BOB GIVENS

The Strange and Peculiar Life of a Luthier

by

Daniel Gore

March 11,1991

Meet R.L.Givens, contender for the $5000 Eastern Washington regional dart tournament prize. He steps to the line and fingers the flight on the plastic tipped dart. A tape replays in his mind..YOU WILL BEAT LANE HELGESON, WORLD DART CHAMPION . . . Just seven double bulls out of ten will clench the prize, Lane got only six out of ten . . . YOU WILL BEAT LANE HELGESON, WORLD DART CHAMPION . . . Bob's aims his complete attention at the center ring of the disk. If a stray thought crosses his mind now, it might be about the lacquer finish drying on mandolin number 600, hanging in the shop. A triple 12. That thought has a better chance than any against the solid wall of will Bob has put in the way of fleeting distractions.

R.L. GIVENS CO., MANDOLINS and GUITARS, est. 1961. Bob Givens could almost pass for athlete stock. Nearly fifty, he is trim and healthy, but his obsession is mandolin making. Pole vaulting might have been his calling instead. Or stock car racing. Theoretical physics still occupies his reading interests, but after forty eight years of trying nearly anything, Bob Givens has clenched the title for Most Prolific Mandolin Maker. A one man factory, he has made over 600 'F' and 'A' style mandolins since 1966, each a sonorous and professional quality instrument. Today the market demand for his product still exceeds his capacity to supply one of the finest hand built, tap-tuned mandolins available. In 1991 he was building three to four a week. He intends to step that up in '92.

"I was about 19 years old when I heard Earl Scruggs pick the banjo, and that was it. That was my music!" *BULLSEYE! The freewheeling flight stops spinning, its payload pointing to the double bull, and Bob sips on a Rainier, then produces a pouch of TOP tobacco, and begins rolling a smoke. . . . YOU WILL BEAT LANE HELGESON! . . .* "It was real high energy, so I started playing the banjo. I couldn't afford a new Mastertone, so I bought a totally destroyed one, and pieced it together. I made my own neck from mahogany. Kind of fancy. I didn't know how to cut inlays or anything, and there was a guy in southern California named Walt Pitman who had built a couple of necks for Earl Scruggs, and had made Scrugg's "D" tuners. He was an engineer for Santa Fe railroad, and just by chance I ran into him. In about fifteen minutes he showed me how to do inlay work, how to cut the pearl, where to get it, the name and address. And I said WHOA! This is easy! I went down and got the pearl and started sawing inlays out. I made the first neck, and that's when I broke the knuckle on this finger. It got to where I couldn't use it. That kind of pissed me off, so I had to put my banjo up for sale in this music store. And people started asking about the neck, and all that, and after a while I would have 10 or 15 orders a week for five string necks to replace all the necks on all the tenors in all the pawn shops. This was in '61 and '62."

The Spirit Lake Tavern is unusually alive for a Thursday night. A small contingent of barroom cronies are gathered in Bob's support. When it rains they all get wet, and $5000 buys a lot of billiards and beer. Through the

din a juke box competes with 'Spirit in the Sky'. Bob Givens, the next world dart champion is oblivious to distracting rock and roll. Thoughtfully, he sharpens the plastic tip of the next dart.

"I'm in a North Idaho dart league. I got started in it right after I was divorced a couple years ago. I was having trouble concentrating, a lot of emotions going on. My mother's a hypnotherapist, so I ask her about it, and she says make up a tape, and I'll send you some books on it. Tell yourself that you concentrate perfectly. Just do that and you can throw perfect darts. So I made up this tape, and one night I was standing around in a bar waiting for a pool game, and I took the house darts, a coffee can full, twenty or so, and I walked over to the electronic dart board. I'd never thrown electronic darts before, and I walked up to the line and started throwing. After about five darts, every single dart started going in the bullseye."

In the early 60's the folk boom was on, and a sudden demand for acoustic music exceeded the market's supply of guitars. An overwhelming need for repaired instruments found Bob Givens with arms open. "I was doing four repair jobs a week, and other jobs would show up. I was repairing guitars and mandolins, and knew nothing about it. Nobody knew anything about it, but there were so many originals around that it wasn't a problem finding the right thing. In the early 60's you could go buy a 1935 D28 herringbone guitar for $400." Hanging around the Ashgrove in L.A., Bob's musical tastes were cultivated first hand by the influence of such musicians as David Grisman, Clarence White, and Jerry Garcia. " I had known Clarence White before when he was a kid. After he heard Doc Watson, Clarence started playin' the kind of music he had in him. Wow! So then I started getting interested in guitar and mandolin because of Clarence's and Dave Grisman's inspiration."

"You're the only hardy guy I know who's willing to do anything", a friend once said to Bob. "I was 4F. I have two destroyed disks in my back, an old pole vaulting accident from high school. The Viet Nam war hit, and a friend of mine was taking off. He hadn't been drafted yet, but he knew that he was gonna go to Viet Nam. He said why don't you go with me? So in early '66 we went down through central America and down into Nicaragua and Guatamala. Did all kinds of weird stuff. We smuggled in guns to rebel soldiers." *The 18 gram titanium dart exits Bob's fingertips with a muzzle velocity of 27 feet per second. It's trajectory is off about two clicks up and three clicks left. It hits the triple 9 block, and hangs like fire. Bob rolls another smoke.*

"We took a lot of guns across the border into Guatamala. In Guatamala there are a lot of revolutionaries running around. There's always a need there. They caught a bunch of guys and executed them on the spot, and my friend said 'I don't think this is really what we want to do!'.

"So we returned to the states late in 1966. There was a guy who had come out from Georgia in the early 60's to have me teach him how to do banjo necks and do inlay work and do some of the stuff I already knew how to do. His name was Tut Taylor. Tut left me a standing invitation in '64 or '65 if I ever got back to the Southeast to look him up, build some instruments and make some money. So we headed back east, and ended up in Milledgeville, Ga. This was probably late '66, just before Christmas. We started making banjos, and made a lot of D45 copies from D28's. In those days there were so many around that I even made herringbones into D45's. Can you believe that? Tut let me take apart some old F-model mandolins. One of them was an F-5, Lloyd Loar. I made four F-models, based on taking apart old Gibsons. The newest one I took apart was 1937. I put them together just the way they were, but I got to see the innards . . . wow! . . . this is the way the wood's shaped! The first mandolin I ever made was an F-5 exact copy with all the pieces of a 1923 Lloyd Loar. I measured all the dimensions: top, back, sides, neck angle, tone bar placements, everything. I worked there with Tut for maybe a half a year."

Another taste of the Rainier, a deep drag from the hand rolled cigarette, and a quick spot check of the crowd for single women. Bob rehearses the litany, . . . YOU WILL BEAT LANE HELGESON! . . . , and resumes his poise. His reddish handlebar mustache hangs like an old Christmas wreath on his poker face, the bullseye larger than the moon in his mind.

A story that survives the early work of Tut Taylor and Bob Givens comes from the old Milledgeville days, and speaks better of Bob's budding craftsmanship than of the period's confused ethics. Tut had acquired an original D45, number 71,444, which having belonged to the wrong sort of owner, was in very poor condition. Tut gave the job to Bob. But then an idea occurred to Tut. He also had a 1954 D28 sitting around the shop in need of repair, and the wood from both pieces was Brazilian, a fair match. "So Tut says 'Why don't you just make this thing here into a D45 and see how close you can get it?' I said 'You mean the braces inside, and all?', and he says, 'Yeh. The serial number and everything'. OK, so what the heck? I said I'll have to take it apart because I'll have to shave that inblock, either that or have to replace that inblock to where the old number is almost gone. So I looked through a machine catalogue, and I found a die set of numbers that were the right size for a D45 serial number, and I did the braces, and I put it all together, and I did all the pearl work and replaced the fingerboard. I got it all done, and it looked real primo. I mean it had the right numbers, and the inside of the top was signed by the right guys. *Lane curses the next dart beneath his breath, Bob releases the stinger with a lingering finger, and it wobbles away like a heat seeking missile. The dart makes a pinup of the number 4 block.*

"I had to refinish it, and I found out that if you took a lot of acetone and cheap lacquer and spray something with it and set it out in the cold it will crack, and look like a dried up river bed finish. Tut said it was perfect. And we took that guitar, a bunch of banjos, and one of my F-models to a disk jockey's convention in Nashville in September of 1966.

"We were in the old Carson Hotel, before it was torn down, and we had the whole bottom floor, Randy Wood, me, and Tut, and a couple of other guys, Rual Yarboro, and some other people selling instruments. Some instrument dealer from Chicago comes down the row and ended up buying everything that Tut had, including the remade D45. He was . After we got back to Milledgeville, Tut heard that the dealer drove straight from Nashville to Pennsylvania and dropped this D45 off at the Martin factory. They took pictures inside it and checked it all out, then gave him a letter of authentication for a 1937 D45, first year they made 'em!"

Bob crosses the eight foot battlefield to the board and gathers up his trio of darts. The electronic game registers the score: one bull, two goose eggs. "We discussed it over a couple days' time, and we had some bad feelings over it. Tut, he's a pretty honest character, and he finally had to tell the guy what the deal was, and he reimbursed him because Tut never represented it as an original. He just acted dumb about it. He gave the guy some money back and the whole thing was made pretty smooth. I don't know what happened to the original D45, but the phoney went to Roger Sprung. As far as I know, it ended up with Mama Cass who owned it until she died. She knew. If it's made out of a D28 the outside rosette ring will be too small in diameter compared with an original D45."

The experience in Milledgeville helped carve and tap-tune Bob's improving skills at wood-working with instruments. However, the binding was still insecure, and the strings which tied his work had loose ends. "The FBI showed up at my friend's house one day. He wanted to go as far away from the draft board as he could go, and he picked Australia. He was a good friend of mine, so I said, Well!, that's a good idea. I've never been to Australia. I wanted to make things and go places. So the two of us got on a plane and went to Australia in January of 1967. Tut showed up later on. After a few weeks I got along great with the Aussies. 'Step out on a sidewalk and let's have a fair go, mate!', you know. You have offended this bloke somehow, you've set your beer mug down on his table without being invited. Music was completely out of my life at that time. We worked jobs at oil refineries, welding, doing body work on cars, sign painting. I had heard about a guy who built and repaired violins. I went and bought some wood from him, a maple back and a spruce top that was cut for viola. I found some simple chisels and stuff, and I went down to a gas station where they had a grinder, and I reground them into gouges, a plane, and a curved scraper. I rebuilt them into the kind of tools I needed to make some mandolin parts. I had slides and some drawings, and my memory, and I made all the parts for a mandolin on the floor of a boarding house I was living in. The project got set aside, but I kept all the parts in a suitcase.

"I got back from Australia in late '68 and went to work as a tool and cutter grinder until I got enough money to buy some wood working machinery. I went right into making mandolins. In college I had trained as a tool and cutter grinder, grinding machine tools . . . real high tech stuff. I got fairly good at it. One of the things that made making instruments a lot easier was that I understood exactly how cutting tools worked, and I've always made my own tools." *BULLSEYE! The dart sticks just inside the double bull ring, evening the score to two bulls, two duds. A round of applause from the room warms the face of R.L.Givens, Master Luthier and Dart Thrower.*

"I got that job and immediately every cent that I made went into a bandsaw, a belt sander, tools, and all that. As soon as I figured I had enough tools and enough money to get an F-model mandolin made I took those parts that I had made in Sidney and put them together into a mandolin. That mandolin ended up going to a guy named Kevin Anderson who eventually played in bands all over America. I worked in southern California from late '68 to early 70's making mostly mandolins, and doing repairwork for local musicians. I did work for Jackson Browne, and I actually did a little bit of repairwork for John Lennon when he was in the Yoko Ono band. He was on the skids and he was out in southern California just totally messed up on drugs. I was doing work for some of the important stores around, and guys would come in and ask 'Who's the best at this or who's the best at that?' and my name would come up."

Bob fondles the next dart like a worried mother, and cocks his elbow for the toss. 'A damned piece of barb wire in that maple slab was what busted up my bandsaw this morning!' This thought comes out of the dark, burning like a comet, leaving its sorry tail in the light over the board. A dart pierces the smoke, and careens into the 18 block border wire and deflects backwards, crashing and burning on the barroom floor. "I actually got into racing stock cars for a while. I drove 2 or 3 times . . . I wasn't into crashing, it was just too exciting for me to handle, although I was a really fine mechanic. I ended up being a pit crew boss for stock car racers for a while. That was mostly my cousin's fascination with it, driving and racing. We grew up together with it. That was right around 1970.

"But overriding it was always mandolins and guitars. There was so much music in southern California, and at that time there was not any way a guy could afford a great sounding mandolin unless he bought an F-model. So I took everything I knew about F-model mandolins and incorporated it into A-models. The inside volume, the way the top was graduated, the neck angle, and all that stuff, the long 15 fret neck. I had seen a long A-model, Tut Taylor's 1923 Lloyd Loar A-5. There were two mandolins made for the Griffith School of Music in Atlanta back in the early 20's. The old man Griffith and his wife ordered two mandolins at the same time, and they were consecutive numbers. One was an F-model for him, the other was an A-model for her, both 1923 Lloyd Loars. Matching stain, matching wood, and everything. Tut Taylor ended up buying those two, and I saw 'em in '66 right after he bought 'em. The A-5 was a great sounding mandolin, except it was built on the old A-model body shape and volume. The box was a little bit too big,

great sounding mandolin, though. But it was an F-hole, long neck. That was the only F-hole, long neck A-model I had ever seen with an elevated fingerboard. It was just like an 'F'."

Bob considers the situation, and sucks the remaining life from his TOP brand cigarette. Lane exchanges a glance with the competitive eye, and Bob Givens again assumes his position at the eight foot mark.

I remembered everything I had seen, and took everything I knew about F-models and made it into an A-model. I had never made an A-model before. It was like 1971 or '72. I had made a hundred F's, and I had never seen a decent A-model . . . not a good sounding one. A good, thuddy, woody A-model. I made one up completely from scratch. The only guy I ever really knew well back in the Southeastern part of the country was Tut, so I sent it back to him and I told him I can make these for such and such, and he said 'Wow! This is really a great mandolin. If you can do it, make me 10.' So I made him 10 and put them all together in a crate and sent them by motor freight. These were 1/10 the price of an F-model with a really good sound. And at that time nobody was making A-models. So Tut says, why don't you come back here and let's make mandolins. He was fixed up in Nashville, had left Milledgeville with Randy Wood." *Bob fingers the next dart, and the tape repeats, . . . YOU WILL BEAT LANE HELGESON! . . . Bob's eye and the bull's eye add up to one. They are seeing eye to eye as he releases the shaft from the steady flesh of his index finger and thumb. BULLSEYE! The point finds the geometric center of the board and sticks tight.*

"There's a sound that I go after which you can't really talk about in words. There's so much involved inside of a mandolin that it can't really be engineered. It has to be more or less trial and error, and you just have to keep doing it until something evolves. You have to start from the sound, and begin making changes. A flat top guitar is entirely different from a carved top mandolin, and a mandolin is different from a violin. A violin is closer to a clarinet or a woodwind instrument where there is some kind of exciting force that makes the instrument make a continuous sound. A bow is continuous, it's just like blowing through a reed, it's being excited all the time, whereas a mandolin is a percussion instrument. It's closer to a piano. Without a piece of paper it's hard to explain why an arch top sounds the way it does, as opposed to a flat top guitar. A flat top guitar is a little bit like miniature construction work. It's more like studs and walls. All you have to do is figure out the right number of studs and their placement in order to hold the wall up, and make sure it lasts for a long time, whereas a mandolin is pretty structurally sound. Even if you leave the tone bars out, a mandolin will last a long time. You have to figure where the tone bars are supposed to go and how thick they're supposed to be. The size and the volume of the f-holes, the placement and the curvature of the top, and the neck angle must be correct so that you get the pressure on the top right. I mean it's a pretty involved thing, whereas a guitar seems like building a really efficient small house. It's a completely different attitude. The mandolin is a much more sophisticated instrument. I have made experimental mandolins over the years. There's

one in the shop now that comes apart real easy and whenever I get a new idea about some kind of sound I can take a razorblade and take the top off and try out a new top and see what happens. I can completely change everything about the instrument just by making a change like that. Tone bar thicknesses, width in the F-holes, this can all make a completely different instrument out of it, whereas I can take a plane to the inside of the top of a guitar and start hacking away wood at random, and sometimes I can hack away a whole handful of shavings and the guitar sounds exactly the same as it did before. The most dramatic way to put what I've done is to take a mandolin and string it up backwards, put the bass strings where the treble strings go and the treble strings where the bass strings go and it sounds absolutely terrible. You can string a guitar up backwards and more times than not have no real noticeable a difference. "

The champion mandolin maker addresses the spectators, 'Another Rainier, Jack!' Bob produces a pouch of TOP and matching papers, then rolls a smoke. A challenging look into the gloom where Lane grins off a little relief, and the match is lit.

(This is the first part of a two part article.)

The Strange and Peculiar Life of a Luthier

part two

R.L. Givens, Master Mandolin Maker, is embroiled in a neck and neck round of darts with Lane Helgeson, World Dart Champion. A $5000 prize goes to the winner, and Bob Givens is at the line with three bulls, three goose eggs. Lane finished with six bulls out of ten shots. Bob's next four shots have to go into the eye of the bull.

Since 1961 Bob Givens has built over 600 high quality mandolins, and about half that many guitars. Beginning his career with repairs, he soon found his work in great demand among professional musicians. Eventually his path crossed with Tut Taylor and Randy Wood, and the three set up shop in Milledgeville, Ga. Through the 1960's Bob continued to improve as a luthier, however he was inclined toward a wild and reckless life of youthful sidetracking, and at times worked the oil refineries of Australia, raced stock cars in California, and smuggled guns into Guatamala. But making mandolins always sat in the bull's eye of his ambitions.

The champion mandolin maker addresses the spectators, 'Another Rainier, Jack!' Bob produces a pouch of TOP and matching papers, then rolls a smoke. A challenging look into the gloom where Lane grins off a little relief, and the match is lit.

In the early 70's Tut Taylor and Randy Wood had moved to Nashville in order to manufacture instruments. A company called GTR was formed by George Gruhn, Randy Wood, and Tut Taylor. In a few years, Tut cashed in on a rare opportunity to incorporate his own instrument making ideas. The IRS assumed control of the Grammer Guitar factory when it was discovered that someone had been pilfering all the withholdings from the employees. The factory came up for sale at an IRS auction. Bidders included Martin, Gibson, Guild, and Tut Taylor. The IRS wanted $9700 from the sale, and Tut started bidding at $9000. Martin and Gibson were head and shoulders with Tut until he raised the question about a lien on all the machinery. The factory had been designed by Dave Sturgil, from Skyline Music, and included some expensive pneumatic bracing clamping machines. "The bidding stopped dead at $10,000, and Tut bought the whole place at $10,050! Just under 10,000 square feet. It was a lease on the property, it wasn't the building, but there were 250 unfinished guitars in there that were either in there for repairs or they were ready to go out. So the factory came up and Tut had the idea of making it into a mandolin factory and selling large quantities of A-model mandolins. That was my big chance! *BULLSEYE!! The dart pegs its mark, dead nuts. A blazing smile melts all the snow off Bob's hairy wreath of mustache. Lane looks concerned.*

"My idea was to produce one mandolin a day, which was roughly between 20 and 30 mandolins a month. When I came out with my A-model George Gruhn took it and an old Gibson Snakehead back to Japan and told a factory there to take the best qualities of both of these and make mandolins, and that became George Gruhn's A-model. Then Randy started making A-models. A-models started going like crazy. We gave one to Mark O'Connor when he showed up in Nashville at the age of 13 and everybody was like WOW! MY GOD!! He was a fine musician. We just gave him an A-model mandolin, the one he was playing was just junk. I worked with Tut at his factory making mandolins and building machines to make mandolins until '76 or '77." Of Bob's craftsmanship, Tut Taylor says "If you could put Bob Givens in one bag, and all the other instrument makers in another bag, you'd have the same thing in both. He's the best craftsman I've ever known."

Again the tape replays its forceful refrain in Bob's head . . . YOU WILL BEAT LANE HELGESON, WORLD DART CHAMPION . . . At this point $5000 is only three bulls away. That's six horns. . . . YOU WILL BEAT LANE HELGESON . . . Bob left Nashville in 1977 with a lot of machinery and a little money, tired of the business end of music, and in need of some peace and quiet. He moved into northern Idaho where some former musician acquaintances had relocated, and has been there since. There is nothing about the outside of Bob's shop that betrays its business, and Bob prefers the privacy of a motel room for his sleeping quarters. Somewhat reclusive, he maintains no business address nor a telephone number. He is hard to find, and likes it that way. "The Nashville work was business; I don't like business. The money and all. Compared to sounds and wood chips, you know, making stuff, it just drives me crazy thinking about business. Pretty soon the majority of your time is thinking about business , and I just don't have time for that. I like to make stuff out of wood, and listen to what it sounds like when I'm done. I'm really not into the social aspect of the art. Haven't been for years. I like the shop smell of shavings and tools. Nothing bothers me more than being real deeply involved, working with my hands, really in touch with what's going on, and all of a sudden having the phone ring. So I just turn the thing off. *BULLSEYE!! Bob scores again. 'Thanks, mom', he says.*

Northern Idaho is rugged, high mountain country where people are few and Engleman spruce is common. "I like to just forget about everything and go take a walk in the woods. When I'm out there in the woods, there's nothing that can match it. I can go out there for maybe three or four hours and never see anybody and not hear a sound. There's no cars, there's no smells, there's no nothing, there's just . . . "

Having a national forest full of Engleman spruce in his back yard allows Bob to hand pick the wood for his mandolin and guitar tops. "It takes one whole summer to find ten trees. I find them first by research in the library

using topo maps. I have learned exactly where the right kind of tree sits. Here it's about 4200 to 4700 feet. It has to be a north slope so it doesn't have a southern exposure. It has to be fairly flat, and well protected by other trees. They can't be standing alone where there's ever been lightning struck, any time say 20 years ago or 50 years ago. Lightening strikes right where the instrument would be coming out. The cambium layer is the wettest part of the tree, and it carries the electricity to the ground and damages some of the rings. It will make dark lines or pitch pockets, for maybe two or three years down the line. And high winds will make a tree twisted. It has to be boggy ground, and it has to have lots of moisture. But yet it has to have quick freezes when the fall hits, and stay frozen all winter, and then have a specific time of the year each year that it thaws out, and starts growing again for a short period of time, with long winters. The growth period during the summer has to be the same every summer in order to get those nice even rings all the way around. So the north slope always ends up being the best.

"Whenever I find a standing dead spruce I take it home with a $10 firewood permit. The tree might be 4 feet in diameter and 150 feet tall. I take a core sample to see if there's anything weird like a lightening strike or any black lines. And then if it's at all doubtful about whether it's twisted or not, I'll take some bark off. I can usually tell in an 18 inch to 2 foot length if the grain has got any sideways to it. Engleman spruce likes to grow twisted a lot, and the majority are twisted. We split it with wedges to get a perfectly straight run on the grain. The old Gibsons were sawn. Then it's planed flat and sawn out. If you just make it out of lumber, then the first saw cut is the most important one, and if it's not perfectly straight with the grain on the first one, then every piece is off from then on. We'll split it right where we find it because it's too big to get out if you don't. Five years on a standing live tree to an instrument. The spruce I'm using now is from my last ten trees that I got five years ago. Seven of the ten trees I got ended up not being instrument quality wood, and I sold it. Ended up being anything . . . barn siding, rowing oars, boast mast, etc. They'd have black lines, or the grain would be too coarse, or it would be a little bit twisted or something.

"By the turn of the century good spruce will be real rare. I've seen every ridge and valley that I consider right for spruce, from a little ways north of here, I'd say fifty miles from the Canadian border, through Montana, Idaho, and Washington. The main problem around here is that all the great spruce trees were taken out during the first world war because the Federal government had a spruce bounty. They thought they were gonna build the biggest airplanes in the world."

Industrial hazards in a mandolin shop are a plenty, and sawing wood is always a dangerous leap into the unknown. Lost objects have a way of reappearing inside, say, a slab of maple from Pennsylvania, where a retired gun dealer now supplies the curly wood. Bob's band saw has hit barbed wire and nails, long ago enveloped by the tree. Civil war musket balls and shards of cannon shrapnel can come to sparking light at the saw blade, as well as remnants of

a maple syrup industry. Not long ago Bob was cutting through some sugar maple and his band saw bit the dust on a spigot that had been left in the tree. The quality of maple Bob gets is mostly good. Some is really great. When it is unsuitable, he makes pool cues or jewelry boxes from it. Fine Christmas ideas may be found at R.L.Givens, Maker of Mandolins.

'There's a tear in my beer...', Bob sings along with the juke box. He walks slowly to a nearby table and snubs his cigarette butt. A slug of Rainier, an exchange of smiles with friendly faces peering through the smokey din, and Bob resumes his stance at the eight foot mark....YOU WILL BEAT LANE HELGESON...

Bob Givens has probably made the most mandolins in the world. His ability to mechanize repetitive processes, and to design and build his tools has enabled him to hire Steve Weill as an assistant, and to spend more of his time in the final stages of carving and tuning the tops. His prototype mandolin is an unfinished A-model, which comes completely apart with a hot knife. This mandolin is the end result of much research, development, trial, and error. It exemplifies the sound that Bob strives to achieve from each new instrument, but this one can quickly dismantle to accommodate an experimental top, back, side, or brace. The proto has a 1.0 x 1.50 inch grid penciled upon both the top and the back, and a decimal number indicating thickness to a thousandth of an inch is marked at every crosshair in the grid. This maps the changing thickness over the curvature of the top, or back, and sets the standard to which his carving machine will shape an 11/16th slab of maple or spruce. "This wing ding here. This is my $78 copy of a $2500 carving machine". When the master top and a new slab of maple are placed in the machine, and after all adjustments have been made, the new set will come out 0.040" thicker than the top on the prototype at all points in the grid. "Before the top is sanded out I adjust for thickness while it's still in the carving machine. But I can't get the top graduated right as far as tap tones go until it's glued on to the sides of the mandolin, and that drastically effects the sound. The neck doesn't have to be on there, but it has to be glued to the sides, and all the inblocks have to be in. It took a while to adjust to the fact that the 'f' holes weren't in there yet, too." He works it with his hand from there. Bob has made dozens of hand tools for carving the final touches into a new top, but the one he consistently reaches for is a small, simple maple block with a slight radius to its foot, and a receptacle for the blade. It's laminated, so when the sole plate wears down he can repair it. It is a very simple tool, but like his electric automatic carving machine, it is exactly the right tool for the job.

Bob's construction practices remained mostly unchanged from 1966 to 1984, and then he completely revised the entire building method. Now, the fingerboard and the fingerboard support go on after the finish is on the mandolin.

That enables him to polish out the underside of the fingerboard extension to a fine finish, an area usually neglected by mandolin builders. The 'f' holes are not even cut until the finish is on. "I don't cut the 'f' holes until after it's rubbed out. Then I put a razor sharp 3/16 inch router bit in this machine and cut the 'f' holes right through...I've destroyed only two mandolins. That is the most frightening part of the whole operation! The main reason I wait until this time to cut the 'f' holes is because of the difficulty of getting an even color stain around the holes. When you stain it with the 'f' holes already there, the 'f' hole ends up looking like a cigarette burn through a blanket. It always looks darker around the edges of the 'f' hole because the end of the grain absorbs differently. In the finish sanding process the 'f' hole always ends up being curved in, so it looks like a drain in the bottom of a sink. That method produces bad results because the 'f' hole is always rounded over from the sanding, whereas if you just sand the whole top out and do all the finishwork, and then you cut the hole, you can stain the inside of the holes with a really fine brush and brush lacquer on the underside of the holes, and get a lot cleaner look." *Bob squares off with the bull, eight feet apart, and an eternity passes before his forearm finally springs forward, catapulting the projectile upon its true trajectory, right into the eye of the bull. A loud round of applause rings forth. Score: six bulls, three goose eggs.*

The finish work on a Givens product is a beautiful thing, complete in all the dark recesses and corners, and it flatters the woody character from the grain spacing in the spruce to the flamed figuring in the maple. The rich coloring found in the finish is produced from an ordinary mixture of analine dyed powder mixed with methanol, and is hand rubbed into the bare wood. Adjoining his shop is a spraying room where Bob applies a nitrocellulose lacquer at a high temperature. Hot water in a tank is heated to 180 degrees F, and is pumped through a recirculator where a heat exchanger transfers the warmth to air, and then to the lacquer. The pressurized lacquer exits at 175 degrees, and is sprayed directly onto the wood. Bob designed and maintains the system so that an engineer does not have to be on call 24 hours a day. Of the lacquer, Bob prefers the best available, which he purchases in 50 gallon drums. Half of it will go bad before he can use it. Inferior lacquer, he says, is too brittle and cracks too easy. An unforgiving eye for quality control pays off where appearance counts for a lot in such a visible tool of a musician's trade as a mandolin.

Bob has a way of making the position dots on the fingerboard look like jeweled snowflakes. He drills a hole in the middle of a pearl dot, and then engraves the inside of the donut hole to the shape of an eight pointed star. The outside of the dot is then engraved in the same pattern as the star. He inlays a small piece of abalone in the cutout center of the pearl star. This process adds only an extra hour to the total production time, yet Bob has devised a technique that saves twice that amount of time.

For the nut, Bob prefers micarta over bone. Bone can break out too easily between the pairs of strings. He will not use ivory because of its unpopularity, but finds micarta to be very suitable, as well as synthetic. But the saddle and bridge he makes from good old ebony wood.

"The oddest tool I have made is the bridge fitting machine". A newly carved top is secured with clamps into position on the machine. A hunk of ebony is clamped into position where a router bit waits for instructions from a bionic assembly of mechanical arms and elbows which attach to a tracing finger at the other end where the top has been clamped. Bob turns on the router and carefully traces over the top with the finger, following the curvature from the middle of the bass 'f' hole, over to the middle of the treble 'f' hole. As he does this, the router bit eats away ebony in the exact shape of the top's surface. The bridge is perfectly fitted for the top. This takes about twenty minutes. By hand Bob would spend an hour. "This puts them right on."

There is the latent mind of a physicist and the practical approach of an engineer in Bob's work with the mandolin over the last twenty years. He has studied the physics of the sound chamber, he has analyzed the tone with oscilloscopes, and he has completely redrawn by hand the shape of his prototype F-model on three occasions. "I looked at the parts with an oscilloscope in the late 60's. Like powder spread over the top of a violin, and bowed, like smoke trails in a wind tunnel. You can see what's happening." What makes an A-model different from an F-model? Some might think there is a lever action upon the top caused by the extension of the scroll. Once Bob took the scroll off of an F-model which had been otherwise damaged, and affixed the scroll and the point, inblocks included, to a new A-model by gluing the piece in place.

"The 'A' didn't sound exactly like an 'F', but sounded more like an 'F' than any of the other 'A's. And all I did was glue the wood on. More mass to resonate. The interior volume and the carving is exactly the same. I'm amazed at how much difference there is in the sound!"

The Givens mandolin was originally patterned after the Lloyd Loar F-5, but now his is a distant evolution of those first ones. "In a way a Lloyd Loar looks a little bit crude to me in some areas", he says. The shape of the scroll, some of the curves, and other dimensions are different, yet the overall design remains true to the old F-5's.

Now the Spirit Lake Tavern is all eyes, but only the bull's sees what's coming. Can Bob Givens, Master Mandolin Mechanic, defeat the world dart champion, LANE HELGESON? Bob's mother told him that concentration is the key to success, just gain control of your mind and your body, and anything's possible....YOU WILL BEAT LANE HELGESON, WORLD DART CHAMPION...And then he remembers something; the automatic carving machine

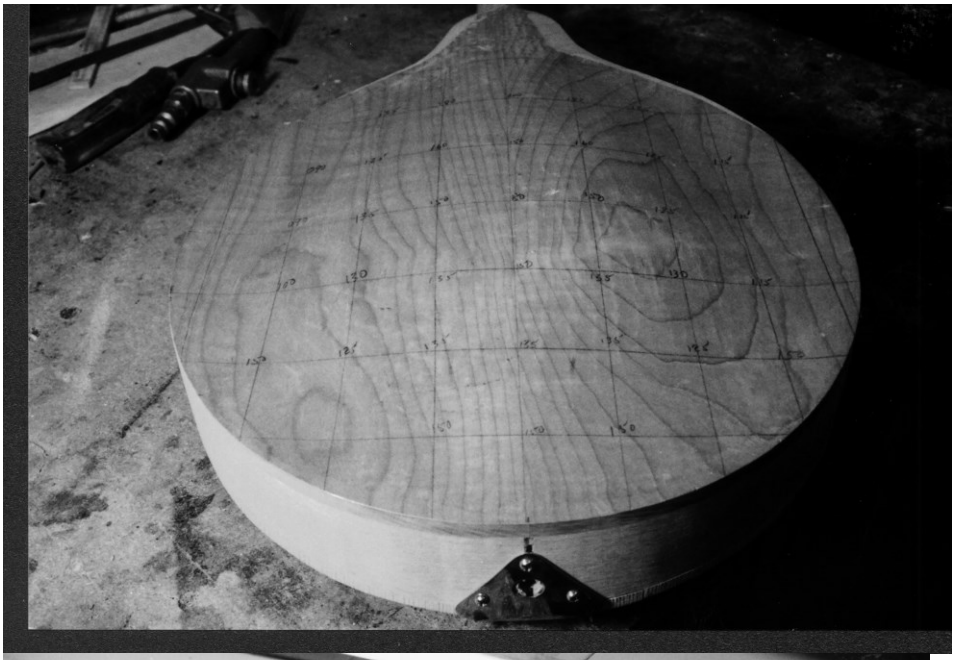
sometimes doesn't turn itself off after the last top blank has gone through! Oh, shit, he thinks...this next dart will win or lose the tournament!

Bob, the engineer, has not lost touch with marketing, especially where the neck is a concern. At one time the A-model necks were much wider than the very narrow F-model necks. "When I was in Nashville, most of the guys that were playing mandolin were also violin players, like Sam Bush or Charlie Collins. The change from the 7/8" wide or the 3/4" wide violin neck to the superwide mandolin neck was too much, so I made the necks real skinny. But now it's different. There are people buying mandolins who haven't played the violin. Guitar players want to do something else. So when I got down to that super narrow mandolin neck, they couldn't handle it, and then I had to widen them up again." Today his F-model measures 1.18 inches across the nut, and 1.50 inches across the 12th fret. In thickness, the neck is 0.78 inches at the nut, and 0.85 inches at the 12th fret. The attachment of the neck to the body is crucial in transmitting all of the sound to the top. "From about 1923 to 1925, every month there was an article by Lloyd Loar explaining some facet of the physics of the L-5 guitars and F-5 mandolins. One that stuck out in my mind was about the importance of the neck, as far as transmitting sound through the body of a mandolin." John Monteleone experimented with arching the fingerboard in the early 1980's, but before Bob instituted this change in his product, he made sure the change was an improvement. He was convinced, and since 1986, all Givens mandolins are arched. The sum total is a very fast and playable neck.

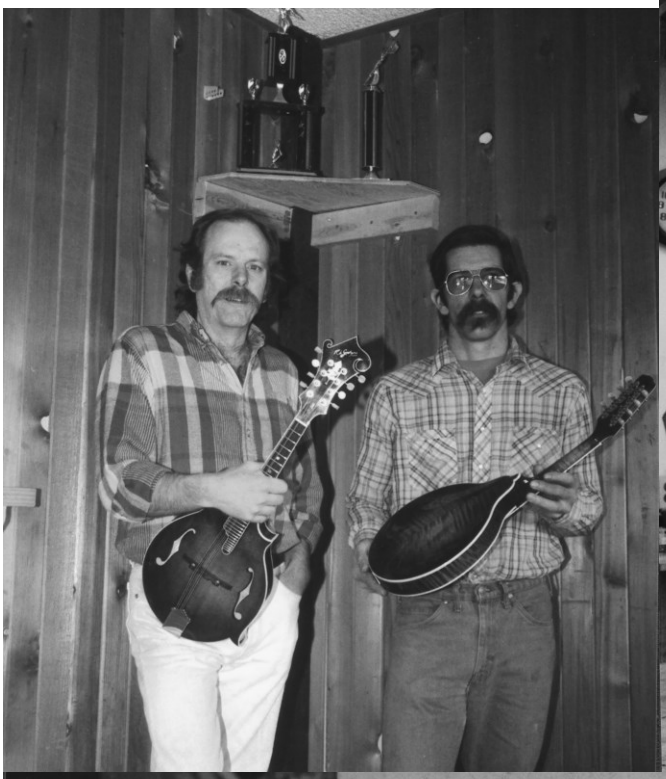
His plans for the future hold a lot of work for Bob, the Industrial Engineer. To keep pace with market demand, as well as keeping down costs, the production process has to evolve. "There are 147 separate parts in an A-model mandolin. I counted them. That's not counting the gears. And not one of those parts can go on until the previous part is done in the right order. And if there's one single part missing you don't have a mandolin." Immediate plans are to hire a mechanical engineer in order to draft technical details of the many machines and jigs that Bob has designed and built. When a replacement part is needed, or a duplicate desired, a mechanical job shop can do the work exactly by the drawing. In his files are an enormous backlog of notes and rough drawings for better tools, and methods of assembling mandolins. He would like to mechanize the drilling of the gear shaft holes, and his automatic carving machine could be modified to self load up to 40 pieces of wood and run overnight. Bob purchases his tail pieces, but sees great room for improvement there. "I would like to make tail pieces like the original ones were made; different metal, slide it on and it stays on. I can fix these imported tail pieces so they work that way. I figured out how Gibson made them to stay on. It would be basically the same as a Gibson tail piece, but prettier, daintier, maybe engrave my name on 'em."

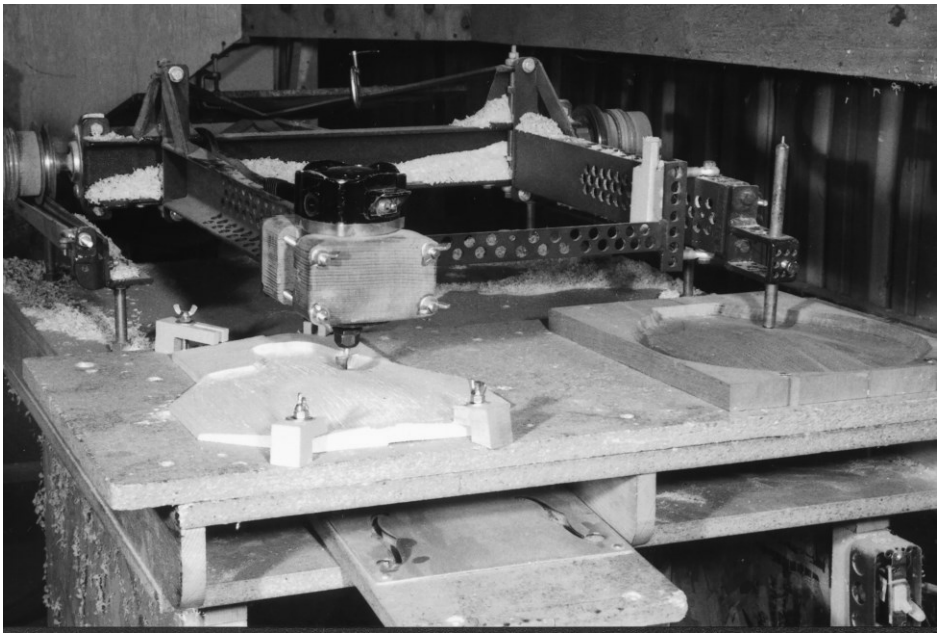
"I want to get production up as high as it can be, while maintaining consistent quality. That probably wouldn't be a much bigger production than I'm doing right now. Maybe a max of 12 a week. That would be it. Two 'F's, six 'A's... I'd like to have a really efficient, small mandolin factory that makes absolutely perfect mandos every time. The mandolin is something to be obsessed about! I mean it's even taken precedence over my family...that's getting pretty obsessed! Six hundred since 1966. For twenty years it has been mandolin."

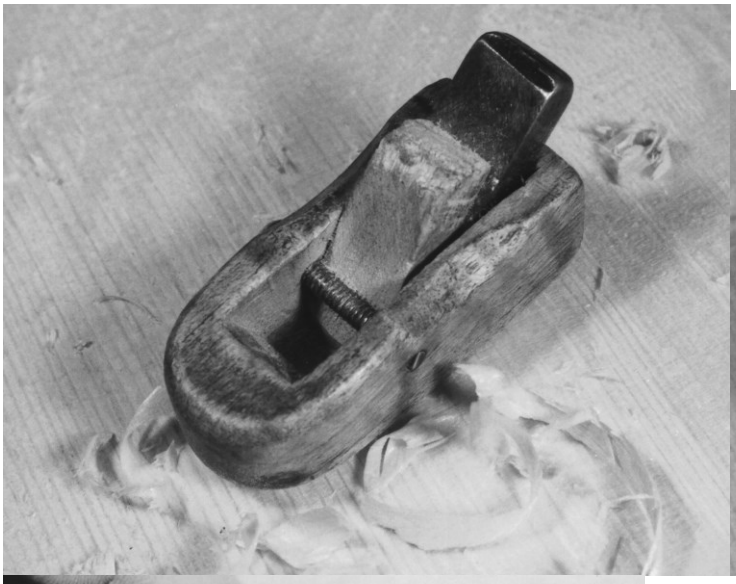
Poised at the line of scrimmage, Bob gathers his concentration to the sticking point, and squares off with the eye of the bull. In his mind he goes through the motions that will win the tournament, rehearsing the body mechanics and never losing sight of the goal as his hand makes its arc from his nose to the board. Now he is in motion and one thought propels the sticking point: ....YOU WILL BEAT LANE HELGESON, WORLD DART CHAMPION...his fingers release the shaft with the lightness of a turtle-back flat pick on an E-string, the featherweight flight trails its $5000 payload without a wobble, the point knows the way from here. BULLSEYE!!

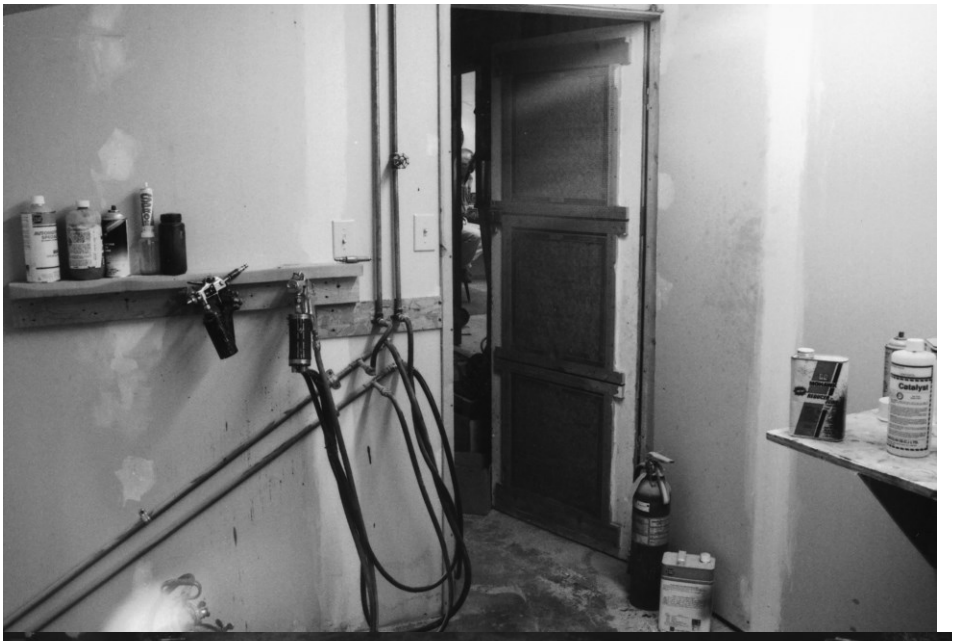


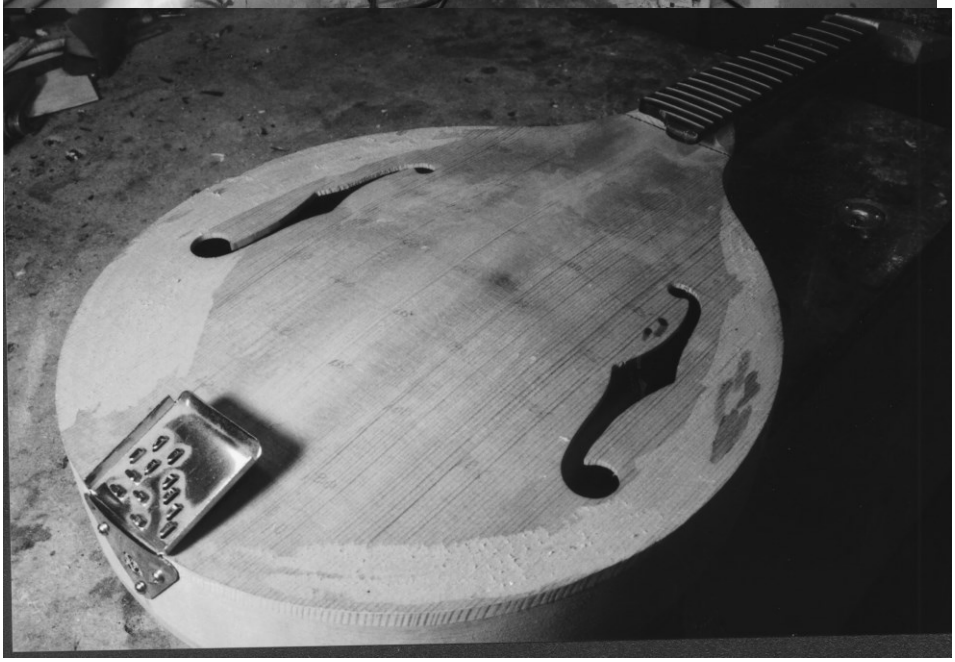

R.L. GIVENS CO.
GUITARS
MANDOLINS








Catalyst




GUITARS
MANDOLINS