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What a Green Thumb He Grows Emeralds

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The electric eye flickered over me. Hungry crocodiles eyed me from the moat as I advanced to the next check post. Security guards checked my credentials and passed me to the station.

I was in the outer court of San Francisco's No. 1 "green thumber" whose garden is guarded like the treasure of the Taj Mahal. And with good cause.

Carroll F. Chatham doesn't grow roses and gardenias. He "grows" emeralds and rubies and alexandrites — a special variety of Chatham-created emeralds and rubies and alexandrites that don't smell, true. But, oh, how they sparkle at the throats and on the arms and hands of beautiful women around the world.

The chemist-inventor has been cultivating this fabulous garden for the past 32 years and his first "flower" now blossoms in the Smithsonian. That's a tiny deep green one-carat product. There's also a 1000-carat-plus gleaming beauty of his, proudly displayed in the museum's jewel room.

"That took three years to grow — just like a flower or a plant," explained the soft-spoken tanned graying San Franciscan, who made one of his extremely rare dates with the press on a triple occasion day.

He was celebrating his 27th year of commercial production. San Francisco's Delmas and Delmas jewelers were celebrating their 50th year of business with a flashing display of Chatham-created emeralds, and? "May is Emerald Month."

The Chatham-created emeralds — and "created" must always be part of the term according to a Federal Trade Commission ruling to distinguish them from natural stones — caused legal controversy for years, all the while selling briskly at one-fifth the price of natural gems. The San Franciscan finally won his fight to present them under that label rather than a synthetic tag.

Chatham, 52, who started blowing up the family basement with his chemistry set at age 10, experimented through Lowell High and the California Institute of Technology. He stumbled onto his first "gem" in 1935, and "it took

me three years to work out the formula again, another two to get it into production."

World War II interrupted gem gardening, turned him into a food chemist. In 1946 he started cultivating again, has hardly stopped since.



A GEM OF A FATHER-SON TEAM
Chemist Carroll Chatham, right, Tom

—Examiner photo by Gordon Stone

Chatham-created emeralds are his major crop and he picks more than 100,000 carats a year. Lumped together, that's a big green glowing chunk roughly the size of a large watermelon. But who would want to wear a ring that heavy? The popular size is 1½ carats.

Chatham sells his entire output to an Eastern firm and it may go through two or three other hands for cutting, polishing, mounting before it returns here to Delmas and Delmas — or winds up with other top jewelers from here to Thailand. "Chatham-created emeralds are very big in Bangkok, for example," he twinkled. "I don't know how they are identified there."

How can you tell the difference? "Not with the naked eye," said the chemist. His man-made version includes the same minerals, hexagonal crystals of cate made green by impurities of chromium and

iron. Then he grinned, "Mine are not identical to the natural ones because mine are superior."

For years Chatham, surrounded by his "no admittance" signs, high walls, involved alarm system, was a one-man operation. Now his two sons have joined him. John, 24, is interested in the business side, and Tom, 21, in the technical aspects. And Tom has another potential aide, his six-month-old son Rodney.

The unique gardener,

whose Chatham-created rubies and alexandrites are a more recent interest, also has a special patch of his stones that are used in electronics — to bounce micro-wave signals off Venus, for instance, as a substitute for a radio tube.

"Jewelry is a small puddle compared to the ocean of electronics, but jewelry has been here for a long time."

How do Chatham-created emeralds wear? "Forever, but don't mix them with your rubies or diamonds. Those are harder stones and can scratch any kind of emerald."

Chatham, who wears only a modest stone in his tie-clip and who has one of his own rubies as a small lapel button, said some of his first stones are in his wife Barbara's wedding ring. But as far as dripping with Chatham-created emeralds, Mrs. Chatham is in the company of the bare-foot shoemaker's daughter.

"I keep promising her," he was slightly sheepish.

"You know it's ironic that I came along when I did. The greatest emerald mines of Colombia are almost bare. Emeralds have never been common and now it is almost impossible to find them."

But in the small white San Francisco fortress — where the real secret is locked in its creator's mind — Carroll Chatham, and his son, and his son can promise to keep producing their version of those deep flashing green stones that future Napoleons will want to drape on future Josephines.