The tuning arrangement of an instrument has to be determined before it is constructed so that the internal bracing and sound post can be placed in the proper positioning to support the stresses caused by the tensioning of the string groups. A dulcimer built for four-note differential tuning would not support five-note differential tuning and visa-versa.

# Playing is natural process

As stated, the hammered dulcimer is played by striking the string groups with the two small wooden mallets or "hammers." Basically, the right hand plays the melody or tune while the left hand strikes rhythm by striking notes in the same major or minor key. If a person is left handed, this process is reversed.

The playing seems quite complicated when one is observing the process but actually it is very easy. If a person can "hum" or carry a tune or melody, then it is easy to strike it out with one hand. The use of the second hand becomes almost natural once the melody can be played. With little practice the whole playing process becomes quite mechanical and is accomplished with very little effort.

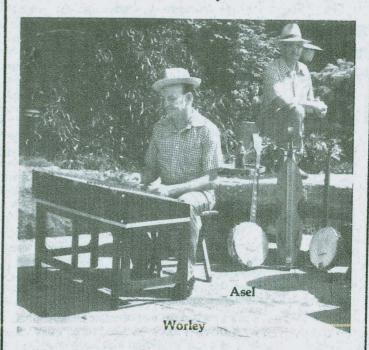
The building and playing of the hammered dulcimer has become almost a lost art at this time. As it represents a part of West Virginia history, the objective of my brother, Asel Gardner, and myself has been to revive or retain this bit of our heritage. We have built many hammered dulcimers and from them many people have learned to play this instrument. This has been a very enjoyable and rewarding experience. The playing of the hammered dulcimer is its own reward as anyone who has accomplished this feat can testify.

## For more information

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### Revival of the



## Hammered Dulcimer

by the Gardner Brothers

#### The History of the Hammered Dulcimer

By Worley Gardner

The hammered dulcimer is an ancient instrument probably developed in western Asia. It is a predecessor of all known percussion stringed instruments. Reference is made of the dulcimer in the Bible. Its European usage was predominantly in south-central Europe. It was brought to America by early settlers and was distributed along the Appalachian Mountain range. Its usage extended from lower southwest Pennsylvania, eastern Ohio, West Virginia, North and South Carolina, Kentucky and Georgia.

The instrument was built by local craftsmen for the area in which they lived. They were copied by others in other areas. The many different styles found reflect the areas of their origin and the particular taste of the craftsman of the area. The player of the instrument and the craftsman who built it were much in demand. In the Appalachian Mountain area the hammered dulcimer became very useful in providing entertainment for all types of social functions such as parties, square dances and also, church functions.

Written communication of music was for the most part unknown; thus, the music played was practically all done by memory. The songs and melodies reflected ballads set to music and adaptations of tunes they remembered from their earlier life and passed on to their children.

This melting pot of musical backgrounds evolved into a definite type of music that I call "mountain" and has since provided a background for what later developed into "country" and "country western."

### Dulcimer has trapezoid shape

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The hammered dulcimer is primarily a trapezoid shaped wooden box approximately three to six inches deep and thirty to forty inches long at the longest point. The ends of the box are made from heavy block material so that they can serve the purpose of holding the tuning pins and hitch pins. Across the top of the box are groups of wire strings. The number of groups varies from nine to twenty-seven with different instruments. The strings in each group vary from two to seven. There are three sets of bridges that support each string group, one on either end and one near the center of the strings. The center

bridge is moveable so the desired tuning arrangement can be accomplished.

Along the right hand edge of the instrument are rows of tuning pins and along the left hand edge are rows of hitch pins to accommodate the strings. The strings are made of steel wire and vary in size from number nine to number five wire size. The wire is placed in a tuning pin, stretched over the three sets of bridges around a hitch pin, back across the three bridges to another tuning pin. Thus, one piece of wire makes two strings.

The instrument is played by striking the string groups with two small wooden mallets called "hammers." These are made of very light wood and are often covered with felt or leather on the striking surface to provide different desired sound characteristics.

# Two tuning setups available

Each individual string in a group is tuned to the same note. There are basically two tuning arrangements. One is a four-note differential across the center bridges, and second, a five-note differential. The old instruments were found to be tuned both ways. Some craftsmen evidently preferred one method over the other. I believe the five-note differential provides the best arrangement.

To arrive at the physical location of the center moveable bridges, a trial and error method is used. One string, generally the top one, is tightened and the center bridge is moved to a position on the sound board that gives the desired notes both on the right and left hand sides of the bridge. This process is repeated until one string in each group is tuned. Once this arrangement is accomplished, all other strings in the individual string groups are tuned to match the one string that has been previously tuned.

In instruments with a small number of string groups (nine) it is probably more desirable to tune in whole notes only. With instruments of more than eleven string groups, a five-note differential in both whole and half notes provides a tuning arrangement with more desirable characteristics and the instrument is more versatile.