The Violin Makers Journal

APRIL-MAY, 1962

THE OFFICIAL PUBLICATION OF
THE VIOLIN MAKERS ASSOCIATION OF BRITISH COLUMBIA

Carlo da Rimini Tessarini, born in Italy 1690, Professor of Violin.
Author of violin method book described in this article

Issued as an Educational Feature to encourage and develop the art of violin making.

The Violin Makers Journal

A Non-Profit Magazine Published every six weeks
by The Violin Makers Association of British Columbia

MEETINGS HELD THE
SECOND SATURDAY
OF EACH MONTH AT
4360 MAIN STREET.

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If you do not receive your copy of the Violin Makers Journal within reasonable time, please advise us. Notify us promptly of any change of address.

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EDITORIAL PAGE OF *The Violin Makers Journal*

DON WHITE, EDITOR-MANAGER

The Violin Makers Journal is distributed free to all "Active" Members and "Associate" Members. Active Membership is limited to British Columbia. Associate Membership is open to anyone interested in String Instruments. Associate Membership fee is $4.00 per year. Back copies may be obtained. When paying by cheque please add 25¢ to cover exchange. Advertising rates may be procured from the editor.
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A SPECIAL MESSAGE!

Four months ago The Violin Makers Association of B. C. extended to the Readers of The Journal the privilege of becoming Associate Members. Since then we have received scores of letters expressing praise and satisfaction at this new arrangement.

These letters also express a new feeling of comradeship and the thought that we are at last organized into one body for the express purpose of helping one another.

In the December-January issue we outlined the new set-up and proposed a few items of a programme we might pursue. One of these proposals was building up a supply of wood from which our Members and Associate Members might draw for the building of their instruments.

This part of the programme is now pretty well established. We have good wood on hand for over 200 instruments, mostly for violins and violas with quite a fair supply of cello wood. Most of this is around two years old and a limited quantity up to twenty years.

At the March meeting of the Active Membership your editor asked for a discussion as to the best method of offering this wood to the members. This meeting decided that as the editor had personally financed the enterprise it should be left completely in his hands and any small profits accruing recompense him for the work involved.

On another page of this issue of the Journal we have placed an announcement describing the different woods we have on hand and prices to Members. The setting of prices is rather a problem. Your editor has no desire to make a large profit, nevertheless there are considerable expenses involved and quite a lot of work, cutting, packing and correspondence, etc. Also, we have no desire to enter into competition with our advertisers. We feel there is little danger of this latter for our supply is quite limited.

The collecting of this wood has been an education in itself. The handling of the different varities, the many different "cuts" that can be made and most enlightening the variation even in two timbers of one species obtained from the same locality.

Your editor is very proud of the choice quality of our native woods and it is his hope that in making a supply available to all members he may be assisting in a small measure to the building of better instruments. For in violin making good wood is of paramount importance.

Music do I hear?
Ha, ha! keep time. How sour sweet music is
When time is broke and no proportion kept!
Shakespeare, Richard II.

LOCAL NEWS

by GEORGE FRIESS

The March meeting.

The Annual Meeting held March 10th was not too well attended.

There was a considerable amount of business to discuss, also the election of officers.

Mr. Harold Briggs reported on his lengthy stay in Arizona. The writer has always been under the impression that Arizona is the "place" where people go to become dehydrated. Apparently, and according to Harold, they have as much rain there during the winter months as we have here.

Don White reported on the 'Journal". The growth of it is constant and encouraging to the members of our association.

Those elected to office for the coming year are: President, Ragnor Helin; Vice President, Peder Svindsay; Secretary, Don White; Recording Secretary, George Friess; Treasurer, George Wright; Publicity Clarence Cooper.

Make an Easy buck by Geo. R. Wright

When your G-D-or A string breaks ahead of the nut, or behind the bridge (don't swear) just dope one half inch of each broken end with Weldwood Contact Cement, and let dry for one half hour. Then wrap tightly together with a bit of fine nylon thread -- dope again and let dry for twenty-four hours.

Good strings cost money and I don't know any better way of making money. (Try it and see.)

Other cements, or glues, may work, but they should not be brittle.

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THE HOBBY SHOW

The Violin Makers Association of B. C. have again decided to enter a Booth at Pacific National Exhibition, Hobby Show, held in Vancouver in August. This is a very important Competition. It includes wood-carving, stamp collecting, in fact every form of Hobby. The Violin Booth is always the centre of attraction.

Gold, Silver and Bronze Medals are offered for all string instruments and in judging both tone and workmanship are considered.

Instruments entered by Associated Members will be included in our Booth and will be well taken care of by our attendants. We hope many will send in entries. Express is paid for one way. For further particulars, write to your editor.

THE ARIZONA ASSOCIATION

Our "sister" organization, the Arizona Violin and Guitar Makers, also hold a competition next month (June).

This is to be a competition of Old Master violins against Modern instruments. It was a most successful show last year and included a large number of outside entries.

Write to Mr. Bob Wallace, 4118 Mill St., Miami, Arizona, U.S.A. for information.

This Arizona group is a very energetic one and publish a monthly Journal full of interest to violin lovers. Bob Wallace is their "live wire" editor assisted by his talented and chaming wife.

"WHEN IS A STRAD NOT A STRAD?"

In answer to the above question most makers would say "When, under the label, are printed the words--'Made in Germany'--or some country other than Italy." If those give away words are missing, then it often requires an expert to make the decision.

Such a task recently fell upon none other than our friend, Mr. Cyril Woodcock, a name familiar to the advertising pages of our Journal; Mr. Woodcock being owner of The Amati Publishing Co.

Here is the story as told by Mr. Woodcock:

"For some weeks now, the whole of this country has been in an uproar as, a few months back an old gentleman who lived in Wales died and left a collection of violins among which were purported to be five Strads. Local auctioneers were called in to dispose of them, and as they knew nothing about violins they thought they had a fortune in their hands. The discovery was headlined in all the English newspapers here, Sunday Times, Express, News of the World, etc. and everyone was convinced that five genuine Strads had been discovered. The auctioneers who happened to know me, asked me to value the collection, so I took a plane trip the same day and was soon examining the instruments. The "Strads" were all German trade instruments and the rest of the collection averaged out at 4 Ds. and 7 Ds. each. The British Broadcasting and Television Companies were present at the sale and it was broadcast over the radio as well as featured on T.V. The poor old deceased gentleman who had lived a very lonely life had suddenly attained fame, and to everybody's astonishment, no fewer than eleven relatives quickly made themselves known and instructed a solicitor to look after their interests! When they were told the Strads were not genuine they withdrew them from the sale for other opinions. In point of fact 114 violins only fetched 70 Dollars.

However, while I was there local people got to know about it, and started bringing instruments along for me to value, and I found a really magnificent G.B. Rogeri violin with a fine gold-mounted bow, and two other good bows; also a cello by Benjamin Banks all in firstclass condition. These were put into the auction and the violin fetched 1750 Ds. and the cello 240 Ds. The bows fetched 115 Ds. Now I am sure this would make an interesting tale in the next issue of your Journal. The auctioneers told me they had received dozens of letters from people in the U.S.A. and Canada, some suggested flying over for the sale. Last week I appeared on a Television programme and gave a chat about violins and fake Strads. I enclose some press cuttings for your interest."

The following is an extract from a Brighton (England) newspaper and tells more about the five "Strads".

"The "Strads"--which might have been worth 10,000 pounds each--all turned out to be fakes. But as 62-year-old Mr. Woodcock explained at his shop in The Lanes yesterday, his journey was not wasted.

"The word got around that I was in Narberth," he said. "Quite a few people brought their instruments to be valued for the sale tomorrow.

"One violin turned out to be a Rogeri, made about 1780, and worth eight hundred pounds. And another couple brought in a Benjamin Banks violin which I valued at two hundred pounds."

What about the bogus Strads? "I immediately recognised them as copies, factory-made in Germany," he said. "You could tell even by the labels that they were not genuine."

Mr. Woodcock who has been a professional dealer 25 years and has written a book about Stradivari, explained that there were only 400 known Strads in the world today, and the majority of them were in America.

"The argument about what made Stradivari's instruments unique has been going on ever since he died 250 years ago," he said.

"Personally, I think it was the perfect climate in Italy, which materially assisted the maturing of the wood. And they had some ideally suitable pine and maple at that time."

Himself the owner of a 20,000 pound collection of violins and cellos, Mr. Woodcock added with enthusiasm: "A real Stradivari produces a tone of magnificent and beautiful quality.

"They were made by a perfectionist; the greatest the world has ever known."

David Ash of "The Daily Express" interviewed Mr. Woodcock on his return from Wales, and his impressions of this interview are of special interest and give us an insight into the personality of our friend Cyril.

Mr. Ash, in part, writes:

"Cyril Woodcock carefully held up a violin. Its mellow varnish glowed warmly in the light in his antique shop in The Lanes, the quaint, narrow alleys of Regency Brighton.

"Just look through that F-shaped slot in the fiddle," he said.

I looked through the slot. The name "Guadagnini,"

the maker, was stamped inside, and underneath in ink the signature of Viotti, composer and violinist.

"Now that's a genuine inscription and makes the fiddle worth about 1,000 pounds," said Mr. Woodcock. "Violins are almost as big business as paintings for collectors these days. People buy them as investments."

I believed him, looking at the rows of stringed instruments round the walls of the attic above his shop.

Cyril Woodcock, a bulky man with grey hair, gentle hands, and 40 years of violin fancying, is a world acknowledged authority on violins.

"There are thousands of dud violins with 'Strad' labels," Mr. Woodcock told me. "Most are made in Germany and France, but even the Japanese have had a go at it.

"They copy most of the leading Italian makes, make the varnish look antique, and the labels grimy, but I can usually spot a wrong 'un in a second. Someone brings one in to me nearly every day.

"They always say: 'It's been in the family for over 100 years, 'but I have to disillusion them."

How do you cultivate that expert eye? "It would take me 40 years to show you," said Mr. Woodcock. "In any case, you have to get the Disease.

"It's terrible. It gets you once you have started collecting violins. You just have to go on. I have lost thousands of pounds.

"Fortunately I made a fair bit of money out of a building business, so I could afford to learn from my mistakes. But eventually I had so many violins I didn't know what to do with them and I had to thin them out--selling off my 'mistakes' like stamp collectors do."

Mr. Woodcock, who once sold a Strad for 15,000 pounds, said: "I don't expect to find an unknown Strad."

"Experts have already combed the world and established the pedigrees of every known Strad. There are 450 of them."

"20th CENTURY TARISIO"
A RARE VIOLIN BOOK COLLECTOR

by Herbert K. Goodkind

(continued from last issue)

Editor's Note: Many readers wrote in admiring the "2oth Century Tarisio" article last issue. We are happy to continue it this month. The following is mostly a description of the books in this vast library and gives the reader an insight into the culture of "The Golden Period." D. W.

---

2. Bagatella, Antonio- Regole per la costruzione di Violini, Viole, Violoncelli e Violoni- Padova, 1786- 1st edition. "This is the first work in which the complicated mathematical evolution of the violin, from a division of its length into seventy-two parts, is to be found. Most subsequent authors have reproduced it, but the musical world owes it primarily to the ingenuity of Bagatella". (Ed. Heron-Allen)

3. Blanchini, Francisci- Veronensis de Tribus Generibus Instrumentorum Musicae Veterum Organicae Dissertatio- Rome 1742- 8 plates (no record in Matthew or Heron-Allen)

4. Crome, Robert- The Complete Tutor for the Violincello- London 1762-with portrait frontpiece of man playing the cello. (no record in Matthew or Heron-Allen)

5. Cartier, Jean Baptist- L'Art du Violon- Paris n.d. (c. 1801)- 2nd edition, folio. "This partakes rather perhaps of the nature of a collection of pieces than a pure method." (Heron-Allen)

6. Diderot (editor)- Extrait, Musique et Lutherie- folio unbound, 1765 from the Encyclopedie, ou Dictionnaire Raisonne des Sciences, des Arts et des Metiers. " -- the violin has a prominent place in the work, the illustrations of the tools used in its construction being especially interesting". (Heron-Allen)

7. Fayolle, Francois J.M. - Om Violinens ursprung jemte Biografiska anteckningar oefver Corelli, Tartini, Gavinies, Pugnani, och Viotti Med Portratter- Stockholm 1181. "It is remarkable that so important a musical work as this should be so extremely scarce as it is". (Heron-Allen)

8. Galeazzi, Francisco- Elementi Teorico-Praciti de Musica con un Saggio Sopra l'art di Suonara Il Violino

Annalizata- 2 vols. Roma 1791, 1796- 18 plates of music. "This is a most curious old book, seldom referred to and seldom occurring for sale. I have only seen or heard of two copies, both of which were my own. The first part deals with music in general, after which part 2, which fills the remainder of the volume I, gives us a complete study of the art of violin playing in Italy at the end of the 18th century. The construction and properties of the violin and bow are discussed at length, the tuning and management of the instrument, with notes on intonation and time. Next we have articoli on bowing, on harmonies, double stopping, arpeggio, cadenze, and expression, all laid down in a series of quaint regole, definizioni, and dimostrazioni. Then follow articles on orchestral playing, the duties of the first violin, and on accompaniments and solo playing. The second part ends with a section devoted to improvisation, and a general recapitulation of the leading principles set forth in the preceding pages. The imprimatur and a page of corrigenda close the letterpress of volume I. In volume II we have part 3, the principles of ancient and modern music; part 4, which is devoted to harmony and to melody, in two sections, and the work closes as before with the corrigenda and music examples. Galeazzi was born at Turin in 1758, and established himself at Rome as a professor of the violin. For fifteen years he was leader in the orchestra of the Teatro Valle." (Heron-Allen)

9. Gerber, Ernst L. - Lexicon der Tonkunts- 2 vols. Leipzig 1790. " --- the earliest dictionary devoted exclusively to the biography of musicians- really the parent of all subsequent undertakings of a like nature. Fifteen years were occupied in collecting the material." (J.E. Matthew)

10. Hiller, Johann Adam- Anweisung zum Violinspielen fur Schulen und zum Selbstunterrichte. Gratz 1795. "The work deals with (1) A description of the violin and how to keep it in order. (2) How to hold the violin and bow. (3) Tone production. (4) Fingering. (5) Notation. (6) Bowing. (7) The shifts. (8) Expression. (9) Signs and dictionary of musical terms. Hiller was born in 1728 and was a pianist and violinist at the age of 12; composed 45 works according to Fetis; died in 1804." (Heron-Allen)

11. Loehlein, George Simon- Anweisung zum Violinspielen, mit praktischen Beyspielen und zur Uebung mit 24 kleinen duetten erlautert. Leipzig 1781- 2nd edition. "This is the completest and most important of the German theoretical books of the last century. It gives us a description of the instrument and its arrangement, and complete instructions as to the position of the body, and the holding of the violin and the bow. --- rudiments of music-- scales on the four strings-- expression-- bowing- shifts-- construction of the violin, with notes on leading makers of antiquity- advice on the purchase and choice of a violin. Loehlein born 1727, became a teacher of piano and violin- died 1782- composed chamber music and wrote books of instruction for piano and violin." (Heron-Allen)

12. Mozart, George Leopold- Versuch einer grundlichen Violinschule- Augsburg 1756. First edition of this famous work by the father of W. A. Mozart.

13. Philpot, Stephan- An introduction to the art of playing on the violin, on an entire new plan, calculated for laying a regular foundation for young beginners. London n.d. (c. 1766)- "This is a delicious old book, which starts with the sapient dogma, 'There are three grand requisites that must conspire any art or science to perfection- (1) A proper Genius. (2) Regular and well-grounded instructions. (3) Application.' The section on genius is charming and concludes, 'It was by these rules and principles that I grounded my scholars and my sons; and though they are not great players, yet they are esteemed genteel performers in concert, and to play solos in a very pleasing manner'. The work is interesting as a glimpse of what ordinary tuition really amounted to in the middle of the last century." (Heron-Allen)

14. Rousseau, Jean- Traite de la Viole. Paris 1687- "This work which is one of the oldest and rarest works on the theory of bow instruments---being a most complete instruction book for the violin, showing minutely the state of viol-playing and viol music in the 17th century. As a contemporary history of the viol and its music, it is unrivalled, which accounts for its great value among musicians, antiquarians, and bibliophiles. Jean Rousseau, who must not be confounded with Jean-Jacques Rousseau, was a pupil of Ste. Colombe, the viol-player; beyond which little or nothing is known of him, save that he was the writer of two other known works, one a book of exercises for the viola-dagamba, the other a singing method, of which 6 editions are known." (Heron-Allen)

15. Sibire, L'Abbe- Le Chelonomie ou Le Parfait Luthier- Paris 1806. This first edition is, as Fetis remarks, excessively rare. "Lupot, the French violin-maker confided to him the manuscript notes and observations which he had made on the work of the Cremonese violin-makers, and the qualities of their instruments. It was from these materials that Abbe Sibire wrote his book." (Heron-Allen)

16. Savart, Felix- Memoire sur la construction des Instruments a cordes et a archet. Paris n.d. (c. 1819)- "This is perhaps the most scientific work extant on the theoretical and scientific principles, which govern the construction of, and tone-production on, the violin, besides being a complete description for all practical and scientific purposes of the celebrated invention known as the Savart Trapezoid Violin, or box fiddle. ---deals with the vibration of the strings, sound, and instruction for constructing it, and comparisons with the ordinary fiddle by Savart, Dr. of Medicine." (Heron-Allen)

17. Terrasson, Antoine- Dissertation Historique sur la Vielle- Paris 1741. - also the later work, Melanges d'Histoire de Literature, de Jurisprudence Litteraire, de Critique, etc. Paris 1768- "This is an extract of great importance, being the only essay extant, (as far as I have been able to discover) dealing exclusively with the vielle or hurdy-gurdy. The vielle is one of the oldest instruments with rubbed strings, and is most interesting, there having been a guild of vielle-makers as early as the 13th century, and there having been celebrated vielle-players, whose names have come down to us a century earlier than that. There was a great reaction in favor of the instrument at the end of the 17th century, and the beginning of the 18th century, when it was a favorite instrument for ladies. The essay was originally printed annonimously in 1741 as a separate work, but in this form it is so rare that I have never been able even to see a copy. Antoine Vidal has devoted a scholarly and interesting chapter of his magnum opus to the vielle, which as an instrument, is already so rare, that I doubt whether it will be more than a name (as is the case with the trumpet marine) to the members of the rising generation. Terrasson was a Parisian barrister, born in that city in 1705- died in 1782." (Heron-Allen).

18. Tessarini, Carlo da Rimini- An accurate method to attain the art of playing ye Violin with graces in all ye different keys; how to make proper cadences and ye nature of all ye shifts with several duets and lessons. London n. d. - folio (early 1700s).*

19. Walther, Johann Gottfried, Musikalisches Lexicon, oder Musikalische Bibliothec-Leipzig 1732. "The first attempt to combine the technical with the biographical, by a musician of great attainments and a relation of J. S. Bach. The work has a distinct value of its own, for with the Ehrenpforte of Mattheson, it forms the principal source of our information about the German musicians of that period. --- it is curious that the name of Handel does not occur. All successive labourers in the field of musical biography and bibliography are under great obligation to Walther, while the definitions and explanations of musical terms are well executed." (J. E. Matthew)

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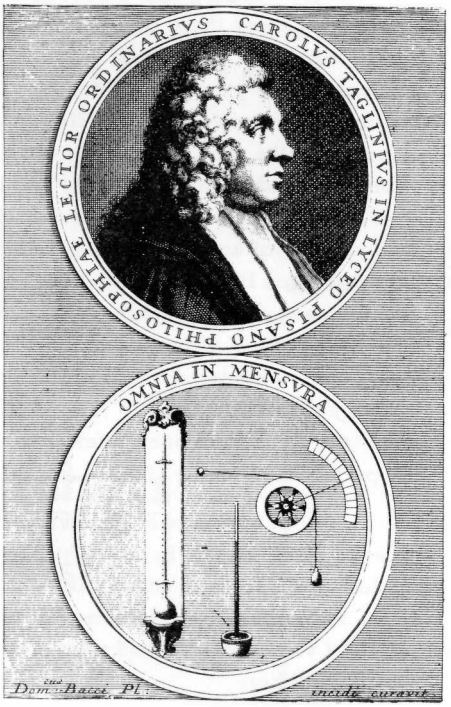
*Ed. van der Straeten states that Tessarini fixed the three movement form of the sonata, and was perhaps a pupil of Corelli. Born 1609- died about 1752.)




LETTERE SCIENTIFICHE
SOPRA VARI DILETTEVOLI ARGOMENTI
DI FISICA
DEL DOTTOR
CARLO TAGLINI
PUBBLICO PROFESSORE
ORDINARIO DI FILOSOFIA
NELL' UNIVERSITA DI PISA
ASCRITTO
ALLA SOCIETA' REGIA D'INGHILTERRA
ALL' ACCADEMIA DELLE SCIENZE E BELLE ARTI
DI PARIGI ALLA FIORENTINA E A QUELLA
DEGLI APATISTI ec.
IN FIRENZE MDCCXLVII.
Nella Stamperia all'Insegna d'Apollo in Piazza Imperiale.
CON LICENZA DE' SUPERIORI.

Tagliani, Carlo- Lettere Scientifiche sopra vari dilettevoli argomente di Fisica del Dottor C. T. - In Firenze 1747. Title page with portrait of the author. "This is an essay, purely theoreitcal and speculative, upon the causes and effects of the various powers of the violin in the matter of tone production; it is one of the earliest treatises on the acoustic result of the length, thickness and vibrations of a musical string. The book is of inestimable rarity, being cited by Lichtenthal, but not by Fetis. It is not in Brussels, Paris or Leipzig, and the only copy I know of is in the Bodleian Library at Oxford." (Heron-Allen)

THE CASE FOR THE MODERN VIOLIN

by C.F.G. WELSTEAD

When wealthy Andrea Amati, the founder of the Cremona school of violin making in Italy, visited the market places of Venice, during the period between 1535-1611, he little considered the controversy he was in process of establishing, and which has lasted till the present day, and will endure until man reasons, instead of romancing; it was here in Venice, that one could purchase all the unusual things unprocurable anywhere else in the then known world.

One could buy incense, gums, resins, ivory, gemstones, dye-stuffs, etc. etc., in fact, it was here in the thriving centre of European merchandise, that the founder of the Cremona school purchased the type of resin which constitutes the basic ingredient of all the varnishes of all the violin schools of Italy down to the time of Stradivarius, and still later, until it was superseded by man's inherent desire to "improve" in order to mass produce those artistic gems individually created by patient craftsmen of immense insight into the realms of acoustics of violinistic artisanship- if what one was searching for could not be bought or stolen in Venice, it was useless looking elsewhere.

Much has been written, read and forgotten concerning the fabulous substances utilised by Amati, Guarnerius, and Stradivarius in their respective violin varnishes, but of one thing we may be certain - there existed not, at that time, any more than in the present age, colouring substances which impart to oil varnishes the beautiful orange to red colour much elaborated upon by romantic authors on this controversial subject.

These red oil varnishes can still be made today, simply because the basic ingredient purchased by the old Italians, can still be bought by those who know what to ask for - a highly reactive substance which can be induced by simple processes to give a varnish of prime quality in any colour of the spectrum, according to the methods adopted to manufacture them, and which by virtue of the complexity of its molecule, eliminates the necessity of utilising linseed oil as a dryer or to impart to it flexibility, for this essential quality is inherent in the chemical structure of the resin, and it is certain that this substance was known to the artisans of violin making in Italy for its great beauty and powers of refraction and for its versatility, durability, and clarity.

The varnishes found on the surfaces of all the fine and extravagant specimens (genuine) originating from the golden period of Cremona, from golden yellow to deep orange red, have been (if the many descriptions elucidated by Mailand, Michelman, Letters, etc., are correct) duplicated in my laboratory during the last decade, and in making this somewhat bold statement, I fully appreciate all the implications of same; I cannot say it in a simpler way in order to insinuate myself into the battle which has raged for a hundred years on the subject; I accept the certainty of criticism by those who have been on this battlefield for many years, knowing that I shall gather a few bruises, but I shall accept these without groaning, because I anticipate them, but the harvest from all the arguments which will ensue must prove something by virtue of the fact that I have experimented for some fifteen years along widely divergent paths, and by the time-worn process of elimination, have made my discovery, and I wish to stress that it was by this expedient that I make the above claim, and not by virtue of any sense of superiority above the reasoning powers of men like Joseph Michelman or others of his undoubted calibre in the realm of chemistry, for I hasten to assure the readers of the Journal that my chemistry in this field, while extensive is essentially second-hand, but in this regard, I also hasten to remind them that Stradivari's chemistry must have been inferior to my own because of the period in which he lived.

I wish at this point to diverge from the subject in order to place myself in the right perspective with the readers of the Journal, since this is my introduction as it were, and to familiarise them with my background in the realm of violin making and researches into the field of violin varnishes.

I have given this matter considerable thought, and my conclusions are that I repeat word for word in the body of this article, the substance of a manuscript which was submitted to the STRAD magazine in London during the year 1956; accepted by the editor as being of 'considerable interest', but was never printed. (I have the letter

(continued on page 11)

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of acceptance in my files.)

This manuscript was prompted by the many articles which appeared from time to time in the STRAD magazine on the subject of varnishes in general by Sangster, Skou, Michelman, Letters, and many others. At this time, I was ignorant of the possibility that I had made a discovery in respect of the type of varnish I had used on my No. 1 violin; only one thing seemed certain - this violin was of concert quality (not my opinion, but the opinion of many top players who used it for concert work) and I felt that I was competent to express my opinion on the subject, and I quote verbatim the manuscript in question. Here is the manuscript designated:-

ITALIAN TONE

" The Editor, Aug. 1956
Strad Magazine

Dear Sirs:

I have been following with interest the several opinions expressed over the last few months in your undoubtedly excellent magazine, concerning this allegedly impossible to imitate 'Italian Tone'.

I wish to stress at the outset, that it was the letter written, and published by you, of Mr. Cowell, which has prompted me to reply at some length on this subject.

First, and most important of all, it is somewhat surprising to read some of the articles written in your magazine purporting to have analysed and summed up this all absorbing topic in just one or two short paragraphs - it simply cannot be done!

To enter the field of combat on this much in dispute question, one must, by the simple law of logic, start at the beginning, for to contemplate making a fiddle, one must consider the aspect of once having completed this feat constructionally, with what substance are we going to cover it, and so preserve our carefully contrived work?

This is the beginning, and is where I began eight years ago to try and duplicate the varnishes of Cremona, and so, I shall first speak of varnishes.

After considerable research over a long period of time, I arrived at very definite conclusions, which were followed up with what I consider to be conclusive practical evidence, that despite the reputation of Stradivarius as a maker of fine violins, neither he nor his contemporaries, 'discovered' a mystic solution which imparted to the instrument its classical vibrations, or in the vernacular of the critic, 'The celestial tone quality which ascends to the third Heaven'.

Such romantic reasoning, no doubt, appeals to the average reader, and by virtue of much repetition, becomes as basic in the minds of many as any other reputed 'mystery' for where there exists a form of mysticism, there evolves also, an abundance of Romanticism.

Unfortunately, these two elements of pseudo-truth, are often the barrier to scientific findings; even when faced with a demonstrated fact, the disciple of Romanticism will turn a deaf ear; Pasteur gave much evidence of this during a lifetime of sane reasoning.

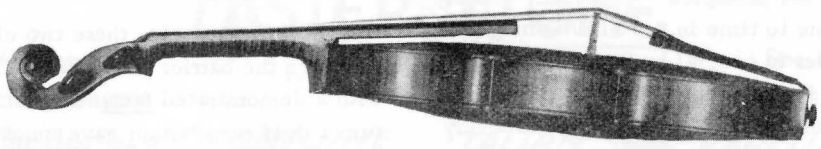
The essence of my research on the Cremonese-Brescian violin makers, is simply this: Amati, Strad, and Guarnari etc., did have the secret of violin tone without so much as suspecting it, and more than this, during the period in which these illustrious men lived, the demand for their particular type of merchandise above other makers, was by virtue of the exquisite workmanship of their products: the tone, then being secondary to the display of a fine article - if the tone at that time mattered at all. The violins of that period were in demand by the aristocracy, the Royal houses of Europe, and elsewhere - it was not invented by any one man, but evolved from a crude form, and reached perfection via the needs of those who became proficient in playing them.

It seems out of place in this modern age, to read, and to hear it stated in essence, that Strad. stood crouched over a pot or cauldron of aromatic substances, behind locked doors, and by witchcraft or profound science, elicited from them the 'mystical brew of violin tone'. This is, of course, an exaggeration, but at the same time, the mind picture of many.

The whole thing is baseless; are we to believe that modern science could not duplicate the varnishes of Cremona? Are we to be told that raw materials existed then and not now? Are we to believe that if they are no longer in existence, that the modern laboratory of science could not produce them synthetically? I think not.

From extensive study of this controversial topic, the census of opinion seems to be that Stradivarius and his contemporaries each had a secret formula of the varnishes they used, and that this same was responsible for the tone value evolved. If it is admitted that the materials they used were kept to themselves, it still remains to be proved that these formulae were alone responsible for the evolution of tone.

Let us analyse for a moment some aspects of the case: Supposing we take an instrument of poor construction and materials, and varnish it with this 'mystic' substance. Would the true Stradivarius tone be forthcoming? Common-sense dictates to the contrary. Let us now try to elicit the tone by using this varnish on the surface of a finely constructed instrument, made ignorantly from materials of weak acoustical properties. Would the varnish in this instance produce that much sought after brilliant tone? The answer is once more in the negative, for no thing, animate or inanimate, can be made to perfection if the foundations are inherently weak. (to be continued)



Living makers AND their instruments

A 1961 CELLO: WITH POPLAR BACK AND SIDES by Norman Miller

It may come as a surprise to some, that wood other than the usually accepted Maple is suitable for the backs and ribs of instruments of the violin family.

A little research in the dictionaries and books of reference on stringed instruments, will show that quite often the old masters and other fine makers of that golden period who achieved acclaim, used wood other than maple for the backs, wood such as Pear, Beech and Poplar, all being used successfully.

Poplar was most frequently used for Violas and Cellos; sometimes for a violin but generally more often for the larger sized instruments.

Apart from their different acoustic properties, these woods in the main lacked the figure generally associated with fiddles, the "Fiddle-back" wave or curl. This lack is considered by many to be unattractive, but if you are prepared to overlook it as such, the gain is a first rate instrument from a tonal point of view.

Quoting from "Antonio Stradavari and His Instruments" by Wm. Henley, it says of the "Castelbarco Cello"; --- One piece back of Poplar wood; rather plain material, but acoustically fine." ---

Other references say much the same thing, remarking on the plainness of the wood but always praising its acoustic qualities.

The 'cello pictured here has a back and ribs of Poplar. It is somewhat unusual in the fact that it does have a small curl. The finished back under varnish is very handsome.

Poplar when unvarnished has a much darker hue than maple. Poplar is golden-brown and, even if a clear varnish only were to be applied, it would have a most agreeable colour.

The decision to use Poplar for this cello was brought about by the advice of Mr. W. Laubi, of Dubendorf, Switzerland, to whom I had written for supplies of Cello wood. I had already quoted a price to my customer, and the cost of a top quality maple back in the size required would have added a little too much for economy.

Mr. Laubi told me of a wonderful Strad cello that he had seen and heard, and found that the back was Poplar. He spoke glowingly of its tonal quality.

Waiting for the wood to arrive, made time to prepare the mold and cramps necessary for the larger instrument, and also to search through old Strad magazines and all books of reference, to learn more about Poplar. What was its density? How to manage the thicknessing, and how would it affect tone? Would tone be hardened or softened by its use, and so on. I had never seen Poplar, and knew nothing of it by sight or feel. Let me assure those who are equally vague on its qualities, that it imparts a tone of velvety softness, but does not impair brilliance or power.

The pine received for the top-plate was of excellent resonance and a very fine piece of wood, and was the perfect foil to offset any overabundance of velvet that the Poplar perhaps could give, if worked incorrectly.

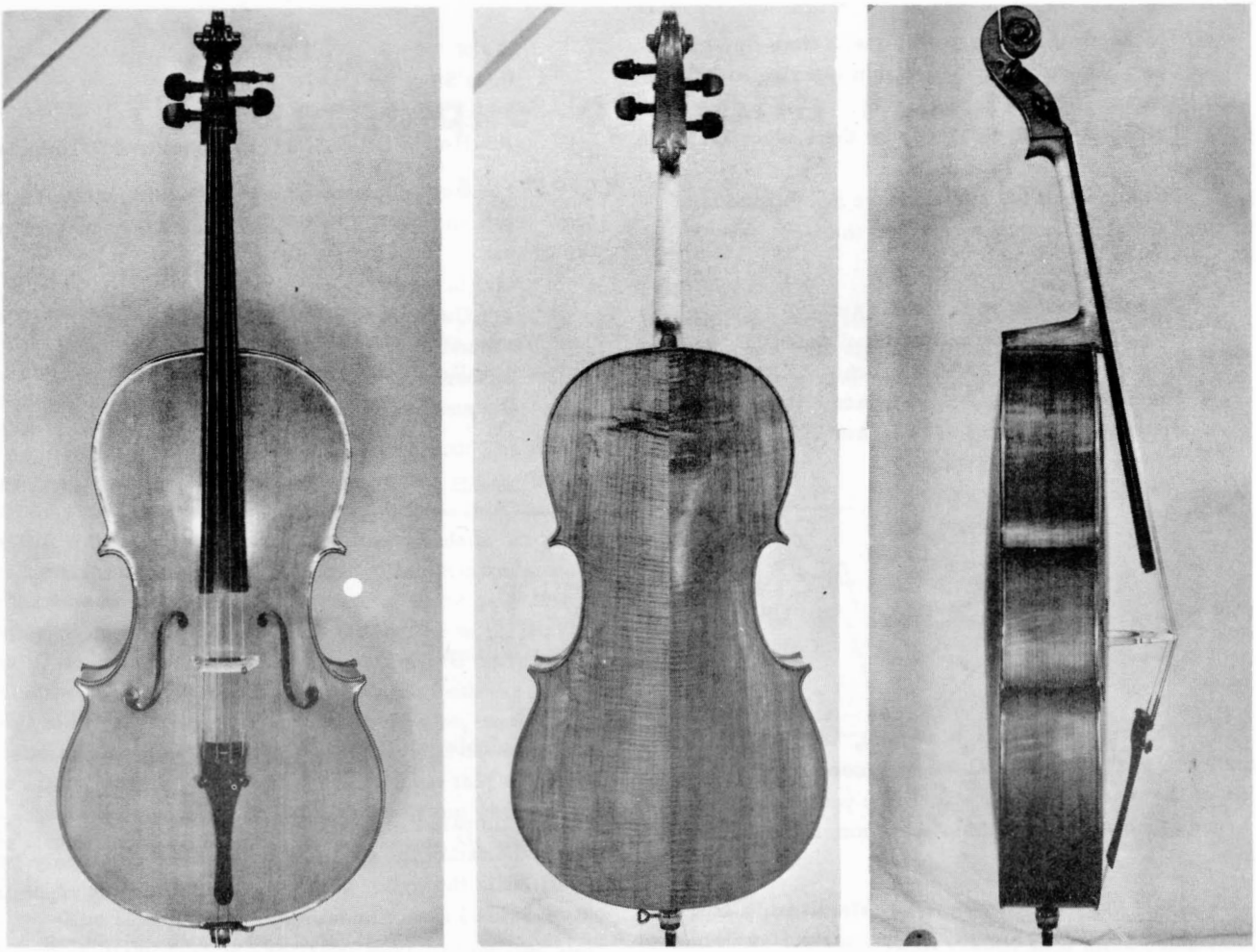
It came as a surprise to handle Poplar. Size for size, it would weigh about one-third less than top-plate pine, and about half that of maple.

Chisels and gouges must be extremely sharp. Scrapers also. More care with garnet or glass-paper. It offers a 'corky' resistance to the gouge, and perhaps takes longer to achieve a fine finish than with maple.

In bending the ribs, the Poplar bends readily but is inclined to crimp if the short bends are made too hastily. No cracking out of the grain is experienced.

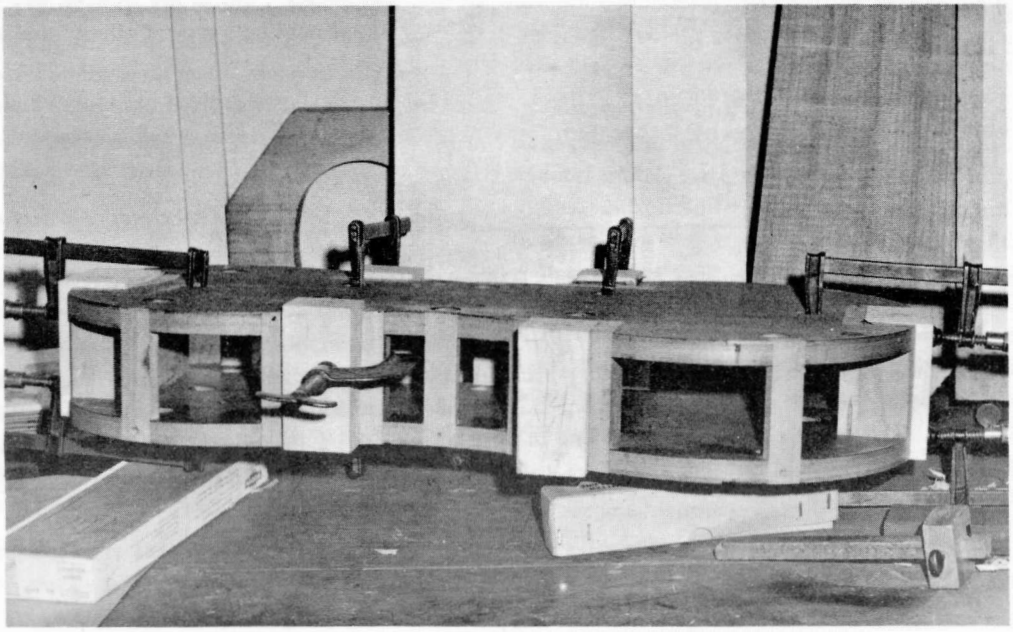
For those makers who have their own dimensions for a maple back, it would be advised that they double them when using Poplar. It may seem like a lot of wood, but the nature of Poplar demands it. It is light and seemingly spongy, and at first meeting, one could not be blamed for shaking one's head in dismay at the thought of it being considered a "tone" wood, but give it plenty of substance and it will do its job wonderfully well. For wood so light and seemingly "airy" it has a wonderful ring when tapped. Have no fears, the tone is there

(continued on page 14)



MILLER'S CELLO

Norman Miller's Poplar Wood Cello



Cello Mould - Corner and End Blocks being fitted

Thickness of the top-plate, made from fine medium grained pine. Under the bridge; 6 mm tapering to 2.5 mm at the linings.

Thickness of the back. Under the bridge; 12.5 mm tapered to 5 mm at the linings.

The cheeks of top and back are not thinned out, but carry the taper from the centre to the sides, evenly and gradually.

Other dimensions of this cello are;
(copied from the owners Bergonzi model)

Body length	29 15/16 inches
Lower width	17 1/16 inches
Upper width	13 9/16 inches
Waist	9 1/2 inches
Body Stop	16 inches
String length	27 9/16 inches
Rib Height	4 11/16 inches to 4 9/16 inches.

For those readers who may wish information on the tonal result and quality of this instrument they may write to the owner:

Mr. L. Strait
c/o Queensland Symphony Orchestra
Australian Broadcasting Commission
Brisbane
Queensland, Australia.

VARNISH AND "FILLER"

by Christian Skou, Denmark
Comments by Bertel Skou, California
(not related)

In his scholaraly article of June, 1959 Mr. Christian Skou warns against uncritical use of linseed oil to fill the pores of the plates, because after some years it may spoil the tone by becoming soft and sticky from some unknown reason.

A couple of hundred years before Stradivari, Gasparo da Salo used beautiful varnish. At this early date walnut oil was an important item of trade between China and Europe, being carried on the backs of camels in earthenware jars.

I am unable to state what this oil was used for, but I know it can be purchased today in 2 1/2 ounce bottles in stores selling artists' supplies. It may be hard to find, because demand is almost nil.

Constants of walnut oil: Sp. Gr. 0.919 to 0.929; saponification value 188 to 196; iodine value 143 to 148; refractive index 1.4808.

Soluble in alcohol, eter, chloroform and carbon bisulfide.

Compared with linseed oil: The refractive index is almost the same; the specific gravity also, being only 1% lower; while the iodine value is 20% lower. The saponification value I do not know.

Walnut oil is a drying oil like linseed oil, but, using it as a varnish, it is almost impossible to dry even in California sunshine. Could this difficulty be the reason why only the old masters would use it, - if they did use it? I have not heard of anyone suggesting that walnut oil might be the "lost secret"; but in my limited way will investigate further, and should be happy if others would do likewise.

* * * * * * * * *

HUMAN STORY

by Gordon Lundberg

One day Mr. Mathias Dahl, violin maker of Mpls., Minn, was having a difficult time removing a neck from a cello. At this time a Mr. Danielson, stone sculptor, walked in. Mr. Dahl handed him a hammer and asked him to hit the button while he held the cello. Danielson obliged and with one blow removed the neck, split the block and cracked the top. You can be sure Mathias Dahl never asked him, or any other stone sculptor, to help him again.

I hope this helps you some.

The Technique of Violin Making

By Harry Wake

(continued from Feb. -March issue)

Your work is now beginning to take on some form even though it is still very rough; cut away all the rough spots and we are ready for the next step.

Remove your work from the baseboard: The line that you marked on the flat side for the true outline should still be visible; we will now trim right to this line, in fact we will split it if possible: With a fine sawblade cut away the excess wood as you did previously, but this time as close to the line as you dare without touching it; be most careful to keep the cut square to the flat face of the work, and once again, don't forget the button; leave this as is until later when the neck is fitted; after going around with the saw you can finish with file and sandpaper block, also, wrap some sandpaper tightly around a piece of half inch dowel rod for use in the radius at the corners. Remember that this is to be your finish outline so be extra careful, and when you are satisfied that all is well you can prepare for the next step.

The line that we had previously marked on the edge, as a guide to our edge thickness has served its purpose and been removed in the last trimming operation, so we will remark the line now to the exact finish dimension of three millimeters, or a little less than one eighth inch; make the line clear and distinct with a sharp hard pencil or a steel point and cut away the excess wood above the line for a distance in of about 3/8", leaving a flat surface edge area all around and including the face of the button. You can now set your work back on the base board and you will see that it is now too small to be held by it as it was before, so remove one of the side strips and replace it in a new position touching the edges of the work.

We now come to the critical phase of the arching, how it is determined and how it is achieved; by taking one step at a time as we have been doing up to this point, we will find that it is not too difficult. In our first chapter we assumed that you had decided on your model and from this model you traced the outline to make the mold or form, so we will assume that you are going to use the same model for your arching; this being the case we must find a way to copy it and the best way of doing this is with the use of templets which we will make from the original model.

The templets or as they are sometimes called 'Templates' are usually made from strips of sheet zinc, however they can be made from any fairly rigid thin material such as plastic, whatever you use we will make the first one to correspond with the centerline of the model we are copying: Cut the strip about one and a half inches

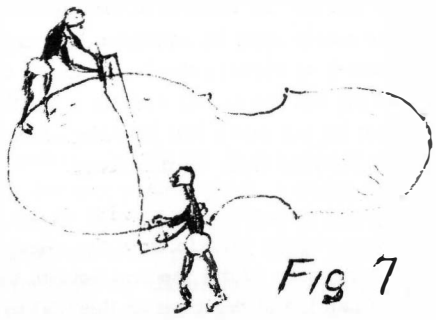


Fig 7

wide and fifteen inches long to start with, then cut one edge to a concave curvature to fit exactly over the arching of the model at the centerline; be most careful here to make the templet to fit over the arching so that it fits closely along the entire length; make similar templets to fit over the upper center and the lower center, also across the middle and places between these points; the more templets you have the more accurately you will be able to duplicate the arching of the model; identify each of them and drill a small hole through the metal (or plastic) at one end.

Starting with the centerline templet you will now very carefully work on the fiddle back to make the contour exactly match the templet; for this work you will use small planes, chisels and gouges, don't worry about finish at this point as long as you get the correct contour; then go to work with the remaining templets until you have the contours completed and all blended together when it should be a replica of the original model; use scrapers and sandpaper next, then finer grades of paper until all is well, however there is a lot of work to be done yet so don't worry about final finish.

With this much accomplished you can now feel that you are getting somewhere with your work, if this has been carefully done it will look very well and inspire you to further effort; remove your work from the base board and we will prepare to work on the inside of the back; for this you

will require some more tools of which the first, and most important is a pair of calipers, and secondly a means of holding our work.

The calipers can be purchased from any of the dealers who supply wood and materials for violin making and they should if possible give a dimensional reading in both inch fractions and millimeters; if you are not familiar with the metric system by all means get acquainted with it as you will find it extremely useful: As for holding our work, there are several ways of doing this. You can just lay the work on a sheet of foam rubber which offers some advantages, but you will not get much resistance from the cutting tool as it gives too easily. You can take a slab of soft wood and scoop out a guitar shaped hollow, or for that matter cut out the center area to a guitar shape to rest the outer arching of the back in; or lastly, with a little modification you can use the baseboard that you used previously; this can be easily done by fastening one inch deep bars across underneath to elevate the board above the bench surface, then cutting out the center area to a guitar shape for the work to rest in; put some felt packing around the edge so as not to mar your work on the back.

Mark a pencil line around the inside of the back approximately three eighths inch in from the edge, except at the corners and the area of the top and bottom blocks; at the corners you can blend the lines at the 'Cs' to meet the lines of the bouts so that you have the familiar guitar shape, leaving enough flat surface for the corner blocks; also, at the location of top and bottom blocks, you must make the line to conform with the shape of the blocks; this line that we have made will mark the boundary, and all cutting in the next operation must be kept within the area outlined: Mark a pencil line on the flat surface straight across the middle of the lower bouts, the same across the upper bouts and across the 'Cs', now put lines across between the ones you have made and one at top and bottom; you should have seven lines: Now at each point where these lines cross the center line of the work you will cut a cavity out of the wood with half inch gouge, as a start towards the thicknessing of the back; at first pass we will just go down for a part of the total distance. Fig. 8. Check your calipers for accurate setting and take constant checks on the depth that you are going; work at each point of intersection until you have a caliper reading of six millimeters which is just under a quarter inch; when you have this much done, you can work just inside the boundary line at the ends of all the cross lines, but be careful here as there will be much less wood to take out; then make similar cavities on all the lines between those already made; you will, of course, be able to get more on the lower bouts than the upper, and none in the middle area; mark a little 'X' with soft pencil at the bottom of each cavity.

The inside of the back is now covered with small craters and our next job is to remove all the hills that lie between them; this can be rough work so use any means available to get the wood off, but be careful NOT to remove the small 'X's. This complete the first phase of the thicknessing. You can now mark another series of lines across just as you did before and we will repeat the whole operation.

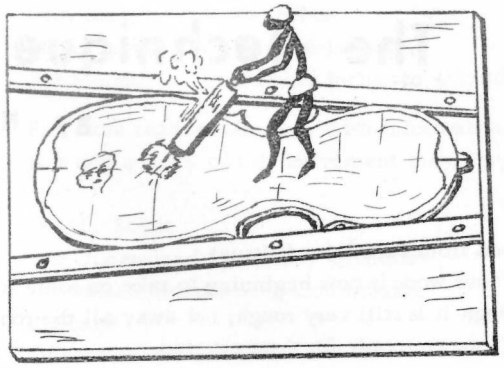


Fig.8

I might interject at this point a little comment on thicknesses and graduating; there are countless theories as to what they should be and what they should not be; each maker having his own ideas as to what he thinks is correct; all are entitled to their own ideas but that should not mean that everyone else is wrong; I don't intend to dispute any of the different profound theories; however, I will in this work give the dimensions and thicknesses of back and top plates that have won top awards for tone in national competition; TONE; not just volume of tone, but sufficient volume, and carrying power with rich quality. These measurements you may change any way you desire to suit your own ideas, but they have done well for me and also for the old venetian violin maker from whom I inherited them; of course it must be understood that there must be slight modifications for varying densities of wood; the more dense woods being cut slightly thinner; and now back to work. We have the lines drawn across the inside of the back, so once again we gouge down at the points of intersection on the centerline, however this time you must be extremely careful not to go beyond the dimensions given. Work your wood down to a caliper reading of 5mm at the middle; this 5mm area being for about 3 and a half inches along the centerline, starting roughly six inches from the top and four inches from the bottom; blend this 5mm through 4mm at the lower middle and the same at the upper middle areas to 3mm at all outer areas. Keep the guitar shape in mind, the central, small guitar being in the area corresponding to what would be the bridge area of the top; this small guitar area being 5mm thick, tapering to 4mm over the area of a larger guitar, and to 3mm of a still larger one that is the area for about one inch inside the ribs. These changes in thickness must be

very gradual so that actually your caliper readings will take you through the half and quarter mm readings, thus 4 - 4 3/4 - 4 1/2 - 4 - 3 1/2 to 3. Now, keeping this picture in mind work the cavities down as before and put the small x at the bottom of each one - you will find it more convenient to do as we did before; first the ones on the centerline, then the 3mm ones around the edge, then the 4mm area, and as before carefully work away all the excess wood between the Xs. Now with a small round bottom violin makers plane go over the surface to remove all the bumps and rough spots, being careful to leave all the Xs visible, when this is done take your caliper and go over the entire surface and mark the readings right on the work. This will give you the exact picture of what you have, and knowing the picture of what you should have you can work down the high spots until all is correct; blend the contoured surface you have just finished to the flat areas at the corners and around the edge and this phase of our work is finished; the purfling will not be done until after the top is finished when both will be done at the same time. In the next chapter we will go into the making of the top plate or belly.

* * * * * * *

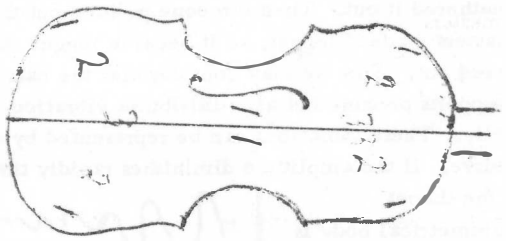
OUR LETTER FROM ITALY

written by Mr. N. Nicholas

Dear Fellow Members:

In spite of high pressure selling of radio and television here in Italy, music as we understand it is not dead. Municipalities sponsor concerts with string and wind orchestras, for example, every morning in the public gardens of San Remo (a big resort near us) they give concerts of classical musical, and periodically operas and symphony concerts. Not long ago all along the Mediterranean coast in every big town there was a violin maker and repairer of some note, but they are dying out and the new ones could not make it a paying proposition. A friend of mine, Monsieur Vial, a very good luthier in Monte-Carlo, worked till he was 89. He was able to carry on because he had private means. His widow unfortunately demanded 40000 new francs (or 4 million old francs) for the contents of his workshop, and no one can afford to buy it. So there is now no one in Monte Carlo, which has two large orchestras and a big musical school. They started to come to me with their little troubles (about one hour's journey), but bow-hairing takes time and gives very little satisfaction.

I have managed to get some old Italian wood for my last fiddle and it is really good. I made it first using Saunders' tap tone adjustment. It was good, but having received a letter from Kristian Skou I decided to tune it with microtones. I have a good wooden xylophone which helps very much to check the notes emitted by the plates of the violin. The difficulty is that striking the plate with different parts of the finger produces different harmonics and often misleads the judgment of fundamentals. It is necessary to strike both plates in exactly the same way and exactly in the opposite spot to get an understanding of the pitch. I have found it very helpful to make a musical phrase by tapping say in three places each part of the plate, and do the same on the other side. I do this when the violin is glued together. If you tap in the places marked 1, 2, 3, you get a distinct phrase which is easier to understand than a single note. Another thing that seems to help is holding the violin in the same position when tapping. If you do it holding for each tap differently, the harmonics change appreciably. I must say that microtones require colossal patients and a very good ear. Slight rubbing with sandpaper



changes the tone very quickly, and what is most annoying, this tone does not remain, but alters with time. I have now adopted the following method: First I tune as near as I can without much bother, then I string the violin and play it for a few days (naturally all in white), then again tune using 3 notes tapping. This method can be repeated until the stability of the microtones has been established, which I have not reached yet, and therefore cannot say how long.

I cannot see how very busy violin makers can spare all this time on one instrument, and until some electronic device can be adopted to help in this matter the future of microtones will remain in the fog. It is a pity because the idea seems to be right.

The other thing of some interest which affects microtones is the bass bar. For some time now I have adopted with considerable improvement of tone the so-called monolithic Bass bar. It is a bass bar which is not glued but left uncut

when hollowing the belly. In this respect the bass bar is an integral part of the wood of the belly. I have made several violins this way with satisfactory results. In two cases I cut off such a bass bar and replaced it with an orthodox glued-on one, and I was very sorry afterwards. When the outside shaping is finished, on the flat side I draw the outlines of the bass bar as it should be. The ends I make about 6 mm. nearer to the bottom than the top, to balance statically, and the top line of the bass bar I make symmetrical with the inside shape of the belly which it stands on. In my violins the length is 10 1/2". The highest point of the bass bar is opposite the body line but flat, about 20 mm. on each side of it. Thickness 6 mm. slightly reduced towards the ends and the top line rounded. It is interesting to note that the microtones of the belly along the bass bar are different when it is monolithic and when it is glued on. I should like someone to repeat my experiment with the bass bar, because only by cooperation can we clear up outstanding problems.

Several writers on the bass bar question always go round in circles. They give rule-of-thumb dimensions, or say knowingly that they "balance" it, that it should be nearer to the bottom of the plate. But when you ask why - or whether every fiddle has the same bass bar, very few of them give a sufficiently scientific theory to make one convinced that they are right. Even if not scientific, then ordinary commonsense explanations should be given why they think so. When they thought the bass bar just supported bridge pressure they made a big lump under the left foot and feathered it out. Then someone pointed out that the old masters made it longer, so it became longer, but still feathered out. Now we may consider that the bass bar not only supports pressure but also distributes vibration along the belly. These vibrations can be represented by a sinusoid curve. If the amplitude diminishes rapidly the curve takes the shape:

If a symmetrical body is subjected to vibrations in its centre of gravity, then the waves go from this centre towards the ends:
If we draw two lines enclosing the tops and bottoms of the vibrations so represented, we shall have the shape:

which could be used for the bass bar.

If you take a long stick of wood, balance its centre of G, on your finger, and strike it with something hard, you will hear a musical note of vibrations. If you hold this stick with two fingers, say 2 inches out of the centre, and strike again, it will be a dull thud. In the first case we can say that the stick was balanced for carrying vibrations, and in the second case not.

Über die Schwingungsformen von Geigenkörpern.

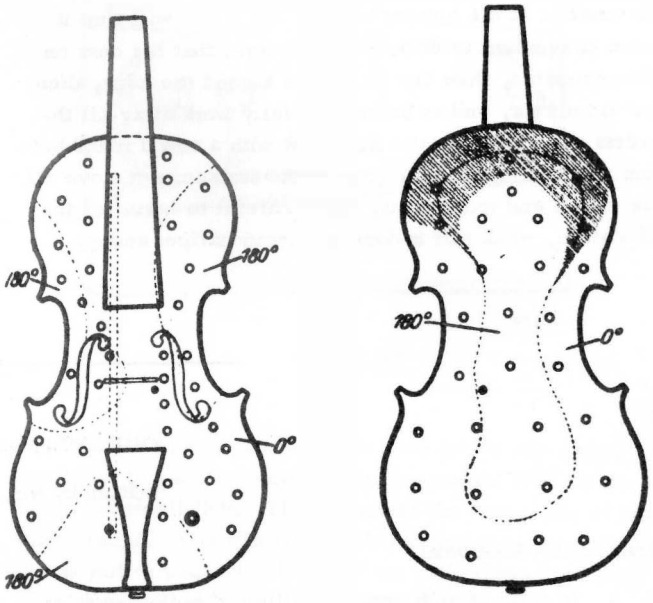


Fig. 16. Geige 1, c_3, 1024 Hertz.

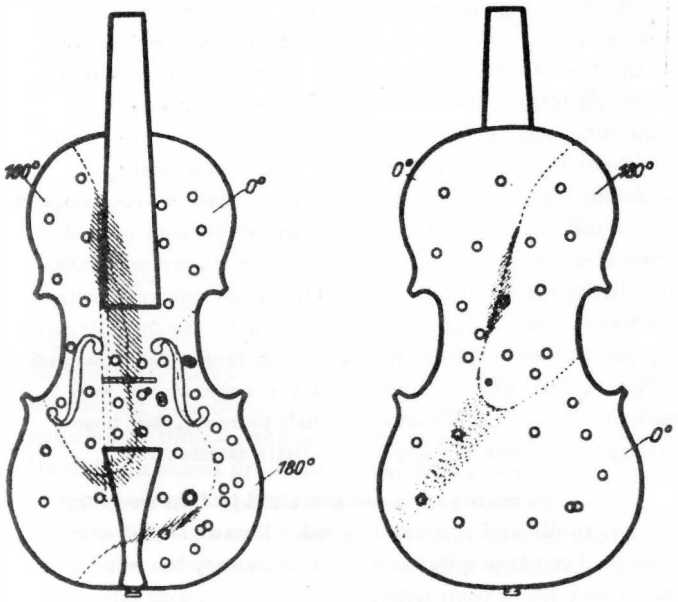


Fig. 17. Geige 3, h_2, 967 Hertz.

Now make a model of the bass bar from a piece of say, three-ply, put it across a knife edge, and finding the centre of gravity, mark it:
Transfer this mark to the existing bass bar in the belly, and see where it is in relation to the body stop. The bridge has a kind of seesaw motion on the line of the body stop. Examine the enclosed photo of German investigations into

plate vibrations. Fig. 16 shows that on a high note the right foot of the bridge sends vibrations nearly all over the belly. Fig. 17 shows that with a lower note there is a nodal line which passes between the legs of the bridge,

goes round the bass bar at the lower bouts and reaches the end of it at the top. We do not know where the centre of gravity of this particular bass bar was, but we can see that it was vibrating all along except at the top. I should like to submit that if the centre of gravity of this bass bar was coincident with the point of initial vibrations of the belly then the nodal area would go to the right and free all the bass bar to vibrate. It would look more like the letter C than the letter J. on Fig. 17.

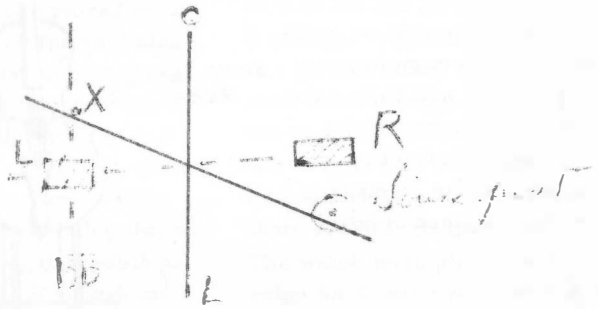
Now I will make a suggestion where the point of the belly vibrations at low notes would be expected, and where the centre of gravity of the bass bar should be:

Here are:

CL: centre line of belly

R & L: legs of the bridge

X: the point in question



This drawing explains itself. In my violin I have placed the centre of gravity of the bass bar at such a point. It made the bas bar 10 mm. nearer the lower edge of the belly. Results are more than satisfactory. Strings G and D are exceptionally full in all positions.

Well, one swallow does not make a summer, so we can expect some contradictions or confirmations - both are welcomed.

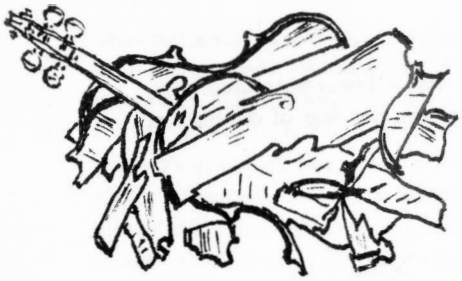
With best wishes to all,

N. Nicholas

HUMAN STORY
by Gordon Lundberg

Peter Zotolis of Mpls., who has been collecting famous bows for several years, had an operation which necessitated his staying in his bedroom a couple of winters ago. During this winter he made twelve violins to make the time go faster. The only thing he regrets is he got so much glue and sawdust in his matress it became as hard as a rock maple back.

Hope you can use this.



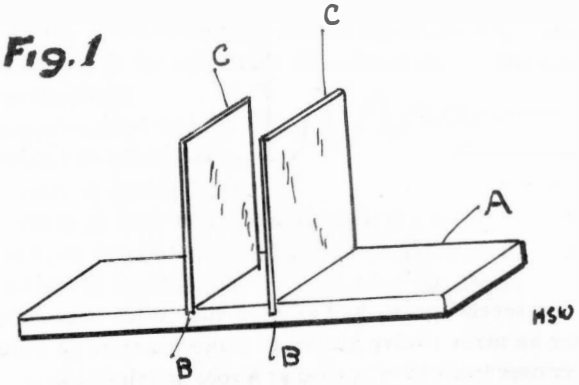
Fiddle Fix.

By H.S. Wake.

Most of us have taken photographs of our favorite fiddles and appreciate the difficulties involved, the numerous problems that arise in the process; how to avoid the piece of string around the scroll; how to set the fiddle to hang straight; how to avoid shadows, reflections and highlights; how to arrange the lighting and a hundred other problems: We know that it can be done because occasionally we see some excellent pictures of violins, however most of them leave much to be desired.

Having fought and licked most of these same problems, with many of the answers coming from professional photographers, perhaps a few helpful hints will be in order here. We can avoid or eliminate the string around the scroll and at the same time get a true vertical set up for the fiddle by using a very simple rig that can be made in a few minutes, see Fig. 1 where 'A' is a piece of board

Fig. 1



approximately one inch thick by six by about fifteen inches long: 'B - B' are straight saw cuts about three inches apart and about a quarter inch deep, just wide enough to hold firmly two pieces of window glass 'C & C'; the top edges of the glass should be from six to eight inches above the board and they should be ground off so that there are no sharp edges to damage the fiddle; the grinding can be done with a couple of light passes over a wheel or sanding disc: It can be readily seen that the board, (with glass inserted in the slots) can be placed anywhere on a level surface and the fiddle stood up as shown in Fig. 2 and if the camera is set up to shoot 'head on', and taking in only the top inch or so of the glass, it will be barely visible in the

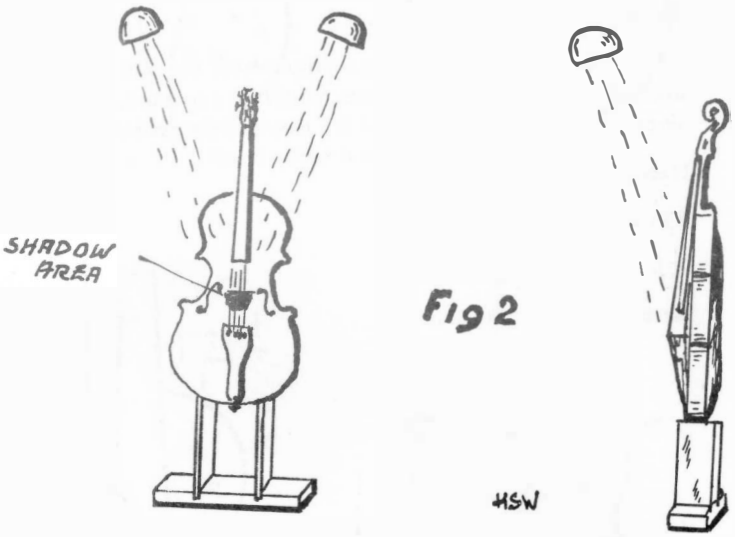


Fig 2

negative; the thin edge of the glass can be touched with a color to match the background and it won't be visible at all; furthermore, the violin will be true vertical and front, back, and sides can be photographed by just moving the board around.

Now with this set up, two photoflood lamps placed overhead and aimed at the bridge of the fiddle Fig. 2 so that its shadow falls as shown at Fig. 3 in the area within

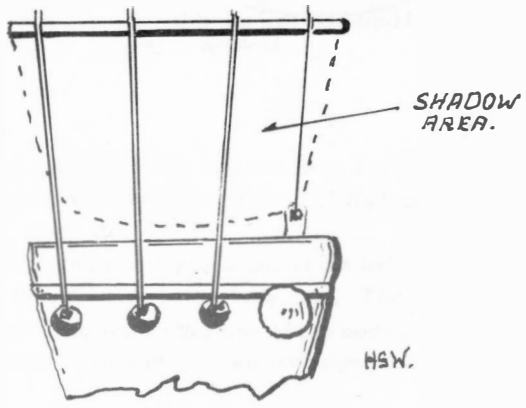


Fig 3

dotted lines, the Fs' should stand out black and clear and there should be no objectionable highlights on the fiddle surface: If a back drop is used it will be found that a neutral color such as light grey will give best results, and it should be placed far enough behind the fiddle to avoid shadows.

Of course a tripod is a must and one still has to be extremely careful not to vibrate the camera when shooting; a long exposure with small lens opening is recommended for sharper detail in the picture.

I have used this set up with 4 x 5 and with 35 mm, both black and white and kodacolor with excellent results: It has the advantage of being quickly and easily set up, and having once got your exposure and lighting established, you can repeat it for any fiddle at any time on short notice and you can photograph your fiddles with 'no strings attached'.

AIR CAPACITY AND THE VIOLIN FAMILY

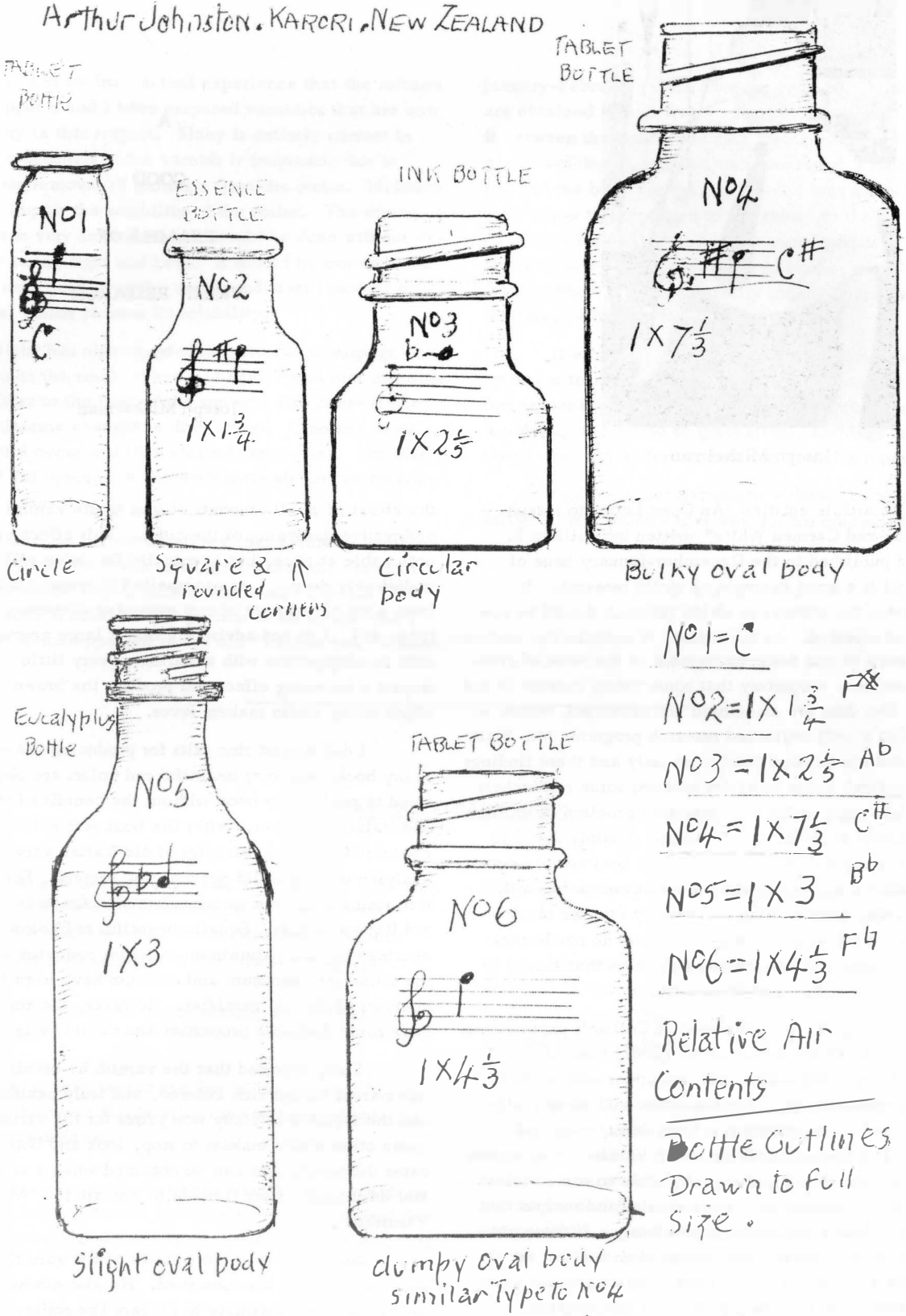
by Arthur Johnston
Karori, New Zealand

The accompanying sketches show the relative sizes of the bottles used and the general form. The relative air capacities are correctly noted and were checked several times. The bottles were used in tests some time previously and labelled. Recent tests verified the facts, that size alone does not give the same results when air contents are exactly the same, but different results were proved when the shape of the air content was altered by the enclosing body. Some bottles of lesser enclosed air content gave a lower note amplification than a bottle with considerably higher volume of air content. Two milk bottles of one pint size each tested showed one gave an excellent violin G string response for a slimmer and taller bottle with a smaller opening at the top - whilst a dumpy bulky shaped milk bottle with a very wide mouth it was impossible to get any response satisfactory beyond this, if enough air was obtainable a note one fifth higher may eventuate. Filling bottles with water gives results for one type of form and simpler results may be had by using a Swanee whistle which has a plunger on a rod. The plunger being thrust so as to lessen the air content. Here again we deal with the same type of form without altering the character so that the results are not conclusive as the nature of the enclosing body has to be considered. As the enclosed air content, of instruments of the violin family, is set into vibration by the body enclosing it (and not vice versa) we are dealing with a different aspect when we set air in vibration by other sources, such as one's breath instead of by and through the medium of a violin vibrating body. Carefully note this as it is important.. The body of a bottle is not the cause of the vibrations of the air within the bottle. With a violin the body itself is the medium which forces the air within the instrument to vibrate. An entirely different principle. It would be wrong to dismiss the use of a milk bottle or other bottles for air capacity tests in relation to accoustics, for, the nature of the material enclosing the air, as well as the means used to set the enclosing body vibrating also should be taken into consideration. In making these tests before coming to hasty conclusions it is advisable to leave a lapse of time between rechecks as some experience in acute listening is necessary and knowledge of practical tuning of instruments. An example of a test in which a young student helped? was as follows. Taking a watch I handed it to a student - "hold it close to your ear and listen to it" I said. Student, "Yes I hear it plainly." Myself - taking the watch put it on the arm of a padded chair, Do you still hear it? Yes - Now walk away from it and see how far you may go before you cannot hear it, slowly the student backed away from the watch and at 10 feet distance said the watch could still be heard ticking. Are you sure it is not that clock over there you hear ticking? "No it's the watch" was the reply. The watch when placed on the arm of the chair was not going for it was a stop watch and when placing it on the arm of the chair at the same time I had stopped the watch. When starting the watch going I placed it on the end of a "pinus radiata plank", well dressed on all sides. Now I checked the ticking from the other end of the plank and that watch which I could not hear one foot away was now very distinctly heard when I placed an ear against the plank. Again I had the student listen the same way. It was just hopeless that student understood nothing. Another student answered "no" as soon as I placed the watch on an arm chair. He could not hear it a foot away - even 6 inches - because being a stop watch I had stopped it. When starting it again I gave it to him to hold and he had to hold it within a few inches of his ear to be certain it was ticking. Then we placed the watch on the long plank again. Do you hear anything? "Why yes it's even louder than when I held it against my ear" he replied. "Now wait listen again" (I had stopped the watch) "Can't head a thing" he said. Starting the watch again. We tried again, why I am getting more used to it, it seems very much louder than before. He had placed it against the harder cheek bone near his ear and as sound travels better through solids than the softer parts

he got better results. Then we tried a metal cased kitchen clock. The clearness of the result was most convincing. That sound travels better through solids and faster was known hundreds of years ago but was almost unknown to most people or even the reason to those who made use of it. Long before trains and any mechanical means of transport or travel, country folk would place an ear to the ground to hear if a horse could be heard galloping. The thudding of the hoofs of the galloping horse could be heard before it was seen. Water supply inspectors used metal rods thrust into the ground and against water supply pipes to hear if there were leakages, which could not be heard by listening for the sound in the air. In experiments in search work its worthwhile to realise that the whole of the instrument vibrates before the enclosed air. Vibration may travel 16 to 24 times faster through solids than through air. The very softer and less dense material would be less efficient. Regarding density of timber, the word dense is in reference to the harder and more compact parts or type of timber and NOT as to thickness or thinness of harder or softer woods - so be careful of the idea of surgical operations on the denser parts of your violin wood, you could be removing the better part of the wood which is more efficient for transmitting vibrations than the softer woods. The accompanying sketches are correct to height and width. The air content has been checked and rechecked several times, and as there are some considerable surprises for those with fixed ideas about air capacity I state that I also had many trials and I also had doubts when tests were made some years ago and thought I may have missed out somewhere so I checked the tests very carefully. Of recent date, again made the tests and finally checked again just before writing this article. As No. 1 air content being the C on the second line above the treble cleff - The air content of this bottle was taken as a measure for the air content as comparisons of other bottles - The surprises are No. 2 bottle with 1 3/4 air measure has a lower air capacity note than No. 3 with 2 1/5 giving capacity note A^b on 1st leger line above the treble stave. Yet No. 2 gave F sharp on fifth line treble clef. Another surprise was Bottle No. 4 with 7 1/3 times air capacity favoured C sharp third space in treble clef stave. That C sharp is something of a shock to orthodox ideas for Bottle No. 5 with only 3 times the air content of No. 1 gave a fine B flat on the third line of the treble clef, note this bottle had considerably less air capacity as compared with No. 4. Again No. 6 bottle with 4 1/3 times the capacity of No. 1 yet this bottle's air capacity favours F natural on the fifth line, only half a tone lower than No. 2 with 1 3/4 air capacity. Compare this with No. 4 which has 6 1/3 more air capacity than No. 1. At first thoughts years ago when studying accoustics I was puzzled as orthodox teachings did not agree. Then the fact of being trained for concert singing, owing to teachers knowing little or nothing about the mechanism of the human voice, I took matters in my own hands with satisfying success and reflection on accoustics and the voice showed this. A singer using far less air capacity in the mouth could sing some very low notes whilst many higher notes needed more air capacity within the mouth. Do not forget the hard palate (roof of the mouth) and front teeth, top ones, act as a vocal soundboard. Now why could one get a low note even with a similar air capacity to getting a higher one. The answer - the shape and character of the form enclosing the air content. So it appears I have bottles which have a larger air content giving a higher note than one with much less air content. The mouth of the bottle also affects the note. The placing of the lips may give variations. The smaller air vent of air by partially closing the top with the lower lip and increasing the air force we may get other notes but there is one note of a certain pitch a certain air content will favour and this, provided the air is enclosed within a certain shape - So we may have 2 instruments with exactely the same quantity of air enclosed, yet giving resonance results entirely different. No matter what shape a violin may be as long as the body is set vibrating the air content will receive the vibrations and transmit some more favourable than others.

Another accoustical test this time on the body of a cup. Any breakfast cup. Take the cup, place it on wood surface then tap the side of the empty cup. We get a clinky type of response and little resonance. Then keep tapping whilst slowly filling the cup with water, when nearly half full we get quite a pleasant note but lower than the clinky first note. As we add more water the note gets lower and lower in pitch but quite good. Within three quarters of an inch from the top edge the note gets weaker until the note dies out to just a muffled click. Another factor which could be likened to a well placed bridge. Alter the place where one taps the cup when empty and applying the tapping nearer a central area of the height of the cup gave a better response than tapping near the base. If a violin bridge is placed in the most effective position for giving greater amplitude to the violin front and better all over results should result.

Arthur Johnston. KAKORI. NEW ZEALAND



NO1 = C

NO2 = 1 X 1 3/4 F#

NO3 = 1 X 2 1/5 Ab

NO4 = 1 X 7 1/3 C#

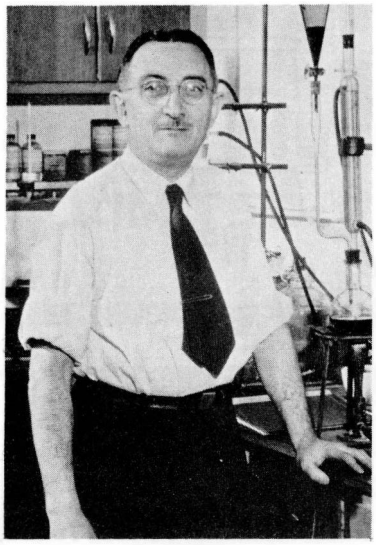
NO5 = 1 X 3 Bb

NO6 = 1 X 4 1/3 F4

Relative Air Contents

Bottle Outlines Drawn to Full Size.

Note the character and shape of air content has Considerable influence on the pitch of a note played. THE DIFFERENT SIZE MOUTHS OF BOTTLE TOPS ALSO VARIED THE RESULT. THE PITCH OF NOTES AS SHOWN WERE FULL AND CLEAR. FLUTE LIKE.



Joseph Michelman

A GOOD EXAMPLE OF VIOLIN RESEARCH

by

Joseph Michelman

The article entitled "An Open Letter to Joseph Michelman and Carmen White" written by William E. Slaby and published in the December-January issue of this Journal is a good example of violin research. It demonstrates the manner in which research should be conducted and reported. At the outset, it contains the customary reference to and acknowledgment of the work of previous researchers, a courtesy that some violin makers do not extend. The data are assembled and tabulated, which is evidence of a well-organized research program. Mr. Slaby has reported his findings freely and fully and these findings are of practical value to violin makers; some researchers seem to lose sight of the all-important problem of violin making today: to make better violins, possibly equal to those of the old Italian masters. Slaby does not presume to have all the answers to the problems associated with violin making and finishing and frankly asks for more information on subjects which he feels that he needs assistance.... These are standards and policies that should be observed more widely and frequently.

Here again, as in the case of Collier's experiences, reported in the October-November (1961) issue of this Journal, Slaby's difficulties will disappear with a little more experimentation. Carmen White and other violin makes solved their problems to their satisfaction and delight. The so-called "Michelman Varnish" may appear strange and sometimes incomprehensible to some violin makers; it is different from the formulas and recipes that appeared in books and writings previously. If those old formulas and recipes had any merit, then the lost art of the old Italian masters would have been discovered years ago because those proposals have been investigated. Reviving those old concoctions serves no useful purpose but is merely confusing.

Now to reply to Slaby's "open letter" specifically: I have cautioned against the use of excessive amounts of iron salts in my book and I pointed out on page 44 the the effect of small amounts of iron in the varnish, causing progressive darkening of the color. This effect may not be noticeable at once, but eventually the color will become undesirably deep. I was compelled to remove the varnish from a violin because of this excessive darkening in color (page 41). I do not advise the use of large amounts of iron salts in conjunction with alizarine; a very little iron will impart a browning effect and produce the brown red varnish which many violin makers favor.

I did suggest zinc salts for producing the red varnishes in my book, and very beautiful red colors are obtainable. But I had to publish my book without the benefit of analyses of Old Italian varnishes. After the book was published in 1947, I obtained authentic samples of old Italian varnishes, analyzed them and did not find zinc present. For this reason, zinc rosinate can not be recommended for recreation of the old Italian varnish. Equally beautiful red colors can be obtained by using aluminum-calcium rosinates with alizarine; the elements aluminum and calcium have been found in analyses of the old varnishes. However, the zinc rosinates have some desirable properties and should be investigated.

Slaby reported that the varnish he obtained "is lustrous, transparent though rich colored, and truly beautiful". This and the report that Slaby won prizes for the varnish, should cause other violin makers to stop, look and listen. It indicates the results that can be obtained when a conscientious and intelligent effort is made to prepare the "Michelman Varnishes".

Slaby refers to the softness of the varnishes, which others and I have also observed. He also advises that he used potassium carbonate to prepare the resins. A possible cause for the softness may be the use of zinc rosinate, which has a lower melting point than the basic aluminum rosinate which I described in my article in "Violins & Violinists" January-February (1958) issue on page 29. I suggest that Slaby try the aluminum-calcium-alizarine resin in his

varnishes. I krow from actual experience that the softness then disappears and I have prepared varnishes that are now satisfactory in this respect. Slaby is entirely correct in that the opaqueness of the varnish is frequently due to incomplete removal of moisture from the resins. Moisture will also impair the solubility of the resins. The drying of the resins is very important and should be done without exposure to strong light and heat. It should be remembered that the rosin portion of the compound is still subject to oxidation, which reduces its solubility.

Slaby has also reported distortion and warpage of the plates as the result of heat. I have found that exposure of the plates to the heat of the sun will also cause slight but troublesome changes in dimensions. Exposure to sunlight should occur after the violin is assembled. For this reason, I am opposed to Gilbert's methods for pre-treating the plates with heat.

Slaby, in his initial efforts, has naturally been influenced by the much discussed notion that the plates of the violin should emit a certain tap tone. I should like to invite him to consider this portion of an article that I wrote and which appeared in the old "Violins and Violinists", January-February (1960) issue on page 38. "The tap tones are obtained from a freely vibration top or back by holding it between the thumb and first finger and then tapping or gently striking it, whereupon some sound is emitted. The top and the back are then assembled into a violin with their edges tightly glued to the sides, to the linings and to six blocks inside the violins. A sound post is then wedged in the center between the top and back. What becomes of the specific tap tones originally sought in and produced by the freely vibrating top and back?"

If violin makers would give as much thought and attention to a sensible preliminary treatment of the wood, through which the sound energy passes first when the violin is played, as they do to graduations, archings and tap tones, they might get better results from their instruments.

Again congratulations to William E. Slaby on his initial efforts which auger well for his continued success.

* * * * * * * *

BEES AND STRADIVARIUS

A retired German engineer, Erich Knopf, appears to have solved the most elusive musical mystery--the source of the matchless tone of the Stradivarius violin, says the Bonn correspondent of the "Daily Telegraph".

Now 70, Knopf has been working since 1939 on his experiments.

Others have sought the key to the mystery in the quality of the wood Stradivarius used or in the shaping it received at his hands.

Knopf, however, has been studying the varnish on Strads. It is there that he believes he has found proof that Stradivarius owes much of his reputation to the bees of the North Italian town of Cremona, where he lived and worked.

The varnish that includes resin made by the bees and used in the construction of their hives has long been known to experts, but it has not been highly regarded because it smears badly on application and dries very slowly.

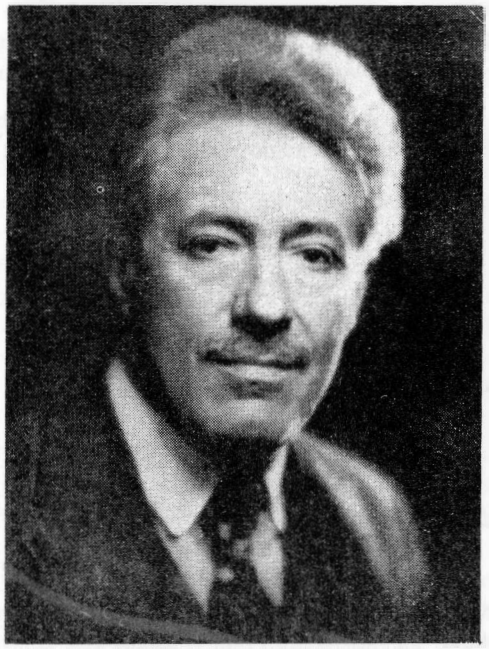
It was left to Knopf to trace these undesired qualities to balsam contained in the bees' resin. Knopf says the bee resin of the Cremona area, however, contains none, or almost none of the offending element and that varnish made from it is of such excellence as to be the source of the exquisite tone of Stradivarius violins.

"Bee Journal - March 1962"

The String Section

Conducted by
CARMEN WHITE

THE BELOVED VIOLINIST--FRITZ KREISLER



The Master Violinist
as he appeared at the zenith of his career

I first heard his incomparably beautiful tone in Dallas, Texas in 1928. By the time I had heard five concerts by Kreisler and had played practically every record he has made hundreds of times, I had joined the great throng of Kreisler worshippers--and I have been one for more than thirty years. No tribute to his memory can be eloquent enough to adequately describe the great human contributions he has made to music, and particularly to the violin and its art. About twenty-five years ago, I ran across an old phonograph record he had made; on one side, he has played his own arrangement of "Beautiful Ohio Waltz" and on the other, his own arrangement of "Mighty Lak A Rose". Now, these old tunes were and are common enough, and we have heard them played by many violinists, but this morning, I would walk five miles in the rain for that record! Would that I had it! His playing, and particularly his double stopping and violinistic arrangement was such that one just wanted to hear it again and again--and he played these common old tunes with the same incisive honesty and artistic finish he put into his Beethoven Concerto! Recently, I bought an old record of his playing of the Gavotte in E Major, by Bach, for violin alone. The recording is probably thirty five years old, but it just sparkles with honest straightforward violin playing and beautiful tone--what better combination than Bach and Kreisler? In 1928, I heard him play the famous Bach Chaconne for violin alone, and I have worshipped it ever since--and have heard every violinist play it, but none played it like Kreisler.

All this is to say once more that there was and is nobody like him. His mind and musical insight were so remarkable that he could actually memorize a score or a concerto at sight. He played the piano and the viola with equal facility, as well as his beloved Guarnarius violin. He was said to have preferred his Guarnarius del Jesu above all other violins, and recent articles comment that he kept his favorite violin to the last--a Vuillaume. But knowing the practical nature of the man, and of his wife, whose decision in such matters was predominant, it seems far more likely that he disposed of his favorite violins to other artists, beginning as far back as 1946, because he felt that they should be played and heard. One writer remarks with good sense, I think, that he probably preferred the Vuillaume after his hearing was impaired.

I heard him once playing the Bach Prelude in E major when, near the end, his E-string suddenly snapped. Without changing expression in the least and with great calm, he merely finished the piece high up on the A-string, with only a slight impediment in intonation--and calmly left the stage and put on a new E string--he did not take another violin, and probably did not even have another violin with him in the artist's room! Albert Spalding said he could play any violin and instantly make it sound grand, even though he had not been practising. In all the concerts I heard Kreisler play, he seldom sounded his best in the first number. Probably both he and the violin had to "warm up" somewhat--but about the middle of the second number, there would suddenly come a passage which struck the audience a blow in the heart! One could always feel that

poignant and eloquent silence which said for every heart that the audience was with him thereafter! And it was! I have heard all the great violinists play in concert, and it is seldom indeed that this moment comes with our great violinists--with him, it came invariably in the second number of the concert! One of his great colleagues said that any mistakes in intonation Kreisler may have made in later years were due not to his loss of skill, but were due to a slight lapse in his hearing. Surely this must be a true statement, as he played just as fine the last time I heard him as he had played back in 1928 when I first heard him as a student.

Another point that always struck me about Kreisler's playing was that his actual playing in the concert hall always sounded better than his playing on the recordings! I do not find this true of other artists--in fact, the recordings seem to flatter the playing of most of the artists in these days of technical excellence and fine engineering, but it always seemed to me that no recording could be as perfect and as beautiful as the actual playing of Kreisler himself. If the reader is thinking that I was "bewitched" by Kreisler, I must plead guilty! When Kreisler stepped out on the concert platform with the Guarnarius del Jesu or the Stradivarius in hand and a smile on his face, closely followed by the faithful Carl Lamson, the audience knew there was great music to be heard--not necessarily profound music, but heart warming music. It was the same whether he played a concerto, a sonata, or his own lighter masterpieces which have so enriched the literature of the violin and which have made violin concerts so delightful for audiences. His passing marks the end of an age. Truly, we shall not see his like again!

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COMMENTS ON MICHELMAN VARNISH AND HOW I ADJUST MY PLATES FOR TONE

by Robert F. McGowan

The recent discussion on the Sangster varnish has been amusing. I think if you will look in the back issues you will see that Mr. Minster reversed the formulae 1 - 2 - 1/2 to 1 - 1/2 - 2 in the oil, terps resin mixture. Then everyone gets in the act, and a good time is had by all. I hope that much good and very little harm comes from it all.

Mr. Sangster is one of the writers I admire, and of course Carmen White, but I feel he is skating on thin ice when he gets into the varnish making and priming field. I have used Mr. Michelman's formula and have all the later papers by him, and I am positive he has answered the question of the color resins, but he errs when he says that the basis was linseed oil and resins alone. This will result in a rubber like varnish which will become soft in damp weather and will stain and get dirty where the hand or neck of the player comes in contact with it. The tone will be dull and wooly if enough is used to get the deep colors. Also, the number of coats required and the slow method of making the resins plus the drying time and all cancels out any real use for it. A violin maker would starve to death if he had to make and market violins and use this method.

The old Cremona violins did not stain and get dirty from contact with a warm hand of the player. I have a Carlo Bergonzi Cremona 1742 which was purchased at Leghorn about 1755 and stayed in the same family uncut until 1917. The neck was grafted and the top repaired at that time. Eighty-five percent of the varnish is still intact and it shows no hand stains. My friend had a Rugeri 1689 which he brought from Finland and the same type of varnish showed no stain from use. He has recently sold this violin to Lewis for a real good sum. Lovely tone but weak and boxlike. When I see some new maker wading through the same mire of this varnish making again I feel like weeping for him, but experience is still the best teacher.

Carmen White is so right about the pitfalls of poor violins we place in the path of the new student. We have the same trouble here in our student group which is under the supervision of Miss Marianne Kneisel of New York. (Daughter of the late Franz Kneisel.) I act in my poor capacity as luthier to this group of students and some of the violins given to the poor children are useless. All he says is true. The average parent thinks that $15.00 is a big price to pay for a violin, case and bow! I have seen some brought in with cut guitar strings on them! I plan to take a motor trip west next summer and if I can get away from the family for a few hours I plan to visit both these makers if I can find them "at home".

There is very little I can offer to the group of makers. I copy Del Jesu most of the time. I have a set of master templates made from data taken from Mockels book. I use the drill-contour method of arching. These templates took all winter to complete (5 years ago) and I spent many an hour over the drafting and layout table. All dimensions were multiplied by three, laid out, faired

then reduced to true scale on blue zinc plates with a steel scriber. I think it is a very true copy. The F template I took from Hill's Guarneri book which was shown full scale.

After the usual failures the new maker always has from taking the advice of those who love to write but know very little about the art I shook myself free of all and went my own way. I am suspicious of the science boys and the nebulous discussion carried on. They all spin webs of theory brilliant as rainbows, and as useful. I work in metric measurements all the way. I think it is the only way to follow up and project one's ideas into real work. It was slow at first but I like it now. I develop the outside arching and leave 1/2 MM for finish, reduce the plate thickness to a standard thickness taken from Hill's book and from experience with the same wood on other instruments. The top I make of even thickness with a little more wood in the waist. The final graduation comes after the violin is completed in the white. If the weather is dry and hot I bring the violin up to pitch after sunning for several days to normalize the stress. The sound post is placed 3 1/2 MM back of the bridge line and fitted so that a blow of the hand will topple it with no tension on the strings.

Don't faint now ... then with the violin in tune (for two hours) I start to scrape and play (not very well) to even the tone out and make the violin responsive. Removing wood near the centre makes the tone more brilliant. Fullness is obtained by gradually thinning to the edges. Good tone lies in between the two, it is impossible to have both brilliancy and fullness in the same degree on all strings. Sonority and power can be improved by reducing the back until the back beats against the top and post in perfect frequency. Skou is correct when he says that the microtone will be close when the two plates are matched. This may sound crazy, and I don't offer it as a new method of toning. Thought you might find it interesting. There is of course more to it than I have described, but this will give you an idea of what I am about. Once the toning is complete the tension must be taken off the strings or the work will be ruined. Moisture from the atmosphere will allow the wood to adjust and settle. This may be the reason that violins left unvarnished lose their tone.

There is no real harm in all this, just a hobby, and I have been using this method for four years. It takes a bit of courage to scrape on a violin after it has been completed, and I have a long way to go yet to find all the answers. I am convinced that the old masters used this method. How else do you explain the fact that some are thin in the middle and thicker at the edges and vice versa? Do you think that Strad could not tell by feeling with his fingers the difference between 1.7MM and 3.4MM ??? Some of his tops show that much difference in places. I am positive that this was the method used in Cremona, and Strad himself only did the final toning on a lot of his violins. The varnish and filler of that time when applied after toning preserved the tone and time did the rest. The violins of Strad and Del Jesu do not all sound alike, and some are no good at all. But each maker put into his work a bit of himself, all have the same quality to a certain degree. I am sure it was done in the final toning. Dozens of the old makers could make as good or even better looking instruments than Strad or Del Jesu, but these two men understood tone, and how to put it into the final adjustment. The answer is not in the calipers of that much I am sure. To sum up I can offer this much...A maker may copy an old master violin to perfection, match the wood as near as is possible, but when he comes to the final graduation of the plates he sails in an unknown sea. Wood is, and has that unknown factor which cancels out all else. The violin maker of today has seven very good instruments always at hand, four strings, a bow and two ears. I am quite sure that the old masters had these and nothing else.

It would be interesting to have some of the experts explain why the Cremona makers made up the violin complete and varnished with the finger board on the instrument. Also, inquire whether some of us could lay on ten or twenty coats of varnish (as I have seen recommended) rubbing and sanding between coats without leaving an awful mess under the fingerboard. It is a fact that the old Cremonas were varnished with the fingerboard fitted.

I enjoyed Carmen White's burning question, and submit this one to those who think five coats of clear and umpteen coats of color varnish are good. I would say that not over three or four were ever used.

I hope you will forgive this disjointed missive, you see I am the only maker in this end of the state and I never get a chance to talk shop with another fan. When I get on the subject of violins I get carried away.

My wife and I are both lovers of string music, and our young daughter Jeanie studies with Miss Kneisel at Blue Hill, Maine, where the summer school is held. There one can see and hear the real Cremona gems and I have had several private demonstrations by Joseph Fuchs using his Strad and Miss Kneisel's Sancey Strad, and of course many others. I find they are very much interested in us poor violin makers and will take time out to help and play for us. I have also spent hours in Miss Kneisel's office looking over her Strad. She told me last summer that when the Betts Strad was delivered to Wurlitzer her father was the first to play on it being called in to see and test this famous Strad. Her father, Franz Kneisel, purchased a fine Del Jesu for her which is now in the Julliard School. As you can see from all this I am fortunate in being able to see and hear these artists perform and to submit my poor efforts to them. At first I tended to make my top too light, having no idea of the demands a real concert violinist makes on an instrument. They tell me that when most artists get a fine Strad for the first time they have to learn to bow all over again to bring out the best in the Strad, that is if they have had a German or French violin before.

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THE ADJUSTING OF STRING INSTRUMENTS

"Foreword" by the Editor

In presenting this new column we believe we are providing information very necessary to both maker and performer. The difference between a "good" instrument and an "excellent" instrument is, to the artist, of vast proportions, yet it is often some slight defect which, if corrected, can bridge the gap and produce the masterpiece. In many instances, the defect is in the adjusting of the instrument on completion. Here is where the mater maker shows his skill, or should we say Master adjuster!

The writer of this column, Henry Littleboy, is such a man. Not only is he an expert adjuster, head of the firm of Littleboy & Son, Boston, Repairing experts, but a man of many other parts as will be shown by the following "Life Story" of Henry which I asked him to write. (D. W.)

I was born in Jersey City, New Nersey on May 23, 1925. Started studying fiddle in my first year of high school and ended up as second desk in the first fiddle section by my senior year. The school was DeWitt Clinton in the Bronz which is a part of New York City.

Joined up in the "Seabees" after High School and since I found they don't have violins in a Navy Band had a friend show me the fingering on the clarinet and after a few weeks I entered the band in the second clarinet section. After two years I ended up as conductor. When I wasn't practicing the clarinet I spent my spare time building airfields in the South Pacific. "Life" ran a series of pictures on Tarawa and if you look closely you can see me tooting away on the old licorice stick. I also had my apprenticeship at wind instrument repair during this overseas tour of duty.

Went to Stevens Institute after the war and got a degree in Mechanical Engineering. Formed the band at Stevens and directed it. Came to Boston after graduation and got my Master's degree nights from Northeastern University in Electrical Engineering.

With school out of the way I looked for a hobby and chose the repair and adjusting of fiddles. I have been at it now for seven years and can really say I have enjoyed every minute of it. Since I have been at it I have often been asked why I don't try my hand at making a fiddle. My feeling on this subject is that I don't think I would be able to do justice to both making and adjusting and I chose adjusting as my line. The reason that I suggested a column on adjusting is that I really believe this topic is usually not covered properly in the present journals and I believe that proper adjustment will greatly improve any fiddle. I feel that these adjustments can be put down in an orderly fashion so that the mystery can be forever removed. Since adjustment is of prime importance to the player I believe that we would have in this column a meeting ground for the fiddle maker and player.

I have continued my studies on the violin over the years and I'm now working on the Mozart First Violin Concerto. I play quartets at least once a week. I own a harpsichord and we often do works for string orchestra of the Baroque Period. My son plays violin (of course) and my wife plays bassoon.

I have recently been elected as Secretary-Treasurer of the Massachusetts Chapter of the American String Teachers Association and I'll be giving a lecture on string instrument adjustment at our next meeting in Pittsfield.

I spend my days designing electronics for use in satellites.

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VIOLIN ADJUSTMENT

Violins require periodic adjustment. I would include in this process:

1. Bridge fitting
2. Peg fitting and adjustment
3. Sound post adjustment
4. Tailgut replacement
5. Saddle and nut adjustment
6. Fingerboard adjustment
7. Choice of strings.

These are all operations which are common to the violin maker who is "fitting up" his fiddle and to the adjuster who is trying to make Great Uncle Joe's fiddle play after it's been in the attic for the last twenty years. This article introduces a series which will dig into these problems.

Our Editor has suggested that we invite questions and comments from our readers so I wish you would keep this in mind.

As part of the general problem of "Violin Adjustment" I would like to include an attempt at arriving at a set of specifications. The MENC "specs" will be discussed and I would really like to stir up interest in possibly arriving at an "International Violin Specification". I don't think this to be as difficult as it might first appear and I would like to have any comment on this subject as soon as possible. For "ground rules" I think we should all try to use the metric system since this is the accepted international unit for measurement. Conversion factors have previously been published in the Journal but you'll find it easier to go out and buy a metric system ruler.

I would like to request that we restrict discussion to actual work on instruments and omit any involved theoretical discussions. We will limit ourselves to the mechanics of the problem for the present discussion. In the future we may get into some long hair theories but for now I feel that solid facts on how to proceed in adjusting a violin are in order.

A plan to start off this series with some remarks on bridge fitting. I therefore also invite specific questions or remarks in this area. You may send these questions to myself or to the Editor.

A bibliography of books which contain some useful information would fill a full issue of the Journal. On the other hand I would like to give the books that I have found to be continually useful. These are:

L'Art du Luthier	* A. Tolbecque
Violin and Cello Building and Repairing	* Robert Alton
Manuel Pratique de Lutherie	* R. & M. Millant
Violin Making	* Ed, Heron-Allen
Die kunst des Geigenbaues	* Mockel-Winckel

W O L F N O T E S

by the Editor

Mail Bag

Letters and New Members continue to appear from all corners of the Globe. A new country to be heard from was Japan. We are very happy to welcome Mr. Shizuo Onoe to our group. He tells me that there are few amateur makers in his country and instruction is hard to get.

Certificates

With this issue the remainder of our readers should have received their Membership Certificates. If you have not received one notify me immediately. If your present Certificate is marked "Expires (such and such a date)"advise me when renewing membership and a new Certificate will be mailed to you.

This Month's Testimonial

Your magazine improves in stature and appearance with every issue and is both enjoyable and helpful.

"The problems in connection with publishing of the Journal and bringing it to its present status of dignity are so many that even the most thoughtful, unless experienced in similar effort, can even imagine the countless, unpaid hours that have been invested in this venture, nor how long they may have to continue.

With deepest appreciation."

Sincerely,
"Stanley Kieth"
Fresno, California.

More Advertising Needed

We have a great deal of important material which we are unable to print through lack of space. Extra pages cost more money. One extra page of advertisements will give us two more pages of reading matter, so we are making an appeal to all members. Many of you must be in close touch with Music Houses and dealers. Show them a copy of our Journal and try to interest them in placing an advertisement with us. Explain to these people that we are doing a good work in keeping alive not only the art of violin making but the importance of String Instruments in general. We believe we should have the support of all important Music Dealers. Make it a point of doing something about this during the next month. Will you?

Cheap Scrapers

Mr. A. Barbuto of North Adams, Mass. sends in the following hint.

"They say it is hard to get good scrapers. You can get all you want, for nothing, by going to a machine shop and asking for the used power hack saw blades. Grind the teeth off and finish the sides--and boy! they really cut!

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Noble and manly Music invigorates the spirit, strengthens man and incites him to great and worthy deeds.

- Homer

Music is the first, the simplest, the most effective of all instruments of moral instruction.

- Ruskin