

# Artifact 2-2-G-7/1-9

Found October 16, 1991

*Submitted to the Cat's Paw Division of Biltrite Corporation, Waltham, MA for identification on January 31, 1992.*

The photograph below shows the reassembled fragments of a rubber sole from a left shoe. Evidence of stitching along the edges indicates the former presence of leather uppers and the tight spacing between stitches indicates that this was part of a woman's shoe. The size appears to be about a woman's size nine. A brass eyelet found in the same location is  $\frac{5}{16}$ " in diameter with an opening for the lace of  $\frac{1}{8}$ " diameter, too small to accommodate the woven cotton lace of a man's shoe. Also in the same location was

TIGHAR Photo by P. Thrasher



a rubber heel (see photo page 5) with the remains of eight nails in place. The washers (which keep the nail from going too far up into the shoe) are of a long-obsolete type and are consistent with 1930's construction. The interior of the heel carries the words "Guaranteed, Pat. Pending, Cat's Paw Rubber Co., USA" molded into the rubber. Several coded letters and numbers establish that this is a left heel of a size consistent with a woman's size nine shoe. The date code is worn off but the style and other coding is consistent with the mid-1930s. This is a replacement heel.

## A GIFT FROM THE CRABS

The shoe parts were found in the same area with the grave which proved to contain the bones of an infant. The grave is in a clearing surrounded by trees, about 150 feet from the lagoon shore on the island's south side. The ground under the trees is littered with fallen leaves and other rotting vegetation. Insect life abounds. It was in this litter that the first trace of the shoes was found by accident at 8:30 A.M. on Wednesday, October 16. Commuting to work on Nikumaroro means getting your feet wet, and Dr. Tommy Love was changing his boots in the shade that morning, prior to resuming the excavation of the grave. Casually watching one of the island's innumerable crabs scuttle by, he saw it knock aside a leaf, exposing something dark on the ground. It was the Cat's Paw heel. The entire surrounding area was then cordoned off and other pieces were recovered by searchers on hands and knees carefully removing each leaf, stick and rotting palm frond. Then the top layer of dirt was carefully removed and screened



TIGHAR Photo by P. Thrasher

for additional artifacts. It was this painstaking process which produced the eyelet. The next day a second shoe heel was found just outside the boundary of the cordoned off area (confirming the First Law of Field Investigation, “No matter where you draw the border of the search area, the find will occur

just outside that line”). The second heel, although apparently of similar age, is not a replacement heel and is probably from a second pair of shoes.

From photographs taken prior to and during Amelia Earhart’s attempted world flight it is possible to draw some conclusions about her footgear. She seems to have had two pair of shoes with her – a pair of two-tone saddle shoes with light colored soles and heels which she sometimes wore when she was not flying, and a pair of Blucher-style Oxfords with ten brass eyelets which she wore to fly. Her shoe size, ascertained from photos and from the size worn by her sister (who is of similar height and build), appears to have been about a size nine. Most significantly, photos taken during preparations for the first world flight attempt in early 1937, when compared to photos taken during the second attempt in June/July of that year, clearly show that her flying shoes had replacement heels put on prior to her departure from Miami on June 1 (see photo at right; note clear demarcation of new bottom on left heel which is not present in photos taken prior to first attempt).

So what do we know for sure? We know that sometime a long, long time ago, a woman’s shoe, about size nine, with brass eyelets, and with an American Cat’s Paw replacement heel, ended up on Nikumaroro in a place two miles from the island’s only boat landing. We know that the shoe matches, in general and in particular, a shoe Earhart was wearing at the time she disappeared. We also know that the 50 to 80 Gilbertese islanders who lived on the atoll from late 1938 until 1963 did not wear shoes; that the 25 American servicemen stationed at the island’s southeastern tip (another two miles away) from July 1944 to November 1945 did not wear women’s shoes with replacement heels and neither did the British colonial administrators who visited Nikumaroro from time to time. We also know that, unless you have the broad, leather-tough feet of a Gilbertese, good shoes are second only to your canteen as your most treasured possession on Nikumaroro. A shoe, or a pair of shoes, abandoned in this place is remarkable in the extreme. The second and dissimilar heel (consistent with Noonan’s shoes) indicating that, in fact, two pair of shoes rotted away here, completes

a pattern of circumstantial evidence so strong as to be overwhelming. But there’s more.

In the same area we found a 2<sup>5</sup>/<sub>8</sub>” length of broken medical thermometer and a threaded aluminum bottle cap 1<sup>7</sup>/<sub>8</sub>” in diameter. No markings were left on the thermometer which might help establish its age, but the bottle cap had the faint remains of a distinctive logo. Through exhaustive research at the U.S. Patent Office by Paul Harubin, TIGHAR #1322, and with the help of the Warner-Lambert pharmaceuticals company, the cap has been identified as having come from one of three over-the-counter medications sold by the William R. Warner Co. in the U.S. in the 1930’s. These were all liquids: Agarol, a laxative; Alka-Zane, an antacid; and Cal-Bis-Ma, for nausea. Earhart is known to have suffered from an upset stomach during the world flight.



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