

Miller key to obtaining Y-12's 14,700 tons of silver

(As published in *The Oak Ridger's Historically Speaking* column on May 16, 2006)

Robert Holtz Miller was proud of his role in the Manhattan Project. His son, Dave Miller, is equally proud of his heritage. Dave is a current resident of Oak Ridge and with his wife Heidi promote our Secret City through www.SecretCityStore.com where unique Oak Ridge merchandise such as mugs, shirts, Oak Ridge photo books, *Secret City: The Oak Ridge Story – The War Years* DVD and numerous other Oak Ridge/Secret City related items can be found at the click of your computer mouse.

Dave's Dad, Major Robert H. Miller, was commissioned a Captain in the U.S. Army and assigned to the Manhattan Engineer District on August 28, 1942. He was stationed at Syracuse, New York. A copy of the Western Union Telegraph stating the above is one of many items Dave proudly displays in a large book of memorabilia of his Dad's extensive and highly decorated career.

Robert Miller was born in Rockford, Illinois on August 18, 1908. Miller had worked on levee construction projects on the Illinois and Mississippi rivers and on power and flood control projects in Maine and New York before becoming an assistant to the resident engineer on the Arkport Dam in New York, when his career took a major turn directly into the Manhattan Project. He was among the very first people assigned to that history-making project.

He was assigned to the Manhattan Engineer District as priorities and expediting officer and after spending a year in New York was moved to Oak Ridge in August 1943. Upon arrival in Oak Ridge, Miller immediately began to have significant impact expediting the needed supplies into the various sites. Using the leverage of the war effort and the unlimited priority given the Manhattan Project, he moved from one task to the next assuring that the proper priorities were given each shipment. Colonel Nichols and General Groves both recognized his achievements as can be seen in Dave's book of his Dad's memorabilia where various letters attest to the recognition provided Captain Miller on his accomplishments.

On one occasion, Fulton Sylphon Company of Knoxville was visited by Captain Miller to secure special bellows and valves needed by the Manhattan Project. Mr. George L. Ogden Jr. recalled, at the time of his retirement as Director of Marketing in 1979, that auspicious meeting. It seems that the Fulton Sylphon top manager did not respond immediately as Captain Miller expected.

Mr. Ogden said, "I remember one time that a Captain Robert Miller, a fine young man in his 30's, called a meeting in our plant to determine our capabilities in supplying their needs for bellows and valves and other devices. Mr. J. V. Giesler, then general manager of Fulton Sylphon Company, was a stern, very fine engineer and typical East Tennessean in that he ran the plant and called most of the shots. However, during a meeting with Captain Miller there was some reluctance on Mr. Giesler's part to commit our facilities to their use."

Mr. Ogden continued, "The captain said very quietly, 'Well, Mr. Giesler, if you don't see your way clear to supply our needs, it is within the power of the Manhattan District, under the Emergency Act, to confiscate your facility and then you will be working for the Government.'" It seems that this statement by Captain Miller had the desired effect on Mr. Giesler and from that point on Fulton Sylphon Company cooperated to the fullest with all requests from Captain Miller. In fact, Dave's book contains several very complimentary letters from the Fulton Sylphon Company to Captain Miller's superiors thanking them for the assistance provided by Miller in solving numerous problems associated with supplying the needed materials for the Manhattan Project.

A most significant arrangement of the Manhattan Project was the loan of 14,700 tons of silver to the Y-12 Plant. Likely there were several meetings required to make all the necessary arrangements. The first meeting on record was on August 3, 1942 as recorded by Colonel Nichols in his book *The Road To Trinity* on page 42. Nichols notes that copper was in desperately short supply because of the war effort. He states, "As a result, on August 3 I visited Assistant Secretary of the Treasury Daniel Bell. He explained the procedure for transferring the silver and asked, 'How much do you need?' I replied, 'Six thousand tons.' 'How many troy ounces is that?' he asked. In fact I did not know how to convert tons to troy ounces, and neither did he. A little impatient, I responded, 'I don't know how many troy ounces we need but I know I need six thousand tons – that is a definite quantity. What difference does it make how we express the quantity?' He replied rather indignantly, 'Young man, you may think of silver in tons, but the Treasury will always think of silver in troy ounces.'"

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Colonel Nichols does not record who attended this first meeting with him on August 3, 1942. However, Captain Miller and Colonel Alan Johnson accompanied him on a subsequent follow up meeting as the principle Manhattan Project representatives who traveled to the Treasury's West Point Depository to meet again with Assistant Secretary of the Treasury, Daniel Bell. At this meeting the specific, yet quite simple, details were worked out.

According to Miller, the follow up meeting he attended was very casual and an "easy" meeting. These most important meetings took place in August 1942 with the first one that Robert Miller attended being after Miller's 34th birthday on August 18 and before he received his captain's commission on August 28, 1942. Miller recalled that Mr. Bell said it would take an agreement between the secretary of the Treasury and the Secretary of War. It was a simple as that.

The first shipment of silver bullion was made from the West Point Depository in October 1942 to the Defense Plant Corporation at Carteret, New Jersey. There the silver bars were reformed as cylindrical billets. Then another secret trip, this time across New Jersey to the Phelps Dodge copper plant at Bayway where the billets were rolled into strips 5/8 of an inch thick, three inches wide and 40 feet long. A third stage to the journey sent the newly rolled strips to Milwaukee, where the Allis Chalmers Company wound them with wooden insulation around giant steel spools and encased them in another steel unit. The completed units, resembling 19 square foot doughnuts were then shipped to the Y-12 Plant.

At Y-12 workers drilled holes in the bars, preparing them for assembly, over paper to catch the expensive core drillings. Surprisingly, no silver was lost or stolen and even close to 28 years later (June 1, 1970) when the last 70-ton shipment of silver was returned to the Treasury's West Point Depository only 1/10 of one percent of the silver was not returned.

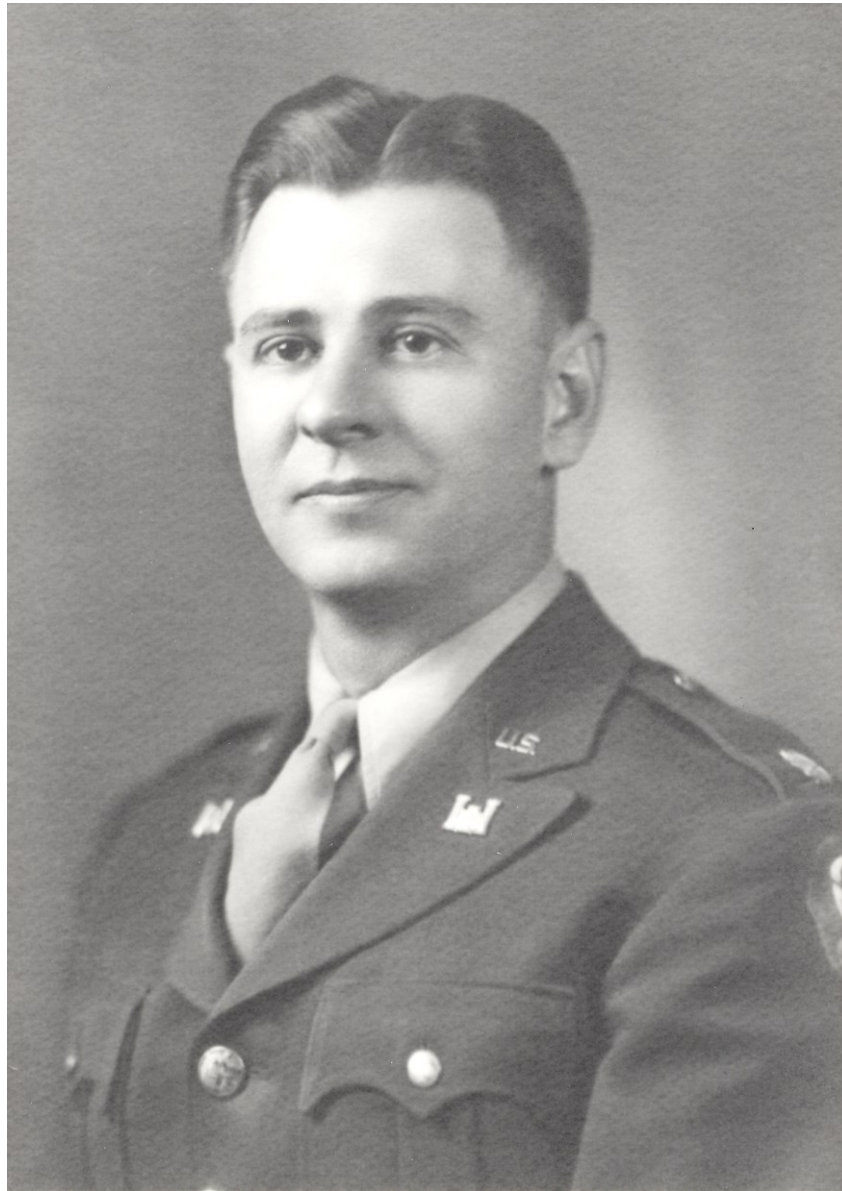
The silver was used as electrical conductors for the electromagnetic separation Calutrons (California University Cyclotrons) used at Y-12 to separate the scarce uranium 235 from the much more abundant uranium 238 for "Little Boy" the first atomic bomb used in warfare. With the end of the war and the K-25 Gaseous Diffusion Plant being able to separate the uranium 235 at 1/10th the cost of Y-12, most of the Y-12 Calutrons were shut down and over the next several years all the silver was removed.

The 14,700 tons of silver in 1942 was worth \$600 million and was worth \$1 billion when the last of it was returned to the Treasury in 1970. Less than one thirty-six-thousandths of one percent of the more than 14,700 tons of silver was missing. Now, some 36 years later, that silver, once used to birth the atomic age through the separation of the fissionable uranium 235 isotope, sits back in a special reserve in the West Point Depository. It is not used to mint coins but remains as it was when returned from Oak Ridge. The Treasury has no plans to use it other than as reserve. I wonder if Oak Ridge might negotiate the return of a small portion of that silver to be used in some special commemorative manner. Dave Miller would be the ideal choice to handle such interaction and his SecretCityStore.com would be the ideal place to see unique "Manhattan Project" silver commemorative medals for sale.

Dave Miller asked me to make a request of the readers of Historically Speaking. He says that his Dad was much like others of the Manhattan Project who developed the habit of talking little about their work as a result of the many and often encouragements received to keep quiet about what they did at work. He rarely talked about the Manhattan Project and his role in it. Dave would love to hear stories of his Dad from anyone who knew him and would be willing to share information about him. Dave can be reached at Dave@thesecretcitystore.com if you have a computer or mail him at 111 East Madison Road, Oak Ridge, TN 37830. He would certainly cherish your stories about his Dad!

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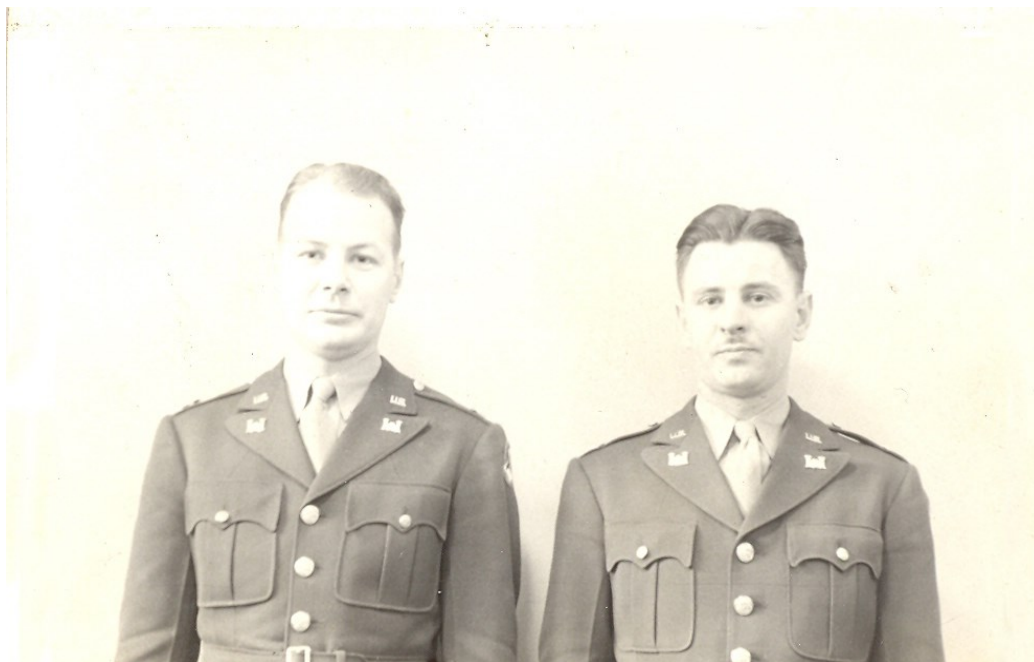
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Major Robert Holtz Miller – a key to the Manhattan Project's ability to obtain needed materials and equipment

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Colonel Alan Johnson and then Captain Robert Miller - both of whom were involved in getting the silver brought to Y-12



Part of the 14,700 tons of silver brought to Y-12 as a substitute for copper