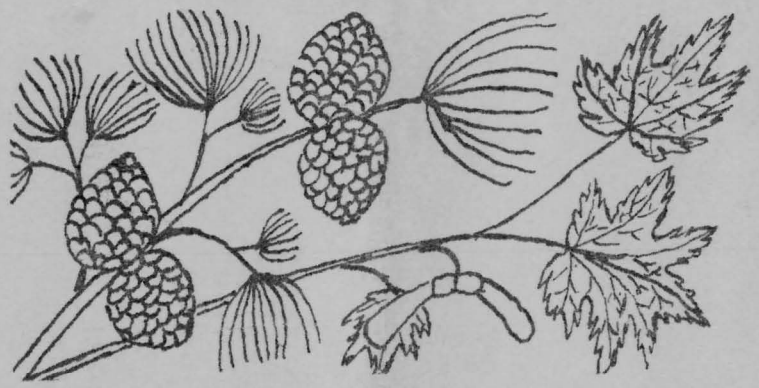
REF

Sept & Oct. 1959

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 in Canada.

THE VIOLIN MAKERS JOURNAL

PUBLISHED MONTHLY BY THE VIOLIN MAKERS ASSOSIATION OF B.C.

Officers of the Association:

President: Mr. Gilson Heyworth, 1683 Renfrew St.
Vice President: Mr. Harold Briggs, 13367 North Bluff Rd. White Rock B.C.
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EDITOR: DON WHITE

Vol..II..No. 11 & 12.....SEPTEMBER-OCTOBER,1959

A STUBBORN CROWD

Dedicated to our friend Dr. Frederick Saunders

In our July issue we suggested that unless scientific discoveries and information which has proved worthwile is acted upon by those to whom it might be useful; then investigators may just as well cease their inquiries.

Dr. F.A. Saunders commenting on this Editorial so has this to say; "You don't realize the excitement of our researches to us. Nothing whatever would make us - Just as well cease our inquiries."

We have only to glance back through the pages of history to prove the truth of this statement. Dispite ridicule, persectuion and even martyrdom the scientist has worked stubbornly along his thorny path, in search of that truth he knows must and will be found. Sometimes he succeeds, often fails. His failures are recorded equally with his successes and are used to push the cause of the investigation to its ultimate conclusion.

Yes, they are a stubborn crowd these scientists. As well try to stop a raging lion as to impede their progress. Should one drop out, the torch is thrown vigorously to the next. A poorly paid crowd who value more the search for the reason that a flea bites than they do all earthly possessions.

In our own hobby - seeking why a violin sings - we must more and more rely on men of science to unearth the true facts.

They are our friends - we honor them!

Yes! we may deride them, scoff or brush them aside, but stop them in their chosen field NEVER! Surely they are "A Stubborn Crowd".

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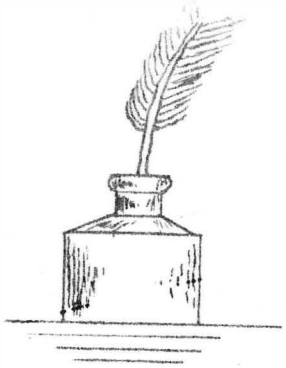
"Men my brothers, men the workers, ever reaping something new.

That which they have done but earnest of the things that they shall do."

Tennyson

.....



LOCAL NEWS

by HAROLD BRIGGS

Hello Everybody!

Our regular monthly meeting held on August 8th proved to be one of the most interesting and instructive meetings we have had. During a short business session, some time was spent considering the various reports of the committee that was set up a while ago to explore ways and means to bring our association and our violins to the notice of the public. At the time of our meeting the most promising plan was the idea of having a display of our violins at the T. Eaton Co. store, along with a demonstration of violin making and probably an old time fiddling contest.

Club member, Mr. Ernie Linberg, who has been ill in hospital for some months, expressed a wish to donate his fine violin to some youthful winner in the violin section of a musical festival. Mr. Peder Hawes undertook to make all necessary arrangements and purchased a suitable case for the violin. This action was endorsed at our meeting and the violin case is to be paid for by our club.

Our meeting was then turned over to Dr. Marsh. Dr. Marsh, who is a Professor of Sociology at the University of B.C., is an ardent apostle of the playing of chamber music and as such he gave us a somewhat different view of the features necessary in a good violin to that expressed by Mr. Hoffman a few months ago. His belief is that a violin must have a tone that is pure and true and sweet rather than loud, and believes that the best way to test a violin is to play as softly as possible and see and hear how sweet and true a tone the violin can produce. He believes the proper quality of tone will make itself heard without being loud. The somewhat divergent views as presented by Mr. Hoffman and Dr. Marsh simply show the different requirements as between orchestra playing and the playing of chamber music.

Dr. Marsh asked seven questions. Then discussed each one and gave his views without pretending to know all the answers. The questions are as follows:

1. Is it a genuine Strad if it has a Strad Lable?

2. Are there any modern makers now making violins that will prove as good as Strad violins? Dr. Marsh believes there are.

3. Can a modern violin be as good as an old one? Does it have to mature?

4. What does a varnish do to the violin tone?

5. What is the proper size and style of a viola? Dr. Marsh believes that Strad made many violins and Cellos and worked out the best dimensions for them but did very little with violas and the ones he did make varied considerably in size. Dr. Marsh personally favors the Tertis model for a viola, as designed by Richardson.

(continued on Page 18)

E.H. SANGSTER, ON THE PREVARNISHING TREATMENT OF WOOD AND OTHER SUBJECTS:

The July issue of the Journal to hand sometime ago and I enjoyed reading it but I feel I must write an article drawing the attention of all readers to a few facts on violin construction that I think they overlook or do not take time to think about and before I go on I want to make this statement. Anyone who uses metal strings except the E is tone deaf. I have seen and studied a goodly number of Strad violins and I have never yet seen one strung with metal strings. Those that own and play them know better.

Now it is conceded that Stradivari perfected both the violin and there are over 550 of his violins in existan
have had longer and heavier bass bars put in them so he could not have regulated them in the making by using tap-tones for his regulation would have been badly upset by heavier bass bars.

I would again call all makers attention to the fact that Lupot, J.B. Vullame and Hill & Sons made copies of Strad with a Strad on the bench. They used wood equally as good as Strad and they had the dimensions, thickness and graduations which they copied to a fraction yet they all failed to get the one thing most important of all - "The Tone Quality". So to sum up - it is not the wood, dimensions, thickness or graduations or the color varnish for I have seen quite a few Strads, with one third of the varnish worn off but they still had the tone. Another point - Viotti I believe was the first great violinist to introduce and prove to his audience the merits of Stradivari violins and what do we find: every great violinist in Europe Haberneck, Kreutzer, Baillot, Lafont, Rode, Paganini, Spohr, and others all using Strads or other great Italian violins - their beautiful tone quality, easy articulation and carrying power. I am not writing this to try and tell violin makers how to make a violin but to try and get them to think before they put the gouge in wood, what am I trying to create? If you are trying to create Italian tone you had better use wood like the Italians used especially the top wood, I have failed so far to procure any top wood equal to fine European.

Now a word on seasoning wood. Mr. Michelman in his article stated I had abandoned seasoning wood with water. Not so: if one is in a hurry to season a piece of wood there is no quicker way than seasoning it with water but this is done before you work it. Mr. Michelman is also mistaken about the oil treatment. Dr. Marin and I used the oil treatment in Halifax, Nova Scotia in 1936 and 37, long before Mr. Michelman's book was printed, only we did not know enough to oxidize it so I abandon it until I came to Dallas and violin #59, made in 1955 was the first violin of my own make I treated with linseed oil and oxidized. I have tried the oil alone and have tried it mixed with turpentine and resin but so far have been unable to detect the superiority of one over the other, perhaps time will tell but I am afraid I won't be here.

The making of fine violins is very unprofitable and to make a living doing it is out of the question and why? With few exceptions it is impossible to get a professional violinist who plays in a Symphony Orchestra to play a new violin.

If we violin makers knew for certain what the Old Italians put on there violins before they varnished them we would be much nearer to success. All the old Italians knew and used it to a greater or lesser degree. Garpar De Salo known for his violas are still the finest in existance and I am sure it did not originate with him. The old lute and viola makers knew what to do and they also knew about the varnish. If all those who wish to see new violins will make a fretted fringerboard to put on the violin temporarily and play the violin in true fifths, thirds and multi-stops all over for six months, your violin will sell.

A new violin must be played on to ripen it.

I read somewhere a good number of years ago that when Spohr visited Italy he went to Florence to see and try the famous "Messiah Strad" then owned by Count Salabue. Spohr played on it for sometime and told the Count it was a fine violin but someone would have to play it for ten years before it would be any good to him.

.....

A TOUCH OF HUMOR

I am an amateur violin maker of no mean attainments. I am the only violin maker on record, with two left hands; neither one on
If I were the only critic left in the world, I would joyfully admit that my violins (12) in terms of crude lines and repulsive workmanship, are the ne plus ultra, in their class. I make a living as a furrier. In my spare time, I beautify my apartment with my ugly violins.

I would be quite happy to exchange experiences with all other makers. After the first year of violin-making-headaches, I took aspirin, one for each hand. Now, after 15 or 16 years, I've graduated to anacin, because it contains di-alminate. It's stronger than bufferin, too. Anacin is also good for varnish, because it contains di-alminate.

If any of your professional violin making subscribers would like to benefit by my experiences, I am sure that they would gain immesurably by developing a New and Keener Sense of Symmetry and Round and Flowing Lines (Shades of Strad).

I am eagerly looking forward to reading the next issue of your magazine. I have never heard of Mr. Weertman, and I'll be happy to make his acquaintance.

Robert Minster, 1415 Mott Avenue
Far Rockaway, New York

.....

ERNEST COWELL AND ROELOF WEERTMAN ALMOST AGREE

Editors Note: Mr. Cowell comes to similar conclusions to Mr. Weertman but places his centre of gravity and percussion somewhat closer to the neck-end.

Can I ask your readers a number of questions? Some I can't answer myself, some I feel I have the answers to but I would like to know what others think.

Firstly, why are the bouts of the violin different? One larger than the other, with the C's in the middle. Then why does the bridge come where it does? I know it should come between the nicks of the F holes, but then why are the F holes placed where they are? Then again why is the sound post placed just behind the E on the bridge? I also know it gives the best results there, but Why? What is the true purpose of the Bass bar? When I ask these questions of friends of mine they tell me that that is how Strad or somebody else did it, but Why?

Now will you get a piece of plywood about 14" x 1[illegible]" put a centre line down it and mark out a fiddle, any good model, using your normal template, then put a cross on it, cut out your fiddle shape, now balance your fiddle on the edge of a steel rule and mark where the balance comes, Now get cracking and get your thinking cap on, see whether you get any ideas, like I did.

Ernest Cowell

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WORDS OF ENCOURAGEMENT

from Mr. Leo Larsson

Editors Note: I often get enccuraging letters but the one received from Mr. Larsson has given my morale a great boost. I started the Journal more as a monthly circular letter with no thought that it would grow into the important publication it might now become. I feel that I have a lion by the tail and wonder if I have the time and energy to see the thing through. With subscribers such as Leo to assist with material and ideas the problem becomes far more simple. D.W.

Dear Mr. White:

It was with great pleasure and suprise I received the June and July issues of your excellent Journal, and I cannot even express fully my appreciation for your splendid efforts to further interest in violin making. This effort is the best I have ever seen, although there was a fine one published in Italy before World War II. The Strad made some little effort in the nineteen-twenties and thirty's but nothing to match your efforts. I am just wondering how long you can keep up such a live paper on just this subject. One way to help will be mentioned in a few moments.

The Journals at hand have not been completely read but two items have struck a cord, whether harmonious to you or not this is how it sounds. One meeting considered the acceptance of violinists into your organization and you spoke about people not reporting on articles published in the Journal. You are going to have to have support in this effort and it will probably take more than the few people that are actually members in your organization. Subscribers to the journal are important but you are going to have to draw on an ever widening group of writers to keep the subject hot. Here is an idea for what it is worth to you. Art and Music groups have patterns so why not your group have associate members? An associate member is to be anyone interested in the advancement of the art of violin making, and who makes a physical contribution to this cause. This could cover
who is continually playing on a modern hand made instrument, one who contributes a worth whib article on any subject related to violin making. This could cover technical aspects of wood, varnish, tools, experiments etc. etc. This would put a price on an associate
associate member feel he belonged to a worthWhile organization, and something he was helping to build. This would not limit your membership to your local area. Your organization and your journal have to grow and I can see where the Journal will need some full time employees in the future.

It looks like most of your Journal is printed by the offset printing process which is a very good low cost production. You may not be aware that photos can be printed by this process and it would be a valuable process to keep in mind when your circulation has increased.

I believe your Journal should carry a copyright to prevent free loaders helping themselves to the material given by your members and associates.

Well here is to a long association and I hope to be able to qualify for an associate membership if and when you decide that might be a good idea.

Leo. D. Larsson, 27 Hattie Street
San Francisco 14, California

.....

EXPERIENCES OF AN AMATEUR VIOLIN MAKER

I started fiddle making about a year ago, never having set chisel to wood. I'm having the time of my life. I run an engineering business and have a fairly complete electronics laboratory and a reasonable model shop, all connected with metal working. I have worked tons of metal but never a pound of wood.

I got Joe Reid's book as a starter and then got a Herron Allen and Fry and Michelman for varnish, plus some others. I consider those enumerated as my best.

I looked over my shop and saw nothing but metal working tools. Well, I reasoned, maybe maple will work like metal so I'll give it a whirl. First some $\frac{3}{4}$" maple flooring. I cut the tongues and grooves off of 6 pieces about 16" long and set them up in a small metal planer. I ground a tool similar to a chisel and honed it to a razor edge. Lo, the maple machined like brass and chips came off in beautiful curls. So, I machined the strips on all four
for a back. Reids wedge clamp works like a million bucks.
the edges being straight to within .001" that I could not tell where one piece of wood left off and another started, except by the change in grain. I whacked the board and abused it trying to break the joints but nothing happened. I left it in my basement for a week. On returning I found a cross grain curl in the flat board I had left and any amount of reaseasoning would not bring it back flat, so I sawed it into three pieces, regardless of glue joints and made up a neck block. I got a passable neck from this. except I got too enthusiastic on the peg box and cut too deep. So, I have holes into the flutes on the back of same. Tools, a hack saw, some files, and three small home-made chisels. Also, an old hacksaw blade ground to form a half round scraper.

Since the metal working technique looked good this far, I used it on a form block. I used mahogany as it is stable under moisture. My pieces were tweisted so I planed them flat in the planer. The mahogany worked as good as the maple. I then screwed two pieces together and planed the assembly to $1\frac{1}{4}$" thick all over. Then I raised one end 3/32" and planed the surface again, thus producing a form blank $1\frac{1}{4}$" thick on one end and 1 5/32" on the other.

Next I took Reid's plans to a drafting outfit and had Ozalid prints made from them. These prints are made without liquid developers and paper shrinkage is not a problem. I then pasted a print of the form to the top of my plank and hied me to a friend with a band saw. We roughed the block to within 1/16" of finished dimension. Next I took a piece of maple doweling 1" in diameter and $2\frac{1}{2}$" long and drilled it lengthwise $\frac{1}{2}$" diameter. This wood sleeve I mounted on a lathe arbor and glued a piece of 60 grid production sandpaper to the perpihery of same, winding a layer of string over the paper to clamp it to the wood. When the glue was dry I removed the string and chucked the arbor in my drill press. As a steady bearing for the bottom of the arbor I drilled a hole in a piece of $\frac{3}{4}$" plywood and sunk the end of the arbor and a short distance on the grid covered dowel into this hole. Thus, I was able to have sandpaper right to the surface of the plywood when it was mounted and clamped to the table on the drill press. Using the sand paper as a vertical milling cutter I was able to dress the form block to exact dimensions and hold the edges exactly square with the back of the mold. The sandpaper held up beautifully and has done a lot more work. Its still going strong.

I next made up a set of rib bending dies, using the sandpaper gismo to finish them accurately. I stole my wife's pressure cooker and steamed the ribs for 20 minutes at 15 pounds. They bent like butter, and the dies held them right in shape. After a week in the dies, they were so securely bent that they hugged the male die very closely. During this week I let the various blocks into the mold and sanded them to proper form

with the gizmo. The ribs fit the blocks like the paper on the wall and I used the dies as glue blocks to hold the ribs into position while the glue dried.

Removal of the dies left a set of very tightly fitted ribs wrapped around the form. The outside of these was semi finished with gizmos using finer sandpaper.

Thats as far as I have gone. Now I have to stop building fiddle and go back to making tools. First planes, chisels, scrapers, a graduating caliper and guages. A couple or three weeks leisurely work. Then I take Laubi's good wood duly arrived from Switzerland and go to work carving a back. This looks like hand work all the way through.

My graduating caliper will be a regular 1" machinists indicator, mounted on a plier device to get it into the plates. The indicator is graduated .001" per division and the piston moves an inch, so I should make out OK. I doubt however if I will be able to hold .001" in graduating. I had the indicator and the plier device is no problem, so, why buy a graduating caliper. I'm into this for fun, tools and all.

Then I duplicate F.A. Saunders plate testing set up and graduate and measure till I get my plates at the poper frequencies, Stop, more tools.

Then make up a bunch of edge clamps and mount the plates etc., let in the neck and start to varnish.

Michaelman looks like my boy and I am knee deep in resins. Incidentally, if any of your constituants want Alizarin for red varnishes, it is rather hard to come by. I found that chemists supply houses hande pure alizarin, call alyzarin red. It is used by chemists as an indicator. It is expensive but potent. 5 grams at 70 cents in Minneapolis. 5 grams will color a gallon of varnish if one doesn't want it too deep.

Well, I have prattled on for a long while. Some of my methods may not strike the purist as being just so, but I'm having a good time and that's why I took up the hobby.

George X.M. Collier, 1816 3rd Avenue South
Anoka, Minnesota.

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LETTER FROM S. KUJAWA

Dear Don:

In your July issue you have an article on Gilbert's foundation filler. It advocates using a harder resin like copal or amber. Now if you handled copal or amber like it states, it could be in that boiler for 30 years and still it would not mix. Hot oxygenated turpentine will not disolve fossil copal or amber. Damar, mastic and Rosin are the only gums that will disolve in hot turps on a water bath or a sand bath.

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LETTER FROM MR. HOPPING:

Dear Don:

Many thanks for your long letter of June 18th, 1959 which certainly gave me much to think on.

I had two long talks with Wurlitzer in New York the last part of June and got his reaction to the playing in time requirements which was somewhat shorter than yours, but of course no one has any tables showing definite conclusions.

Mrs. Hutchins has but recently sold one of her violas to a very well known quartet player who has been on tour this summer and we both are much excited by the very favorable comments this instrument has engendered, so our thinking has been influenced by this happy event. However we are both still interested and know an amateur maker who has a set up whereby a violin is bowed by swinging in a cradle beneath the bow so all strings are bowed in sequence (open strings) and this is continued for 200,000 times (1½ weeks). He would like to have his instruments tested before and after this operation. So far we have not gotten toeghther.

I agree that pretreatment of the plates is a very fertile field for investigation. My own experiments with linseed oil indicate that it should be used sparingly. So far I have found nothing that increased the response but am still looking.

As yet have not received the July issue - hope I get it soon as it is always very stimulating.

Alfred S. Hopping, Lake Hotatcong, N.J.

.....

ALSO THE VIOLIN MAKERS' JOURNAL

Canada Culture Sprouts Lively "Little" Magazines:

"Little" magazines, the outspoken, superliterary publications usually associated with the Left Bank and bohemian writers of the "lost generation", have staged a flourishing comeback in the 1950s. Now they look ready for another spurt.

Even at their roaring peak in the roaring 20s, only six existed in Canada. Three more sprung up in the 30s, another nine in the 40s. Of those pioneers, a scant handful - Canadian Poetry, Culture, The fiddlehead - still survives. But since 1950, with a new and vital group of young Canadian writers seeking an audience, six magazines devoted to avant-garde prose, poetry and criticism have taken root. There'll be at

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In Canada they centre around writers like Anne Wilkinson, Irving Layton, Raymond Souster, F.R. Scott, Roger Duhamel and Louis Dudek, many of whom are also editors or publishers.

.....

THE ITALIAN EXHIBITION OF VIOLAS

Probably one of the largest and most important displays of old and modern violas ever held will take place in Italy this month. The whole exhibit will be devoted entirely to the Viola. Gold Medals and Gold Medal Diplomas will be awarded to all instruments considered worthy of this high merit.

The Exhibition will be directed by the Associazione Nazionale della Liuteria Artistica Italiani, and will be under the distinguished patronage of the Artistico dell' Accademia Nozionale di St. Cecilia, Rome.

The violas exhibited will come from many different countries including - Norway, Russia, Poland, England, Czechoslovakia, Bulgaria, Austria, East and West Germany, France, Switzerland, South Africa, U.S.A. and Canada.

There will be classes for old, copies of old and modern violias.

Of special interest will be a programme featuring the development of the viola from its primative form down through the years to its present appearance. This will be achieved not only by an exhibition of the stages of evolution but by actual playing of the antique instruments following through to the playing of modern violas. Special artists will perform on this occasion.

The President of the Italian Association of Violin Makers, that indefatigable gentleman Professor Gioacchino Pasqualini has been one of the prime movers in organ-

SANDING MACHINE FOR RIBS, LININGS AND PURFLING

by William E. Slaby

The following is a description of a sanding machine for making ribs, linings etc. With it you can make the stock so uniform that it bends more evenly than dressed by other methods. It will do a real smooth job.

Plywood may be used throughout except for the drum, bearing brackets, table cleat and braces which should be solid hard wood. The drum is made from two pieces of 1½ x 3 x 12 3/8 stock. A rabbet is cut in each piece ¼ x ½ to accomodate the shaft. Also the groove is cut for the paper locking wedge. The pieces are then glued with the shaft inserted after which they are drilled for the three 2" screws which primarily are to keep the drum from turning on the shaft. The simplest and best way to turn the drum is right in place on the machine. This insures everything being concentric. A blanket, I used 1/8" rubber but I understand felt or thin carpeting will work, should be cemented to the drum to cushion the sandpaper. No. 2/0 garnet paper works well and imparts a good finish.

To make the table perfectly level under the drum fasten the cleat in place and then place a steel straight edge on edge across the table above the cleat. Insert paper shims under the straight edge in any low spots until the straight edge holds tight the shims all the way across the width of the table. Keep the shims in the same order that they were placed under the straight edge, remove the cleat and place the shims on the underside of the table between it and the cleat. The table raising mechanism is crude but it works. It would be better if the two hand wheels were synchronized by a chain and sprockets or something similar but what I used will suffice if after once adjusted the operator takes care to always turn each wheel the same amount.

In use the stock should be fed slowly and at an even rate through the machine. Do not advance the handwheels more than 1/8 turn at a time and generally pass the stock through 2 or 3 times before readjusting the table. I, Personally, check my work with a micrometer as I operate the machine. I find that I can work accurately to 1/1000" and that if an even feed is maintained the stock will be uniform throughout its length and that the various pieces will be uniform.

William E. (Bill) Slaby
1322 N. Vermont, Royal Oak, Michigan

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TEXAS TURTLE??

Three turtles were having some soda pop. Just as they ordered another round, it started to rain so the biggest turtle said to the smallest one, "Go home and get the umbrella."

I will if you don't drink my soda pop," the little one said. The other two promised they wouldn't.

Two years later the big turtle said to the middle-size one, "Well, I guess he isn't coming back, so we might as well drink his pop."

Just then a little voice called from outside the door, "If you do I won't go."

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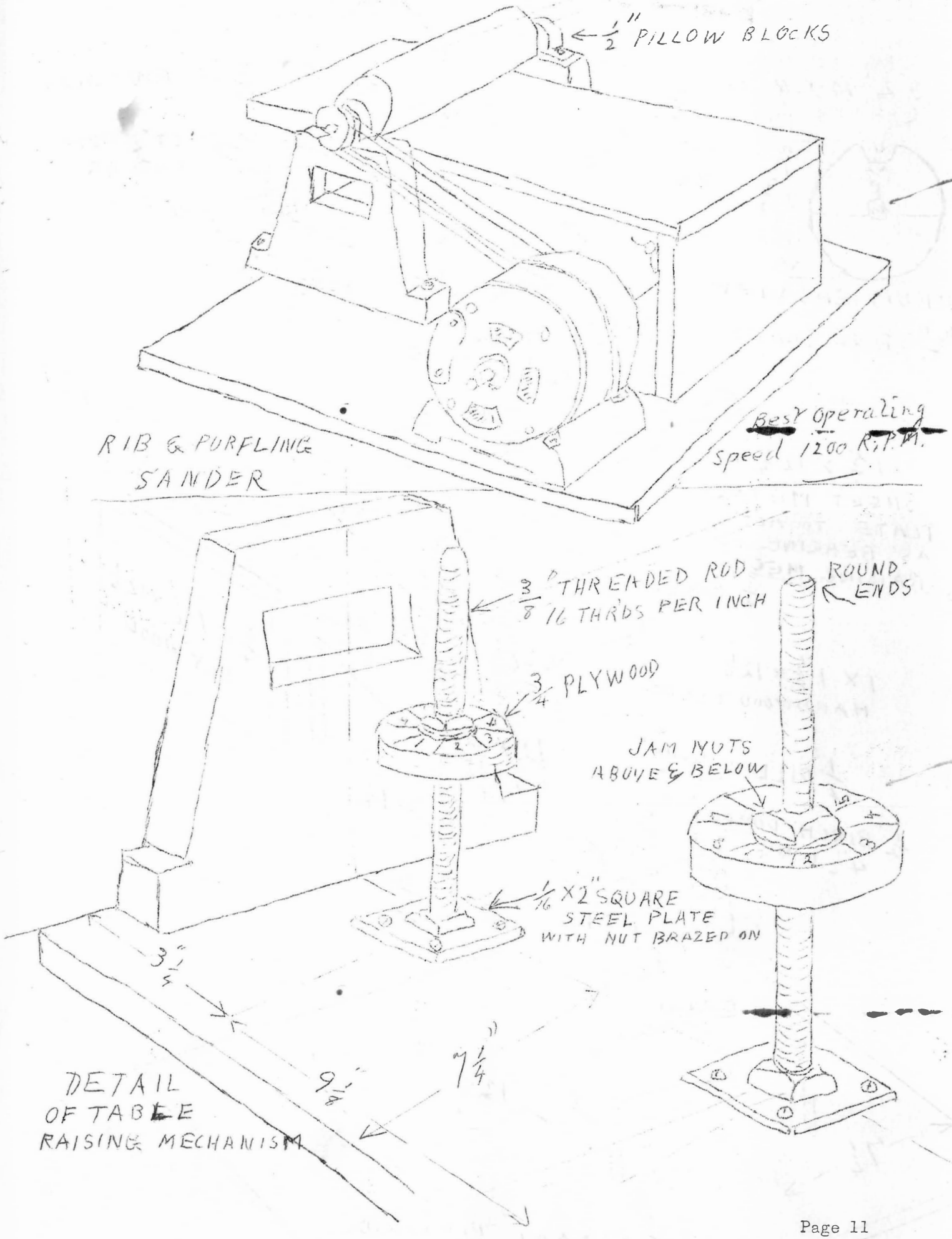
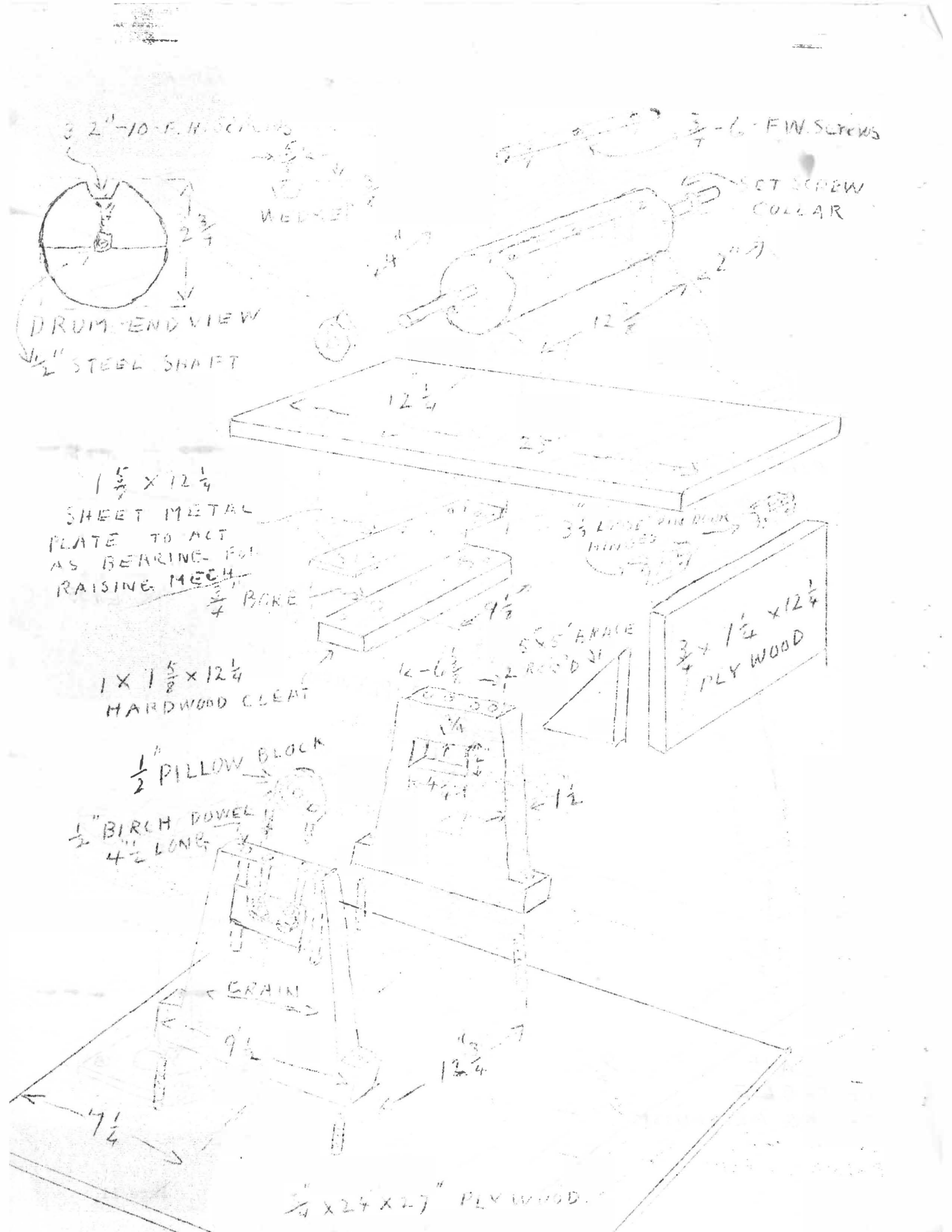
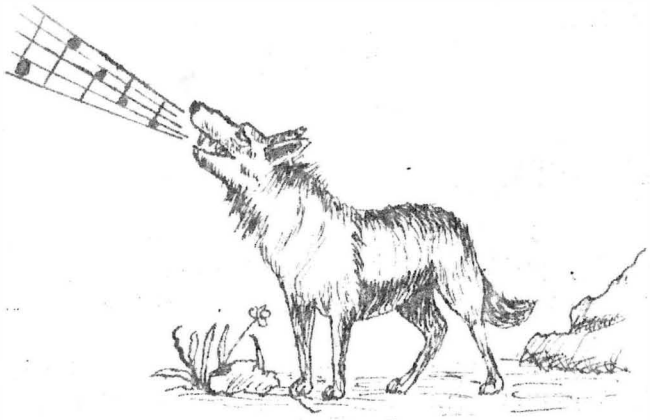

← ½" PILLOW BLOCKS
RIB & PURFLING SANDER
Best Operating Speed 1200 R.P.M.
3/8" THREADED ROD 16 THRDS PER INCH
ROUND ENDS
¾ PLYWOOD
JAM NUTS ABOVE & BELOW
1/16 X 2" SQUARE STEEL PLATE WITH NUT BRAZED ON
3 1/2"
9 1/8"
7 1/4"
DETAIL OF TABLE RAISING MECHANISM


3 2"-10 F.H. SCREWS
WEDGE
2 3/4
DRUM END VIEW
1/2" STEEL SHAFT
3/4-6 F.W. SCREWS
SET SCREW COLLAR
2"
12 1/2
12 1/4
25"
1 5/8 X 12 1/4
SHEET METAL PLATE TO ACT AS BEARING FOR RAISING MECH
3/4 BORE
1 1/2
3 1/2 LONG PIN DOOR HINGES
3/4 X 1 1/2 X 12 1/4 PLY WOOD
1 X 1 5/8 X 12 1/4
HARDWOOD CLEAT
1/2" PILLOW BLOCK
1/2" BIRCH DOWEL 4 1/2" LONG
1 1/2
GRAIN
9 1/2
1 3/4
7 1/4
3/4 X 24 X 27" PLYWOOD

WOOLF NOTES



by The Editor

The last few issues of the Journal have been published gradually a little later each month. The delay has been for various reasons - holidays, press of duties etc. To rectify this we have decided to put out an extra large issue this time and call it September and October. This will enable us, starting with N vember to have the Journal ready for mailing the first week of each month. We will "go to press" the first Saturday of each said month.

Subscribers write in horrified with the thought that perhaps I am ill or peradventure have left this vale of tears. We have no desire to raise their blood pressure, and remember "No man is indispensible in this world." When I give over a better man will take my place. I hear you say "well-- why not move over and let him carry on?".

THE SAUNDERS GROOVE:

We have had a nice bit of teasing over our spelling last month. This reached a climax when we put the good Doctor away out in the woods. Never-the-less we got quick results. Three weeks after publication we received a letter from Frederick Olson, Oroville, Calif. as follows:

Dear Sir:

I studied the artical in the Journal about the Saunders Groove. I tried it on one of my violins and it worked real good it made a $750.00 violin out of a $200.00 one. I am going to try it on my next one, but could you tell me one thing. Do you cut the groove in the back plate? I did not do it, what would happen if it was done?

Frederick Olson

Note: The groove is not made in the back plate as there seems no necessity for it. Speaking of the Saunders Groove reminds me that Dr. Saunders desires to state that full credit should also be extended to his "Team Mates" for any "Discoveries" they have made. We are pleased to rectify this ommision. This mistake we have made several times and I believe it to be soley a phsycological one in that up until recently I have only corresponded with Dr. Saunders. Now I am happy to say I have exchanged letters with the compete trio. Besides Dr. Frederick A. Saunders the "team" consists of Mrs. Carleen M. Hutchins and Dr. Alvin Hopping. The latter we have heard from in the pages of the Journal and we hope to have articles by him in the future issues.

Mrs. Hutchins is the violin maker of the trio - or rather I shall say viola maker, as she specializes in violas. Just recently she excited her colleagues with the sale of one of her violas at a real high price. The instrument is said to be of superb quality.

ITALIAN EXHIBITION:

Speaking of violas we were pleased to learn that our super-craftsman Peder Svindsay, 3914 Main Street, Vancouver has sent a viola to the Exhibition of Violas being held in Italy this month. Which see - on a previous page.

As far as we can ascertain Peder's is the only entry from this country and we feel proud that he will represent Canada at such an important event. The Journal was very happy to assist very slightly, in the cost of transportation which had to be sent by air. Good Luck Peder - we are very proud of you andyour beautiful viola.

NEW ORGANIZATION:

Mr. Lee E. Payne of R.T. (539 N. Eagle Lake) Willmar, Minn. writes that violin makers and lovers of this instrument have organized a club named "The Violin Music Makers Club." This group have planned a lively programme for the winter and we wish them every success. Officers of this club are: President, Rev. Rue, Secretary, Mrs. Lee E. Payne and Treasurer, Lee E. Payne. Directors are Melvin Gunderson and Olaf Hamnes.

THE P.N.E. HOBBY SHOW:

Several splendid instruments were shown at the Hobby Show which was held the last two weeks of August in connection with Pacific National Exhibition. However none of the violins came up to the high standard set by the judges so no first prize was awarded. The prize list is as follows.

2nd Prize Violin - Erwin, Dallas, Texas
2nd Prize Violin - Ragnor Helin, Vancouver, B.C.
3rd Prize Violin - Carl Thoen, Vancouver, B.C.
1st Prize Cello - Ragnor Helin, Vancouver, B.C.

This cello was declared by the judges to be outstanding both as to tone and workmanship, and was also awarded the silver cup for the "Best Instrument in the Show". This is the second time that Mr. Helin has won this distinctive award.

DR. SAUNDERS:

I have three letters from Dr. Saunders which contain valuable comments. These will have to wait over till next month as I have not the time to do full justice to them at this moment.

MR. JOSEPH MICHELMAN:

Mr. Michelman presents some interesting facts on the pre-varnishing treatment of violins in the following extract from his last letter to me:

Dear Don:

I realize that some violin-makers contend that the old Italians did not pre-treat the wood of their violins. But how can they explain these facts? (1) The old Italian colored varnishes did not penetrate into the wood; this indicates the application of a sealer or primer. (2) The old Italian violins exhibit the dichroic effect and illusion of depth, which can be obtained by some pre-treatment of the wood. (3) Ultra-violet light examination of the wood from old Italian instruments has revealed pronounced differences between their wood and more recent wood. (A reprint of my paper

on this subject with pertinent portion marked is inclosed). (4) Ole Bull (see page 4 of my book) writes that "the wood appears to be permeated with a color...etc." There are more factors which I am discussing in an article soon to appear.

On the other hand, what evidence do these violin makers present that the old Italian masters did not pretreat their wood? The "glue-test" is now offered. They claim that wood treated with linseed oil is difficult to glue. This may be true if the treated wood has not been permitted to age or if the surface has not been prepared. I doubt if a wood surface treated with a water repellant material can be glued with ordinary hide or bone glue soon after the treatment.

Joseph Michelman

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CARMEN WHITE ASKS FOR MORE INFORMATION:

I have had the following letter on hand since August 10th and must apologize to my friend Carmen for not having an answer ready this month. The subject is an important one. Carmen implies that my ear is not accurate, this is quite possible and is one of the things I want to discuss. When a piece of wood is struck there are so many overtones that one can imagine almost any tone he wishes. Is a trained ear an advantage? Possibly we hear too much! No harm in trying to make out I am unusually talented is there?

Dear Don:

I wish you would write an article to clear up this business of taking plate tones. Now, in describing your own violin which you made to test Dr. Saunders' method you state that the back is F -sharp, while the top is F and G -- just how did you get these tones? Some makers advocate a tone of C for the top and D for the back (Heron-Allen, for example). I have never been able to get such tones. I think if we are going to talk about plate rings and plate tones or pitches, we should all get together and take them in the same manner, or at least give the manner we got those tones--otherwise, they mean little, and actually may mislead somebody. I use Gilbert's method--explained by Mr. Farseth; I usually get F or above for a top, and about A-sharp for the back--I have never seen good tone from a back weighing less than 98 grams, but it seems that Roelof Weertman would use backs as low as 91 3/7 grams for a 64 gram top according to your calculations given in this month's issue.

I would like to ask if you have actually made and played a violin with weights as these, and what was the result? My experiences indicate that Mr. Gilbert's weights are too light as a rule, and I believe Mr. Weertman's will be also. Of course, there may be some wood somewhere that will be strong enough to stand such thinning, but I have not found it. The lightest and finest wood I have used so far is Bob Wallaces' and also the Alpine Fir from Mr. G.R. Wright in British Columbia--the last mentioned is not so beautiful in grain, but it does sound and one can make light tops from it--that is, around 72 to 74 grams finished and treated, ringing a good [illegible]-sharp or G-natu[illegible]

I wish somebody would tell me how to get a C from a top and a D from a back! That I want to see! Did you keep the weights from your two violins? Or the pitch as taken by Gilbert's method? Unlike Mr. Farseth, I believe the weights are more important than the pitch interval between the plates--I do not know how he deduces that the pitch interval is more important than the weight--as he suggests. I think Mr. Weertman's ingenious test is a fine idea, I intend to try it this fall. Thanks again for all your fine work--never mind the critics--stick to us guys who believe in you, and I am proud to be one of them! Rember, the fellow who never made a mistake never did anything! Right? I've made plenty.

Carmen White

.....

"ERNIE" PASSES ON

On September 9th members of The Violin Makers' of British Columbia said farewell to their faithful friend Ernest Lindberg. Ernie died September 4th and his passing leaves a hollow space in the hearts of many.

Readers of The Journal will remember several of his articles which appeared in its pages. They mirrored much of the philosophy of our friend.

Born in Sweden in 1890 Ernie came to Canada in 1912 and worked most of his life among his beloved trees. He was a widower having lost his wife during the birth of their first child. The child died also. This was a shock from which Ernie never fully recovered. He sought relief in attempting to improve conditions for his fellow workers and spent the rest of his life actively engaged in the Socialist Movement. This creed was the erradication of want and war and full equality for all men.

Around 1930 he started making violins and completed about 14 instruments. His last violin which he called "Jenny Lind" was his best instrument and possesses a tone of unusual sympathetic quality and the workmanship is equal to any master craftsman. During his long and painful illness "Jenny Lind" was kept close to his hospital bed and members who visited him always played a few tunes on the instrument which did much towards making his last days as happy as possible. When last I visited him his beloved violin was beside him and scattered around were copies of the Journal which he read and reread.

Ernie fully anticipated his death and made arrangements that his violin should be held in trust by The Violin Makers' Association and at their discression presented to the most promising and talented violin student in the Province of British Columbia. This act, perhaps, displays his thoughtful character more than any words of mine.

And so another link in our chain of membership is broken. Ernie passes on but his character will still be reflected by the minds of all who knew him. In the words of the workers song he loved so well. "I never died," said Joe.

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THE ROELOF WEERTMAN BOOK:

Many readers have commented on the help they are already receiving from this publication. This month we depart from the regular script to insert valuable information brought to light by the INTELLIGENT?? questions asked by the Editor.

Our fourth installment follows:

THE OLD MASTERS TREES

by Erika White

Mr. Carmen White's rhetorical question "Has nature changed her method of growing trees?" raises an interesting point.

Of course we know that nature is still growing trees by the same methods she used when the Old Masters were performing their miracles with bits of maple and spruce. Never-the-less, we should not be too hasty in assuming that the same maple and spruce are now available to modern violin makers.

John Lawson's suggestion that atomic radiation could have changed the structure of trees, is interesting. But the increased radiation caused by atomic radiations is of such recent origin that even if it does affect the growth of trees, such a change would hardly have had time to change the wood of mature trees. Indeed, most of the wood now used for violins was cut before there were any atomic explosions. However there are other changes which have taken place since the days of Stradivari which could conceivably have altered the natures of some trees.

Man has always been a bit reckless in his wasteful use of natural resources, including trees. He has thoughtlessly cut down whole forests for fuel and shelter and sometimes even burnt them as they stood to make room for other vegetation, or for cities.

A few centuries ago Germany began passing conservation Laws to preserve what remained of the disappearing forests, and since then several other countries have followed her example. But apparently no such laws have even been passed in Italy or the surrounding countries to protect the Mediteranean vegetation.

Since remote times this vegetation, including the peninsula and larger islands, has been eradicated in extensive areas and replaced with olives, figs and vines etc. Cluster pine groves, which were once a feature of all this territory have almost disappeared so that now there are very few groves left. Belts of highest woods in Italy originally formed by conifers have been severely damaged by deforestation which began in the Roman period and has been very actively persued ever since.

The art of violin making was born and raised to maturity in Italy, so most of the wood used undoubtedly came from that country, or from neighboring forests, that is, those in the Mediterranean zone. It seems quite probably that the groves of maple and spruce, or pine, already disappearing in the time of Stradivari, have now gone the way of the cluster pine and other conifers, and that there are now few, if any, left.

The same species can no doubt be found elsewhere in the world though many species of trees do favor certain localities. But these willhave grown for the most part under different conditions of climate and soil and would vary to some extent from those grown around the Mediteranean. They would vary to the extent, let us say, of not being quite so well suited to the making of a delicate instrument like the violin, as the wood used by the Old Masters.

Perhaps so far as the modern luthier is concerned, nature, aided by man, has indeed changed her method of growing trees.

.....

"THANKS TO THE BEES"

Dear Mr. Editor:

I have just finished a violin with that peculiar substance (Propollis). It is a glue substance the bees use for plugging up cracks etc.

I have known for several years that some violin makers in Switzerland had used it, with good results, so I finally took a shot at it.

I used two coats inside and also two coats outside for a filler. The varnish took to it perfectly and it leaves the grain in the wood very clear.

I like its appearance very much.

Furthermore, this was a violin which when finished, I didn't like at all, so just left it to die a lonesmoe death. However, I thought it would be good to make this experiment on, especially for tone. So I stripped it clean, jabbed off the belly and gave it the works.

I was astounded at the results, especially at the improvement in tone.

Some of the Association members say it is the best one I have made, others say it is among the best ones made [illegible] in Vancouver and it is not played in yet.

I used about ½ oz. of Prcpollis to about 4 oz. of 95% grain alcbhol. I also strained the flued before using.

Yours for harmony Bees.

Rev. Geo. R. Wright

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LOCAL NEWS cont..

6. What kind of strings should be used? Dr. Marsh is much in favor of the better grade of all metal strings. Mainly because they require so little tuning.

7. What is tone and carrying powers?

Our most sincere thanks to Dr. Marsh for giving us such a pleasant and instructive evening.

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Groom: "How did you make this cake, dear?"

Bride: "Here's the recipe. I clipped it from a magazine."

Groom: "Are you sure you read the right side? The other side tells how to make a rock garden."

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EDITORS NOTE.

Page 18 Cancel the last paragraph on page 16 and insert now: "The 4th installment of Mr Weertmans book now follows".

DISCUSSION

The following is inserted at this time as we feel the thoughts expressed have a direct bearing on the previous chapters.

The material presented is a collection of correspondence exchanged between the Editor and Mr. Weertman and is arranged in the form of questions and answers.

We believe this method will reveal not only the line of thought running through the mind of the Author but help to explain parts of this work which may not be too clear to the reader.

QUESTION:

In Chapter 1, we arrived at a method of determining the relative strength of top and back woods so that our plates could be graduated to a degree which would place equal stress on both plates.

I suggest that perhaps this is wrong in as much as the stress (or load) is not applied in the same manner to both plates.

If we imagine the two plates as two bridges carrying a load we will find we have two bridges of entirely different character. Our top plate would appear to be like an ordinary over-the-stream bridge. Let us, illustrate the top plate as being somewhat of the following nature. The back plate would receive the load as in the form of a suspension bridge.

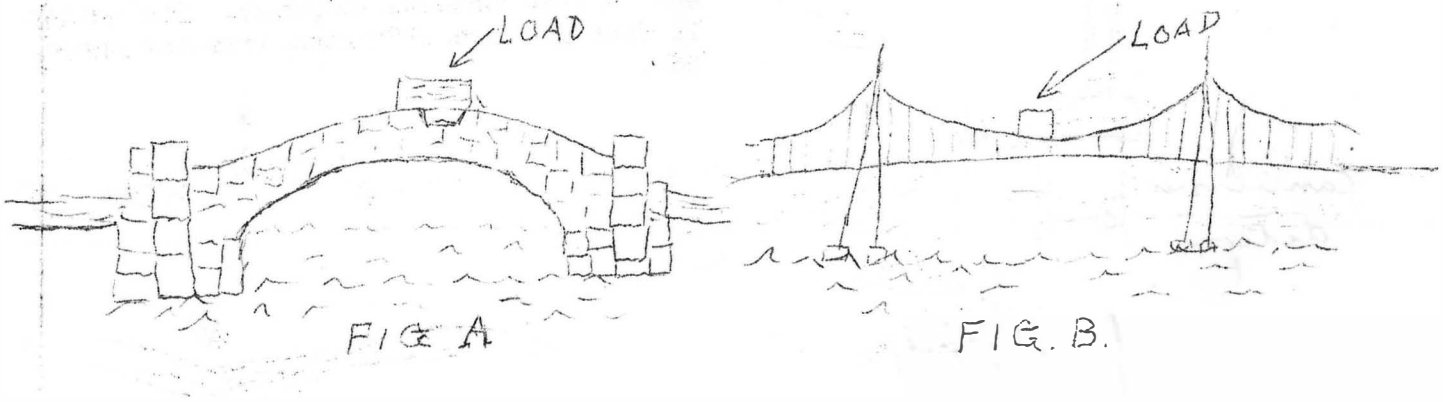


FIG A FIG. B.

It would appear to me that Figure A represents a pressure downwards - the wood being pressed together by the load.

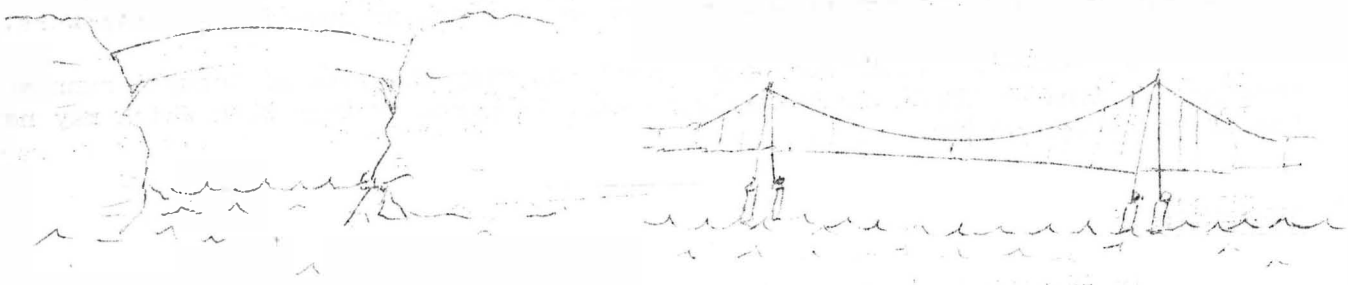
In Figure B or the back plate the pressure is outwards away from the centre of the instrument. Will you explain these two situations, is the stress equal to both plates?

Note: I have a tendency to visualize the pressure on a plate as being across from the two F holes. In case the reader has this misconception let us remind him that the arch under consideration is from the neck end to tail of violin plate, or "the long arch".

Editor.

ANSWER:

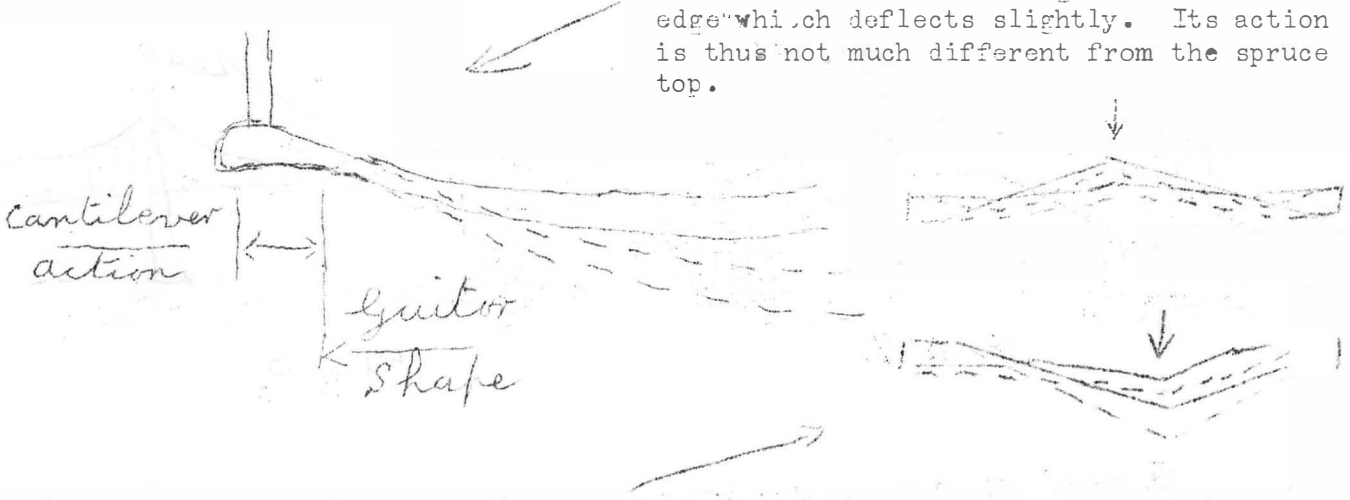
Appearances apparently are somewhat deceiving because a stone arch bridge has



such a curvature, that a superimposed load tends to flatten the arch in such a manner that the thrust pushes the ends of the bridges into the shore, the thrust is in line with the arch, so there is no vertical action at all as with a violin deck.

The difference is exceedingly slight.

A Similar case can be made of the suspension bridge. A bridge deck load only brings tension into the cables; but the action of the back very much exagerated looks like this: While the guitor inner post tends to stretch, at its thinnest position it is continuously connected to the contilever outside edge with a "feather" edge which deflects slightly. Its action is thus not much different from the spruce top.



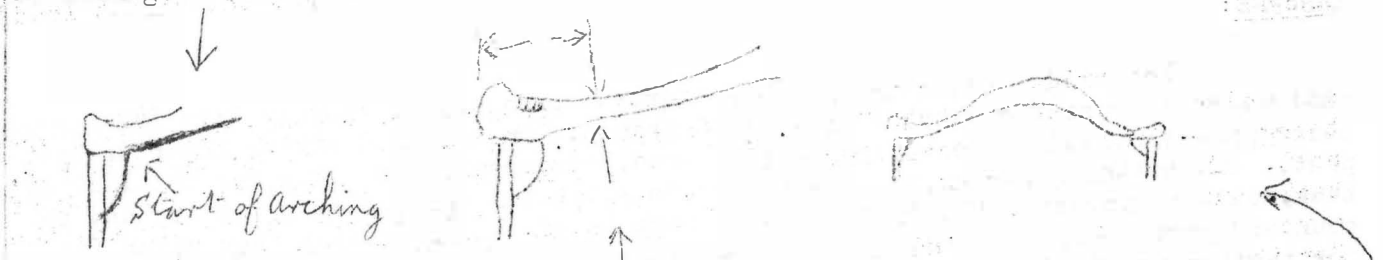
As this crude illustration shows, the action is very similar but opposite to one another. However the archings should be cut in such a manner, that they tend to "favor" the action and the woods chosen also should "favor" the action. Spruce, while more resistant to bending than maple, is not as resistant to forces that tend to split the wood, but will withstand compression very well; hence; if for no other reason, would fit the top requirements. The back tends to stretch, and spruce will not take kindly to such a treatment, but maple is not so particular; so if there are no other reasons, we choose maple for back.

Supposing we consider the choice of woods. Spruce top, maple back. The top under compression - like your stone arch bridge, the back like your suspension bridge, the fibers are under tension. Aside that the observation is somewhat faulty - there is sufficient similarity to start an argument. While spruce bends less easily than maple, it has less cross wise fiber strength, hence splits more easily, so it seems that maple, sycamore, birch, apple, pear is better than spruce for the back; being lighter in weight, it would be first choice for the top, as it is quite adequate in compressive strength; besides the ancients found the combination best and we surely don't argue with them.

Theoretically we could build a top arching like a stone bridge and the sides represent the abutments. Then if the top deflects, the abutments give way, and the sides have to be quite weak. Supposing that the sides are reasonably stiff; we should then have a portion that supports the bridge, joined to reasonably close to the sides with a portion of the top all around on top of the sides, like a membrane, like a barometer; so that we may have adequate strength, together with flexibility our adequate exertion. However, again as we examine the old fiddles, they stuck pretty well to conical sections - parabolae and Hyperbolae, and so I do not wish myself to depart from that. Of course we may construct an arch like a stone bridge or like an old English long-bow, or more or less like a cupids bow. If we make it like a long-bow, the ends must be permitted to come to-gether (as the string is pulled back) with the cupid bow design, the edges tend to be on the thin side, with very little overhang over the (thin) sides. The archings should be fairly low, since a long-bow type of arch tends to be quite still, when the curve is high or strong.

Second choice, we apply the cupids bow effect, rather deep archings, with the ends within the string length, up turned ends finally catch up with string length.

Both methods have their good points. The flatter Guarneri models aim at a brilliant, large, tone, not necessarily too sweet. The Seraplinio cello I copied had a somewhat "reverse" curve design. Its tone is extremely lovely, yet still of erroneous carrying power. My own copy displays much of the character of the original. The Amati viola, of which I include herewith the original arching is somewhat of a cross. The top is full, the archings clear out to near a thin edge. The back is on the lean side. The tone is marvelous. The C perhaps not as deep as the large Andreas Guarneri, but the upper register is brilliant, even a bit more than the Andy. So you make your choice and pick your pick. Except where I try to make an exact copy I lean towards a fiddle arching of 15mm then allow to start the inside arching from inside the lining.



Use a medium thick edge. Choose an outside arching, that permits a minimum thickness about $\frac{1}{2}$ to 5/8 inch inside the outline. It depends much on whatever you want in a fiddle. High archings with re-enter curves tend to give out a sweeter tone flutey in the high registers, with rather weak lower strings, of a dry lack luster timbre, but easy, ever too easy to play. Flatter archings, pull to the edge, tend to produce a stronger tone, more sombre in the lower region and a bit harsher in the top. Carlo Bergoni, Saraphino, Gressenda succeeded in blending all the most desirable qualities. Their instruments have great power combined with a luscious tone. However, in spite of apparent differences in archings, they all fall, when actually analyzed in to a narrow

groups of curves. The eye is a strange instrument. Optical illusions can easily fool it, while also it is capable to pick out the smallest discrepencies.

All above is still not quite a direct answer to your questions. The right foot of the bridge exerts about 4200 grams and the left foot 3250 grams pressure. If you will consult my stress diagrams you may notice, that besides the reactions set up in the bridge, other stresses also prevail. A buckling effect because the tension of the strings, tend to compress the top lengthwise, while it wants to stretch the back, giving the top a"cats back" we minimise the results. You see, that the action of the fiddle is quite complex. Thus we try to isolate each little action and solve it into little forces and opposing reactions. When we finally have them all analyzed; we again, in time may take all these answers and resolve them into 2 different forces, being equalized by the 3rd opposing force. I must admit, that I have only gotten skin deep, but at least I am sure that I have the true scientific approach. Therefore I am very careful to point out, that it is not a conclusion that I offer. Questions such as yours, may result in "brainstorming" amongst the fraternity and by gorry, sooner or later we'll make a real good fiddle yet - unless a genius MacAmatish will be born, who will beat us to the punch.

The best of luck with the new conceived fiddles. I am starting on the Amati Viola.

If you can follow the above there is no hope for you and you'll be building fiddles to the end of your days and wherever you go - harps will be out of fashion.

QUESTION:

It would appear to me that in as much as the stress (or load - exertion of strings) is not applied equally to the top and back then some allowance should be made to rectify this inequality.

Let us assume that this statement does not apply to the top. Certainly the A and E strings extend more load than C and D but this is compensated by the support given by the sound post. When we examine the situation as it relates to the back we get a different picture. The whole load is carried down through the sound post and applied to one spot on the E string side of the violin back. Should this section be graduated to a thicker degree than other portions which do not get the direct load?

ANSWER:

The bridge under the E string exerts a pressure of roughly 9lbs (4200 grams) and under the G string about 7 lbs. (3250 grams). Under the G string the bass bar, being pre-stressed and occupying a large area, compensates in a way for the lack of a post. Under the E string, the post helps to split the load between the top and the back, but as you say, the load under the post is of course greater than under its counter part, where we find no post. Should we make the wood under the post thicker for that reason? As I pointed out before the wood in the back is under tension to a certain extent. Suppose for sake of argument we let it go at that and simply compare the back with a piece of rope. We don't think, if we suspend the rope at its 2 ends and hang a weight somewhere near the center, that the rope would be any better, if we were to increase its thickness at the point of load. But his is over-simplification. The back is actually an arched structure and should not be compared with a rope. The pulsating air mass no doubt also an action like a diaphragm pump and both top and back, must alternately be subject to alternating change in air pressure, very, very small

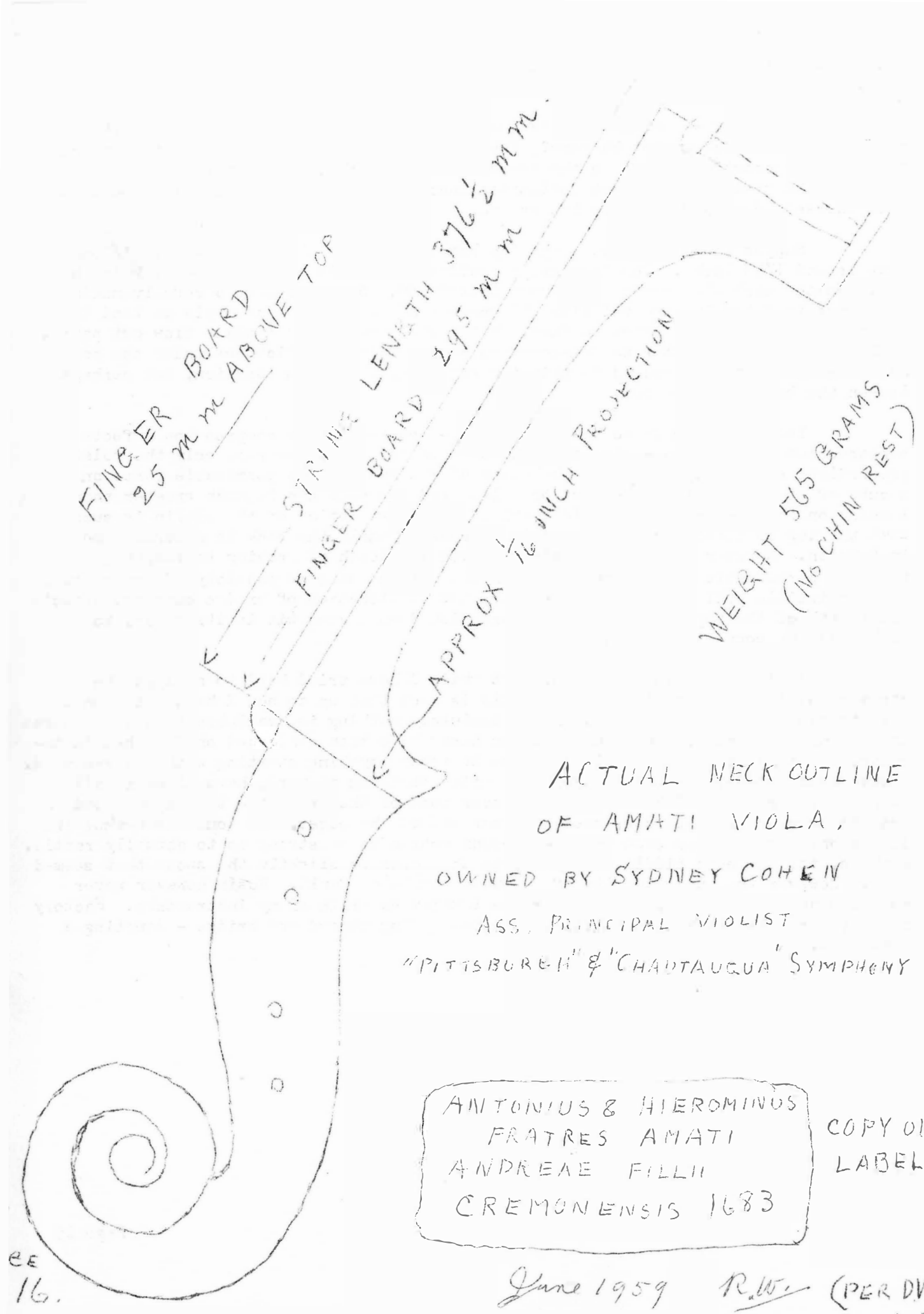
indeed; but everything that happens to a fiddle has a bearing on its proper construction.

Supposing we should make the wood thicker under and near the post, (both perhaps top and back). Wot Happens? Supposing that the area that feels the effect also grows proportionally as to the increase of thickness. In that case in the top for sure the resistance against deflection increase to the cube while the wood in the back increase due to tension to the square.

Supposing we would make the top 3mm thick and wish to increase it 1/10mm (say around 1/32 inch). The increase in stiffness amounts then to about 10% in the top. In the back the increase is approximately 6%. So after very carefully making test bars to determine the relative thicknesses of the spruce and maple we tend to upset the apple cart, because we feel, that perhaps we should apply a blow out patch. Perhaps it would be better to determin the proper relative thickness under the post and over the post and proceed to thin the wood away from this location, but perhaps lessen the back than the top.

Your question as to the difference - how tension or compression effects the construction thicknesses - with the exception of friable materials, only the relative proportions have a bearing on the behavior of materials. The permisable force on say a cube of steel are all alike, but on a long rod the pull can be much greater than leaning on the rod, since it would buckle. The construction of the violin is such that the top is mostly under compressive stresses, while the back is generally more in tension. However the relationship of width and depth of arching to length is such that the permissible relationship between the pull or push is possibly of one to one, the permissible pull may be a bit greater, but the location of bridge cuts the effective length of the top that is under compression down a good bit in its favor, to withstand the complete stress.

I wish to point out again, that while I have tried hard to analyze the stresses evolved, the design of the fiddle is such that up to now I have not been able to pin point all functions. Also absolutely nothing is available to use as source and research material. Certain accoustic tests have been conducted on finished instuments, but they have been of little value to teach anything starting with the raw wood. I have used an ordinary tunning fork and after striking it hard, have place it all over the instrument. I have found that over much of the areas the tone A was loud and lingered and some places, over bass bar and at the edges, the tone was weaker and died soon. Some places even the up-and-down motion is so strong as to actually rattle. Perhaps, for the next fiddle we may try to thin ever so slightly the spots that seemed dead. However the individuality of the wood may be at fault. Rosin however never collects near the bridge, but follows the lengthwise grain of my instruments. Factory fiddles generally show a snow landscape between fingerboard and bridge - denoting a dead spot.



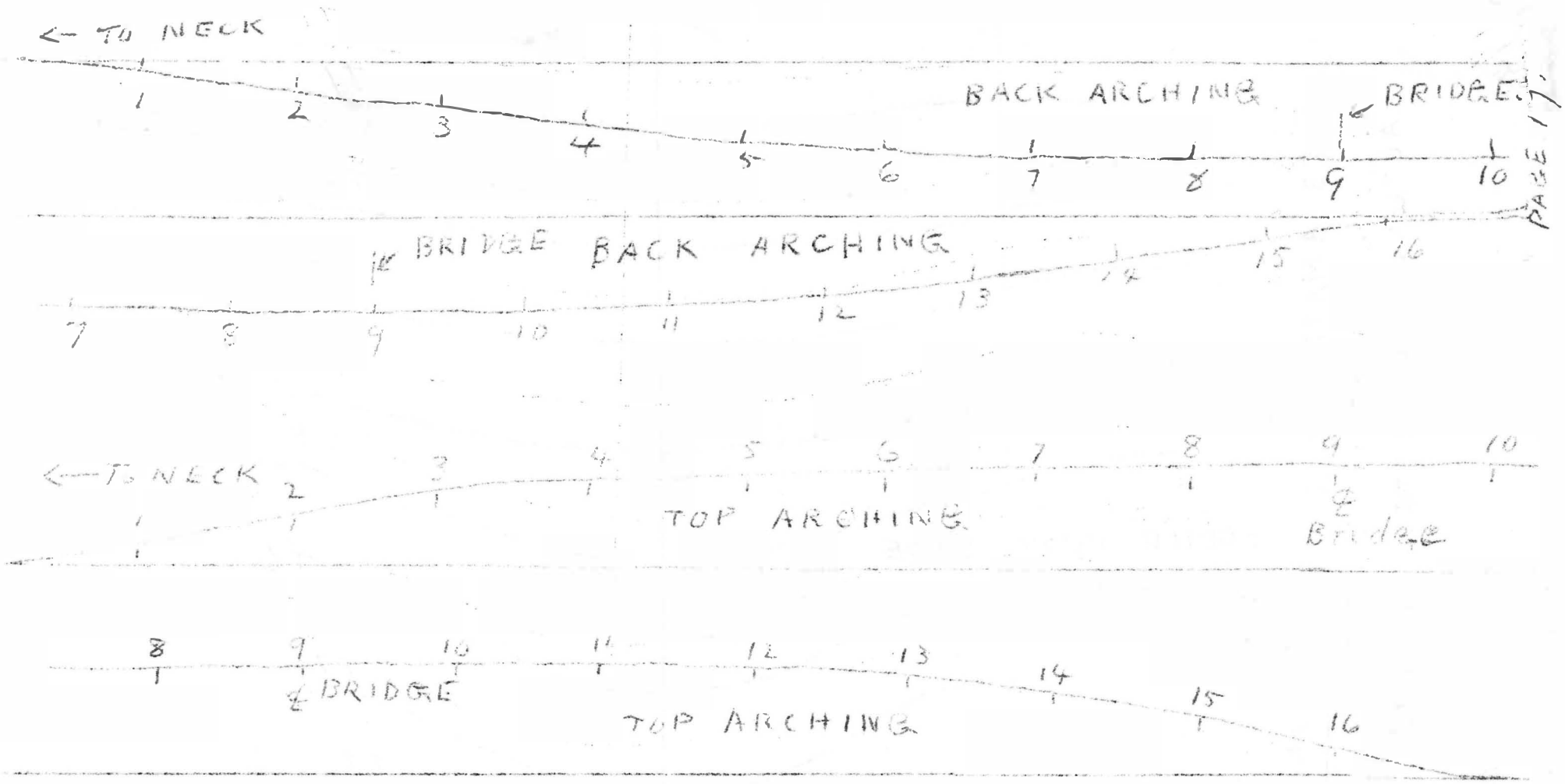
ACTUAL NECK OUTLINE
OF AMATI VIOLA,
OWNED BY SYDNEY COHEN
ASS. PRINCIPAL VIOLIST
"PITTSBURGH" & "CHAUTAUQUA" SYMPHONY

ANTONIUS & HIEROMINUS
FRATRES AMATI
ANDREAE FILLII
CREMONENSIS 1683

COPY OF
LABEL

June 1959 R.W. (PER DW)

EE
16.



ACTUAL TEMPLATES OF LENGTHWISE ARCHINGS ON CENTERLINE OF A VIOLA BUILT BY

ANTONIUS & HIERONIMUS
FRATRES AMATI
ANDREAE FILLI
CREMONENSIS 1683

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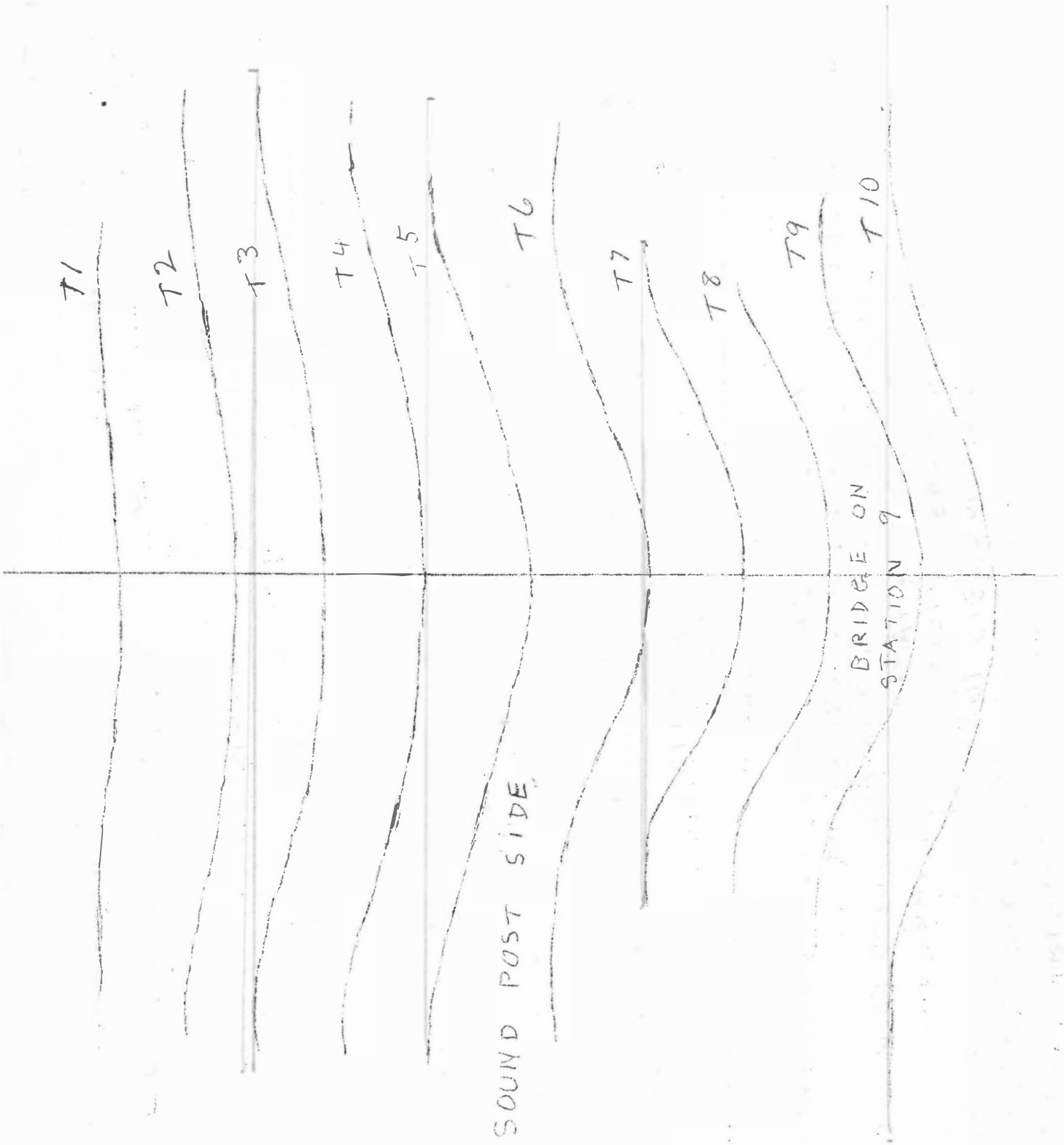
OWNED BY SYDNEY COHEN OF THE "PITTSBURGH" AND "CHAUTAUQUA" SYMPHONIES



1683 AMATI VIOLA. ONE INCH SPACING.

ACTUAL TEMPLATES OF TOP

RW
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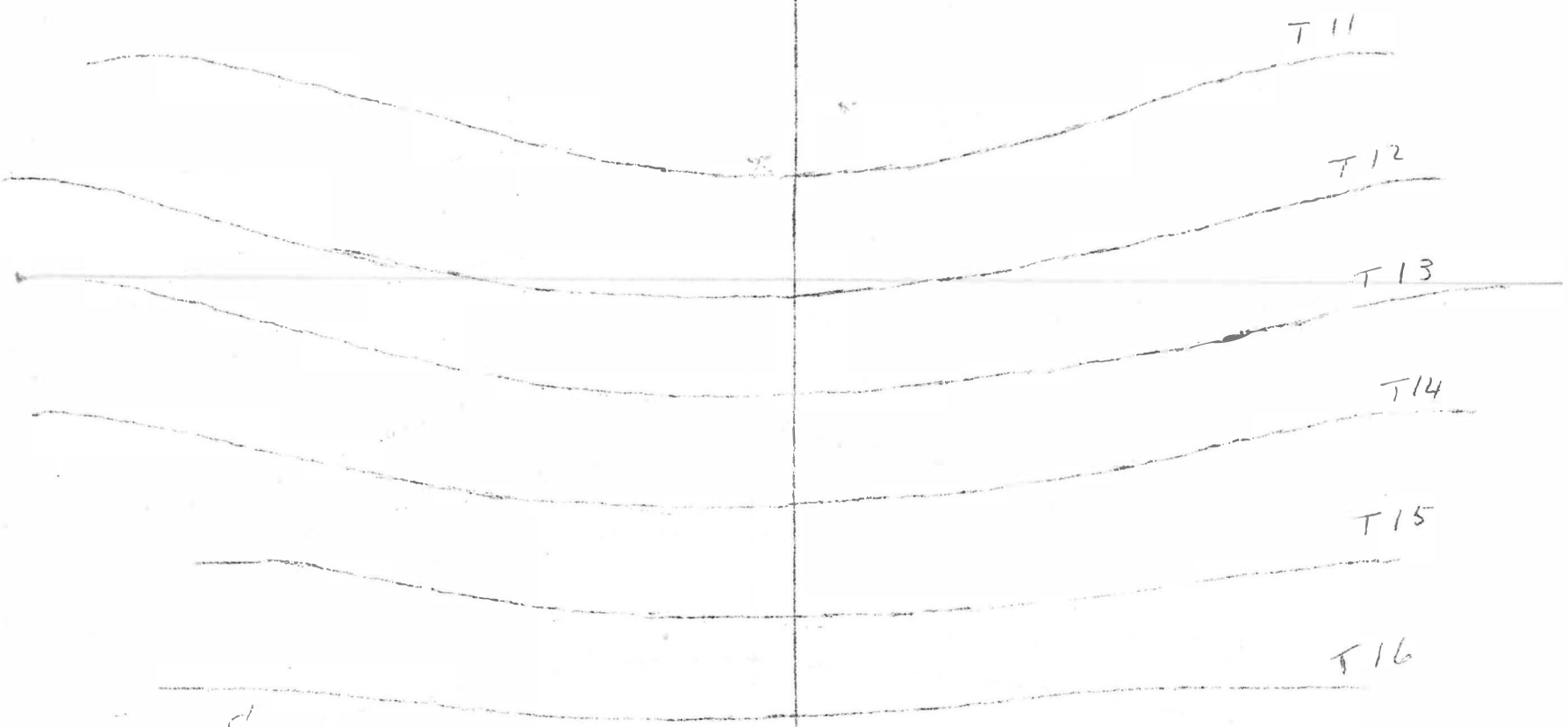
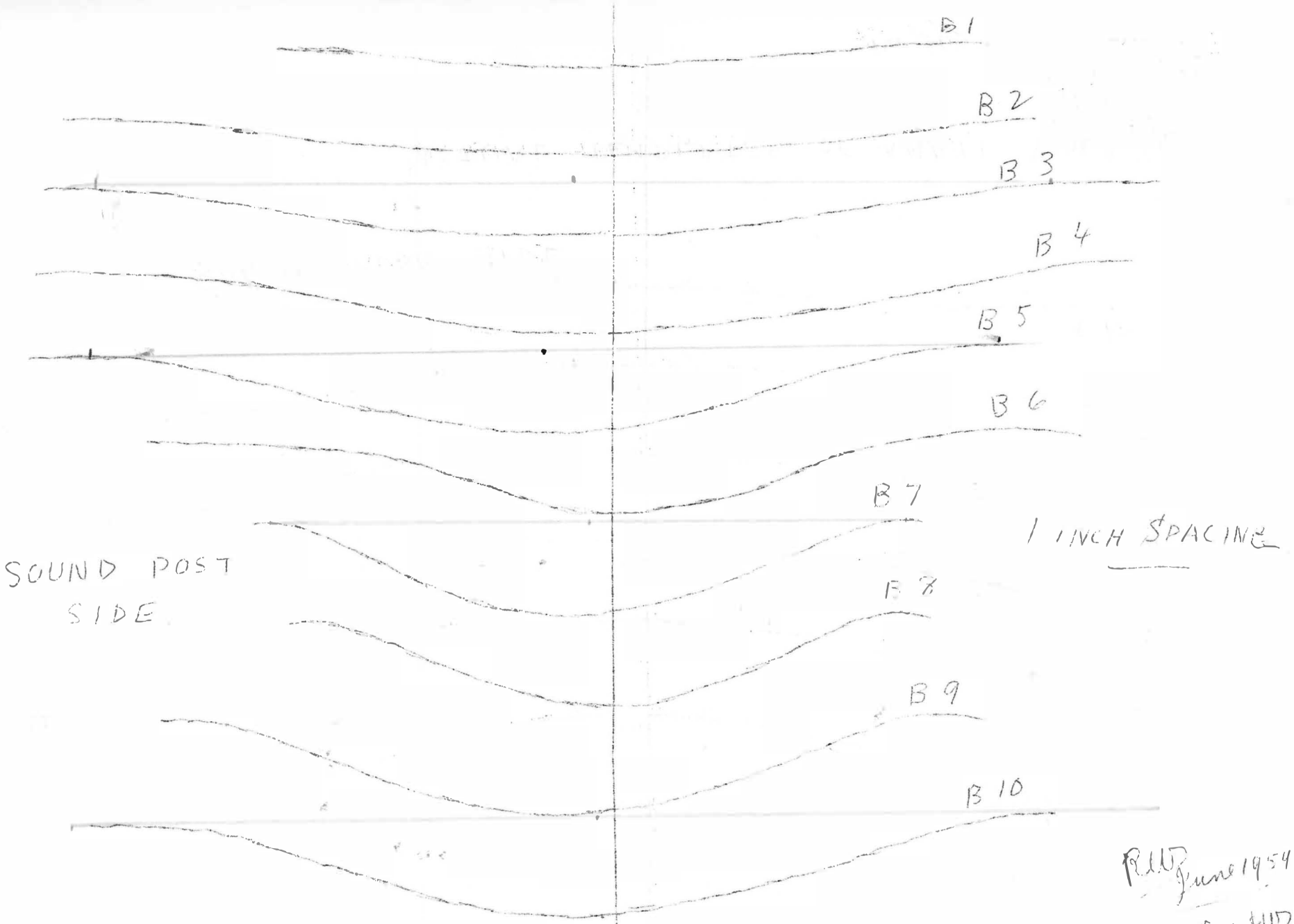
Pg. 18.



ACTUAL TEMPLATES OF AMATI VIOLA TOP.

RWD.
June 1959

Per RWD



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