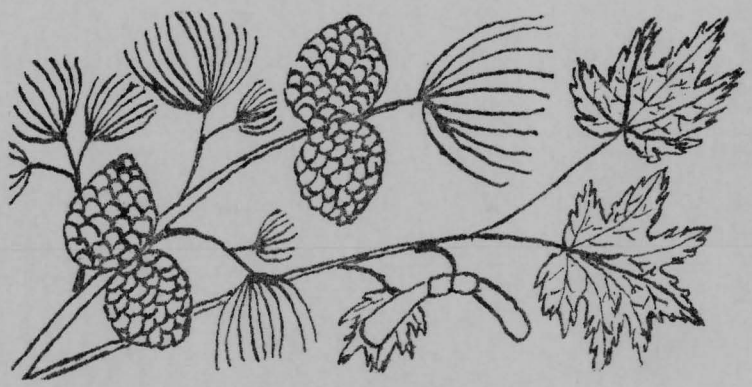
MAY 1960

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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Vol. 3...No. 7 ..... May 1960

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EDITORIAL PAGE OF *The Violin Makers Journal*

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EDITORIAL

GAINING THE MOST FROM OUR ARTICLES:

Letters received from our readers often contain remarks on the subject matter appearing in the pages of our Journal.

Some readers beleive that many ideas expressed are completely unsound and should never be published as they only tend to confuse the mind, especially of the beginner.

Other readers suggest that our Journal is an open Forum and all subscribers have the right to say their piece. They contend that much that may seem silly and ridiculous could be sound if traced to its correct source. Let me give you an illustration.

Among the many materials suggested for "fillers" is "white of an egg"! I have always passed this off with a broad smile. If I had done a little research I would have found that eggs, exclusively, were used by the Old Master Painters as a ground coat or filler for their paintings and is called "Tempera" - see any dictionary. Does not that sound like a possible filler to be used on Violins?

Many other "hairbrained" ideas may also have a very sane origin.

Certainly out of the welter of ideas may come the solution to our problems.

Which brings us to the title of the Editorial. It would seem that if we are to gain the utmost from our Journal we should not be too ready to discard suggestions presented. Weigh all ideas carefully endeavor to trace them to their source. This would definitely seem more sensible than following blindly - without any consentration of thought, methods which have become traditional - methods that have turned out the thousands of mediocre fiddles and very few that equal the "Old Masters".

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A fool doth think he is wise but the wise man know himself

' to be a fool.

.....Shakespeare

- 0 -

LOCAL NEWS

by HAROLD BRIGGS

The regular monthly meeting, held on March 12 was our annual meeting, and the election of officers for the coming year was held at this time. Most of the time at this meeting was taken up with hearing and discussing the report of our President Mr. G. Heyworth and the financial report as given by our treasurer, Mr. F. Holly. A lot of information, financial and otherwise, concerning our "Violin Makers Journal", was given the meeting by the editor, Mr. Don White. All reports showed that our organization, as well as the Journal were in quite a healthy condition, and each showed a small, but not too burdensome cash surplus.

Officers for the coming year were all elected by acclamation, and were as follows - President: Mr. G. Heyworth, Vice President: Mr. Art Jones, Secretary: Mr. Don White, Treasurer: Mr. Floyd Holly, Publicity Agent: Mr. Peder Svindsay.

Considerable discussion was given as to advisibility of pruchasing a typ[illegible] for the use of our organization, and the executive was asked to investigate costs and other particulars and to report back at our next meeting.

After the business part of the meeting was concluded, a number of instruments made by various members were given a sort of official "audition". Each one being very ably played by Mr. Jack Fisher. One violin made by "Hi" Martin, a new member, drew considerable attention as the back of this instrument was made of yellow cedar and the top of red cedar. Other instruments played included two violins by Mr. Heyworth, one each by Peder Svindsay, Floyd Dumont and H. Briggs, and a violin and viola by Cpt. M.F. McDonald.

A set of files was shown by Rev. Geo. Wright. They looked as tho they would be very useful and interesting to violin makers as they were made in many different shapes and styles and several were curved which should make them especailly useful for work in peg boxes and scrolls as well as on the insides of plates and in the trough around the edges of the plates.

- 0 -

"A STORY"

by Walter A. Jacklin

I was walking down the street the other day in Yuma, Arizona, and noticed some of the picket fences made of redwood, and later went into a Sash factory and examined some of it in finished condition. It interested me because in recent issue of the Journal there has been some suggestions of using it for violin work, and red cedar has also been mentioned.

It is quite unnecessary for makers to spend time exploying the suitability of woods for violins. It has already been sufficiently attended to. Average weight, the tensility, rate of sound transmission and other factors are a matter of record, and only confirms what the great masters had decided more than 300 years ago. Nothing equals good strong high level spruce. Its rate of conductivity is only about 1000' less than steel. The idea that the front of a violin must be light is wrong. It needs strength, and there is not tone in pasteboard. Light cars ride alright; cadillacs even better. The springs fit the load.

- 0 -

SOME ANSWERS TO DIFFICULT QUESTIONS

by William Kirkwood
Scotland

You ask me if I have any theories on wood selection, and that you hope to get some articles going on that subject, and would welcome any information why we use these two woods, (maple and pine) and should the grain be wide or narrow; or narrow in the centre and wide at the sides.

I have no particular theories on wood selection, although it must be important to use good wood. I think there is a little too much made of this. Nobody is likely when making a violin to use bad wood if they really want to make a good violin. I think more depends on the shape of the breast and back.

When I made my first violin I don't think the breast cost me more than 5 shillings and the breasts for my other 3 violins perhaps a little more (German Pine), of course these breasts were of very old stock when the prices were cheaper, and I knew the dealer had them for years and years.

The wood for the backs of my violins are of fine local maple just grown not far from Forfar here, and all the bridges I have so far sold have been made of it, with the exception of a few of Canadian Maple. This wood I had matured for about 12 years before having to use it, it would have shown up the maple marks or spots if it had been sawed on the quarter, but it was sawed on the slab.

Now your most interesting and most difficult question is why we use these two woods, maple and pine.

If you take two short strips of wood, one of maple and one of pine, both of the same length and other diamensions, each fixed at the ends, each with its own particular wave length. Put a bridge over their centres with one foot on the maple an the pine, now put tensioned strings on the bridge one at each end in a smilar manner to the E & G strings, with their tensions tuned to the wave lengths as the strips below them. Then you would find that if this arrangement could be vibrated as in a violin, the lower pitched string would be above the maple strip, and the higher pitched string above the pine strip. Exactly contrary as in the case of the violin, where the lower pitched strings are on the bridge above the pine, and the higher pitched strings on the bridge above the maple.

It is very conflicting to explain all this, but where there is a succession of waves away from the bridge to the outer edges of the violin the nature of things greatly change. You may be a bit mislead with what I have said in the case of the violin, of the higher strings
through the post.

when fixing the post, the breast at that point is pressed upwards and has not much effect in producing vibrations at that point, and is of more assistance in helping the post to vibrate the back, which is the maple and the main source of vibrations for the higher strings. The bar and breast the main source of vibrations for the lower strings. When ever there is a succession of vibrations, one feeding other, or the next, the strength for the higher pitched pine, as in the case of the violin loosens and is then more adaptable for the lower vibrations. You could get a back made of pine to suit the higher vibrations or strings to a certain extent by thickening it up to meet that point, and it still would not be as thick as the maple would have to be for the same purpose, but even so the pine would need longer lengths for its waves than the maple

This would not be so stable, as the thickening up of the maple, which requires shorter lengths for
(A bar along the back with a thinner plate, if could be fitted with the post as in the breast would be of no use here as a bar w
vibrations, as far as sound is concerned) The back has to be thickened only, which makes the higher vibrations ideal. The thickening raises the tension required. You could thicken up the breast in place of using the bar, and still get it to suit the lower vibrations, but little sound would be transmitted to the cheeks or bouts, as this thickened part of the breast would absorb within itself too much of the vibration strength without transmitting it to the cheeks.

By using the bar far less absorbing strength of the vibrations takes place, and far stronger vibrations are transmitted to the cheeks. (as less wood is used)

In the vicinity of the bar and the back at the post, well, well, backwards and forwards, there is very strong vibrations, which are transmitted to the weaker cheeks, resulting in the cheeks giving far more sound, than these vicinities of the bar, and the back at the post, which absorb some of the vibration strength as far as sound is concerned.

With a fairly large centre part, in the vicinity of the bar and the back at the post extending to the cheeks, where the transmitting force is strongest, and leaves but the cheeks to cover, and with the constant reinforcement of the vibrations, I think there is little need to reduce the thickness of the plates when approaching the edges.

As far as to whether the Grain of the breast should be wide or narrow I cannot but think that a reasonable close grain would be best. As far narrow in the centre and wider at the edges, I am a bit doubtful, and have always prefered the close grain in the centre, but at the same time I think it could possibly be in some or even many cases the one may turn out to be as good as the other.

In a previous Journal mention was made of a small trough or ditch around the inside edge of violin plates, this will almost certainly produce more sound, but wether it is good for violin tone is another matter. Sound or vibration cannot be thrown over the edge of a plate the edge must take the full force, and use it up, with the exception of course of a small quantity the air will take this proportion being lost to the edge of the plates.

With the ditch the vibration begins to discharge its force here which reacts on the edges, without the ditch all the force goes to the edges, and although the vibration or wave delivers the same force either way, more is absorbed in the stiff sides and edges, with a proportional loss of sound.

Perhaps what I have said is not just clearly to my mind in detail but I think you will know what I mean, and as I have not much time to say more at present, if anyone has doubts to what I have saide I would very much like to hear from them, as we are out to know the truth. Which is more important.

- O -

Give me a sense of humor, Lord,
Oh give me the grace to see a joke,
To get some happiness fro
And pass it on to other folk.

.....from the Legionaire

- O -

VIOLIN MAKERS COMPETITIONS PAST AND FUTURE

Sometime ago it was suggested in the Journal that possibly rules might be drawn up governing the judging of violins in North America. There are many varied opinions as to the different points which should be allocated to each aspect of beauty such as tone workmanship and varnish etc. that the problem might be too great to agree upon.

It is a matter which every Society contemplating a competition must settle for itself. Having decided on the method of judging it should be the duty of the Society to state in its literature exactly the point system they intend to follow.

All of which is really an introduction to a far more serious aspect of competitions especially those taking place in foreign countries.

We know of one such competition held not so long ago where competitors had extraordinary charges placed against them to cover costs of handling insurance, transportation from stations, packing and even postage stamps.

In the two cases brought to our attention at this show the charges were $40.00 and $49.50. This in addition to the regular transportation charge to and from the Exhibition.

We have every respect for the embarrasment of this society, which apparently operating financially on a very narrow margin, and perhaps also through lack of planning, were obliged to pass on these costs to the exhibitor, but we do feel that if the exhibitor is liable for such costs then it should be stated plainly in literature previous to the Exhibition.

This is the point we wish to make:- All Societies contemplaing a competition should draw up a complete set of rules governing the exhibition. The expenses to be paid for by the exhibitor should be plainly shown, together with date of delivery etc. Should the Society inend to impose other charges besides transportation then an estimate of such charges should be plainly given.

In the case of an International Competition these rules should be printed in at least three languages.

Many competitions do specify these conditions. We are only at this time reproaching those who do not.

In the case of the Exhibition mentioned the organizers have not only harmed themselves but their action will be reflected in other competitions. Exhibitors will be prone to exclaim "never again".

We don't want this to happen. Competitions are important and valuable to the maker who wishes to have his instruments evaluated and to compare them with other maker's instruments.

Let us first see that these things are attended to then support our exhibitions and see that they flourish as they have every right to do.

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Character is not made in a crisis
-- it is only exhibited....

- 0 -

ON THE SIDE LINES

by Leo D. Larsson
San Francisco

As one who appreciates having available The Violin Makers Journal, to my mind the most valuable publication in the English Language ever available to the Violin Maker, I would like to give some observat'ons.

In talking to old professional violin makers, and having read about one hundred books, probably most of the important ones published in English, I am struck with the great amount of repeated experiments by makers down through the years. True, sifting through the experiments might just turn up something overlooked before, but quite often the experimenter is unaware that the idea has been investigated previously and what conclusions were reached.

Worthwhile results of repeat research using the same basic materials is shown by the work of Fry, Michelman and Sangster. Looking at the United States Patent Gazette through the years is a revelation of what has been tried to improve the violin. The Gazette only publishes the patents granted. What about the efforts not granted patents, or for which patents were never sought? Believe me it is fantastic the amount of wasted effort.

The Journal should be in a position to direct and channel some of these experiments. Fortunately for all it is able to give the findings of such scientifically trained researchers as Dr. Saunders and associates, Mr. Skou, Mr. Michelman, top international makers such as Mr. Sangster as well as others. I would suggest a maker try to find out what has been done before on an idea before going into time wastings efforts of which he quite often is unable to evaluate the results. Careful study of Dr. Saunders work can save a lot of time.

Our good friend Don White has started research on Del Jesu thicknesses and maybe Dr. Saunders should move in here also. Without further long discussion the following brief observations are offered, drawn from personal experience, contact with violin makers, violin connisseurs and the literature of violin making and history which maybe of value to others.

The top French makers of the last century had all the best Italian instruments go through their hands. Results: The French workmanship was equal or better than the Italians, they copied thicknesses down the last decimal of mm, even enlarged the models with heavier and larger edges, but they turned out Lupot's, Gand's, Vuillaume's etc. The Italians after French bars, blocks, linings and necks were still Italians, in most cases improved Italians.

It is said fewer makers are tonally successful with the Guarneri model than with Strad or other models. Don you have a tiger by the tail.

It is claimed that a violin with a weak thin back will lack carrying power . An instrument with a weak back or/and with a weak neck will not stay in tune when played in the higher positions.

Thicknessing methods of the various top Italian makers varied a lot, with different tone qualities, but they are classed as supreme makers every one of them.

The drawings of the Honeyman draftsman are incorrect. He did not copy the instruments as they were but how he thought they looked when new. Result: for one thing the edges are over sized.

The problem with most makers is they seldom get the chance to see a number of top instruments so as to be able to make a clam study of the differences. Another thing they pnobably do not have the council of an experienced connisseur to guind their observations.

A VIOLIN IS NO BETTER THAN ITS VARNISH

by William M. Martin
Burlington, N. J.

If anything I write seems boastful or arrogant please dismiss them from your mind as I am only trying to be truthful and honest and never mean any offence.

I have given up violin making and am spending my remaining days trying to correct a problem I have with filler. No authority yet has said it isn't the same thing as the Italian Masters used.

Here is what the best authority I know of said. "Bill is duplicating the old Italian Violins. also, your violins are the best I've seen since I came to this country." He came here from Italy about 60 years ago, and is the 6th or 8th generation of Italian makers. He also said there isn't an authority in the world that wouldn't say they were over two hundred years old after hearing them played.

The thing I must find out is to prevent its too drying. The Italians had the same trouble. Even now lots of the Italian violins are too dry and loose there tone, then they must be restored by an expert. The way they are restored is done by using a hypodermic needle containing a certain fluid into the top at various places and then polishing the violin to hide the holes made by the needle.

When we hear violinists say certain Itialian violins had no tone, chance are they need to be resotred.

I mentioned in my last letter that I could tell an Italian violin blindfolded, well here is how to tell. The Italians violins always feel cooler than the factory or modern made violin. When you feel one, do not feel with the fingers, but with the thumb pad (base of the thumb) of the hand as it is more sensative. (ask a Doctor) The Makers today arch there tops and backs backward. The Italian makers always arched there tops and backs lengthwise and not sidewise I know this is difficult especially t the backs as pieces will breack out of the curls. In this case rough back out to within an 1/8th or 1/16th of an inch crossways then finish it longthways with files and scrapers. This is one reason the Italian archings look so much better than the modern violin with there stiff, hard, look. An Italian violin looks pliable and not rigid looking.

I am going to write something now almost every modern violin maker will refute but the authorities won't, and that is that the wood in Italian violins do not produce tone, the filler and varnish produces the tone. When we hear a woody tone the violin is not good. The wood mearly vibrates the filler. The varnish the Italian applied to the filler is pure Amber.

Amber applied to the bare wood is no good, there must be the correct filler under the amber.

If Strad had left say 20 violins in the white and if they were given to 20 modern makers to varnish - those violins would probably be worth $200 or $300 apiece. If some modern makers made some violins in the white and could bring Strad back to varnish them, they would no doubt be almost as good as the Strads.

- 0 -

WISE MEN sometimes make mistakes: FOOLS continue to make them.

- 0 -

AN INVESTIGATION INTO THE GRADUATIONS OF STRADIVARIUS AND GUARNERIUS VIOLINS

by Don White

One would imagine that the material so far presented in this series would be sufficient to awaken the minds of all our readers to the striking fact that the orthodox graduations, at least for tops, given in nearly all text books are not of the same pattern as those used by Strad.

Yet I receive letters from our readers vigorously upholding the text book graduations. The peculiar thing however, is that not one of these writers has been able to rebuttal me with the phrase "Strad did not do it that way!" and for one very good reason. viz: All evidence points to the fact that Strad did do just what I am endeavoring to prove.

A careful pursual of the following contribution by Kristian Skou should convince the most sceptical that reducing the thickness gradually from Bridge to edge is wrong. The only argument to my mind is in the question of what parts should be thin.

I hope my readers will study Mr. Skou's remarks in all seriousness.

MR. KRISTIAN SKOU'S CONTRIBUTION:

The thickness-measurements from old master violins given in Mockel's book are or great merit to him, but although his book is perhaps the best existing textbook in violin making, strange to say he himself is not drawing the full consequences from these measurements - as I shall try to show you.

That he should make the inside first is a mistake. First he forms the outside, marking the curves by use of the drill, and after the outside has been finished, he forms the inside in similar way. I have no templates of his elliptical inside curves but such we can deduce from his book.

First we can take the back. Drawing "1" shows the inside thickness-curves for a Mockel back. As you see, the curves for equal thicknesses are placed nearly symmetrically round the central part, but if you confer with the measurements in his book, you will notice that nearly all the old masters have more wood between the centre and the upper block than between the centre and the button block - and why? Because the neck transfers the pull from the strings to the back as a forward directed pull, and t this pull is varying in time with the vibrations of the played string - in other words: vibration energy is transferred from the neck to the back - and especially to the upper part of the back, and this part must not be too thin, if it shall lead the vibrations backwards. Drawing "2" shows the thicknesses from one of my own backs. I should think these thicknesses are more alike the old ones.

Thickness-curves for a Mockel top are not existing for the reason that he made the top equal thick all over except a small area round the "f" which he worked out somewhat thicker (Drawing "3"). Mockel says that the old masters did not leave more wood in their violins than absolutely necessary, and that is right, but he says also (and many others with him) that in the best of Stradivari's violins the top was of equal thickness all over (except the small area round the "f's" which all old masters held a little thicker). Certainly there were small variations in the thickness, but that was only for the reason that he was not able to measure quite exactly. I dare say: it was not because of that. There is a very good idea, indeed, of his thickness - variations.

A Stainer top, a top from members of the Amati family, and from many other old masters has the greatest thickness in the centre, but in spite of all tonal beauty on the A and E string, the D and the G are quite insufficient especially regarding the quantity of tone. A violin cannot be egal (even in tone) with this thickness graduation.

Stradivari, Guarneri, and a few other old masters have realized that, and their tops have relative thin centres. Often - but not always - the centre is thinner than the nearest surroundings - and why?

Let us consider the tone production of the violin, and especially the function of the sound post. I have seen many explanations of this function, but never the right one. The usual supposition is that the sound post transfers the vibrations from the top to the back, and certainly it has also that function to some extent, but it is not its principal function. Most of the vibration - energy is transferred through the air volume.

Another assumption is that the sound post is fastening the right foot of the bridge so that the left foot is able to act on the bass bar side. Nor that is right. The vibrations are transferred from the strings to the bridge as horizontal movements in the upper part (slow movements in the direction, in which the bow is drawn, and quick movements in the opposite direction), and the bridge transforms these movements into vertical movements of the feet, these again acting on the top. The principal function of the sound post is to serve as a rock-point pivot (see-saw-point, or what shall we name it?) for the right part of the top centre, the part in front of the sound post forced down, when the right bridge foot acts downwards, and the part behind the sound post at the same time forced upwards. When subsequently the right bridge foot is moving upwards, and the left bridge foot is forcing the bass bar side down, the reverse see-saw movement takes place. If you take a strip or plate of cardboard or veneer and fasten its two ends to a board in the way that the free middle part is forming an arch, and then place a "sound post" on the right side between the veneer and the board, and act with a bridge (or two of your fingers) alternately up and down, you have a sort of slow-motion model, and can study what happens). While the bass bar side only can follow the movements of the bridge so far as its own frequency allows, the see-saw movements over the sound post can follow the bridge to the highest audible frequences (and note: controlled frequences - not the uncontrolled longitudinal oscillations as if the sound post is missing), and it is intelligible that the placing of the sound post in proportion to the right bridge foot, the thickness of the top in that place, and the character of the wood is of great importance for the tone quality (and quantity) of the violin. As we can imagine - or notice at the "slow motion model" - the area just in front of the right bridge foot is concerning the vibrations in opposite face to the rest of the violin, and irregularities in the tone production caused by interference can result from that. In order to diminish the interferring area I once as an experiment took a violin, and at the inside of the top I worked out a deep transversal groove just in front of the right bridge foot. It caused a much better tone production. Of course, I cannot recommend this method, but a similar effect is obtainable if we work out the centre area a little thinner than the surroundings. Stradivari has often done that, but not always, for also other things have to be taken into consideration. The thickness and the quality of the wood in the centre area is of great importance for the tone character. The oscillations of a violin plate are a combination of transversal and longitudinal factor, forming shrill overtones. For that reason it is important that the area where the waves are formed should not be thicker than necessary. However, the ideal thicknesses for transmission purpose of the rest of the top plate have no constant proportion to the thickness of the centre area, but depend among other things on the quality of the wood and the form of the arching. For that reason a universally usable thickness diagram for a violin top cannot be given - but only the principles from which we can work. I am sorry, but I do not think I can say it more exactly every case calls for consideration.

But as an illustration I can give you the thickness diagrams for two of my violin tops; drawing "4" shows the top belonging to the back in drawing "2", and drawing "5" shows the Pearyland top. As you see the edge is somewhat thicker than the centre. In several other cases I have combined similar thicknesses with the "Saunde- - Groove" along the upper and the lower bouts, but let me advise you in case you will try this arrangement only to work out the grove on the bass bar side. Here it really has a good effect on the tone production, whereas the same cannot be said about a groove on the E-string side.

You will notice that a Mockel top has more wood than a Stradivarius top. Mockel says that most of the tops from Stradivari's violins are too thin, and for that reason many of his tops have been deformed, forced down by the pressure from the bridge. That many of his tops are deformed I sahll not deny, but the cause is - not that the tops are too thin - but that the violins have been neglected. The bass bar has to be so strong that it prevents the left side of the top from sinking down, and if there should be a tendency in this direction, the bass bar has to be renewed. Likewise the length of the sound post has to be regulated. If a top without regulation in time of bass bar and sound post shall resist deformation from pressure, it has to be so strong in wood that the violin cannot play. Mockel says also that many old violins - also Stradivaries - have lost their tone. They have been "played out". And I am sorry to say it is right. But thin plates are not the only cause. Also here a certain form of neglect is contributary. Wood is hygroscopic, expanding with humidity and contracting with dryness. We can treat it with linseed oil or anything else it is still hygroscopic to some extent. It is the dryness that is dangerous for the violin, especaibly in winter in central heated rooms. The contraction causes a horizontal stretch in the plates. The fibres of the wood and the micro fibrilles in the cell walls are held together mainly by hydrogen linkages - not very strong linkages, which can be broken by outer influence. What happens, if a violin with stretch in the plates is played vigorously? The linkages are loosening, the elasticity of the wood is declining, and the tone? Well, perhaps we notice that one note - especially on the E-string - loses its intensity and brilliance, then another note, and so forth. The violin has lost its responsibility, it is temporarily "played out". If we allow the violin to rest without playing in a place not too dry, it can regain its responsibility, the linkages finding together once more, but it is only a bad remedy. If we continue to play the violin in this condition, it will lose its tone forever. What is to do with the violin? Always avoiding dry rooms? No, it is nearly impossible. The remedy is to loose the plates from the ribs, allow them to dry out and contract, and then glue them on again. But that has not always been done with the old violins.

For the rest, I have constructed ribs in such a way that they are always following the hygroscopic movements of the plates, causing that stretch in the plates, will never occur - but perhaps I shall return to that another day.

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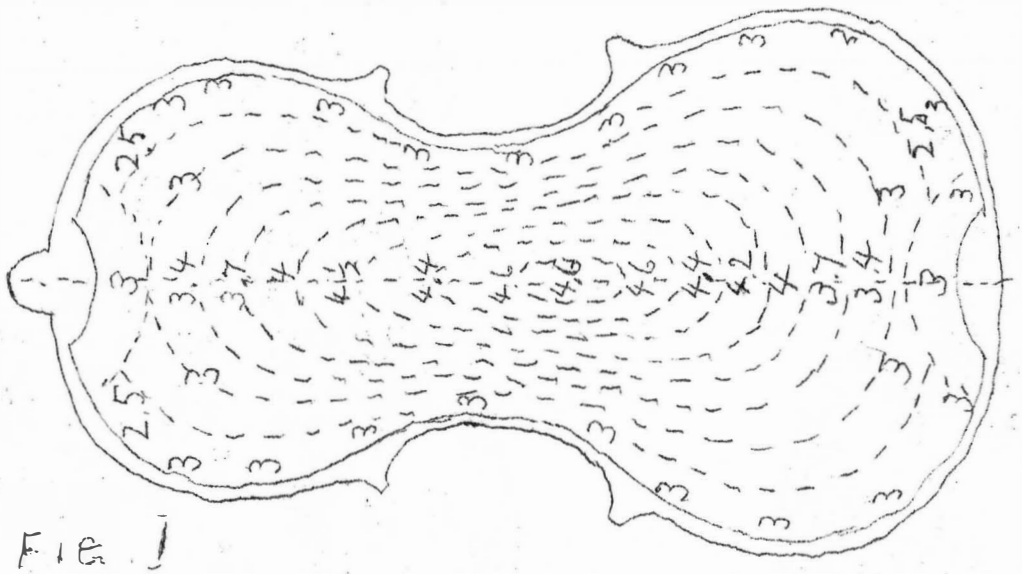
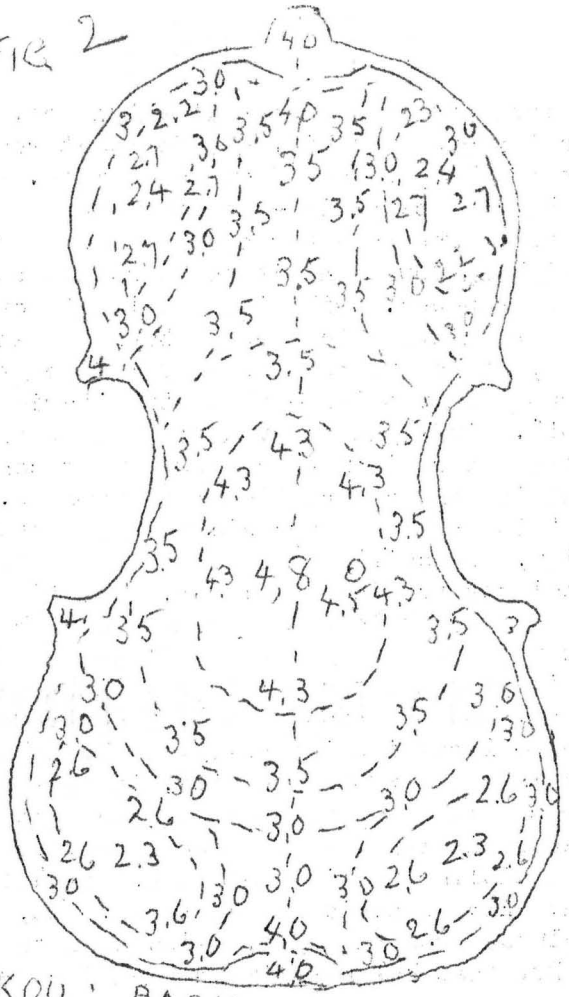


Fig. 1

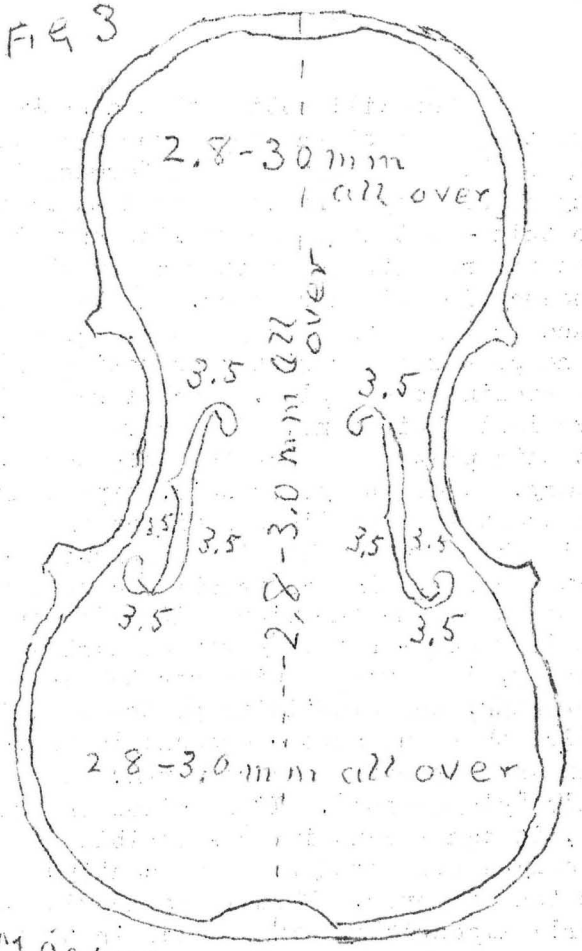
Otto Mockel: Back, inside
Curves for the Thicknesses.

Fig 2



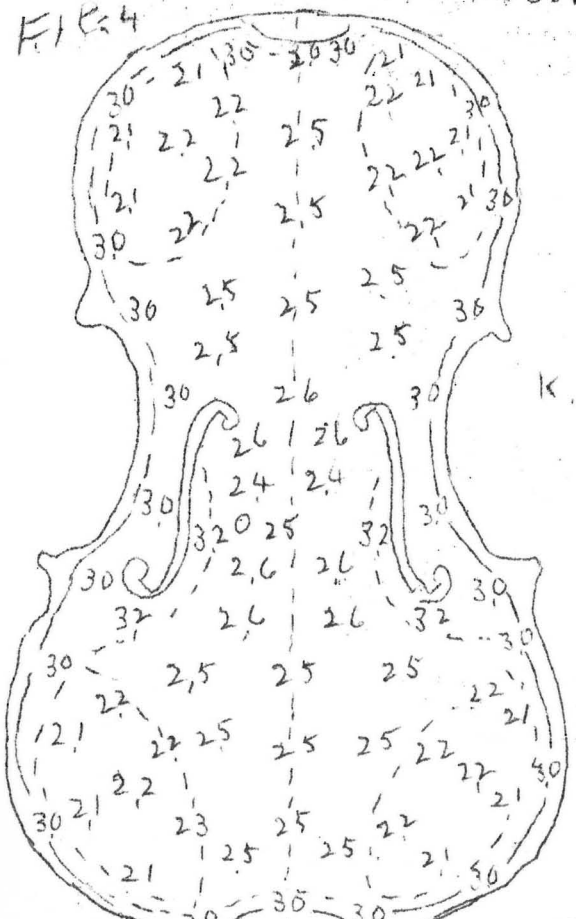
SKOU : BACK . INSIDE CURVES FOR THICKNESS

Fig 3



MÖCKEL : THICKNESS MEASUREMENTS — TOP (INSIDE

Fig 4



SKOU : BACK, INSIDE, CURVES FOR THICKNESS.

BY
K. SKOU. MAY 1960

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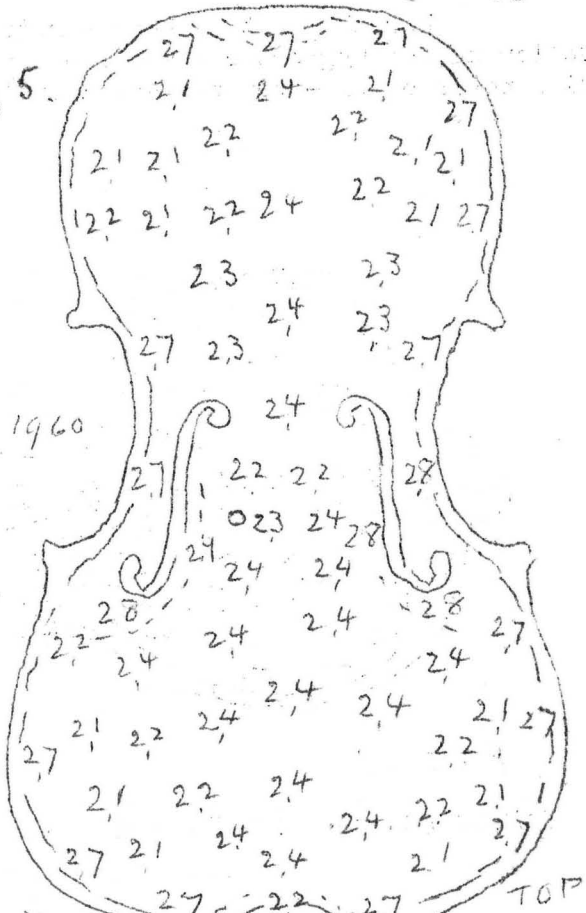
Fig 5.



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TOP

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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

PRESENTATION OF THE LATE ERNEST LINDBERG'S VALUABLE VIOLIN TO OUTSTANDING ARTIST

As mentioned in previous issues of the Journal, the Late Ernest Lindberg, who passed away last fall, bequested that his beloved violin "Jenny Lind" be given outright to the most promising violin student in the city of vancouver during the year after his death.

The Violin Makers Association of B.C. had presented Mr Lindberg, before he died, with a very fine violin case in which to place his beloved instrument.

A committee had been formed to choose a candidate and after attending the Vancouver Competitive Musical Festival unanimously choose Helen Hagnes, an eleven year old student, as the winner.

The whole story connected with this presentation is told by Jack Wasserman in his column which runs daily in The Vancouver Sun. The following is an extract from Jack's column, the story told as only Jack is capable.

"STRING SONG"

The applause finally subsided at the B.C. Music Festival the other night and adjudicator David Griffiths named 11 year old Helen Hagnes the winner of the junior violin section of the competition. Then he presented her with a violin named "Jenny Lind" and, as you've probably guessed a story goes with it.

Many years ago Ernest Lindberg came here from Sweden and eventually began making violins. He made 14 fiddles in all but his pride and joy was a copy of Jascha Heifetz' Dolphin Stradivarius. When Lindberg completedthe instrument in 1938 it was given an award of excellence and visiting violinist Micha Elman once ran a few scales on it and nodded approvingly. Lindberg called it "Jenny Lind" for the "Swedish Nightingale". Perhaps he knew his instrument wasn't quite good enough to satisfy a virtuoso. But he dreamed of the day a young virtuoso in the making might make his violin sing as a nightingale should. So he looked for a young student of outstanding promise. But young students of promise are rare in these parts. Last September Ernest Lindberg died leaving his quest in the hands of fellow violin makers. Last Saturday night 11 year old Helen, with only one year's tuition scored 91 points in the competition. The violin makers with the help of adjudicator Griffiths decided Lindberg's quest was over.

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If a little knowledge is dangerous , where is the man who has so much as to be out of danger ?

Thomas Huxley.

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WHY IS THERE NEVER ENOUGH TIME TO DO IT RIGHT BUT ALYAYS TIME TO DO IT OVER ?

VIOLIN TONE AND CRITICISM OF THIN CENTERS

by Norman Miller
Queensland Australia

I am in compete agreement with the suggestions that violins be judged on their tonal quality firstly; and put the question as to why cannot something be done to try and invoke the folk who hold competitions to judge in that manner; Tone firstly, cabinet making secondary. As an association of some standing cannot this suggestions be brought to the notice of violin-making competitions. Rev. Geo. Wright recommends a North American Association. Good! Why not a Universal Association in which makers of all countries can become members. Greater Unity, Prestige, Solidarity.

In reference to tonal quality, and comparing the accepted manners in which we are striving to emulate Strad and the makers of 1600-1700 era. Let us look at this coldly, and not be overcome with how a good Strad or Guarneri sounds today, or be governed by some writers with their own superior thinking on tone of a Strad as it is today, or how it was intended to sound by its maker! I agree with P.F. Wright in the January issue of the Journal, but still think that the tone Strad and Guarneri aimed at was not the tone of today, and I quote; "Dolmetsch restored to donditions obtained by one maker (presumably a Strad instrument) the strings thinner and shorter, bass-bar light, flat bridge etc; the tone then was of ethereal fluty quality, marked by an entire absence of "bite" and on no other type of violin can this music of Bach's be satisfactorily rendered. (Bach's contrapuntal music for the unaccompanied violin) an effect utterly different from those who force the strings of a "modern" violin. With the short light bow of the day tonal quality is quite unlike a modern Violin".

Let us imagine then that we are going to build an instrument to be played on as in 1700, accompanied by a Spinet or Clavicord, and played with the old type bow. Would we use the same tap-tones and graduations as we are using now? Does it matter if we do or do not? Are we placing too much importance on these tap-tones and such, for if an instrument is built for such totally different requirements, and yet is able to be adapted to be successful in either, surely means that the tolerance in this matter is very great.

If a player of 1700 had a fiddle with the power and tone of today, he would be ostracised. In quartettes they would muffle him with a mute. (Did they have mutes by the way in 1700)? He would be chased out with his noisy and singularly tone instrument. I do not think that even a solo artist of 1700 would accept the tone-power combination, and if Strad was such a clever fellow at designing tone, why did he not put in a larger bar, lengthen the neck and mortice it, use a longer fingerboard, higher bridge and advocate higher pitch? No, they were making violins to be bought and played then, and if they brought the plates to a tap-tone it was for the fluty ethereal (thin?) tone in demand. We must give those 16-1700 makers credit for being craftsmen for their day, and, as the makers of 19-2000 making violins to be good now with the tonal requirements of today. The 1700 boys did not forsee that pitch would rise by 30cps. Do any of you now imagine that in another 50-100 years pitch will again rise by 30 cps? Maybe the wheel will turn and spinets and harpsicords again in favour, and small voiced fiddles will be built to match. I beleive then, that those excellent craftsmen of 1700 were striving for and building in their violins a tonal quality unfamiliar to us, but well known to them, and they sought to make a violin that had the 1700 tone; if they knew of the tone of today they sought to repress it, not produce it. The sound post of 1700 was placed much futher back than it is today! Put your sound post back by a quarter of an inch and listen -- even in a modern violin the tone becomes small. So, are our present day theories of tap-tone to a given C and D, based on our present needs, or because 'Strad did it" as R. Alton and Heron-Allen maintain are we not confused in trying to copy a rejuvenated Strad violin by imagining that he built it that way for todays tonal requirements. Admittedly some of the rejuvenated violins are wonderfully suited for to-day, and full credit is given Strad for his craftsmanship, but that wonderful tone would seem to be due as much to the rejuvenator in his placement and selection of

bass-bar, soundpost, bridge and neck. Strad and Guarneri did not mortice in their necks you know! The smaller bass bar 8 or 9 inches long lay exactly parallel to the centre join, Not at an angle as today. I wonder how much alteration to thicknesses was carried out by the rejuvenator? Almost blasphemy, but we must have clear thought and not blind acceptance of garbled facts.

Kreisler says that of all the Strads in existance today, only five or six are really very good, and in reference to Carmen White (Jan.issue) and buyers not keeping their instruments (modern ones). All the virtuosii seem to sell their Strads and del Jesu's every so often. Of course a chance to make a profit may decide them, but it seems that they grow tired of even the supreme instruments and buy another, that for a time it becomes their ideal; so the amateur maker is not alone in this. Kreisler mentions a Strad that he bought for $4,000.00, and in most poetic language says -- "for some unknown reason it was antagonistic to me" and no matter how he persevered it did not sound well. If that instrument had been made by a modern amateur or professional he would have perhaps said, "No Good"! Or perhaps I would have said about that Strad using Australianese "It is no b----- good"! But we are not allowed such blasphemous thughts, it is infra dig and most untraditional, and, it will be admitted it is not good politics in the violin world to commit such sacrilege.

The first paragraph by John Lawson in the Jan. issue, leaves me aghast. First, it conceives in my mind an image that amateur violin-makers are a race of slightly sub-normal folk who busily and rather avidly scamper about producing feeble imitations of violin instruments, holding them up for approbation with the pitifully appealing air of a mentally deficient person who has brought a bauble for you appreciation and reward of a kind word.

Stand on your feet, and manfully ask $100-$200 or even more for your work on its merits! The average that I get for my work here is £120, that is $240. My second viola, a Tertis model, sold for £150 to the leader of the viola section in the Queensland Symphony Orchestra. (He still has it after three years.) It is an admission of failure to ask and accept less than $150. It is an admission that the instrument is only "home-made" and an imitation. Stand on your feet, and if you use publicity suggested, give solid truths and tell the buyers that modern hand-made instruments are quality instruments worthy of a fair price for the tone and workmanship put into them. Too many jobs and crafts are being cut to pieces by the backyard worker turning in a generally inferior job at half the price a tradesman can do it and live. If your fiddle is inferior and bad, by all means sell it for an inferior price.

I have found that if the instrument has quality, the buyer will pay willingly its price. If it is consistant with the qulaity that he wants. If the fiddle has a bad response, or one weak string, he would not buy it for $10., but of course if it is only worth $10. then that is all you can ask for it!

The average public seem to think of an amateur violin maker in the same detached way as they think of other oddities about which their knowledge is vague and hazy, and would rather willingly pay $100. for a factory made instrument than a "home-made" one. To me "home-made" is a dirty word.

Let the publicity be directed to establish amateurs work as quality work worthy of a price in keeping with the craftsmanship infinitely and devotedly given to produce a quality instrument. Those instruments that do not measure up will soon set their own price at their own level. Even some Strads cannot be sold at $4000. while some bring $8000. and more, I am told.

In answer to your query for a good reason why a violin should not be made thin in the centre, I can only quote the letters that I have written quoting the old authors who investigated this to some exactness, and who gave their theories on the findings of

long study of acoustics and the old masters way of building a violin. A study of the physics of sound will also show that the emanating point must be heavier than the edge. I have not seen a loud-speaker with thick edges, and if you ask a technician if it is good practice he will soon tell you that it does not work so well! Why build a violin eight inches across if you are going to leave great chunks of wood at the edges, why not just build it an inch or two smaller all round. I also think that if you build a violin with a top plate any thinner than 8/64ths in the centre, it is so noisy and raucous that you have to try and subdue that loud noise that is not music, by thickening the edge to dampen the row! You have taken it away from the centre where it could be used to give a lovely quality to the tone, and as the emanating point is now producing all the unwanted harsh noises by being so thin, you reduce the vibrating area by leaving the edges thick to act as dampers to the vibrations carrying those unwanted harsh noises. To my mind it cannot be done successfully. Much rather the commencement of the tone be good having received its filtering effect by the bridge and th thickness of the plate at the centre, the tone that is amplified by the area of the plate, is sweet tone and not raucous noise. This sweet tone cannot be produced with a thin centre. A bridge that is too thin will give to some extent the same noisy result, allowing too many of the unwanted partials and scratchiness to be transmitted to the top plate. A too thin bridge of course dampens the tone, so we have the happy medium that suits. Once the tone has been given to the top plate to amplify, a thin weak centre can only amplify all that is given it, noise and all; a top plate thick in the centre and thin at the edges is designed to remove the unwanted scratches and noise and to add the quality of the wood, thus giving that much sought after tone sometimes called Italian. On these premises I base my construction, and only if I have a piece of wood of such a hard brittle nature that it must be worked thin will I use a centre thinner than 1/8th of an inch and in no circumstances will I leave thick edges. I had once an old Colin-Mezin violin and it was loud and noisy, no sweetness, barely capable of tonal graduation. It was 7/64ths in the centre and over one eighth of an inch at the ribs. A classical example of this type of thicknessing. Still every one to his own taste and ideas, and if you can make a really good violin of lovely quality to that theory, by all means make it. If it is not entirely successful, at least it will have given a lesson in phsics.

It has been said of my violins by those who buy them and others who have played them, even new off the bench, that there is no harshness, and are devoid of scratch, and no matter how hard the bow is put into them, the tone does not break or become harsh and scratchy. I do not think a thin centre - thick edge construction capable of this. Still I could be wrong. I can quote from an article by Arthur Broadly in the "Strad" of 1938. "if the belly is less than 1/8th of an inch, it is difficult to obtain that wuality, rich luscious, woody quality which is so characteristic of early Italian work. Should be thick in the centre, gradually diminishing towards the extreme ends."

With all the practical thought at my disposal I can only see one obtaining that "rich, luscious, woody quality" with wood in the centre, at, as I say the emanating point. Remeber we are not building an instrument to be loud. Not the loudness of just noise. It is a degree of loudness that keeps the tonal quality pleasant and acceptable; not the absolute possible loudness procurable, which is what you get if you use a thinned centre-thick edge.

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Reader: "Dear Editor: What's the best way to find out what a woman thinks of you?"

Editor: "Marry her."

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TRYING OUT NEW VIOLINS

by Carmen White

Some good ideas have already been discussed, such as trying out the violin in an open field, near an open window, in a hall, using the same bow speed on all strings, trying each string separately, and so on. It should be pointed out that none of these tests are conclusive and that th re is no conclusive test at all, nor can we hope for any objective and conclusive tests at all. Let us point out the difficulties.

First, the violin is a personal instrument, as personal as a pair of shoes. It is chosen on a personal basis; on the basis of "I like it" or "I don't like it" -- it is subjective pure and simple, and no objectivity can take away the personal basis of choice or decision. Again, there is the prejudice against new instruments, or in favor of certain old instruments, but against others, sometimes on the basis of nationality. It cannot be entirely eliminated. Then, we have natural atmospheric conditions which affect the performance of any violin at a given time and place. For example, on certain days, the report of your favorite shotgun can be heard for a long distance, loud and heavy, reverberating through the woods and back. On other days, the report of the same gun sounds weak, short, and can be heard only a short distance away. Same gun, same shell. So these atmospheric conditions sometimes affect the decision at a given moment only to have the decision seriously questioned later when conditions are more favorable.

However, many of the above difficulties can be eliminated by trying the new violin along with a violin or two of known value and proven performance. I do not believe much can be proved by running up and down the individual strings, even if one is tested immediately after the other. The ear is easily confused anyway, and every person has his own individual idea of tone, based primarily upon what he grew up with. The best test would seem to be the actual performance of a great major work from the violin literature - a Bach Sonata, or a major concerto, such as the Beethoven or Brahms Concerto. In performing a major work, the instrument has a chance to be heard in all the variations of tonal beauty and power, with all the bowings, nuances, double stops, chords, flowing and singing melodies, brilliant spicatto passages, and the whole gamut of violin tonal effects. A deficient instrument is sure to show its deficienceis, as is a fine instrument is sure to show its superior tonal qualities! The word of the performing artist should carry weight in decisions here; he can say with authority whether one instrument speaks and articulates better than another, and whether the reserve and resilience of one is sup rior to the other. Of course it is a good deal like selecting a pair of shoes! One artist may praise a violin while another equally fine may condemn it! But that is the way with famous old Italian violins also--it is known that certain artists p rfer Guarnarius del Jesu violins to those of Stradivarius!

It is necessary to keep in mind what a good violin must do! It must sound beautiful, round, mellow, and equal in the open tones and harmonics, and it must be free of piercing character or sharpness, even when played hard. There must be no woodiness or hollowness on the G string, and the scale must be even, a quality decidedly rare in Violins. The tone must sound quickly and clean in soft fast passages, yet, it must be flexible enough to be built into great climaxes of tonal volume and beauty, such as are necessary in the Bach Chaconne for solo violin. Such a violin must keep giving when it is pulled by the player--it must "stay with him" when he is delivering the great message of the music itself, and as Kreisler once said, the instrument must throw no handicap in the way of artisitc expression. To judge such an instrument takes more than one or two perfunctory trials or comparisons; time and patience must be taken. Such violins as satisfy these conditions are rare indeed, even among famours modern makers, and among known old violins---always th re is some defect somewhere, but the general over all effect must be good enough to overcome the handicap of the known defect.

The most frequent mistake made is to judge on volume alone. The artists is not so much interested in the volume of the violin as he is interested in what he can do with the tone--its expressiveness and beauty. If he is an artist and if he loves to play a certain instrument, and if the instrument is a good one, the artists will get tone from it! And he will be heard! I recently heard a Guarnarius del Jesu which sounded weak dull at first--but before the concert was over, it was sounding out very majestically indeed, and filling the large hall fairly well, although it could not be called a robust tone--yet, it was enough. The same has been said of many Stradivarius violins.

Sometimes persons are prejudiced against certain colors--for example, I admit being prejudiced against yellow and yellow brown violins, and I personally like Orange, Red, Orange-red, Red-brown, and dark browns--the colors found among the old Italian Masters--but modern aniline yellows and synthetic dyes do not seem to adorn the fiddle. Others may be prejudiced against certain styles of workmanship, for example, Bob Wallace complained that the judges objected to a certain type of edge which he made in a new violin. Now, had an Italian made such an edge, the chances are the judge would have said, "Well, a good carpenter, but not a fiddle maker". How wrongo such a statement would be indeed! But there is the prejudice we must face. I once saw an Old Italian fiddle of doubtful tonal value, and the f holes were so bad that I commented on them to the eminent connoissieur who was offering the fiddle for sale at a big price. He said "Oh, those are very interesting indeed--that is the individual style of the maker". Now, if I were to cut such a pair of f holes in one of my new violins, that same connoissieur would tell me I should be driving a truck instead of tying to make violins! And he would be right about it! Why, then would he not be as honest about the old Italian violin with the crude f holes? This same authority offered an old Italian Violin by a very famous maker for a price well into five figures--but the violin sounded poor indeed. I commented on it an d suggested certain changes in the neck and bridge which should make it sound as it should--but he merely shrugged his shoulders and said, "Why should I go to that trouble and expense--you can always sell a fine ----- violin without all that". Now, what would happen to a modern maker if he compared his fine new violin with that particular old Italian Masterpiece? You see how one could be discouraged with this comparison business? Do not take it too seriously--win, lose, or draw, make the finest violin you can make and trust the future and musicians to take it to their hearts and to make music with it after you are gone!

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VIOLIN VARNISH AND HOW TO APPLY

by Sczipan Kujawa

The entire surface of th violin must be perfectly free and clean of dust, glue, tool marks, scratches etc. Also remove dust from inside of violin. Now put on foundation stain, which must be very light in color, generally an orange yellow is used, let dry thoroughly. Then size, a spirit size is best, some use a turpentine size, but never an oil one, do not size heavy, one coat is enough., when dry, sand thoroughly and wipe free of dust. Violin varnishing from beginning to end is a battle against dust. Now put on first coat of oil varnish, let dry, gen rally about 3 days. When dry, sandpaper, wipe clean and put on second coat of oil varnish. The varnish is carefully brushed out, and flowed to an even color and surface. An artists oil brush is considered the best. From 4 to 6 coats of varnish are necessary for varnishing a violin, when dry, polish. Each successive coat of varnish making the violin darker. The last coat is generally of natural colored varnish. When polishing the violin use a soft cloth, rubbing oil, and rotten stone. When thoroughly polished remove all traces of oil and rotten stone. This is very important. Then rub with the heel of the hand, or palm, if smudges appear there is still oil on the surface, wipe clean again, again polish with the heel of hand, when you feel heat in the hand you know all the oil is removed and you have a perfectly polished violin which will not dull off.

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MUSIC IN CAMP - A CANADIAN VENTURE

(From a recent issue of The Times of London, England)
Contributed by John Lawson

A visitor to Canada might well ask himself, as he rides across the country by train or car, what, if any, are the unifying qualities of this emerging society. The patterns of life seem to be largely fashioned on the American plan; food, dress, speech all remind one of the sister nation. Canadians say there is no distinctive Canadian culture, and indeed in a country where the vast spaces between communities defeat any attempt at co-ordination, where people live in year-round isolation on their farms, it is difficult to see where a beginning can be made.

But in music, at least, one such beginning was made ten years ago, when a young Canadian musician, Gilles Lefebre, started the Jeunesses Musicales of Canada on the model of the successful Jeunesses Musicales in France. Starting from scratch, he confined himself at first to the French provinces and, encouraged, by results, reached out to the rest of the country. Today, the movement has nearly 40,000 members, many of whom live in small communities for which musical activities were non-existent until the advent of Jeunesses Musicales. Lefebvre, who is a violinist, is keen on giving young professionals the chance of public appearances, as he did, for instance, for Maureen Forrester before she became internationally famous.

The pioneer movement gradually attracted individual patronage, Quebec Provincial Government and finally substantial support from the Canada Council. From the outset Lefebvre relied on arousing the enthusiasm and esprit de corps of young people. To further this aim, Jeunesses Musicales acquired nine years ago the lease of a plot of land in the Provincial Park near Mount Orford, about 100 miles from Montreal - although practially a swamp then, it was the beginning of the J.M.C. Musical Camp. Today it is a centre of which he is the animating spirit, with an extraordinary mixture of musicianship, vitality and sound executive common sense. He has succeeded in inspiring the entusiasm of the young people in whose work and play he wholeheartedly shares.

The camp is beautifully laid out. The Assembly Hall, suitable for concerts, is flanked by dormitories, and hidden inthe woods are single bungalows which are ideal for teaching and practising.

Lefebvre has enlisted the interest and co-operation of eminent artists as teachers; among them last year were Paul Tortelier for the 'cello, Rene Benedetti for the violin, Frans Brouw, Victor Bouchard and Rene Morisset for the two pianos and one piano, four hands, and many others.

Apart from teaching, they give concerts to which not only the students but also the public are admitted. The students themselves have the advantage of public appearance, often as a valuable debut, either in joint concerts, or in the case of exceptional talent, in recital.

All this takes place in an atmospher of the greatest good humor and comradeship, to which lectures and discussions on contemporary problems contribute.

Since the Camp is situated in the Province of Quebec and the language principally spoken is French, it would be most desireable for the close Canadian ties with Britain not to be forgotten; to this end the British organization, Youth and Music, will offer a scholarship in 1960 to a young British musician. The Canadian founder hopes also to secure a professor from Britain.

It must not be thought, however, that nationalism enters into the scheme of the movement. In its essence it is international. Its language is music, it appeals to the best in youth and in this camp, at any rate, the response is unanimous.

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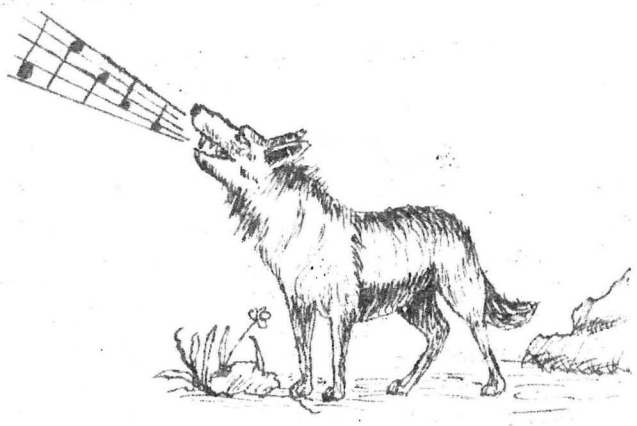
WOOLF NOTES

by The Editor



TIME FLIES:

I could hardly force myself to write May, 1960 on the first page of the Journal. It struck me keenly to realize this is the fifth month - nearly half a year has gone by since Christmas. Certainly the older one gets the faster time flies.

Still one must admit spring on the Pacific Coast is delightful. Spring flowers bloom in profussion the fruit trees are in blossom and the woods alive with growth, and robins seek nests in which to raise a brood of rascals who will eventually eat all our strawberries. Each Sunday finds my wife and I (and dog, Laddie) roaming through the woods, near where we live, enjoying the smell of trees and shrubbery. Myself carrying boxes in which to collect botanical "specimens", a hobby of my wife Erika.

I have tried to draw this poetic (?) picture in order to encourage our readers to do likewise. I feel that violin makers should have a very strong attachment to Mother Nature. A man that knows and loves his trees is far more likely to handle and select with loving care those pieces of wood with which he hopes to build his masterpiece than one who takes them as a matter of course.

VIOLIN BRIDGE BY ELSWORTH HILL:

The following extract from a letter of Bill Hall's speaks of tools and craftsmanship and tells a good story about one of the "Hills" quote:-

"I have just received as a gift the Jalovec book, between times, I've spent a wonderful day, so feel I must tell you something about it. The pictures of the forms, and tools used by Strad, are most interesting. Despite the passing of time, and the use of modern machines, the same models and forms are still in use in Mittenwald, which bears our Mockels reasoning: "To make like Strad, we should use the same kind of form he used. etc.". Personally, I detest articles that advocate the use of machines. One gets to know wood through the use of hand tools, as every piece is different - even taken from the same plank - apart from this, violin making is a handcraft, the other kind, a money-making device. Old Wm. Elsworth Hill made the most beautiful bridges, with a few simple tools, and remarked one time, a violin maker could make a good instrument with a knife and fork. One time the curator of the Belgian instrument collection was giving a lecture on old viols, and held up a lovely old instrument with an exquisetly carved bridge, remarking there were no craftsmen who could make one like it (in his day) one of the Hill boys was present, and spoke to the lecturer - I think his name was Fetis - telling him: "My father made that bridge" (W.E.H.) whereupon he removed the bridge and showed the stamp underneath. I've seen some of the old man's work which left me bewildered with its perfection. "

BASS BARS:

At one of our association meetings last winter we were delighted to have as a visitor Mr. Sid Engen of Dauphin, Manitoba. It was a special treat to hear one of his fine toned violins played by several of our violinist members.

On his return home Side wrote me as follows:

"It was a pleasure and a privilege to meet so many at the Violin Makers meeting and to hear the discussion of the bass bar, that night. I find myself that if one wants a crisp tone it can be accomplished by bringing the centre or highest part to a fairly sharp point and a mellower tone with a longer hump and more gentle, it seems strange that this variation does give a difference. I have tried both on the same violin, with a very marked difference."

MORE ON SANDING DOWN FINUSHED VIOLINS:

I think I mentioned in "Woolf Notes" some months ago that I made a practice of sanding down my violins when they were finished in the "white" even doing this while they are strung up.

It is remarkable how a little sanding changes the tone. Mr. John Schnieder of Cuper, Saskatchewan tells of his experiences with this same procedure: quote:-

"I used Wallace red-brown for top and th rest B.C. maple. The violin did not sound well to begin with, I was advised that I had the top too thick, at first it was 4 to 2.5mm at edges and it is also possible I have the bar too heavy. I removed the top and thinned it to 1/8th inch in the central area. This helped some but not enough. Having played on it and laying around it got soiled and dusty, Sometime in December I sanded it clean taking off some extra wood too. Shortly after I decided to string it up, it sounded much better then. I again sanded some more off the back and top and now the tone is free and full it has a mellow reedy quality and is even on all strings, the G on the D string is of a ringing quality this in the first position.

I checked up in Mockels book afterwards and there it says not to go below 2.5 mm near the edges. The centre of back was 4.5 mm to 2.5 mm near the edges.

Mockel says the minimum thickness for back in good wood should not be less than 4 mm in the centre and 2.5 mm near the edges. The tap tone recommended is F#, to go below F natural would darken the tone too much. From now on I will make the back as he says and make the adjustments only to the top.

Mrs. Hutchins in her experiments only removes wood from the tops. You can't learn without making mistakes, thanks to the journal and Mr. Hall I now know much more than I did when I made this violin and should do better to begin with the next time.

Here are some interesting quotes from Mockels book on the tone of violins that are graduated too heavy in wood, those that are right, and those too thin.

Found on page 39 quote:- "It is proven that of the following: Thickness of top and back, arching, varnish, variety of woods, form, f holes etc. that namely thickness of plates influence the quality of the tone more so than any of the others.

A violin too thick in the wood sounds bright, hard, nasal and (schalmeinhaft)." (Schalmei is a variety of musical instrument that I don't actually know, the word in brackets means like this in tone). The word is German and I don't know the English word for it."

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NORMAN MILLER ON T.V.:

We are indebted to Mr. Norman Miller of Queensland, Australia for the many interesting and helpful articles on Violin Construction which appear in the pages of the Journal.

Last month Mr. Miller was commissioned by the Australian Government to present a Television Programme with himself as chief "actor".

Norman took his audience, of many thousands, through the procedure of making a violin from Raw wood to the finished instrument, explaining as they went the technique of violin craftsmanship. At the end of the programme one of Mr. Miller's very fine instruments was played by a well-known violinist. The whole event was a complete success.

Alfredo Campoli who is at present touring Australia played upon a Miller violin and pronounced it one of the best "new" violins he had ever played.

HOLIDAY TIME:

In order that your Editor may enjoy a short breathing spell we are planning to miss either the July or August issue.

The June issue will be delayed till towards the end of that month. So as to shorten the gap, the following issue, after the holiday period, will be an extra large number.

We hope our readers will be sympathetic twards this arrangement which is only contemplated so that our energies may be refreshed. Resulting we hope, in a "Bigger and Better" Violin Makers Journal.

THE ROELOF WEERTMAN BOOK:

The instalment this month brings to a close the book as written by Mr. Weertman. We have not however put the words "The End" to this instalment as we hope to have further comments to add perhaps in the form of a review or summing up.

"This months instalment follows on the next page".

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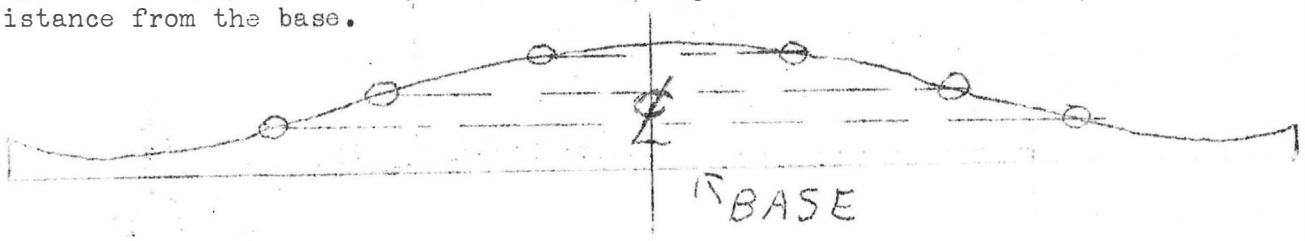
APPENDIX

The previous Chapters have been devoted largely to the more or less theoretical design. As it is my thought that existing literature adequately deals with the actual construction of the stringed instrument.

However in spite of templets and indications of thicknesses I feel that also some thought should be given to the why for of the various archings.

Anyone familiar with the appearance of Cremona type of instruments must have noted the extreme smoothness of curves and the transitions of the curves from upper part thru the breast of the lower half of the body. This in spite whether the lengthwise arching be circular, elliptical, parabolic or otherwise.

Assuming that published curves or templets are authentic, we may proceed to copy them on paper. We may then draw lines parallel to the base, say at 4mm-7-10-13mm distance from the base.



Then, by transfering the distance from the centerline "℄" to each intersection from parallel line with curved line onto the plan or outline drawing at the places where templet cross sections where obtained, we get a series of stations. Connecting these stations with a freehand pencil line an outline resembling a guitarshape will show. Proceed until all layers have been finished. Starting with top layer say 13mm above the base we get a small guitar shape at the 10mm level a larger but similar in family resemblance guitar shape will show. These lines represent layers of equal height and are named "contour lines".

These contour lines should show a strong relationship to one another; as they are quite a distance apart from oneto the other, in spite that the horizontal slices are only 3mm thick, they will assure greather accuracy, obtained with greater ease, when building a top or back than using templets. More about this later.

Now let's examine a templet. By means of a draftsman's "French" curve, complete the original curved line. (fig.A) We get then a curved lined having a definite character. Upon casual inspection the line may impress us to be parabolic. This can be verified very easily.

Proceed to divide the base into say 4 equal parts, and also the vertical height. Draw diagonals as in fig C then by superimposing the two outlines, we may discover that the parabola is too full. We may now examine a hyperbola.

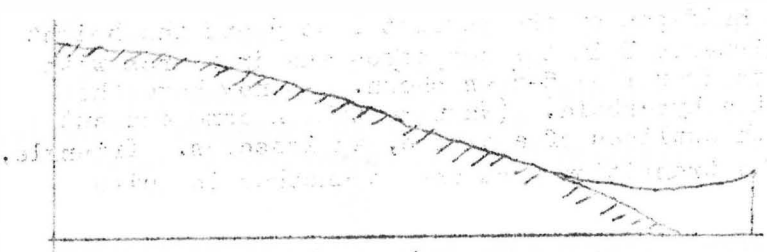


FIG A


FIG B

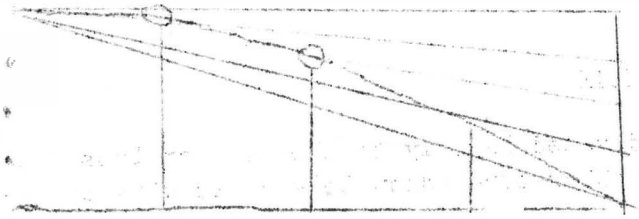


FIG C

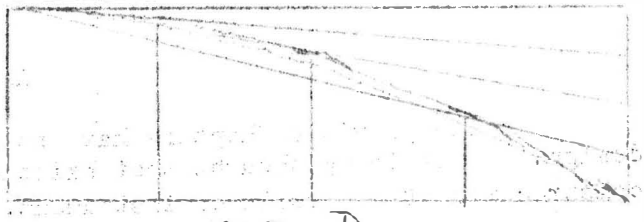
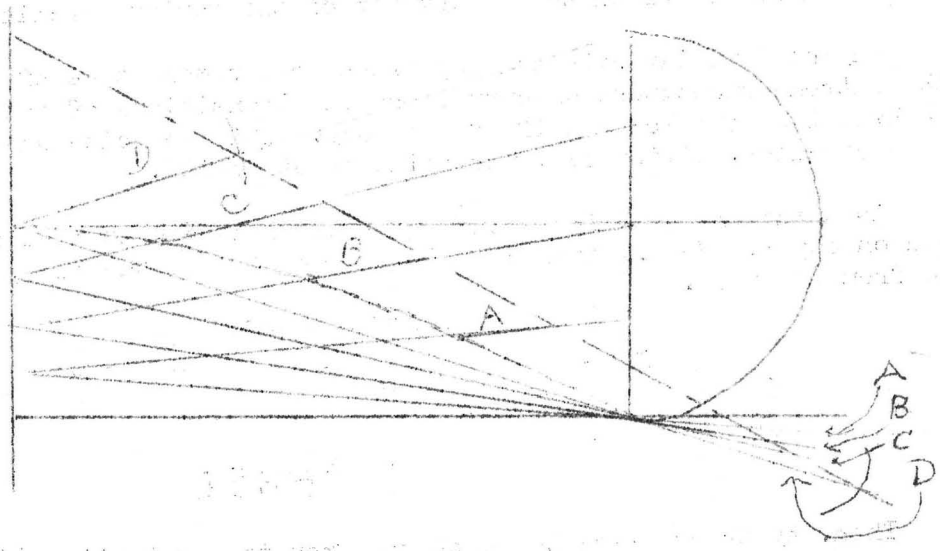
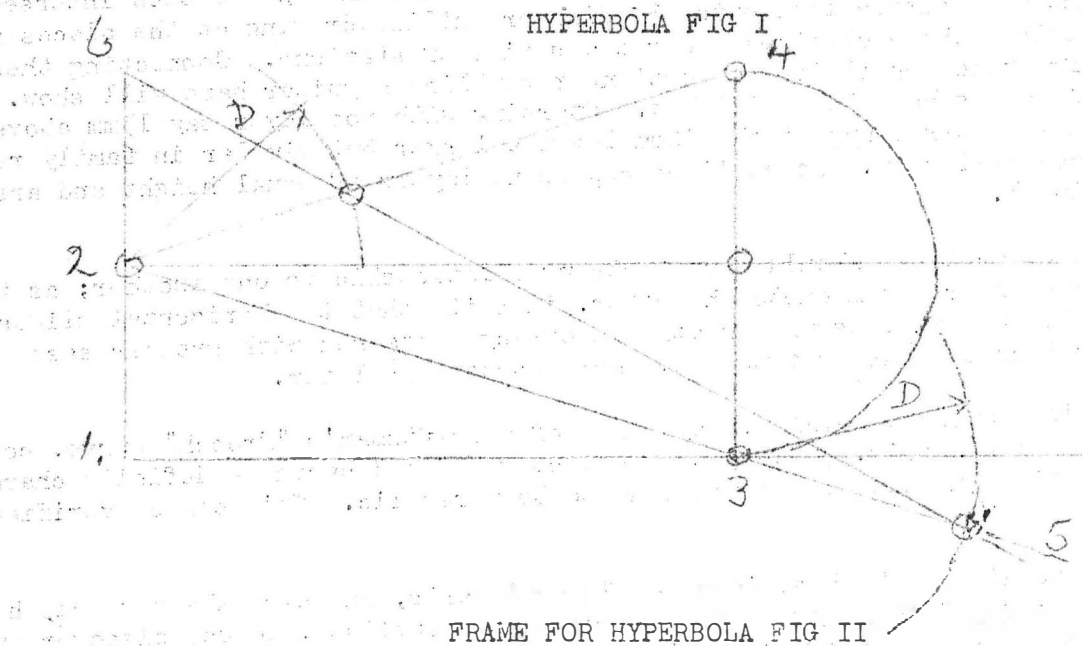


FIG D



HYPERBOLA FIG I



FRAME FOR HYPERBOLA FIG II

See Fig II. Establish again the halfspan of the templet 1 to 3 and the height of the arching 1 to 2. Take at random a distance D in the compasses and draw arcs with centers 1 and 3. Draw line 2-4. Proceed to draw line 5-6 as shown. We now have the fundamental frame on which we may construct a hyperbola. (When we take A cone and cut it into any direction we obtain figures with outlines of a circle, an isoscles. Triangle, an ellipse, a parabola and a hyperbola. The transition from one to another is quite subtle.

With Frame Fig II we proceed to draw a random line 8-3-7 and counterline 7-9 as shown. In Fig III with distance 3-8 as radius "r" we mark point (10) as one of the stations of the hyperbola.

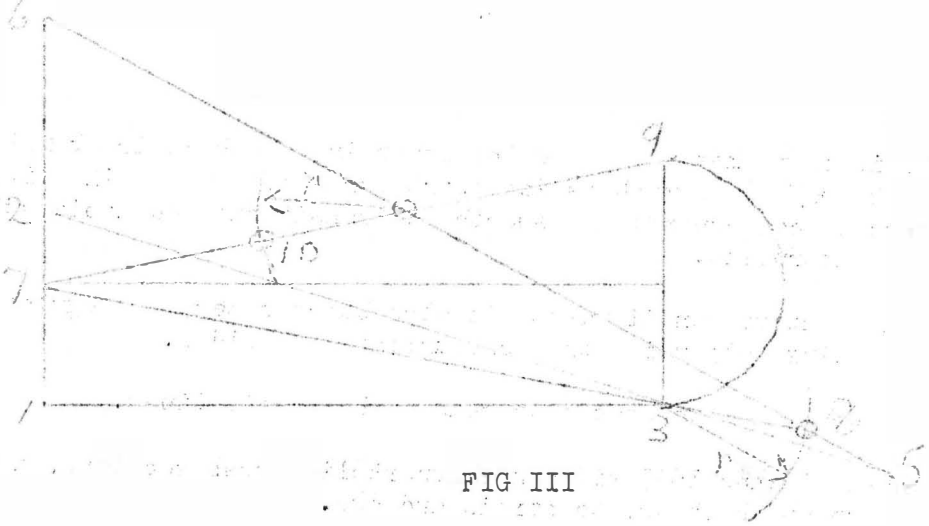
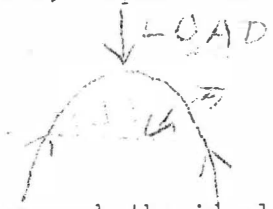


FIG III

By means of additional random lines, we will obtain more stations as shown in Fig I. and draw the hyperbolic line. In this instance we may discover that the hyperbola fits into the template.

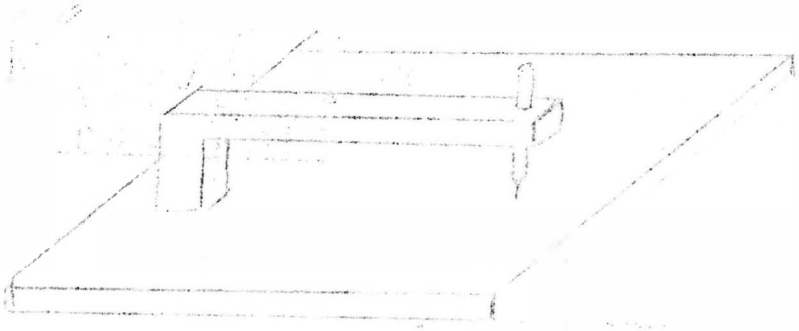
That being the case, all templates should fit the picture of a hyperbola of the instrument in question. This applies as well to the parabolic design. We should also consider the merits of the figures we want as little weight as possible, but not at the expense of the unsufficient strength or resilience. Then also we do not want light weight, with great strength, but no resilience. We do want great resilience, sufficient strength, coupled with reasonable light weight. When an instrument so made, has also a warm tone as well as a powerful one, our purpose and goal has been achieved. The ancients already knew, that the strongest, yet lightest self supporting arches were hyperbolic in form. A load supported as follows by struts, is well supported, but the struts are stiff and inflexible. While the load supported by a circle, requires excessive thickness because of weakness in the haunches.



However the parabola and the hyperbola approach the ideal of combining the qualities of the strut and the circle.

Having established that cross sections or templates of the instrument should come close to the hyperbola-parabola or even the catenary (suspension bridge main cables), we may esaily draw these sections to 2 or 3 times actual size. Slice the figures horizontally and measure the "contour points".

After roughing the outsie arching, we can check our progress by means of calipers. I use a board on which is mounted an arm holding a movable pencil. The whole resembles a jigsaw. Sliding the work under the pencil, which is set at a prescribed height I make marks on the work and can readily see how I am coming along.



A little error is of no moment, since the error in thickness is even less. The contour lines in the cheeks may be as much as 2cm apart for a difference in height of 3mm. Following the above method we can control the smoothest transitions and avoid setting up "built-in" strains in the instrument.

Then leaving the contour pencil marks, it also becomes easy to regulate the wood thicknesses when hollowing out; using the contourlines as guides.

When the job is done, use an eraser to remove the pencil lines.

The andreas Guarneri anno 1695 viola has hyperbolic cross sections, making allowance for warpage of top and back due to strain and age.

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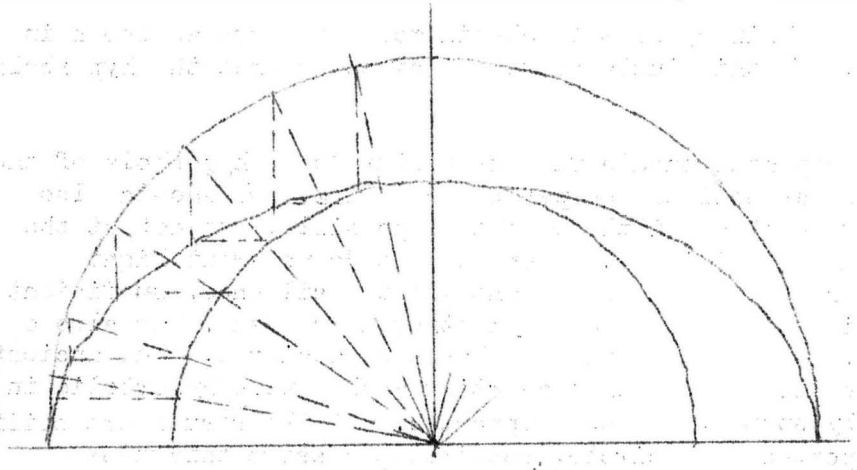

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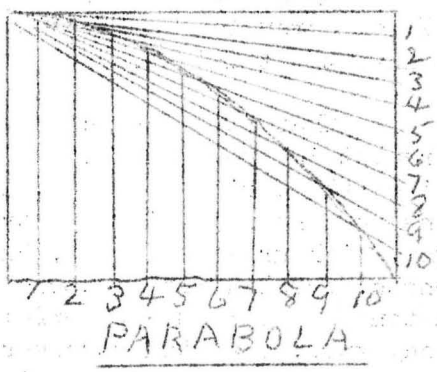
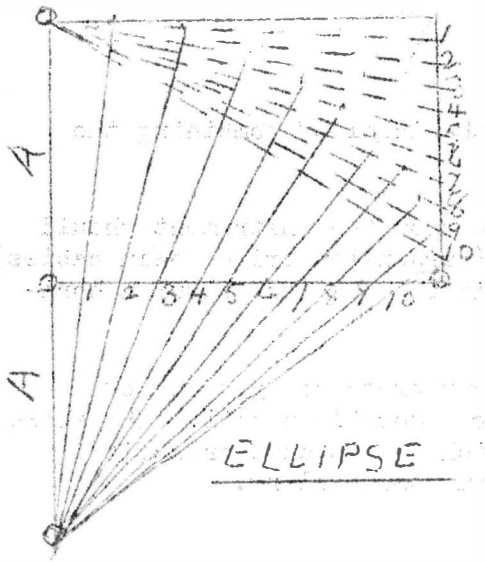


PARABOLA



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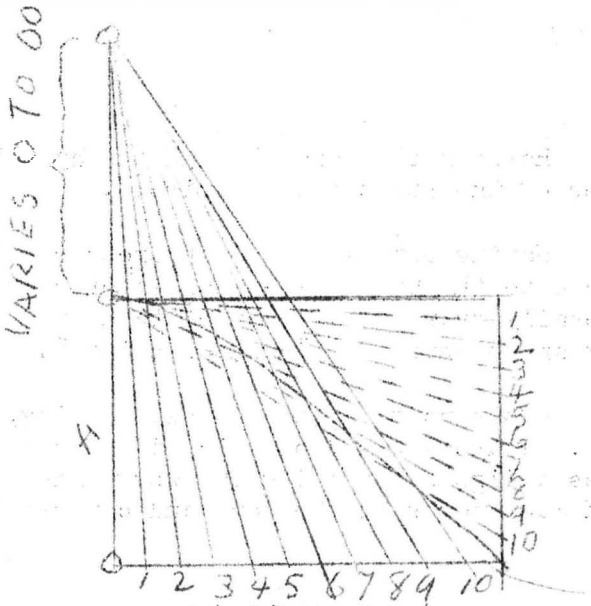

HYPERBOLA