

## A Christmas letter from Leon Love

After a recent column where Leon Love's brief history of *Electromagnetic Separation of Isotopes at Oak Ridge* was featured, I received a most interesting phone call. His daughter, Linda Love Yeiser, of Nacogdoches, Texas, called to express her thanks for the article being published. I was pleased, of course, and surprised to be contacted by a family member from so far away.

It seems a friend had seen the article and knowing she would want to read about her father had sent the link to the online version of the article to her. What a pleasant surprise to hear from her. But what was even more amazing is she said she had some things from her father that might be things I would like to have copies of. I gladly agreed and thanked her for thinking of me.

Never did I suspect what she would eventually suggest. In the course of the conversation, I continued to grow more and more interested as she described first a "Christmas Letter" from her dad, then a magazine article and finally she quietly said, "I also have a glass vial of copper."

After picking myself up from the floor and getting my breath, I asked, "Tell me more about that 'copper,'" still not really knowing what to expect next. She continued, "my brother has it now, I kept it for years after dad died, but decided a few years ago that he should have it for a while."

Well, now I was beginning to suspect this was a special piece of copper. And sure enough, she went on to explain more fully, "My dad was given this copper when he retired. It is the 'world's first electromagnetically separated isotope' (other than uranium) separated in the Y-12 calutrons."

That was sure more than I ever expected. Linda has agreed to loan this historic artifact to the Y-12 History Center for display.

She also agreed to allow me to publish Leon's Christmas Letter. It gives insight into the isotope separation process in Building 9731 and also dates the final removal of the 67 tons of silver in the calutrons, the last of the 14,700 tons borrowed from the U. S. Treasury in 1943. It was returned early in 1970.

He mixed work and family in his letter. His wife, Catherine, sick with cancer at the time of the letter, passed away a few months into 1970.

Here is the text of Leon's Christmas letter:

"Catherine, the children, and I send our warmest wishes to you and yours for a merry holiday season and much happiness in 1970. I hope 1969 was a pleasant and successful year for you; it has brought us things for which we can be thankful, but sadness as well.

"The electromagnetic separations program is going well. You probably remember that the electromagnetic plant used ~15,000 [14,700 – Ray] tons of silver in the magnet windings. All the silver has been returned to the U. S. Treasury except 67 tons in the XBX and XAX magnets and on December 1, they were shut down to make preparations for returning it. By carefully opening the XAX cases, we have been able to make replacements for the alpha silver coils from copper-wound beta coils which were saved when the electromagnetic facility was salvaged years ago. The silver and copper coils can be interchanged in the XBX magnet. The copper coils will be put in the old cases in the XAX and XBX magnets and we expect to have all these

separators back in operation within a few months. At times in the past, our approach to some of our problems has caused us to be referred to as blacksmiths – I guess this is our biggest blacksmith job so far and we sure hope it works!

“One of our more interesting separations just now is the collection of 100g quantities of 85% Fe from ton lots of iron chloride charge material. I think this dramatizes the versatility of the electromagnetic process. It seems wonderful that separators are available to process charges ranging from milligram to ton quantities. It seems reasonable to say that, as a group, the electromagnetic isotope separations community can handle everything! In our own group we have now run charges ranging from one milligram to tons.

“Unfortunately, things have not gone as well for the family. Catherine and I were in an automobile accident March 29 and she was injured. The x-rays showed a broken pelvis – and metastatic carcinoma. Extensive studies at the Oak Ridge Institute of Nuclear Studies Medical Division revealed that the malignancy found three years ago had infiltrated the spine, pelvis, and cranium. She was still able to walk until late August when she turned while walking in the bedroom and the muscle which rotates the body pulled loose from the right pelvis. She is now confined to a hospital-type bed at home. The treatment is chemotherapy (Teslac) and sedatives every four hours which keep her fairly comfortable for three hours or so.

“Catherine’s attitude has made the operation of the home surprisingly smooth and she controls her feelings to the point that it would be difficult for anyone who didn’t know her condition to detect the seriousness of her illness. The children have been splendid about helping and adjustments in their school workload permit them form free time at home. Russell’s classes were scheduled so he can be at home each day from 12:30 until I return from work. Other arrangements could have been made, but this gives the family more time together and the children wanted it this way even if it means a delay in completing their high school requirements. We are very fortunate that the lady who has worked for us several years could arrange to spend each morning except Sunday tending to the house and Catherine’s personal needs. She seems more like a member of the family than an employee.

“Though we are, of course, extremely sad that Catherine is ill, we feel we have much to be grateful for – the love in our family and so many good friends such as you. Catherine and I enjoy reminiscing about the good times we’ve had with the children, our friends and their families. Please give our best wishes to your family and our mutual friends for a happy new year.”

What a treat that was for me to read and I hope you enjoyed it as well. Linda said that Leon always used the annual Christmas letter to send information about the isotope program and his family. She felt it gave a lot of insight into her dad and his devotion to both his work and his family. I agree.