



A PHANTOM ORCHESTRA AT YOUR FINGERTIPS

THEY STOLE THE MELLOTRON FROM HIM, SO THIS TIME THE INVENTOR NAMED HIS VANGUARD INSTRUMENT AFTER HIMSELF: THE CHAMBERLIN

by Len Epan

Virtually everyone has heard an instrument called the Chamberlin, but very few people have heard of it. This machine, named after its inventor, Harry Chamberlin, puts at the fingertips of a single keyboardist the *true* (not synthesized) sounds of dozens of instruments: guitars (single note or rhythm, pedal steel, Hawaiian and bass), banjo, mandolin, woodwinds, strings (play a chord and you have a string section of violins and/or cellos), brass, vibraphone, pipe organ, harpsichord, accordion, not to mention percussion, male and female voices and an array of sound effects from storms to trains.

Many of the most important pop artists record and perform with the Chamberlin and it turns up with increasing regularity on soundtracks and commercial jingles. But the ghost orchestra in the Chamberlin has raised up a terrifying specter for the industry: the technological unemployment of musicians.

"Rules are made in response to problems," said Dick Moore, a spokesman for the American Federation of Musicians, which has banned the device. "Our problem is job loss due to automation in canned music. We recognize the use of

tape instruments as long as they are not utilized in order to displace another musician." Moore added that such use in any recording studio might constitute a contract violation—grounds for shutting down the studio. Consequently, the Chamberlin goes uncredited on most albums. It's almost underground. "I don't want any union goons coming after me," one half-joking but duly anonymous Chamberlin owner told me.

But a partial listing is possible. Leon Russell has had the machine for several years. He bought the Chamberlin after failing in numerous attempts to make his own device. Others include Edgar Winter (*Jasmine Nightdreams*), Three Dog Night, Crow, Iron Butterfly, Ambrosia, Elton John ("Lucy In the Sky With Diamonds"), Joe South, the Lettermen, Chip Taylor, and Sonny & Cher. And then, of course, there's the Moody Blues' Mike Pinder.

Pinder started playing a customized Mellotron—an instrument also invented by Harry Chamberlin, and then stolen from him—and was furious when he discovered that he could have bought a far superior Chamberlin for hundreds of dollars less; he corrected things by buying two.

"Do you know that you're the first one that I've let write my story? And I've been asked by a lot of 'em," says Harry Chamberlin, the semi-retired, 74-year-old father of the Chamberlin and other musical off-offspring (such as the remote rhythm unit) as he leans his short, slightly overweight frame back into the desk chair and glances around the sparsely furnished office of his modest shop.

Located in an industrial park of cinder-block buildings in Upland, California, a small suburb 50 miles east of Los Angeles, this is the only place where one can buy a Chamberlin.

Chamberlin neither advertises nor mass markets his product (distributors proved too much trouble), selling four or five units a month through word-of-mouth. Now, having refined the operation and farmed out most of the instrument's component construction, the assembly team of Harry Chamberlin, his son Richard, and their wives is, in Harry's words, "ready to have it happen now."

Born in Iowa, Chamberlin worked his way around the Midwest, putting in time at an electronics factory in Milwaukee, selling and installing heating and refrigeration equipment in Illinois, and insulating buildings in Lacrosse, Wisconsin.

Along the way, he says he bought a couple of saxophones and a clarinet and formed his own 8-piece dance band, had a nervous breakdown at 25 ("I was burning the candle at both ends"), won races in his self-designed motorboat (probably the first hydroplane), contrived (but didn't patent) the car windshield washer, and

finally patented and sold the rights to a rock wool machine which enabled one man to insulate a building. During World War II he helped design the electrical system of the B-29 at Boeing's Wichita, Kansas, facility.

In 1949, back in Lacrosse, Harry bought an instrument he'd always wanted—an organ. One day he decided to send a recording to his parents, who had moved to California. "So I bought myself a tape recorder and set it on the bench next to me. And I was putting one finger down like this"—he lays a digit on the desk, an imaginary keyboard—"and I said, 'For heaven's sake. If I can put my finger down and get a Hammond organ note, why can't I pick a guitar note or trombone note and get that under the keys somehow and be able to play any instrument? As long as I know how to play the keyboard, I could play any instrument!'"

So Chamberlin began tinkering in the basement and found that his crude rubberband mechanism could work. He and his wife moved to California, where he continued insulating buildings until his interests were consumed by the instrument. Working on it 16 hours a day, with periodic trips into the desert to clear his mind, he arrived at his first model in 1956—a six-instrument unit, which he took that year to the annual National Association of Music Merchants (NAMM) trade show in Chicago. "And the hotel was buzzing, 'Chamberlin . . . Chamberlin. . . .' We got so many orders we didn't know what to do."

Production and sales began; union problems followed. "They began to go hear these things," recalls Harry, "and they were so good that they began to get scared that if I ever got money, if I ever got my feet solidly on the ground, we would beat all the musicians out of business." The union ruled that the Chamberlin could be used in cocktail lounges—as long as the keyboardist received the wages of *three* musicians.

That proviso dampened sales, although Chamberlin insisted that a cocktail lounge's business would pick up by 50 per cent if his instrument were used. Chamberlin persisted in improving his unit, and went to the NAMM convention yearly until 1967. It was Chamberlin, in fact, who inspired most of the keyboard toys and instrument simulators now in use. Mattel Toys, for one, bought certain "assets" of Chamberlin's design (a talking doll, for one) and employed him as a consultant for two years. "Whenever we'd go to the Chicago show, Hammond Organ and Wurlitzer would send their engineers in and they'd sit in that room and listen to my musician play all day long, and every so often they'd write something down."

Instead of tapes, the other gadget manufacturers use an optical light system which, Chamberlin says, pales beside his.

The only other keyboard *tape* device is the Mellotron. But the Mellotron, it turns out, is the Chamberlin—frozen in an aboriginal stage of development.

"In 1965 we had a salesman who sold for us for about a year," Chamberlin recalls. "And all of a sudden he took his demonstrator and we never heard from him again. About a year after that, we got a telephone call from New York—'Was this the company that was making the Mellotron?'"

The salesman, posing as the inventor, sold the 'rights' to an English company and disappeared with the money.

Chamberlin found out about it when the company, Mellotronics, came to the U.S. seeking a distributor (Dallas-Arbitor handles it today) and, to be safe, checked with the American Patent Office. They found six pertinent patents in Chamberlin's name. "So I made a deal with 'em on a royalty basis and everything's all right."

For Chamberlin maybe. Mellotrons, priced at a perhaps excessive \$3,300, are said to be piled up in warehouses, and many outlets have stopped carrying them altogether.

"The Mellotron's flutes are too choppy, the violins too cut off," says son Richard, entering and seating himself on the desk. "Ours flow in. That's why the Moody Blues used 'em. They have cello on one album—that's ours. It's strong and crisp. You can hear the guy put the bow across it. The flutes—you can hear the guy blowing in it as if he's there."

While the Mellotron is programmed with three instruments, the current Chamberlin (the M-1, selling for \$3,995) has eight. Chamberlin's M1 plays with two instruments at once through individual channels; the Mellotron, with more tape hiss, warbles one instrument. And the Mellotron's keyboard action is erratic because of a complex and indirect spring contact mechanism, also responsible for the device's uncanny predilection to foul its tapes, a problem Chamberlin solved by eliminating 21 parts beneath each key ("So it's as simple as a-b-c").

The M-1 Chamberlin is a single-keyboard model. Because of economics and union pressures, Chamberlin stopped making the Rolls Royce of his line—the \$10,000 M-4, which featured four keyboards and 32 instrument/voice/sound effect/rhythm tracks. With this highly automated machine (the one that Pinder, Russell and the Lettermen own), Harry chuckles, "I can play like a 20-piece orchestra."

"Well, the union heard that. And that scared them for sure." It was banned

totally. With the M-1, the union rationalized, at least you have to be a musician to play it convincingly, and it has its limitations. In any case, according to Chamberlin, the union's banning of his most threateningly sophisticated machine holds little legal water: "Actually, I was told by authorities that if I would sue 'em, they wouldn't have a chance. But I didn't have the money to fight those guys, you know. 'Cause they would keep you goin' and goin' until you're broke. . . . I mean, I could start in and go again. But I'm retired now. I don't want to go back."

Today, when Harry wants to play saxophone, he plays his Chamberlin. But does he believe that his machine threatens the jobs of *professional* saxophonists?

He shakes his head resolutely. "No. Because there are too many variables in what a musician can do when he plays his instrument. . . . It's close. But what they use this for more or less is to sweeten up the music."

In New York City, there's someone who is making a living doing just that. Barry Frederick, who possesses the only Chamberlin in the city (not counting Edgar Winter's), advertises his machine for rent in the *Village Voice*. In the past eight months, he has grossed over \$8,000 renting to top pop artists and lowly unknown groups who wish to inject their demos with some class, and to ad agencies making jingles.

Frederick, 25, a keyboardist/songwriter who conceived of his business as a vehicle taking him into the music world's more exclusive realms, explains how he saves clients money. "If I'm not playing on the session, they pay \$150 for 24 hours rental. In 24 hours, you figure how many musicians you'd have to pay. Union scale is at least \$100 for three hours for each guy. So if you have one guy playing cello, one playing violin and one flute, that's at least \$300 for three hours (or \$2,400 for 24 hours)." If Frederick plays on the session, he charges about double.

This keyboard pirate has, so far, managed to skirt the tough and unforgiving New York union local. "Let's face the facts," he concedes. "If I was a violin player and I'm making a living supporting a family on commercial work, anything that's cutting down on work is cutting down a living. I think about the people that I am putting out of work."

He adds defensively that it takes a special talent to play the Chamberlin ("You've got to think, 'Well now I'm playing a violin'"), but ends on a grim note: "I met some string players the other night. And they weren't too happy with hearing it."