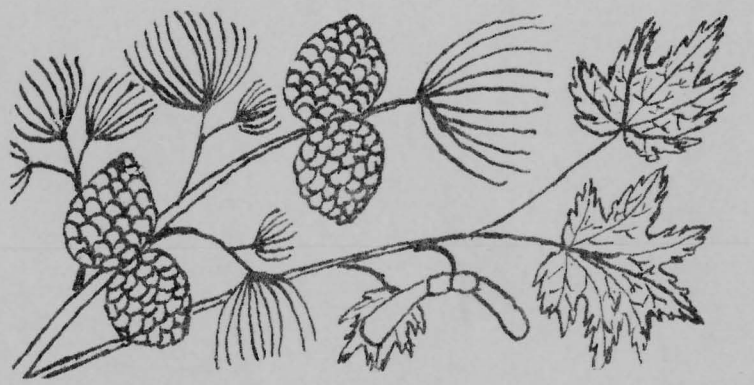
SEPTEMBER 1960

The Violin Makers' Journal

THE OFFICIAL MONTHLY PUBLICATION OF
THE VIOLIN MAKERS ASSOCIATION OF BRITISH COLUMBIA



Devoted to the development and encouragement of the art of violin making

The Violin Makers Journal

A Non-Profit Periodical . Published Monthly

By The Violin Makers Association of B.C.

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CAN WE LEARN FROM THE PIANO BUILDERS?

The controversy over the tonal merits of the old master violins compared with modern instruments is one that is ever present. Both sides have eloquent speakers in this perennial debate.

We have no desire, at this time, to take sides but for the sake of this Editorial shall we accept the statement that the very finest violins made today are very little (if any) better than the "Old Masters".

There are various other instruments made by modern makers, using modern methods, which for tonal quality are in no sense superior to those made 200 years ago. Among these are the organ, flute and some other wind instruments.

When we come to the piano there is a very different story to tell. The modern grand piano has no counterpart in the spinet or harpsichord. In fact the evolution has been such that one can almost declare it to be a different instrument. This improvement in the piano cannot be attributed completely vention of a new "action" but in great part to improvements in construction of the sound-board.

It would seem to us that it might be well for the violin maker to investigate the methods and technique employed by the piano builder, especially regarding the sound-board. The piano builders' chief enemy not only warp a good sound-board but will ruin its tone. To offset this penetration of moisture they treat the wood with different waxes and varnishes. The best excluder of moisture, for their purpose, is said to be straight paraffin wax. So it would seem the piano builder has problems very similar to ours.

In another part of this issue Frederick Castle. It will be noted that Dr. Castle uses the piano sound-board to explain some of his theories, suggesting that the shape and graduation of this part of the piano has been worked out on scientific lines so as to produce the highest quality of tone.

Is it too much to expect that our friends the piano builders might be of great help to the violin maker? Especially in view of the fact that they have been successful in building an instrument that is far and away superior to the one they started with.

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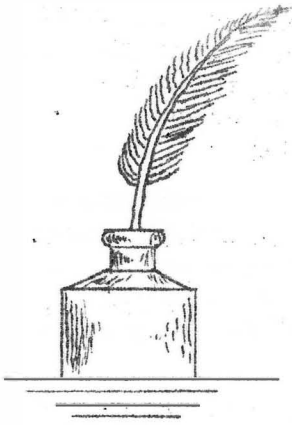

LOCAL NEWS

by HAROLD BRIGGS

Once again in Vancouver it is Pacific National Exhibition time, and to all our out of town members, we would say what a truly wonderful show it is.

For the Association it means another opportunity to show off our efforts, before a tremendous audience, it is hoped weather permitting 1,000,000 people will pass through the turnstiles in the two week period.. This means our instruments really get looked over.

Around forty instruments were exhibited this year, besides local members, there are instruments from all across Canada, and also from the U.S.A. I am pleased to say that the "Cardo Smalley" trophy for the best instrument in the show, was presented to myself, one of my Cello's exhibited being judged the best instrument.

The "Don White" trophy was presented to George Friess for the best toned violin, he also took 2nd prize for a viola. Ragnor Helin with a violin and myself with a viola tied for 3rd place.

It was encouraging to see T.B. Erwin of Dallas, Texas, was rewarded with an honorable mention, for his violin.

The erection, planning, and designing of our booth, was the entire effort of our worthy president M. Gilson Heyworth. His efforts were duly rewarded when the judges awarded the booth the Bronze Award.

Competition enjoyed in the correct spirit is good for the individual and the group as a whole. At least it should inspire to greater effort, and raising of standard of workmanship to say the least. It is so easy of gloating over one's efforts, in the seclusion of your own workshop, in your small circle of friends, who tend to be complimentary to say the least. But to see your instruments, stark naked, side by side in cold critical competition, if one is fair-minded, this can be a tremendouse experience and a big step upwards, on the ladder of success. To say the least one finds their level in competition.

Providing everyone leaves the competition fired with a desire to make better instruments next year, then it has truly been worthwhile.

- o - Floyd Holly

Your future is all the time you have left
make the most of it.....

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HINTS TO VIOLIN MAKERS

by W. M. Martin

The best way to become a real violin maker is to take a young man who never saw a violin and apprentice him with a master violin maker and let him learn the truth about violins, not one who has picked up his knowledge from books, fiddle makers and crack pots. To-day peoples heads are full of theories and wrong ideas. Anyone who knows the things that count can't tell them anything. They can't be changed. (None are as blind as those that won't see).

The first thing in making a violin is to cut it lengthways when arching it. Bend the sides thoroughly, that is so after a year or two they will still keep their exact shape. The Italians glued their sides on the back without any lining, then when the sides were all on they put their lining in.

The Amati's glued there necks to the back of violin with no end block. Some put in end blocks and ran the sides around end block until they met. Then glued the neck to the sides of violin and the button of the back. When they glued the neck to the sides they usually drove several nails in the end block and neck.

I've seen quite a few old Italian violins with the end block and corner blocks cut out like this.

I suppose they wanted the violin as light in weight as possible or else they had the idea in mind that the blocks would absorb too much of the vibrations. If anypart of a violin doesn't vibrate it will absorb vibrations.

When you play a violin put your third finger on D string so when you draw the bow over A and D both are perfect a, in other words make A on D correspond to open a. Now bow the D string without letting yourthird finger touch the a string. Then when bowing A on D string tap open a string with your first finger and if your violin is right it should sound like taping on a piano.

I can't play a violin but I can do this. I've seen artists who couldn't do it. Isn't that strange.

I'm sorry I don't know where to get amber. The most likely place would be England. They seem to be the only ones to-day who know much about dissolving it. Why don't some of the fellows who write articles for the journal supply some knowledge on dissolving or fusing amber. Theres a bone for them to chew on. Amber is about 80% carbon 10% hydrogen 10% oxygen. I've read quite a few books on dissolving amber by English writers but without any success. That would make I think, a very interesting subject for your journal.

I have seen thousands and thousands of Italian violins. The wood should be as fine a texture as possible. One way you can tell this is when you cut your purfling groves . All the Italian wood I cut purfling groves in seemed to tear instead of cut. In other words it was like trying to cut a groove in a blotter, it would tear before it would cut.

This cheap German wood is easy to cut a groove in. This is why the Italians put their purflin in in two pieces and tapped it in making the ebony fit close to the groove regardless of how ragged it was cut. Another way was to make it in 3 pieces, glue the strips of ebony to sides and tap in holly. If one is clever enough

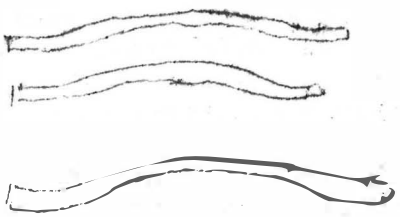
to do this it makes a beautiful job. Sometimes the finished groove will be wider in some places than others but artistic looking, the ebony always is close to the sides. They glued the ebony but put the holly in dry so that the glue when it got old woul d

The three graduations used were:

Strad - almost even

Amati - thick in middle
thin around edges

Guarnerius - thick edges
thin in middle.



They did not always stick to these graduations except Amati. Guarnerius used all kinds of graduations but a lot were heavy around the edges. This is probably why he got such a strong tone, and Amati weak with the purest violin tone ever made. I've seen the original bass bars in some old Italian violins and they were quite crude. Some with knots in, most all I saw looked like this - Italian bar
or not much curve in them like this - German bar
cut out with knife and not smoothed. Some people see a few Italian violins and think that is the rule. They made all sorts of thicknesses and archings and sizes. The only thing they all stuck to without deviating was there filler and amber.

I've done a lot of experimenting with pieces of old Italian violins and never a trace of oil. When one wants to go far enough he can say with some certainty that all varnishes are oil varnishes, inasmuch as gums and resins are nothing more than oxidized oil.

One proof of no oil in the Italian violins is if you wet your finger with saliva and apply it to the inside of an Italian violin it softens and even gets slimy; but it will also dry just as quickly. This is true also to the outside of the violin where the amber is worn off. The filler is soluable in alcohol, water wine and most of all saliva. Oil will not do this.

On rainy days or more so in humid weather, Italian violins are at there worst to play on as the dampness softens the filler. The filler penetrates all the way through the wood. The Italians did not use filler to close up the pores of the wood as some believe. It is better for the wood with the filler in it to remain sort of porous. The filler takes better to the maple than to the Spruce. This is perhaps due to themalic acid in the maple. In the spruce the balsam or resin in the wood is very drying. Therefore the tops of most Italian violins are darker in color than the backs. I could talk all week on the filler the Italians used. They all used the same thing. I doubt if they knew how to make it. I believe some one in Italy about 1400 or 1500 found out a certain substance which produced tone and made it and kept the secret in the family, after that family died out around 1800 so did the filler. The violin makers probably bought it at apothecary shops.

Amber was quite plentiful in Italy but mostly from the Baltic regions. Because amber was rather easy to get isn't the reason they used amber. Amber is electric which is desirable for the reflections, or cloud as they call it in England. Amber wears better than any other gum or resin. Amber gets prettier with age and handling. Amber is less drying than any other substance and so on. Never apply Amber to the bare wood if you do the violin will have no tone. Amber applied to the same filler as the Italians used never dries up completely or gets real hard. Italians violins

have a soft feel, but never sticky. I've had quite a number of people ask me where to get amber. Several years ago I visited (Amber House) run by the amber guild. They told me the Russians control nearly all the amber and they were varnishing their gun stocks with it. (Not so dumb eh!)

If violin makers would use horse sense instead of swallowing camels and straining gnats they might get some where. To-day they make violin making look very difficult, from a mechanical stand point. When there is nothing mechanical about Italian violins. They worked from an artistic standpoint.

People make so much fuss about bass bars. I've seen an Italian violin where the bass bar was unglued except for about 3" and it played just as good. The most important thing about a bass bar is to try to keep it in proportion to the back. For instance if the bass bar and back vary too much, when the violin is strung up and played it will sound like two violins, the D and G will sound like one violin and the A and E will sound like a different one. Of course if the A and E differ as you know the soundpost can be adjusted to take care of that, but nothing can be done to compensate for the D and G in relation to A and E.

About the neck which is important, that is the angle it is set. Today they make a rule of keeping top of nut in line with the top of the ribs. This won't always work. Some violins must have the neck thrown back further and some thrown back less.

Some time when you make a violin, when sides and neck are glued on and you are ready to glue on the top, just put the top in place and clamp it without glueing it, and string up the violin with clamps on and try it. Then loosen clamps and push top of violin back towards the neck and try it and keep trying it until you find the correct place. You will notice a vast difference in tone and responsiveness. There is nothing wrong in glueing the neck on before glueing on top, in fact that is the way the Italians did it.

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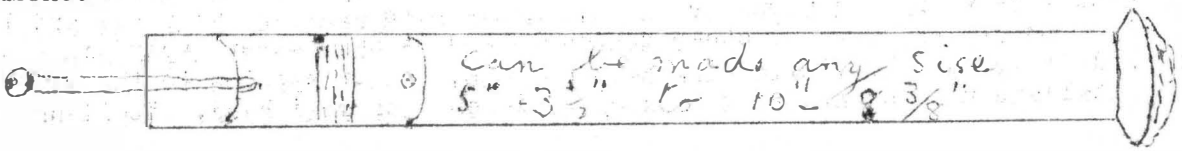
A HANDY CLAMP

by Jos.Franko

Violin Makers who work with metal can easy make himself a set of these brass clamps. I myself plan to use wood and metal. Each clamp consists of a brass strap ($\frac{1}{2}$" x 1/16") with a brass piece on a swivel at one end and a brass block riveted and soldered at the other, holding a steel screw which adjusts a movable block. Shaped like a small half moon. The swivel piece is designed for maximum protection, one side convex, the other concave to fit various shapes of edges. It swings on a specially designed pin with over size ends riveted into the strap and the swivel piece - a replaceable leather block insert on the movable brass slide assures safe contact with edges, with no metal exposed to touch the instrument. Thread size of the adjustment screw is designed for ease and speed of adjusting. The strap itself has sufficeint stiffness to retain its shape when contoured to an instrument.



JOINTING AND GLUING CLAMPS
Can be made in any size 5"x3½" to 10"x8 3/8"

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TAKE COURAGE

THERE IS ONE FACT WHICH IS SO VERY OFTEN OVERLOOKED BY THOSE WHO STAND IN AWE OF THE GREAT ITALIANS, AND THAT IS: WERE IT NOT FOR THE INGENUITY OF THE MODERN MASTER, THERE WOULD NOT BE ANY GREAT MASTERPIECES LEFT FOR THE WORLD TO ENJOY.

CHARLES D. SMITH.
VIOLIN MAKER

A FEW COMMENTS ON FILLERS

by William Hall

I don't believe the Italian used an inside filler, nor can I see what purpose it would serve to do so. It is O.K. for the tops of plates, as a sub-station for the varnish. Recently I had occasion to repair a fine old D Bass that was completely apart, with a lower third of back missing. I worked on it for about 2 months. Some vandal had put a coat of venetian red, dissolved in wood-alcohol all over it. When I removed this with a liquid cleaner - or remover - I was amazed at the beautiful undercoat of yellow, which was undoubtedly a gum concoction, and had the appearance of being brightly polished, much the same as the undercoat of the Italians. The old D.B. is a typical hand-made, the marks of the toothed plane being visible on the inside of top, the f's beautifully cut and symetrical. Having such a large surface to cover, it is remarkable so much time must have been spent on the undercoat, and no filler used for the insides.

As I see the situation, there is not anything can be said in favor of putting hot oil into the plates, as it is bound to interfere with the normal vibration of the wood cells, when it reaches a satuaration point. Also I note numerous quotes from a letter of Strad's stating it requires the strong heat of the sun, to bring a repair to perfection. Surely it is presumptuous to assume after he had repaired and varnished the crack, or whatever else it was, that he hung the violin on a clothes line to dry out. Such statments are absurd, as there are pictures of Stradivari's workshop with a dormer building, or loft, on the roof, with windows opening on each side. The Rev. Hawer's gives a fine description of the building particularly the loft, which is as follows.

"I stood in the open loft at the top of his house where still in the old beams stuck the rusty old nails, upon which he hung his violins.. whenever Stradivari looked up from his work, if he looked north his eye fell on the old towers of S. Marcellino and S. Antonio, if he looked west the Cathedral with its tall campanili rose against the dark sky, and what a sky! Full clear sun in the morning, full of pure heat all day, and bathed with ineffable tints in the cool of the evening when the light lay low upon vinery and hanging garden, or spangled with ruddy gold the eaves - the roofs and frescoed walls of the houses".

Can one imagaine after reading this description - Stradivari who made 3000 instruments in his lifetime, having a clothesline, decorated with violins getting sun-baths, waiting patiently for a few months, until each batch would dry from the linseed oil anointment, before receiving the final coats of oil-varnish, which would take at least another few months to make them usable. Apart from this, there were also numerous pupils in his workshop whose products would require the clothes-line treatment, so it would have taken a ten-acre field of clothes-lines to accomodate the productions from his workshop alone. It hardly seems feasible to me.

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The test of our Progess is not whether we add more to the abundance of those who have much; it is whether we provide enough for those who have too little.

- Franklin Delano Rosevelt
(1936)

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WHY SUN?

by Norman Miller

While fully recognising the ability and skill of makers Mr. Sangster and Mr. Skou, and being also fully appreciative of thier helpful information and knowledge in matters appertaining to aspects of violin-making, it seems that while strongly making claims for positive results gained from "sunning" such claims are supported only by vague and flimsy data, giving no practical guide or conclusion, that could assure that it would be advantageous to put a violin in the sun. Mr. Sangster in the April Journal, says to hang the violin out in direct sunlight for "every sunny day, for all one summer".

How many sunny days are there in any one summer? It could be anything from 10 to 100 more or less, but it does not seem to matter. Evidently the same effect to the fiddle will take place. That seems confusing.

Could there be guidance, based on solid data, and not vague conjecture. There are enough "hit or miss" procedures in violin-making. Should the hit or miss theories be encouraged, or should aims be directed into principals with more positive conclusions to be considered as correct?

In this particular part of Australia, even during the hottest period of summer, joints glued with scotch glue remain firmly jointed together and will take all the rigours of general use as an instrument without the joints splitting, and will also withstand all exposure to the sun. However the possiblity of instruments going to other parts of Australia, to the tropics a few hundred miles north, or the dry, arid conditions of the western districts of Queensland, calls for the use of modern glues that are both tremendously tenacious and waterproof.

I hasten to assure Mr. Skou that I have no fear of exposing my instruments to the sun. Perhaps Mr. Skou is familiar with tropical conditions, or has knowledge of the effect the tropics have on furniture, or violins or any other article that has been constructed by glueing the parts together with scotch glue.

If no other means of fastening have been used, these articles simply disintegrate into the various parts in a very short while, and there is no need for exposure to the sun for this to happen. Visiting violinists to the tropics generally use a violin that has been tropic-proofed and reglued with new synthetic glues.

It is understood that some types of varnish will not dry unless exposed to the sun until they are completely dry, but there are many other points in respect to sunning that could be more explicitly explained. These points could be condensed into two words, "Why Sun".

Could someone who suns a fiddle give answers and reasons to the following, and present a formula for the alchemy that presumable transmutes base quality of tone into those of pure gold?

How do you estimate the reason for sunning?

Is there a scale of procedure that would guarantee a specific result when a fiddle has been sunned?

How do you correlate age of wood with climatic conditions. What effect does the age of the wood and its seasoning-time have on the amount of

Sunning time? Does wood seasoned 5 years, require more or less time that wood seasoned 20-50 years?

How long has a fiddle to be in the sun? (white; varnished)

How do you know when a fiddle has been long enough in the sun?

If the exposure time was say 3 months, what difference would it make if the fiddle was left a day, a week; or a month longer?

Do climatic conditions have any great bearing on the sunning time?

Does the intensity of the sun have any geat bearing on the sunning time?

What about humidity?

Would the effect be the same if the fiddle was exposed only for a day or two, as against several months?

Is there some absorbtion of actinic rays that works miracles inside the pores of the wood? Is there a saturation point for these rays, and how does one know when saturation has been reached?

Perhaps the sun does something to the rosins and turpentines existing in the wood. How much of these rosins are left in well seasoned wood?

How long does it take for sun of a certain intensity to drive out the rosin content, and how do we know when it is out?

The sun causes the wood to become dryer, and darkens the surface. The dryness does not remain so, for as soon as it is taken inside a room at night, the wood begins to return moisture by striking a balance according to the conditions of humidity. The dry condition of the wood does not remain constant, nor is the wood stabilized by sun exposure.

In locations where sun quickly draws moisture from wood, earth and man and the air is dry and hot, what scale of calculations exist that could be followed to know when fiddles have had enough sun? Personal judgement could play a part in determining these (?) reasons, but on what basis could judgement be formed?

It is reasonable to imagine that if any treatment improves an instrument, too much of that treatment could be bad. Perhaps the limits are very wide, and a month or two one way or the other does not matter. If so perhaps it does not matter if the treatment of sunning is used or not.

Do not think that I am against sunning! But, until some concrete reasoning can be given, and definite benefits proven, that sunning controlled by sound principals of workable formula, gives positive results.

That these results be tabulated to show that if the sun is of a certain intensity, the length of exposure will be able to be determined to give exactly benefits of a positive nature. If this can be done, and proves constant on all fiddles under all climatic conditions, giving proof that sunning does enhance the quality of an instrument, perhaps then I will also become an advocate of sunning.

I am aware that in a letter, Stradavarius said something about a violin "being" still in the sun". The letter does not say for how long, or for what

purpose the fiddle was being sunned. Other people have added their conjectures without any basis of fact.

Just at random, formulating a rough guess on the number of instruments of all sorts, violins, violas, cellos, guitars, harps, etc. that Strad would have had in production at any one time, (calculated on the number of instruments that he prod
estimate would be that he would have at least 20-30 instruments in the sun on any one day. Taking them inside when it began to rain must have been a flurry. He must have had a lot of space to hang them. This space does not seem to be evident in a photograph of his premises.

Is it unreasonable to ask for data giving the correlation of age of wood and its density, thickness of plates, and perhaps width of reed, to the amount of time such wood should be exposed to sun of a certain intensity, in atmosphere of certain humidity at a given temperature to produce controllable results of tone, voice and response? To prove that sunning can positvely be accepted as a means of always adding quality, quality not able to be obtained by general construction?

Blindly rushing in and doing things in violin-making to vague reasoning, does not seem to be practical. Should we not work to ideas that are solid, and shy clear of anything that possesses the nebulous quality of the sunning theory so far presented. If practical data is forthcoming and proves to be constant in its working principals, and the sun proves to be the alchemist to transmute base metal into gold, the skill of the artist-craftsman in violin making could resolve into nothing more than good cabinet making.

I wonder if Dr. Saunders has made tests with his electronic equipment on a fiddle that has been sunned? I feel that such a test could bring some conclusions, worked on say a fiddle in the white and its graph before being exposed to the sun, and graphs after periods of twenty eight days of good strong sun, to cover a period of perhaps 280 days.

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LETTER FROM DR. MOESSINGER

On page 21 of the June 1960 issue of the Journal, Mr. Wright recommends the use of Ethylene dichloride as a solvent for Propolis. It should be noted that besides being a flammable liquid, the dichloride gives very toxic vapors.

Your editorial on the accoustics and the Public Address System of the Queen Elizabeth Theater is indeed full of nostalgia for the good old things which we used to cherish but which go by the wayside, crowded out by the new technical advances. Yet many of the contributors of the Journal seek the aid of modern science to solve the riddle of violin making. To my mind we should shy away from too much science, for fear that it will create the "Plastic Violin."

Scientific development would be concerned exclusively with the "End Use" of the violin so that wood, varnish and workmanship would become strictly functional necessities without artistic values. However I feel certain that the research necessary for determining the Tone producing factors of a violin would be so complex and expensive, in view of all the factors of Type, Age, Grain, etc., of the wood, the construction of the violin, the fitting of the accessories, etc., that the expected profitability will never warrant these expenses, so that no one will ever undertake complete and comprehensive study of all the factors. Yet, in view of the new uniformly controlable materials like Plastics, steel strings and electronic equipment, the research toward the production of a Plastic violin might well be a paying proposition.

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TEMPERA

by "Your Editor"

A few months back mention was made, on the Editorial Page, of a substance known as Tempera which has been used successfully as a pre-varnishing treatment or "filler" for Violin Plates. Since then I have received numerous enquiries asking for more information, and requests to publish the recipe for Tempera.

As a prelude I might say that I was introduced to Tempera by Mr. Reginald G. Price of New Malden, England. Mr. Price, who is a maker of high reputation, has had remarkable success with Tempera. He was kind enough to send me a booklet on the subject, written by W. Christ-Iselin. I was sufficiently impressed, and experimented with it on two violins with complete satisfaction. The tone, in both cases, remaining as good, if not better, than when in the "white".

The following is part of an article I have written for Violins and Violinists and will appear in that smart little periodical in October.

TEMPERA:

Most makers have at one time or another heard of eggs as a filler and have probably laughed it off as a ridiculous suggestion. A little research in any public library will reveal the fact that of all the fillers ever suggested, eggs are more likely to be the substance used by the "Old Masters".

Tempera, as the prepared substance is called, is made from eggs, and nothing more! It was used exclusively by the Old Master Painters of the period under discussion, and through its medium some of the greatest masterpieces of that, or any age, were created. Among these are the paintings of Michelangelo and Bellini, whose works of art remain to this day as fresh as the day they were painted. In fact time seems to increase the intensity of the coloring. A tempera painting never cracks or checks and certain effects can be obtained not possible with any other medium.

If tempera, then, was the recognized medium used by the painters of that age why would anyone suggest that when the violin makers came to "paint" their instruments the entire technique should be changed? The painters used tempera and covered it with varnish; the violin makers would do likewise.

In tempera they would find a perfect substance. It would meet all the requirements of a foundation and sealer. Tempera is firm yet elastic. It will remain in one state of constituancy for hundreds of years. It is transparent and can be colored to produce that beautiful golden ground color. It is easy to prepare and apply and is always available. It is waterproof. It seems the most logical from every standpoint. The instrument retains the tone it enjoyed while in the "white". After varnishing, the tone still has the strength and has in addition taken on a maturity not to be expected in a new violin.

To make tempera, beat up the white of an egg to a froth, then add the yolk. Beat for a few seconds more. Add a small teaspoonful of vinegar to prevent decay before using. Place in a covered bottle and let stand for three days or until the froth settles. Shake slightly each day. It can be used in its natural state or you can add a small amount of vegetable oil coloring such as is sold to color cake icing. Do not add the color until you are ready to apply the tempera to instrument. This is done with a brush. Apply a thin coat and let dry. Next day apply a second coat using if you wish clear tempera over the colored first coat. Let your fiddle dry for a week then apply your favourite varnish. If you treat the inside, use clear tempera, no coloring.

THE ACTION OF THE BRIDGE AND SOUND-POST

by E.J. Stuekerjuergen

The article on the action of the sound post in the May issue of the Journal by Mr. Kristian Skou interested me very much and I think he has the right idea. So many seem to think that the main function of the sound post is to transmit the vibrations from the top to the back but I think this is wrong. To my way of thinking it is the see-saw motion of the violin top on the sound post that distributes the vibrations to different parts of the top to correspond with the pitch of the note played. It cannot have this effect if the post is too close to the bridge or too faraway. I don't doubt but what the bass bar works more or less on the same principle, that is that the center of the depth and weight of the bass bar should be somewhat in front of the left foot of the bridge so that the bar can oscillate on the same principle as the violin top over the sound post as shown in Fig. 1 not as in Fig. 2 as you read in so many books on violin-making. As I have not come across this in any of the books or magazines I would like to know what other makers have to say about his subject. It seems to me that this makes the vibrations of the top more perfect as both feet of the bridge act on the top at the same time, as the bridge does not stand on a nodal line as shown in Fig.2.

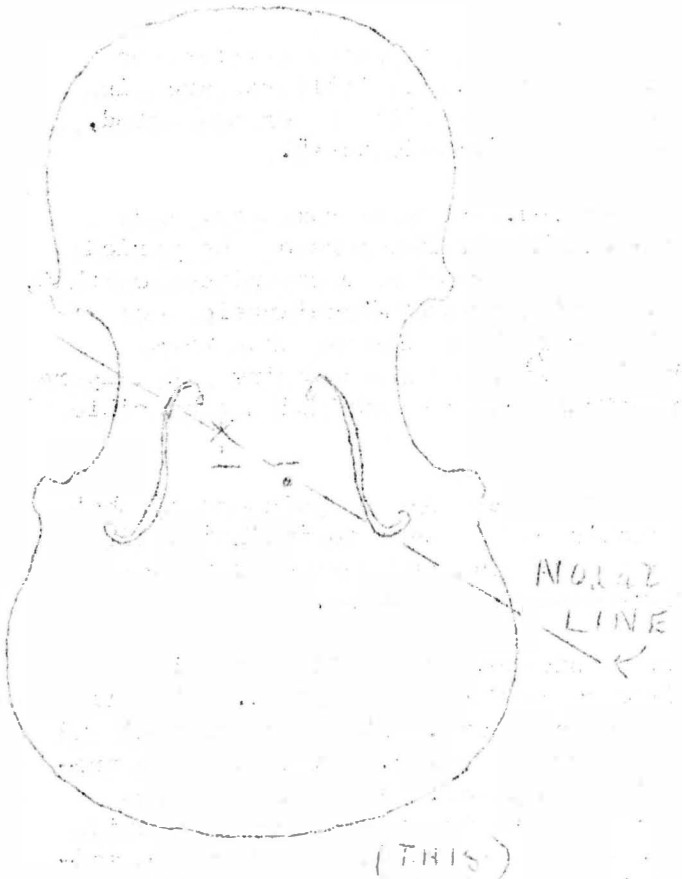


FIG. 1.

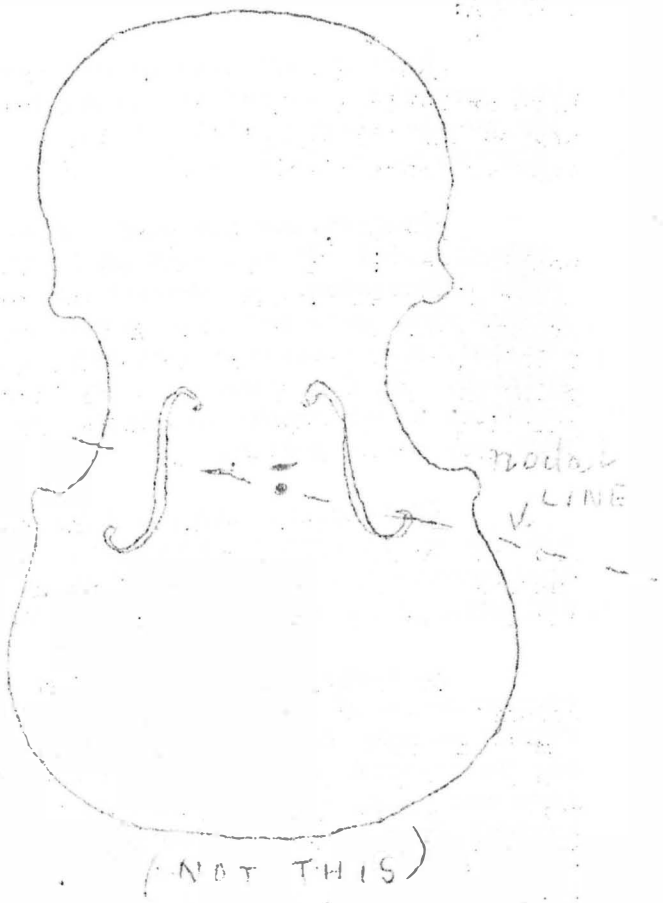


FIG. 2

Editor's note: It is not our usual custom to have two main articles by one author in the same issue. We do so this time because after receiving the foregoing article your editor wrote Mr. Stuekerjuergen thanking him, and at the same time posing a few questions on the subject he discussed.

On outlining these questions I realized that the subject of Nodal Points is likely to cause a great deal of argument and could be an important item in violin construction.

It seemed, therefore, best that we get the discussion going immediately. I also wrote Mr. Roelof Weertman and presented the same questions to him. Mr. Weertman's observations follow immediately - then Mr. Stuekerjuergen's reply to my letter.

The questions, as I remember are as follows: (Any reader who would like to enter the discussion will be welcomed)

THE QUESTIONS:

1. How can you be sure that the nodal point of the Bass Bar is at the thickest portion?

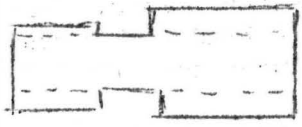
2. If we take a piece of top wood we will find that the clearest ring (tap-tone) is obtained if we hold the wood 1/3 of the way down and give a sound tap. Is the 1/3 of the way down a Nodal Point? And if so then should not the bridge (or sound post) be at a point 1/3 of the length of the plate? Now we have it at nearly the half way mark!

3. Can we by graduation or any other method move the main Nodal Points to different sections of a plate? And where should we place these Nodal Points - and why?

ROELOF WEERTMAN'S CONTRIBUTION:

Of course all kinds of interesting aspects are in fiddle building; but I have my self confined only to those I thought I could do something about. I have read all about tap tones; nodal points etc.; but nowhere a slightest hint, how to start in order to get these results. Much like taking an aspirin to kill a headache, brought on by pinching shoes; other shoes are the answer - not the pills!

In a simplified form here is a fiddle outline. We can easily determine



the nodal points of each one of the 5 parts, if the wood is flat and of an even thickness and the parts are detached. When in one piece it gets to be more tricky, suppose now, we take a string or rod of uniform cross section. The nodal points occur at half way - quarter points etc.. The pitch of tone depends on tension or in the rod on the mass. Octaves occur at halfway point. If we made a tapered stich, the nodal points will not change, but the octave will not be at the halfway mark anymore. Now in the fiddle, we not only have gradual changes in thicknesses, but also the back and top are fastened all around, besides a support in the form of the sound post is the starting point or zero Nodal Point; so "Nodal Points" or "Regions of little or no vibrations" are created between post and neck and between post and end button, but since the wood is continuous over the post, the vibrations are influenced by that fact; thus the actual dead spots, by rights should precisely be where the theoretical dead spots are for maximum results in tone.

For this reason, I do not horse around, using all different methods of graduations and curves. You may come out lucky, but the chances of breaking the Bank of Monte Carlo are mighty slim.

To find areas of least disturbances, we hope of course, that all of the top vibrates - and no dead spots - I have often used a very heavy rosined bow. The powder settles on the top. Poor instruments always have a "snow landscape" between bridge and fingerboard; but the better instruments, barely get white and then mostly under fingerboard and tailpiece and ridges of white follow the grain or fiber of the spruce. On poor instruments the rosin sticks like glue, but is easily wiped off on a good fiddle.

Observing this is interesting, but it provides no clue. What to do, that is sad indeed. You might think; because we see a patch is white, that wood under needs scraping (headache pill) but the cause could very well be some where else; but where?

Of course that is an enormous problem, unless we believe that the construction of arches should be of the same "family" of curves, that graduations should be smooth and evenly tapered; so that contour lines and lines of even thickness should follow a similar pattern; and in turn that this pattern should be akin to the inside outline of the fiddle. At least that can be made with care and can be controlled. Then, after construction, the "Tap Tones" come out, as certain quarters believe they should, everything is well. Personally I do not pay any attention to "Tap tones". My first cello I made according to the beautiful book on "Italain Violin builders", but the results were only fair and barely so. From then on I followed my own nose and counsel and the instruments are just all together different. The main reason is, I know from my test bars, what I will do, and why - a positive attitude - and I get results, precisely what I set out to get. From there I decide, where to (next time) make minute changes.

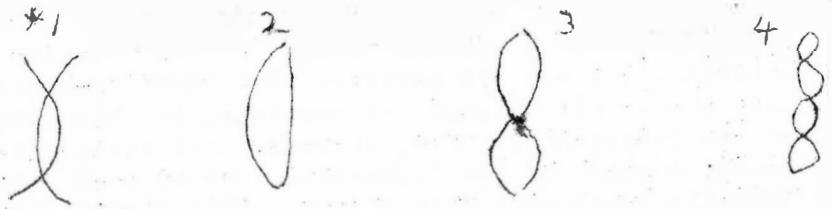
EDWARD STUEKERJUERGEN REPLIES:

First Question! "Are you sure that by making the bass bar deepest in front of the bridge that the nodal point will be there?" Since the sound-post is back of the right foot of the bridge the very nature of the action of the bridge has a tendancy to create a nodal point there and by making the bass bar deeper there is just helping matters along. The reason for placing the center of the bar farther ahead of the bridge than the distance from bridge to sound post is because the left foot produces the slower vibrations.

The question as to placing the sound post way back of the bridge? I don't think it would work, it would not work for all pitches, it might work for one certain pitch and that is about all to my notion. The idea of having the sound post near the bridge, and I think that is the only correct place. We will take the sound post as a nodal or rocking point and the bridge as the vibrator. The bridge has to be far enough away from the post to give a good action on the top plate but not to far otherwise the tension of the bridge would have a tendency to check the vibration the same as the violin string would act if we would place the bow too far away from the bridge.

To look for a better place for the sound post would be useless as far as I am concerned. I think woever planned the violin had everything down to a Tee. The more I study it the more I am convinced and to try to improve on their principle of construction would be a waste of time unless we want to create a different instrument. As to the nodal point in a piece of wood when you hold it with your fingers I think the place is $\frac{1}{4}$ way down from the end because the wood flexes more

in the middle and the ¼ way points are the two balancing points of vibration the only way to move these points would be either taper the wood thinner towards the ends or the reverse. I might be wrong but here is the way I have it figured out.



1. is the vibrating as you would see it and tap in the middle.

2. would be vibration of violin top without sound post

3. would be vibration of violin top with sound post at low vibration

4. would be the top at higher vibrations.

On a well contructed violin there would seem to be no limit to height of pitch.

AN INVESTIGATION INTO THE GRADUATIONS OF STRADIVARIUS AND GUARNERIUS VIOLINS

by Don White

PART 7

In my last article (Part 6) I rather hurriedly presented Dr.Frederick Castle's graduations. As we proceed, further particulars will come to light which will clear up any details which may be uncertain in the mind of the reader.

May I remind you that these graduations, which are of an unusual character, were the result of a life-time of experiments and investigation by a very intelligent individual. Dr. Castle was possessed of that inquiring mind which explores every possible avenue that may explain the mysteries of the violin. With such a mind it is quite logical that the good Doctor should turn to the construction and theories embodied in other instruments in order to arrive at conclusions. necessary for the building of a violin that will meet the exacting requirements of a modern virtuoso.

I now take the liberty of quoting from several pages of Dr. Castles book. He tells his story far better than my untrained hand and I also find pleasure in presenting a writer with a particularly engaging style, a style of his own.

"Every musical device possesses a fundemental, or lowest tone peculiar to itself; and, in all musical devices, except the strings, provision is made for the production of tones, higher in pitch than the fundemental tone. In all wind instruments, such provision is based wholly upon the action of air; whereas with the strings, such provision is based partly upon the action of the air, and partly upon the action of the wood and strings. This difference places the string family in a class by itself; also, this difference immensely complicates the problems involved in production of string-tones; also, this difference defies human skill to produce precise uniformity in string tone values.

Although the piano is a stringed musical device, yet; because every one of its tones is a fundamental tone, while the violin has but four fundamental tones, therefore there exists but a remote relationship between these two devices. Because piano tone depends upon the direct blow of a hammer, therefore, belongs in the class of percussion devices, notwithstanding employment of a sounding-board to augment tone-power. The tone of the violin depends and unwinding of strings, and employment of a sounding-board for augmentation of power. Hereat terminates similarity in these two devices. The sounding-board of the piano must be lengthened, shortened, widened and regulated in thickness to accommodate each and all of its fundamental tones, whereas, that particular part of the violin sounding-board, augmenting the fundamental tone of each string, must also augment all other possible tones upon each string. This dissimilarity operates to permit evenness of tone-power in the piano and to cause unevenness of tone-power in the violin.

Concentrated thought and experiment, directed to the piano scale, (comparative length of strings and sounding-board) has resulted in a quite satisfying evenness of tone-power. In this quality of tone, the violin sounding-board yet remains faulty. Naturally, the question arises, "Can concentrated thought and experiment improve the violin sounding-board in the matter of greater evenness of tone-power?"

In solving this question, it is first necessary to definitely point out

errors in dimensions of the violin sounding-board. Naturally, those who believe that the violin reached perfection 200 years ago will decline
fections exist in the 200 year sounding-board; or, that imperfect
in sounding-boards precisely similar to the 200 year sounding-board.

Possibly, no evidence whatever can change such belief.

As a successful method for maintaining error, there's none quite essful as refusal of evidence. In calling upon the piano sounding-board for evidence of error in the violin sounding-board, there's bound to be some who will decline to receive such evidence for fear of being convinced against their will.

Here follows such evidence:

1. The piano sounding-board is heaviest beneath the larger strings.
2. The piano sounding-board is lightest beneath the smaller strings.
3. The piano sounding-board is longest beneath the larger strings.
4. The piano sounding-board is shortest beneath the smaller strings.

In the Strad sounding-board there's no difference in length of sounding-board activity beneath the strings. In the Strad sounding-board there's no difference in thickness beneath the strings. From these facts,
that the violin sounding-board of 200 years ago had not reached perfection. (In the matter of producing evenness tone-power, some of the Joseph Guarnerius sounding-boards reached much nearer perfection than any sounding-boards of Stradivari.

Because the piano sounding-board of today produces the greater evenness of tone-power, it is evident that error lies in the violin sounding-board; and, such error becomes apparent in attempting to produce two octaves
even power, upon any of the four violin strings
bow-pressure, such attempt is a failure. The reason for such failure is apparent; the same length and thicknesss of sounding-board, engaged in augmenting the fundamental tone, must also be employed to augment the tone from the shortened, and consequently weakened string. For this fact, there is but one conclusion; that is both length of sounding-board activity, and rigidity of sounding-board are too great for the weakened blow from shortened string. Starting with
tone of any violin string, and counting half-intervals, there are twenty-five tones within two octaves to be augmented by an identical set of sounding-board fibers. Upon the piano, each of these successive tones is augmented by a sounding-board of diminished length, and diminishing thickness. Upon the violin, such diminished length and diminished rigidity of the sounding-board, for each successive tone, is manifestly impossible. Indeed, equal evenness of violin tone-power would be a forlorn hope were it not for the aid from increased bow-pressure.

It is apparent that production of even tone power throughout two octaves upon each violin string is a problem beset with difficulties. It is also apparent that a solution for such problemsis of value to violin tone; and in all conscience, to claim improvement upon the best sounding-board methods of Stradivarius and Joseph Guarnerius is apparently sufficient cause for hesitation. During 200 years, those methods have been faithfully copied by the most ambitious violin builders throughout the civilized world; and in all the world, I've known of none, nor heard of none claiming improvement upon the best from those two famous experimentalists. Yet, notwithstanding the fact that none are found making such claim, I know of modern violins equally as beautiful in tone as any Strad I've every heard, and, while equally sweet in tone, possess greater evenness of tone-power.

Why not claim the due?

I cannot see any harm in claiming such due when the claimant has the goods to show!

'Tis true, 'tis best to never claim more than is due; and, 'tis best to be modest in making any claim for onesself; but, 'tis of no avail to hid one's light under a bushel. The world is ever ready to accord merit at the moment of conviction that merit is due; but, the world rightfully demands proof before judgment.

By all considerations, submit the proof.

In submitting such proof, there's none to fear except the old-violin-trade-promoter; and, it is now quite generally understood that he is booked for that port where willful liars are consigned.

As we elderly students of the violin vividly remember, Ole Bull could draw four octaves of quite even musical tone from each string of his "Joseph." As all students of the violin know, 'tis a fallacy to claim such merit to lie wholly with the performer. No matter who the performer, he first must hold the goods in hand. It is my own observation that the "Joseph," among old violin, remains unequaled as a solo violin in the larger auditoria; and, such opinion is based upon the fact that the "Joseph" possesses both greater power and evenness of tone-power. 'Tis but natural for the student to ask, "What causes greater power and greater evenness of tone-power in the "Joseph"?

During many years, I have tried to an reason left to conjecture, precise data for the "Joseph" are kept as a valuable personal asset. Human nature yet remains very human. Concerning data for the "Joseph", Honeyman states thus: "The "belly" is thickest at the edges, and thinnest through out the central areas." From such indefinite description, but little can be learned. Even a writer, so thoroughly equipped by education, by thorough training in violin construction, and, by opportunity for observation as Ed. Herron Allen, refers his reader to the Strad data for thickness of the "Joseph" tables, although claiming to have had M.

Strange!

Here's one yet more strange, I sent to Paris for M. Simoutre's charts because among those charts was one of the Joseph. I received that book with the Joseph chart cut out.

"Diable!"

From a friend, I obtained a copy of a chart of the "Joseph." The original of this chart and from Honeyman's indefinite description of the Joseph, I gave much time to repeated experiment. Today, I'm not mourning the loss of Simoutre's chart; and, because of the opinion that it is impossible for any one to give more time to experiment upon the possible varieties of violin plate thickness that I have given. Charts for the Stradivari, of several different varieties in plate thickness, are quite easily obtained. I have not only given repeated trial to all Strad varieties in plate thickness, but have also given many trials to the obtainable data for the Joseph. Between these two great genii, I unhesitatingly place the credit for greater tone-power, and greater evenness of tone-power to Guarnerius. For the greater duration of tone, and for the greater sweetness of tone, I place the credit to Strad.

The method of plate-thickness finally adopted by these two successful experimentalists is presented for the purpose of making my lines of reasoning, leading to a partly new method, stand out in a clear light. (to be continued)

WORLD QUARTET EXHIBITION

CONCOURS INTERNATIONAL DE QUATUOR LIEGE

The eyes of Violin and String Instrument lovers will be focussed on the International Quartet Competition being held at Liege, Belgium, September 4 - 10. The selection of judges has now been announced. They include Marcel Vatelot, Pierre Gaggini (France), Giacomo Visiach, Paolo de Barbieri (Italy), Leo Aschauer (Germany), Pierre Vidoudez (Switzerland) Cyril Jacklin (England), Joseph Stettin (U.S.A.), and a representative, not yet named from the Soviet Union.

Makers from twelve different countries are participating and competition will be keen. Instruments will be judged from a standpoint of workmanship and also for tone. Each set of instruments will be played by a quartet of players and will be an exacting test.

The following is an interesting circular put out by International Quartet Competition committee and describes

The city of Liege, precious to the artistic past, has sheltered and encouraged for ten years the International Quartet Competition, innovating a formula which has proven particularly beneficial for the future of Chamber Music.

Since that date, an emulation without precedent in this field has animated the composers, the artists and the violin makers of all countries. Carrying from one to the other a sense to hope and believe in the everlasting quality of quartet music too often abandoned.

In truth; wrongfully so, the quartet has the reputation of being reserved for the elite, the public holds the prejudice that listening to works of this nature is difficult and tedious . Listeners turn more willingly to the recitals of well-advertised names or to symphonies etc., a more spectacular nature.

Such snobbishness does not favor chamber music, its public is a monetary public. The same interpretation of compositions allows no mediocrity, it exacts absolute perfection in the field of spirit and technique.

In a time of profound changes which overturns even the life of an individual, the spectacular will captivate the crowds.

Other factors threaten the existence of chamber music. Fearsome life, the numerous enticements which offer progress in the field of distractions. That is why it is comforting to state the effort sustained by a Belgian group animated by men of high and enlightened ideals, holding as most important, mind over matter but also mindful of not allowing to dry up certain sources of universal heritage. To this end, the city of Liege organizes an international competetion, designated each year, in September, to one branch of quartets, following a cycle of three years in which composition, performance and violin making take precedence.

1960 will see flourish in this high position of the quartette, the third competition among violin-makers since 1954. The judges will have the thrilling task of disclosing the best ensemble of instruments composed of 2 violins, a viola and a cello, quality of the tone and volume, the ease of emission, archetectrual style and varnish, will open the way to the victor of a competition where the requirements are sever and the authenticity exacting.

This exhbition, the idea of which was conceived by Louis Poulet, is honored by the patronage of Queen Elizabeth, recognized by the Belgian governmanet and the city of Liege, is also supported by the Office of Fine Arts of the city and by greater Liege.

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THE THICKNESSING OF PLATES

by E.J. Stuekerjuergen

Much has been said and written about the thickness of violin tops and backs. By studying the measurements as given in Mockels Book it seems that Strad based the thickness to be one thickness over the whole surface of the top except possibly around the f-holes. This seems to me to make sense since the top has to divide itself into many vibrating spots and nodal lines according to the frequency of the vibrations the higher the pitch, the more vibrating spots or points and it seems to me that a plate of even thickness is most suitable to take care of this.

I do not believe in thin centers and thick edges since thick edges would have a tendency to check the vibrations too much which are already more or less rigid by being glued to the ribs, the top could possibly be a little thinner here but only a very litte. Those who condemn Ed Heron-Allen's thick center and thin edge tops, when he says, the top should have a substance of 9/64 (in the center) and it must only just then off (say 1/20th less) at the edges. If he means 1/20 of 9/64 it would taper only .008 or 2/10mm. This could very well be what he meant so it is nothing to get exited about. As Ed Heron-Allen studied with a good maker and was in contact with other good makers. I still have faith in his book.

I do not believe in too thin wood such as $5\frac{1}{2}/64$ or even 6 and $6\frac{1}{2}/64$ as I have tried scraping down tops that were $7\frac{1}{2}/64$" and it made them worse instead of better. Also I have read so much about what other good violin men had to say about thick and thin wooded violins. Men, to mention a few like George Hart, Arthur Dykes, and Robert Alton, and a few others who I think knew pretty much what they were writing about, these were not radical men.

I will not go into much detail about the back, only that I base my thickness of about 12/64" in the center about 9/64" at the waist tapered to about 7/64" at the upper and lower edges. As the back has to support the top through the sound post so the bridge can get a good action to bring the top into vibration the back should not be too weak, otherwise it would not have the proper support for the top, and since the nodal line is not always exactly above the center of the sound post it must have some flexibility.

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IMPORTANT NOTICE

A month or so ago we suggested that Mr. W.L. Laubi of Dubendorf, Switzerland would soon be closing his business. Our Announcement was somewhat premature. Mr. Laubi will sometime in the distant future be obliged to make a chan e but for the present, and for sometime yet, he will be able to completely satisfy your requirements for high quality violin tone wood.

LETTER FROM AN ADMIRER OF DR. CASTLE

Dear Mr. White:

I have been reading the past years issues of your Violin Makers Journal as sent to a friend of mine and a recent subscriber of yours, Mr. Harry Adkins. We are both professional musicians, he on bass violin and myself, violin. Through sheer exasperation with repair work and adjustment of our respective instruments, we do our own repair work. We have read about everything available (in English) on violin construction. Sad to say, but, very few books on violin construction are good in our opinion and most of them are very dangerous, if one desires to obtain good results. If one desires a history of the Violin, with folk-lore mixed in, I suppose Heron Allen is fine; but to use this book as a rule or yard-stick for repair work is dangerous to say the least, i.e., in discussing experiments and theories of antiquity, he gets himself into the act and eventually you don't know who is who. As a result each page is loaded with contradictions.. My reasons for writing you are not to complain however, but rather to lend a hand.

In your June, 1960 issue you mention that you are going to review Violin-Tone peculiarities by Frederick Castle, M.D. This is our favorite boy, This is the one book that covers the over-all aspects of violins and their problems. Because of bad health when the book was written, a proper Index of subject matter was not arranged for the book. I have enclosed a copy of my own indexing for this book. You may remember me in your will for this effort, if you desire; old bow-hair and such but please! no formula for old Italian varnish.

May I point out an interesting observation by Dr. Castle on the cutting of the wood for the sound-board, i.e., he contends that the grain of the top should be at a right angle to the arching for best results! This means that when you look at the grain of the top from the tail-peg end, the grain is slanted in a slight V shape so as to contour at a right angle to the arching!!! One of the best workmen on violins in Chicago, a German of about 40 years of age, re-discovered this fact on his own about 2 years ago. He is very acute and methodical in his study of every old Italian violin that passes throught his hands. He measures the depth of the scroll-cuts for future reference, etc. He advised me that he had never seen a fine toned old Italian violin without this slanting of the grain. Sometimes it may only be one side of the sounding-board, but the suggestion is there. He has been writing letters to Europe advising them that they are cutting their wood wrong!! I am quite sure that he and Dr. Castle are right. Such things as this can free us of the idea that varnish or impregnation is the only solution for a fine tone.

Well--take a good look at the butt ends of all your great old Italian violins and think it over.

Sincerely
Bruce Yantis

Note from Don White:

Please accept my thanks, Mr. Yantis, for a most complete index on Dr. Castle's book. Your effort must have taken weeks to accomplish. It may please you to know that your kindness will save me a great many hours of "thumbing" through this most valuable book.

Don White

VIOLIN NEWS FROM NEW ZEALAND

by Norman F. Westwood
Auckland, N.Z.

The article by my friend Leo Larsson in the April issue is quite interesting and I believe he knows wood for he sent me a piece of Western Red Cedar from which I had a bassbar made for my old Maggini-Vuillame Cello and it certainly gave the instrument a fine tone. I also have a sound-post of the same wood in my Forster and it certainly brightened up the tone much better than the spruce post it had.

I am very intrigued at Gordon Rook's article and the reference to thicknesses ex Mertzanoff for they seem considerably thinner than the measurements given in Jalovec's book on Italian Makers where Strads in the central area give 5mm - but one 1716 A.D. shows 4mm. Possibly the wood used in the latter one was different to the others, but the Mertzanoff thicknesses of 2.2mm to 2.3mm in the centre area seem very thin to me. Would you use such a thickness on our own instruments?

I wonder if someone had thinned down the Strad Mertzanoff measured up. I had the middle area planed down on a fine old Cello a few years ago for it seemed "constipated" in tone and a very good cello it turned out after the operation. I think a lot of old and new instruments are left too thick in the middle area to produce a good tone, but one has to be very careful of course and not over do the planing. It seems to me that the bellies must be able to vibrate and not have restricted places and bassbars unduly biased which keep back the vibrations of the tops. I guess Dr. Saunders has the same idea with his groove which surely allows the top to "get busy"!

Sam McLean has made another violin and the tone is just the same as his previous one - which is good to find for apparently he is working on the right lines. One of the finest violinists in N.Z. is using Sam's fiddle at present and says he "cannot fault it". Since he has an Amati it means something when he is happy with Sam's instrument.

We have just had our Annual Festival in Auckland and the National Orchestra gave some fine concerts and at one Ladislao Jasek - the Czech violinist played the Brahms Concerto magnificently on his Rocca. We had rather too much music compressed into 10 days, so we have musical indigestion a litte as a result and many of us consider it would be better to spread out the period a further week.

I read so much argument about varnish and priming in the Journal but the bone of contention seems to be Linseed Oil! No one seems to mention Olive oil and surely it is the one oil the Italians use for everything from rubbing in their hair to drinking it! So why shouldn't they use it for priming the fiddles when it was so common? Incidentally when oxydized in sunlight it becomes a fine oil used for lubricating watches and good clocks. If it is unsuitable for priming violins I would like to know the reason so perhaps you can satisfy my curiosity?

I've just discoverd that Norman Miller has mentioned the point of thicknesses but I think he has got a bit mixed up in the difference between mm and inches. 5mm is 1/5th of an inch yet he says 1/8th of an inch is too thin for the actual centre - which of course may be right, and 1/6th of an inch would be more like the Strad measurement of the centre.

The Journal is good reading and actually I think this April issue is the best effort yet so I shall go to bed and try to assimilate the good advise given so freely.

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METHODS I HAVE FOUND SUCCESSFUL

by F. R. Davidson

I have been making violins for some years now, and with the last four or five I have been fortunate in being able to get good tone. I have one that Mr. Schumacker in Findlay has been playing that is real good. In fact a fellow teacher of his has a Scarampella that he paid quite a lot of money for and he likes the one I made so well that he used it for a concert instead of his own. Schumacker is a really good violinist and develops remarkable tone and he has been a big help to me in adjusting them. He says this fiddle has everything a good violin should have. It has a good even solid tone, plays easy in all positions has no wolftones, and has a very good quality of tone.

I have been trying to get that quality of tone you hear in the good old instruments and with plenty of playing I believe that one will have it. He has often remarked that he doesn't understand it but they don't sound like new violins but more like old ones. In my work I don't try to follow any one method, I have been doing a lot of reading and then I try to think or adjust what I read to what they must have done 200 years ago and I believe I have made some progress.

In building a violin I try to build them so that in the white they sound much too loud and brash while using correct measurements and thicknesses and paying very strict attention to weights, tone of plates and especially balance. I balance the bass bar exactly on the bridge line. Since I have been doing that I haven't made a poor violin. Although no two are alike they all have been better than most.

After I have it made in the white and tried it out and the tone seems real strong, then I try to get rid of about 20gr. of moisture and then heat my sealer till it smokes and apply all it will absorb and dry thoroughly. It makes a remarkable difference in the tone. Where before it seemed too loud and raucous, after varnishing it will have a well dampened tone. I have used that on the one in Findlay and at first (or in the white) it didn't sound too good. It was too loud and coarse but now it has a beautiful tone. Although on that one I put in just enough linseed oil to slow up the drying a little bit and allow for penetration. I usually use about 10-12 coats of Kujawa's varnish, rubbing down each coat well with 6/0 wet or dry paper. And finally polishing with polishing powder and oil. I hope someday to enter one in your contests.

I recently obtained one of Justin Gilberts books and there are a lot of good ideas in it. I don't go for the baking process or for taking them apart after they are finished, as he did, for final tuning. He does have a good idea for a tuning device and the last one I made I tuned the Front to F and the back F 8.5. Mr. Bob Wallace supplied me with high toned wood for the top and it turned out real well. I held the top to 70gr. and the back to 100 gr. and had plenty of thickness. The complete violin in the white without fingerboard weighted 291 gr. before drying.

I hope my experiences will help some other maker.

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"What's patience?"

"That's the ability to idle your motor when you feel like stripping the gears."

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WOLF NOTES

by The Editor

CORRESPONDENCE:

One thing about returning from a vacation is that so much work has piled up on your desk and so much needs to be done on the next issue, you just give up and relax. But the mysterious fact is that in that frame of mind one can really accomplish more than if you are in a state of tension-wondering how everything will ever get done.

Just the same I still have some 40 or 50 letters needing attention. If one of these is from you, don't worry I'll get around to them very soon now???

LOCAL NOTES:

Readers will note that Mr. Floyd Holly has taken over the Column "Local Notes". Mr. Harold Briggs who has conducted this column so entertainingly in the past, has been quite unwell lately and asked to be relieved of the task for awhile. We thank you Harold for your past services. We will certainly miss your interesting remarks. Get well soon!

THE HOBBY SHOW:

I mention the new writer of "Local Notes" first because Floyd is telling you all about The Hobby Show and I know he will be reluctant to boast about himself. The fact is Floyd won The "Smally" Silver Cup for the finest instrument in the Show. This with a magnificent Cello. The workmanship on this Cello is of the very highest standard and has to be seen and examined to fully appreciate the details. Congratulations Floyd! Symphony players who have tried Floyd's Cello pronounce the tone as "The Best". Personally I thought the quality of the winning instruments very high this year. The tone of violins made by members of our Local Association, has improved greatly during the last two years.

There were six, out-of-town exhibitors and here I should like to especially mention the violin made by Jack Irwin of Dallas, Texas. A violin of splendid workmanship and excellent tone. If felt this instrument with a little more "playing in" will be higher than "Honourable Mention."

Don't be discouraged, Jack, your violins of the future are going to be hard to beat.

CHEAP WOOD AND TOOLS:

The following is from a "foot note" attached to a letter I received from Miss Gladys Bell, Editor of Violins and Violinists. Quote: "An after-thought—

I have a friend whose husband, Dr. H.L. Stitt, who died a few years ago, was an avid amateur violin maker. He left a lot of materials--parts of violins partially completed; wood and tools. Have you any suggestion about how she might dispose of this? I could send you the details as she has written them to me, if you want more information."

If any of our readers are interested please write Miss Gladys Bell, Editor Violins & Violinists, c/o Wm. Lewis and Son, 30 Adams Street, Chicago 3, Ill.

TEMPERA:

At last I have given you the recipe for Tempera. I am quite happy with the results I obtained from its use. Here is part of a letter from the person who introduced me to this excellent, yet simple filler: Quote:

"I have made several fiddles and violas and treated the inside and outside with Tempera, and sold them all. The tone after varnishing is definately improved. I have used Harris's varnish but I don't think there is any real amber in it. I have also made my own but have never been satisfied with it. Perhaps I should have kept it a few years before using it. The varnish I use now and have done so for a number of years is amber varnish and mastic varnish made by Windsor & Newton and colors same with a good oil stain, dark oak and mahogany and mix same with two parts amber to one part mastic. Makes a nice transparent reddish brown varnish. One could not wish for a finer finish when it is rubbed down with pumice etc. I look forward to receiving the Journal each month and read through several times. It is very interesting reading and one can learn a lot from other makers. But as you say our big Problem is the filler and varnish. One day we may be able to solve it and so we all keep plodding away, improving and sometimes spoiling a good fiddle in the white."

Reginald G. Price

THE MAIL BAG:

Each month I receive many letters, not written in the form of an article, but which contain much constructive material. The Next few pages will contain quotations from such letters which should prove very interesting reading.

East Burlington, N.Y.

Most of the Italian Violins I've experimented with I have never seen a back or top where each side was the same, for instance if you unglue the join and put them together with the surfaces perfectly square the outer edges will be a different shape. Years ago I asked why this was and was told one side of our face is not like th other side, if it was we would look terrible, sort of like one of these models we see in store windows. No Don, the Italian makers were artists first and mechanics last.

Here is a question one can ask any authority in the world and I doubt if he can answer it. What are the black spots we see in so many Italian violins. And what are the octopi or ramifactions we see in some of the Italian violins especially the reddish colored ones. They look like this 

A party told me last week he too could make the Italian varnish and I asked him what he rubbed his violins down with (I did not see the violin) he said pumice and rotten stone. Well that was enough for me because Italian violins can't be rubbed down with abrasives as they would sink into the varnish and mar it. Italian violins are French polished.

Wm. M. Martin.

Royal Oak, Michigan

I have two projects in the fire at the present time. One is an improved set of bending irons and the other a mechanical device for accurately checking the tap tones (pitch) of violin plates. If either of them works I will send you the plans for publication. I have talked to several physicists about the latter device and they assure me it will work.

There are two things I should like to see published in the Journal. One, a device for determining the angle at which to cut the neck so that the fingerboard will be the proper height above the top plate on the violin; two, complete formulas for making Michelman's varnishes using his modernized technique. He published an article two or three years ago on this in Violins and Violinists but did not give the specific formula.

Carmen White published formulas in an article which I think appears in the Arizona Journal but I don't think they are quite right and only Michelman or a chemist of similar skill can figure them out.

I have just completed fiddle #3 in the white and #1 and #2 are in the process of being varnished. I won't be working on them for a month because I'm coming out your way, starting tomorrow on vacation (Lake Louise). I've tried to persuade Mrs. Slaby that we go all the way to Vancouver so perhaps we may see you.

Grimsby, Ontario

Yes, I really believe that Bob Holt's secret is the wood he uses as his model is very ordinary and his work average. That tone however is the same on all his fiddles and is very easy to bring out. I expect to get two of his fiddles this trip and hope to load up on some good wood. Hope to be able to send you some. He also told me he boned the wood before varnishing. I cannot believe this effects the tone very much.

I made a new top for a cello lately and used Propolis for sizing. The first coat of varnish required 3 weeks to dry. After this the drying period was normal at one week per coat.

It seems proper to use a thin solution of ordinary violin glue to size the outside of plates. Let me know all about results you get from Tempera. Has anyone ever considered jointing the fiddle top in such a manner (or at such a joint angle) that the year lines are parallel to the edges of the violin and therefore at an angle to the centre joint. I will try this on my next instrument and am certain that a change in tone production can be expected.

Joseph V. Reid

Editors Note: We have mentioned Bob Holts wonderful violins before and can only repeat we believe them among the finest in America!

Mr Reids suggestion of having the grain of the top plate parallel to the edges was, we believe first discovered by Dr. Frederick Castle. It is claimed that many of the Old Masters cut their tops in this manner. The theory is mentioned in a letter from Mr. Bruce Yantis in another part of this issue.

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