular phone
- "Tune It Or Die" coffee cup
- Vanity plate with cute reference to piano tuning

- Binaca™
- Trick candy that turn kids' tongues black
- Piano cologne

And for God's sake always coil up your muting felts when you're done with them. Your customer may not know whether you've done a good tuning, but she knows neat. I don't know how often I've heard a customer say: "The guy who came the last time — he was nice enough, but I noticed that when he pulled those cloth strips out of the piano he just tossed them carelessly into his toolbox. It made me shudder. Reminded me of my ex-husband. I guess that's why I — *shot him.*" ☑

PIANOMAN Adventures

by Alan Hallmark



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Outside Experts: Hoadley, Tax Seminar Return to Institute

By Evelyn Smith
Institute Director

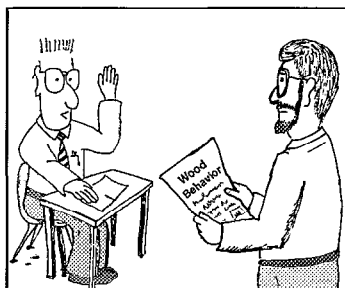
Almost all the instructors at PTG Institutes come from among our membership. These talented technicians are chosen not only for their expertise but also for their ability to teach; PTG is fortunate to have so many who are willing to share their time and considerable skills.

But in addition to what we learn from other technicians, there's much we can learn from specialists in related fields. To continue to bring you the best, this year's Institute will again feature two popular instructors from last year, Professor Bruce Hoadley, wood technologist, and Murray Bradford, CPA.

Dr. Bruce Hoadley is well-known to wood enthusiasts everywhere. He is a teacher and researcher, author of two books about wood, and contributing editor of *Fine Woodworking* magazine.

On Friday, Professor Hoadley will present his overview

class *Understanding Wood*, open to anyone registered for classes. All day Saturday he will teach a special advanced class



"I may be going out on a limb here... but, isn't the Dogwood all bark and no bite?"

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on wood, covering the properties of wood, wood and moisture, and a wood gluing checklist. This 6-hour class is available for a \$40 fee. Comments from last year's Institute include, "Excellent re-

source, entertaining speaker – bring back again if possible."

The tax seminar offered by Murry Bradford, CPA, received rave reviews in Orlando as well: "Successful businesses need this info. Something like this should be offered every year." "Immediately-applicable money-saving information."

As you prepare to file your taxes this spring, make a note to attend Bradford's *Tax Strategies for the Piano Technician* in Providence. In this fast-paced, 4-hour class, you'll learn tax deductions that will save you thousands of dollars – guaranteed, or your money back. This class, available for a \$70 fee, can easily save you enough to pay for your trip to Providence.

Whether you want to fine-tune your business practices or deepen your knowledge of wood, take advantage of the significant learning opportunities from these outstanding experts. It's all waiting for you in Providence. ♦

CONVENTION PROVIDENCE, R.I.

Soundboard & Belly Workshop in Providence

This year's Providence Institute will include *Three Days* of in-depth study for the rebuilder who presently or has future plans in the replacement of soundboard and bridges in grand pianos.

Six of the finest instructors and most experienced rebuilders PTG has to offer will present three-hours of in-depth classes open to all convention registrants at no additional charge. This will definitely be the most coverage of the subject of soundboards and bridges PTG has ever offered.

The subject of *Building A Pneumatic Soundboard and Bridge Press* will be covered by Clair Davies. Clair will show you step-by-step how to build a

press like his and how to operate it.

David Betts from the North Bennet Street School in Boston, will show you the *Removal, Manufacture and Installation of a New Soundboard,*



and also cover the construction of a go-bar deck and bellyboard.

All You Need To Know About Bridges will be covered extensively by David Hughes. Included will be recapping, layout, drilling, and carving.

Chris Robinson will share his extensive experience, research, and knowledge on the subject of *Soundboard and Belly Theory* including types of construction, materials, ribbing, crowning, panel construction, and the relationship and effects of the case, frame, and pinblock on the soundboard.

If you are serious about soundboard and belly work, you will not want to miss Shawn Hoar when he presents his class

Continued on Next Page

Hands-on Rebuilding Skills Workshop

Have you ever wanted to learn new rebuilding skills, but the fear of the unknown or the lack of tools to try something new held you back? Then on Sunday morning at the Providence Convention, the place for you to be is at the Rebuilding Skills Workshop. The Workshop Room will be staffed by some of the most experienced rebuilders in the country. As of this writing, they will include: David Hughes, Alan Vincent, David Betts, Clair Davies, Andre Bolduc, Shawn Hoar, Richard Davenport, Webb Phillips and Ruth Brown.

There will be approximately 10 stations with tools and materials for you to learn

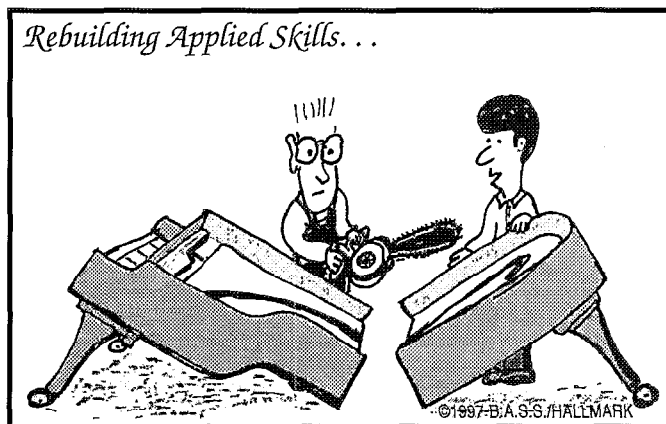
"hands-on," either skills new to you or faster new procedures to polish skills you presently have. Some of the stations

being planned include rib shaping, bridge carving, pinblock fitting, pinblock removal, stringing, wood and veneer repairs, and hammer replacement. You may spend up to three hours in the workshop practicing skills and learning "one-on-one" from these fine instructors.

The workshop will be open to all convention registrants for a fee of only \$20 for three hours. This could be the most rewarding three hours you have ever spent!

See you in Providence in July.

—Wally Brooks, RPT
Assistant Institute Director ♦



"That's not quite what I had in mind when I said to divide the rebuilding project into smaller portions."

Some History Of Rhode Island and Providence

The history of Rhode Island is interesting not only in and of itself, but also as it helps one to understand the Rhode Island state of mind. The state

was founded on the principle of religious freedom by Roger Williams who, banished from the Massachusetts Bay Colony for his beliefs, founded Provi-

dence in 1636. Williams was befriended by the Narragansett tribe, and took the time to learn their language and ways; and they maintained a peaceful and co-operative coexistence. Also coming to Rhode Island and finding religious tolerance were early Jewish settlers, arriv-

Continued on Next Page

Better Bread & Butter

By John Ragusa, RPT
Assistant Institute Director

If you run your business the way most piano technicians do, then tuning is the bread and butter of your business. And no matter how good you are, there is always something to learn, something to make your job more interesting and leave your clients' pianos sounding even better. Whether you are a beginning tuner or an advanced veteran of the art, we've got something to help make or keep you the best in the business. This summer in Providence, R.I., we'll be offering a tuning tutoring section that all levels of tuners can benefit from. With a stellar cast of instructors including Steve Fairchild, Bill Garlick, and Virgil Smith as well as yet-to-be-announced tutoring on the Reyburn CyberTuner™ and the Accu-Tuner™, there is a universe of tuning knowledge to be explored. And all of this will take place in a one-on-one format lasting a full class period. You pick the tuning subject. Time slots are limited and you will need to register early to assure your place.

Our slate of regular tuning, voicing and concert preparation classes is geared

to today's tuner-technician. Special servicing needs of Steinways, the Kawai RX, Baldwin and performance grands will be addressed. Voicing the increasingly popular small grand will also be taught. Learn how to get the maximum results in pitch-raising using the Sanderson Accu-Tuner™. For the first time at our annual Institute there will be classes on beginning and advanced Reyburn Cybertuning. Classes on all levels of aural tuning will also be available. Skip Becker, supported by Owen Jorgensen, will give a class on historical temperaments followed by a full period of concertising these vintage tunings.

We bring you the best so that you can be the best. Look to this page for further developments and ... Stay tuned! ♦



Soundboard & Belly Workshop

Continued from Previous Page

on *Woodworking Techniques for the Bellyman*. Shawn's class will include how to finish out belly trim, make repairs, jigs and fixtures for doing a faster more accurate job of rib shaping, bridge planing, plate setting, pinblock fitting, and more.

You may not be quite ready or have room to build your own soundboard press and equipment for crowning a soundboard. Then you do not want to miss Nick Gravagne's 1-1/2 hour class on *Installing Pre-Crowned Soundboards*. Nick will give you all the information needed from removal measurements, controls and reinstallation.

Anyone planning a livelihood rebuilding pianos should receive "ten fold" any time or expense in attending the Piano Technicians Annual Institute in Providence in July. Make plans now! See you there.

—Wally Brooks, RPT
Assistant Institute Director ♦

How Do the Blind Fit into PTG?

By Don Mitchell
Corresponding Secretary,
Visually Impaired Concerns Committee

As we approach "Piano 300" it is good to look back on the history of the piano and the history of the piano service industry. There have been many who have contributed to the development of this profession and some of the pioneers have been blind or visually impaired. It has been a battle for the blind to win a place of equality and respect in the vocational world and the battle has not been without its fights in the piano tuning and servicing industries.

One of the first pioneers was Claude Montel, a Frenchman who was attending the Paris Institute for the Blind in the 1830s. He played the piano and had a keen musical ear. As is the case with many pianists, he was not always happy with the performance of his instrument.

On one occasion Claude asked the headmaster to contact a piano tuner to have the piano serviced. For one reason or another his request was denied, and Claude decided to take matters into his own hands. He and a companion proceeded to dismantle the instrument to see if there was something they could do to improve the playability of the piano. In the middle of their experiment the headmaster entered the room. Abruptly the two boys were spirited out of the room and sternly reprimanded. The headmaster finally called a local French piano craftsman to assess the situation. After surveying the disembowelled instrument he determined the challenge to be beyond reason. The piano remained in a disassembled unrepaid state.

The headmaster then invited the two boys back to see if they could reassemble the instrument. To the surprise of the headmaster they accomplished the task. The local artisan was called back to check the instrument and proclaimed that it could now be repaired and had been reassembled both correctly and skillfully. On that day a scrimmage in the war for equality and opportunity for the blind was won. Because of this incident the Paris Institute for the Blind developed a piano tuning and servicing training program for the

students at the school. In the 1840s there was little opportunity for blind persons to earn a living except for begging on the streets.

Claude Montel went on to become a proficient piano technician and contributed significantly to the industry.

Continued on Next Page

Some History Of Rhode Island and Providence

Continued from Previous Page

ing in Newport in 1644 and building the first temple in America; and Quakers, who also continued to make up a significant population. Because of the colony's religious freedom, Rhode Island was viewed with mixed loathing and fear by its neighboring colonies, and was never admitted to the New England Federation.

In the 17th and 18th centuries, Providence and Newport became important and wealthy shipping ports, prospering greatly by the "triangle trade" of slaves, molasses, and rum, which continued up until the Revolutionary War. By the time of the Civil War, though, Rhode Island had become strongly anti-slavery, and figured prominently in the "underground railroad."

Rhode Island was the earliest and most vehement protester of British mercantile laws. In 1772, a year before the Boston Tea Party, Rhode Islanders burned the British ship *Gaspee*, sent here by the Crown to enforce those laws. On May 4, 1776, Rhode Island became the first state to renounce allegiance to George III. After the revolution, Rhode Island refused to sanction a national import duty, and became one of the states responsible for the failure of the Articles of Confederation. Rhode Island did not send delegates to the Constitutional Convention in Philadelphia, and resisted ratifying the new Constitution until the federal government threatened to sever commercial ties. Even then, in 1790, ratification passed by only two votes. Speaking as one who is not a native of this state, I can attest that this attitude of contentious independence is alive and well today.

Providence, and the outlying metropolitan area, was an important manufacturing center in the 19th and early 20th centuries, though not of pianos. However, prior to the popularity of radio, the city was host to at least eight major piano dealers, selling out of large buildings called "warerooms."

Even department stores, such as the now-defunct Outlet store, sold pianos—in their case, Mason & Hamblins. Situated between the piano manufacturing cities of New York and Boston, connected by the Boston Post Road, Providence was ideally located to play its particular role in the piano trade.

Providence also has a rich history of musical and theatrical performance. Some of the old theaters are still standing, serving as more than architectural reminders of the city's history. The first professional theatrical production in Providence was in 1762 (immediately afterward, however, the General Assembly passed a law against future productions, as they "attract bawdy behavior and rowdyism"). Many famous pianists played in Providence, prior to playing New York or Boston. Rachmaninoff, Paderewski, and Horowitz all played here. The city had a reputation, shared with Philadelphia, of having some of the most difficult audiences to please; therefore, if you could make it here, it was believed, you'd survive elsewhere. George M. Cohan was born in Providence, and also played here often.

As you walk out of your hotel room and around the immediate area, you'll see the city's history in the buildings around you. The historical architecture is so varied and interesting, it begs a closer look. Even without knowing the particular significance of what you're seeing, the architectural design itself is interesting. Organized walking tours are also available, and we'll have that information, along with plenty of maps, at the host chapter table for you.

Providence is a unique city in which to have our Annual Convention and Technical Institute, and a unique opportunity to walk around and enjoy the venue. So, come to Providence not only for the classes and camaraderie, but also for a stay in an historical, colorful, and inviting New England city. You may want to stay for a few days longer.

— David Flanders, RPT ♦

How Do the Blind Fit into PTG?

Continued from Previous Page

try. He invented the sostenuto system that is still used in the modern grand piano. Over the past 150 years the blind have fought many more scrimmages in the battle for independence, but the war is still not won. The Piano Technicians Guild has established a committee to assist the blind technician in developing his or her skills so it is possible to compete successfully with sighted technicians. The Visually Impaired Concerns Committee offers classes at the Annual Convention and works to give the blind and visually impaired equal opportunity with their sighted colleagues. Often these class opportunities are erroneously believed to be limited classes not available to sighted technicians. The Committee wishes to make it known that these classes are open to the general mem-

bership and all are invited to participate. Instructors are selected from both the sighted and blind pool of experts available in PTG.

Limiting the class participants to only blind students is inefficient, and contributes to the isolation of the blind from the general population. When this happens both sides lose. The sighted miss out on innovative techniques for tuning and servicing pianos and the blind are less informed of current trends in the industry. Blind technicians regularly attend classes offered by PTG and the Visually Impaired Concerns Committee feels that their class offerings are an opportunity to give back to PTG.

The Committee is charged with developing classes for the Annual Convention and making educational materials available in formats for the blind such as Braille, cassette tape and

computer disks. The members of the Committee also desire to do all they can to make sure that the behavior and attitudes the sighted and blind have towards one another are mutually beneficial.

Perhaps you thought the story at the beginning of this article was an extreme example. Even in our modern enlightened age the blind still experience attitudes and behaviors that are roadblocks to their equality and progress as technicians. Piano manufacturers, music store operators and PTG itself, from time to time, exhibit attitudes and practices that are not beneficial to the careers of blind technicians.

What can you do about it? Get to know sight-impaired technicians in your chapters and regions. Participate with them in tuning and repair projects. You will find many opportunities to enhance your own growth as a technician. Do not be afraid to interact with a blind person. It is not new to us that many are uncomfortable talking to or working around a blind person. Make the effort to break through these attitudes if they exist in yourself. In large group situations, seek out the blind person. We don't have the advantage of being able to read your nametag and in crowds it is difficult to isolate the voice of the person you wish to talk to, if indeed the voice belongs to a person you are already acquainted with. Use the person's name when you address them so they know you are talking to them. If you don't know the person's name, lightly touch him or her on the shoulder or arm to get their attention. Speak in a normal voice; there is no need to raise your voice. If it seems appropriate, offer assistance, but remember that blind men and women prize their independence. Avoid doing things for blind persons; help them accomplish what they want to do as independently as it is possible. Remember that the blind are not looking for handouts or special favors. We want what you want: to be accepted as equals and to participate in meaningful ways in the activities of PTG.

The Visually Impaired Concerns Committee plans to continue to prepare articles for publication in the *Journal* to assist the PTG in helping the blind technician win the war against unhealthy attitudes and discriminatory practices in our organization. Often education is the key, and education is what the PTG is all about. ♦

What Can You Count on from Social Security?

When it comes to Social Security benefits, people have a lot of misconceptions about what to expect. Some are convinced that they will never see a Social Security check. Others mistakenly believe they can live entirely on their Social Security check alone during retirement years. I think both views are entirely wrong, and we need to take steps to see where we are and where we are going, at whatever stage of life we are in.

You can get an estimate of your benefits from the Social Security Administration at your local SSA office or call 1-800-772-1213 and ask for form 7004-SM, Personal Earnings and Benefit Estimate Statement. You also can download form 7004 from the SSA's Internet site. In three or four weeks, you'll receive a statement that shows your Social Security earnings history and how much you have paid into the program. -

It also estimates your future benefits in today's dollars, and explains how to qualify for benefits. Check your benefit statement carefully to be sure it's correct. You can count on retiring with full benefits at age 65. Today, the normal retirement age is 65, but that is gradually changing. If you were born between 1943 and 1954, the retirement age for receiving full Social Security benefits will be 66. Thereafter, the retirement age for receiving full benefits will continue to be raised in two-month increments so that if you were born in 1960 or later, you won't qualify for full benefits until

you reach age 67.

You can count on receiving benefits even if you are still working. According to the SSA, there's no law against working after you retire, or start drawing on your Social Security benefits, but there are limits on what you can earn without affecting your monthly benefits.

Generally, the exempt amount rises each year with the increases in the national average wage index. In determining whether your income is within the limit, count only compensation and net income from self-employment. Other income, such as that from interest, dividends, capital gains, gifts, or inheritances, does not affect monthly benefits. If you're under age 65, and drawing benefits, you can earn \$8,640 in 1997. Earn more than \$8,640 in 1997 and your benefit check will be reduced by \$1 for every \$2 over the limit. If you're between the ages of 65 and 69 in 1997, you can earn up to \$13,500 in 1997 and still receive your entire benefit check. However, if you earn more than this sum, your benefit check will be reduced by \$1 for every \$3 over the limit. I know you will be reading this in 1998; however, I do not have the figures for this year as yet, and they will change. So remember to recalculate.

Once you reach age 70, you can earn an unlimited amount and still receive the full Social Security benefits to which you are entitled. If you plan to continue working, you will need to provide the

Continued on Page 37

FOUNDATION FOCUS

Childhood Music Ed Focus of Foundation Class

The Piano Technicians Guild Foundation will be sponsoring a class at this year's PTG Annual Institute and Convention in Providence, R.I. Mr. Alan Fox, of Newton, Mass., will present a Sunday morning class on developments in the field of childhood music education on July 12. PTG members and Auxiliary members are invited to attend.

Mr. Fox is a member of a national center to promote childhood music education. He will tell us what is happening around the country in this very important field. He will share ideas on how we, as an organization and as individuals, can take part in promoting childhood music education.

The subject of childhood music education is of vital concern to piano technicians.

The Piano Technicians Guild Foundation is pleased to support the goals of piano technicians by providing this educational opportunity.

When you are making your plans to attend the 1998 Annual Institute, please be sure to allow yourself the time to attend this Sunday morning class.

— Laura Kunsky, RPT
PTG Foundation President

The Foundation is looking for pictures of **Golden Hammer Winners** to add to our museum display in Kansas City. If you have any you would like to donate, please send photos to: **The Piano Technicians Guild Foundation, 3930 Washington, Kansas City, MO 64111**

THIS IS TO CERTIFY THAT

DAMPP-CHASER CORPORATION
IS A
PATRON
OF THE
PIANO TECHNICIANS GUILD FOUNDATION

AND TO EXPRESS OUR APPRECIATION OF THIS GENEROUS LEVEL OF
SUPPORT FOR THE WORK OF THE FOUNDATION.

SIGNED THIS ELEVENTH DAY OF NOVEMBER, 1997

Laura Kunsky
Laura Kunsky, RPT
President

We are pleased to recognize Dampp-Chaser Corporation as a patron of the Piano Technicians Guild Foundation.

Piano Technicians Guild Foundation

Mission Statement

"The Piano Technicians Guild Foundation is formed to support the goals of PTG by preserving and displaying historical materials and providing scholarships and grants for piano performance, study and research."

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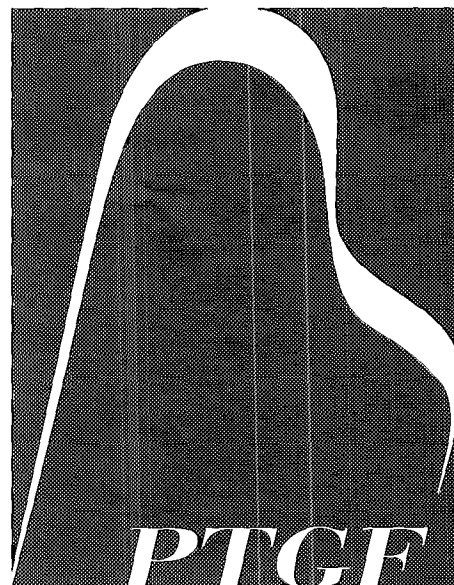
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The PTG Foundation Needs Your Help!

The history of PTG and its predecessors is in danger of being lost. As part of its mission, the PTG Foundation has taken on the task of preserving that history.

The work of collecting, organizing and preserving our past must be an ongoing part of our present. Your donation of money or historical materials will allow us to continue this important work. You may also designate the PTG Foundation as the beneficiary of your PTG death benefit. Contact the Home Office for details.

Honor a mentor, friend or associate, either living or deceased, with a tax-deductible contribution. Three contribution levels have been established:

- Patron (\$100 or more)
- Contributor (\$50-\$99)
- Supporter (\$35)

To make a contribution, or for more information, contact:

PTG Foundation
3930 Washington
Kansas City, MO 64111
(816) 753-7747

What Can You Count on from Social Security?

Continued from Page 35

SSA with an estimate of your future earnings. Your benefits are based on this estimate, so it's important for you to be as accurate as possible. At the end of each year, the Social Security Administration will receive a copy of your Individual Income Tax form. The SSA will send you a check to make up the difference if your estimate was too high. If you estimate was too low, the overpayment will be withheld from your checks during the following year. You can count on receiving more if you delay receiving benefits. The later you start collecting, the larger your payments.

If you continue working past age 65, you can earn delayed-retirement credits which, based on your age, increase your benefits by a certain percentage for each year that you delay benefits up to age 70. This delay means each Social Security check you collect when you retire at age 70 will be larger

(sometimes as much as 20 percent larger) than it would have been if you had retired at age 65.

Once you turn age 70, the amount you're eligible for won't increase. If you are working, or return to work, after receiving benefits, your additional earnings could result in a higher benefit. You will continue to pay in to the Social Security Retirement system. The SSA automatically recomputes the benefit amount as additional earnings are credited to your earning record.

You can't count on getting Social Security benefits automatically. Don't expect the benefits to appear automatically in your mailbox the day you're eligible to receive them. You'll have to ask the SSA to start paying them and you'll need to provide evidence that you qualify. Some of the items that you will need are your birth certificate, drivers license, armed service records, marriage license, or divorce papers. These need to be in original form, the SSA officer will make the necessary copies from your original records as needed.

To allow time for the paperwork, the SSA suggests you apply for benefits a few months before you're scheduled to begin receiving them. You can count on cost of living increases. Unlike most pension plans, Social Security benefits automatically increase as the cost of living goes up. This increase is usually published in the newspaper and usually takes effect in January each year. The benefit increase is the same percentage as the advance in Consumer Price Index, which may be very small for 1998. It usually is between 1.5 and 5 percent, and should top out at about 1.5 percent for January 1998.

You can't count on your benefits being totally tax free. For the majority of beneficiaries, Social Security benefits are totally tax free. But retirees with higher incomes may find themselves taxed on 50 percent of their Social Security benefits – or up to 85 percent for the highest incomes. You may want to consult a CPA if you need help determining what portion of your Social Security benefits are taxable.

We didn't answer the question: "Will Social Security remain effective until I retire?" I don't have the answer for certain. Some are advocating a plan to allow Americans to invest roughly half their Social Security taxes in Personal Security Accounts (PSAs) which would operate like IRAs or 401(k) plans. PSAs are rooted in the belief that most Americans are smart enough and responsible enough to take care of the bulk of their own retirements. Many also believe that the individual investor may make better choices than the present Social Security System that seemingly is in so much trouble today. Please note, however, that the SSA is not so much in trouble as the Medicare system that was tacked on to the SSA system some years ago and has been replete with dishonesty by doctors, medical groups, and individuals who are out to benefit "self" at the expense of the honest taxpayer.

Well, where does that leave us, those of us who tune pianos for a living? We need to keep raising our prices to keep up with the cost of living, the increased cost of insurance, transportation, lodging, food, etc. We also need to be putting aside money into a retirement fund as that day will arrive sooner than we expect – the best advice, if it is still around when that day comes. What I am saying is, take care of yourself now and also prepare for tomorrow. Beverly Kim had some excellent advice for us along that line in the November PTC Journal, "Economic Freedom." Go back and re-read it and then make 1998 a year to put into action a viable plan for your retirement system.

— Gary A. Neie

Chairman, Economic Affairs Committee ♦

Calendar of Events

March 19-22, 1998

CENTRAL WEST REGIONAL SEMINAR

Clarion Hotel Airport, Wichita, KS

Contact: Marty Hess (316)744-0564

3900 N. Parkwood, Wichita, KS 67220

March 26-29, 1998

PA STATE

Hotel Brunswick, Lancaster, PA

Contact: James Bittinger (717)681-9191

2087 Franklin Road, Washington Boro, PA 17582

April 18, 1998

INDIANAPOLIS CHAPTER ONE-DAY SEMINAR

Contact: Lisa Londe (317)923-4675

5239 N. Guilford Ave., Indianapolis, IN 46220

April 23-26, 1998

PACIFIC NW REGIONAL

Banff Centre, Banff, Alberta Canada

Contact: Chris Gregg (403)226-1019

or Fax (403)226-2430

11444 Coventry Blvd., Calgary AB T3K 4B1 Canada

May 1-3, 1998

FLORIDA STATE SEMINAR

Mariott Hotel, W. Palm Beach, FL

Contact: Tom Servinsky, (561)221-1011

5271 SE Nassau Terr., Stuart, FL 34997

May 16, 1998

NEW MEXICO SPRING SEMINAR

Piano Store (Vintage Piano Workshop) Albuquerque, NM

Contact: Les Conover (505)255-0658

4805 Central, NE, Albuquerque, NM 87108

July 8-12, 1998

PTG ANNUAL CONVENTION & INSTITUTE

Westin Hotel, Providence, RI

Contact: PTC Home Office (816)753-7747

3930 Washington, Kansas City, MO 64111

All seminars, conferences, conventions and events listed here are approved PTC activities. Chapters and regions wishing to have their function listed must complete a seminar request form. To obtain one of these forms, contact the PTC Home Office or your Regional Vice President.

Once approval is given and your request form reaches the Home Office, your event will be listed six-months prior and each issue until the month in which it is to take place.

Deadline to be included in the Events Calendar is at least 45 days before the publication date; however once the request is approved, it will automatically be included in the next available issue.

CONGRATULATIONS!

NEW RPTs

Region 5

803 Boulder, CO

Daniel M. Roe
4494 Aberdeen Place
Boulder, CO 80301

Region 6

851 Phoenix, AZ

Alice M. Miles
3722 W. Port Royale Ln.
Phoenix, AZ 85023

901 Los Angeles, CA

Tom C. Mancillas
6141 Afton Place, #312
Hollywood, CA 90028

901 Los Angeles, CA

Jim Ogden
5303 Harter Lane
La Canada, CA 91011

926 Orange County, CA

Richard A. Cabe
19332 Evening Hill Dr.
Huntington Beach,
CA 92648

NEW MEMBERS

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078 New Jersey

David E. Thomson
63 N. Summit Avenue
Chatham, NJ 07928

101 New York City

Raymond E. Kampermann
12 Sidehill Lane
Yonkers, NY 10710

117 Long Island-Suffolk, NY

Val L. Angrosini
394 Maple Grove Ave.
Uniondale, NY 11553

190 Southeastern PA

Lee G. Coleman
821 Sweetbriar Drive
Warminster, PA 18974

Region 2

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Cheryl R. Eccard
8886 Blade Green Lane
Columbia, MD 21045

William M. Resnick
8051 Mt. Harmony Lane
Owings, MD 20736

212 Baltimore, MD

Christopher J. Klimchak
307 Whetstone Road
Forest Hill, MD 21050

231 Richmond, VA

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Rt. 2, Box 230
West Point, VA 23181

292 Palmetto, SC

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1832 Salem Road
Scranton, SC 29591

296 Western Carolinas, NC

Donovan W. Merrell
117 Meadow Run
Hendersonville, NC 28792

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5617 RR 2222
Austin, TX 78731

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David Carpenter
5030 N. Nashville
Chicago, IL 60656

Allen Gabka
4746 S. Kolin
Chicago, IL 60632

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Chad A. Frye
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Sioux City, IA 51106

553 Twin Cities, MN

Kristina I. Anderson
2245 Hamline Avenue. N.
Roseville, MN 55113

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Passages ...

The Reno, Nevada Chapter of PTG is saddened by the loss of Steve Maytan, RPT. Steve passed away Nov. 10, 1997 after a long battle with cancer. A founding member of the Reno Chapter, Steve was a piano technician, musician, music dealer, devoted husband, father and grandfather and friend to all who knew him. Originally from Little Falls, N.Y., he came to Reno in 1947 and began working as a tuner,

Steve Maytan
1918 - 1997

grand children. We shall all miss him.

musician and band instrument repairman. Maytan Music is now a 21,000 square-foot, full-service music store. Overflow crowds attended both his funeral and the reception at his store. He leaves his wife, Iris, four children and nine

— Randall D. Jensen, RPT
President, Reno Chapter

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Phyllis Tremper
PTGA President

AUXILIARY *exchange*

DEDICATED TO AUXILIARY NEWS AND INTERESTS

The Power of Positive Thinking

The following story reminded me of the power of positive thinking:

A man had arthritis in his hands and went for surgery. He woke up with bandages on both hands. When the doctor came in, he asked, "Doc, will I be able to play the piano when I get the bandages off?" The doctor said, "I don't see why not." "That's just great, Doc," he said, "because I've never been able to play the piano before."

News from the membership: Martha Wicksell, DTR, CDM writes in a letter to me that we are all hearing all kinds of things about good nutrition. A healthful diet has three common-sense qualities; variety, moderation and balance. We all have seen the Food Guide Pyramid. The different foods listed with the number of servings a day. Be sure a variety of all are in your meal plans for the day and a variety of fresh and/or fiber foods should be included also.

We have all heard that our fats should be limited and that is why it is at the top of the pyramid. Pastas, breads and starches are at the bottom or the larger end of the pyramid and those we can use more of, but watch our toppings to be sure they are not heavy in the fats.

Good nutrition is important to everyone and the best way to obtain this is by eating a wide variety of foods and stay away from the fatty and high sodium foods.

This overview is just a quick note, and I hope to be able to send more information your way over the year as well as maybe answer some question in July if all goes well.

Thank you, Martha, and let's hope all goes well so that we can hear more from her in a class at convention.

One more very important item. If

anyone going on the Newport tour with us on Friday of convention needs handicapped facilities for transportation, I need to know it ASAP. That's right away. My tour agent needs to secure a separate vehicle and that takes time. So please let me know immediately. Thank you.

Since I am a year older this month, I want to wish all of the members whenever your birthday is, a very Happy and Joyous Birthday. Remember to put *Music in our Life*, smile continuously, eat right, and stay tuned. Life is too short not to.

Auxiliary Newport Tour

There's no need to pack a lunch Friday, July 10, for the PTG Auxiliary tour.

Enroute to the charming city of Newport, "America's First Resort," your tour guide will narrate the history of Rhode Island and point out interesting sites. Upon arrival in Newport, enjoy a guided tour of the spectacular Marble House. The mansion was built by Richard Morris Hunt for William Vanderbilt in the Louis XIV style and contains many of its original furnishings. Lunch is included at Christies Restaurant with its wonderful views overlooking the harbor. In the afternoon there is free time for shopping at scenic Brick Marketplace and Bannister's Wharf. To complete the day you will have an overview of the exciting city-by-the-sea through a narrated driving tour to include beautiful Ocean Drive and Bellevue Avenue lined with spectacular mansions.

The tour departs the Westin Hotel at 9 a.m. and returns at 5 p.m.

For more information contact PTGA President Phyllis Tremper.

Donations Fuel Scholarships

The Auxiliary Board wishes to thank all of the people who have made donations to the Piano Scholarship Fund this year. Remember you can make a donation in memory or in honor of someone near and dear to you. Please send it to your treasurer, Marilyn Raudenbush.

The following people have made donations between July and December of 1997:

- Arleene Grimley, Mt. Pleasant, MI
- Colleen Ellis, Oak Ridge, TN
- Blanche Evans, Mission Viejo, CA
- Juanita Melton, Lake Charles, LA
- Ruby Savereide, Cedar Falls, IA
- Wilda Fries, Vancouver, WA
- Phyllis Tremper, Morehead, KY

in memory of her sister, Irene C. Rice and in honor of her brother Carl R. Krahmer.

Sandra Wilson, Mrs. Paul Woodard and Marilyn Raudenbush gave donations at the convention in Orlando.

The following gave donations during the months of December 1997 and January 1998.

- Virginia Daehnert, Tustin, CA
- Zee Hawkins, Ft. Washington, MD
- Nancy Lamoreaux, Takoma Park, MD
- Betty McAninch, Louisville, KY
- Virginia Seller, St. Paul, MN
- Kathryn Snyder, Robesonia, PA
- Margaret Strong, Bloomington, IN
- Genevieve Travis, Takoma Park, MD
- Shirley Truax, York, PA
- Ruth Unruh, Hutchinson, KS
- Patsy Wildman, Troy, OH

The above donation from Kathryn Snyder is in memory of Pearl Krietz and Bert Sierota.

Our future pianists thank you one and all.

Also remember that a beautiful hand made afghan will be auctioned at the Providence Convention. Your chances of winning are much better than the state lottery! Look for tickets there.

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DISPLAY AD INDEX

CA Geers	13
Damp Chaser Electronics	5
Decals Unlimited	11
Dryburgh Adhesives	11
Indianapolis 1-Day Seminar	9
Inventronics	3
Jaymart Wholesalers	9,23,40
Kawai	IFC
Lundsford Alden	9
Majestic Piano	9
New England Conservatory	13
Oliag Ag	9
P & G Investments	9
Pennsylvania State Conv.	11
Pianobuilder NW	23
PianoDisc	IBC
Pianotek	11
Randy Potter School	3
Renner USA	13
Reyburn	9
Samick	21
San Francisco Piano Supply	9
Schaff Piano Supply	1
Yamaha	BC
Young Chang	7

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Tech Gazette

Yamaha Service

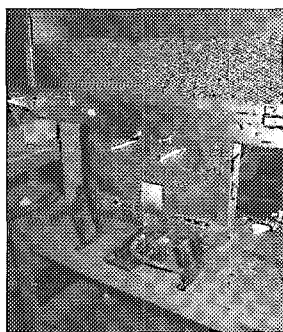
March 1998

Last month, we discussed how the pinblocks are drilled in all of the pianos manufactured at YMM (Yamaha Music Manufacturing) in Thomaston, Georgia.

In this issue of Tech Gazette, we will cover the unique way this modern piano factory inserts the tuning pins into the perfectly drilled pin block.

The three basics of stringing or restringing.

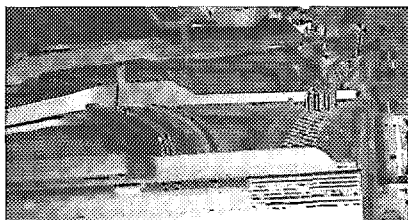
1. The tuning pin must be "loose" enough to rotate smoothly while the piano technician is tuning the piano.
2. It must be "tight" enough to hold the position chosen by the tuner once the tuning hammer is removed, and
3. Those conditions (1.& 2.) must remain without change for years and years.



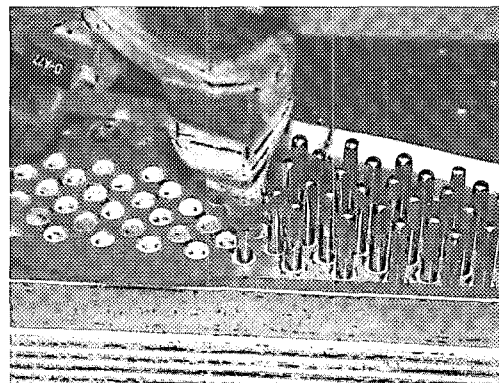
The pictures show two different machines. One is the storage device for the tuning pins. It holds sufficient pins necessary to complete several pianos and delivers each pin individually via a pneumatic tube to the pin driving machine. Since the fitting of the pins is dependent upon the consistency and diameter of each pin, Yamaha determined that our needs could only be met by making the tuning pins ourselves.

Even though they are the most expensive pins available, we feel the cost is justified. Yamaha made special lathes that machine each pin individually, guaranteeing the diameter and the surface friction is the same on every pin in a set. Identical pins are essential in order to create a piano that tunes well.

The second machine pictured automatically moves over each new position and holds each pin at the precise angle of the pre-drilled hole and taps it into the pinblock to a predetermined depth.



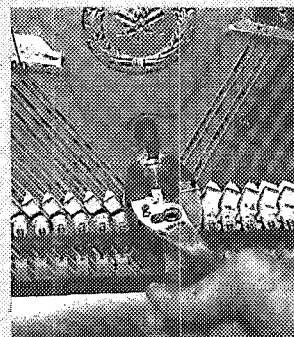
Considerable research was done to find the best method of inserting the pins. While the number of taps per minute and the strength of each tap we use is a trade secret, studies were made on all techniques from driving the pin in with a sledge (as in restringing) to inserting the pin with one massive hydraulic push. The results show that a tuning pin inserted by the method used at YMM does the least damage to the pinblock, positions the fibers of the wood in the best position against the tuning pin, and thus creates more pin torque (pin tightness) than by any other method.



In the long run, this procedure provides better feeling and control for the tuner, improves tuning stability and extends the musical life of the piano. This method is used on all Yamaha pianos - whether made here or in Japan.

The YMM "Tip of the Month"

It seems that the only tool we have in our kits to loosen the nuts on the action bolts is a pair of pliers. To keep the jaws of the pliers from defacing the nuts, cut short pieces of heavy rubber tubing to fit over the jaws. The job can now be done without marring the part being loosened or tightened.



Stay tuned for next month's information from Yamaha Music Manufacturing.