

AMERICANA LIBRARY

# FOXFIRE

— *Mountain Music Fills the Air* —

BANJOS *and* DULCIMERS



Edited by

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FOXFIRE STUDENTS

# **Mountain Music Fills the Air: Banjos and Dulcimers**

The Foxfire Americana Library  
Edited by Foxfire Students



Anchor Books  
A Division of Random House, Inc.  
New York

ANCHOR BOOKS EDITION, SEPTEMBER 2011

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eISBN: 978-0-307-94830-4

v3.1

# Table of Contents

*Cover*

*Title Page*

*Copyright*

A Note About The Foxfire Americana Library Series

## **Banjos**

## **Dulcimers**

The Peg Head

The Peg End

The Fret or Fingerboard

The Back

The Top

Assembly

## A NOTE ABOUT THE FOXFIRE AMERICANA LIBRARY SERIES

For almost half a century, high school students in the Foxfire program in Rabun County, Georgia, have collected oral histories of their elders from the southern Appalachian region in an attempt to preserve a part of the rapidly vanishing heritage and dialect. The Foxfire Fund, Inc., has brought that philosophy of simple living to millions of readers, starting with the bestselling success of *The Foxfire Book* in the early 1970s. Their series of fifteen books and counting has taught creative self-sufficiency and has preserved the stories, crafts, and customs of the unique Appalachian culture for future generations.

Traditionally, books in the Foxfire series have included a little something for everyone in each and every volume. For the first time ever, through the creation of The Foxfire Americana Library, this forty-five-year collection of knowledge has been organized by subject. Whether down-home recipes or simple tips for both your household and garden, each book holds a wealth of tried-and-true information, all passed down by unforgettable people with unforgettable voices.

## BANJOS AND DULCIMERS

**T**rying to trace the history of the banjo as a musical instrument is one of those tasks that can quickly make you want to tear your hair out. Though hundreds of articles have been written on the subject [a fine bibliography is available from Joe Hickerson at the Archive of Folk Song in the Library of Congress], many are contradictory and filled with speculation. On one fact, however, nearly all are in agreement: that America's favorite folk instrument was brought to this country from Africa and Jamaica by Negro slaves in the eighteenth century. Thomas Jefferson, for example, in his *Notes on Virginia* (1782) mentions the "banjar" as being the chief instrument of the American Negro.

How did it get to Africa? Pete Seeger speculates that the Arabs may have brought it to the African West Coast [*How To Play the Five String Banjo*, third edition, published by the author in Beacon, New York, 1961]. We know that instruments like it in the Near and Far East (the sitar and sarod, for example) have been common for nearly as long as records exist, and stringed instruments with skin heads and wooden shells are known to have existed nearly 4,500 years ago in Egypt ["The Five-String Banjo in North Carolina" by C. P. Heaton; *Southern Folklore Quarterly*, Volume 35, Number 1, March 1971, page 62]. What paths the instrument followed through these countries, however, is simply guesswork.

At any rate, the instrument did make it to this country, where it began to undergo (and survive) an amazing amount of experimentation and popularity, despite a popular white belief that all banjo players and fiddlers were certainly bound for Hell. "Thick as fiddlers in Hell" is an expression still used in our part of the mountains.

The first banjos to come to our coast “had two, three or four strings (of horsehair, grass or catgut) and a hide stretched across a gourd. Cats, possums, raccoons, sheep, snakes and other assorted creatures supplied the skins for the early banjo heads” [Heaton, page 62]. An article by C. J. Hyne in the December 15, 1888, issue of the “Boys Own Paper” [reprinted in the March 1974 issue of *Mugwumps*] says, “With rapid strides it improved in form. First a wooden hoop, and then a metal one; first a rough skin for the drum, then the best parchment; first nails to hold it on, then neatlymade tension screws. At one time the strings were made of anything that came handy; now they are formed from the ‘intestines of the agile cat.’ ” That was in 1888. Since then, the number of variations that have been tried that we *know* about would dwarf those of Hyne’s experience.



ILLUSTRATION 1



ILLUSTRATION 2

Usually cited as the most important development in the history of the instrument itself was the addition of the shorter “chanter,” “drone,” “thumb,” or fifth string. Here again, facts are hard to come by, but many historians credit Joel Walker Sweeney, a Virginian who was a professional blackface minstrel, with the addition sometime between 1830 and 1845. His original banjo is now in the possession of the Los Angeles County Museum. Arthur Woodward writes of Sweeney and the acquisition in the museum’s Spring 1949 quarterly [Volume 7, Number 3, page 7]. The article says, in part: “In 1890, Mr. F. J. Henning, a teacher of music and a skilled banjo performer, learned of the existence of Joel Sweeney’s original banjo ... He entered into negotiations with the family and secured the old instrument ... [It] is made of a dark, reddish colored hardwood. The head is of stained leather, fastened on with tacks. There are no strings. Scratched in the wood, still faintly visible, are the initials ‘J.S.’ ” [One Sweeney banjo will be found documented [here](#)].

Though all banjos prior to 1880 were fretless [Heaton, page 64], demand for fretted ones by minstrel banjoists at that time caused several manufacturers to put them on the market. Though their popularity lapsed in the early 1940s, players like Earl Scruggs brought them back, and today the five-string, fretted banjo (often with a plastic head) is again king.

Our interest in the banjo really began when a whole new group of students at our school began to learn to play it riding the crest of still another surge in its popularity. We knew almost nothing about it—not even where to begin to look for information. Now, two years later, we feel we’ve made a good beginning, and everything we read confirms that. In the Heaton article, for example, the author quotes Louise Rand Bascom, who, in 1909, described the North Carolina mountain banjo of that day for the April-June issue of *Journal of American Folklore*: “The banjo is home-made, and very cleverly fashioned, too, with its drum-head of cat’s hide, its wooden parts of hickory (there are no frets).” As you read the following articles, you’ll find that to still be true in some cases.

Heaton continues by quoting an article about Frank Proffitt that appeared in the October-November 1963 issue of *Sing Out*: “As a boy, I recall going along with Dad to the woods to get the timber for banjo-making. He selected a tree by its appearance and by sounding ... hitting a tree with a hammer or axe broadsided to tell by the sound if it’s straightgrained.... As I watched him shaping the wood for a banjo, I learned to love the smell of the fresh shavings as they gathered on the floor of our cabin.... When the strings was put on and the pegs turned and the musical notes began to fill the cabin, I looked upon my father as the greatest man on earth for creating such a wonderful thing out of a piece of wood, a greasy skin, and some strings.” You’ll find many echoes of that here too. In

fact, three of the banjo makers represented here are from Proffitt's home county.

We found four major head styles, all of them represented in this chapter: the all-wood head; the all-hide head; the wood head with the hide center; and the commercial head held on with brackets. Likewise, hoop styles and neck styles have great variety. In fact, there is so much variety in banjo construction that it would seem as though *anything* goes as long as it "rings." Stanley Hicks, for example, showed us a banjo his father made out of a cake box. It worked well.

What we've done is to pick out seven banjo makers that represent the major styles we located. Their own instruments are documented here, as well as old instruments they may have owned from which they perhaps borrowed patterns or ideas. It was, and is, fairly common, for example, for an instrument maker to adopt a neck style from one banjo, a hoop style from another, and a head style from yet another, and put them together with his own wrinkles and ideas to form an instrument that is uniquely his in the best Sweeney tradition of borrowing/inventing.

Then, to conclude the chapter, Robert Mize, a dulcimer maker of genuine skill (he's made over seven hundred of them) describes his method of dulcimer making in detail.

And on top of all that, you'll also find fine diagrams by Annette Sutherland, one of our student staff members, which depict two of the banjo styles and additional details of the Mize dulcimer.

It's taken us a long time to put this material together, but we think it's been worth it. We hope you will too.

BEW WITH RAY MCBRIDE

**ERNEST FRANKLIN**

Last February, we drove up into North Carolina to visit with Ernest Franklin who, we had been told, would be a good person to talk with about instruments. He came out onto his porch as we lurched up his single-track, rutted dirt driveway. The weather was cold, and misting rain.

His house is an old log cabin chinked with red clay that was later boarded over. It has a single fireplace and a porch that extends along two sides. Firewood is stacked out back. His two dogs looked us over and acted as if they wanted to bark or run up and jump on us but were either too old or tired to try. One of them slowly lifted himself to his feet and half-heartedly wagged his tail just to let us know he was there.

When we explained to Mr. Franklin why we had come and who had sent us, he grinned and waved us in. We followed him inside, greeted his dogs as we passed, and met his mother. He told us to sit down just anywhere. We settled down in a living room heated by the fireplace, lit by a kerosene lamp, and decorated with various family photographs, a picture of Jesus, an advertisement for Buck cigars, and the word "Love" in blue block letters above his bedroom door. His friendliness was overwhelming.

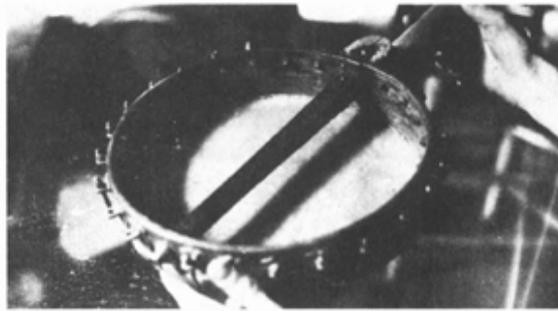
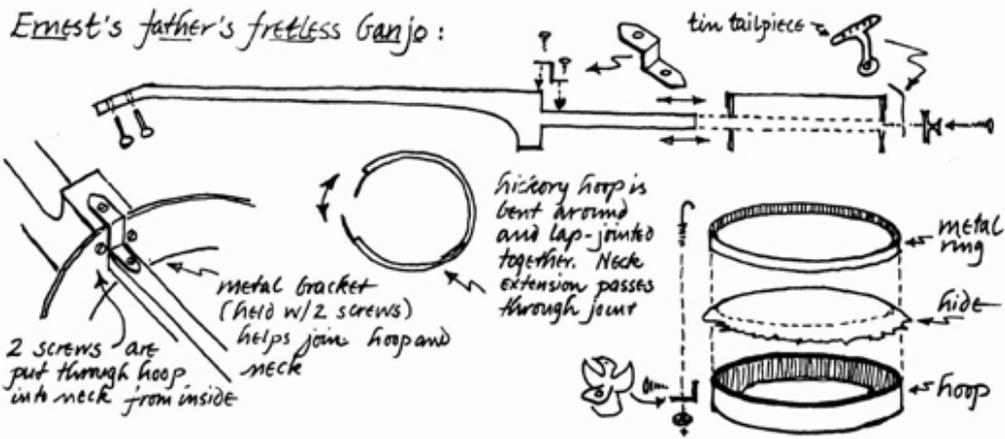


ILLUSTRATION 3

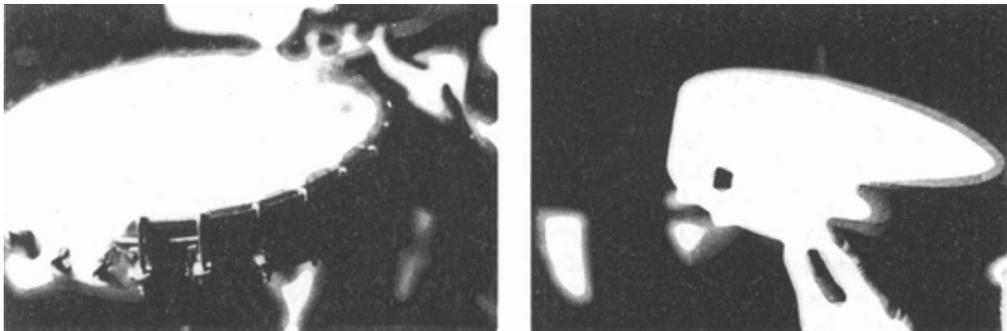
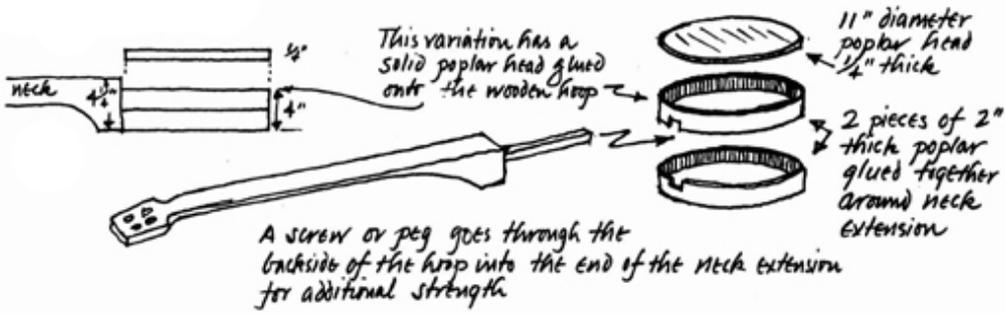


ILLUSTRATION 4



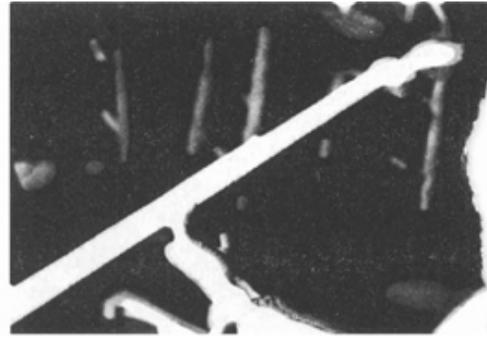
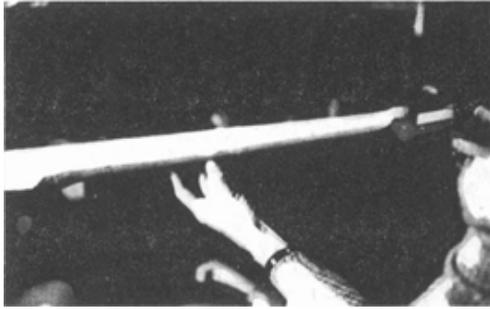


ILLUSTRATION 5 Two views of the poplar neck that Ernest Franklin is roughing out for a second type of banjo not based on his father's design. There is no tail extension—the neck will be mounted directly to the side of the hoop as shown in [ILLUSTRATION 6](#). The wood is seasoned at least three years before being sawed out. Once sawed, it is worked down with a drawing knife, pocketknife, and wood rasp. Note the indentation in the side of the neck for the fifth-string peg.

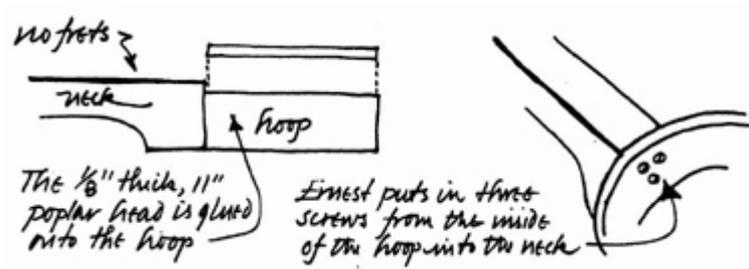


ILLUSTRATION 6

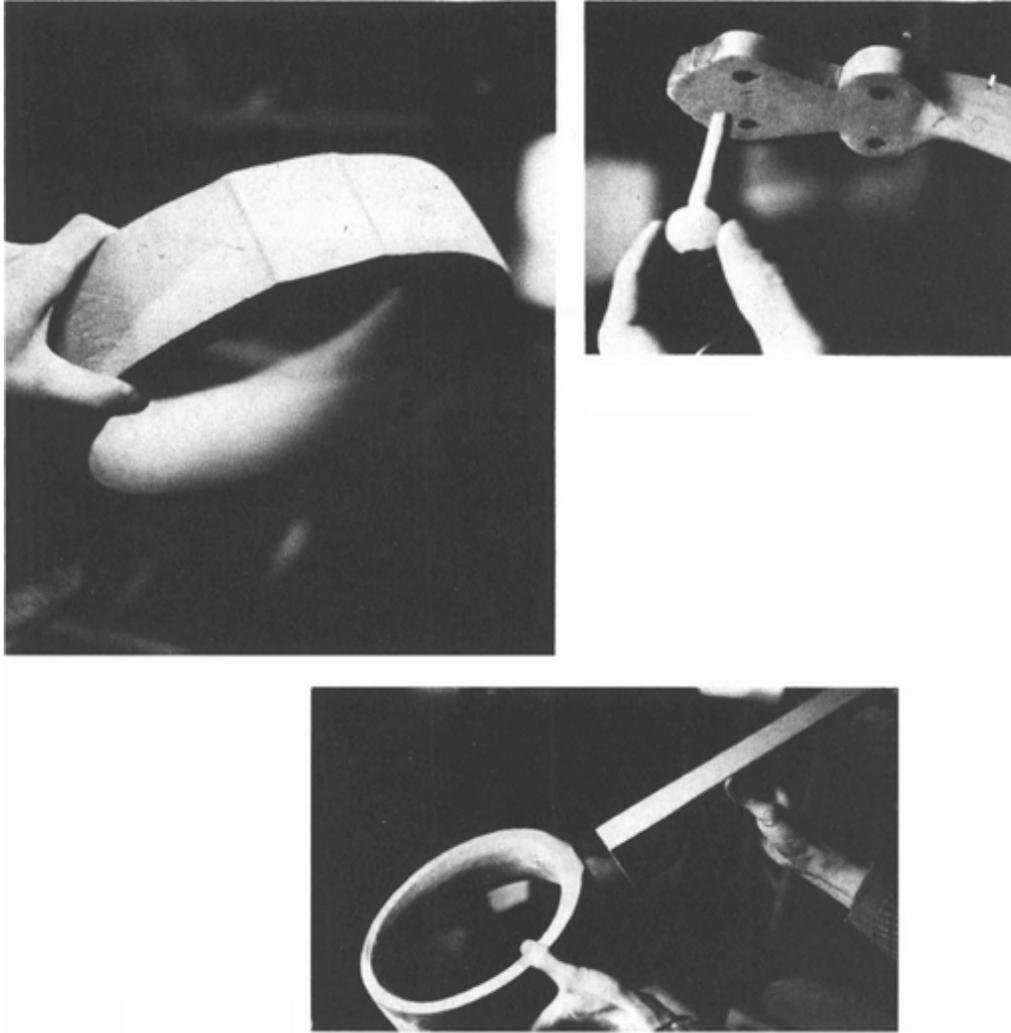


ILLUSTRATION 7 In the upper left and bottom photographs, note squared place on hoop where neck will be attached. The hoop is cut out of a solid piece of well-seasoned poplar. He takes out the center with a brace and bit. In the upper right photograph, note how a slot is sawed into the neck at the base of the peg head, and the wooden finger bridge or nut set into the slot. Holes for the strings are sawed into the peg blocks first, and the pegs are whittled out around the holes.

We asked him to tell us about his banjos. “Well, I’ll tell you, the first one I ever made—you’ve seen your wooden cigar boxes? Well, I made one out of a square wooden cigar box. I didn’t have no patterns or nothing to go by. I just thought that up myself.”

Later, using a banjo his father had made as his pattern, he produced another one using a rasp, a pocketknife, a saw and a drawing knife. Instead of using a hide for the

head, however, as his father had done, he glued on a wooden head. I had never heard of that being done before, but I later found out that some of the other *Foxfire* editors working on this chapter had found a second man nearby, M. C. Worley, who used wooden heads also.

“It’s got a finer, mellower tone than that there,” he said, pointing to my factory-made banjo. We asked him if a different type of wood would change the sound. “Yeah, I imagine if a man had spruce pine it would sound better.”



ILLUSTRATION 8

We asked questions for hours, sitting in his tiny living room and later walking over the farm. Slowly we began to realize what a story could be here for the future. His grandfather (whose old log house still stands on the property) had made fiddles, so he had tried that too. Many of the tools his grandfather and father had used (a shaving horse, for example) are stashed away in corners all over the farm. Every outbuilding holds its collection of family history.

Each time we asked a question about his instruments, he headed for the attic or bedroom and soon produced

another battered banjo or tool or pattern or piece with which to answer us. We had the sinking feeling that if we only knew the right questions to ask, we could trigger a flood of stories hidden away behind the walls. Next time, perhaps.

When we asked him why he didn't use frets, he laughed. None of the old ones he had seen had had frets. Besides, "It's pretty tedious getting them in. You got to be spaced just accurately or it won't chord right. I tried one or two, but I never did get them right—they'd dischord—so I just made mine a plain neck."

None of the instruments he was making were finished, and he didn't have a completed one around either—as soon as he gets one finished, it's bought—but we finally got enough pieces stacked up on the living room floor to get the following information about his technique.

RANDY STARNES

*Photographs by Randy and Don MacNeil.*



ILLUSTRATION 9

### **M. C. WORLEY**

“Old people back in them times used to make everything they used. Make their chairs and tables and everything. Made everything they had to have. When I was a young man, I made the whole outfit for one of my cousins to go to housekeeping in. Bed, all the furniture ...”

M. C. Worley also remembers that nearly every family had a banjo. Both his grandfather and father made them. His father used the skin of a housecat for his heads. “I’d rather skin a polecat than a housecat. They’re the stinkiest things I’ve ever seen.” Like Tedra Harmon, he’d take their hair off with ashes.

Many of the old banjos Mr. Worley remembered seeing had hoops bent out of single strips of hickory. The hickory splits were either put in a form green and left thirty days to dry and cure, or the cured wood was steamed and then bent into shape. The old necks he remembers had a long tailpiece that went all the way through the hoop and out the other side so the strings could wrap around it. There were no backs on the banjos, and the heads were hides that were either tacked on or held in place by a wooden ring that slipped down over them. He also remembers seeing wooden heads that had a four-inch circle of hide in their center.

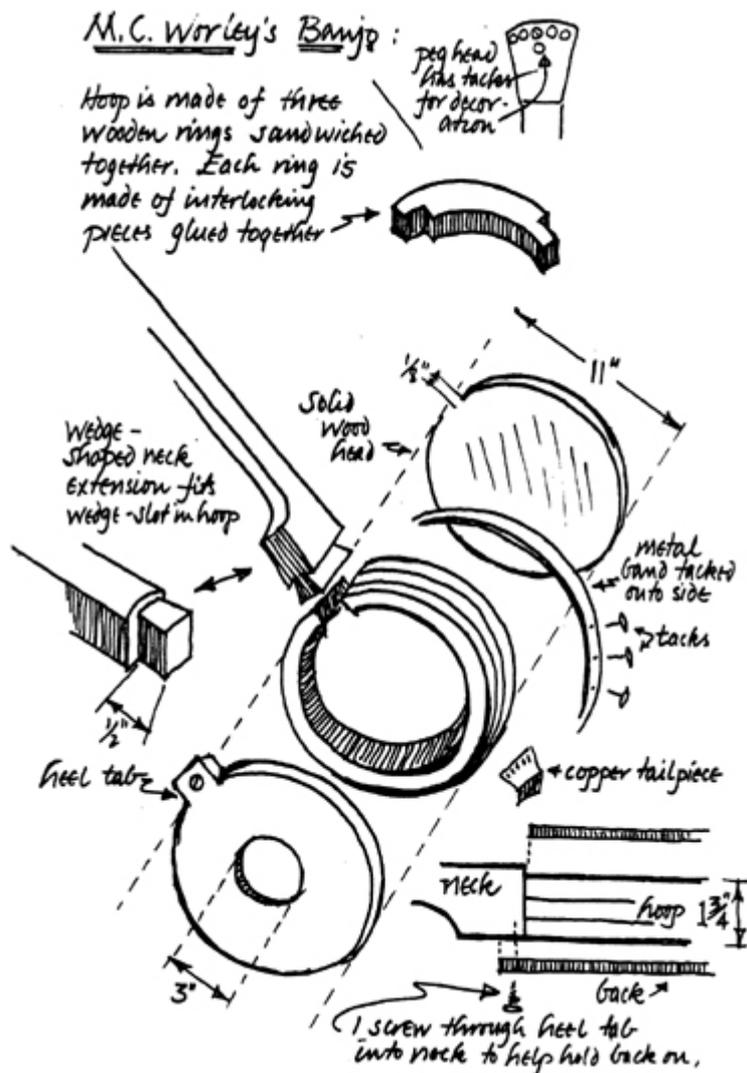


ILLUSTRATION 10

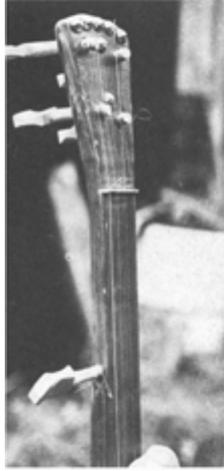
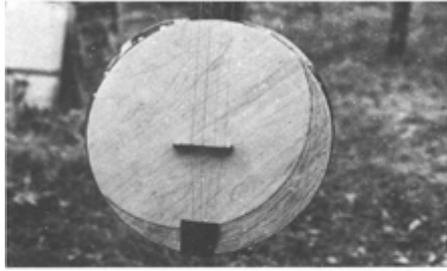


ILLUSTRATION 11



ILLUSTRATION 12

His first banjo was a cigar box. “It rang pretty good, too.” As he began to make them regularly, he moved away from the old patterns and began to experiment. He tried out an all-wood head, for example, and liked it. Then he changed the hoop style and added the back even though he doesn’t think the back helps the sound at all. He just likes the way it looks.



ILLUSTRATION 13



ILLUSTRATION 14

And he began to run into others who were experimenting too. One man he knows, for example, saws rings out of aluminum kettles and uses those for hoops. Now he tries something different on almost every

instrument he makes. The one pictured in *ILLUSTRATIONS 10* and *11* for example, features a decorative metal band, tacks, and a green half moon colored on with a crayon. “I just put that on to be different. Just figured it out myself,” he laughs.

He tries his hand at instruments other than banjos, too. He once made a guitar completely out of metal except for the wooden sides. And he fashions out fiddles, mandolins and dulcimers when he tires of banjo making.

Mr. Worley never goes to craft fairs, or makes an effort to advertise. He sells his instruments by word of mouth; and during tourist season, he sets them on the porch and, “people pass by and see them and come in.” It’s an unsteady living, but it keeps him occupied—and inventive.

DON MACNEIL

*Photographs by Don and Jeff Williams.*

## **TEDRA HARMON**

Mike Clark, the Director of the Highlander Center near Knoxville, told us about Tedra Harmon, thinking we should meet him, and so we arranged to do just that. We got to his shop on time, and as we stepped up onto the porch, we could see him sitting inside, waiting for us to get there. It was rainy and cold outdoors, so he had his oil heater lit and had the shop warmed up for us. From the minute we stepped inside, we felt welcomed.

Inside his workshop, hung on the wall, he keeps the necessities for making his banjos: saw blades, rasps, squares, gunstock finish, etc. In one corner there is a fox hide stuck up next to a walnut gun rack that has deer hoofs for gun supports. The fox hide still has the hair and the head attached, and Tedra plans to make a cap

out of it. He tanned it himself by turning the flesh side out and coating it with a thick paste of baking soda and water and leaving it for twenty-four hours.

In another corner of the room hang three of his banjos, including the first one he ever built. His workbench is stationed in the middle of the room, and on it, among the tools, were placed pieces of a banjo waiting for a skin head. Instead of completing it, he had left it disassembled so we could see and photograph the various pieces. Although he makes banjos only for a hobby, when we asked him how many he had sold, he replied, "It'd take a truck to haul them."

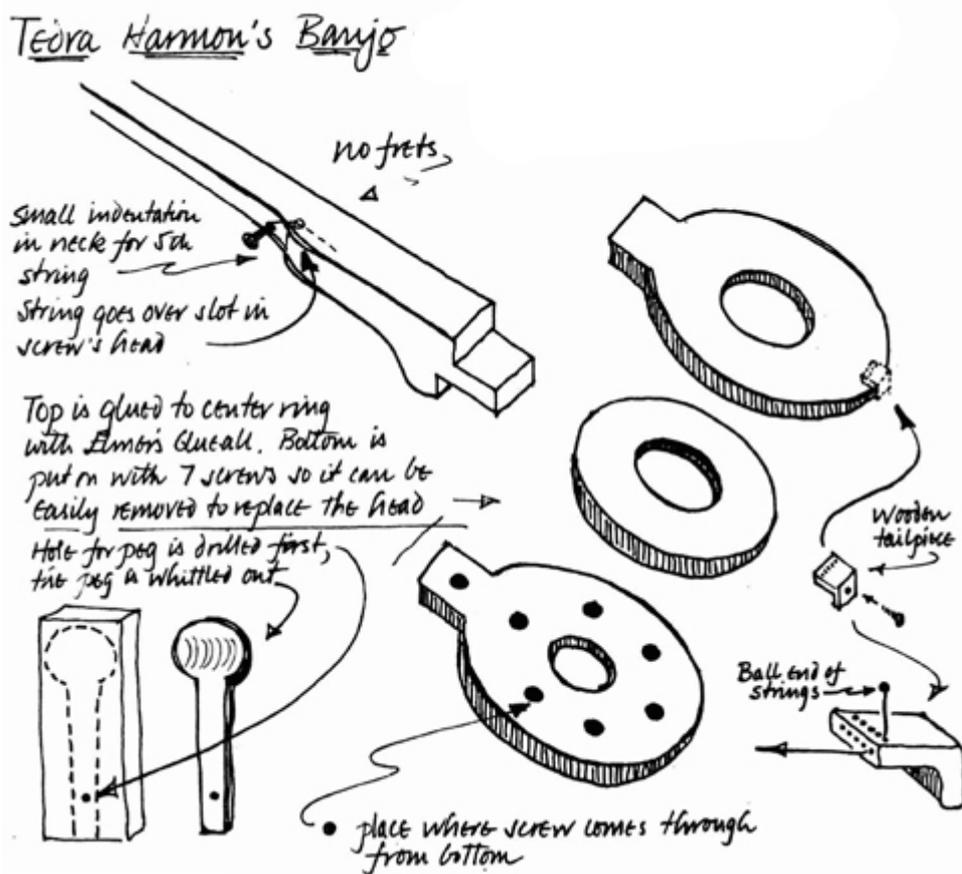


ILLUSTRATION 15 For complete measurements and additional details, see [ILLUSTRATIONS 78, 79, and 80.](#)

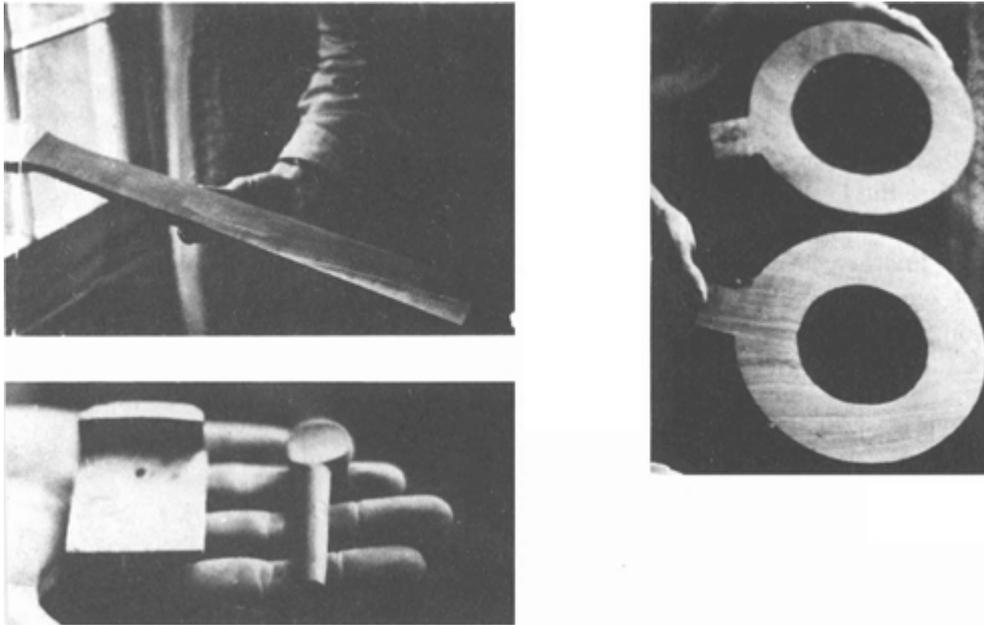


ILLUSTRATION 16

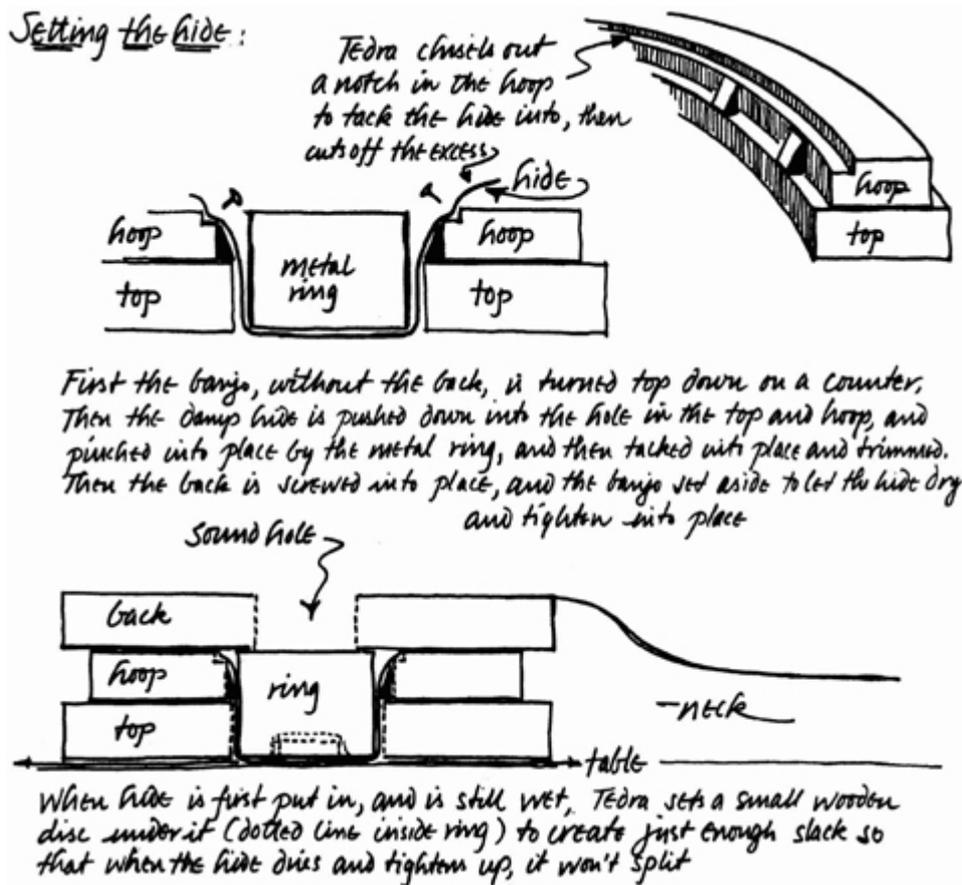


ILLUSTRATION 17

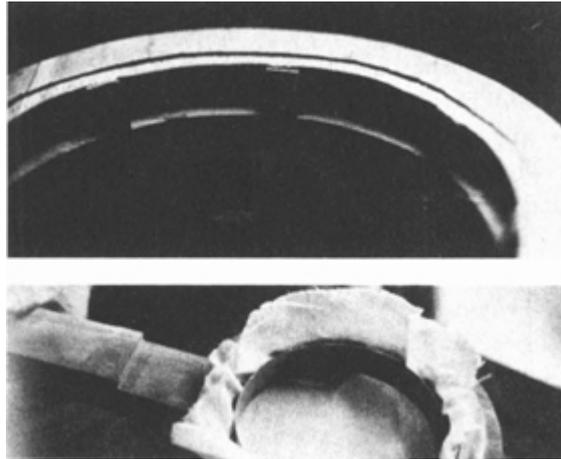


ILLUSTRATION 18

Tedra was born in the mountains—he still lives on the same piece of land his parents settled on. He taught himself how to make and play banjos. He made his first one when he was thirteen, constructing it from poplar and putting it together with brass bolts. Since then, the hide has only been replaced once.

He's one of the few men we met who makes his instruments totally without commercial heads or pieces. He uses skin heads which he gets either from groundhogs and deer that hunters bring in, or from animals he has hunted himself. Once he was hunting and ran into a rattlesnake: "It was as close as from me to that stove there. I was sitting down there looking for squirrels when it went to singing. That racket was all over everywhere. I looked, and there that thing was coiled, his head up about that far [a foot]. Pointed right at my face. I leaned back and took my shotgun to him and took off his whole head. I was so nervous I could hardly get up and walk." He now has the rattles from that snake mounted on the peg head of one of his banjos.

After getting a hide, he tans it himself. He sets the hide in a trough with the hair side up, and puts two to three inches of ashes over that. Then he pours water over it until it comes up over the top of the ashes. He leaves it for three days, and by then the hair will pull right off

unless the weather has been too cold for the lye to work. In that case, it takes a little longer. He then tacks the skin up on a board to dry. The skin is tacked so that it is up off the board enabling air to get under it and allowing the skin to dry quickly and thoroughly.

When the skin is dry, and he is ready to put in into a banjo, he soaks it in salt water overnight, washes it in strong soap, and lets it soak for five minutes in warm water. He puts it in the banjo wet, and it tightens up as it dries. If the skin is put in too tightly, there is a danger that it will rip as it dries out. To keep this from happening, Tedra has invented a gauge, which is just a round disc of wood about a half-inch thick, and smaller than the diameter of the hole for the hide. The gauge is placed on the table, and then the banjo is placed, top down, so that the head hole is centered around the gauge. As he puts the hide in, this pushes up on the skin and creates the right amount of slack. It tightens up perfectly every time. He prefers deer or groundhog skins because they are the toughest. "You can whop a man over the head with one and still not bust the hide." Complete directions for Tedra's method for tanning hides can be found in the hide-tanning chapter of *Foxfire* 7.

Tedra sticks to the traditional mountain way of making his banjos. He makes the entire thing out of wood except for the head, strings, and screws. He likes hardwoods best because he thinks they create a better tone. He carves out his pegs with a pocketknife and then sands them smooth. Often he makes them out of walnut. He makes his bridges, tailpieces, and nuts the same way, favoring walnut and curly maple.

He takes pride in his work, and enjoys not only making banjos, but also being helpful and generous in the true mountain fashion. He's the one, for example, who told us about Stanley Hicks. When we expressed an interest in meeting him, Tedra told us to come back in

two days and he'd have an interview set up by then and take us there himself. He was good to his word—he set aside an entire morning to take us to Stanley's shop and then waited patiently until we had finished. That kind of generosity is rare nowadays.

He remembers his childhood days with more affection than many: "Back then was the peacefulest times they ever was. I wouldn't mind seeing it go back to that." He's hanging onto as much of it as he can—his banjos are proof of that.

RAY MCBRIDE

*Photographs by Ray and Steve Smith.*

## STANLEY HICKS

Stanley Hicks could have kept us entertained for months—if any of us had had the time. That, of course, is the frustrating thing about the kind of work we're in. We seem to be always on the move.

Stanley and his family live on the top of a ridge far back in the mountains. From his little shop comes a stream of fine banjos and dulcimers, all the result of orders he gets from across the country, even though he never advertises his work through the many craft guilds and co-ops in the hills.

He learned how to make banjos from his father. Banjos, and lots of other things, for his father was one of those tremendously inventive mountain men we wish we had had the chance to meet. He made his own tools—many of which still hang in Stanley's shop: a plane with a reworked file for a blade, a croze with a piece of a saw blade for its cutting edge. And with those tools and his imagination he made wagon wheels, chairs, churns, barrels, tubs, tables, baskets, cabinets, and

corner cupboards. A piece of steel with two slots cut into it and driven into a log is what he dressed his white oak splits with. Drawing the splits through the slots in the steel smoothed them and trimmed them to uniform widths. Stanley even helped his father hew out and build log cabins. He remembers it all.

His mother was industrious too. She made soap, for example. Her ash hopper was a hollow log set on end with a spout cut in the bottom to one side and a screen strainer. She boiled hog innards and the lye from the hopper together in a pot to produce their soap.

And they made molasses, using a horse-drawn cane mill they had to crush the cane. “My grandma got her arm ground off in one. She was feeding cane and got it hung in there, and they didn’t know nothing about running the mill backwards to get it out, and they cut her arm off. Took it off right there [between her elbow and wrist]. You know, that was rough!

“Dad used to make ladles and spoons and forks [out of wood] and pack them across the Beech [Mountain]—put him a sack full and put them on his back and walk’em out. Be gone, maybe, till late of a night. And then we used to peel tan bark and haul it with a old yoke a’cattle t’Elk Park. We’d leave—take an old lantern—and it’d get cold sometimes, and we’d get in the wagon, and the old steers’ tongues would hang out about a foot. And we’d take a load of tan bark out there, and then we’d camp that night and get back in the next night.

“Sometimes them steers would cough and sully up. And sometimes they’d lay down and turn in the yoke. One’d be turned that way and one this’n. They went and sullied up on him once, and he went t’get some mud. He’d take and make up mud and pack it around their noses and *then* they’d come up. He wouldn’t beat on them, but he’d pack this around’em. I kind’a got ill at it myself, and while he was gone, I took and rook up leaves and rook it up right in here on their hind ends and took a match

and lit it. And they come *up*, son! And they left with sled and all and run away with it plumb down to th'John Walsh's Mill!

“And Dad come back and wondered what happened, and I told him I *guess* they wanted water ...

“We dug up most of our ground. Right there's an eye hoe that I used when I was a kid. He'd get an old yoke a'cattle and get'em broke, and times was so hard that when he got'em broke, somebody'd buy'em off him for fifty dollars. Forty or fifty for two. And then we'd have to go dig our ground up [by hand].

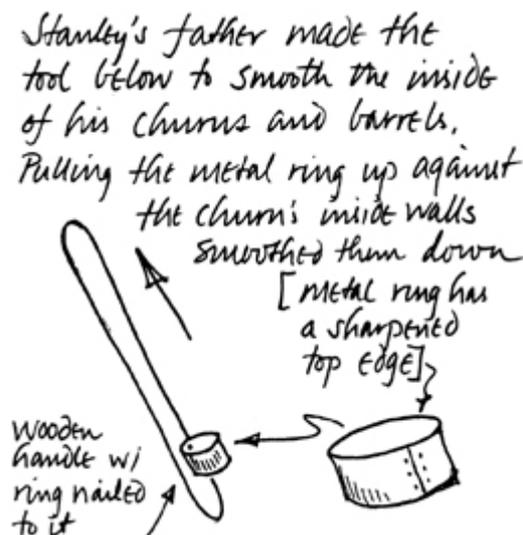


ILLUSTRATION 19

“And we went to the Beech and cut haw—it's just a little old bush—to get our shoes. Mother made our clothes. We gathered galax, peeled cherry, all that. Got about eighty cents a pound for the haw, and about three cents for the cherry. Get about thirty-five cents a day. They used it for medicine —sell it to one of these here that buy herbs. See, they wasn't no jobs until Whitings and Ritters [sawmills] come into this country in 1928—some-where's along there. I worked for them two years for a dollar a day. They cut timber. And the first work I done was on the WPA building roads. We had t'build'em by hand. Take a drill, you know, and drilled'em ourselves. Hammered [the drill] and turned it, you

know. One turned it and another hammered it, and then we'd take a teaspoon on a little old handle and dip the dust out. Then they put the dynamite down in there.

“Time off, me and my brother was courting. Had to walk about twelve miles each way. One time we was going to see our girls up there, and they was a trail that went through a big bottom. And me and my brother was going through there and here come a buck sheep and hit just turned him a flip-flop. And he hollered and it hit me but I got aholt of it. And ever' time I turned it loose it'd knock us down. Big buck. We kept a'holding it—I'd hold it a while and he'd hold it a while. He'd go a piece and then I'd turn loose and run and time I got to him, he'd catch it and hold it.

“Well, we was there in the trail, and here come an old man through there, and he said, ‘What are you boys doing?’

“And I said, ‘Will you care to hold this sheep till we get out here and get our rope?’ I said, ‘We've run it till we've give out, and we left the rope out here catching it.’

“And he said, ‘Yeah. I'd be glad to.’

“Well, me and my brother give him th'buck sheep, and then we went over the ridge into the river and then hid. And he turned it loose, and when he turned it loose it just turned him a somerset. And he'd look around one way, and then he'd grab it again. Well, directly he got him a rock and got it right between his legs like that and he beat that thing till snot come out its nose; and turned it loose, and boys, it went through th'*field!*

“And for a long time I see'd him—run on him, you know. And he'd look at me and look at me. One time he says, ‘Ain't you th'feller that got me t'hold that damn sheep?’

“I said, ‘I don't know. Why?’

“He said, ‘By God I’d a’killed you boys,’ he said, ‘if I’d a’got ahold of you.’ He said, ‘I see’d what you done.’

“I said, ‘Well, a man *has* to do *something* to get out’a th’way.’

“He said, ‘I may whip you yet.’ ”

“And that’s been five or six years. But we was courting. You’d have to walk for miles to see anything, and then, hell, you’d have to run your girls down attter y’got there t’*catch*’em. Hell, they’d run. Now, then, they’re running the boys!

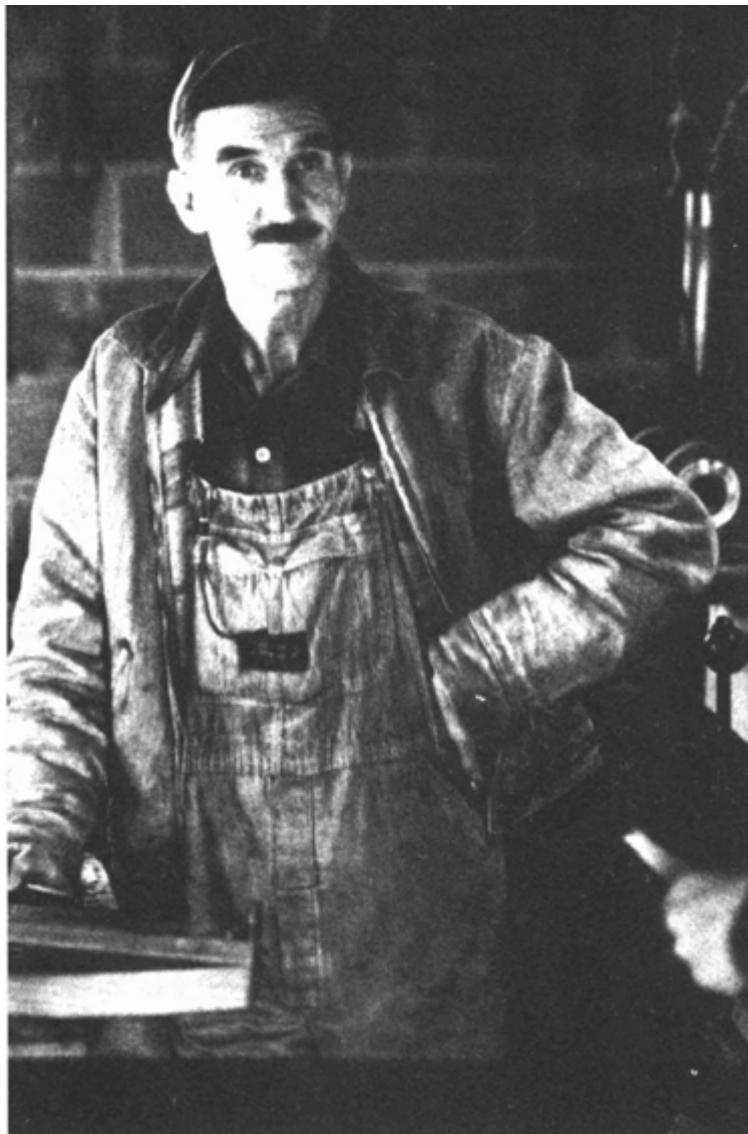


ILLUSTRATION 20

“But I helped my daddy make banjos. I don’t know at the cats I got for him [for the hides]. But people got fond of’em. I had the best cat dog that could be got. I’d turn him loose and have my club tied right here [in a loop on his pants leg], and that dog would go to a house. I had him trained. He’d come to this house and run this cat away from there and take it to the woods and tree it. And I’d go climb the tree and motion about two or three times to it, and if it jumped, he’d catch it and hold it till I got down. He wouldn’t chew it up. I had him trained so he wouldn’t *chew* it! And then I’d get down and finish it off. I’d take’em in a sack and slip around through the woods so nobody wouldn’t see me. I couldn’t tell you how many I *have* took in.

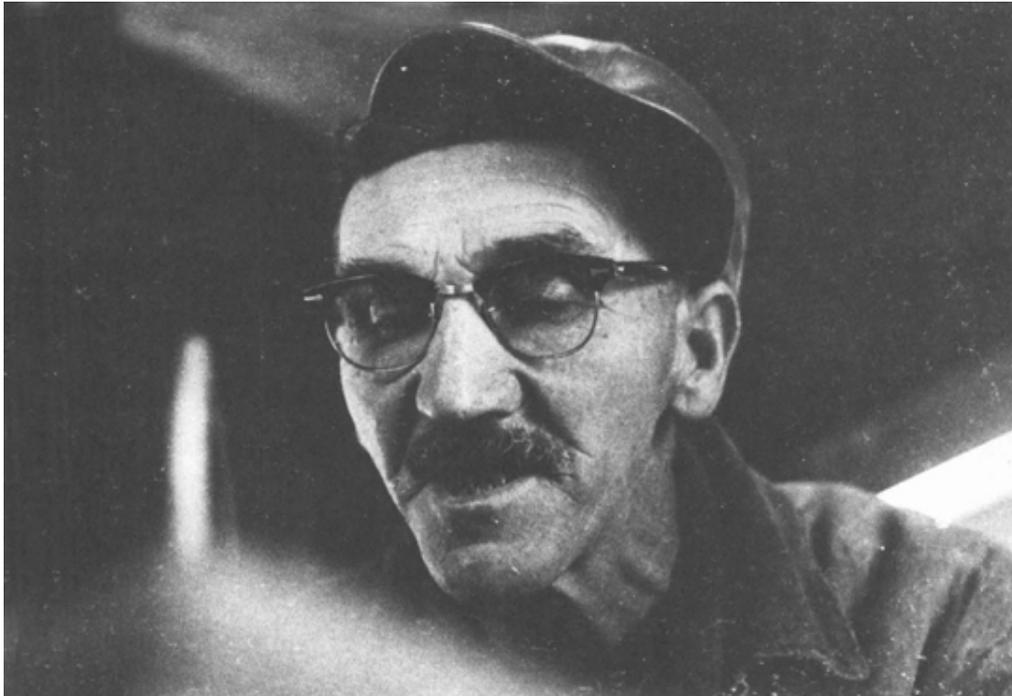
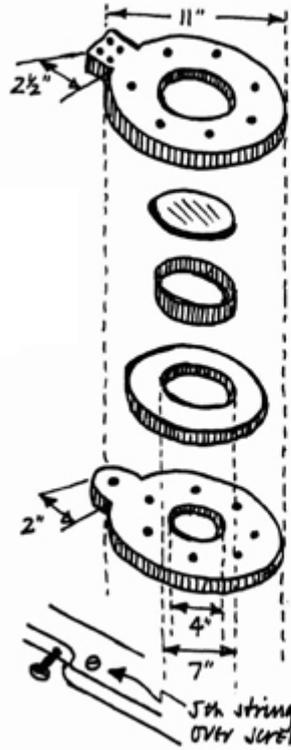


ILLUSTRATION 21

Stanley Hickey's Banjo

\*[for complete measurements, see plates 172, 173.]



top has 11 1/4" brass screws (•) - no glue

6 1/2" commercial head

1 1/2" thick metal ring

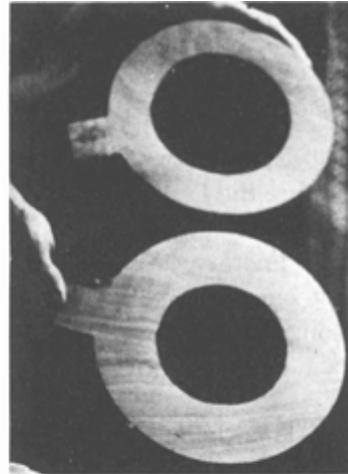
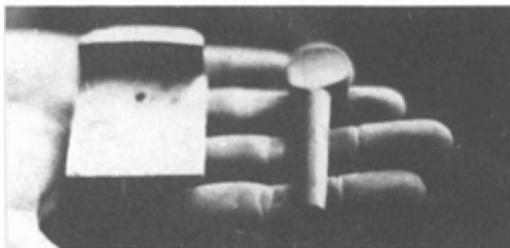
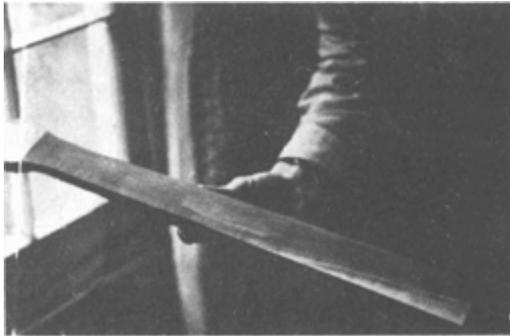
9 1/2"-10" in diameter hoop 1" thick

11" in diameter x 1/2" thick back - 8 brass screws (•) - no glue

2 screws in tailpiece, Also 2 screws with heads out for loop strings (+ 5 holes for ball-end strings)

5th string goes over screw head

ILLUSTRATION 22 For complete measurements, see [ILLUSTRATIONS 78](#) and [79](#).



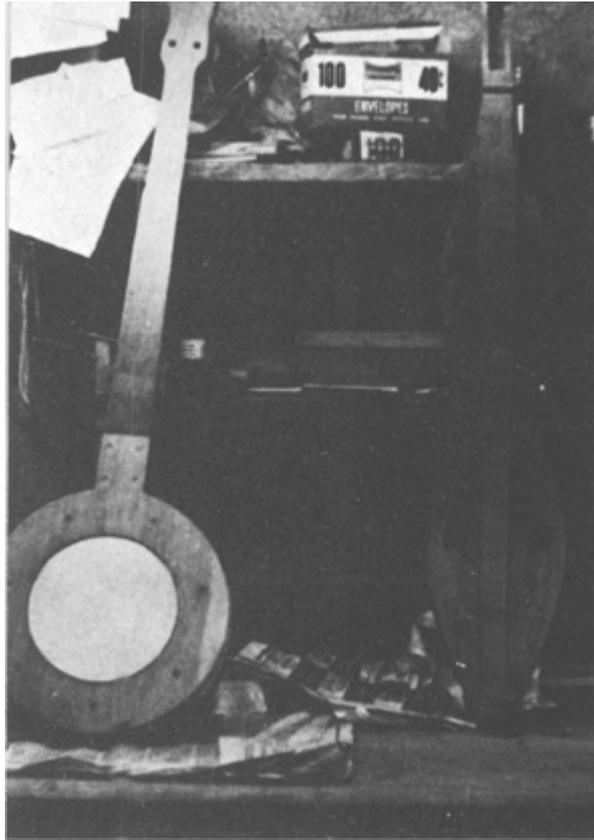


ILLUSTRATION 23



ILLUSTRATION 24



ILLUSTRATION 25

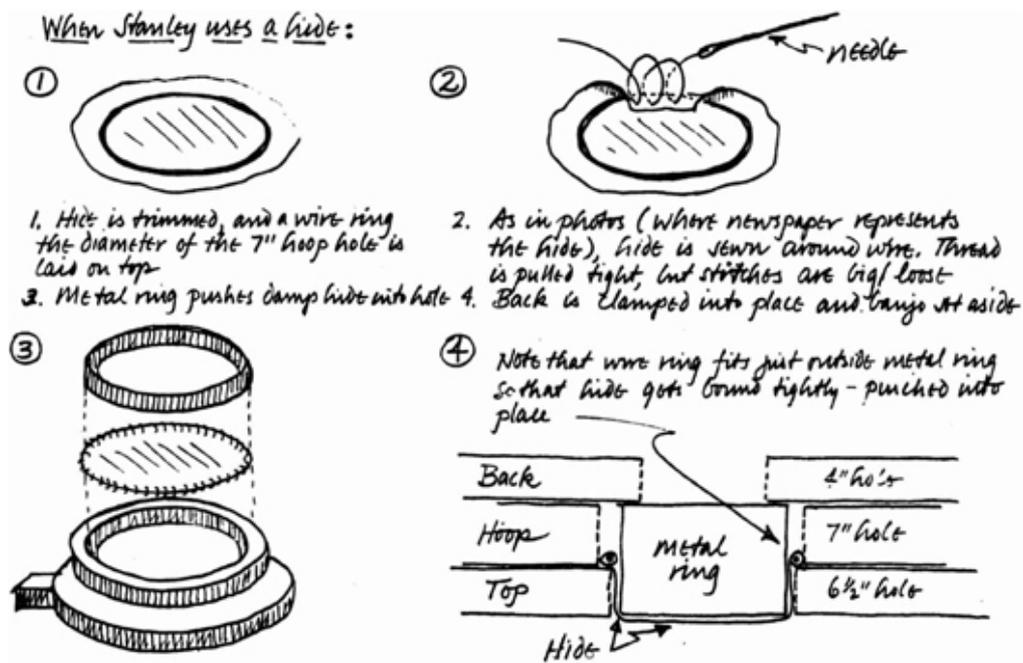


ILLUSTRATION 26

“But they got fond of ‘em. Back then they didn’t care, you know. They’uz too many cats anyhow, and they didn’t care much. But they just didn’t want t’see you come t’th’house!

“I wouldn’t get th’last cat a man had [laughing]. When I got down to one, I’d leave it fer’im!

“But I’ve been making banjos for about twenty years. That’s my hobby. I ain’t worked on a job in about six years. Kidneys went t’th’bad and I just do this for a hobby—and then it helps me out [financially]. And then I farm. My wife works every other day at the hospital.

“You have to be careful at this. I make my instruments to play. Sometimes I get a western one—that’s what I call it if I get something in there and it doesn’t work. Then you have to take it out. That’s the western type. I’ve took out some. Before I’d send you one, I’d take’em *all* out and make’em right [if I had to]. That’s what I make’em for is to play’em. You’ve got to check’em out, and when you get a western one, you’ve got to change it!

“They was a boy here one time—young like feller—and said, ‘What you get for them?’

“I said, ‘Sixty dollars.’ [Both Stanley and Tedra get about \$100.00 apiece now.]

“ ‘God,’ he says, ‘I’m a’going home.’ Said, ‘I can get rich.’ Said, ‘I can make one of them in a day.’

“I said, ‘Y’can?’

“ ‘Yeah, yeah.’ Said, ‘I can make one a day.’

“ ‘Well,’ I said, ‘when you *get* that, you come and let me know. I need to know how you do it. I need more money.’

“He never did get *nary one* together. Worked at it about four days and laid it down and quit.

“I sell mine myself. They come here [from a co-op], and I told them I just made mine for hobby and if I wanted to give somebody one, I’d give it to him. I don’t have to take their price and sell it to you. He said, ‘Oh, we’ll get you a lot more money!’

“I said, ‘Who gets the money? Me or you?’

“ ‘Oh,’ he said, ‘we get a certain percentage of it.’

“ ‘Well,’ I said, ‘you’ll have t’go some’eres else.’ ”

In his work, Stanley is painstakingly careful. He refuses to be pressured. Of course, the other thing that slows him down is that every few moments, he stops to tell another story—like the ones following, told as he was sawing slots for the frets on a dulcimer fingerboard. If he had to stop telling stories, he’d probably have to stop making instruments also, for the two are inextricably linked ...



ILLUSTRATION 27

*Be about like one time they was an old man had a boy who was crippled. Been crippled for years and couldn't walk. Come two old Irishmens along, and they was wanting*

*something to eat, and asked something to eat, and the man said, "Well," said, "my wife has t'take care of the crippled son." Said, "She ain't got much time."*

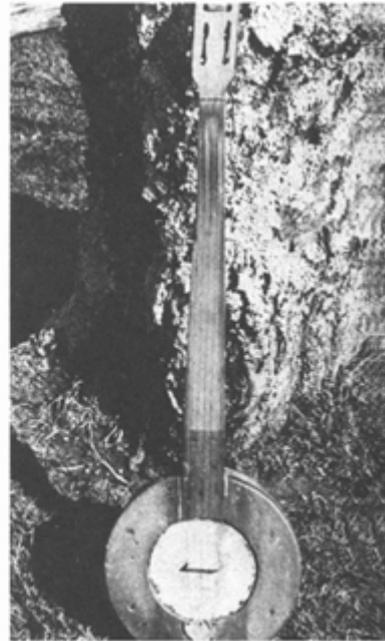
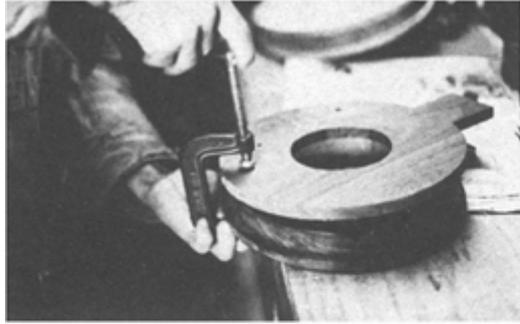


ILLUSTRATION 28

Stanley's Father's Banjo

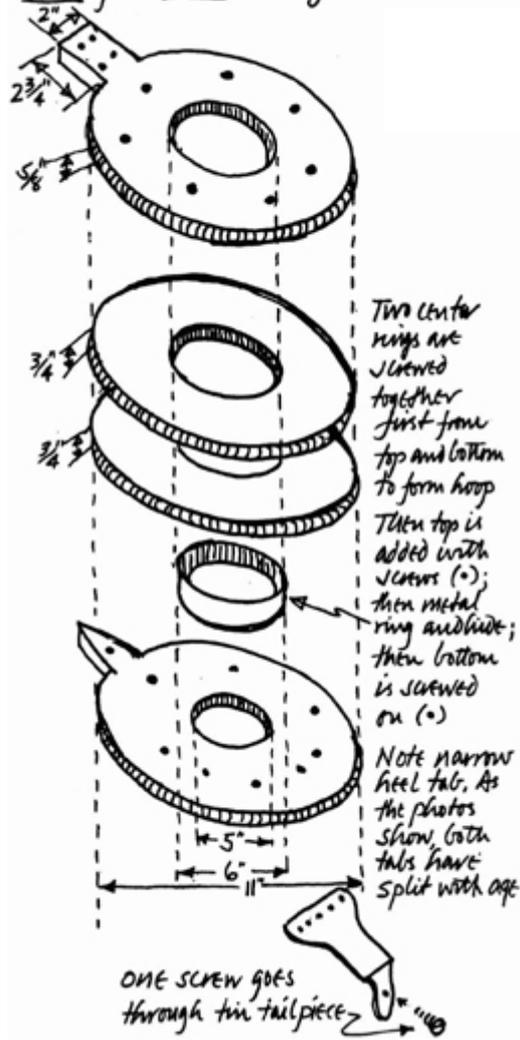


ILLUSTRATION 29

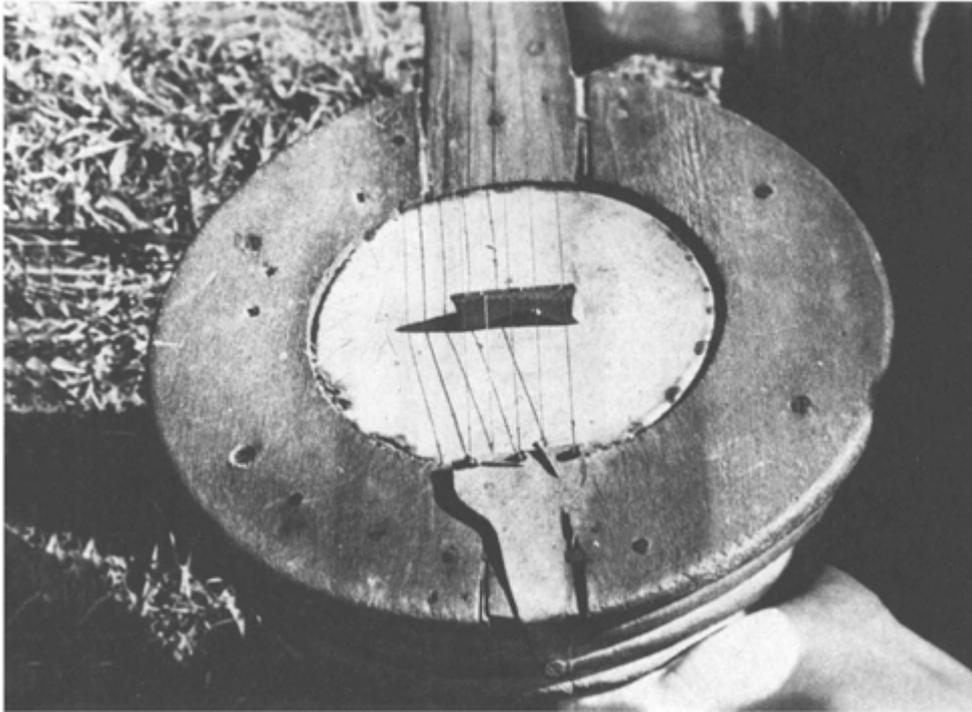


ILLUSTRATION 30



ILLUSTRATION 31

*Said, "What's the matter with'im?"*

*"Well," said, "he's been crippled for years."*

*"Well," said, "we'll cure him if you'll give us something to eat. We'll cure'im."*

*"Well," said, "alright."*

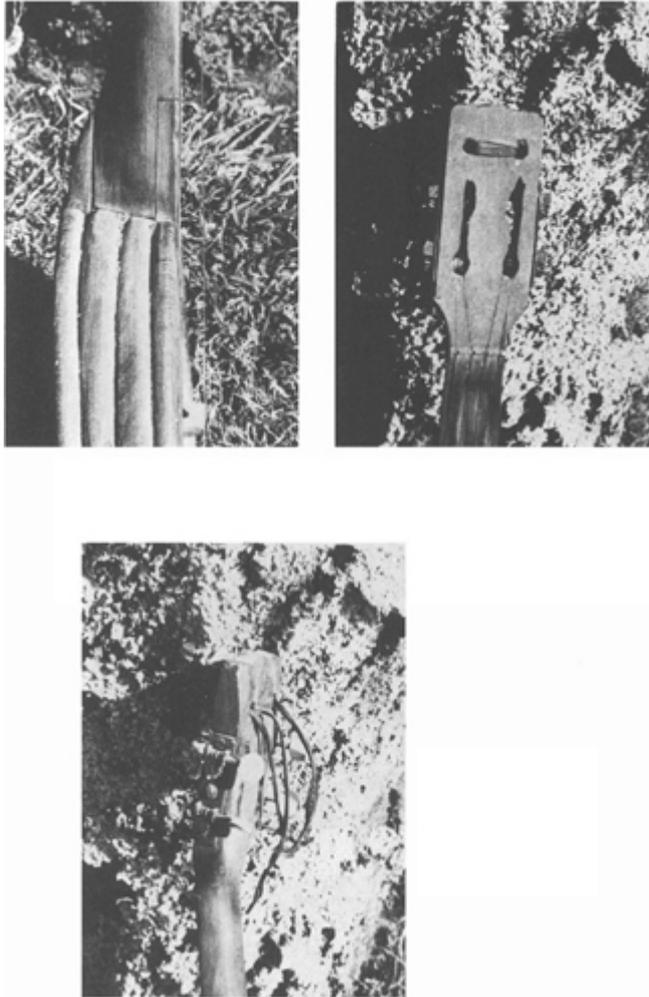


ILLUSTRATION 32 As Stanley does, his father used to sew his groundhog or cat hide around a ring using thread cut from a squirrel hide. He had a log trough into which he would put four or five hides at once, with ashes and water, to remove the hair. Hi banjos were all five-string, fretless, and made mostly of poplar, although he also user maple and chestnut. He smoothed the wood with the edge of a piece of glass, or a rasp They sold for \$2.50 each. The banjo has been modified to hold commercial pegs.



ILLUSTRATION 33

*Old Irishmens, they went in and got'em something t'eat, "And now," he said, "you'll have t'cure my son."*

*Said, "We'll cure'im. Put him in a room where he can hear us at." So they put him in a room by hisself, and the old Irishmens got one [right beside]. And got'em a butcher knife apiece, and they started then a'whettin': "R-r-r-r-r, whetty-whet-r-whet whetty-whet r-r whetty-whet-whet." Said, "Sharp enough t'cut his head off?"*

*Said, "No, not quite."*

*Boy had raised up, y'know. Watched'em through a crack.*

*"R-r-r whetty-whetty-whet." Said, "Sharp enough t'cut his head off yet?"*

*Said, "No, not hardly."*

*Well, they looked through the crack and he'uz almost raising up in the chair. And they started again: "R-r whetty-whet whetty-whet r-r whetty-whet whetty-whet." Said, "Sharp enough t'cut his head off yet?"*

*"Yeah," he said, "I think we're sharp a'plenty." Said, "Jerk th'door and let's go get'im."*

*They jerked the door open, and he run out the other, and as fer as I know he's still running yet! He just cleaned the door hinges off and got out of there!*

That's the way this is [sawing frets for his dulcimer]. R-r whetty-whet!

I guess a man would feel kindly funny, you know, them whetting on knives! They said that was true ...

Then they was two more Irishmens going along the road and looked up in a tree and saw a boomer. Said, "You go get a pot t'cook it in and I'll have it caught when you come back."

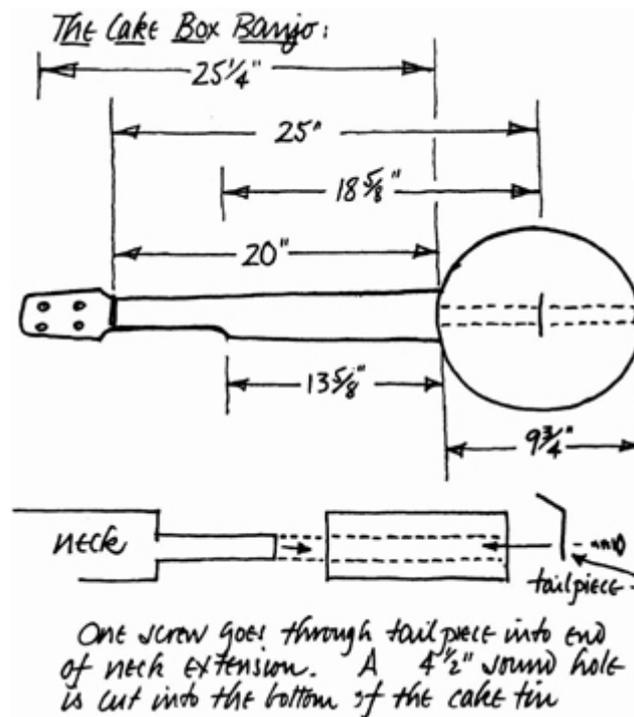


ILLUSTRATION 34



ILLUSTRATION 35

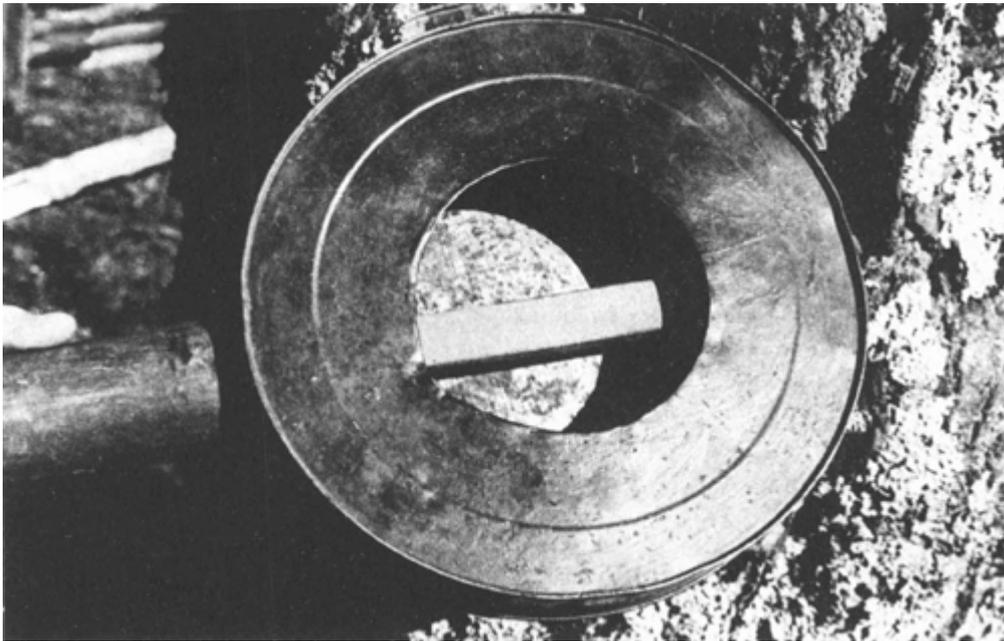


ILLUSTRATION 36

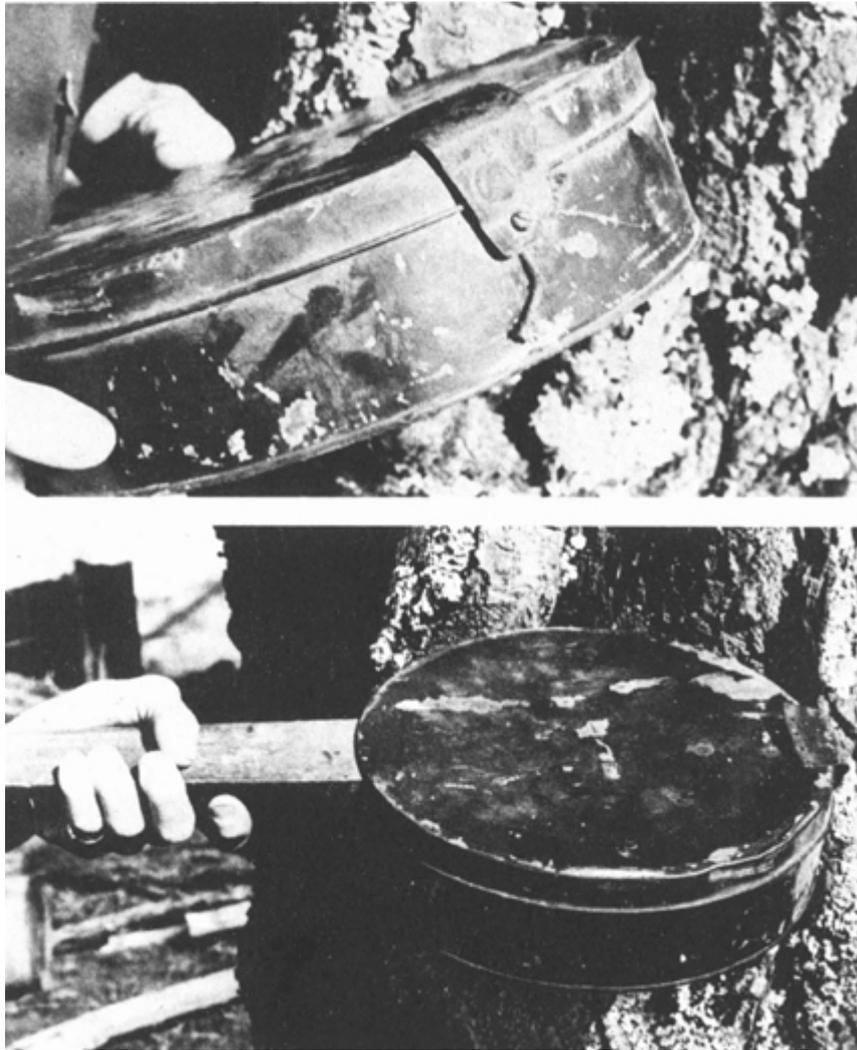


ILLUSTRATION 37

*Well, this old Irishman, he took off t'get'em a cook pot.  
And he got his pot and went back, and th'other Irishman's  
layin' down in th'road with blood runnin' out of his mouth.  
And he looked at him right straight and he said, "You  
must'a been awful damn hungry," he said, "t'eat it raw!"*

*He'd made a jump y'know, to get where the squirrel was  
at, and his legs wadn't long enough and he'd hit the ground!*

After he showed us the banjos, Stanley brought out a  
game he had made ([ILLUSTRATION 38](#)).



ILLUSTRATION 38



ILLUSTRATION 39



ILLUSTRATION 40



ILLUSTRATION 41

“We used to make these [pecking birds]. See, here it goes! [As he swings the paddle and the birds peck, he sings/chants the following]:

Chicken in the bread bowl peckin’ out dough.

Granny, won’t your dog bite? No, chile, no.

No, chile, no.

Chicken in the bread bowl peckin’ out dough.

Granny, won’t your dog bite? No, chile, no.

No, chile, no. No, chile, no.

“Watch ’em, now! Watch’em. Watch’em. Now, this’n here [pointing a slower one out], he got beat up and we had t’re remodel his tail. Y’see him? He looks a little bit *rough*. Now they’s supposed to be corn in here, but I

ain't put any in yet. That one's a little lazy [pointing at another]. 'At's a rooster. He's just a little lazy, boys. Now them hens is smart, y'see? Now watch him. He's a little ill there!

“But they's a lot of things that way you make, you know, just while you're beatin' around at it. I've got a snake. And, let's see, where's my 'moisture' at [a paddle with a rough head and a crayfish claw nailed to either side (*ILLUSTRATION 39*)]. And I've got me a bird at the house. My wife, she wouldn't let me keep the moisture at the house. And that bird and snake, I just picked up roots and made them. I'll run down t'th'house and bring'em up here and let you look at'em!” (*ILLUSTRATION 40*).

RAY MCBRIDE

*Photographs by Ray and Steve Smith.*

## LEONARD GLENN

Leonard Glenn went to school with Tedra Harmon, and they still live almost within shouting distance of each other. He farms tobacco and sells an instrument once in a while to bring in an income for the family. His son, Clifford, also makes banjos and dulcimers.

On the day we visited him, it was rainy and cold, and although we had never met him before, he invited us in and showed us two of the banjos he had made. The one we were most interested in was the one made in the same style as those Tedra and Stanley Hicks made. Glenn got his pattern from his father who made banjos fifty years ago. His father used squirrel hides for the heads because they were thinner than groundhog and deer, and he felt they had better tone. Glenn did the same until recently when he started buying cowhides out of which he could get at least three heads.

When he was using squirrel hides, he'd put them fresh in a vat under about an inch of hardwood ashes and water. When the hair loosened, he'd scrape the hides clean, wash them thoroughly, and put them in the banjos immediately.



ILLUSTRATION 42

He could cut out the pieces for the head, the neck (for which he preferred cherry or walnut), and put in a skin in one day. He'd cut the pieces out with a band saw, and cut out the holes for the head and the sound holes with a jigsaw. Finishing work was done with a rasp, wood file, and sandpaper. Pegs were cut out with a jigsaw and then shaped with a pocketknife. Rather than trying for a high gloss, Glenn preferred simply to rub in a wax for the finish.

He's sold many instruments—some of them ones he didn't really want to sell. He'd set the price at two or three times what he thought they were worth to

discourage buyers, but someone always came along with a checkbook.

RAY MCBRIDE

*Photographs by Ray and Steve Smith.*

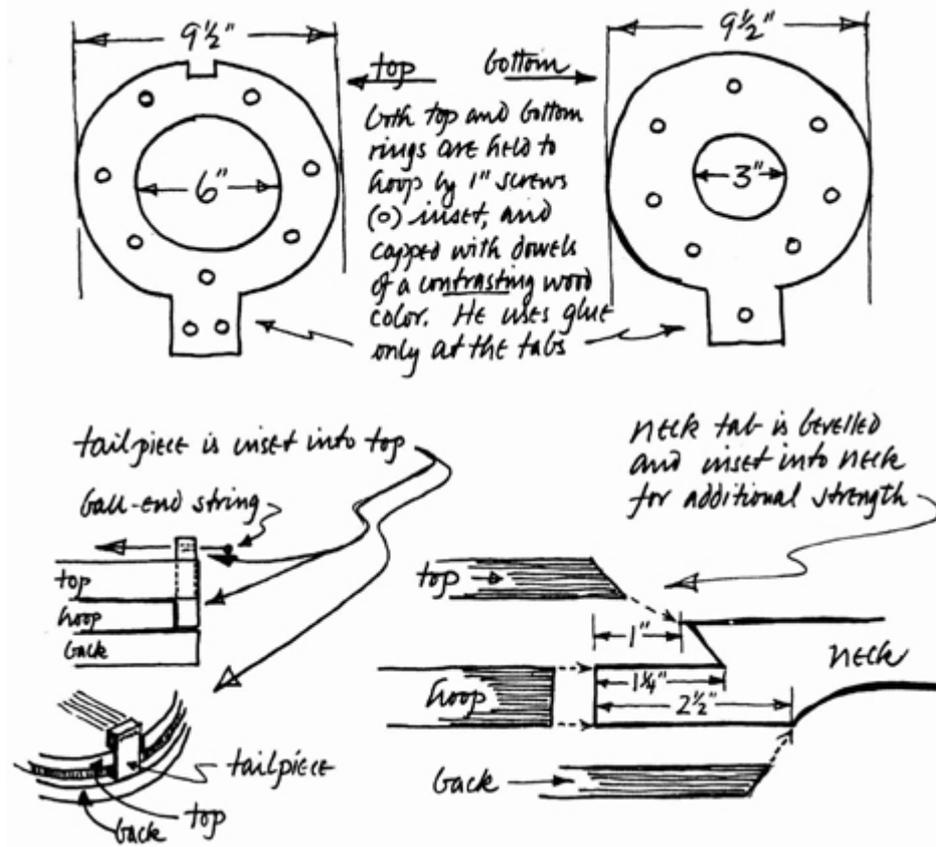


ILLUSTRATION 43 The banjos that Leonard Glenn makes are similar in construction to those of both Tedra and Stanley (three wooden rings, a metal ring to hold the head, no neck extension, etc). There are several differences worth noting, however, as shown.



ILLUSTRATION 44

## **DAVE PICKETT**

Dave Pickett is thirty-one years old and was born and raised in Davidson County, North Carolina. Both his great-grandfather and grandfather were blacksmiths, and his father was a machinist and gunsmith—all with their roots in the same county.

Dave has always been restless, searching for the livelihood that suited him best. He tried farming—he was raised on a farm, has worked a team of horses, and raised tobacco and grain—then he took two years of machine work in trade school, and later returned to school and earned an Associate Degree in mechanical engineering. He worked seven years in technical writing, the last three years of which were spent building prototypes of textile air conditioning equipment from engineering drawings. Now he makes banjos and folk toys for a living, has a garden, and makes home brew. Finally he's happy.



ILLUSTRATION 45

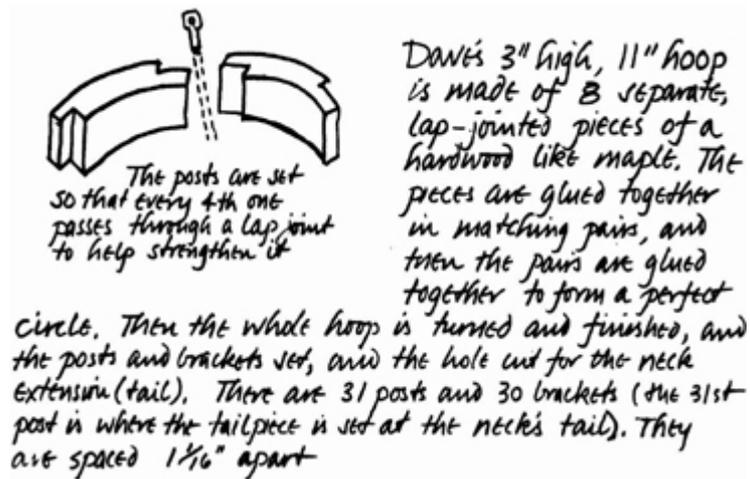


ILLUSTRATION 46

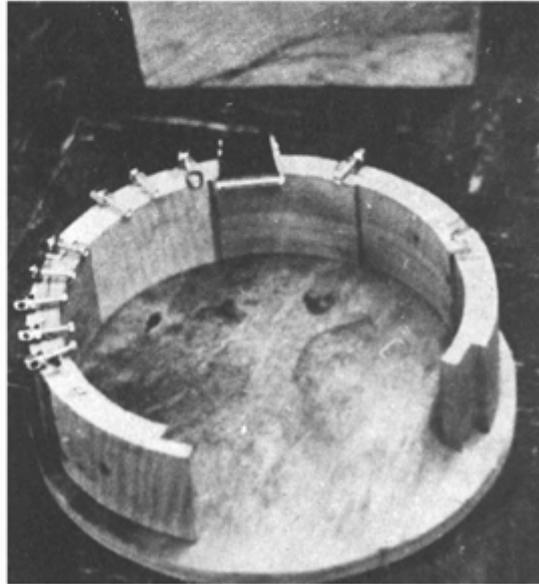
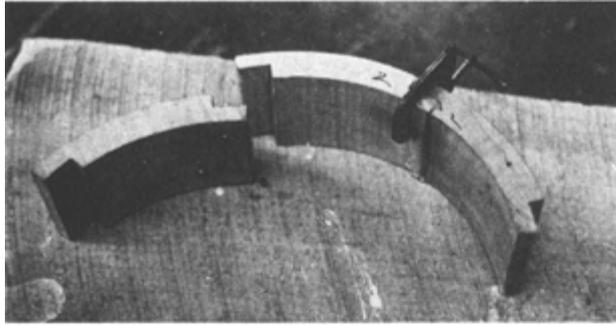


ILLUSTRATION 47



ILLUSTRATION 48 Dave has his pieces figured out so carefully that he can get every wooden piece he needs out of one 40" × 3" × 3" piece of stock.

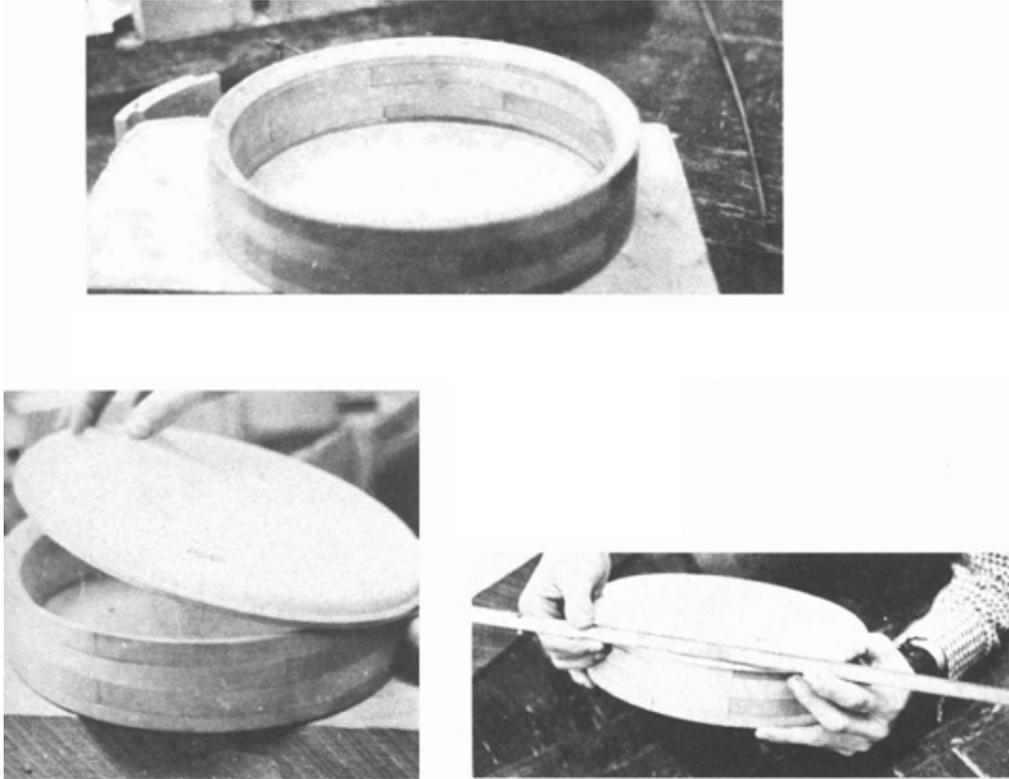


ILLUSTRATION 49 These plates illustrate another hoop style that Dave has used in the past.

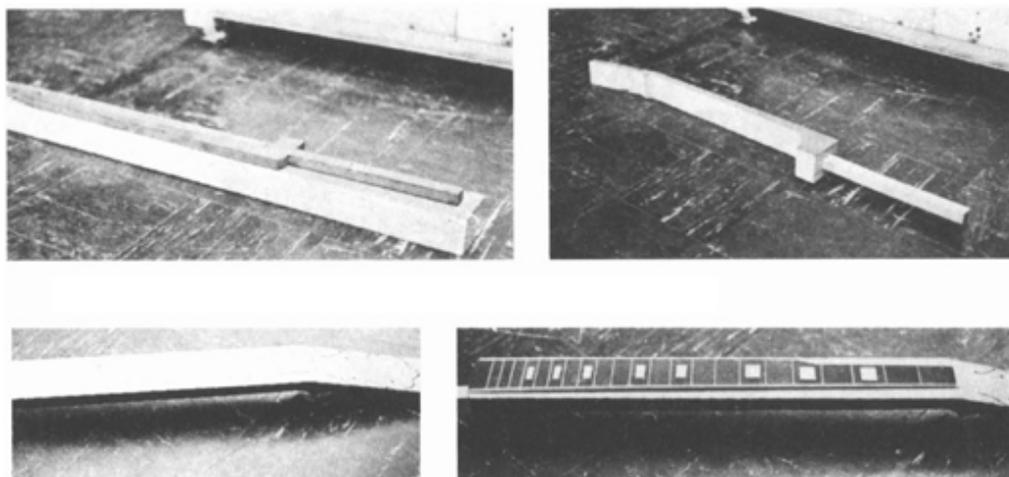


ILLUSTRATION 50 The pattern for the side of the neck is traced off on stock and cut out with a band saw (*top, right and left*). Then top is traced off and cut (*bottom, left*). A slot is cut in the top of the neck to hold a steel rod that acts to counter the tension of the strings. The fingerboard covers the slot (*bottom, right*).

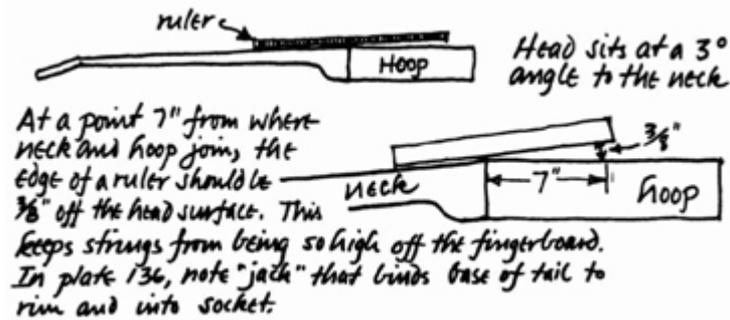


ILLUSTRATION 51

Dave got started making banjos entirely by accident. He had always wanted to learn to play one, but he couldn't afford to buy one. A man he worked with came to him for some help in figuring out how to turn a banjo rim, and he got involved in the project and decided to go ahead and draw out diagrams for a complete instrument. He worked on them for a year polishing and perfecting every angle and joint, and then he built one. It was an impressive success.

He originally planned to build just that one, but people kept pestering him to build one for them also, so he finally quit the engineering job, opened a little shop with several other craftsmen in Winston-Salem (they share the rent and tools), and stuck strictly to banjos and folk toys. He guarantees the toys such as limberjacks, for a lifetime.

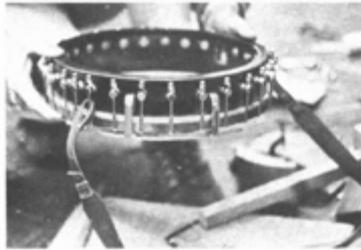
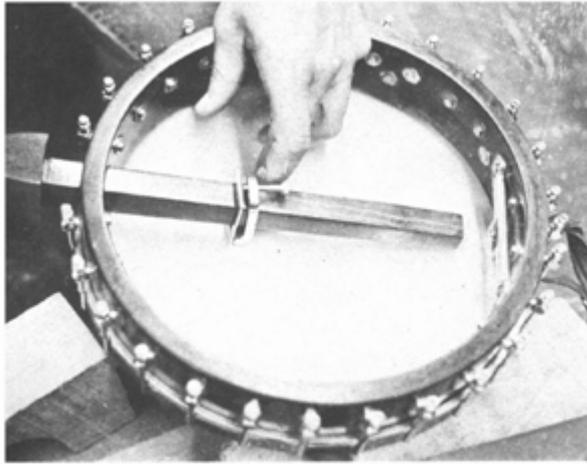


ILLUSTRATION 52

The Sweeney Banjo

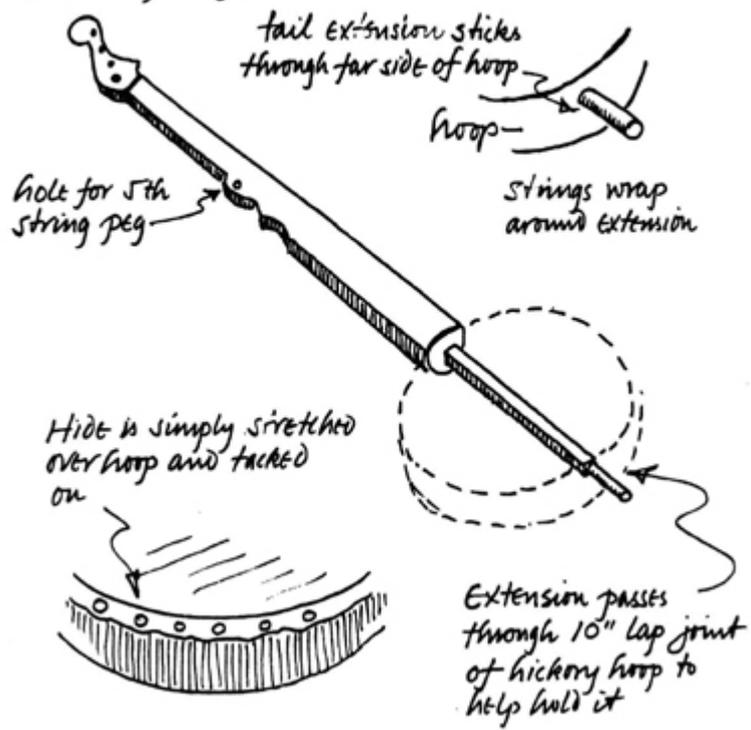


ILLUSTRATION 53



ILLUSTRATION 54

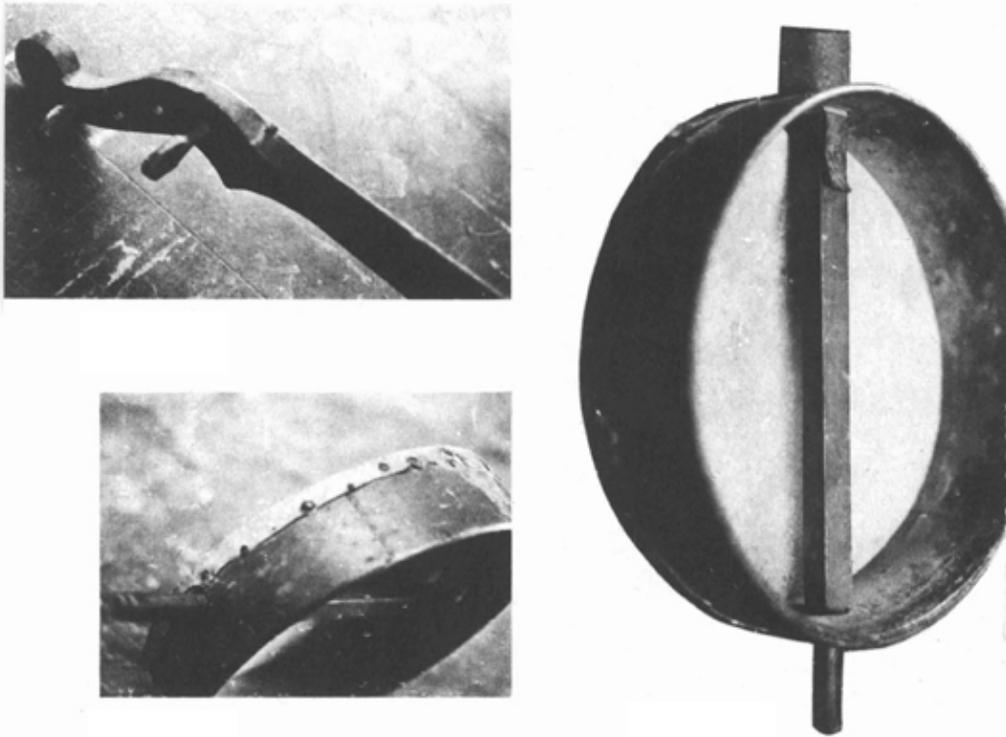


ILLUSTRATION 55

It took a lot of moving around to find satisfaction but it turned out that none of the jobs he had tried during his restless period were a waste of time. He used his knowledge in engineering to design one of the finest banjos we've ever seen. Being raised on a farm he knows how to—and does—produce enough food in his garden to feed his family. And using his skills in machine work he can manufacture almost every part needed for his instruments.

He sells the finished banjos for about \$300.00 apiece (unless the customer specifically requests him to design and make parts such as the tailpiece and fingerboard himself instead of using commercial ones. In this case, the price goes up). It sounds expensive, but even at that price, Dave is lucky if he comes out making fifty cents an hour:

“I haven't made a fortune, but I haven't starved, either. What more can a person ask out of life. The main thing is I enjoy what I'm doing. I believe in enjoying what you're doing. I come in at 8:30 or 9:00 of a

morning, and you're liable to find me here at 10:30 or 11:00 at night because I *want* to work; not because I have to. If things go bad, I just lock the door and go squirrel hunting or fishing. You set your own schedule. I have no one working for me. Everything I produce is totally from me. No outside help. Main reason is that I'm kind of a bad person to work for. People just can't do the work like I want it done. I've tried to have a few people help me, but all they can do is assembly work. As far as making the parts, there's just no way. Why pay somebody to do it and then have to do it over?"

He is always experimenting, improving and working on new ideas. Dave now plans to try his hand at something he gets many requests for—an old-style fretless banjo. It will be easier to build—and thus not as expensive—as it will have fiddle pegs instead of commercial ones, and it won't need the metal reinforcing bar in the neck—the fretless banjo is tuned lower and so the tension on the neck is less.

But if what he's doing now is any indication, the quality will still be flawless.

RAY MCBRIDE

*Photographs by Ray and Ernest Flanagan.*

## **DAVE STURGILL**

Dave Sturgill's roots in Piney Creek go back to the time of the Indian. Unlike many of his ancestors, however, he spent a large portion of his life away from the mountains. After he graduated from high school during the Depression, he began to wander, covering the country from New York to San Francisco. "I got my education by traveling, and of course one of the things I

was interested in, even then, was music, so I carried my instrument and played in clubs to make a little money.”

In 1938, he wound up in Washington, D.C., went to school for a year, worked for the Western Electric Company, and then moved to the Bell Telephone Company. He stayed with them for twenty-nine years in Washington, and was a general engineer in switching equipment when he left. He was fourteen months away from retirement, he had a wife and sons, “But my heart never left the hills. This was where I always wanted to be. There were riots in Washington then, and these hills looked so good every time I came down here that I finally came down here and stayed.” He worked for a while in a small musical factory in Nashville that was foundering, then left, came back home, built a shop and dug in. His two sons, meanwhile, had been doing some wandering of their own—one worked for the Evans Steel Guitar Company in Burlington, North Carolina, for a while—but they, too, were circling closer and closer to home. Now they’re Dave’s partners in what has turned into a thriving business in guitars, banjos, mandolins, and dulcimers. Neither Dave, Danny nor John has ever regretted the move. As John said, “Being born in Washington was an accident I couldn’t help. I never did count that home. I spent all my summers down here. Now I’m here to stay.”



ILLUSTRATION 56

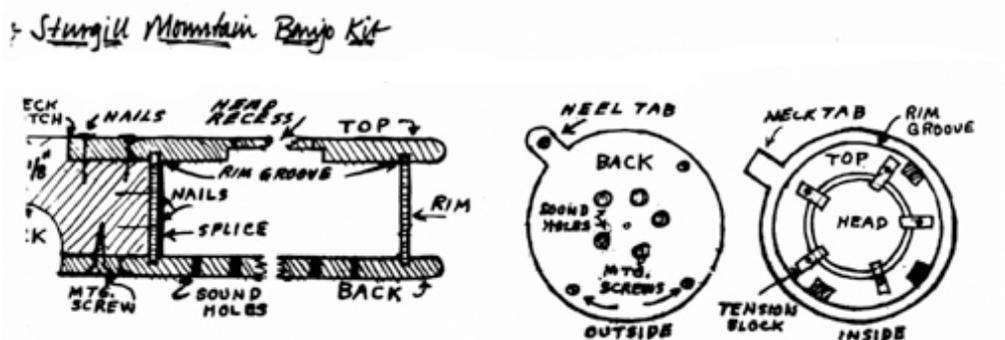


ILLUSTRATION 57 Below, [ILLUSTRATION 58](#) shows the pieces that come with the Sturgill kit, as well as an example of the finished banjo the kit produces. There are several variations here (most incorporated from traditional instruments Dave has seen, such as those in the following illustrations) that we have not previously noted: the thin hoop, for example, that fits into corresponding grooves on the inside of the top and back. Note also that the commercial 6" head is held into place by a wooden ring, which is in turn held in place by 5 wooden blocks nailed or screwed into the underside of the top. Note also the tailpiece—simply 3 brass brads driven into the top. The strings hook around their heads. Design and cut your own sound holes.

Has fretted fingerboard. The diagrams that come with the instructions are pictured above.

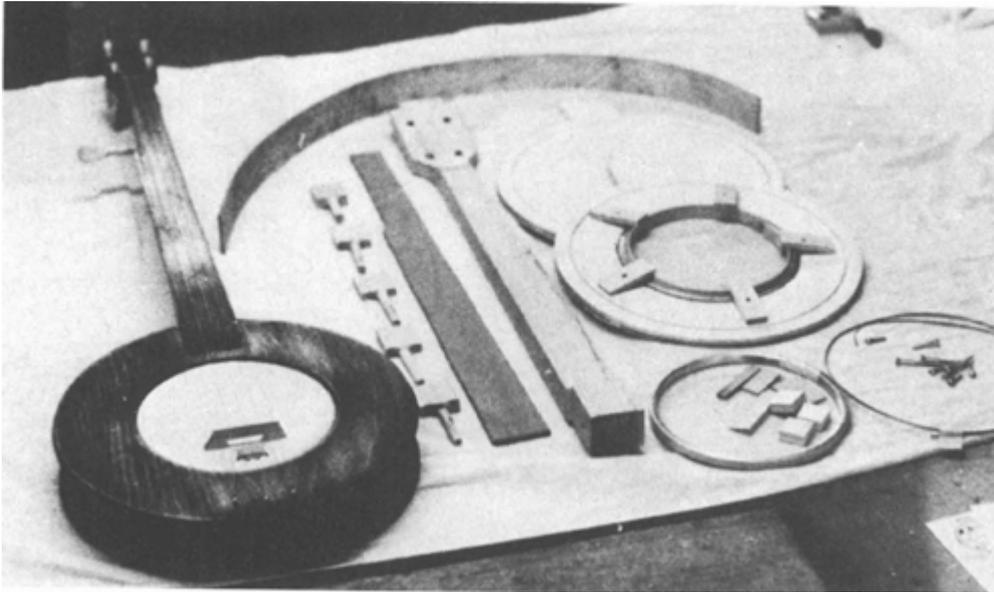


ILLUSTRATION 58

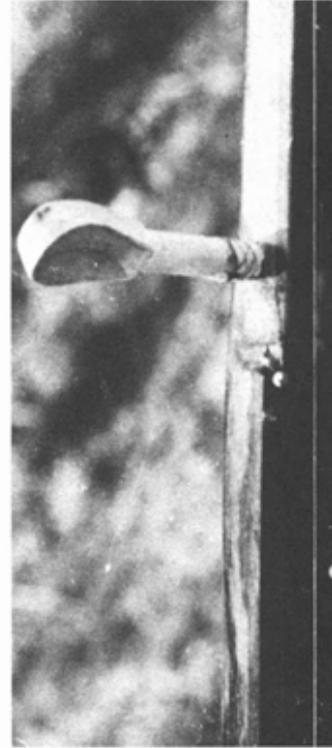


ILLUSTRATION 59



ILLUSTRATION 60

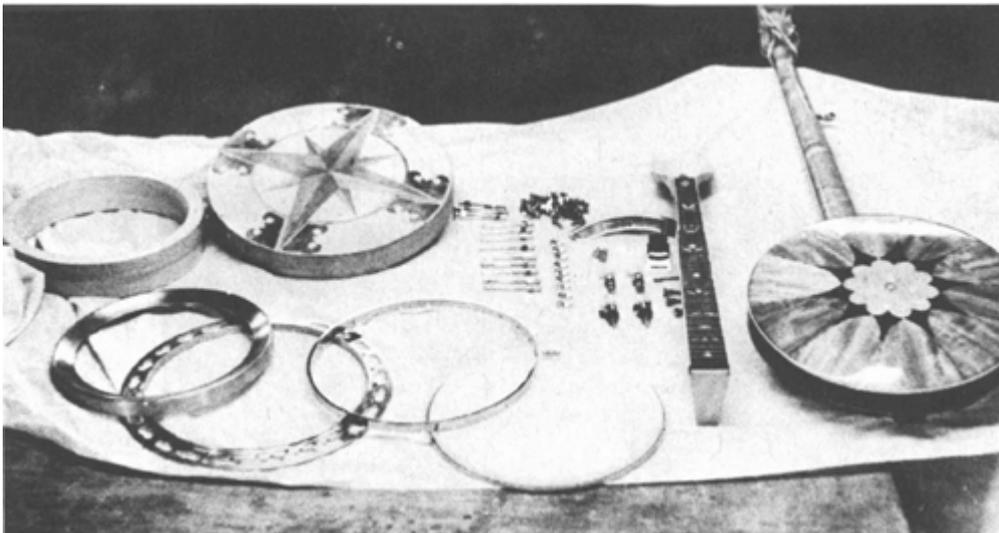


ILLUSTRATION 61 The component parts of the most elaborate Sturgill banjo laid out. They include a fully inlaid resonator.

Recently Dave went to Washington to attend a dinner celebration that Bell was sponsoring. He ran into a

friend there whom he had worked with, and they began to talk about the move he had made. Asked Dave, “Who was president of this company when you and I started to work for it?”

The friend said, “I’m not sure,” and thought for a few minutes. “It was either Mr. Wilson, or ...”

As Dave tells the story: “I knew who was president at that time because I’d made it a point to find out. So I reminded him which one it was. I said, ‘Now that wasn’t even thirty years ago, and you’re not even sure who the president of the company was when you started.’ I says, ‘Think about this a little bit. Twenty years from now, there won’t be anybody working for this company that will know you or I either one ever worked for it. But,’ I says, ‘a hundred years from now, they’ll be people who will know I made musical instruments.’ ”

Dave is convinced that the move away from Washington saved his life—and his spirit. “When it gets down to a question of security, the only security you can possibly have on this earth is what your Creator gives you. It doesn’t come from anywhere else. He can take it all away from you just like that, or he can give it back to you. I don’t have to worry about health insurance because I figure He’s going to look after me. So I gave up life insurance, health insurance, pension—all the rest of it—but I have absolutely no regrets. Smartest thing I ever did as far as I’m concerned, because I know now that if I’d stayed there, I’d be dead. I was getting ulcers and high blood pressure. My heart was bothering me, and several other things. And all that’s gone now. None of it’s bothering me. I’m actually in better health now, five years later, then when I left there. I certainly don’t regret leaving all that behind. And nothing would ever get me back into it, I’ll tell you. Not again.

“I’m not saying you should go completely back to Nature. That’s not the answer either. They talk about the good old days. Well, I was raised in those, and I

don't want to go back to oil lamps and outdoor toilets. That's a little too much. But there *are* things that are a lot more important than how big an automobile you've got, or how big your bank account is. I was into it up there. An hour and a half fighting traffic every morning to get downtown. An hour and a half fighting that traffic every evening to get back. I'd be a nervous wreck every time I got on the job, and I'd be the same way when I got home. And, boy, I started asking myself every day, 'Why? Why? What in the world am I fighting this for?' ”



ILLUSTRATION 62 The walls of Dave's shop are filled with instruments they have made—everything from mandolins and fiddles to guitars and banjos.

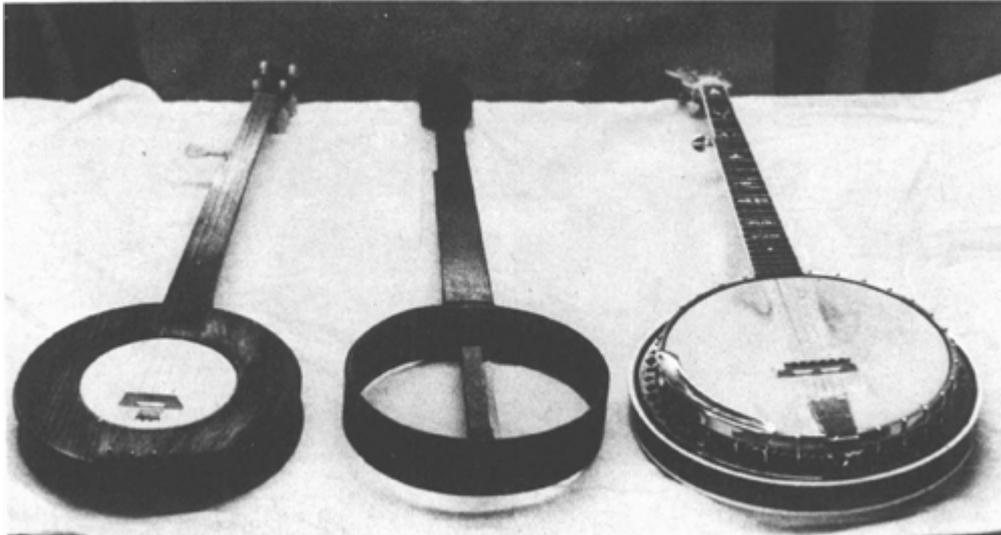


ILLUSTRATION 63 The evolution of the banjo from its simplest form to the Hicks-Harmon-Glenn variety to the most modern, complex form worthy of an Earl Scruggs.

*ILLUSTRATION 64*–*ILLUSTRATION 77* illustrate four varieties of banjos which Dave has in his collection. They are documented in the following four groups and in the “Dave Sturgill” section of the comparison chart (*ILLUSTRATION 81*).

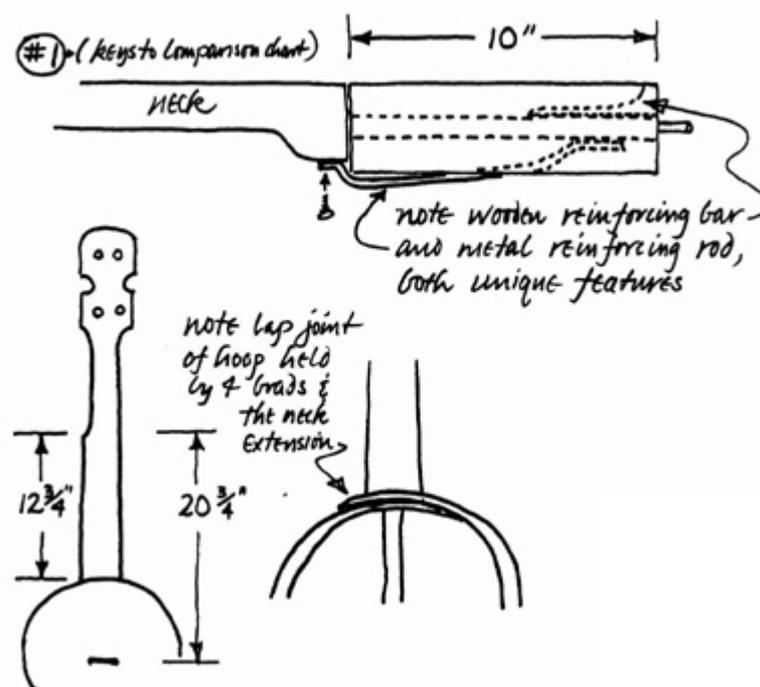


ILLUSTRATION 64



ILLUSTRATION 65

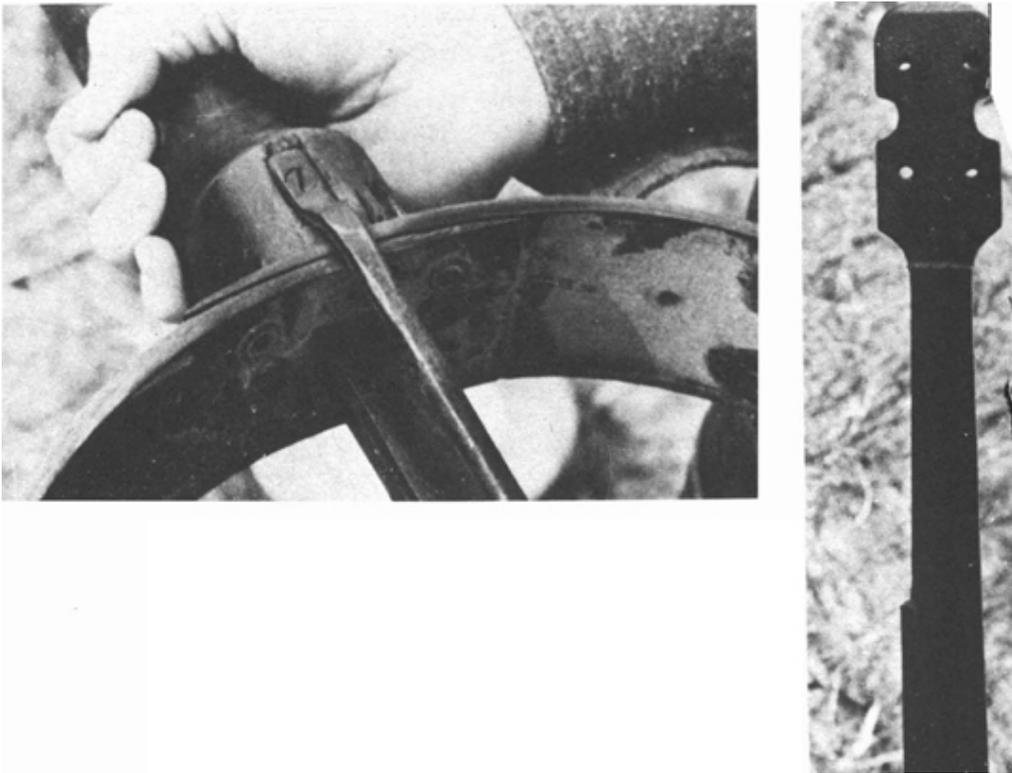
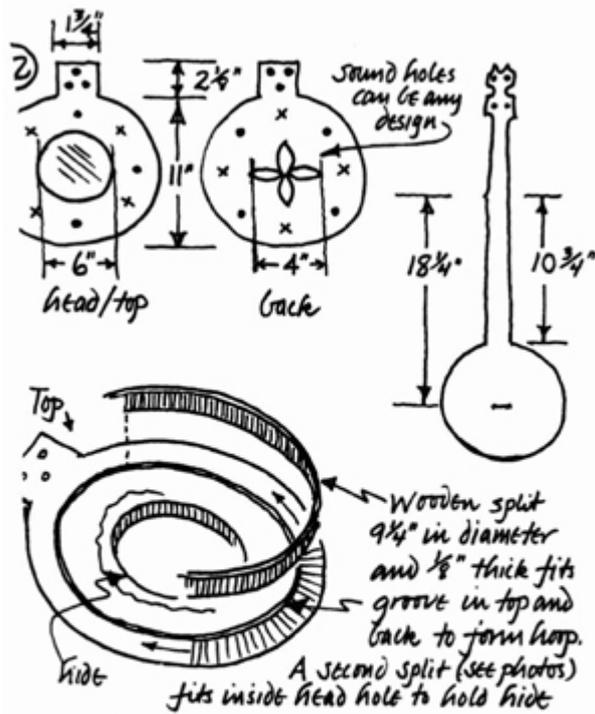


ILLUSTRATION 66



Hoop split meets at, and is attached to, neck. Pegs hold the top and back together inside the hoop. In paired diagrams at top left, • indicates where peg went in, x where it came out. Note sloped, beveled edges on top and back

ILLUSTRATION 67

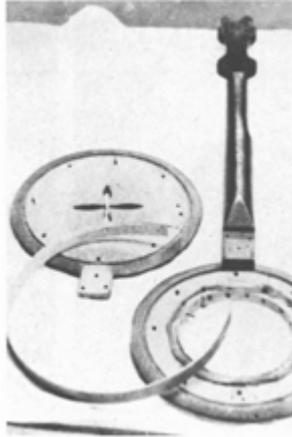


ILLUSTRATION 68

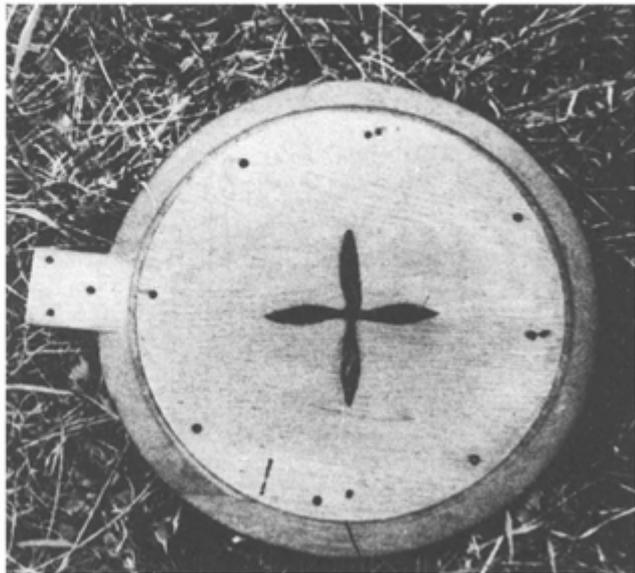
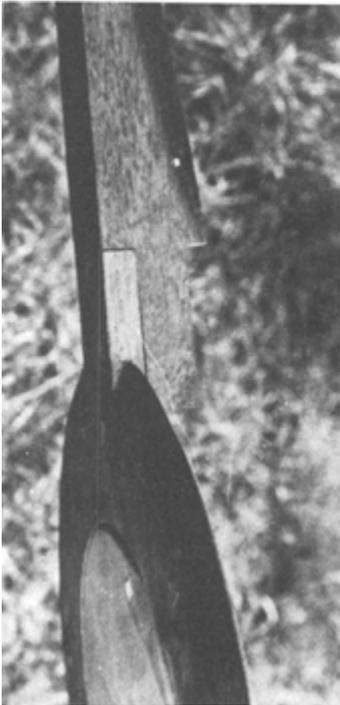


ILLUSTRATION 69

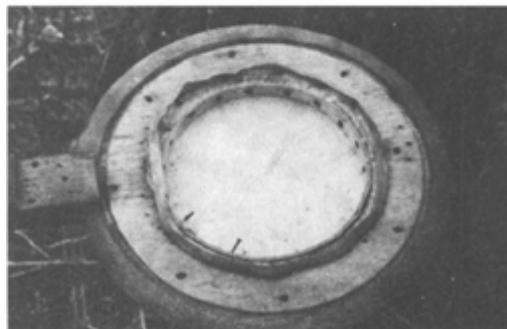
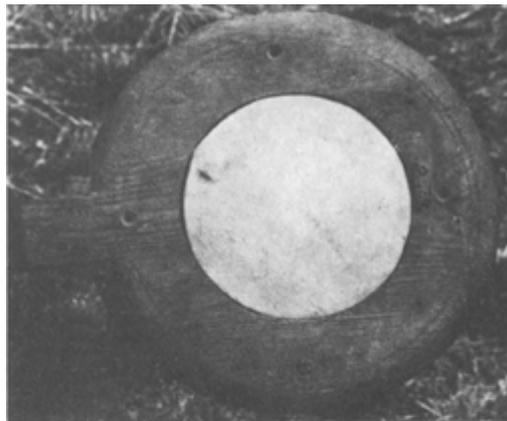


ILLUSTRATION 70

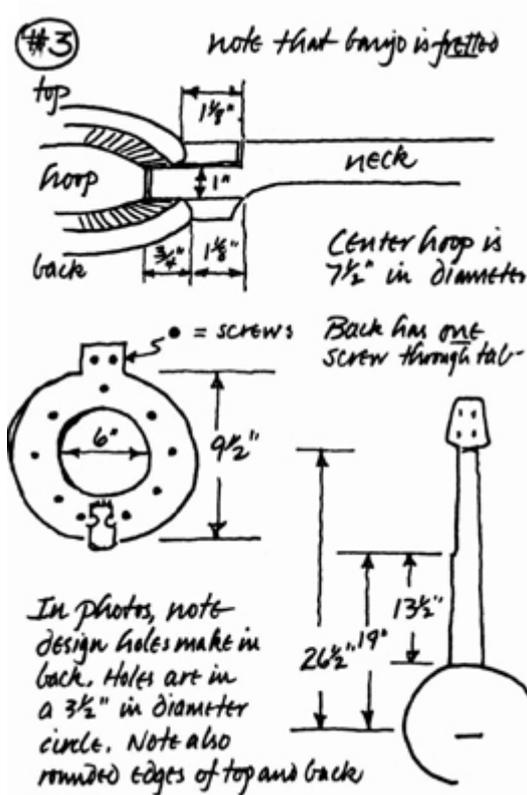


ILLUSTRATION 71

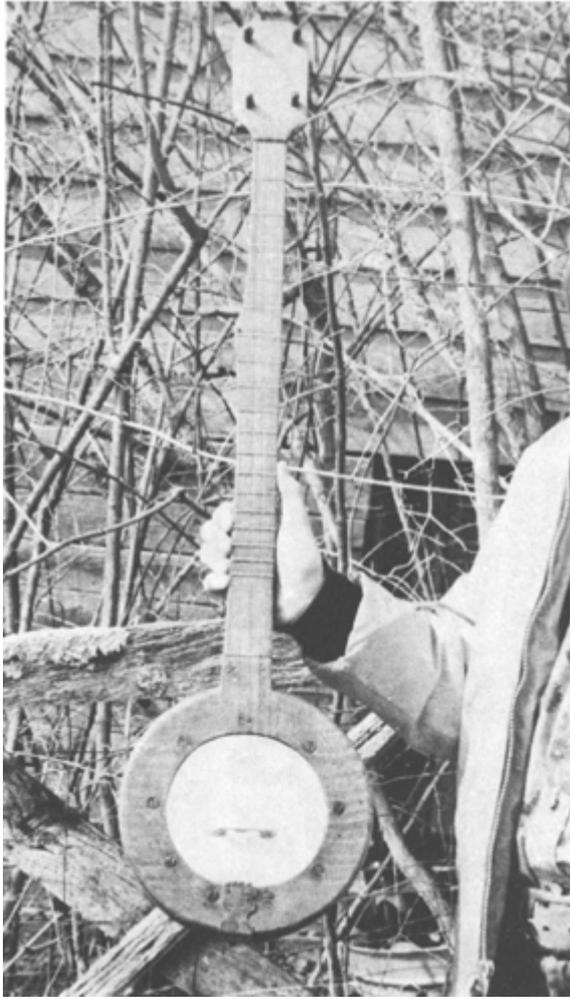


ILLUSTRATION 72



ILLUSTRATION 73

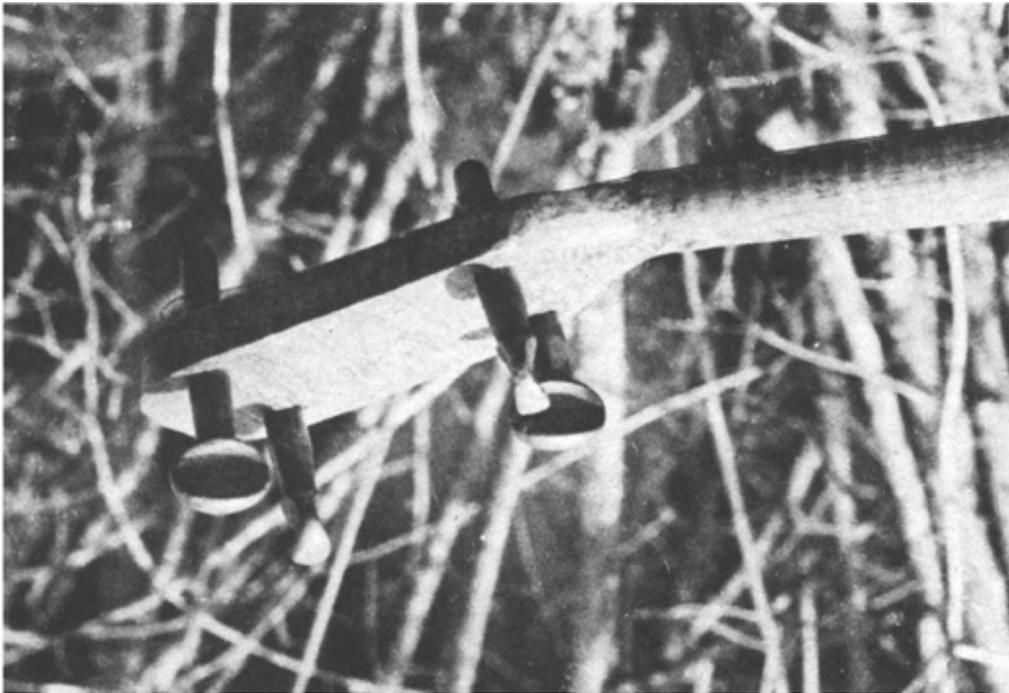


ILLUSTRATION 74

Dave's time away from the mountains, as well as the fact that the original grant for the land he now owns was made to his four-times great-grandfather and there has never been anyone but Sturgills and Indians on it, has made him passionately committed to his land and people:

“The picture that's been drawn of these mountains down through here has been wrong—so much of it—through the years. When I was with Bell, I had several assignments up in New York City. I'd be up there sometimes for two or three weeks at a time, and those people would find out where I was from—that I came right out of the edge of the Smoky Mountains down here in the Appalachians—and they would call me 'Hillbilly.' They'd get a big kick out of it. And I'd say, 'Yeah, but there's one big difference. You can take any boy out of those hills and turn him loose in New York City and he'll get by. But take one of you fellows down in the hills and turn you loose; you'd starve to death.'

“But the picture most of those people had of those mountaineers was pure Little Abner. Now that’s where they got it from—the comic strips. And that’s the truth today, even. Ninety per cent of the population, they think of everybody down in the mountains in terms of Little Abner. They don’t realize it’s not that way any more.

“We had some people come in here last summer when I was writing this history of my family. One woman I corresponded with was from Portland, Oregon. Her ancestors had come from here and she was very interested, and she had some information that I didn’t have. She passed that on to me, and we incorporated it into the book. But her daughter came by here last summer and called and introduced herself, and she said she wanted to come down and take a day and visit. And I told her I’d be glad to meet her, to come on down. And so she came on in here into the shop, and the first thing she said after she introduced herself was, ‘Tell me something. Where is this Appalachia I’ve been reading about and hearing about all my life? The picture I’ve always had about this country was little shacks and people sitting around on the porch.’

#4 Note the modern variations added to this traditional basic design



Any design on back for sound holes is sufficient  
Note decorative heel tab raised by sanding away surrounding wood.



Note fretted finger board is inlaid, and glued in place on top of neck. It does not fit flush with top surface of top, as in many others

Note designs cut into top and peg head

ILLUSTRATION 75



ILLUSTRATION 76

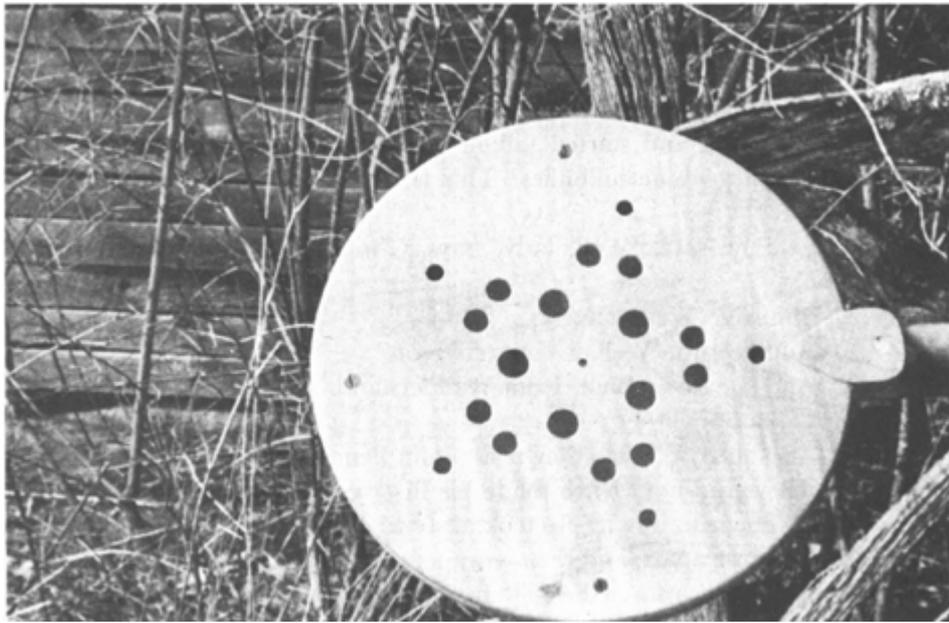


ILLUSTRATION 77

“And I said, ‘Well, I could take you to a few places like that, but we’d have to hunt for them. They’re pretty scarce, and they’re still a few here, but ...’ ”

Dave, and most of the true mountain people, have humorous stories tucked away about outsiders that have come in looking for REAL mountain folks. We have more than a few ourselves. And the humor is often touched with a sense of anger. Dave told us his favorite:

“I’ll tell you the best one I heard of all. Up at Laurel Springs where there’s a motel, service station and so forth, a couple of years ago this big car from Pennsylvania pulled in there to get some gasoline. And the man and his wife got out—middle-aged couple—and they were straight-out tourists all the way, with the colored glasses and the shorts, the camera, the whole bit. So while the man was putting gas in the car, the woman came around and started talking to him. Says, ‘Where can we go to see some real genuine hillbillies? This is the first time we’ve ever been down in here.’

“And he says, ‘Well, lady,’ says, ‘I’m sorry,’ said, ‘you can’t see any now.’

“She said, ‘Well, why?’

“And he said, ‘Well, it’s out of season.’

“And she says, ‘Well, I don’t understand.’ Says, ‘What do you mean it’s out of season?’

“And he says, ‘Well, they’re all up in Pennsylvania teaching school!’ ”

As a young boy, Dave made his first banjo because he wanted one and was too poor to buy it. He took a plywood packing crate, set it in the creek until it came apart, and then wrapped a strip of its thin wood veneer around a five-gallon can and held it in place with rubber bands until it dried to form the hoop. Then he whittled the neck out with a pocketknife.

His interest in music came naturally. His mother could play instruments, as well as his grandfather and great-grandfather on her side. In addition, he had an uncle who liked music so well that he cleared a half-acre of land down on the river, kept it mowed, and built benches in between the willow trees. “There was a little sandy spot there where they used to land the boats. And us kids twelve, thirteen and fourteen years old, we’d get down there and play and dance and sing until three in the morning—and sometimes it would go longer than that. Dancing on the ground. He’d take wood down there and pile it up for us—always kept wood down there—and he’d build a fire and sit down there and listen to us play.”

Now Dave and his sons make mandolins, guitars, fiddles (he’s made nearly thirty-five and restored over 200 himself), dulcimers, and, of course, banjos of all types. At one end of the scale is the mountain banjo kit that they sell for \$35.00. The pattern for the kit came from an old mountain banjo that was much like those that Tedra Harmon and Stanley Hicks now make except that it is fretted. The kit includes instructions as well as everything that is necessary to make one yourself from

the pieces of yellow poplar (all routed, marked for holes, etc.) to the fret wire, strings, tension blocks, nails, screws and the plastic head.

At the other end of the scale is the one-of-a-kind, staggeringly beautiful custom variety that he and his sons turn out for special customers willing to pay up to \$1,500.00 for one of the finest banjos money can buy. With engravings and inlay, these instruments are works of art far too complex to detail here.

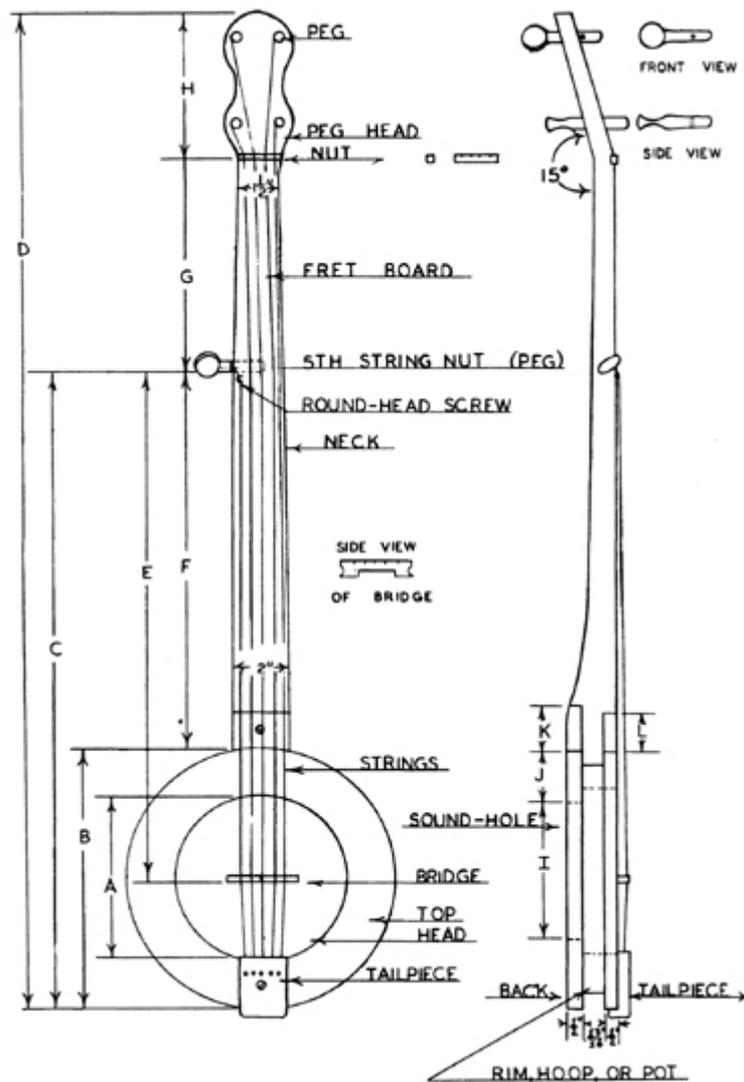


ILLUSTRATION 78

	A	B	C	D	E	F	G	H	I	J	K	L
TEDRA HARMON'S BANJO	6	9½	23	36	10½	13½	7½	5½	5	2	1¾	1¾
STANLEY HICKS' BANJO	6¼	10¼	26	37	20	15¼	5¾	5¾	5¾	3¼	¾	2¼

ILLUSTRATION 79

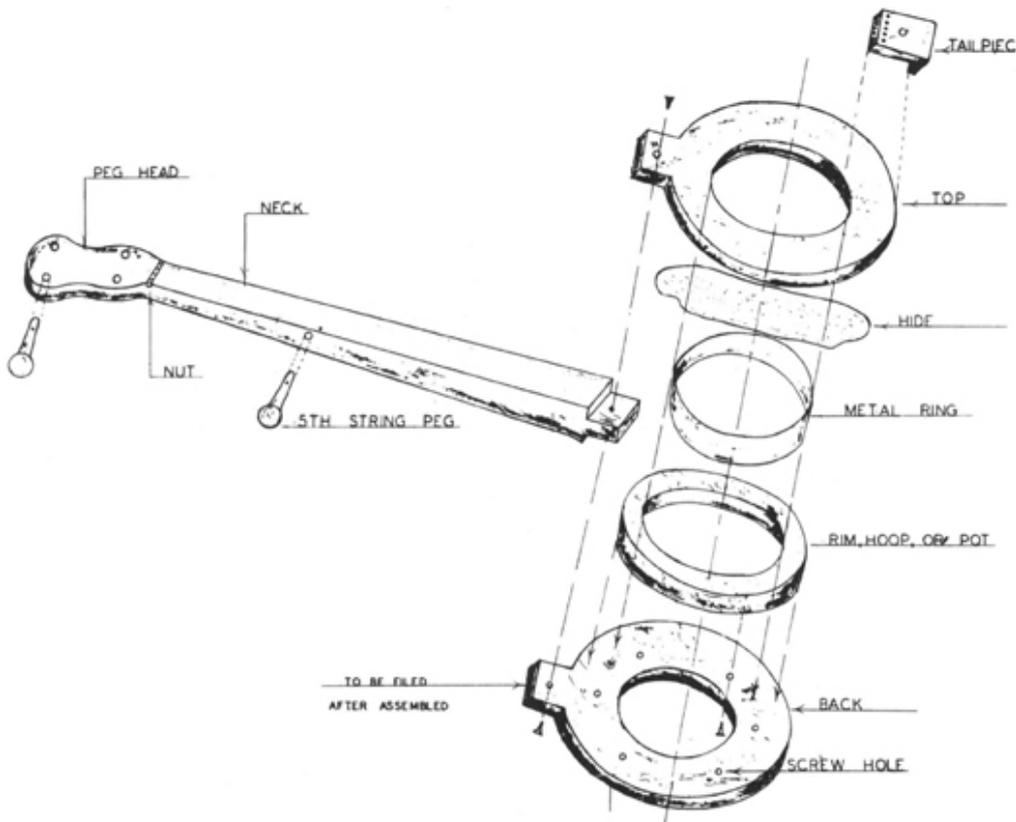


ILLUSTRATION 80

Dave has done a good bit of experimentation in his time, and has whittled his choice of materials down to a few favorites. If he were to make banjos with animal hide heads instead of commercial ones, he would prefer house-cat. He has a banjo hanging on the wall that has a cat hide in it that is forty years old and still rings well. And he has also heard of catfish skin being used, and he imagines that would also be good as it wouldn't be as subject to humidity as the other hides are.

For wood, he likes yellow poplar (his choice for the kits) because it is strong but resilient, vibrates well, and has good tone. A favorite neck of his is red oak. And for head sizes, he's found that on the mountain-style banjo, a six-inch head with a half-inch-thick top and back rings the best.

I could tell that Dave was really happy now making instruments for a living. It shows in his work, and it

shows in his face.

While we were there, Dick Finney, a man Dave grew up with, came over. Both were born on the same day, January 21, 1917, and had played together since they were young. Dick uses the second guitar Dave ever made, and Dave is building him a new one now. They played for us, Dave on the banjo and Dick on the guitar.

We played the tape we made of them all the way home.

RAY MCBRIDE

*Photographs by Ray and Steve Smith.*

## **ROBERT MIZE, DULCIMER MAKER**

Robert Mize was born and raised in our county, and he still has enough folks here to have good reason to make the trip down from Blountville, Tennessee, with some regularity. Nowadays, when he comes through, he stops by, and more often than not he brings along a new dulcimer or two—just finished—and either he or one of his children winds up playing it for us.

Several months ago, he stopped in as the result of a request we had sent him via one of his nieces some two years before to give us a hand putting together an article on his method of dulcimer construction. He offered to write the article for us, and we accepted.

It's an honor for us to have his directions, for he truly knows what he's doing—one of the reasons why he's a favorite craftsman member of the Southern Highlands Handicraft Guild. He's made more dulcimers than anyone we know. Each one is sequentially numbered, and as he packed up his newest one after showing it to us on his last visit, we noticed its number on the end of the box: 666.



Kentucky, Mountain, and Appalachian are all names for the plucked dulcimer, which may have any number of strings. Mountain people call them “dulcymores” or “delcymores.”

The dulcimer we refer to is the plucked dulcimer and should not be confused with the hammered dulcimer, which is a forerunner of the piano. The hammered dulcimer has many strings and is played by striking the strings with small wooden hammers.

The word “dulcimer” is derived from the Latin word “dulce,” and the Greek word “melos,” which put together mean “sweetsong” or “sweet tune.” This truly describes the dulcimer, as it is a soft-voiced, personal-type instrument which can be easily tuned to the range of your voice. This makes the dulcimer a natural for playing hymns, ballads, and folk songs. Like the five-string banjo, it seems to be an authentic American musical instrument.

I was born and raised in Clayton, Rabun County, Georgia, and never saw nor heard of the dulcimer until the late 1940s. Some of the craftsmen of the Southern Highland Handicraft Guild began making them, using old ones for patterns. Their popularity has been growing ever since, especially in the last few years, with the revival of the folk music and handicrafts. I don't know if anyone owned or knew of dulcimers in Rabun County before this time.

Many different woods may be used. I make a combination of wormy chestnut, butternut, gum or sassafras for the top, and all other parts from black walnut. I also make them using cherry for all parts, or curly maple. Bird's-eye, or highly figured maple, is very difficult to work. It is also heavy.

The combination of a hardwood on back and sides, with softer wood for top, gives a good mellow sound, and the contrast of two woods is pleasing to see. Cherry

on back and sides, and California redwood on top will make a soft tone. Butternut and walnut are also good. I use a lot of wormy chestnut with walnut. The color, grain, and worm holes make a nice looking top, and also a good tone.

Different woods will affect the tone of the instrument somewhat, although the size and shape of the sound holes have very little effect, except for looks. I use an "F" shape, like in a violin, for most of mine: but I do make heart, diamond, or other shapes when requested to do so.

I have used many different woods, such as apple, red elm, oak, sourwood, gum, pecan, cedar, beech, birch, sassafras, chestnut, butternut, walnut, cherry, maple, and others. Most of these were only to see what they would look and sound like. If you stick with black walnut for the back, and butternut, gum, chestnut, or poplar on top, you can get good results. Curly poplar of the deep purple color makes an exceptional dulcimer. The wood is not as important as the construction, and each instrument should be better than the last.



ILLUSTRATION 82



ILLUSTRATION 83

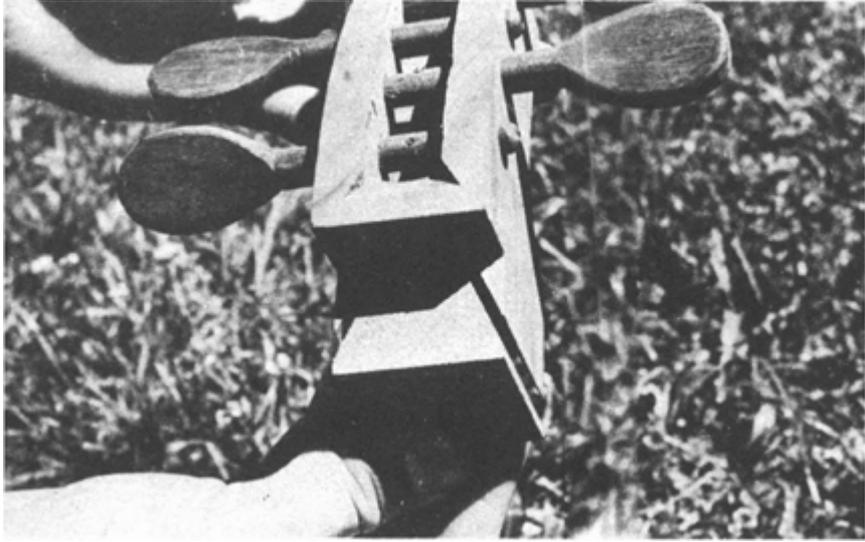


ILLUSTRATION 84

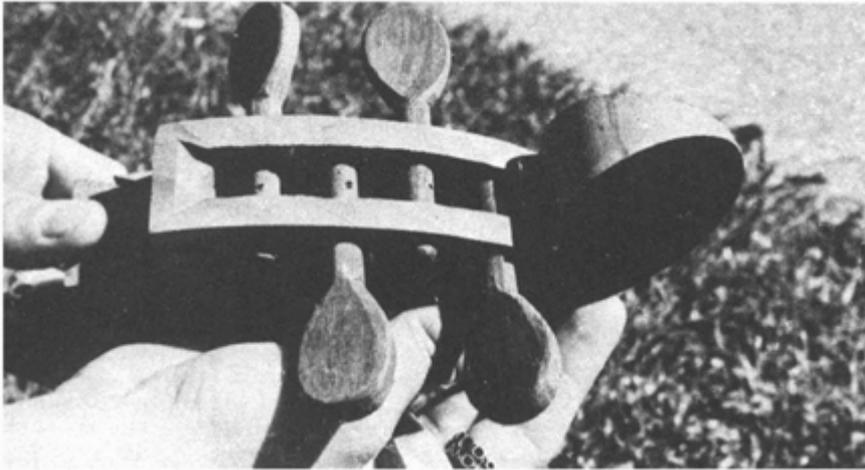


ILLUSTRATION 85

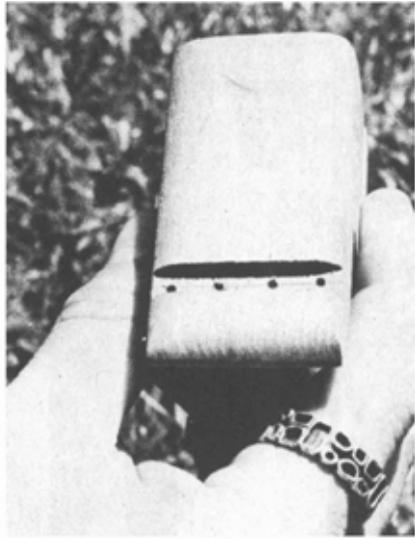
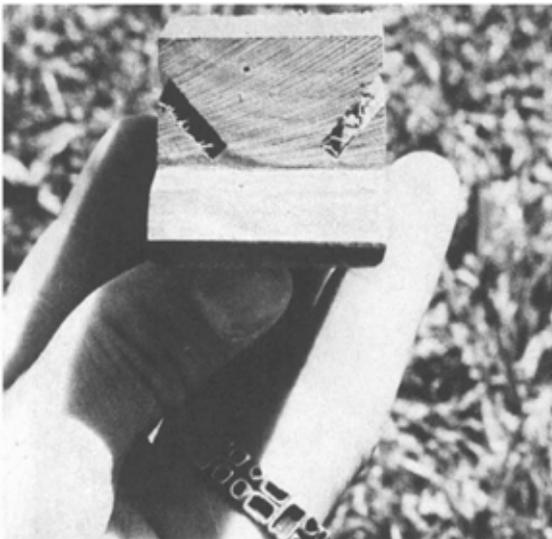


ILLUSTRATION 86

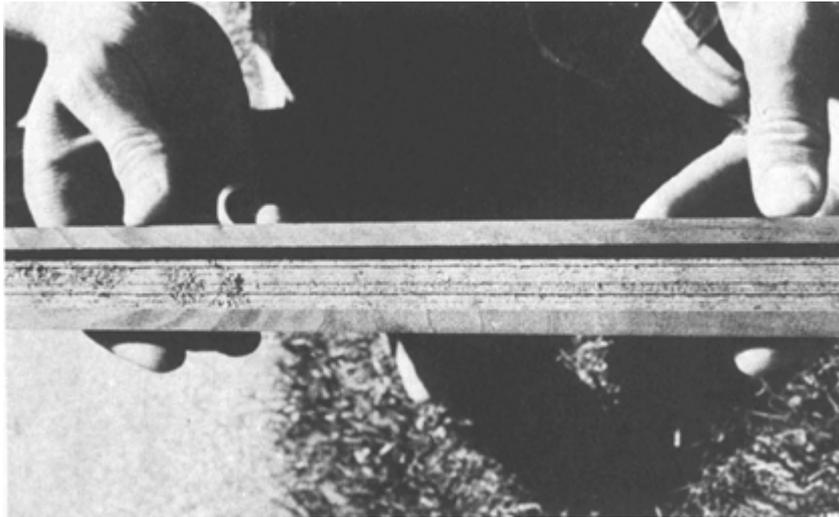


ILLUSTRATION 87

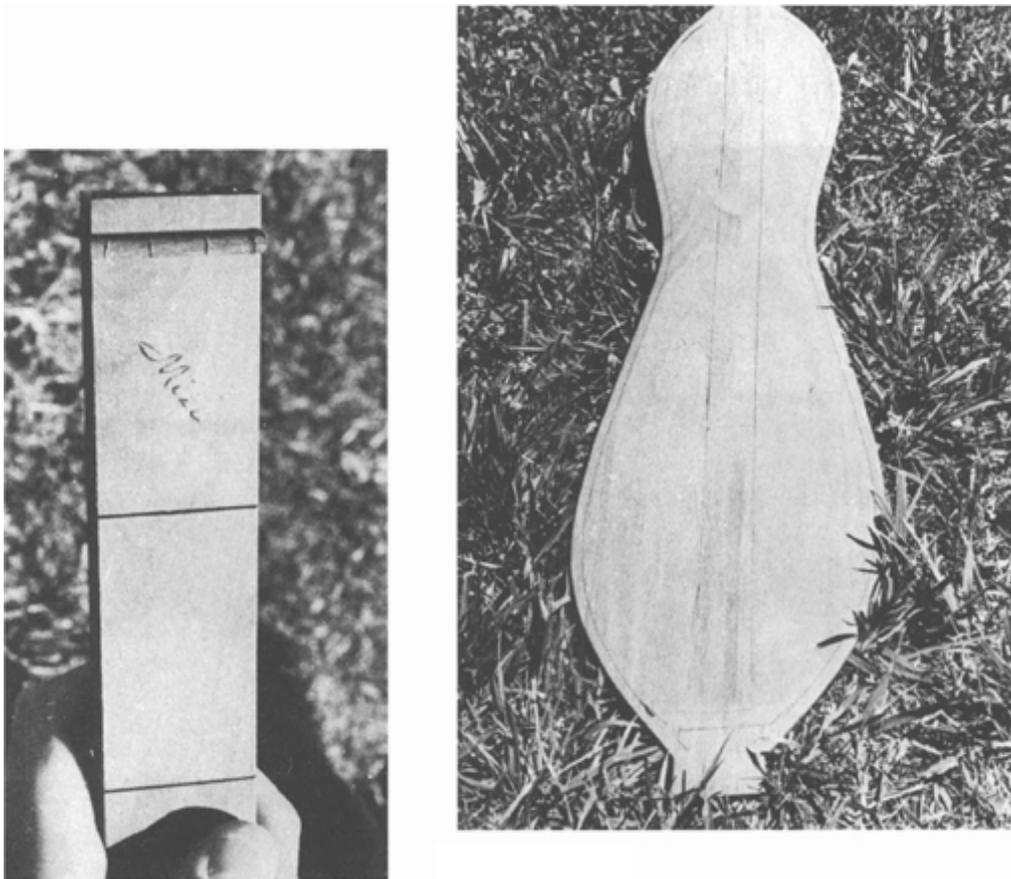


ILLUSTRATION 88



ILLUSTRATION 89

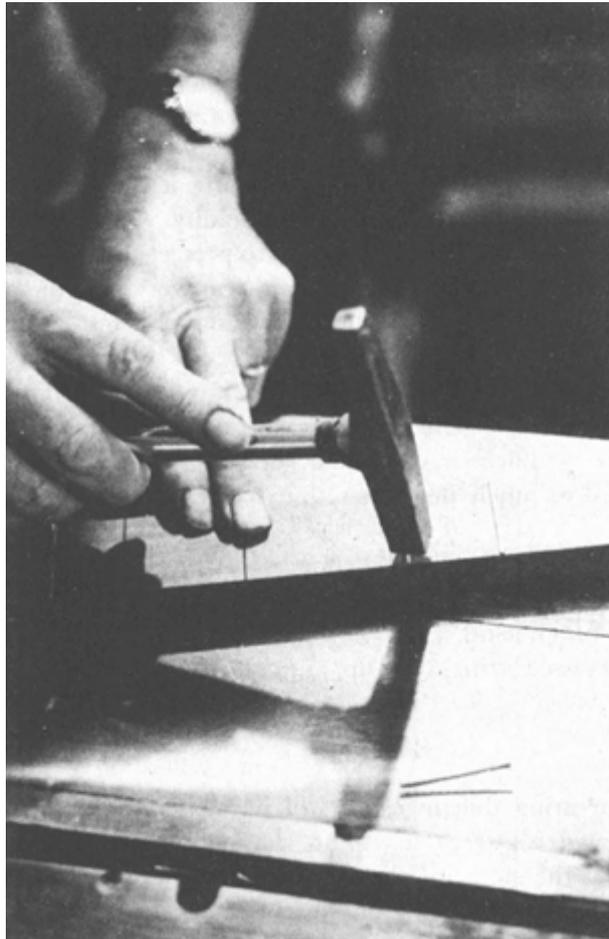


ILLUSTRATION 90

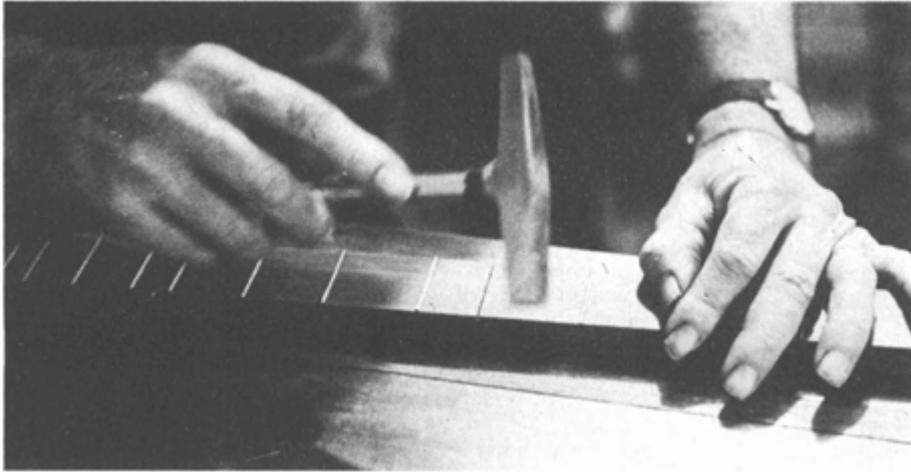


ILLUSTRATION 91

The dulcimers I make for sale are made as nearly like the old traditional ones as I can get them. No fancy inlays of exotic woods, no veneers or plywood, just good, dry wood like that used by the early craftsmen. I do not use metal guitar-tuning keys, but make wooden keys from Brazilian rosewood. I use modern techniques, glue, and finishes.

All wood used should be kiln-dried unless you are sure it is thoroughly air-dried, to control shrinking and cracking in low humidity. As we cannot control the environment around the dulcimer, we try to protect the dulcimer from the extremes of humidity. Our modern homes get very dry in the wintertime and air conditioning keeps the humidity low the rest of the time.

I apply two heavy coats of sanding sealer lacquer, then two coats of finish lacquer, hand rub with steel wool after each coat of lacquer, and wax with a good paste furniture wax. A dulcimer must be a good musical instrument, and if it looks good also, so much the better, but musical quality comes first.

I will describe and make a four-string dulcimer of wormy chestnut and black walnut, in the shape generally known as the elongated hour glass. We will

make all parts, rough sand, assemble the parts, trim, finish sand, apply the finish, hand rub, wax, string, tune up, and, hopefully, play.

## THE PEG HEAD

As this is to be a four-string dulcimer, we will select a piece of black walnut 8" long  $\times$  1½" wide  $\times$  2½" thick. The shape of the peg head is traced on the side, and the shape of the peg box is traced on the top. The peg box is 5/8" wide and about 7/8" deep, and long enough to accommodate four tuning pegs (*ILLUSTRATION 83*). To make a five- or six-string dulcimer, just make the peg head and peg box a little longer to get the extra pegs in there. I drill part of the peg box with a 5/8" drill, then finish cutting to shape with a chisel. Once the peg box is finished, saw slots in the end to receive the sides and cut the notch for top and fret board (*ILLUSTRATION 84*, *ILLUSTRATION 85*). Cut the peg head to shape last, so you will have straight and square surfaces to cut notches and slots accurately (see diagram on [this page](#)).

## THE PEG END

The peg end is also made of walnut, the same width as the peg head. The length of the slots, where sides fit, must be the same as those of the peg head, as this determines the depth of the sound box. Cut slots for the sides (*ILLUSTRATION 86*, left), a notch for the top and fret board, and cut a notch on the back side for strings (*ILLUSTRATION 86*, right).



ILLUSTRATION 92

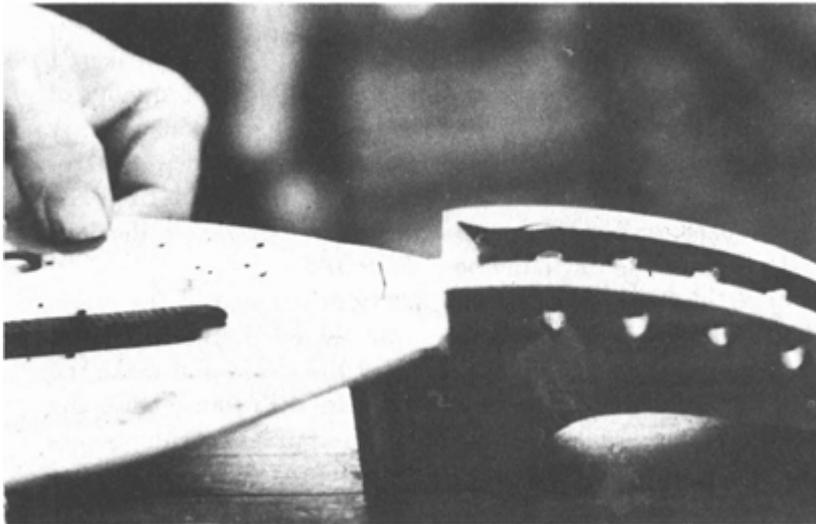


ILLUSTRATION 93

I have tried to lay out each step or saw cut in the proper order to give you better control for safety and accuracy, so please follow these steps. You may wind up with a difficult cut to make and no safe way to do it. You should then start over with that part and do it again.

## **THE FRET OR FINGER BOARD**

This piece is the most important and critical of all the pieces. The distance from the string nut, near the peg head, to the bridge on the other end, must be exact. The frets must be placed exactly at the right place, or the notes will not be true. This distance or spacing of frets can be figured mathematically, although I do not know the formula. I have a master pattern of a fret board which was given to me by a master dulcimer maker. I go by this, and am most particular about its construction. The quality of the fret board determines the quality of music of the finished dulcimer. A beautiful dulcimer with a poor fret board makes an expensive wall decoration, as that is all it is good for. Remove some of the wood from the inside of the fret board, or hollow it out, to make the sound from the frets and string pass more easily to the sound box (*ILLUSTRATION 87*).

Keep the top of the fret board perfectly flat from one end to the other. If it is not flat, when you press the strings down on a fret, the string will touch the next fret also. This will deaden some of the sound and make the string buzz. Be sure the frets are seated solidly in their slots; raise the bridge a little, or even file a high spot off the fret to stop the buzzing. Sometimes it becomes necessary to remove all the frets, scrape and sand the fret board straight, and replace the frets to get it to play again.

Use regular guitar frets from a music store, cut to the proper length. Make saw slots with a thin coping saw. Make a saw slot in scrap wood, and file down the side of

the blade until you get a thin slot that is a nice tight fit for the fret (*ILLUSTRATION 88*). Again, take care in making the fret board, as this is the most important part of a dulcimer (see *ILLUSTRATION 106*).

## **THE BACK**

Take a piece of black walnut  $3\frac{1}{2}$ " wide  $\times$  30" long  $\times$  about 1" thick. Try to find one with as much grain or figure as possible, as we will bookmatch two pieces to get a nice design on the back. Run this blank across a jointer or planer to get one surface smooth and flat. Square both of the edges. Make a pencil mark on one edge at a slant. By lining up these marks, you can arrange the cut pieces in the same position as they were in the original board. Set the rip fence on a bench saw for a  $\frac{1}{8}$ " cut. Place the blank on edge and cut two  $\frac{1}{8}$ " pieces. By using the pencil marks, get these two pieces in the same position as they were cut, then open them up like a book. Note the pattern of the grain. If it's not the best, close the "book" and turn it over and open it again. Always look at the inside of the book, as these two surfaces are the only ones that will match. Now joint and edge glue these pieces together. This is called "book-matching" or a mirror image. Reinforce this glue joint on the inside with thin pieces of wood, with the grain direction  $90^\circ$  from the glue joint. This should give you a piece of wood  $7" \times 30" \times \frac{1}{8}"$  from which the back is made.

## **THE TOP**

Select a piece of chestnut or whatever you wish to use and cut and glue a  $7" \times 30" \times \frac{1}{8}"$  piece as you did for the back. Place the top blank on the bottom with the two bookmatched sides on the outside. Trace the shape and saw these pieces together. By keeping the top and bottom in the same position as they were cut, you do not have to worry about the contour of both sides being

the same, as the top and bottom will match. Sand the inside and outside of these parts. Cut a slot in the top under the fret board (*ILLUSTRATIONS 88* and *89*). Also, fix the position where sound holes are to be cut in the top. Make a pattern from paper or a thin, flat piece of plastic, cut the shape you want, place it on the top, and draw the design. Use a jig saw or coping saw: drill holes in the top, insert the blade through this hole, and cut the sound hole to the traced shape. Take care in cutting these holes. Finish the shape with a sharp knife. Get the shape of the sound hole right, as it is going to be on the top of the dulcimer and it is always the first thing noticed if it is not right.

The sides are cut from the same wood as the back. Start with a piece 30" long and a little wider than the slots in the peg head and peg end. Dress this piece on a jointer to get it smooth. Slice a thin piece off with a bench saw—a little under  $\frac{1}{16}$ "—so it's flexible. Dress down the blank, and saw another side. Make three or four sides, always dressing down the thick blank, as the cut sides are too thin to dress on a machine. We now have all the major parts made and can start assembly.

## **ASSEMBLY**

Clasp the top and bottom together as they will be later. True them up, then trim, sand, and finish the edges. Round off the sharp, square edges. Do all the sanding of the parts before putting them together, as it is easier to get at some pieces. Leave only a light final sanding for the end of the process.

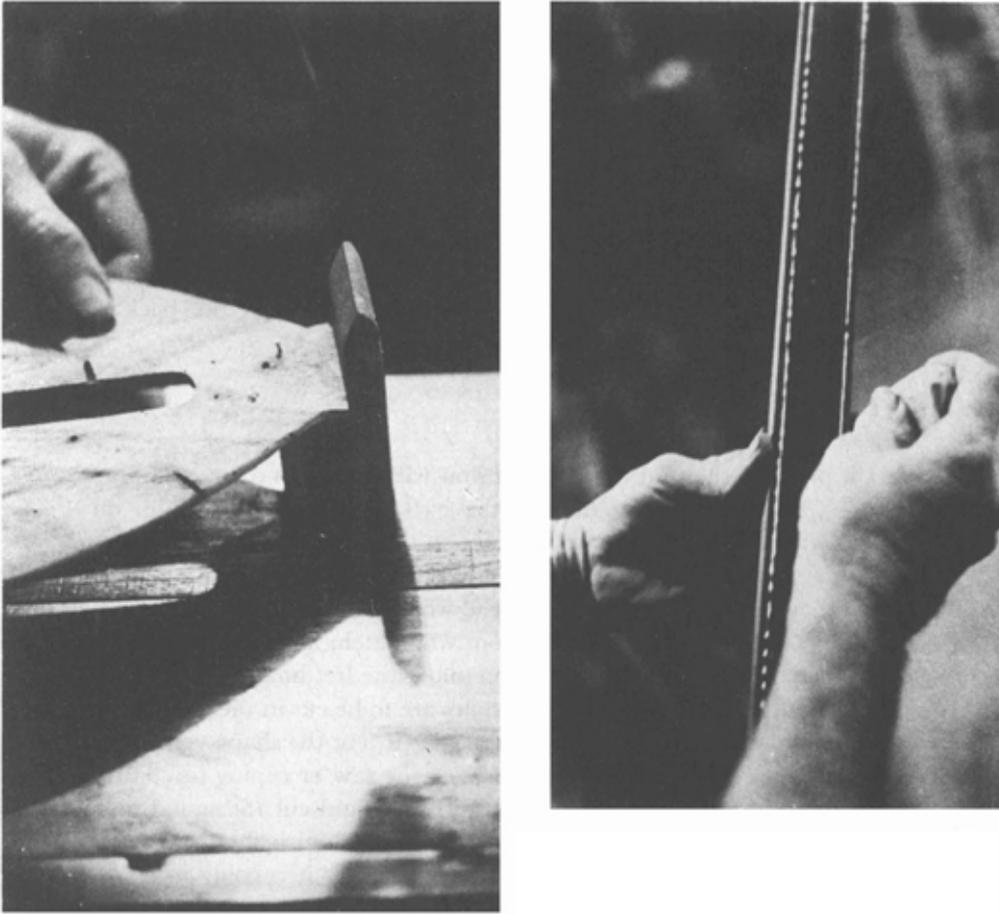


ILLUSTRATION 94

Be very careful from now on, as you are building an instrument you want to be proud of. Keep everything clean; work on a soft rag. A bad scratch or a mistake is hard to overcome at this stage. Remove all excess glue now, or at least mark around a glue spot for removal later. If the glue is not removed, it will make a light or white spot in the finish.

Cut the frets to length, fasten them in the fret board, file and putty the holes, and finish the fret board now (*ILLUSTRATIONS 90 and 91*).

Place the completed fret board on the top at the proper place and cut the top to the exact length of the fret board (*ILLUSTRATION 92*). Glue the peg head and peg end on the underside of the top (*ILLUSTRATIONS 93 and 94, left*). Apply glue to the fret board (*ILLUSTRATION 94, right*), and clamp it on the top (*ILLUSTRATION 95*). Use small brads

( $\frac{1}{2} \times 20$  brads) to fasten the top and fret board and allow the glue to set. Any good wood glue will do if you give it enough time for curing, and remove any excess glue carefully.



ILLUSTRATION 95



ILLUSTRATION 96



ILLUSTRATION 97



ILLUSTRATION 98

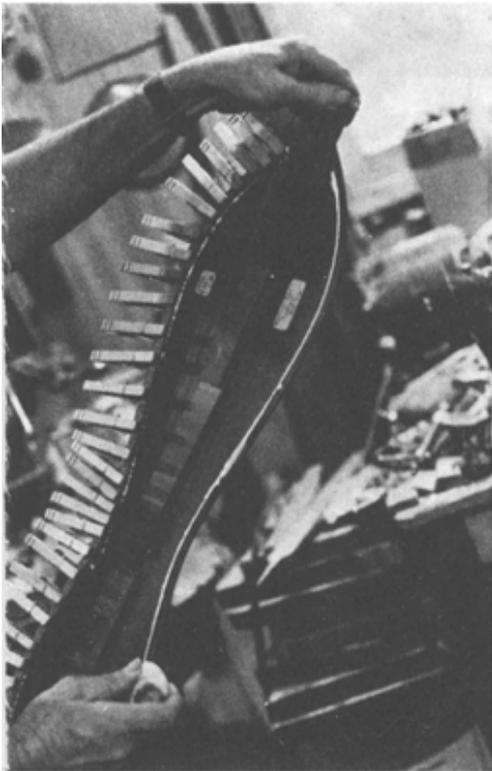


ILLUSTRATION 99

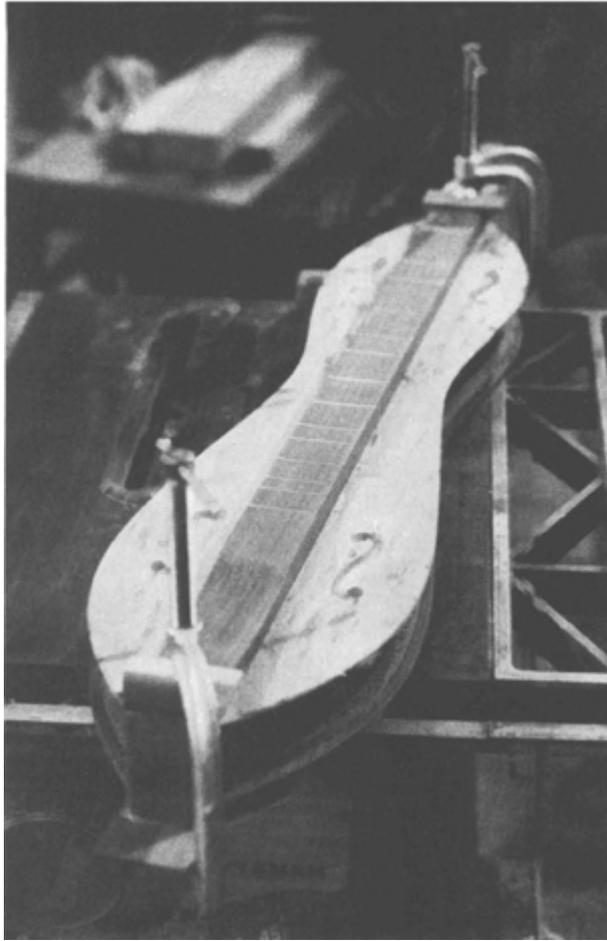


ILLUSTRATION 100



ILLUSTRATION 101



ILLUSTRATION 102

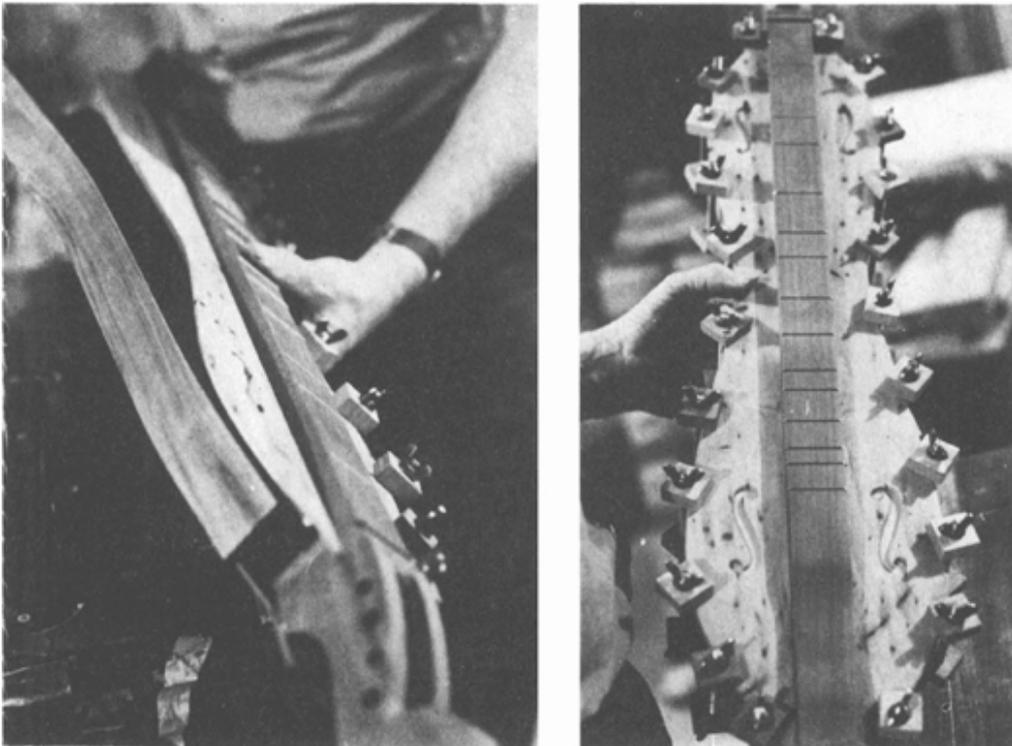


ILLUSTRATION 103

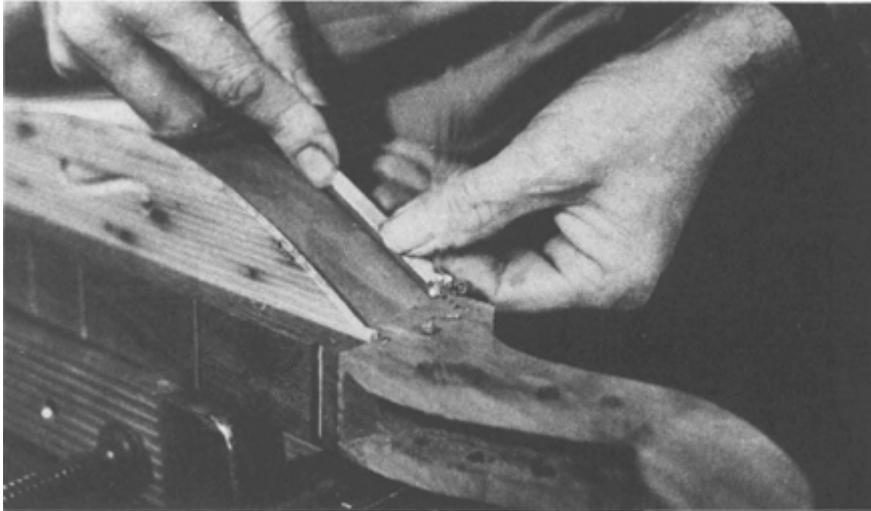


ILLUSTRATION 104



ILLUSTRATION 105

Place the top on the inside of the back and mark the position where the peg head and peg end are to be attached. On the inside of the top and bottom, draw a mark from end to end about  $\frac{3}{16}$ " in from the sides

(*ILLUSTRATION 96*). Make four glue strips about  $\frac{3}{8}$ " square with closely spaced saw notches cut in one side (*ILLUSTRATION 97*). Glue these flexible strips on the inside of the marks of the top and bottom (*ILLUSTRATIONS 98* and *99*). The sides are glued to them later.

Glue the top and bottom together and let the glue set (*ILLUSTRATION 100*). Cut the sides to the proper length and width, and pre-bend them by holding the back side to a source of heat and bending by hand (*ILLUSTRATIONS 101* and *102*). Use just a little heat, as too much will make the side brittle.

Glue the sides in place (*ILLUSTRATION 103* and *104*).

Trim, sand, and stain if needed (*ILLUSTRATION 104*). Take a lot of time and get everything just right now. There are a number of ways to do the finish, depending on the amount of gloss you desire.

Lacquer, varnish, urethane, or shellac, with sanding and steel wool rubbing between coats is good. You can use only wax, or some of the penetrating oil finishes will give a flat finish. When I build in volume, I spray on the lacquer and then wax by hand.

A standard violin peg hole taper or reamer is used to taper the holes in the peg head. This tool can be found in some music stores or at a musical instrument repair shop. You can use large violin or viola pegs or make your own of rosewood or other hardwood.

Make the string nut and bridge, glue it in place, and bore the holes for the strings in the peg end and pegs.

For the first three strings (nearest you), use an E or first guitar string, ball end. For the fourth string, use a G or third guitar string, ball end. This is a wound string and is the bass string of the dulcimer. If you use banjo strings, use two first strings, one third string, and one fourth string, which is the bass.

Tune the first and second strings to G, below Middle C, on a piano. Tune the third string to Middle C, and tune the fourth string to C, one octave below Middle C, on a piano. This is a major tuning. Pick the melody by noting the first string only. Strum the other three strings; they are the drone strings and make the same tone all the time.

Making a dulcimer is not an easy job. You will have to make some of your tools and clamps. You will also have to figure out for yourself how to do certain steps. Take plenty of time and think out each step as you go along. Do not worry about getting all the dimensions the same as those I have given here; the only thing that must be exact is the finger or fret board. Make the rest to suit yourself.

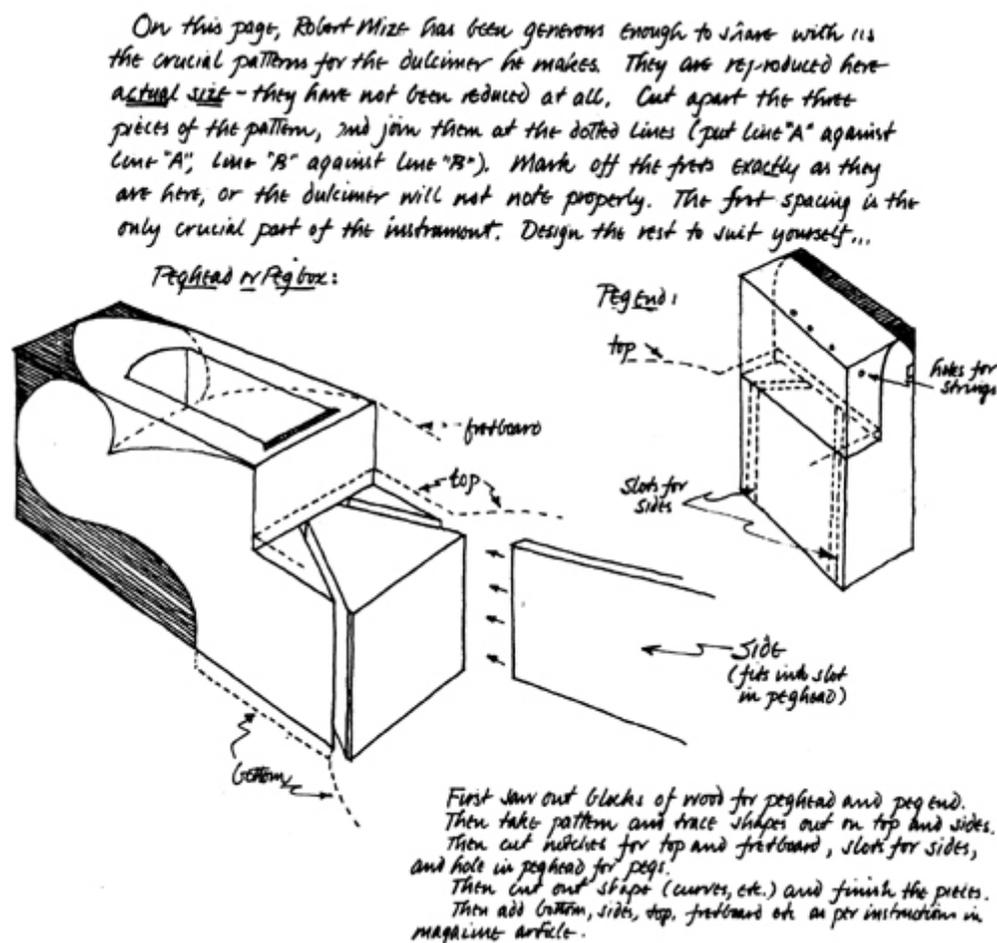


ILLUSTRATION 106 illustrate the plans for a Robert Mize dulcimer which appeared actual size in an insert in *Foxfire* magazine. Space has forced us to

reduce this insert, but a copy of the original may be ordered from *Foxfire* for \$1.

ROBERT MIZE

*Photographs by Warren Gaskill.*

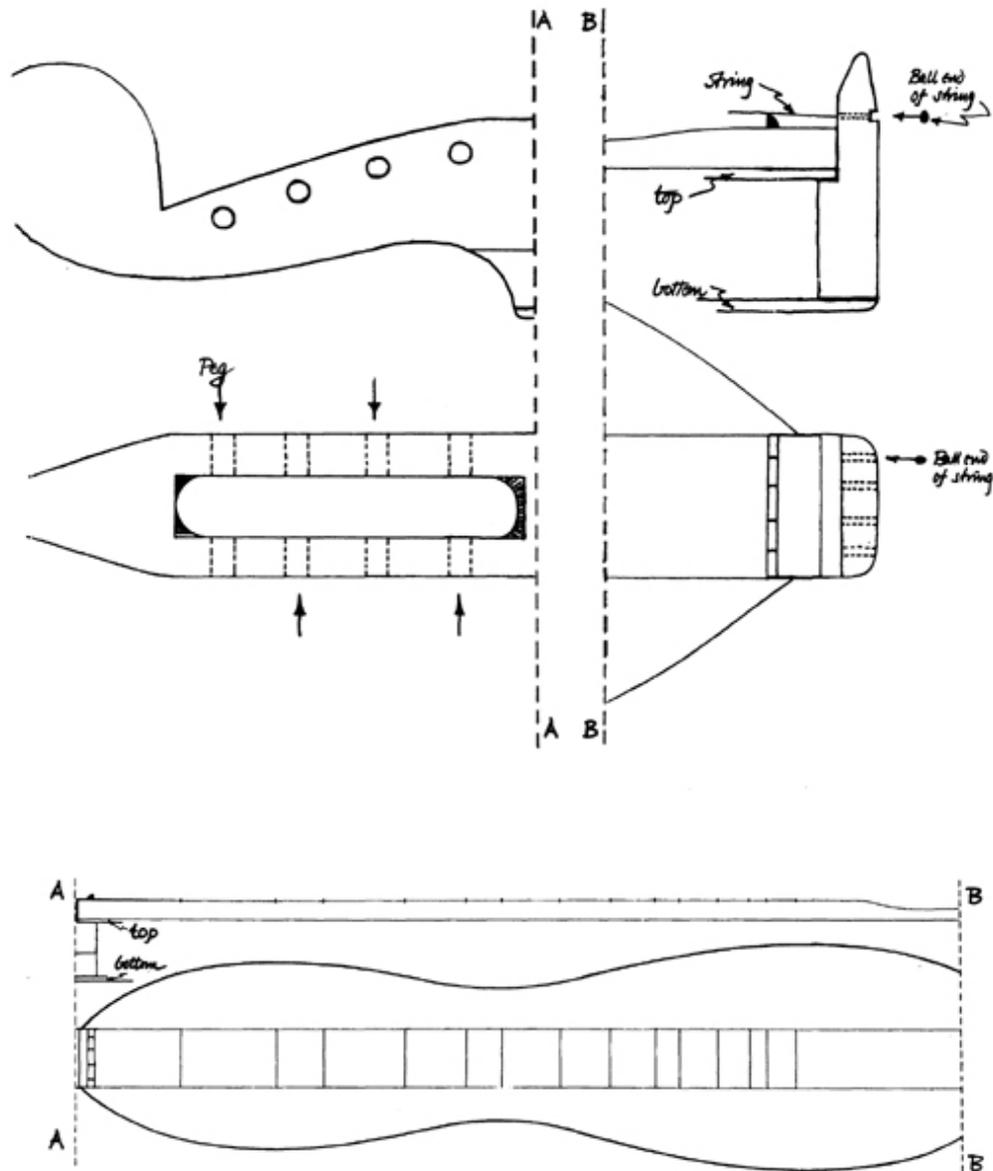


ILLUSTRATION 107

