The Gibson Mandolin

Style F-5

The "Strad" of Mandolins

A New Standard of Instrument Making

Tone of Marvelous Power and Richness

Matchless Workmanship and Finish

FEATURES OF CONSTRUCTION AND ACOUSTICS

The Gibson Master Mandolin is not a mere imitating of ordinary mandolin construction, but is in many respects different than any other instrument hitherto made. As a result of the changes and improvements in construction the tone is bigger and of richer quality. A fundamental change is the treatment given the Master-model sounding-board, which has 4-holes adapted to plectral instrument construction, instead of an oval sound hole. It will be noticed that the finger-board is elevated from the sounding-board and the sounding-board is longer than any other mandolin sounding-board and so constructed that the bridge may be placed in the middle. Other important changes in construction are outlined on this page.

World's Finest Materials

Only the best materials selected by expert, can enter into the formation of the Gibson Master Model; the world's finest mandolins. Of great importance is the neck, and for this we use the very choicest selection of the finest soft Irish maple. The Gibson Mandolin, which is a staple in the hand of the player, gives strength as well as wonderful beauty, and the expert touch of our finishers, we are sure no more elegant instrument was ever made in this country. The best of Europe is sent to France in aid of the finger-board.

Exclusive Gibson Features

Not only is the Gibson Master Mandolin the last word in instrument construction, but it produces more resonance than any instrument that has been made in the past. A comparison of the Gibson Master Mandolins and the former mandolins will at once show the advantage of the Gibson in this respect.

Some of the advantages possessed by the Master Mandolins are:

1. A sound hole of the right size and shape, properly located in relation to bridge, mandolin, and strings, putting the sound on the top of the body. The braced design, which results in better instrument construction of the top and sides, will bring out more of the tone in the instrument.

2. No necessity for a guard over the top of the instrument, as the guard will be thrown away by the sound of the instrument, the tone being better cut.

Finish and Ornaments

In every instance, color of the Master Mandolin, as well as the engraving of the ornament, is selected to harmonize with the instrument. The 16th century of the European style is utilized in the engraving of the ornamental work on the back, the sides, and the front of the instrument. The ornamental work on the back is cut out of the solid wood and is then finished in the same manner as the top. The color of the wood is chosen to harmonize with the other ornaments and the finish is done in the same manner as the top. The engraving on the back is done in the same manner as the ornament and is cut out of the solid wood.

Two Little Labels That Mean Much

Every Gibson Mandolin is an original, and the best, and the only, of which you will ever find. It is a sign of the highest quality that all of the instruments are genuine and true to the original design. The labels, which are placed on the back of the instrument, are engraved in the same manner as the ornament and are cut out of the solid wood. The engraving on the back is done in the same manner as the ornament and is cut out of the solid wood. The color of the wood is chosen to harmonize with the other ornaments and the finish is done in the same manner as the top. The engraving on the back is done in the same manner as the ornament and is cut out of the solid wood.

Special Features

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GIBSON MANDOLIN-GUITAR COMPANY, Kalamazoo, Mich. U.S.A.
A Talk About Tone
By Lloyd Loar, Mus. M.
Gibson Acoustic Engineer

TONE color is determined by the number, identity, and proportion of the overtones or partials present in the tone of an instrument. In a string instrument, these overtones or partials are primarily produced by the string vibrating in segments which are contained within the total length of the vibrating string. The segments are determined by the node points, or nodal planes, which divide the total length of the string into intervals, each interval being a multiple of the fundamental or basic vibration factor of the string. This will be better understood after the reader has studied the table below which gives the overtones possible to a G mandolin string.

<table>
<thead>
<tr>
<th>Harmonic</th>
<th>Nodes</th>
<th>Pitch on the String</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>0</td>
<td>Fundamental</td>
</tr>
<tr>
<td>2nd</td>
<td>1</td>
<td>Double the fundamental</td>
</tr>
<tr>
<td>3rd</td>
<td>2</td>
<td>Triple the fundamental</td>
</tr>
<tr>
<td>4th</td>
<td>3</td>
<td>Quadruple the fundamental</td>
</tr>
<tr>
<td>5th</td>
<td>4</td>
<td>Quintuple the fundamental</td>
</tr>
<tr>
<td>6th</td>
<td>5</td>
<td>Sextuple the fundamental</td>
</tr>
<tr>
<td>7th</td>
<td>6</td>
<td>Septuple the fundamental</td>
</tr>
<tr>
<td>8th</td>
<td>7</td>
<td>Octuple the fundamental</td>
</tr>
</tbody>
</table>

It is not possible in the limited space available to discuss the above table at length although such comment and explanation would be very interesting. In brief, however, we may say that in every musical tone some of these overtones, up to the 5th, are present in varying proportions.

Each series of overtones effects the tone in a different way. That series which is in the same pitch as the fundamental, although in different voices and shown in our table as the first, third, sixth, and eighth, adds brilliance to the tone but may reduce our authority. The next series, a fifth from the fundamental, adds color and brilliance but in addition contributes to the volume of the tone. The next series, beginning with the fourth overtone, adds more color and almost no brilliance. The further away the overtone is from perfect consonance with the fundamental, the more color and the less brilliance the overtone adds.

When a mandolin or violin player wishes to play natural harmonics, he places his finger at the nodal point of that overtone having the same pitch as the harmonic to be used, and the nodal point is found by examining the number of divisions in which the string is divided by the nodal or bridge pegs. For the first overtone, the bridge peg is found. For the second overtone, the peg one division above the bridge peg is found, etc. When the finger is placed at that point, pressing that overtone at the bridge pitch in the first overtone and consequently making the resulting harmonic that pitch. The overtone above the lowest one left are still missing, however, and may be obtained one by one until all are obtained. When the string is stopped completely the overtone of the series below the fundamental is produced. From the table it is obvious that a combination of the overtone of the same pitch can only be produced when the harmonic has only one pitch of the series belonging to that open string.

The tones of many new Gibson mandolins have been analyzed in this way and invariably the overtones have been neatly in number, lacking in power and exactly in the order making the same brilliance but ring, sound, and volume. The first five or six are present and the fundamental is usually too great a proportion of the total tone. The overtones are then the ones which are present and the balance between them constitutes the characteristic of the tone. The one-series, second, third, fourth and fifth, are definitely present and all of them and the balance between them. Twentieth, third, fifth, etc., are also there but this series is usually present as is not here emphasized.

So, in commenting on the beautiful tone color obtained from the Master Mandolin we have something more to go on than individual opinion for the knowledge of the performance of the instrument. The overtones of the strings, time, distance, etc., as any of the other musical instruments used for their rich, sonorous tone.

Gibson Mandolin
The world's leading manufacturer of Mandolins and Mandocellos.