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S. S. STEWART'S BANJO © GUITAR JOURNAL.

OCTOBER, 1886. Price, 10 Cents.

PUBLISHED BY

S. S. STEWART,

PHILADELPHIA, PENN'A.

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PRICE, 10 CENTS.

S. S. STEWART'S
BANJO AND GUITAR JOURNAL
IS Published Each Alternate Month
AT No. 223 CHURCH STREET.

Philadelphia, Penna.
SUBSCRIPTION, 50 CENTS PER YEAR,
With premium, consisting of a copy of the

Banjo and Guitar Music Album.

NUMBER 36.

This issue of the Journal is the 36th number since its publication.

There was an error in correcting proof of last issue, which made it read Vol. III, No. 10 (ten), instead of Vol. III, No. 11 (eleven). Hence this issue is Vol. III, No. 12 (welve), whole number 36. This is the first number issued from our new place of business, No. 223 Church St., Philadelphia.

HOW CAN WE DO IT.

It is a somewhat difficult matter to conduct a paper to suit the masses, especially when the masses consist of a multitude of benjo artists, banjo soloists, lanjo experts, lango soloists, lanjo experts, lango soloists, lanjo experts, lango soloists, lanjo talkers, lanjo talkers, lanjo patters, experie langoist, exception partiers, experie langoists, mateur and professional langoists, and almost a great a variety of guitar artists, counting ar players, note players and those who play parely by

If we had only to suit the refined tastes of the higher class of labids and gendlemen who play on either of these instruments, we should not have as much trouble as is necessitated by being obligated to have a little for everybody. But the fact is, as has often been stated, the Jeannal is subsidised for the upprose of advancing the hanjo generally, and no ore can honestly say that it has not succeeded in so doing; and also for the purpose of advertising our musical publications and instruments. Were this not the case we should have been enabled to save hundreds of deliars thus face where the substitution of the contract of the con

There are some few who seemed to have objected to our advertising the famous "Ham Curse" in the Journal. But there are people who would object to everything if they only had the chance. In fact, there are often members of Congress who make it a business to "object" to all bills brought up. Our constant allusions to the "ham" has been

Our constant allusions to the "ham" has been purely a humanitarian act. We saw, long ago, that unless something was done to save the banjo from the "ham," that the "ham fever" would become contagious, and the rise of the banjo impeded for another reneration.

We should be glad to give the "ham" a rest. We should almost shout with joy to be enabled to drop

We prefer to soar in the higher realms of musical literature, but our duty often compels us to tarry a

while longer with the "ham." When there are no longer any "hams" we shall not be compelled to sandwich the *Journal*.

When all banjo players have become refined and classical, the fournational become likewise. A stream partakes of the source through which it, flows, Can you wonder that particles of "ham" should occasionally work their way into the, wheels of the fournat when its route lies through the great country which rephraces the banjoists of all the aforementioned

None of our subscribers, however, are "hams," but some of our subscribers are known to have "hams" near them, and they lend them their paper to read. This is simply an act of charity, and an act which will bring its own, reward

The question for you to solve, objector, is how we are to make our paper conform to the views and tastes of all our readers and offend no one, and at the same time uphold the true artist and extend the sale of legitimate music. You all, of course know exactly how to do it; we do not.

THE METHODS OF A GREAT(?) "BANJO MAKER."

When J. E. Brewster, of London, England, began making initations of the Stewart Banjo (after he thought that Stewart had sufficiently advertised his name, etc., to give him a good start), he employed a man by the name of Dallas to do his work.

After the Stewart Banjo had been awarded a medgl at the London International Exhibition in 1854, which medal this great genius. Brewster, appropriated to bis own use after charging all the expenses to Stewart. Brewster and his communities of the control of the

Such trickery may succeed for a time and with a certain class of people, but it is often the case that such great and mighty minds find homes at last in institutions freely prepared for them by the criminal laws of the land.

THE POST OFFICE.

Republican newspapers have lately been making considerable fins about the nanner in which they allege our Philadelphia Post Office is conducted; there havung been some delays in delivering mail matter, tee, Incompetency in the elerical force of the office, etc., in charged, and all the blame thrown upon the shoulders of Postmaster Harrity, doubtless because Mr. Harrity is a Demorat.

Now we did not vote the Democratic ticket at late elections, nor were we in favor of changes being made in the Postal Service or other Government offices, but we believe that Mr. Harrity is fully competent, and able to properly conduct the immense business of our Post Office, provided he is given a sufficient clerical staff to meet the constantly increasing business of this office. We do a large mail business and have no complaints to make about Postmaster Harrity, and morrover, have found his Postal Money Order Department quite as polite and fully as accommodating as their prefereessess, to say the least.

The fact is that there has not been a sufficient increase of hands to cope with the enormous increase in the business of our City Postal Department, but for this, Mr. Harrity is in no way responsible.

Enomous quantities of newspapers are showed through the pool office which pay the department only one cent per pound for handling, while papers like ours, not being rated "second class," are compelled to pay one cent for each two ounces, or fraction thereof. The loss made by the Government on the "second class" matter is made up by us mailers of whird class" matter; that's the way we believe it is worked, but we do not charge that to Postmaster Harriy, and we further believe that it would be a farming and we further believe that it would be a campaign, scarcerows should be classed as "third" instead of "second" class mail matter, then they would assist in supporting the office and aid in paying the cost of its maintenance.

We have had considerable complaint from various parts of the country of late about mailed packages being slow to arrive, etc., but the trouble has been caused as much by postal changes in offices outside of the city, as in our Philadelphia office.

THE MUSIC IN THIS ISSUE.

We publish in this issue some capital pieces for young players as well as for the more advanced student. The "Stick Indian," minor jig, is not by any means a new piece. It was originated by Horace Weston, some years ago, and is in the true Weston style. It alfords excellent practice for he left hand in the snap and vibration sltr passages, and may be played in either picking or stroke style- of execution. Vears ago, we heard E. M. Hall play this jig, which

Years ago, we heard E. M. Hall play this jig, which took immensely with the audience at the minstrel show. He used the piece as a "titck solo," taking off and putting on his hat with the right hand, whilst executing with his left in the passages marked left hand as seen in the missic.

"The Exile's Dream," by Armstrong, is intended for practice and anusement. The tremolo is made with the first finger of the right hand, and the accompaniment is made with the thumb of same hand whitst playing the tremolo.

The Dorigo Schottische, by Armstrong, is also an excellent teaching piece and also very good for players who have made some progress in banjo playing. For guitar players we give a new composition of Fred Oehler's, The New Year's Schottische, which

THE FREAKS OF GENIUS.

will be found very pretty and attractive.

F. O. Oehler, it seems, suddenly changed his mind about opening a school for guitar instruction in Philadelphia, and acting under one of those impulses which so frequently influences genius, he suddenly left the city, and when last heard from was temporarily sojourning in Holoken, N. J.

DECEASE OF W. L. HAYDEN.

We are sorry to be called upon to note the death of this well-known and esteemed guitarist and teacher. Full particulars are given in another column.

WILLIAM A. HUNTLEY, . The well-known banio artist and composer, locates in

Boston, Mass., for the season, where he will teach a large class. John H. Lee will be associated with him, and the two doubless will secure a large patronage. We advise all banjoist in the vicinity of Boston who desire instruction in-the higher art of banjo playing, tocall upon these gentlemen.

REMOVAL.

Owing to the enormous increase in the sale of my Parlor, Concert and Orchestra Banjos and new patent Banjeaurines, and also the great increase in the demand for my celebrated Banjo Books, Music, Songs, Charts, etc., as well as the constant increase in the circulation of the now widely-read and well-known Banjo and Guitar Journal, I have been obliged to seek more commodious accommodations in all the various departments of my growing business.

I have therefore removed my establishment from the building formerly occupied by me at No. 412 N. Eighth Street, to the commodious four-story building and store situated at

No. 223 Church Street, Philadelphia.

Church street, in which millions of dollars of business is done annually, is situated in the heart of the business centre It lies between the broad thoroughfares of Market and Arch streets, running east and west, parallel with them. It was named from the grand old building known as Christ Church, where General Washington used to attend services, and which is situated on the corner of Second and Church Streets.

My banjo manufactory proper, occupies the entire fourth floors of the three buildings, Nos. 219, 221 and 223 Church Street, whilst the balance of building No. 223 Church street is occupied as follows:

FIRST FLOOR .- Store and Counting House.

Second Floor.—Office, Packing Department and Storage of Music and other Printing.

THIRD FLOOR.—Music Plate Printing Department, for printing Banjo Music, with Presses, etc. therefor.

FOURTH FLOORS OF ENTIRE THREE BUILDINGS .- Banjo Manufactory, etc.

Basement (under the store).—Used for Storing Packing Cases, Coal and other materials.

The high rents, tax rates, as well as high rates of insurance, have prevented any other musical instrument manufacturer from entering this locality.

"SOME TEACHERS."

A prominent party, connected with the press, in a western city, recently said in a letter to us, that there was not a Banjo teacher with any manhood in his city

Just how much truth there may be in this statement in regard to his particular locality we are not prepared to say, but, judging from reports which frequently come to us from various parts of the county, concerning the actions of some teachers (?) there seems to be some foundation for such complaints.

A lady recently wrote us a letter from which we extract the following:

"As you recommended — now the his religible the commended — now the his results of the Later Lat

I am told that I am one of many he has treated in this way."

There are, it is said, "black sheep" in every flock, and all that can be expected of the flock of banjo teachers is that the proportion of black sheep be kept within reasonable bounds and at as low a ratio as possible as compared with the

How often we hear the expression "He's white," when in fact he should be called black. What appears as "white" to one person, may

appear "black" to another, and we must therefore make allowance for difference of opinion, age, color (?) and previous condition, as it were. There can be no doubt that there is a lack of

good, honest, energetic and competent teachers. We are sorry to say that some of them have not dealt with us as we believed they should have done, and having long over-due accounts against others we are often led to treat those with sus-

picion who are deserving of our confidence. We do not think there is a fortune in Banjo teaching, or, indeed, even a good living to be made in teaching the banjo alone, but there are numerous openings for competent teachers of the Banjo and Guitar, and still better prospects for those who can also teach the Mandoline.

It is sometimes difficult for an honest teacher to make a living at first, but such teachers, when they have gained the confidence of the public, will succeed much better than those who have a

natural tendency to pervert their art.

When a competent teacher has secured a reputation as being "reliable" he is bound to succeed. But when a teacher has earned a title somewhat synonymous with "beat," he is bound to have a hard road.

Recently a teacher in a neighboring city ordered a twenty dollar banjo of us, to be sent to one of his pupils C. O. D., and with instructions that we were to charge \$25.00 instead of \$20.00 for the instrument.

This we refused to do, but wrote the teacher that we would make a \$25.00 banjo and send as soon as done, but would not charge \$25.00 for a \$20.00 instrument.

This correspondence caused a slight delay and in the meantime the customer purchased else-where. Now, had we filled the order, charging \$5.00 more than was right, we should probably have got our money and the teacher his commission on the sale; but as it is we prefer to lose such sales, believing that it will be better in the long

A MUSICAL WONDER.

When Pan, the God of Music, distributed his gifts for the benefit of the present generation, he awarded his grandest conception to S. S. Stewart. who presents it in the form of the most beautiful Banjo known to the world. Its tone is that of the Gods' own concentrated beauties, and fills with delight the most accurate ear. Its perfect and elaborate construction harmonize with the desire of the fastidious eyes, while its durability meets the demand of the most rigid economy

This model of perfection may be seen at the conservatory of T. De Harport, 349½ Fifteenth Street, Denver, Col., where he will take pleasure in explaining its merits to his patrons, as well a in explaining its merits to his patrons, as well a to the public in general. He also teaches th music of S. S. Stewart, Horace Weston, W. A. Huntley, E. M. Hall, and that of other prominen banjo and guitar composers.

Yours respectfully, T. DE HARPORT.

OUR LATEST BANJO MUSIC.

Our latest publications in the form of sheet music for the banjo begin with number 224 in our instrumental calalogue, as advertised. From his date each purchaser of music in quantities will receive the benefit of a discount, but no discount will be allowed on single pieces or on smaller orders than stated in advertisement.

DISCOUNT.

On \$4.00 worth of books when purchased at one time and cash is sent with the order, a discount of 25 per cent.

On \$3.00 worth of sheet music when purchased at one time and cash is sent with the order, a discount of 33\frac{1}{3} per cent., or \frac{1}{3} off.
\$4.00 worth of books will cost \$3.00 net.

\$3.00 worth of sheet music or songs will cost \$2.00 net.

Positively no further discount from these rates. These terms apply only to music and books published by S. S. Stewart.



E. Wells, of Birmingham, Conn., an old time performer, says that Horace Weston's father was one of the best cotillion teachers in New England, and also one of the most gentlemanly and the "whitest" black man in America. Horace doubtless inherits his manly bearing.

G. R. Westerfield, Katams, Martha's Vineyard, says: "I must speak a word of praise for the Princess you sent my friend while we were at Portland. I have never heard a better or sweeter tone."

J. A. Labarge, of Malone, N. Y., writes: "The Orchestra No. 2 banjo came last Thursday, all O. K. I consider it as fine as any I ever saw. The tone is loud and very fine, besides being fettled true to the rim. I fall to discover any positions, etc., which are not all right."

C. S. Mattison, of San Antonio, Texas, battje and guitar tencher, says that he was so delighted with the pupils, had a "regular pienie" over it. Wishing to show his appreciation, he went out among his-pupils and got twelve new subscribers to the Journa's

C. F. Stiles, of Pueblo, Colorado, writes that Lee's Chord Construction, in the Journal, is fine and instructive, in fact, the best he ever saw.

Sommers & Walters, "banjo, song and dance," were with the Loraine & Lawrence combination recently.

J. De Boe, of Grand Rapids, Mich., writes: The banjo (\$100), arrived this A. M. I don't want to flatter you too much, but I must say that it is the finest banjo I have

Messe Easton, of Melbourne, Australia, writes under date of July lith. "My landes eight in hauther, arrived interest of the property of the pr

Charles T. Walker, Leadville, Colorado, writes: "Enclosed you will find ten cents, the difference due on June Issue of Journal, which I received O, K. The last copy was a 'bird.'"

E. J. Appleby, of Honolulu, H. I., writes: "I still have the Orchestra handy you made for me in October, 1884, and although I have given it become that the way to the control that I have given it become that I have given heard qualed in a banjo. There were a lew banjos here when I first came, about a year ago, but they have all been knocked out and laid on the shelf since their owners have heard you'ld banjos."

Richard McEwen, of Stonington, Conn., says the June Journal was "immense," and wishes it was published more frequently.

Charles Verelst, of Jacksonville, Florida, says that he finds the articles in the June and August Journals exceedingly interesting and valuable.

ceedingly interesting and valuable.

George H. Ayer is playing with De Latourx Electric Belt Co.

George Ware, the well-known dramatic agent, of London, England, writes that the two banjos made for Miss Arline, the Banjo Queen, have given unbounded

Harry Sykes, of Leeds, England, writes that he is about to get up a banjo book. It will contain some reprints of Stewart's music.

Charles Brown, of Honolulu, H. I., writes under date of August 14th: "Banjo safe to hand, I am very much pleased with II, and feel quite proud of being the owner of the finest banjo on the Islands. As regards brilliant tone and beautilith workmashing, the test as writing I ever saw." N. H.—Mr. Brown's address is care of Hallister & Co., druggiets and tobacconities.

Wm. A. Huntley visited Philadelphia during August.

G. H. Lansing, of Boston, having returned from his ummer vacation, is ready for teaching.

Charles G. Porter, of Watertown, N. Y., has been having a new \$50 barjo made at Stewart's. He much prefers it to one which cost \$125 in Boston,

W. O. Straudberg, of Oxford Furnace, N. J., writes that the Journal is really more than any reasonable man could expect for the money.

We have read in the price list of a certain banjo manulacturer, that he did not charge any more for a large banjo than for a small banjo. He does not mean this, however, but vice veria. He charges just as much for a small banjo as for a large one of his peculiar make.

It is a problem as to just what ratio the red ribbon bears to the banjos advertised in the new price list sent out by a Boston firm.

Was it done to save binding expenses, Albert?

Some time ago it was said that the trouble with all short neck banjos was their lack of vibration—lack of tone. S. S. Stewart has completely overcome this objection in his Imperial Baujeaurine.

Thomas H. Kelley, of Newport, N. H., writes that he is nicely located there as a banjoist, vocalist, arranger and teacher.

V. L. Ossman writes that he is meeting with great success through the State of New York.

We have at last been able to find out where all the

"Itade tube" or "35 bracket." banjos go to.
A Denver paper informs us that 222 banjos were sold in
that city in six months, and that out of this number only
about inity were sold to those who are taking lessons.

The Banjo Philosophically, is here published in full,
and is intended for those who have made some advance-

The Bayle Philosphically, is been published in full, and is littleful of these was intermediated in the study of the hand. By such it will doubtless be read and appreciated. Those who are unable to be read and appreciated, Those who are unable to less pass judgment upon it in the style of the "musted less pass judgment upon it in the style of the "musted reflect," but have util not in the less at affect it on way or found in no book, and this is our only reason for publish. The terms "Concert and Parin Baijos," "Concert.

The terms "Concert and Parin Baijos," "Concert.

found in a county of the count

Telly.

It is hoped that The Banjo Philosophicaily, merely an outline in itself, will give some new ideas to a few of our banjo makers, and perhaps in the future, we shall give them something more voluminous and complete.

In Denver, Colorado, Mr. Arling Schaeffer holds forth as teacher of the banjo and guitar. Mr. Schaeffer is a good musician and can not only read music at sight, but is also an arranger of music and a composer of no mean ability. He has lately purchased for his own use, a new Stwart Banjo.

Walter Beam, of Lake City, Colorado, is a fine banjo player, as many are aware. He plays Stewart's music and Stewart's Banjos. On a recent trip East he purchased a new "Stewart Champion."

T. De Harport, of Denver, Colorado, has lots of pupils on the banjo.

Mrs. E. G. Harbaugh, of Washington, D. C., gives lessons on the banjo and plano. Address, No. 516 Sixth street, N. W.

Our regular customers for music and new publications are now favored by our new discount rates. (See in another column, particulars.) No discount will be made on little petty orders. Our object in making the new rates is to facilitate business and be able to sell in larger quantities to single buyers, and at the same time favor our regular customers for music.

G. C. Barnard, of Springfield, Mass., has accepted the position of teacher of guitar, banjo and mandolin, in the Conservatory of Music, in that city.

P. H. Coombs, the architect and talented banjo player of Bangor, Me., is ready for teaching for the winter season.

Lew Simmons, the first banjo player Stewart ever heard, has again entered the minstrel business, which he had given up for some years past to manage the Athletic Base Ball Olub. John Davis, banjo teacher, of Springfield, Mass., uses more copies of the American Banjo School than any other teacher in the business. He evidently teaches in the right way.

W. E. Stratton, of Lowell, Mass., uses lots of Stewart's music in teaching.

John C. Wild, banjo and guitar teacher advertises his new music in this issue.

Jehn C. Hennessey, of Butte City, Montana, says he would not be without the Journal.

Ed Slocum has lately purchased a Stewart Banjo for his musical act.

Louis N. Cole, of Providence, R. I., is prepared to teach pupils on banjo and guitar. We believe him to be a good teacher. His address is No. 16 Knight street.

Goldby & Shepard, teachers of the banjo, in Paterson N. J., have made due preparations for the coming season's

Matthew McClean, of Lowell, Mass., has quite a class of pupils on the banjo.

Part first (first lesson's) of Lee's Electric School for the banjo, should be in the hands of every teacher; price \$1.50. Discount to the trade.

Thes. L. McClelland, of St. Louis, has a daughter who is said to be the finest lady banjoist in the West.

1. S. Browne, of North Adams, Mass., writes music

S. Browne, of North Adams, Mass., writes music composes and arranges), also songs (words and music). Each and the sales of teacher of the banjo. Those wanting any done in his line of business would do well to address him.

Mr. Browne has composed a new march which will be published by us shortly.

Fred O. Oehler writes us from Hoboken, N. J., that he is giving guitar lessons in that city. He has issued several new numbers of his guitar studies.

Latest advices from G. L. Lansing say that he is located in Room 9, Tremont Temple Building, Boston, and that the Stewart banjo is fast replacing all other makes with his pupils.

Elmer Vance, of Columbus, Ohio, writes us that he is teaching with success, and that the Stewart Orchestra Baujo he purchased two years ago is the best instrument he ever head.

Charles A. Maskell left Paterson, N. J. for his home in Grand Rapids recently, to resume teaching.

Read what the papers say about the Hennings and heir Stewart band of such speciformers as John and Meia. Since the advent of much speciformers as John and Meia solling the state of the st

J. E. Henning is the Paganini of the banjo. He has no equal .- N. Y. sun.

The seven hundred guests at the Long Beach Hotel, L. I., were delightfully entertained Monday evening by the J. E. Henning Banjo and Guitar Concert Co. It proved to be the great event of the season.—N. Y. Tribune.

John and Meta Henning gave one of their delightful banjo and guitar entertainments at Walton Place, Thursto Church of the Ascension. It was a great success, ast always is when those wonderful people are advertised.— Chtago Tribune.

Maks Henning, the most beautiful and accomplished banks and guitar critist in the world, completely captured the audience at Uentral Music Hall last evening, and after responding to many encores, was obliged to bwe thanks to the admiring audience amid a shower of bouquets.—Okacop Elits News.

George F. Gellenbecke, of Omaha, Neb., says that the Stewart banjo he ordered for his pupil is a "darling."

Kohler & Chase, the great music house in San Francisco, Cal., are agents for the sale of the Stewart banjos, as usual.

A. Hospe, of Omaha, Neb., is agent for the Stewart banjos in that city.

J. E. Henning writes that himself and wife expect to return to Chicago in October to resume teaching.

Mr. Lee continues his lessons in Chord Construction, which is now well introduced to our readers, and from which many have derived profitable instruction.

INTERESTING LETTER FROM A BANJO TEACHER ON HIS . SUMMER VACATION.

Sag Harbor, N. Y., Aug. 8, 1886. MR. STEWART, Dear Sir: I have been at Sag Harbor for the past three weeks, enjoying myself and sounding the praises of the world-renowned

Stewart Banjos. I left Richmond July 10th on the Steamer Roanoke for New York, with three of my musi-

cal friends. We gave an instrumental and vocal concert on the ship and had a splendid time generally.

My friends were seasick as soon as we struck, salt water, but I am an "old cork float" and was

not affected. We spent a very pleasant week together in New York, then I left the wicked city and its

temptations for a more quiet place.

I struck Sag Harbor—I inquired for a quiet place to board, and was directed to Capt. W—'s.

The Captain owns a very nice "sloop" "yacht, so I thought that was the place for me. When

Mrs. W --- saw my musical outfit she wanted to know what business I was in. I told her that

to know what business I was in. I told her that I had been on the stage.
She asked if I made much at that.
I said about \$39.00 a week. That night she said to Flip (a young man who plays the guilar and sings, and is boarding with her). "He's a real nice young man, he makes \$30.00 a week driving a lack in New York. That is the worst deal I ever got.

There are several young men here who "pick" the banjo, but they are advocates of the "open and shut" method (send me some "ham bitters." I think if I stay here long enough I will be able to convert some of them. I have commenced already by giving them your catalogues. Please send me some more catalogues of your banjos

Last Friday Captain W- invited Flip and myself to take a cruise with him in his yacht. We went.

We set sail at 4 P. M. for Gardiner's Island. We arrived there in about two hours and

dropped anchor for the night. We caught some fine sea bass, which the Cap-tain cooked to the "Queen's taste" for supper. After supper Flip and I played some banjo and

guitar duets on deck.

At 4.30 next morning the Captain called us to

breakfast At 5 o'clock we set sail, we went out about a mile and a half, where we fished till noon. We caught 30 bass, 150 porgies and about thirty pig-

We threw the pigfish overboard as they were

At noon we set sail for home. On the way Flip

lost his light derby. When he got it again it was dark brown—it will do for next winter. At 1 P. M. we had to put a reef in the mainsail

Before we arrived at the dock it was blowing

half a gale. We arrived at Sag Harbor about 2 P. M. safely, as hungry as bears.

Good-bye for the present, Sincerely,

C. L. LUMSDEN.

P. S .- Received the JOURNAL last night-it is immense.

Don't forget that S. S. Stewart has removed from his Eighth Street store to his large four story factory and store, at No. 223 Church Street. This is the place to send for a fine banjo.

Send a four cent stamp to S. S. Stewart, No. 223 Church Street, Philadelphia, for his new 40 page illustrated price-list of all kinds of banjos and banjo music and books.

The Banjo Philosophically, S. S. Stewart's new lecture, gives detailed information about banjos which cannot be obtained elsewhere.

Among the new music to be published by Stewart, in October, will be found the following: Magic Trick March, by T. J. Armstrong, 25 cts. Exhibition Schottische, duet for 2 banjos, 25 cts Hennessey's Hurrah Polk, by Hennessey, 10 cts. Susie Curran Waltz, by Hennessey...... 10 cts. Chorus of Spanish Bull Fighter's from La Traviata, a magnificient duet for two banjos, .35 cts.

If you want a banjo that will give you great satisfaction, send to S. S. Stewart, the great banjo manufacturer, No. 223 Church street, Philadelphia, Penna.

Banjo teachers throughout the country are beginning to awake to the great value of Stewart's banjo books and music in teaching. No teacher of any account "writes off" music for pupils any longer. That is a "fake" belonging to the bygone dark ages.

Stewart's Banjo and Guitar Journal is a balm of Gilead to the hard working teacher.

JOHN H. LEE

is at work on the advanced studies or part second of his Eclectic School, to be published by Stewart.

It is to be (the second part), a work of from fifty to

one hundred full sized plates. Part first (first lessons), may now be had as per advertisement on another pag

Mr. Lee, associated with Mr. Huntley, will give lessons during the season.

THOMAS J. ARMSTRONG.

This favorite teacher is now ready to resume lessons, having returned from his country seat at Sea Isle City-He has already a large number of pupils entered for The banjo in his hands receives well merited attention. Call or address him at No. 418 N. Sixth street, this city.

J. E. HENNING.

Mr. and Mrs. J. E. Henning are meeting with much success in their banjo and guitar performances through the different States. They play the following:

PROGRAMME.

1.	BANJO DUET.	Alhambra Club March, by Henning
2.	GUITAR SOLO	Intro. and Theme, with variations, by F. Sor, Op. 10.
3.	BANJO SOLO.	Last Rose of Summer, with variations, ar. by Henning.
	CHITAD DUET	Cranbonia Countre or by Mato

Henning. BANJEAURINE SOLO. Long Island Waltz, by Henning.

BANJO SOLO. Florence Waltz, by Henning. Meta Henning. MANDOLINE and GUITAR:

GUITAR DUET, El Belero. Charles de Janon 9. PICCOLO BANJO SOLO. Fancy Clog Medley. Meta Henning.

10. BANIEAURINE SOLO. Let Her Go Galop, by Huntley.

New Music for the Banjo is being constantly published by

S: S. STEWART.

S. S. STEWART,

Banjo Manufacturer, REMOVED FROM

No. 412 North Eighth Street, To No. 223 Church St.,

PHILADELPHIA, PA.

LATEST ITEMS.

Miss Ada McClelland, of St. Louis, has been presented, by her father, with a Stewart "Little Wonder" Piccolo Banjo.

The Rock Climber's Schottische, by S. S. Stewart, for two banjos, price, 25 cents, will be issued about October 1st. Every banjoist should have a copy. Louis N. Cole, of Providence, writes,

having just received the copy of Lee's Eclectic School, part first, "It is something entirely new and is just the thing for a beginner who wants to start right." A very interesting letter from Bolsover

Gibbs was received just before going to press, but owing to the crowded condition of our columns we are obliged to omit it. Mr. Gibbs has been traveling through the East with his cousin, Mr. Commonwealth Jones.

Otto H. Albrecht, banjo teacher, inserts his card in this issue.

Be sure to subscribe for the Banjo and Guitar Journal.

Arling Schaeffer, sends us the following sheet music for the banjo:

Home, Sweet Home, with grand Vars., 50 c. Beautiful Select Waltz, When You and I were Young, Maggie,

and Vars... Exposition Grand March, FO C. Schaeffer's Celebrated Solo Jig, No. 1, 50 c. Schaeffers Celebrated Solo Jig, No. 2, - 50 c. Brittle Silver Schottische,

Schaeffer's Favorite Galop, - 40 C. Sun Flower Jig, - 20 C Butterfly Hornpipe and Electric Clog, 3o c.

All these have parts for second banjo, but are complete if used for a single banjo, For the Guitar:

Fantasia, Cradle Song, - 50 C. Nocturne, "Two Lovers," - 50 C. Loves' First Dream, Lullaby, - 40 C. The Merry Polka Hornpipe, - 35 C. Song of the Leaves, * - 30 C.

Banjo, Guitar and Mandolin Teachers are doing well.

The place to buy a good banjo or guitar, is at "Banjo Headquarters," S. S. Stewart's, store and factory, No. 223 Church street. Philadelphia, Penna.

John H. Lee writes the most brilliant and scientific banjo music.

Wm. A. Huntley, as a composer of music, is the beau-ideal.

Thos. J. Armstrong, with his gold glasses on and pen in hand is busy concecting new music for Stewart.

Prof. F. C. Armstrong writes that he has resumed teaching at No. 44 Perry street, New York City.

The Cream of Roses Schottische and the Grand Inauguration March, for banjo and piano, are two of Stewart's most popular compositions,



The Banjo Philosophically,

Its Construction, Its Capabilities, Its Evolution, Its place as a Musical Instrument. Its possibilities, and Its Future.

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A LECTURE. By S. S. STEWART.

I have selected as my subject THE PHILOSOPHICAL PRINCIPLES OF THE BANJO AND BANJO PLAYING, More properly speaking, I should say, THE PHILOSO-PHICAL BASIS ON WHICH THE BANJO IS CONSTRUCTED, AND THE PHILOSOPHY OF BANJO PLAYING

I have here several banjos and parts which it is my urpose to introduce, and which I shall use as objects of illustration during the course of my lecture.

I ask your attention, for a short time, to my remarks, and I will endeavor to bring before you, in as unpre-tentious manner as possible, the different classes and grades of banjos, and notice briefly the various changes which have taken place in the instrument during the past thirty years, during its process of evolution to its present state of progressi

The banjo is, as you all know, an instrument of the stringed class, and may be associated with the guitar,

lute, mandolin, bandore, etc.

I believe, and it is so stated by other authorities, that the banjo got its name from the bandore, and that it is not of negro origin as has been claimed.

The bandore some of you have heard played, when you listened to the Original Spanish Students.

It is of ancient origin and the name banjo is thought

to have been corrupted therefrom. There is no such instrument as a bandoline, so far

as my knowledge extends, although I have heard that name mentioned in connection with banjos. Bandoline, as I understand it, is a hair oil or pom

ade, and can have no signification here. The name Banjeaurine has been given to a some

what modern style of banjo of my own manufacture, and of which I shall have something to say presently. I mentioned some time ago in a small publication relating to the banjo, that an Egyptian Lyre of the Ancient Egyptians had been seen by a certain writer, which was in every respect a modern banjo. I believe that the hoop or mu of this lyre was oblong or oval, and not circular, like ours-hence it was not a " mod-

ern banjo," However, it is not my purpose to delve into by-gone ages, searching after fragments of the past-at least not at this time; nor is it my purpose to dwell upon the origin and ancestry of the present banjo, nor to occupy any more of your time by dwelling upon or discussing as to where, why, when and how the banjo

We all admit that it has a name and that its name is banjo-b-a-n-j-o or b-a-n-j-c-a-u, but not b-a-n This is sufficient.

stance, called the head, is stretched. This head being elastic acts as a sound-board, as does also, in a manner, the wood or other material in the rim or circular frame.

The instrument, like the guitar and other instru-ments of its class, has a neck; from the extreme end of which strings are stretched, extending over the head, across the circular frame,

A small piece of wood is fashioned into a "bridge," upon which the strings rest, and by which their vibra-tion is conducted to the head. Without this small appendage, the bridge, the instrument would be worth-

The banjo differs in the tone produced, as well as in its shape and general appearance, from the guitar and other instruments of the same class. The strings vibrate, and are treated in a similar

manner to the strings upon a guitar, but the philoso-phy and scientific principles of the construction of the instrument are different.

In the banjo the head combines its vibration or pulsations with the vibrations of the strings, and the rim acts in unison with the head as a peculiar kind of sound-board. But of this I shall have more to say

THE EARLY BANJO.

Should any of you open Moore's Encyclopedia of Music at page 90, and there read its description of a banjo, you would possibly be led to believe that the banjo was not much of a musical instrument. And you would infer rightly; for at the time the Encyclopedia was published, in the year 1854, I believe, the banjo was considered, as some have it, purely an instrument of accompaniment. In those days no one supposed that the banjo would ever become a recog-nized and favorite musical instrument, or that it could ever possibly become a favorite with the ladies.

Time works great changes, and yet I have no doubt that many there are who still have no other conception of the banjo than as described in Moore's and other

Encyclopedias.

About the first player upon the banjo I have heard spoken of was Joe Sweeney, of Virginia. Before his day the instrument is said to have been a "three-string any the instrument is said to have been a "three-string gourd," and played by one Picayune Butler, of whom many of you have heard. There was a great old-time "banjo song," said to have been sung by him, called "Picayune Butler's Conge to Tevon."

But as Picayune Butler's Three String Gourd bears as little relation to the present banjo as the ancient Viol does, or did, to our present Violin, the king of musical instruments, I deem it worthy of but brief

mention at present.

Sweeney, aforesaid, is said to have added the third and fifth strings to the "three string gourd" and made it, what was at that time called a ban

The banjo at that time had no hoop and system of screw hooks to tighten the head. The head or skin was usually fastened to the rim with tacks and cement. The head, after being wet, was stretched over the

circular rim, which was usually of ash wood, and then fastened and allowed to dry,
When the head dried it of course contracted and

became firm and tight. We have still in use almost the identical system for putting heads on tambourines, but the old-fashioned "tack head" banjo has gone out of date-burned out, like a taper or tallow dip which has given place to the lamp, gas jet and elec-

Following the "tack head" banjo came the screwhead banjo with solid iron band or hoop and iron brackets and screws.

It was no longer necessary to hold the banjo near a stove in order to cause the head to contract and become tight when the weather was damp, as the nuts upon the hooks could be screwed up and the hoop drawn down in a somewhat similar manner as it is done to

day.
But the banjo at best was a very crude instrument.
The system, or mechanical part of the same, was very The system, or mechanical part of the same, was very unfinished, and the heads in use were generally made of sheepskin, and were not calculated to stand the strain which those used to-day are put to.

The necks, too, were very crude, and generally had a piece of wood sliced out of the butt-end, aid The instrument, as it stands, is composed of a cir-the rim and hoop, as nobody ever thought of playing cular frame or rim, over which a membraneous sub- "Away up There" in those days.

Then, too, the instrument was strung with thick strings and tuned to a low pitch, and the style of exesumps and times to a row pitten, and the style of exe-cution was entirely the old "stroke," or original "banjo style," Nobody "picked" the banjo then in what is now termed "guitar style."

They used to make the banjo rims in those days at least three inches in depth, which made them look clumsy and "tulby."

In those days there was a banjo maker in New York by the name of Jacobs. He is spoken of as the, first "professional banjo maker," or first maker of professional banjos. That means that he did not make fancy banjos for

the ladies to decorate with ribbons and hang up in their boudoirs, but he made a good, solid, strong, heavy-built banjo, which was calculated to stand the hard knocks of the minstrel stage.

I have never, so far as I know, seen or played upon ne of Iacobs' instruments, but I think if I could produce one of them that you would scarcely recognize in it any resemblance to our favorite "silver-rim anjo of to-day, now so popular. Jacobs was evidently an industrious German, and

returned to his native land with a small fortune, made by hard work and saved by frugal living. It may be that he introduced into Germany the

patterns from which some factories are still turning out banjos, but I hesitate to charge an honest man with such a crime However, Jacobs lived and made his banjos before

my time, that is, before I saw the light in this world; and I will refrain, therefore, from raking over the ashes of by-gone days, now buried in oblivion.

From time to time improvements were made in the banjo as it developed in the hands of new performers. Mechanics here and there improved its various parts, and gradually musicians "took hold" of it. More brackets were added to the rim; some makers

narrowed down their rims a little, and also shortened their necks, and then banjos began to appear having polished brass or German silver brackets and hooks instead of iron. A gaudy brass plate was sometimes set into the neck as a part of the finger-board, Players began to execute music in the guitar

style of playing, and the instrument became a great attraction in all minstrel shows.

G. Swayne Buckley was one of the first who added the guitar style of frets to his banjo, although I believe that he played almost entirely "banjo" or "stroke" style, and therefore his wisdom in using frets (raised frets) was doubted by many.

At that time scarcely any performer used frets, raised or otherwise—on a banjo neck.

Indeed there would have been little use for them with most of the "great banjo soloists" of that day, with most of the "great banjo soiosis" or that day, as they never thought of stopping the strings beyond the fifth string peg. The gigantic effort required in making a barre chord on the banjo then used was not to be indulged in by any, save those of advanced

I have endeavored to be as brief as possible in my remarks, as the ground already covered is but an in-

troduction to what follows. I will, therefore, now take up the THE BANIO-

the silver rim banjo—which I consider the only true banjo, and endeavor to philosophise and analyze the instrument in as few words as possible.

THE "SILVER RIM" BANJO.

Just as there are enormous numbers of trade fiddles, eap violins, turned out of the great toy shop of the world, Germany, and sold by our music stores throughout the land, so there are factories in this country where large numbers of cheap banjos are manufactured and supplied to the trade,

The old style "tack-head" banjo is scarcely found

in a music store to-day, but it is sometimes to be found at toy stores, where they are disposed of to young ladies, some of whom purchase them for cheap decora-ting purposes. But the majority of banjos ting purposes. But the majority of banjos turned out by the "cheap factories" at this time are metal covered rim banjos, with nickel plated mountings and walnut necks. They are made in imitation of the Standard German Silver Rim "Professional" the Standard German Silver Rim "Professional" Banjo, and sold to beginners and learners of the in-strument. Nearly all of my recent customers have had at least one of these cheap banjos. In fact I prefer that such should be the case, as a person who

has been in the habit of playing upon a poor instrument is all the more ready to appreciate a good one when he gets it, although it may be that his "musical ear"

become deadened to some extent.

Many of you have heard of the old " Troy Banjo," A few years ago these banjos were in use by many players upon the stage and thought much of. were made by two makers: The first was August Wilson, an eccentric genius, who was much liked by want players of his day. Wilson was followed by a many players of his day. Wilson was followed by a maker named William H. Farnham, who followed the style originated by Wilson, without attempting any important improvement. These banjos were generally of 10 %, 11 and 11 % inch rim. The necks were holted fast to the rims, there being no wood or metal bar extending from the neck through the rim as there is in nearly all banios of the present day. The absence of this bar caused the neck to constantly work upwards, and the banjo could not be depended upon to remain in tune.

The rims of these instruments were constructed upon the same principles as those of to-day. A maple wood hoop, covered with sheet German silver, and wood noop, covered with sheet German silver, and turned down at each side over a wire ring. But the work was more crude at that period, and the rims, although very strong and solidly made, were not capable of giving the vibration of those produced and used this day in the Stewart Banjo. This is a well attested fact.

The "Clarke Banjo," an improvement on the Wilson and Farnham Banjos, became a general favorite among minstrel and other stage performers.

Clarke's Banjos were made by the late Jas. W. Clarke, who continued to make them until the time of his death, which was caused by consumption, and took place in New York City, on February 27th, 1880. Clarke's Banjos, as I have said, were an improvement on the Wilson or Farnham instrument, as Clarke added the extension bar to the necks, making the instrument more solid in construction, and more sure to remain in tune. But I do not mean to say that Clarke was by any means the inventor of this improvement, or that it was of his own origination, for the majority of wood rim banjos, even before that day, were so made. But every manufacturer of a musical instrument leaves the impress of his individuality in his work, to a certain extent. This is a perfectly philosophical and a well known psychological fact, and governed by a psychological law.

Outside of this, Clarke had his little secrets in regard to his methods of work, just as every skilled workman and specialist has to-day, and as well, many little points which would scarcely be of much service to another maker, for every true genius has his natural and

original ways of working.

Clarke's Banjos were noted for their loud and sharp tore, it being a standard among professional banjo players, that if you wanted a "sharp banjo" you must get a Clarke.

There are makers to-day, who, instead of branching out and studying their subject, and endeavoring to get up instruments better than others, which is the only legitimate way in which a demand for their instruments can be created, are content to plod along, copying the Clarke Banio and the patterns of other makers.

Such makers very seldom amount to anything. No two men have the same individuality, and hence it is folly for one man to copy another. The true banjo maker needs no copy, his model is formed in the mind, and he works out his own ideas. Those makers who possess no ideas of their own had better, far better, try some other means of gaining a livelihood.

On the other hand, we have manufacturers who are constantly inflicting upon the banjo what they are pleased to designate as "improvements," some of

which are patented.

We have had patent-closed backs, patent hoops patent hollow rims, patent bell rims, patent keys, patent bracket protectors, patent tail pieces, patent mute attachments, patent arm rests, patent sound-boards and a variety of other patents; but none of these have added one jot nor tittle to the musical value of the banjo.

The "silver-rim banjo," as described, has been for years past the standard banjo; THE BANJO among professional players of note, and the number of "patent banjos" of any kind in use by noted players, or even skilled amateurs, has always been very small. you, the body of the instrument almost complete,

There are, and have been, "wooden-rim" banjos in use on the stage at various times by performers, and although the great majority of this class of banios may be rated as "tuls," yet a really good instrument of wood rim is sometimes to be found.

And yet, in these banjos, there is almost always to be found metal of some kind, combined with the wood. It may be only an iron or brass strip or wire ring, intended merely to strengthen the rim, but it nevertheless has its effect upon the tone of the instru-

I can, therefore, confidently assert that the standard banjo, with players of eminence and skill, is a banio

with a metal and wood rim used in combination The Stewart Banjos, as manufactured by myself at the present time, are simply claimed to be improvements upon the same style of banio manufactured by

others before me. On my banios proper I claim no new invention. nor have I any patents connected therewith, (This

remark has no reference to the improved Banjeau-But I do claim an improved and more perfected

banjo, secured by new processes of manufacture, some of which remain secrets of my own, and which to attempt to protect by letters patent would merely place part of my knowledge in the hands of others. I also claim a skill in the construction of banjos, the result of a natural musical gift, together with a some-what extended experience as a performer upon the instrument, and a student of the science of music, which, together with experimenting and constant observation, has aided me, and added to my adapt ability in this, my particular line of business

Without any egotistical feelings whatever, I'am able to point with pride to the letters from our most talented, prominent and eminent players of the banjo; in fact, foremost artists of the day, testifying to the merits of the banjos manufactured by me, and of their many points of superiority over the instruments of other manufacturers.

I do not assert that the banjos I manufacture are perfect: nor do I believe that those of any other maker are perfect; or that anything produced on this earth is or ever has been perfect. But whatever assertions regarding my banjos I have made have been certified to and fully indorsed; in fact, more fully than I have ever asked, by players of eminence who have no becuniary interest whatever in my business or my

Neither do I assume to know all there is to be learned about banjo making or any other art, science or philosophy. What I may know to-day I may discover, to-morrow, that I do not know. What seems in place to-day may seem out of place to-morrow, and vice versa.

I expect to learn something new every day, and all that can be expected of me to-day is that I shall give you my views and ideas as they exist at the present

I have asserted, and can readily demonstrate by letters from leading players, that the banjo of Germa silver and wood combined rim is and has been for a long time the banjo-the recognized banjo of the artist

banjo player.

This banjo has a perfectly scientific and philosophical basis of construction, in fact is constructed in as philosophically correct a manner as the guitar, man doline, zither or any other stringed instrument. Its body consists of a circular frame, called the rim. This rim, as you will notice, has a bright and attractive appearance. It is composed of the alloy known as erman silver on the outside, and maple wood upon the inside. They are, in fact, two separate and distinct rims so united as to act as one.

We attach to this combination, or rim, a system of brackets, which are so made as to admit of hooks with screw threads cut on them passing through them, and a suitable nut being fitted to each of the several

With these hooks or screws, and by the aid of this bright and neatly-finished band or hoop, we are enabled to adjust the important factor called the head. The head is a membrane or membraneous skin, and is, as shown, adjusted and tightly stretched upon or over the rim or circular frame.

When this is completed we have, as you see before 2

Next, we have the neck of walnut, maple, cherry, rose or other suitable wood, which must be accurately fitted and correctly adjusted to the body of the instrument. We call the upper surface of the neck the finger-board, for over this surface the strings are stretched, which are vibrated to produce the musical

Were it not for this neck surface, the finger-board, we should have only five notes or sounds, as produced

by the five strings of the banjo. This is, of course, speaking only for the regular

five-string banjo; some banjos being constructed with additional strings. The musical strings are stretched from the append-

age called the tail-piece, which, by the way, was often termed apron in days gone by; so termed, I presume, from its large size and close resemblance to the article of female dress designated by that name—over the extreme end of the finger-board, running through notches in this little piece of ivory called the nut, to the pegs, by the turning of which we are enabled to tighten the strings or alter their tension, either one

way or the other at pleasure.

The bridge—this insignificant little piece of mapleover which the strings pass, rests firmly upon the head in the position you see in this instrument. Without the bridge the banjo would be useless as a musical

instrument

When the strings are set in vibration, which is done with the fingers of the right hand, the vibrations produce motion in the air, which we term sound to The sound waves being in close proximity to the head are reverberated by it, and the bridge acting as a conductor of sound, also transmits the vibrations to the head, which is elastic, and these double vibrations, so to speak, are transmitted through the air.

Thus the head acts as a sound-board by which the sound waves caused by the vibration of stretched strings are transmitted, and at the same time is itself a sonorous body, having, so to speak, an independent vibration, and thus plays a double part in the con-

struction o the instrument.

The rim, too, plays an all important part in the vibrating power of the instrument, and is, in fact, the entire foundation upon which the musical quality, quantity and power of the banjo's tone must be built. The head, as I have shown, is tightly stretched over the rim, and is itself sonorous, the requisite

necessary for producing sound of any kind. The head having a flat, smooth surface, becomes an excellent sound-board, and being circular in shape, is well calculated to transmit sound waves, which are, so to speak, floating circles.

The head thus tightly drawn over the rim acts in unison therewith. It must act in unison with the rim or we will have a poor banjo,

Thus the head and the rim are united, they are parts of one whole; they must unite and become as ONE just as surely as the pine-wood top of the gultar becomes one with the guitar when it is attached thereto by glue.

The vibration of the strings then, it is conceded, is conducted to the head by means of the bridge, and to the rim by means of the head, and the rim must be so constructed as to respond to and mingle its vibrations with those of the head and strings, form-

ing one harmonious whole.

When the head is wet or damp it is slack, and when in that condition the banjo will not produce a very

The reason for this is because the sounding quality, or sonorousness of any substance depends upon its hard-ness and elasticity, and when the head is wet or damp it lacks the necessary hardness, and has not Another reason is that when the head is loose and

flabby there is not sufficient tension upon the rim to cause it to properly respond to the vibrations of the drawn tight, What is called a "sharp" tone in the banjo is

egulated, Ist. By the tension of the strings, which in all

cases regulate its musical pitch. 2d. By the quality, size, tension, elasticity and hardness of the head.

3d. By the size, weight and sonorous qualities of the rim and length of neck. In fact, I might say that

these different points regulate and govern the quality of its tone entirely, be it sharp or flat, musical or unmusical, harmonious or discordant.

The strings which when picked or struck just as they stand, produce each one separate tone, but as upon the guitar or violin, we can, by making use of the finger-board, "stop" the strings so as to produce all the notes of the chromatic scale, from C below the staff to C alt.

This is done by placing a given finger of the left hand upon the string, and holding it firmly to the finger-board at the proper position, thus allowing only a portion of the string, instead of the entire string to vibrate. Thus, by making all the stops at the proper positions upon the finger-board, we can cause the strings to produce all the various notes just as readily

as though each were produced by a separate string.

Or, we can construct the finger-board with ratied frets, similar to the guitar, and, as you see in the banjo I introduce, by stopping the string between the frets the string is brought down on the fret, and of course vibrates only between the fret at which it is stopped and the bridge, in place of the entire string vibrating as would be the case if the string was allowed to vibrate without being stopped. (Vibrate its whole length.)

It is well here to say a few words in regard to the difference between the tone produced by the banjo and that produced by the guitar, its sister in a musical sense.



RELATIVELY.

The timbre of the banjo's tone is brilliant and enlivening, whilst that of the guitar is more subdued, soft and soothing. When the strings of the guitar are caused to vibrate, their agitation compresses the air body within the instrument, and this air body instantly expands, and aided by the back of the guitar proceeds forth in sound waves

The top of the guitar is generally constructed of pine or deal, whilst the back is composed of maple r rosewood, as are also the sides. It has a sound hole in the top, circular in shape, from which its

vibrations proceed. The character, quality or power of tone in this in-

strument depends: 1st. Upon its model or size

2d. Upon the quality and tension of the strings and the bridge upon which they rest.

3d. Upon the thickness of its top and back.
4th. Upon the sonorous and general acoustical

operties of the woods used. 5th. Upon the quantity and specific density of the air body between the back and top (or within the in-

strument.) 6th. Upon the perfect fitting and adjustment of, and the harmonious action and relation of all its parts, in-

clusive of blocks and braces within the instrument, The guitar is best adapted for music of a pensiv and soothing character, and at the present day is not

in use to any extent as a concert instrument. Generally, the full power of tone a guitar is capable of producing may be had, by a player in good prac-tice, by picking the strings with the fingers, and any attempt at striking the strings downward with a view to produce a greater quantity or volume of tone, only causes the instrument to give a less melodious and somewhat confused tone.

The guitar is plainly not suited to nor adapted for powerful or "noisy" music. It is a beautiful instru-ment when played by the hands of a master, whose mind is in harmony with its sphere of action.

"STROKE BANJOS."

In a banjo we sometimes find the tones produced by picking the strings to be acute and brilliant, and yet lacking the power or intensity necessary for a solo instrument; and yet in the same instrument, by strik-ing the strings with a light metal thimble constructed for that purpose, the power and volume of tone be-

nor that purpose, the power and volume of tone be-comes augmented to a wonderful extent. Such banjos are frequently called "stroke" or "thimble" banjos, because they are better adapted for stroke playing or thimble execution than for picking, or playing guitar style.

It is conceded that the strings being vigorously struck, and the vibration being conducted, by means of the bridge, to the head, that the head is caused to vibrate more intensely and vigorously than when the strings are only "picked." Then these vibrations are in a like vigorous manner communicated to the rim, its sounding-frame, which being agitated, mingles with or contributes to the sound.

This is a philosophical fact, provided the banjo is correctly constructed.

THE NECESSARY CONSTITUENTS.

What then are the requisites in a good-toned, or fine-sounding banjo?

Ist. An acuteness of sound or tone.

2d. Musical purity of tones and free vibration. 3d. Intensity of tone, resonance, carrying power.

ower register. In toto: The banjo must have a musical tone, and at the same time, not relinquish its "banjo" characteristics or individuality, and there must also be sufficient resonance of sound.

What then is necessary in the construction of a good banjo; and how must a banjo be constructed so as to meet the requirements of an artist? I think I hear some one say, "It must be made perfect, or as nearly so as possible, in all its parts and the parts must all be fitted correctly."

This is very good, and true so far as it goes. hear another answer, "It must have a good head on." Excellent! true again, but why not add, "a good set of strings," for we could make no music without

Let me ask you, where can you find an instrument, tool, engine or a machine of any kind whatsoever, which is satisfactory in any way or capable of doing good work unless it is properly constr ucted, adjusted and correctly fitted in all its parts?

And yet, it is possible to construct a machine which is correctly made, adjusted and properly fitted in all its parts, and yet produce a machine which is incapa-ble of doing the work it is intended for. The model may have been all wrong. The inventor may have in his mind, when he conceived his idea, been wrong or mistaken in his calculations as to the compass and capability of his machine.

In this case a perfect making of the various parts together with correct fitting of the same, has not produced the result aimed at, simply because the entire foundation of the work was wrong. Just so it may be with a banjo.

What then is necessar 1st The head should be of even thickness, neither

too thin nor too thick. 2d. The strings must be of the right kind and

quality.

3d. The wood in the inner rim must be selected with a view to sonorousness or acoustical qualities. should be properly seasoned and correctly treated and

shaped. 4th. The German silver or other sheet metal for un. The German silver or other sneet metal for outer rim should be of the right temper, uniform thickness and density, and properly rolled. It must also be perfectly and evenly brazed.

5th. The neck should be of wood selected with a

view to lightness, strength, sonorousness and nonliability to warp or change with atmospheric changes.
6th. The "wire edge" must be so constructed as to act as a ready conductor of sound, and at the same time resist the strain of the head upon the rim. "wire edge" ring must be of the right thickness, proper specific density, uniform in thickness, and com-posed of a suitable metal. It must also be accurately

adjusted in making the rim. 7th. The wood rim, sheet metal rim and wire edges must all be constructed upon acoustical and scientific principles, and must likewise be united as a whole

upon a philosophical basis.

8th. The neck must be properly fitted to the rim and adjusted to suit the tension of the strings.
9th. The neck should be so veneered as to withstand climatic changes as much as possible, and to resist the strain of constant changes in pitch of the

strings.

10th. The wire ring called "flesh hoop," around which the head is wrapped, should be so constructed as to securely hold the head from slipping, and the

band or hoop whose place it is to draw the head tight and secure it in position, should be so constructed as to hold the head evenly all around the circle, and not permit the ends of the hooks to press against or cut the head.

11th. The bridge must be of the right heighth, width and thickness, and constructed of wood having the necessary acoustical properties.

12th. If the banjo finger-board is fretted, the frets must be so gauged that the bridge has its proper position upon the head.

All the parts of the instrument must, of course, be harmoniously blended and correctly joined and fitted, All of these points, merely outlined here, should be studied by the true banjo maker. And there still re-main many others to be considered, such as varnishing, polishing, glueing, etc., etc. The weight and number

of brackets is also a very important point.

* * * In the making of cheap grade banjos, such as are now largely found in music shops and pawnbrokers' establishments, very few of these points need be considered, if indeed, any of them are considered at all by wholesale manufacturers.

But as cheap grade banjos, like "trade fiddles," are not intended for artists, it is of little signification to us how they are constructed, and I will therefore pass but a few remarks concerning their manufacture.

"Trade Banjos" and "Store Tubs."

It sounds rather homely to designate a gaudy banjo having a cart load of brackets (more or less), a "Store Tub," and yet they are often designated by such an appellation. Nick-names are wont to stick when they once take hold. The time is coming when a large number of brackets upon a banjo will cause it to be looked upon with suspicion. At the present time the commonest banjos made are covered with brackets in order to catch the eye of the passer by, One has only to walk a short distance to come

across a store window where this class of banjo is displayed. In the factories where these instruments are manu-

factured the work is done almost entirely by steampower machinery, whilst in the higher grade of banjos only a portion of the work can be done in this way. Cheap necks are made in large quantities, by special machines, in a manner somewhat similar to which

gun-stocks and ax-handles are turned out. They are veneered, if veneered at all, with a single strip, as no machine has been devised for glueing on

veneers. These necks are sand-papered on "buffs," run also upon steam lathes. The wooden rims are glued up to as uniform a size as possible, after which they are "turned up" on

lathes and sand-papered at the same time. This work, to insure cheapness, must be done in large quantities, or a large number manufactured at

one time. The metal part of the rim in cheap banjos is generally made of sheet brass, nickel-plated.

The sheet metal is cut to a gauge in strips of uni-form size, brazed together, formed up, spun and nickel plated; after which the already-made wooden

If the cheap rim is to be "wired" on both edges, one edge is generally left until after the wood is in.

The wire edges in these banjos are placed there in order to give the instrument a finish, and to strengthen the rim.

rim is fitted into it.

The cheap necks are generally set in the rims, that is, the holes cut in the rims either with a cold chisel or punch made for the purpose, by boys; anything to facilitate the work.

The holes for brackets are bored with a drill, the lathe of which runs by steam, and the brackets and lathe of which runs by steam, and the brackets and heads are put on and the hoops fitted, mostly by boys. Different shops and different mechanics employ various methods. I am only generalizing here.

The banjos are strung up and sold, and I doubt if the majority of them are tested or tried, or if bridges are ever fitted to them before they leave the

Cheap banjos are largely sold to the stores through wholesale jobbing houses, who import and wholesale musical goods, and have drummers or selling agents constantly on the road with samples.

They are sold, generally, by the dozen, at so much per dozen, half dozen, or quarter dozen, and regardper dozen, half dozen, ortquarter dozen, and less of age, sex, color or previous condition,

You may get a good one-you may get a poor one. of acoustics also teaches me that any such idea is an The purchaser must take his chances as to that. Nearly every learner of the banjo has to make his experience, and must needs buy one or more "store tubs" before he is fully prepared to purchase a good instrument. The same rule applies to beginners with all other instruments. It is the same with the guitar, with the violin, with the zither, with the flute, with band instruments, and in fact with all musical instru-

If this were not the case good instruments would not be appreciated. Wholesale manufacturers of cheap instruments cater to the eye first-the ear afterwards.

They know that nearly all beginners will buy a cheap instrument to learn on, and that a large proportion of those who buy cheap banjos or other instruments will never make anything but mediocre players, and will not know the difference between a good or poor instrument, so long as they have the same appearance in outer respects.

Then, too, the prices of cheap instruments suit the pockets of the majority better than expensive instruments.

These facts account for the enormous number of cheap banjos manufactured and sold in this country, as well as for the large number of cheap guitars im-ported and placed upon the American market.

But in the manufacture of a high grade banjo the work cannot be greatly cheapened by the employment of steam-power machinery; nor can it in the manu-

facture of a high grade guitar or violin.

In the higher priced banjos there is a certain amount of testing to be done at each step of the way, and the banjos cannot be made up in quantities with success. Each instrument requires separate consideration. Steam-power machinery can be utilized in the rough work, such as band sawing, shaping out, etc.; also in metal spinning, turning, etc. But much of the work must be done by hand, nevertheless. The necks in fine banjos are sawed out, shaped,

vencered, etc., many months before they find their way into the instrument they are intended for. Were by necks warping, and even with long seasoning of wood, etc., we often find that a neck will warp after

it is ready for finishing.

Sometimes the addition of a single veneer will cause a neck to warp, and it has taken me a long time, and cost considerable money to arrive at the proper methods of making and treating necks. I have not the time to speak upon this part of the subject at length, but merely to touch upon it briefly. The subject of banjo necks alone would require a complete lecture were I to attempt to dwell upon it to any length.

As I have already stated, there are many points of detail in connection with banjo making which I am not prepared to touch upon at all, for the present, they being held as secrets of my business. And even were I disposed to enter into details it would require a book of at least 500 pages to cover the ground, and moreover, I am continually making new discoveries and consequently improvements.

Sufficient to say that very frequently after a banjo is entirely finished it must needs be taken apart and the work "done over again," This is the case when plenty of time is allowed for the making of a fine instrument, and when upon its being finished I have not found the tone entirely satisfactory.

It is sometimes the case that a well made and It is sometimes the case that a with most approprily constructed banjo may sound poorly by reason of its having upon it a poor head, or a head not adapted to the instrument. In this case, when the head is removed and replaced by one which is the proper thing, the banjo will be found greatly improved

But if the banjo has upon it a good, even head, properly stretched, and does not sound well, there is small chance for improvement by changing, heads. Not more than one change is recommended in any such instance.

You-may have heard it said that any poor sounding banjo could be made to sound well by changing the head, but I tell you that an improperly constructed head, but I ten you must an improper the bands into a good instrument by performer, and the same instrument changing the head. Experience has taught me that his is a fact. My mustcal knowledge and the study moulous rappings of a mustcal botch.

utter fallacy.

Banjo making, in fact all musical instrument making, like the science of music so called, is a science only to a certain extent. It is an art, an art based upon scientific principles.

A man cannot make a good musician, never mind how much science he may have in him, unless he is an artist. The same rule applies to musical instrument making.

I have heard it said that a violin could be improved by breaking it up and glueing it together again. I have heard it said that a banjo could be improved by baking the rim in an oven. I have heard a great many other funny things and so have you. I don't believe all I hear, neither do you. Perhaps if you should take a good guitar or violin to some excellent mechanic (worker in woods), who had no acquaint-ance with music or musical instruments, and ask him if he could make you a duplicate of either instrument,

he might answer "yes." He would probably reason that all he had to do would be to follow the original as a model, gauge and measure, using precisely the same kinds of wood and varnish, and having produced an exact copy of the original the tone must necessarily be the same, But you all know that the chances are ninety-nine out of a hundred that his copy would not sound anything like his model.

Why is it?

Why do not copies of the famous Cremona violins sound equally as well as the Cremonas? " Perhaps they do," you answer,

Well, thousands of eminent artists in violin playing assert that they do not, and very few assert that they So why is it?

Science has never been able to demonstrate clearly as to why it is.

Some say that it is age alone which gives the Cremona violin its superior tone. Some say that it is owing to the peculiar qualities of the woods then used. Others say it is owing to the long use of the instruments.



Some seem to think that it is the rosin dust, which in course of time has an action on the wood. we have many fine spun theories—some of them exceedingly fallacious and supremely ridiculous. Volumes have been written and published upon this subject, and many there are who consider violin making a lost art.

I believe that the ancient Italian masters worked upon perfectly scientific principles. They concentrated the entire powers of their minds upon their work, and worked slowly and with harmonious surroundings. They understood the different specific qualities of their maple and pine woods. The climate of their country was adapted to the growth and seasoning of the woods used. I also believe that they were guided in their work by the same inspiration which guided the Italian painters of the same age. The Cremona masters were true men-they followed their minds' ideal and did not copy the forms designed

Such of these old violins as have had the good fortune to escape the hands of some of our modern re-pairers I believe are good yet, but there are few of them in existence.

I do not believe that age alone ever made a good violin out of a poor one, but I believe that age, to-gether with proper care and the use of the instrument by a good musician, will improve, rather than injure a good violin.

I do not believe that age can act upon the wood after it has been once thoroughly seasoned (as all the woods used in these violins were) in a manner to cause the tone to improve. But I believe that vibration exerts a powerful influence upon wood and other substances. The full powers, uses and abuse of vibratory motion have not yet become known.

An instrument may become greatly improved in tone when played upon for a long time by a skillful performer, and the same instrument may become greatly impaired in tone by the discordant and unhar-

The chief beauty in the old violins lies in their beautiful sweet tone and its carrying power. Not that the tone is loud, but that it can be heard a good dis-

tance, and is free from discordant elements. A loud instrument is sometimes found to lack this ower, and cannot be heard so far away as the softer toned instrument

The philosophy of this is that pure sound will carry further than sound mixed with noise or discordant elements.

EXPERIMENTS.

There have been some very interesting experiments made with old violins, as perhaps some of you have

Fetis, a distinguished writer upon the violin, says that a piece of figured maple wood of certain dimen-sions taken from the back of a violin made by Stradivarius, in the year 1717, produced the note A sharp, and another piece of plain maple from another instru-ment of the same maker, made in 1708—nine years previously-produced the same note.

He also says that a piece of deal or pine taken from the top of a violin of Stradivarius, made in the year 1724, produced the note F, and that another rod of deal from an instrument of the same master, made in 1690, gave also F, the same as from the violin made in 1724; and a third rod of deal obtained from another instrument of this celebrated maker, made in 1730, also gave the same note, F.

I have in my possession a very fine copy of a Stradivarius violin a copy of the year 1717, but the scope of this lecture will not permit me to dwell further upon the subject of violins, the few words I have said being merely illustrations of other remarks I shall make concerning banjos.

SONOROUSNESS.

All woods, being to a greater or less degree hardand elastic, have the requisites for producing sound.
All woods yield some sound; all metals do not.

The specific sonorousness of wood was known to the ancient violin makers, it is known to day.

Maple and pine woods were used by the Cremona masters in their violins almost exclusively. The maple is often called *sycamore* in Europe, which has led students to suppose that the backs of violins were sometimes made of the wood of the Egyptian or Syrian fig tree. I prefer maple to-day, to any other wood for banjo rims. I have sometimes combined it with pine, but I consider the maple as indispensable, But this is saying almost nothing, for maple wood is of so many kinds and qualities that it takes time to study and learn how to distinguish its peculiar characteristics,

It has been demonstrated by experiments made on rations woods whose appearance was the same, that they yield diversities of sound. They vary greatly in pitch, sometimes a third, a fourth, or even more. Hence, should we select two pieces of wood, the same in appearance, with which to make the backs of two violins, guitars or zithers, or the rims of two banjos, they (the woods) might possibly be widely different in pitch as well as in character of tone. Science cannot fully account for this, but experiment proves it to be a

Coals of the same chemical composition, it is said, do not always give out the same amount of heat. This fact has puzzled chemists for a long time.

Now if chemists are puzzled, and have been puzzled for a long time as to why it is that coals of the same chemical composition give out various degrees of heat, it is fair to suppose that they might puzzle for a still longer period without finding out why it is that woods of the same appearance, size and weight, give various degrees of sound.

WOODS.

Maple, Oak, Walnut, Cherry, Apple, Pear, Rose and some other woods, each possess acoustical properties when properly selected and used in the right pl

All of these woods may be used in making banjo rims, but in the long run I think maple gives the best satisfaction, although, of course, maple in itself may vary to a great degree in its sonorous qualities.

Two violins may be made from the same blocks of maple and pine, and yet be entirely unlike in musical qualities—one may be excellent and the other very poor. Such has been found to be the case frequently,

If we take a metal bar or rod and cut it in two, both parts being the same, each part will sound the same note, which will be an octave higher in pitch than the whole bar sounded before it was cut in two. This is of course, provided the bar is of equal thickness and

weight throughout. If we take a musical string and divide it in two by stopping it midway between its vibrating points, or on a banjo, between the nut and the bridge, half the string will sound the octave above the onen or whole string. This is providing the string is of equal thickness throughout



If we take two bars of wood, one bar half the length of the other, and each of the same thickness, the short bar will sound an octave above the long bar-but not always.

In a string, a very slight variance in thickness, so slight as scarcely to appear to the senses of touch or sight, and so slight as to escape the test of the string gauge, will cause it to sound "false," or not to vibrate in accordance with mathematical laws.

So it is with the bar of wood. A difference in the density or weight of two pieces of precisely the same size will often cause them to vary greatly in the pitch of sound produced, as well as in acoustical quality of tone. This is sometimes a difficulty encountered in the making of xylophones, and another well-known fact is that a xylophone frequently goes out of tune after being made and tuned,

Chemical changes in the woods used, through processes of nature, changes of climate and other causes. operate to produce this. Hence it is that woods used in the construction of musical instruments must be thoroughly and properly seasoned, and philosophically treated in working.

To say that a piece of wood is extremely sonorous simply because it is maple, would be foolish, because all maple is not equally sonorous. There is an im mense difference in it as there is in other woods. Take rosewood, for instance, a beautiful wood for veneering purposes. It comes from Brazil and other countries where the climate is warm, and is the product of several different kinds of trees. I might select a number of strips of this wood and each piece have an entirely different appearance, and yet it all goes by the same name.

Then take ebony, the wood used for finger-boards of banjos, violins, guitars, etc. It is so used because of its hardness and tendency to withstand wear, but it is a cracky wood, and must be treated and worked by those who understand it. It grows on the islands of Madagascar and Ceylon, and does not like our variable climate any better than some other close grained woods which grow in warm climates,

It is a mistaken idea with some of you that ebony is always black in color. Black is its usual color, but I have seen some that was red and other that was green. I have seen more which was black in some places, and of a light color in other places. Indeed, this is considered the best for finger-boards, not being so liable to crack. The light places may be stained so that the entire surface appears as black as may be desired. But I have not the time to go into minor details in this lecture, and I fear that I am wandering from the subject in hand.

German silver is an alloy composed of copper, nickel and zinc in various proportions, according to what it is intended to be used for. It may be hard or soft. If too hard it can be made softer by annealing, If too soft it may be made harder.

To say simply that German silver is a good metal for banjo rims is almost saying nothing at all, for so much depends upon its composition, its thickness, its temper, and the manner in which it is worked, as well as in the manner in which it is combined with other metals and woods used in the construction of an in-

It takes a fine polish, which is pleasing to the eye, and furthermore, may be nickel-plated, so as to retain its high finish for years.

German silver is sometimes called white copper, and sometimes called argentan, but I have always held to the name by which it is mostly known, although it might sound very nice to say that my banio had an argentan rim or white copper hoop.

To say that a banjo has a bell-rim or a bell-metal rim, sounds nice to some persons, but the experienced performer wants whatever bell there may be in either the rim or in the metal to manifest itself through the medium of the strings when he plays upon the instru-

If the banjo will not thus work it matters little whether the rim be composed of bell-metal, German silver, brass, copper, rosewood, maple or railroad iron.
The names of the various materials which enter

into its construction count for little if the instrument has not the tone desired by the performer. BELL-METAL is an alloy of copper and

tin. It is very hard, and consequently the metal workers do not like to work with it. Therefore if I workers do not like to work with it. Therefore if I should make a banjo rim of this metal it would have to be cast instead of being rolled and spun on lathes. I do not consider it any better than brass or German

silver to use in a banjo rim, if as good as either. Now suppose I should take a bell-bells are sup-

posed to be made of bell-metal-and suspend or fasten t within the banjo rim, or even hang it up anywhere near the banjo, so that the vibrations coming from the instrument would come in contact with the hell. I now strike a chord upon the banjo, and then an-

other, and so on. I keep on striking chords until I have struck the one which is in harmony with the bell.

Now the vibrations from the banjo have caused the ell to give forth a sound which mingles with the tone You will perceive that the bell does not sound or

add to the sound produced by the banjo excepting when this chord is struck-this chord which is in harmony with the bell.

If two strings are tuned perfectly to the same pitch, and one is set in vibration, the other will respond and add its vibration to the other. The one is in accord with the other-both producing, when vibrated, the

same number of vibrations per second. This will apply to all sounding bodies. table for increasing the volume of sound from that instrument is constructed upon the same principle,

Now, if we desire to have the bell respond to each ote made by the banjo, or to add to the tone produced by that instrument, it will be necessary to have a bell for each chord, as you will say, an impossibility. Therefore, a bell in the rim of a banjo is like the fifth wheel to a coach—nearly always a useless incum-

Such incumbrances are, in fact, not used by players who have made any degree of progress in the art of banjo playing.

Again, suppose I were to construct a rim of bell-metal or brass, something in the form of a bell, so that when suspended from a cord and struck, it would produce a bell-like tone, Do you imagine that this would add to the musical value or to the volume of sound produced by the banjo when its sirings were

It would do so only when the notes or chords, in unison or in harmony with the bell-shaped rim were used, whilst upon all the other notes or chords'itwould act as a damper and lessen the tone.

This is a philosophical fact and has been proven by experiment

What kind of a bell (?) then, must the rim consist of in a good banjo, in order to produce a musical tone in all the notes and chords throughout the compass of the instrument?

1st. It must be a bell that is silent, except when you want it to speak. 2d. It must be a bell that, when it speaks, will

sound equally well in all the tones of the instrument. 3d. It must be such a bell as will only ring when the strings are made to vibrate, and it must cause its presence to be known only through the medium of the vibrating strings, and never sound independent of

In short, a rim which is a dumb-bell-mute in itself, but sonorous when manifested through the strings of the hauin

When you have learned to make such a rim you have acquired the first principles of making a good

back have been shown not to have been tuned in

The musician knows that the chord of the diminished seventh when heard alone is discordant and disagreeable to the ear, but when used in its right place, and blended with or between concords, becomes har-

monious and pleasing to the car. When I hear of banjo makers attempting to do away with all combinations of wood and metal in order to produce a musical tone, I cannot help thinking of the fable of the fox, who, having lost his tail by reason of having been caught by it in a steel trap, in order to avoid the ridicule his appearance would create, hit upon the scheme of persuading all the like himself. It was impossible for this particular fox to retail himself, and so he wanted all the others to se their tails also. Misery, it is said, loves company. "Grapes are sour to those who cannot get them.

Those who are not familiar with banjo making or its principles sometimes give vent to rather absurd ideas, and afflict the public with curious banjos. And those who cannot grasp an idea or evolve a principle sometimes seek to persuade themselves and customers that they are better off without what they cannot

Before I go any further I wish to say that I have no desire to "hit at" or criticise the methods pursued by other banio manufacturers, nor to in any way speak derogatory of their work or business. It is my desire. as far as conditions and circumstances will permit, to live in harmony with my fellow man, and when I mention forms of instruments manufactured by others in my line of business. I speak of them only in a general and illustrative manner, and mean nothing

I have arrived at that point where I can look with pity upon a manufacturer, who, in his struggles to gain patronage, will resort to bogus challenges and "Champion of the World" methods and advertisements flaunting with unattested assertions. Vaunting his ignorance before a class of patrons even more ignorant than himself, and puffing himself as the patentee, inventor or claimant of inventions made before he had the misfortune io inflict the banjo fraternity with his presence.

I also look with pity upon the manufacturer who asserts and is psychologised by his ignorance into believing that he has made the banio a perfect instrument, or has added more improvements to it than all others combined, and that all other manufacturers are his imitators.

On the other hand I am at all times ready to extend the hand of friendship to all sincere and honest makers or teachers of the banio.

I am aware that various reports have been circulated concerning myself and methods of treating certain individuals, but the censure of some persons is almost, if not quite as valuable as the praise of others.

And again, if any of you were dealing with a skunk, you would not handle him in the same manner that you would use an animal of less odorous propensities. No, you would either get out of his way and let him alone, or else you would give him a dose of something more intensely clarifying than he was able to produce. But enough of this.

MUSIC BY THE FOOT.

Many of you have heard the expression, used in connection with organs mostly, - "sixteen feet tone," "eight feet tone," etc., and probably few of you understand what is meant by such seemingly peculiar language.

An organ pipe eight feet long gives the great C, the lowest note and normal tone of the organ. A pipe half as long sounds the octave above, having double the number of vibrations per second. Whilst a pipe two feet in length vibrates four times as fast, and consequently sounds the next octave above, or two octaves higher than the first mentioned, and a pipe sixteen feet in length vibrates only half as fast as the pipe eight feet long and sounds an octave deeper.

The expression "feet" of tone is derived from this

Any instrument which sounds its tone an octave The body of a Cremona violin is just such a bell as lower than written in the music, is said to be an in-I have described, and yet the tone pitch of its top and strument of sixteen (16) feet tone.

An instrument which sounds its tones as written, is called an instrument of eight (8) feet tone, whilst an instrument which sounds an octave higher than its tones are written is called an instrument of four (4) feet-tone.

The guitar sounds really in the bass cleff, but for convenience sake is noted in the treble cleff an octave higher than its tones sound, and hence is an instrument of sixteen (16) feet tone

The violin sounds as written, and is therefore called

an instrument of eight feet tone The banjo, originally, was an instrument like the guitar, of sixteen feet tone.

DIVISIONS OF THE SCALE.

If we take a bar of iron and cut it in two, either half will sound an octave above the whole,

(It is presupposed that the bar is of even thickness and density throughout.)

I will say, for instance, that the bar sounds the note C, in its full length. Now, I have a number of such bars, or rods, all of the same length, thickness and weight, and I wish to construct from them the notes of the diatonic scale in C major. I proceed to cut them up in the following manner: For C I have the whole bar.

For the next note, D, I cut off one-ninth, leaving eight-rinths.

For E I cut off one-fifth, leaving four-fifths.

For F I cut off one-quarter, leaving three-quarters.

For G I cut off one-third, leaving two-thirds.

For A I cut off two-fifths, leaving three-fifths. For B I cut off seven-fifteenths, leaving eight-fif-

And for the remaining note, C, an octave higher than the first, I cut a bar in half, using either half.

If the bars are, as I have said, perfectly even and equal in thickness throughout, and I have cut them accurately, I have the eight tones, or the seven different

sounds, and the octave of the first, quite accurate.

The same will apply to any bar of metal treated in a similar manner, and the same law governs the divisions of musical strings in laying out a fret board for any instrument.

But, as I have said before, if a string is "false, which is often the case, the law of divisions is set at

defiance. The higher a note is, the greater the number of vi-

brations produced. When vibrations are measured, they are counted at

o many vibrations in a second of time. This is done for convenience sake. A note having twice the number of vibrations pro

duced by another note sounds an octave higher in

The middle C, years ago, was the note which produced 256 vibrations per second. Now, the middle C, is said to produce about 260 vibrations per second, the standard of pitch having been raised somewhat.

An instrument called a sonometer has been devised for testing and measuring the sounds or tones produced by stretched strings

It is a very simple affair, consisting of a string stretched over a box, to which weights are attached, with a movable bridge.

The laws governing stretched strings have been ascertained and tested by experimenters in acoustics by means of this sonometer (meaning sound measure).

The rate of vibration of a string is always in inverse proportion to its length. That is, as I have stated, a string when vibrated in half its length will sound an octave above the string when vibrated in its whole length; as half the string will produce twice as many vibrations per second as the whole string. By vibrating a third or a fourth of the string the vibrations become three and four times as fast—pro-

viding the tension is the same. Sometimes, when the string is stopped upon a fret, if the string lies any considerable distance from the board, there is a slight change in tension which causes

somewhat sharp or false note. A string twice as thick as another will vibrate only half as fast, and consequently sounds an octave lower. This is providing the tension of the two strings is the same. The rate of vibration (so many vibrations per second) is in inverse proportion to the strings' thick-But the strings compared must be of equal density, of course.

by strings of wire I should use much thinner strings than those of gut; otherwise the change in tensi and consequent strain upon the instrument would be

The rate of a string's vibration is in inverse proortion to the square root of the density of the string. Thus, a gut and a wire string, each the same in length and thickness, and strained to the same tension, will produce entirely different notes. If the wire string is sixteen times as dense as the gut string, the gut string will vibrate four times as fast as the wire string, and the notes produced will sound two octaves above it (four being the square root of sixteen) have referred to these matters before; you will find them mentioned in my little ten-cent book, "Sketches of Noted Banjo Players," but I cannot allow them

It is said that the violin was delayed in its advent for a period of a hundred and fifty years, by frets. The viol, which preceded the violin, was an instrument of raised frets-on the same principle in which fretted instruments are made to day. It was the re-moval of these frets which led to the developing of the violin and its powers Owing to this fact some writers on music have

thought that the guitar would have done better without the frets also. But I think guitar playing, making chords and barres, on a smooth board. would discourage ninety-nine persons in a hundred from gettingfurther than the first three or four lessons. Playing a guitar without frets is something which is "easier said than done."

I have discussed the subject of fretted banjos at various times in the columns of my Banjo and Guitar Journal, and do not wish to go into it at any length here. It has its advantages and it has its das advantages

I consider a smooth board by far the most musical, but it requires long and adduous practice to acquire the mastery of,

In short-necked, banjos, such as the Little Wonder, and in all "piccolo" banjos, I consider a fretted board preferable; and I might say the same for the Banjeau-rine, which I manufacture exclusively with the (raised) frets. It is an important matter for the student to know

that if he begins the study and practice of the banjo with a fretted board (when I say "fretted" I mean raised frets, of course), it will be exceedingly difficult for him to acquire a correct intonation afterwards if he should desire to perform upon the smooth unfretted finger-board. The reason of this is because with frets (raised)

the string is pressed to the board between the frets which causes the string to be stopped upon the fret, and hence an inaccurate and somewhat careless manner of fingering is acquired.

But I fully realize that many pupils would never learn to play upon an unfretted banjo, and I am there-fore unwilling to advise all persons to attempt such a Those who intend to practice and play "only a

little," would probably do better with frets; but he who intends to devote time to practice and the mastery of the banjo finger-board, should make up his mind to do without such mechanical helps,

MATHEMATICAL DIVISIONS.

Lord Bacon said: "If a man's wits be wandering, let him study arithmetic," and mathematics, which embraces this study, is probably the only exact science

Mathematics is inseparable from all other sciences. The physician makes use of it in writing his prescription. The druggist in compounding medicines. The artisan in measuring distances, and the musician in forming his musical bars must measure the notes. Hence, all other sciences are closely affect to and intermingled with this science, and music is in itself an art with a scientific mathematical basis.

THE CIRCLE AND TRIANGLE

are the emblems of Creation, and the symbols of our mathematical science.

The earth makes its yearly circle around its centre,

Should I replace gut strings upon any instrument, the sun, and all nature tends to roundness, circles and spiral circles

Rays of light diverge from the sun and converge towards it, the centre, again forming, as it were, the

Every musical accord between two notes is defined, and can be expressed by the arithmetical vibration ratio of two whole numb

By ratio is meant the relation which one quantity magnitude has to another of the same kind.

As has been said, the number of vibrations made by a string or other sounding body can be measured, and by determining the relation that exists between the rate of vibration and the heighth of a note, a mathematical scale for dividing off the frets of an instrument can be made.

It is upon this basis that rules for measuring off guitar and banjo fret-boards have been made. to pass here, without making the lecture incomplete.

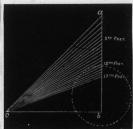
The rule of consecutive eighteenths is most in use and gives very good results,

The divisions may be made by ordinary arithmetical calculation, always taking care to prove each division by a multiplication before proceeding with the next. gauge graded to fiftieths and one hundredths of an inch is very useful here, and can be purchased whereever surveyors' or mathematical instruments are sold.

The divisions may also be made by geometrical progression, but it makes little difference how they are made, so long as they prove correct.

All the various rules laid down for fretting banjos, so far as I have seen, hinge entirely upon the various manners of making the divisions of successive eighteenths, and assume that after you have divided the eighteenths correctly, that you will have an absolutely correct scale of semitones. But this is a fallacy.

The eighteen is as near as we can get to a number with which to start, but there is nothing to prove that it is absolutely correct.



THIS CHART (from which the accompanying wood cut is a condensed copy) shows a banjo fretting scale

divided and set to the triangle.

It will be seen that if we make a correct scale for the longest banjo in use, and it is perfectly adjusted to the triangle, it can be used to fret necks of any desired length.

I first made this chart about seven years ago. not claim anything original about it, nor have I ever made any use of it in fretting my banjos. A is the nut line, and a point of the right angled

triangle. B is the bridge-line, and corner of the triangle.

C is the remaining point. The fret divisions must all converge, or run directly

to the one point.

By slipping the triangle to the right we can, as has een said, fret any shorter neck therefrom.

However as there is considerable danger of making mistakes in this way, I advise no one to make use of

I give it simply to convey the idea

Even with a perfectly accurate fret-board a banjo or guitar is often false in many of its notes, simply because strings, which are absolutely true, are scarcely ever to be had

This is one of the principal objections to raised frets on a long-neck banjo.

A violin virtuoso cuts his string into three pieces, and is generally sure of getting at least one length, which is true; but a banjo artist cannot so cut his strings if he has a banjo of the usual size and proportions.

THE BANJEAURINE.

This "somewhat different from the ordinary" name is given to this somewhat peculiar-looking instrument. The banieaurine is a device of my own. It was gotten up as an instrument to be used in connection with the ordinary eleven or twelve-inch banjo; the banjo to play an accompaniment to the melody played upon the banicaurine

You will notice that the neck is shorter in length than the diameter of the rim, and that the finger-board of ebony extends over the rim, somewhat similar to that of a guitar or violin. This necessitates the use of a higher bridge than is used on other banjos, and this in itself is a great help to the performer who desires to produce a full, loud tone, and consequently must "pick" the strings vigorously.

On a low bridge, there being but slight pressure of the strings to resist the upward or side pull by the fingers, the bridge constantly slips out of place-that is with players of brilliant execution—but with a high bridge, such as can be used upon the banjeaurine, the

increased pressure of the strings holds it in position. Were the instrument intended for "stroke" or thimble playing, the high bridge would not answer so well; but the banjeaurine is not intended or recom-mended for anything but "guitar style," or picking.

When the instrument was first introduced there was some trouble with the finger-board and neck, and to entirely obviate this I devised the nickel-plated attachment which you see running from the heel of the neck to the end of rim.

This serves as a fastener to the neck, a brace, an also a perfect adjuster of the finger-board.

By turning the screw under the tail-piece nut, the finger-board can be raised or lowered, and to prevent any weakness in the neck a wooden plug is glued into the heel, running directly across the grain and making the neck very strong.

The appearance of the banjeaurine is not calculated to attract a banjo player who has been accustomed to believe that a banjo cannot be good without a neck much longer than the diameter of the rim; but when he has heard it played then he is attracted to it on account of its tone

It used to be thought that a banjo could not have a full vibration unless the neck was long, and that short neck banjos were not good; but the banjeaurine. although constructed contrary to all previous ideas regarding the instrument, has completely demolished the old theory and, as well, astonished many players of the banio.

It is much easier to finger than a long neck banjo, because the frets are closer to each other.

It is not so unhandy to transport or carry around.

It breaks less strings, and is less subject to the annoyances of false strings than a long neck banjo.

It is louder and more brilliant in tone than any other banjo used for "guitar style" of playing, and makes a beautiful combination with the ordinary banjo, and is also a splendid solo banjo to play with piano

The banicaurine is tuned a fourth higher in pitch than an ordinary parlor or concert banjo, and consequently, when the banjeaurine is played in the key noted as E, the other banjo plays in the key noted as A. That is the 3d string of the banjeaurine is tuned in unison with the 2d string when stopped at the first fret—or, an octave higher than the bass string open, on the ordinary banjo.

To make it still more simple, I have only to say that when you play in the "open key" on the banjeau-rine, the other banjo plays the accompaniment in the "closed key." This explanation is for "ear players.

At the time of introducing the banjeaurine I had not thought of applying for patents in connection with the instrument, but upon being apprised by certain artists who were using the instruments that other makers were preparing to copy the banjeaurine in detail, I then filed my application in the patent office. I suppose it will not be long before I shall hear of

other "original inventors" of my banjeaurine; a thing which 'has happened in connection with some other devices of my own.

Mr. Huntley, the eminent banjo artist, who has traveled extensively here and in Europe, and who has had many years' experience with banjos, assures me that never has he seen, at any time or in any place, an instrument like the banjeaurine, either in appearance

Mr. Lee, another eminent player and writer for the banjo, assures me likewise.

merely mention these little matters in order to place the origination of the banjeaurine upon record; I don't desire to push the sale of the instrument in place of my legitimate or regular style standard banios.

THE CARE OF THE BANJO.

It is necessary to say a few words concerning the proper care of a banjo, as I have found that many players pay but little attention to keeping their instruments in good playing condition.

No machine or instrument ever devised will do ood work unless it is kept in proper working con-

There are some persons who can carry a watch for rears and always have it keep good time; others again are never able to rely upon their watches, and often go so far as to expect them to denote the correct time without being wound up.

Briefly, then, I would say that the head of the banio should always be kept tight, but never held before the fire for the purpose of contracting its fibres. Avoid exposing the instrument to extremes of heat and cold. Avoid keeping the banjo in a damp place; the more even the temperature where the instrument is kept and used, the better its condition.

Always keep an assortment of suitable strings ready for use, and see that your instrument is strung with those of a proper thickness, and properly graded as

The second string should always be a little thicker than the first string; but the fifth, or short string, should be the same thickness as the first. The bass, or wound string-also called the fourth-

should be wound on silk; never upon wire The strings should never be slackened after using the instrument; but it is sometimes better to remove

or let down the bridge, especially if you are carrying When the bridge is about to be let down, the first

and fifth (or the two outer) strings should be removed from their places in the notches; this will prevent splitting or chipping of the edges of the bridge. Notches in the bridge should be so cut that the

strings wedge in them tight. Then, should the bridge slip out of place when playing, a little powdered rosin may be rubbed upon its feet. The bridge should be regulated in height to each particular banjo; as well as in thickness; and in width to the fingers and tastes of the performer.

The finger-board, strings and neck should be carefully wiped with a silk handkerchief after using the instrument, and a player should never allow an inexperienced person to handle his banjo or to finger the polished surface of the rim and leave finger-marks.

The tail-piece may be fastened with a bolt, with an annealed wire (phosphor bronze wire is the most durable), or with a suitable gut string. It will make no difference in the tone of the instrument how the tail-piece is secured to it, providing it is allowed a in amount of swing, and does not press upon the head further than at the edge of the rim.

Those who seek to improve the banjo's tone by substituting a gut string for a fastening of annealed wire, are hunting in decidedly the wrong place for the carrying tone.

The little wedges which secure the neck tightly to the rim in most of the Stewart Banjos should be kept in place properly, and not allowed to become loose or

lost out.

I might observe that previous to the use of these wedges, together with the nickel-plated shield or brace, which is screwed to the sound bar in my banjos, that in the majority of banjos the neck was fastened to the rim by screws on each side of the neck

or by a wedge set into the sound bar. Since I introduced the shield brace, working in connection with the wedges, some years ago, other

manufacturers have taken the idea as a basis for similar devices of their own.

To this I have not the slightest objection; but I have some objection to having my appliances claimed as the inventions of others

The wedges and shield brace spoken of are not used in the banjeaurine, but only on my Parlor, Concert and Orchestra Banibs.

(The Banjo should always be kept in a suitable box or case when not in use.)

Another somewhat important thing for a banjo player is to acquire some skill in the handling of the pers, and in tuning the strings of his instrument; but that properly comes under the head of

Observations on Banjo Playing,

upon which subject I shall now endeavor to say a few words.

TIME AND SPACE, it is claimed by some writers on metaphysics, exist only in the imagination-within the -and yet I feel that I walk in time and live in I wish that time would allow of my going more

into the subject of playing the banjo, and that space would admit of a more elaborate and detailed lecture upon this branch of my subject. But I am permitted to give but a brief outline-only

a few observations, at present: Banjo playing is an art—just as much so as violin

playing, piano playing, or singing.

The old time "Hop de doodendo" school of players are passing away. The graceful waltz, polka, schottische, gavotte, concerto and variations on the etc., is rapidly superseding the old "Plunk" methods

of banjo playing.

A violin in the hands of a scraping and rasping fiddler is not a pleasing instrument to listen to, but sometimes almost infernal. The violin in the hands of the virtuoso is almost supernal. A banjo in the hands of the old time "plunker" is almost as unat-tractive as the violin in the hands of the rasper and scraper.

And yet the banjo in the hands of a Hall, Huntley, Lee, Powers, Weston, Henning or Shortis produces music so attractive as to have drawn thousands into its sphere.

There is no telling to what an extent perfection in the art of banjo playing may yet be reached.

With suitable books of instruction, and with a pro-

portionate increase in the number of competent teachers, and with suitable banjo literature, banjo playing bids fair to become one of the higher arts. As time has worked its evolution in the banio as

an instrument, so has it worked its changes in the manner of playing upon it, and in the character of its

The old style "stroke." also called "thimble playing," is fast giving way to the guitar style, also called

"picking."

The stroke style, the execution of which is done entirely with the forefinger and thumb, was originally the "Old Dan Tucker," "Walk Along, John," plantation negro style of banjo playing; not recognised to day by the higher grades of banjo players, but nevertheless useful in creating a little fun and hilarity, and therefore continues to have a place in the repertoire of many players.

But the stroke style has also developed, with prac-

tice, by some piayers, into a very excellent style or method of executing marches or other music of a military type. To play well upon the banjo "with a thimble" (the thimble covers the nail of foreinger and is used to strike the string), and to execute rapid runs and other effects such as "the roll," etc., is no easy object to be attained; and to acquire skill and dexterity in the use of the thimble, a banjoist must practice as diligently as to acquire the same degree of skill in playing guitar style.

Thimble playing is not, as many of you may sup-

pose, merely a rough, unmusical hammering of the strings and head; but may be developed by practice, into an artistic and pleasing musical performance.

But the number of musical compositions which

sound well, or are applicable to this method of per-formance, are rather small when compared with the compositions and adaptations which are applicable to the guitar style; and the continued practice essential to acquiring a smooth and pleasing execution of the music is often a damper upon the ardor of the aspiring

Nevertheless, I have had the pleasure of hearing some excellent music played with the thimble; but on the whole, I prefer the guitar style of playing.

The guitar style of banjo playing, taught in all modern books of instruction, is the style for the parlor

as well as for the concert room.

It is equally well adapted to the lady and gentlemen performers,

In executing music, the little finger of the right hand rests upon the head, and the remaining fingers are used to pick the strings.

The further from the bridge the strings are picked, the softer and more lute-like the tone will be.

The ends of the fingers may suffer at first, by continued practice, from the friction of the strings, and become sore and even blister; but in time they become hard and callous, which is essential to a brilliant

Too much practice at the beginning is not recommended, as it is better to practice but a short time at first, and gradually increase, as the muscles of the arm and the lighments of the fingers become accustomed to and formed to the work.

to and formed to the work.

The pupil should aim to produce a clear tone, distinct, staccato, and, if raised frets are not used, he should endeavor to finger as accurately (with the left

hand) as his senses of hearing and feeling will allow.

The sense of sight is also to be used to a certain extent in banjo playing in order to measure distances—to see the finger-board and its positions.

The senses of sight and feeling may, by practice, be cultivated and developed, just as the mind or

muscular system may be developed.

The sense of hearing, especially the hearing of musical sounds, varies greatly in power and extent in different persons, and may, like other senses, be developed and greatly increased in scope by the right kind of practice.

In practice, when tuning your instrument, I should advise against the strong picking or loud sounding of the strings when they are being brought into tune. Any greater volume of sound than is necessary in order to be distinctly heard, is entirely useless, and hearing any be affected, in some persons, by loud, constant tuning, raising and lowering the pitch of strings, confliction and confusion of sound wares.

The banjo is an instrument that goes out of tune easily: but so is the harp.

Slight changes in temperature effect all the strings, and this fact renders constant tuning necessary. But it may be done in such a quiet way as scarcely to be heard by auditors.

The proper working of the pegs should become part of the early instruction of pupils.

The pegs should be handled gracefully. Do not

The pegs should be handled gracefully. Do not grap the hanjo neck with the right hand and show the peg upwards with the left, but take the peg to be tuned, between the thumb and first finger of the left hand, passing the second finger over the top of the peg-head, or scroll; this will allow you to turn the peg with ease, and also afford sufficient pressure to hold it in place.

, If pegs are properly tapered and fitted to the holes they are not apt to slip if properly handled.

Machine heads or pegs with cog-wheels, such as are used in most guitars, are about the most provoking and useless article a banjo player could adopt, by reason of being tedious to tune, etc. They are very well for the thick strings of the guitar

I would also recommend the pupil to sit in as natural a manner as possible while playing. A position which is natural to one person may be unnatural to

I would also advise pupils and young players to calityate harmony in and between themselves, and shun the association of those who have no desire to progress, or those who are constantly at war with good sense and taste, by bragging about their own wonderful talents and of their powers at samp players, "down" this and "drown out" 'that.

Such people are as useless to you as they are to the that to your face may be so uncharitable as to say advancement of the art of banjo playing. Their behind your back, that you are the "worst ever heard."

arguments are, in many instances, only to be answered by silent contempt, and their egotistical self-esteem and assumption of pomp is frequently based upon, or borders upon idiocs.

The law of affinity, or, "like attracts, like," applies to banjo players as well as to others. Where you find one "knocker" you will find more.

I have been accused of speaking harshly about "ear players," by which is meant those who do not read music, but when I have spoken against the plactice of playing by ear, it has been more because I considered it a duty than because I would be benefitted in any

way.

It was a terrible thing to think about; all these poor heathens, growing up in ignorance of music, and nobody to put them on the right track for fear of offending their royal highnesses.

So instead of spending my spare cash in sending missionaries to Honolulu to teach the poor heathen there how to be good, like us dear Christians in America, I concluded to do what I chuld to convert the poor heathen in my own country who were growing up in ignorance of the science and art of music. I may have made some enemies, but I have made

I may have made some enemies, but I have made many friends among those who have a natural love for the banjo. It is not always possible to convince a man that it is better to study "regular music" than to attempt to learn to play by "ear," or by "simple method," so calliled. Lrequires some knowledge of music to be able to appreciate it as a study.

Real music is an intellectual enjoyment, far removed from the rough, uncouth "knocking out" style of bar-

room banjo players.

It is not always possible to explain to the school, by how and why the studies of arithmetic and mathematics will benefit him in after life; he does not "see the use of it." Of course not; nobody can understand or perceive anything that is beyond their mental development. But by progressing with his studies the low learns flow to appreciate and understand. Just so we have a superstanding the progressing of the studies the low learns flow to appreciate and understand. Just so we have a superstanding the supersta

There is no such thing as being really perfect in anything; we are all of us travelling in circles; we see what appears to be the limit of our minds' conception—the summit of our ambition—the fulledison of our ideal. But as we approach nearer, it seems to recede, and as we appear to get nearer we find other limits far beyond our previous conceptions. Thus it is with the study of any art or science, music and the banjo included. However high you may have progressed in the art of banjo playing, you may yet go

The banjo has more in it than has yet been brought out, and it remains for you to further develop it.

Study your instrument well; learn all its points; study music; practice assiduously, and aim for the top. Do not be discouraged if you do not progress as fast as you think you should at first, for at each step of the ladder comes redoubled power to proceed.

If you have a friend who is not so far progressed in music as yourself, it is well for you to show him what you can do and how he may follow; or to aid him in his studies and practice; for in so doing you will also

learn something new for yourself.

Don't think, if you have learned a new piece, that you are the only one who can play it, or that nobody can get it but yourself; for if you so think you will often find younself mistaken, and perhaps be humiliated. Only small-minded people are bigoted and egotistical; if remains for you to be liberal. If you think you have ideas of your own, demonstrate them. If you think you have bleas which no other man see what you can do. But never beg about what you can do; do it first, then, perhaps, if it amounts to anything, you may have friends who will do all the bragging you need.

If you are so constituted that "taffy" is as necessary to your existence as chicken-feed is to a hen, it may be better to employ some able person to follow behind and "taffy" you up every now and then.

and "taffy" you up every now and then. J But if you are told that you are the "best banjo player in the whole world," don't allow that to puff you up too much, for the same person who, tells you that to your face may be so uncharitable abyto say, behind your back, that you are the "worst ever heart." Therefore I advise you to be as even tempered as the musical scale, neither too sharp nor too flat, but of a happy medium.

I have always likened the "ear player" to a mariner who attempts to navigate the deep without rudder or compass. Those who only desire to "play a little," may do as well, perhaps, without notes; but he who desires to progress should learn to, at least, read music.

I fancy that I would rather not listen to a quartette of ear players; if each were to take a different chord at one time it would not be musical.

Those who have studied their chords, scales, etc., have some foundation to work upon, even if they do not play everything from the notes.

A few words more and I am finished.

CONCLUDING REMARKS.

WARPED RIMS

No machine has ever been devised to save both time and force; one must be gained at the other's expense. Sometimes a banjo rim will have a tendency to go out of shape, or "warp," and it generally happens in banjos of superior tone.

How often we find men gifted with superior talents in one direction and addicted to some degrading habit in another.

Superior talents are often balanced by some defect, either physical or moral, in the person possessing them.

This is so frequently found to be the case that we

might almost call it a law of "second nature."

In some of the very finest old violins it has been found that the backs or tops were often made of patched wood. Doubtless many buyers of cheap violins, to-day, would reject such an instrument,

violins, to-day, would reject such an instrument, thinking it a "botch."

But the real fact is that the time occupied by those old masters in "patching" that wood would have been sufficient to have allowed them to make at least

been sufficient to have allowed them to make at least two or three violins in the ordinary way. Then why did they so make them?

The reason is said to have been because the wood so used contained peculiar accountic properties which were seldom to be found, and they used every particle of the wood possible. Horace Weston once told me that in his old Clarke's

Banjo the rim "warped" to such an extent that he used to be compelled to block the rim when putting a new head on.

And my experience has shown me that when rims are found to go out of shape it is nearly always in banjos possessing a superior tone; but of course there are exceptions to all rules.

In a large instrument of my manufacture, used by Horace Weston, the rim was found to be considerably "out of round" when brought to me after a year's traveling through the country. I removed the head and after allowing the rim to remain healtes over night, found that it had come back to its circle without "mechanical aid. So it has been with others."

But some rims will go a little out of shape and stay there, and if the banjo sounds well I recommend their

being left just as they are.

Various devices have been formed for the purpose of holding banjo rims round, but it is nearly always the case that form is retained at the expense of tone. For, as I said before, some of the best sounding banjos are those with rims out of shape.

One mechanic will insert a steel (cast) ring inside the rim to hold it round; another a thick band of wood, and another will think that a banjo should have

wood, and another will think that a banjo should have a brass head and steel strings; but, as for myself, I prefer the sensitive rim with a good tone; and if I had a rim not more than a half inch out I should not bother about it; but if the rim was eleven inches one inches "all ways," I should have it fixed.

WARPED NECKS are worse than warped rims; they ing. affect the entire instrument, and if I must have either I prefer the warped rim.

A neck may warp downwards and cause the strings to iar upon the finger-board,' It may spring upwards will require to dry, and cause the strings to lie too far away from the board, thus making left-handed fingering very much best way to dry a head. The weather, of course, more difficult.

Necks made with thick finger-boards frequently act in this way, owing to the different shrinkage capacities of the woods used in the neck.

Some makers claim that if the wood is well seasoned the necks will not warp or spring; but this is a fallacy, as some woods, particularly certain grades of walnut, never season so as to be free from warping,

Other makers claim that if the wood is cut so that the grain runs in a certain way that the necks cannot made will warp sideways or twist; just as readily as climate, the better, the same wood would warp in another direction if differently cut.

Only long experience and observation will teach a manufacturer how to avoid these troubles with banjo necks, which, owing to greater length, are more liable to warp than the necks of other instruments.

Again, some players demand necks made so extremely thin that they lack sufficient firmness to stand the strain of the strings, etc.

HEADS.

When I first went into the business I used to hear considerable about "slunk heads," but I don't hear much about them any more.

Banjo players must be becoming more enlightened. or else a more intelligent class of people is taking hold of the instrument.

Banjo heads are made from the skins of young calves. "Slunk heads" are supposed to be those made from the skins of calves so young as never to heads are worthless on a banjo.

Choose a good stiff, partly white head, one of even way and thirteen the other, when it should be twelve thickness. When you put it on the rim wet it enough to make it pliable. Let it get well dry before strain-

> It does not matter how wet the head is, providing you give it time to dry thoroughly before putting it to a strain : but the wetter the head is made the longer it

> Indirect sun-light, in the open air is the shortest and must be clear when exposed.

Some amateurs have a predilection for heads that are all transparent (such skins used to be used in place of glass, for windows, in olden times), and others think only such as are "all white" can be good; but the knowing ones, i. e., experienced players, select their heads with regard to other properties than color, knowing that artificially prepared heads are often weak in strength as well as in sonorousness. The head is the most sensitive part of the instrument, and the more warp; but this is another fallacy; for the necks so uniform in density the air, and the less variable the

> And now for the lack of those important factors, time and space. I must close, hoping to go deeper into the subject at some future time, however remote.

> NOTE .- The foregoing lecture is given just as originally written; with perhaps many imperfections, errors and omissions. It is scarcely possible to cover the ground of such a subject in a few words and at the same time be clear and comprehensive; and at present I have not the time to devote to a more elaborate and detailed analysis of the various points introduced; neither have I the desire to employ any one to "write up" my lectures or other articles, from memoranda supplied by myself, as is done by many.

> Therefore, the lecture, such as it is, is given to the public just as it proceeds from my pen-without elabration-without any pretention to rhetorical style, and I hope without perplexing mystifications.

In short, what I have said, is intended for the rising school of banjo players-banjoists, notwithstandhave seen the light-that is, still-born calves. Such ing the omission of the word from Webster's dictionary -not for the critics.

THE BRIDGE.

The following cuts, or diagrams, give in outline the size of bridges generally used on the banjeaurine and banjo.





Diagram A, represents the banjeaurine bridge; Diagram B, the banjo bridge.

Taking the centre of the bridge as the place to notch for the third string, we make a circle from this centre for the positions of the two outer strings, and then setting the dividers one-half shorter, we form another circle from same centre for the two remaining

INTERMEDIATE SIZE LADIES' BANJO. VERY FINE TONE-ATTRACTIVE APPEARANCE.

STYLE THE "LADY STEWART"



SIZE AND DESCRIPTION.

Nine-inch German silver nickel-plated rim, wire edges, best thick-turned edge N. P. hoop, 16-inch neck with ebony face and raised frets, position marks, etc., 20 nickel-plated brackets with "dress protector" nuts, ebony pegs, white tail-piece, &c. Price.

No. 2. The same style with fancy white keys and pearl inlaid work, -Price, \$20.00

No. 3. With finer and more elaborate pearl inlaid work, Price, \$25.00 and \$30.00. With gold and silver plating and chased work, from \$50.00 to \$100.00 each,

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STEWART'S BANJO, STYLE No. 10.

IMPERIAL BANJEAURINE



Cut, showing face view of No. 1.

These cut's represent the new 11½-inch rim Banjeaurine, made for ladies' use. 12½-inch Banjeaurine for gentlemen's use, see another page of this pamphlet.

DESCRIPTION.

plated washers set into the rim, inside. Neck fastened with Stewart's patent nickel-plated brace and neck likeling between the rim, inside. Neck fastened with the Stewart's patent nickel-plated at will. Fancy-bolt tail-piece, &c.



Cut, showing back view with Stewart's patent Brace and Neck Adiuster.

Price, either size. - - - \$30.00

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For further information about THE BANJEAURINE, see "The Banjo Philosophically," printed elsewhere.

Very elaborate gold-plated, pearl inlaid BANJEAURINES, at from \$75.00 to \$200.00.

All Banjos advertised in this Price-list as having German silver rims are fully nickel-plated over the German silver, so as not to tarnish.

A Banjo for Learners. A "2nd Grade" Banjo PRICE, \$7.00



Size, 11-inch rim, of maple wood, with 19-inch rosewood veneered neck, 20 nickel-plated brackets, nickel-plated hoop, A light banjo, nicely finished, raised or smooth frets.

Price, net, -\$7.00

FOR LADIES' USE.



DESCRIPTION.

10-inch nickel-plated rim, 17-inch rosewood veneered neck. 20 nickel-plated brackets, nickel-plated hoop, raised frets, ebony pegs, &c.

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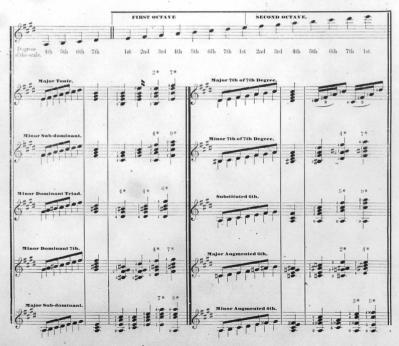
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*Suspensions are formed by notes not belonging to the chord proper, but which finally resolve downward to the note which does belong to the chord.

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Sudden Death of Winslow L. Hayden, the Eminent Guitarist.

Correspondence to the Journal

S. S. STEWART, Dear Sir. I will give you in brief an account of the terrible disaster which occasioned the death of Mr. Hayden, the guitarist Being passionately fond of the sea, upon which many of his days were spent when a boy, he last winter bought a pretty little sloop yacht with the intention of renewing his youth, and affording not only himself but his entire family a great deal of enjoyment. His wife and five children, to whom he was most devoted husband and father, have during the past season had mikry pleasant whenever the weather permitted, he would invariably take his two chest sons down the harbor on an all-day's fishing excursion, anchoring always near a spot called "The Graves". From these weekly trips they would return fively.

spirits and with more fish than they could dispose of. Upon the last and fatal Thursday the three of. Upon the last and lata! Thursday the three merry fishermen left home in company with a young photographer named Laming, at about 7.30 A.M. Mr. Hayden jokingly told his wife that if they did not return before 1! P. M., she that if they did not return before 11 P. M., she would know that they had been becalmed, in which case they should sleep in the boat and return to the city in the morning Mr. Hayden was an expert yachtsman, and had handled his boat most skillfully during the severe squalls in which he had been caught during the summer, but it was not an ordinary squall which swept over the water that day; it was nothing short of a whirlwind, and was so wholly unlooked for that before Mr. Havden had had time to act the sloop was overturned-sinking immediately and throwing the four unfortunates out into the water. There was nothing to which they could cling, and the rain was so blinding that for a few moments they were hidden from sight. Mr. Laming and Mr. Hayden were good swimmers, but current and their heavy clothing was against them. After nearly exhausting their strength in trying to support the two boys, who could not swim a stroke, the two adults were seen swimming for a schooner which was near by, but when within speaking distance they threw up The captain of the their hands and s nk. schooner says that during it all he never heard a ery from one of them. He was powerless to aid them for his own vessel had been overturned, but had righted again. Within two weeks the four bodies were recovered, and have been quietly laid away. Mrs. Hayden, who is somewhat of an invalid, was at first stunned by the shock, but bears up most bravely beneath her terrible bereavement for the sake of the three children who are left. So perished one of America's finest guitarists. His loss cannot soon nor easily be made good to the musical world. He has arranged and composed for the guitar nearly nine hundred pieces, and was one of the most patient and thorough of teachers. In all his business transactions he was unusually upright. Customers who have known him only through correspondence, write that they have always thought of him as a near and dear friend. No one knew him but to love and esteem him, and if he is so deeply mourned by his friends what then must be the loss to his family. His office at 146 A Tremont street will be kept

His office at 146 A Tremont street will be ket to open and the business carried on by his daughter, throughout the winter. She is desirous that her father's name shall not be forgotten in the world of music. He was years in building up for himself his reputation, and the business will be continued under the name which is so will ely known over all the conntry.

C. V. H.

THE LOW STATE OF ART.

A correspondent mails us the following, a clipping from some paper unknown:

**S. S, Stewart still condemns the boys who play the lanjo by ear. Mr. Stewart ought to make a trip to Denver and get acquainted with some of our ear players, and he would probably issue at least one copy of his Banjo Journal without slurring the ear players. In the past six months 232 banjos have been sold, and only about thirty of the purchasers are taking lessons."

So Mr. Stewart slurs the "ear players," without missing a single copy, does he?

The writer of the above is probably one of those who, by reason of not being a subscriber to the Journal, sees it only very occasionally. There have

Journal, sees it only very occasionally. There have been more than 232½ banjos sold here in the past month, and very few of them have gone into the hands of ear players.

The sale of the Macrican Banjo School has so in-

creased that we are led to believe that many of the socalled "ear players" are sneaking around to the A B C of music. It would be well for the writer of the foregoing

squib, who probably wrote it during one of his "offi" moments, if he would sit himself down and endeavor to acquire some knowledge of what he attempts to write about. How they do lie about poor Stewart.

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