

Chinese Cans in the Countryside

Erika Johnson
Summit Envirosolutions, Inc.

Poster presented at the
35th Great Basin Anthropological
Conference, Reno, Nevada
2016



What?

Chinese-made canisters or boxes have been identified at archaeological sites throughout the western United States. These are characterized by one to three sheets of metal, bent and soldered together to create their rectangular shape. The hand-soldered side seams are often asymmetrically placed on the body of the can. Some of the cans have a circular hole with a square seal. Brass opium cans are the most readily recognized, but other Chinese cans are overlooked in the archaeological record as some other container or interpreted as a kind of modification rather than manufacturing technique.

How?

The Chinese have a history of making containers for the shipment of tea; the wooden tea chests were often lined with thin metal. Early accounts describe the making of this lining or "sheet-lead canister" by folding and soldering thin metal around a block of wood (Asiatic Journal 1840, Tiffany 1849); the process continued into the 1920s (Chinese Economic Bulletin 1928). Perhaps this method evolved into making tin cans. In 1887 the Cheung Kwong Yuen factory was established in Guangdong Province and by 1917 became an important exporter of canned foods geared toward Chinese emigrants (Tsai 1993); China did not have large-scale canning factories until the 1910s when the consumption of such goods began to increase (Arnold 1919; Wood 1917). The cans were made mostly by hand, with some factories using outdated machinery from Britain and Germany (Department of Commerce and Labor 1912). The Chinese canned a variety of food, including bamboo shoots, bitter squash, green peas, lily seeds, lotus, water chestnuts, mushrooms, pineapples, pears, lychees, carambolas (star fruit), longan fruit (dragon eye), ginger, Chinese onions, rice birds, partridges, stewed duck, stewed eel, roast goose, pork chops and stewed pork breast, frog cutlets, dried oysters and oyster oil, fresh shellfish, and stewed fish.

Where?

The most common types of cans found at overseas Chinese communities are a small rectangular can thought to contain tea or bean paste, and a larger can with a hole sealed with a square patch of metal thought to contain cooking oil. These have been found at mining sites, railroad construction camps, charcoal and lumber camps, and at communities with "Chinatowns." Recent studies at Chinese sites in the Cortez Mining District in central Nevada have produced several more types of Chinese cans not previously mentioned in other research (Johnson and McQueen 2016). The mining district had a large population of Chinese who were hired to work in the mill and as hard rock miners.

When?

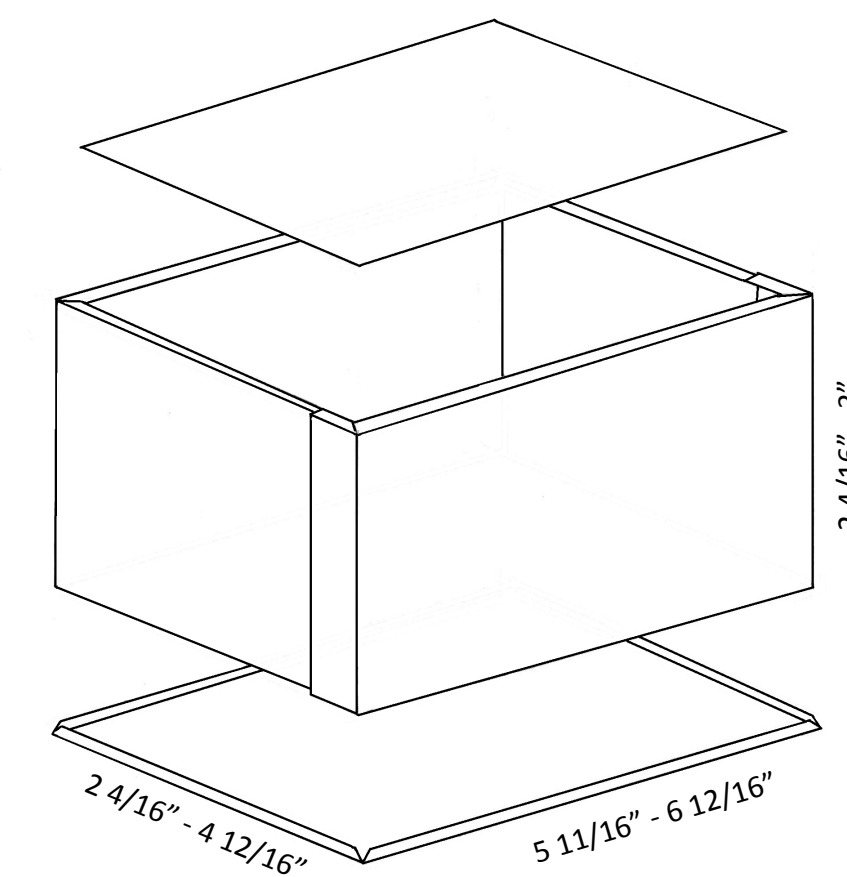
Conditions in China during the early 1850s caused thousands of men to seek employment in other countries. The United States, with a gold rush in California, attracted many Chinese to the Sierra Nevada foothills and cities along the West Coast. Waves of laborers followed in the late 1860s and 1870s. Mining, and the prospect of quick riches, continued to lure Chinese immigrants to the West. The Chinese population in the Cortez Mining District peaked from the mid-1870s to the late 1890s; many of the Chinese cans were located at sites dating from this period.

Why?

Based on the similar construction styles of these cans, we propose that all of these cans are of Chinese origin and have created this typology. The use of cans for Chinese products is not well documented. Most imported Chinese food during the nineteenth century was preserved and packed in stoneware jars. Perhaps these cans were used for dried items and liquids. Further research is definitely needed.

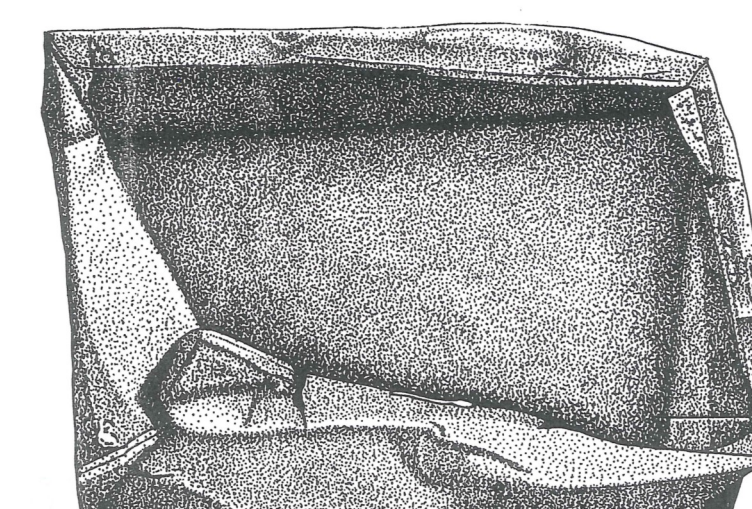
References

- Arnold, Julian
1919 *Commercial Handbook of China*. Vol. 1 Miscellaneous Series No. 84. Department of Commerce, Bureau of Foreign and Domestic Commerce. Government Printing Office, Washington.
- Asiatic Journal
1840 Assam Tea. *Asiatic Journal* 31 (121):29-35.
- Callaway, Cashion
1979 Metal Artifacts from Ninth and Amherst. In *Archaeological and Historical Studies at Ninth and Amherst, Lovelock, Nevada*, edited by Eugene M. Hattori, Mary K. Rusco, and Donald R. Touhy, pp. 251-347. Nevada State Museum Archaeological Services, Carson City.
- Chinese Economic Bulletin
1928 Tea Box Tin Lining. *Chinese Economic Bulletin* 12:170-171.
- Department of Commerce and Labor
1912 *Foreign Trade in Canned Goods*. Special Consular Report No. 54. Department of Commerce, Bureau of Foreign and Domestic Commerce. Government Printing Office, Washington.
- Friends of Kam Wah Chung Museum
2016 Artifacts. Kam Wah Chung State Heritage Site, John Day, Oregon. Electronic document, <http://friendsofkamwahchung.com/artifacts.html>, accessed September 28, 2016.
- Giambastiani, Mark A.
2016 *An Archaeological Study of Historic Native American Occupations at Logan City, West-Central Lincoln County, Nevada*. ASM Affiliates, Reno, Nevada. Report submitted to the Bureau of Land Management, Caliente, Nevada.
- Johnson, Erika, and Robert McQueen
2016 *Mitigation of the Cortez Hills Expansion Project, Lander and Eureka Counties, Nevada*. Volume III: Historic Resources. Summit Envirosolutions, Inc., Reno, Nevada. Report submitted to the Bureau of Land Management, Elio and Battle Mountain, Nevada.
- Malheur National Forest
2014 *Opium Cabin Excavation, Passport in Time July 21-25, 2014*. Blue Mountain Ranger District, Malheur National Forest, John Day, Oregon.
- Ritchie, Neville A., and Stuart H. Bedford
1985 An Analysis of Metal Containers from Chinese Sites in the Cromwell Area, Central Otago, New Zealand. *New Zealand Journal of Archaeology* 7:95-115.
- Rock, James T.
1992 *Boise National Forest Can Analysis: 10-BO-372, 85-795*. MS. On file, Boise National Forest, Boise, Idaho.
- Rogers, C. Lynn
1997 *Making Camp Chinese Style: The Archaeology of a V&T Railroad Graders' Camp, Carson City, Nevada*. Archaeological Research Services, Virginia City, Nevada. Report prepared for Silver Oak Development Company, Carson City, Nevada.
- Tiffany, Osmond, Jr.
1849 *The Canton Chinese or the American's Sojourn in the Celestial Empire*. James Munroe and Company, Boston.
- Tsai, Jung-Fang
1993 *Hong Kong in Chinese History: Community and Social Unrest in the British Colony, 1842-1913*. Columbia University Press, New York.
- Wegars, Priscilla
1995 *The Ah Hee Diggings: Final Report of Archaeological Investigations at OR-GR-16, the Granite, Oregon "Chinese Walls" Site, 1992 through 1994*. University of Idaho Anthropological Reports No. 97. Alfred W. Bowers Laboratory of Anthropology, University of Idaho, Moscow.
- Wood, R. M. (editor)
1917 Limited Market for Canned Foods in China. *Western Canner and Packer* 9(8):21.
- Zeiler, Charles D.
1985 *Archaeological Data Recovery Associated with the Mt. Hope Project, Eureka County, Nevada*. Cultural Resource Series No. 8. Bureau of Land Management, Reno, Nevada.

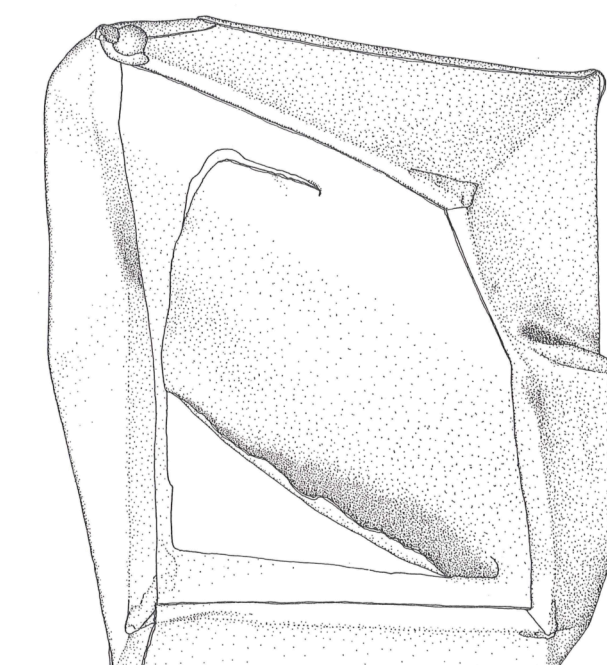


Type 1

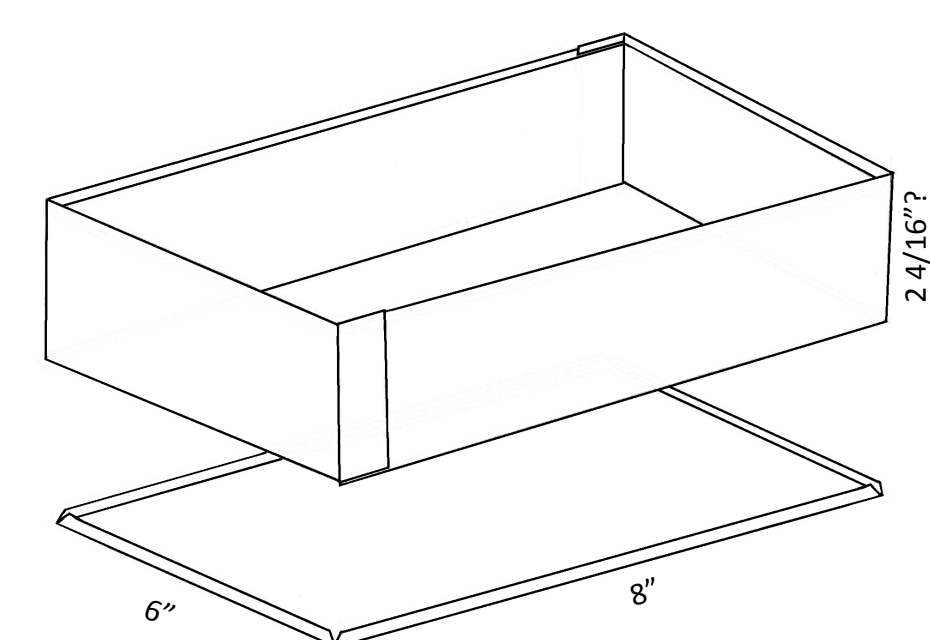
This can is made from three or four sheets of tin. Two seams may be seen opposite each other on the short ends, or there will be one seam centered on one short end. The sides are bent to form a ledge or "shelf." Once filled with the contents, a sheet metal lid is soldered on this ledge to form the top of the can. The bottom is simply lapped over the can body, with the corners often cut to accommodate the bend. This is commonly referred to as a tea tin, but it may have held other products such as bean paste or tobacco (Ritchie and Bedford 1985; Wegars 1995). This type has been found in the vicinity of the Cortez Mining District (Zeiler 1985), but was surprisingly absent from our collection.



From Chinese construction camp along Virginia & Truckee Railroad (Illustration from Rogers 1997)



From Chinese construction camp along Eureka & Palisade Railroad (Illustration from Zeiler 1985)

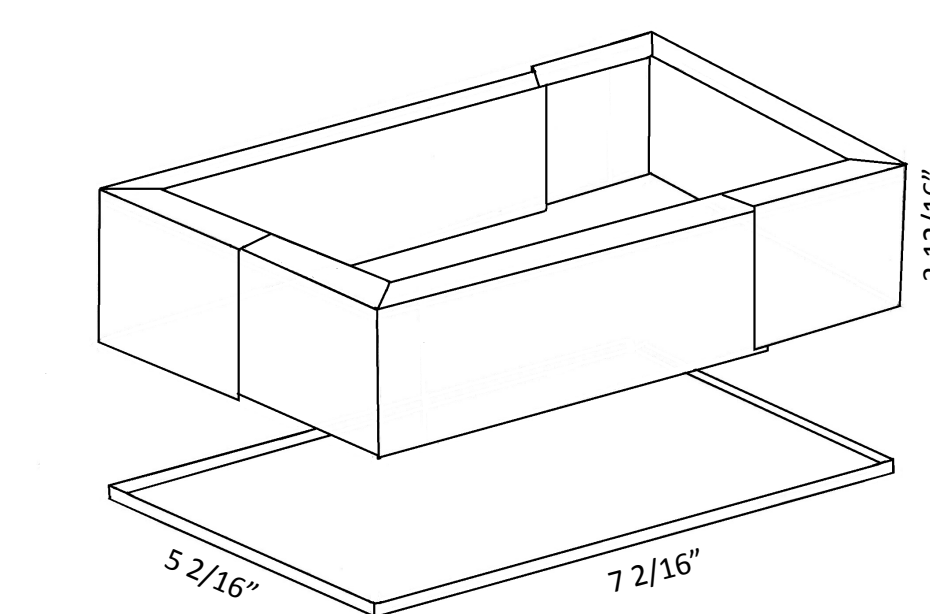


Type 3

This can is made from four sheets of metal. Two sheets (14 8/16" long) are folded around each other to form the body. The pieces overlap each other 8/16" and the side seam is offset from the corner about 7/16". The top is unknown, but was probably folded to create a ledge for the lid. The bottom is lapped over the body, with the corners cut to accommodate the bend. No references outside of Cortez have been found for this type of can. The original contents are unknown.



From the Cortez Mining District with top folded inward (Summit Envirosolutions, Inc.)



Type 4

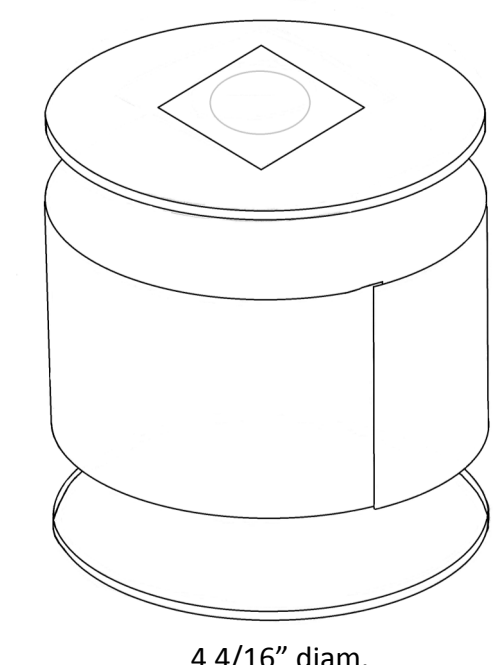
This can is made from five sheets of metal. Three sheets are folded around each other to create the body of the can. Two of the side seams are asymmetrical along the long end of the can and one is symmetrical on the short end. The top of the sides are bent to form a ledge where the lid was soldered. The bottom is simply lapped over the can body. This can type was not in our collection from Cortez, but has been noted in Idaho and in Oregon as possibly containing tea or medicinal herbs (Wegars 1995).



Can with dried honey-suckle at Kah Wah Chung and Company Store (Photograph from Friends of Kam Wah Chung Museum 2016)

Type 7

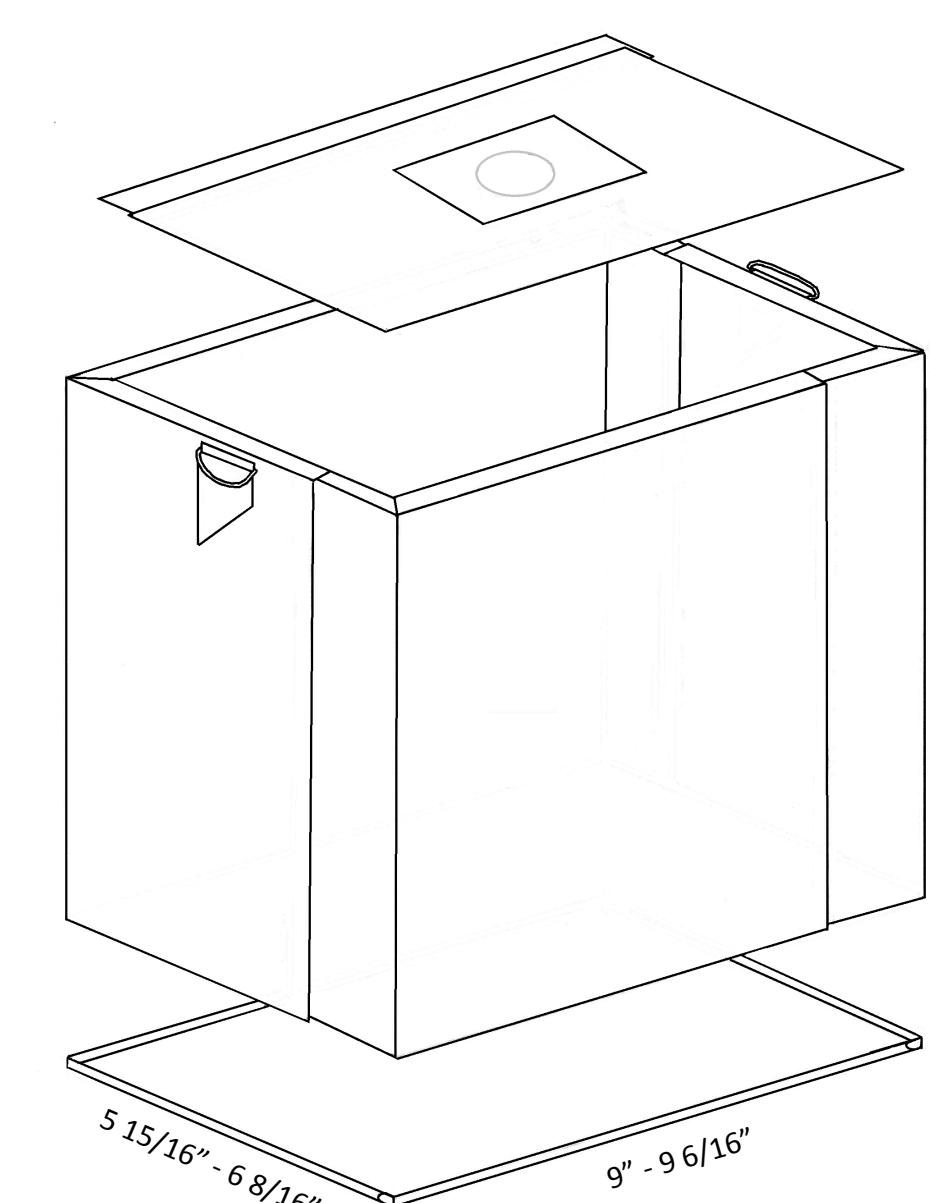
This is a stamped end cylindrical can with a lapped side seam. The top has a circular hole (1 8/16" diam.) sealed with a square patch similar to rectangular Chinese cans. This type of can was not in our Cortez collection, but identified in Lincoln County, Nevada (Giambastiani 2016); no other reference to this type of can has been made. This can is unique due to its circular shape and may date to a slightly later period: 1900 to 1920. Its contents are unknown.



4 4/16" diam.

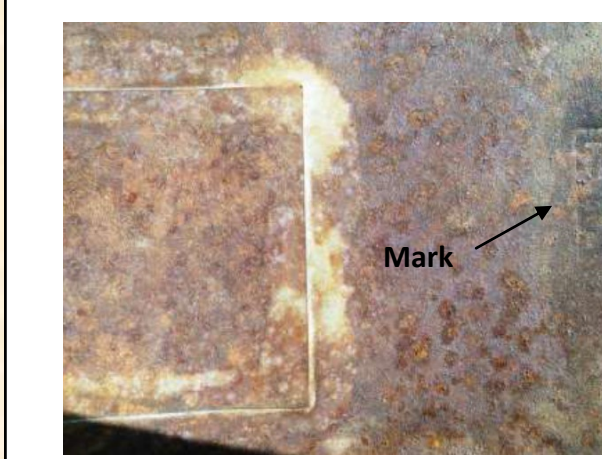


From mining site in Logan City, Nevada (Photograph from Giambastiani 2016)

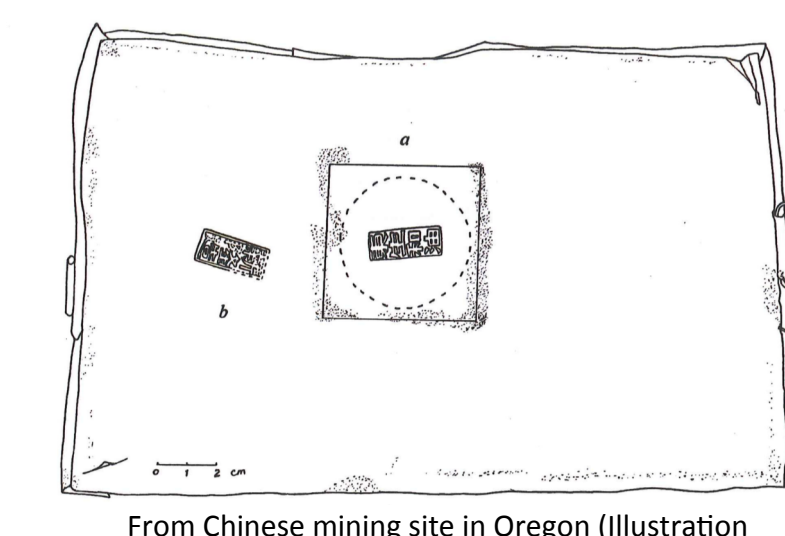


Type 2

This can is made from five to six sheets of tin. Three sheets make the body of the can; one sheet is 6 8/16" to 6 12/16", one is 11 2/16" to 11 12/16", and one is 13 8/16" to 13 13/16". The sheets overlap 3/16" to 6/16" and the seams are offset from the corners of the can by 2". The sides are bent to form a ledge on which one or two sheets of metal are soldered. A circular (filler?) hole (1 10/16" diam.) is located on top and sealed with a square patch of metal (1 14/16" to 2 2/16"). The bottom is lapped over the can body, sometimes with the corners folded over to accommodate the bend. D-rings are attached to the sides. This is commonly referred to as a cooking oil can. Examples with stamped Chinese marks on the lid translate to "East/Grow/Mild/Oil," "Dongshenghe Oil," and "Made by Xinlong" (Rock 1992; Wegars 1995). One can from Lovelock, Nevada was painted on the side in Chinese translating to "Soybean Sticks" (Callaway 1979). It is unknown if that can was reused or that was the original contents. None of the cans in our collection from Cortez have visible marks.



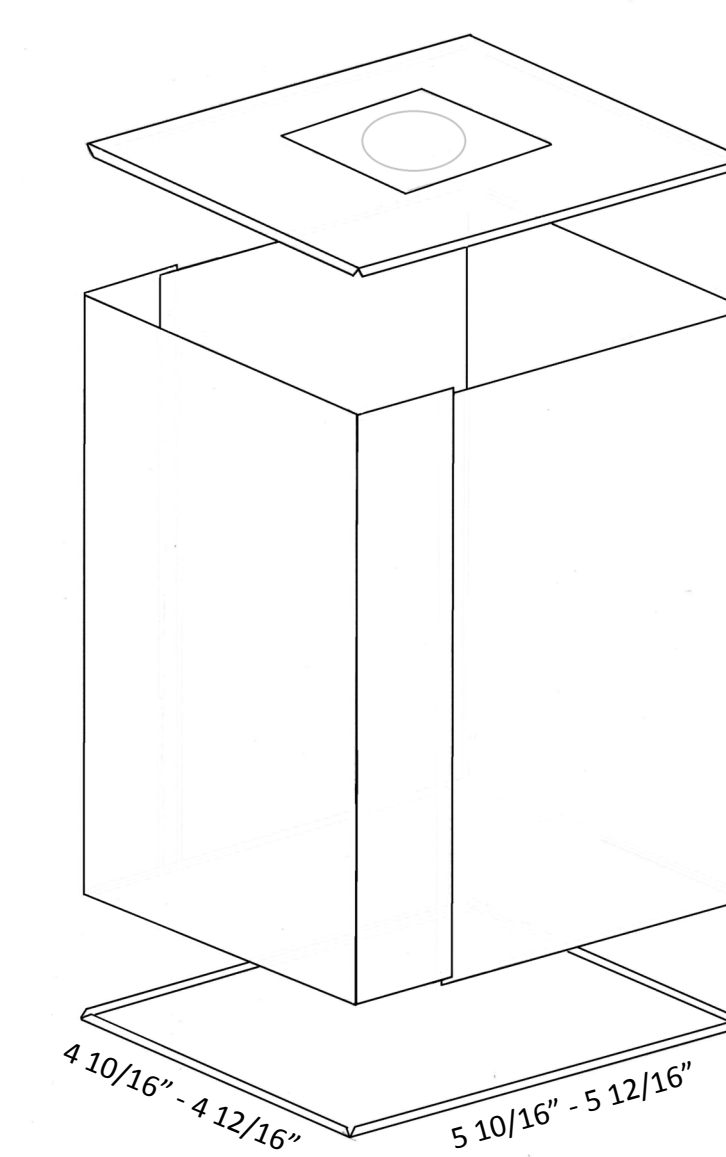
From Chinese mining site in Oregon (Photograph from Malheur National Forest 2014)



From Chinese mining site in Oregon (Illustration from Wegars 1995).



From the Cortez Mining District (Summit Envirosolutions, Inc.)

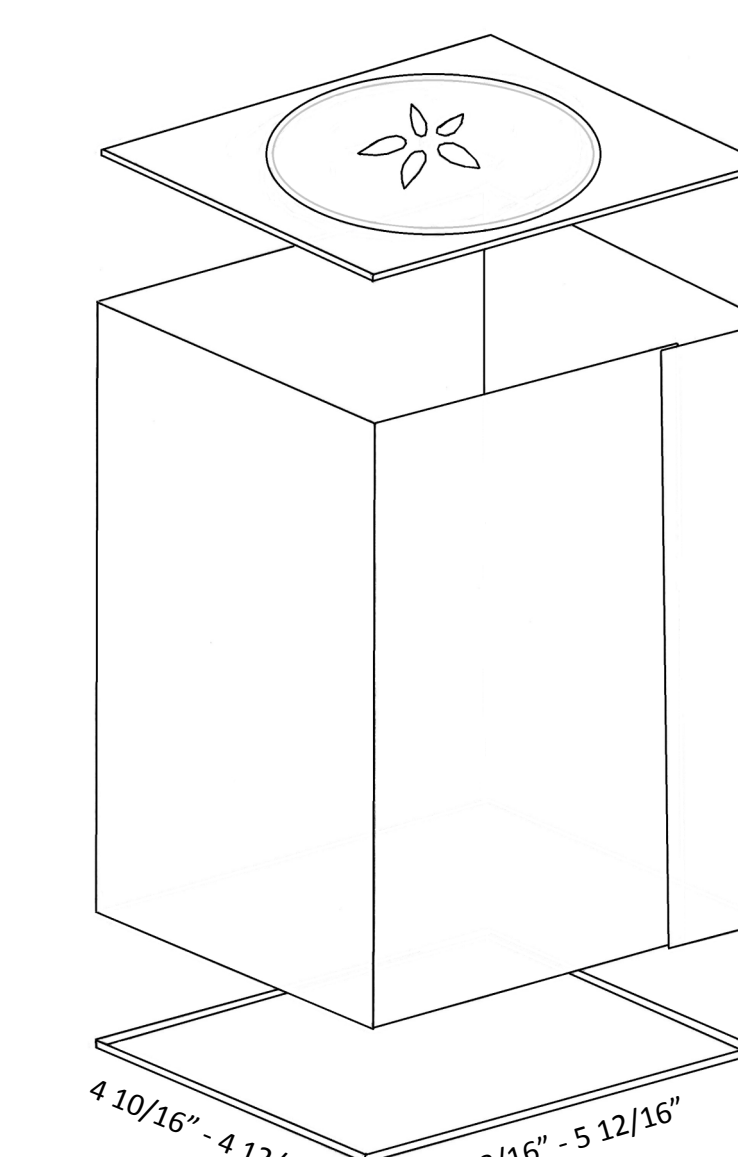


Type 5

This can is made from four sheets of metal. The body is made from two sheets; a short one measuring 7" to 8" is folded over a longer sheet measuring 13 4/16" to 14 8/16". The side seams overlap 4/16" to 8/16" and are offset from the corners 4/16" to 8/16". The top and bottom sheets are folded over the ends of the can, often with the corners cut to accommodate the bend. A circular hole (1 8/16" to 2 8/16" diam.) sealed with a soldered metal patch (1 14/16" to 3") is located on top. Several of these cans were collected from Cortez, although no references to this can type have been found. The contents are unknown. The filler hole can be slightly larger than those observed on the cooking oil cans above.



From the Cortez Mining District (Summit Envirosolutions, Inc.)



Type 6

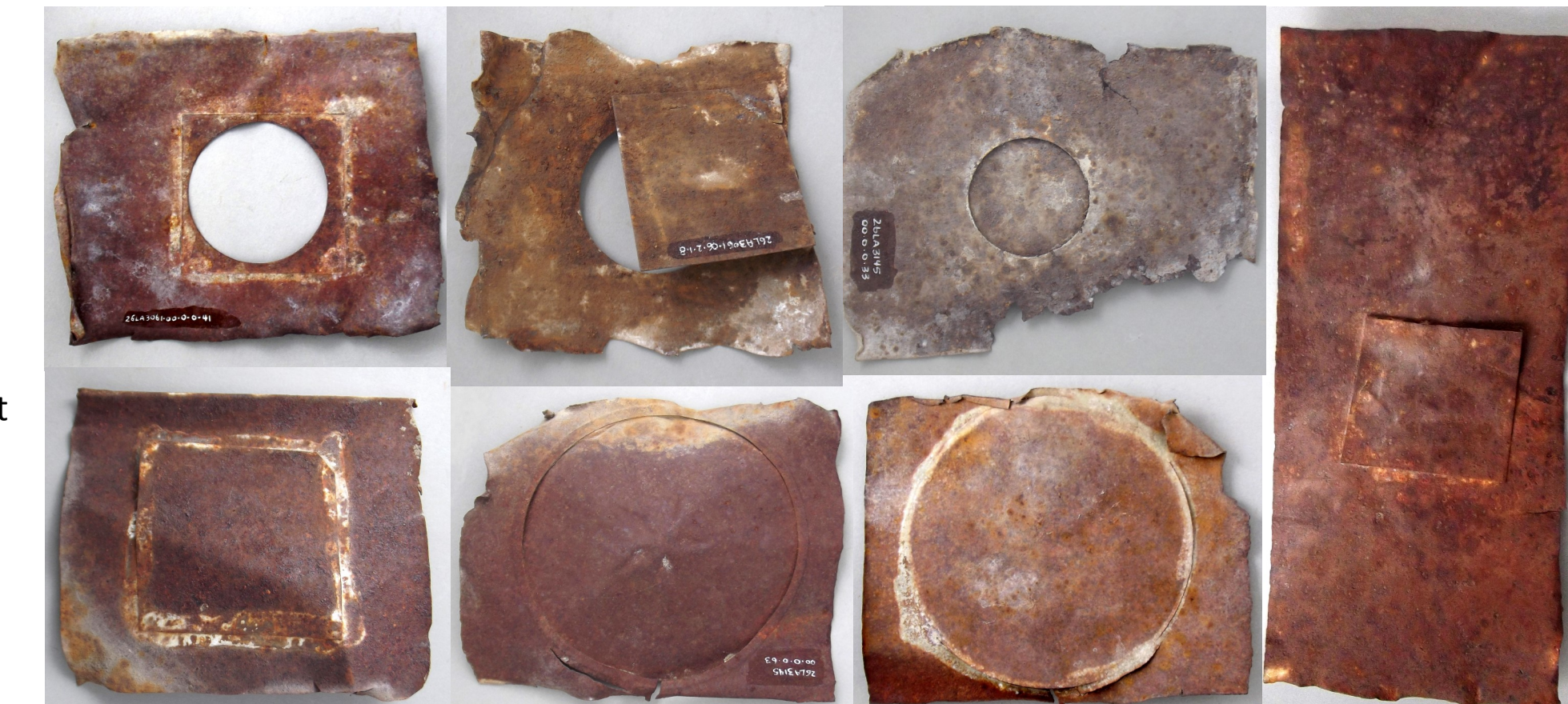
This can is made from three sheets of metal. The body is made from one sheet measuring 20 10/16 to 21 4/16" long. The side seam overlaps 2/16" to 6 16/16" and is offset from the corner 1 6/16" to 1 8/16". The top and bottom sheets are folded over the ends of the can. A large circular hole (3 14/16" to 4" diam.) soldered with a circular lid (3 14/16" to 4 4/16" diam.) is located on top. A five-pointed flower or star (sometimes inside two circles) is stamped on the lid. A few of these cans were collected from Cortez, although no references to this can type have been found. The contents are unknown.



From the Cortez Mining District (Summit Envirosolutions, Inc.)

Bits and Pieces

The sparse remains of Chinese cans in the archaeological record can be informative. The tops were often completely removed to get at the contents and for modification and reuse of the body of the can. The discarded tops may indicate the type of can they came from based on their size and shape. Cut ends that are square with a circular hole may represent the tall rectangular Type 5 or Type 6, depending on the size of the hole and how it was sealed. Cut ends that are rectangular with a smaller hole most likely represent the large rectangular Type 2 cans.



From the Cortez Mining District (Summit Envirosolutions, Inc.)