

As much as we would like everything to be planned, life has a way of taking surprising turns.

How we deal with those turns defines our existence. Some simply roll with the punches. Others stumble and bemoan the fact. Still others—like Liberty Archery's Howard Winther—ride the roller coaster with a wry smile, embracing the uncertainty with a resiliency and inventiveness that is simply amazing.

How does one go from high-school wrestler to ski-resort developer to electrical engineer to waterbed magnate to computer guru and finally to radical bow designer in a single lifetime? The answer lies with Howard Winther.

"It was a good thing I could wrestle, because otherwise I probably wouldn't have made it into college," says Winther. "My high school grades and SAT scores were pretty low, but the University

of Minnesota awarded me a wrestling scholarship anyway. I wrestled, and they tried to turn me into an electrical engineer.

"After nearly four years, I'd had enough, and I dropped out just short of graduation to partner with some acquaintances to develop a new ski resort near Red Wing, Minnesota. It seemed like a great opportunity."

Even at an early age, Howard was marching to his own drum.

"We cleared the land, built the facilities, put in all the T-bars and rope tows and waited for it to snow. It never did. That first winter was one of the warmest on record."

The following fall, Howard re-enrolled in college, figuring that if he finished his engineering degree, he could move to where he wanted. A year later, with a degree in hand and big ideas in his head, he moved west, all the way to California. The main influence for that move was the Beach Boys.

Howard Winther of Liberty Archery Resilient and Inventive

**By
Bill and
Sherry Krenz**



TOP: Nancy Winther, wife of Liberty Archery founder Howard Winther, keeps the books and invoicing shipshape at Liberty Archery.

BOTTOM: Howard Winther produced the very first prototype risers for his revolutionary Liberty I bow on a \$500 hand mill set up in the living room of his condo.



"That was the late 1960s," remembers Howard. "The Beach Boys were hot, and one particular line in one of their songs had caught my attention: 'two girls for every boy.' California seemed like the place to be, so I packed up and moved."

Howard landed a job in the Bay Area with Sylvania, working in their cutting-edge electro-optics division. "It was exciting work, challenging, and we were always pushed to develop new things. Among other projects, I developed the very first low-light camera for Sylvania."

But Howard quickly tired of the corporate culture.

"In 1970, I left Sylvania, rented a small house on the main drag in the community where I lived and opened, of all things, a waterbed store in that house. Waterbeds were new and novel at the time, and I wanted to get in on the ground floor.

"Unfortunately, the concept of a single waterbed store didn't work that well. Sales were slow until I hit on a new idea. What I needed, I figured, was to reach a bigger market. I needed to somehow go nationwide.

"I called the manufacturer where I was buying the waterbeds one at a time and told them that I wanted a price for 3,000 waterbeds. That was an outlandish amount, but I had a plan. I got the price, and it was wonderfully low. Then I got on the phone.

"My plan was to sell the waterbeds to other waterbed stores all across the country. The problem was finding those stores. Waterbeds were so new that most stores hadn't yet taken out Yellow Pages ads.

"I very quickly learned that I couldn't just call operator assistance in a distant town and ask for waterbed stores. They required a specific store name in order to look up a phone number. So I developed a system in which I asked them to look up the number for The Waterbed Store. By using that name, I essentially told the operator what I was looking for, and with a bit of conversation and sweet talk, I was usually able to get them to tell me the name and number of actual waterbed stores in the area. In no time, I had identified nearly 200 waterbed stores all across the country, and, lo and behold, I sold 3,300 waterbeds in just the first month. Quite suddenly, I became the largest waterbed distributor in the world."

The manufacturer where Howard was getting all those waterbeds was located in Reno, Nevada, and they were intrigued by Howard's success.

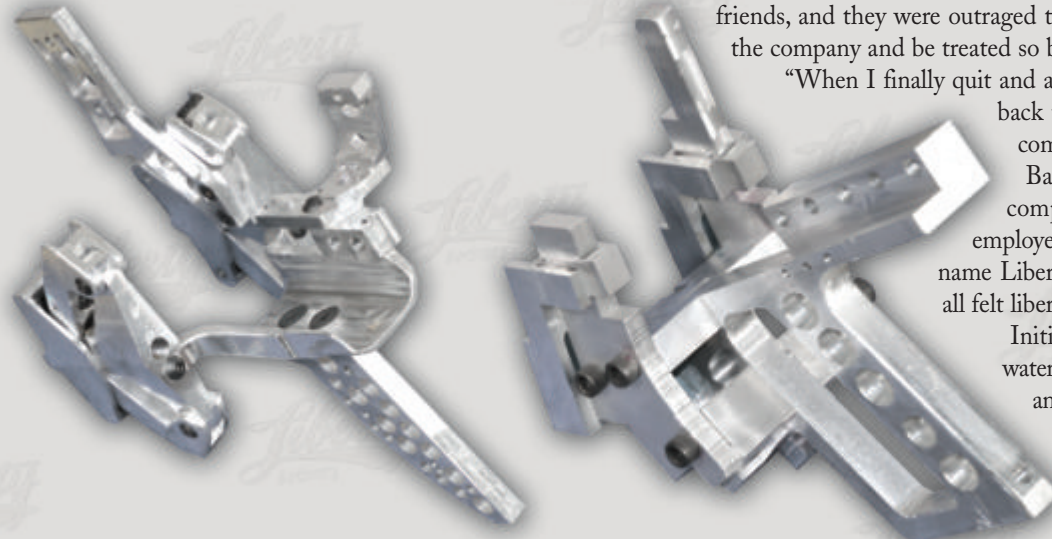
"The owner called me up and asked me to join forces with him. He'd never seen anything like it. He offered me a job and a share in his company if I'd move to Reno and handle sales. I was terribly naïve and accepted his offer.

"The arrangement didn't last a year. After I'd instituted my techniques at the company and turned over all of my accounts, the owner basically reneged on his promises, and I was left high and dry. But what the owner hadn't counted on was that the biggest share of his employees had become my friends, and they were outraged that I could bring such success to the company and be treated so badly.

"When I finally quit and announced my intentions to move back to California, 12 people from the company decided to move with me.

Back in California, I set up a new company with those readymade employees and called it Liberty Vinyl. The name Liberty came from the notion that we all felt liberated from the Reno operation."

Initially, Liberty Vinyl produced waterbeds and swimming-pool covers and liners. But inevitably, the company stopped production of swimming-pool covers and liners in order to specialize in waterbeds—all sorts of waterbeds.



Liberty Archery's Tony Liu readies a Fadal CNC machine in the company's Santa Clara, California, facility for another run of limb pockets for the Liberty I bow.

"At that time, personal computers were rapidly becoming the hottest ticket in town," says Howard. "If you could create something distinctive in that field, you could do very well with a surprisingly small operation, even running that operation out of your home. Personal computers were small, and the components were even smaller.

"I first got involved in installing disk drives in computers. Disk drives allowed people to save the work they'd done on one personal computer and then take that work to another personal computer. Today, that seems

elementary. But in 1985, it was revolutionary. My work installing disk drives quickly turned into work designing better disk drives. I formed a new company called Liberty Systems, and my new portable disk drives became some of the smallest disk drives available in the entire computer industry. For a short time, I did amazingly well. But nothing stands still in the electronics industry. Eventually, my drives were eclipsed by even more sophisticated portable storage devices, and most of what I had invested in my company and similar technologies evaporated. As quick as it came, it was mostly gone."

"We grew and grew. We became a million-dollar company and then a many-million-dollar company. By the middle 1980s, Liberty Vinyl was housed in a 138,000 square-foot facility and had over 500 employees."

Then disaster struck.

"We made a huge tactical error. We tried to move our manufacturing operation to Taiwan and almost overnight were swallowed up by Chinese politics and big business. I lost everything."

Licking his wounds, Howard resolved to never get that vulnerable again.

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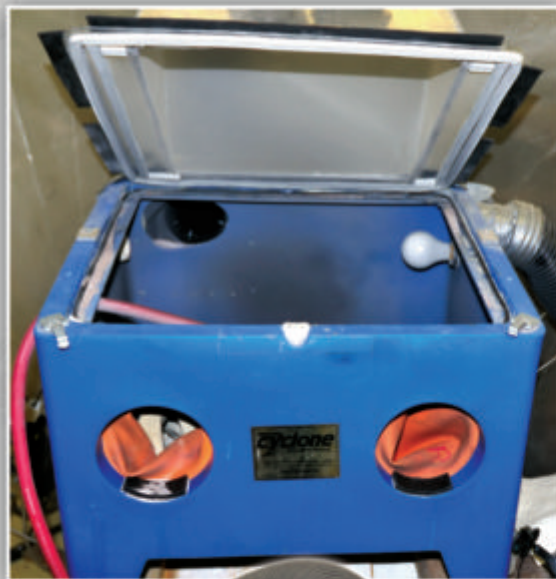
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It takes a surprising number of specialized machines dedicated to specific operations to produce and finish quality parts for any compound bow. These are just a few of the unique machines used to produce parts for the Liberty I.



Never one to be beaten down, Howard Winther decided to move in an entirely new direction. "I had to come up with something new. I wanted to work primarily on my own and preferably out of my own home. It had to be something I knew about and something I liked.

"As a kid back in Minnesota, I had been enthralled with archery. I used to shoot all summer long. When I'd moved to California, I had gotten involved in target archery and had even shot the Vegas Shoot a number of times."

"One day, as I was thinking about new plans, I remembered an old target bow that I had up in the attic of my condo. It was a green Martin compound bow. I brought it down, dusted it off and just looked at it, recalling all the shooting I'd done with it. The only complaint I'd had with that bow, and all other compound bows for that matter, was that they had all seemed large, cumbersome and heavy.

"It was like a light going off. I'd build a smaller bow!

"From my earlier electronics training and my later portable disk-drive work, I knew that I was good at building things smaller, lighter and handier. I knew I could do it. I started immediately on what would eventually become the Liberty I bow." That was in May of 1999.

Having an idea for a new bow and actually building that new bow are two different things. But Howard Winther knew that. He'd done it before with vinyl and tiny electronics.

"Good ideas come just like that," Howard explains. "Very quickly after I decided to build a shorter, lighter compound bow, I realized that the best path lay in eliminating the riser as much as possible and shooting right through the limbs.

"To explore that further, I ordered a Bear Buckmaster bow, a popular compound with split limbs. I also ordered a \$500 hand mill, a machine with which I planned to make prototype parts. Both arrived on nearly the same day, and I quickly set the 45-pound hand mill up in the living room of my condo.

"Using cut-down parts from that Buckmaster bow and other parts I machined on my new hand mill, I made the first Liberty I prototype. That first prototype was odd in that it featured split limbs only on the top of the bow. The good part was that it measured just 18.5 inches from axle to axle and was half the weight of most compound bows. The bad news was that the draw length came out to be only 22 inches."

Back to the drawing board.

"I realized that I'd have to re-design and make the bow's cams. To do that, I'd need a better, computer-controlled mill. I ordered the smallest CNC machine I could find. It weighed about 80 pounds, and in short order, I had it installed next to my original machine in my living room.

"At the same time, I was talking to various people in the archery industry about bow designs. One of the most helpful proved to be Dave Barnsdale of

Barnsdale Archery. Dave listened to my ideas for a short bow and the innovative cams it would require. He even gave me the eventual idea for the side-by-side, three-dimensional cams for the bow."

In August of 2000, Howard Winther applied for a patent to cover his unique shoot-through-the-limbs bow design.

"I had been involved in patents before so I was able to do my own patent research and drawing," says Howard. "I then engaged a lawyer to finish up the application. Because I did so much of my own work on that patent, my total bill was only about \$8,000. Usually, patent-application processes are a good bit more expensive."

Eighteen months later, Howard's patent was officially granted. There was still a lot of work to do.

"I kept developing prototypes, improving the bow as I went."

While Howard's first prototype had measured just a bit more than 18 inches from axle to axle, that length created problems.

"It was just too short," Howard admits. "In fact, it was so short that a peep sight couldn't be used. I remedied that by lengthening the bow just slightly to 20.5 inches. That proved perfect and easily accommodated the special peep sight I built for the bow. At the same time, I angled the bow's grip to 29 degrees to eliminate any wrist contact with the cable system and to make the bow more comfortable to shoot. Eventually, I worked up an entire Liberty I package that included the bow, peep sight, D-loop, total-containment arrow rest and hunting sight."

In 2002, Howard was finally ready to show his nearly finished product to a few local archery shops.

"I was crushed when the shop owners all told me that maybe my bow would appeal to a few women or kids, mainly because the bow was just too slow. They were fascinated, as was anyone who saw the bow, by the bow's compact size and weight, but openly disappointed by its speed.

"Figuring that could be fixed, I borrowed a fast BowTech bow from one of the shops, took it apart, studied its cams and researched the patents that covered those cams along with other patents for especially fast eccentric systems. Eventually, I figured out how to redesign my cams to make the Liberty I much faster. This time, when I showed the shop owners and let them shoot the bow, their reaction was, 'Wow! That's now faster than many of the bows we commonly sell.'

"After nearly three years in development, I finally seemed to be there. The next step was production."

To ramp up for production, Howard needed even more equipment.

"My living room was getting pretty crowded, but I ordered yet another, bigger CNC machine. This one came in two pieces, each one weighing about 350 pounds. I coerced a few of my weight-lifting buddies to help me get the boxes into the room, then hooked a winch to a beam in the ceiling and set the whole thing up myself. At first it vibrated too much and made too much noise.

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So I took the motor off and sent it to a motor-balancing place. I also designed a dampening base, sound proofed the room with extra insulation and rebuilt the control box. Finally, I had it up and running smoothly, and I was able to begin making production parts.

"I made all the machined parts, Barnsdale Archery manufactured the limbs, the riser was produced by a casting firm in St. Louis and the unique cushioning grip was molded in Los Angeles. I brought everything together and assembled it myself right in my home."

In the beginning, Liberty Archery was very much a home-based business.

"I was machining cams, limb pockets and other miscellaneous parts on a 750-pound mill on the second floor of my condo, assembling, shipping and invoicing bows out of my living room.



The Liberty I compound bow is many things. It is the world's smallest and lightest compound bow. But it is also one of today's fastest and most powerful bows, capable of exceptional accuracy and superb big-game performance, as evidenced by these successes from the tough game fields of Africa.

In between, I answered all phone calls. It was the most fun I'd had in a long time."

Today, Liberty Archery has outgrown the condo and at least the heavy manufacturing has moved into a nearby shop.

"I've purposely kept the operation small," says Howard, now 65 years old. "We have a few key employees, but for the most part, my wife and I run the business. I still machine many of the parts and personally assemble the bows. It's a labor of love."

Bow sales are brisk.

"We're very busy," says Howard. "All sorts of people buy a Liberty I bow, but there are two specific groups that I find most interesting. Both are open-minded. The first seems to be the mechanically inclined and may be an engineer or technical person. They look at the Liberty I and say, 'Yes, that's right. I want one of those.' The second seems to be the serious bowhunter who

instantly recognizes the advantages of a bow that weights just 2.3 pounds, measures a fraction over 20 inches and yet shoots as fast and as accurately as any hunting bow out there. Those two groups have really embraced the Liberty I concept."

Still, because the Liberty I is such a radical departure from the norm, Howard recognizes that plenty of convincing must take place to get some dealers and consumers to even try one of his bows.

"What I've learned is that the archery community is full of preconceived notions and dusty old wives' tales. For example, many still believe that an ultra-short bow can't be fast or accurate. It just can't be because...well, just because. Yet 20 years ago, the average hunting compound bow measured approximately 45 inches in length. Today, that average length has

evolved to just 30 to 34 inches. The direction is clear. The Liberty I is simply ahead of its time."

To overcome those old wives' tales, Howard has turned creative in his presentation and marketing of the Liberty I bows. He sells the vast majority of his bows, 72 percent, through local archery dealers. A few, when no dealer is present, are sold to individuals. He's also developed three innovative sales programs.

The first is his Sales Rep Program. Liberty Archery Sales Reps are ordinary consumers who have purchased a Liberty I bow and have offered to be available to show their personal Liberty bow to another interested consumer in their area. This program was just started last September. The sales rep's name, city and phone number are listed on Liberty Archery's website. Should an interested consumer want to see a Liberty I bow and talk to a current Liberty I owner, they can contact a local sales rep. Should that face-to-face contact result in a confirmed Liberty I bow sale, the sales rep receives \$50 from Liberty Archery.

The second program is Liberty Archery's Free Trial Program. Any direct consumer purchaser can buy a Liberty I bow, try it for 35 days and then return it for a full refund (less shipping) if not satisfied. Since the program's inception, 92.8 percent of purchasers have kept the bows and raved about the trial program.

The third program, still under development, is the Associate Dealer Program.

"I fully understand," says Howard, "the financial risk that a dealer assumes when taking on inventory. Under this new program, qualified dealers would stock only a sample bow, hang a Liberty I banner and special order bows when a sale is made. The ordered bows would be promptly shipped to the dealer for distribution to the consumer. The dealer would have little financial risk."

Some people drift through life, being blown by the wind. Others build sailboats and chart their own course. Howard Winther is one of the latter. In a full business life, he's risked it all numerous times, found things he enjoyed and prospered. Today, he builds the world's smallest, lightest compound bow and is content.

"I love going to the mail box and finding returned warranty cards from new bow sales," says Howard. "The comments written on those cards are like rewards: 'This is the lightest, most comfortable, flattest-shooting bow I've ever shot. Everyone who sees my Liberty bow wants one. The customer service was wonderful. I called Liberty Archery in California on Tuesday and had my new bow in Alabama on Thursday. Mr. Winther was very helpful.

This bow is perfect for serious bowhunting. You are way ahead of your competition. Love this little bow!"

"Maybe when you get older, those things mean more to you than money. I suppose that's a strange thing to say for a businessman, but it's true."

For more information on Liberty I bows and Liberty Archery, Circle #110, log onto libertyarchery.com or call Howard Winther at (408) 983-1127.



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