



With abundant seafood and wild life available, it was often possible for 19th-century residents of Tar Flat, Rincon Hill, and Mission Bay to supplement their diet with locally caught fowl, game, fish, and shellfish. Fruits, berries, and other vegetables were canned at home for use later in the year. Some residents raised poultry and other livestock in their small backyards; others used their yards as workshops or commercial stores, including small saloons. Those handy with a needle mended garments or picked them apart to refashion them into more trendy styles or smaller sizes for children. For many residents, thriftiness was a way of life.

## ANGLING IN THE BAY AND DIGGING IN THE SAND

South of Market residents consumed a wide variety of fish, much of which could have been as easily caught in the bay and surrounding waters as purchased at market or from the local fisherman/peddler (Table 7.1). In the 1840s William Davis commented on San Francisco Bay fishing: “My success as an angler was beyond expectation and a surprise to me. In less than no time I had a pailful (*sic*) of several varieties of fish, which made the sport quite exhilarating” (Davis 1967:57). Many fish species found a home in the bay and its environs: still are present Pacific tomcod, jacksmelt, topsmelt, starry flounder, surfperches, Pacific herring, white croaker, and Pacific staghorn sculpin, to name a but few (The Bay Institute Ecological Scorecard 2003). The most common fishes archaeologically were members of the silverside family (smelts) and rockfish, recovered from almost every West Approach feature that had fish remains. Recreational bay fishing continued throughout the next century. In 1927 James Roxburgh reminisced in the *South of Market Journal*, “I tried to locate Long Bridge, the Cattle Wharf, with the old steamer *Chrysopolis* lying alongside and where we used to fish for pogies [perch]” (1927c:11).

The San Francisco Bay area was home to a thriving commercial fishing industry. By 1850 the first commercial fishery was established by Italian immigrants seining for salmon, herring, mackerel, anchovy, smelt, and “whitebait” (Skinner, ed. 1962). From shore to shore and up the inland waterways, both commercial and recreational fishing was abundant. While fish remains from throughout the West Approach Project attest to the availability of both fresh and preserved fish, only a single fishing-related artifact—a fishhook from Privy 1300—was recovered. The presence of baitfish in several features suggests that at least some local fish were procured by the residents themselves and not purchased.

Ferdinand Gee, a master mariner, lived with his wife, Isabella, and his young son in the Mission Bay neighborhood from about 1867 to 1883. In 1867 he was captain of the schooner *Eleanor Delia*, and later he captained the schooner *Elvina*. With his easy access to the bay and the Pacific Ocean, it is not surprising that he and his family consumed a lot of fish. The privy (807), associated with the Gee family, filled shortly after the 1868 earthquake, contained the greatest variety and largest quantity of fish remains, more than 22,000 specimens. Commercially available

**Table 7.1. Recreational/Noncommercial Fish Remains by Feature**

Block	Feature	Association	Date (ca.)	Description
4	Privy 1300	Samuel and Smith families	1885	Silverside, rockfish
4	Privy 1301	Taylor family	1870	Silverside, topsmelt, minnows,* surfperch, rockfish
4	Privy 1303	Thompson family	1880	Silverside, northern anchovy*
4	Privy 1305	Fuchs and Cadigan families	1880	Pacific herring, rockfish
4	Privy 1307	Brown family	1870	Pacific herring, minnows,* surfperch, rockfish
4	Privy 1310	McSheffrey family	1875	Silverside
4	Privy 1311+	Clark family	1870	Silverside, Pacific herring, minnows,* rockfish
4	Privy 1316	McEvoy family	1870	Silverside, rockfish
4	Privy 1322	Hurley and Conniff families	1890	Silverside, Pacific herring
4	Privy 1326	Amanda Scales and boarders	1875	Silverside, rockfish
4	Privy 1333	William Dougherty	1890	Silverside, minnows,* surfperch, starry flounder, rockfish
5	Privy 505	Mayne household, O'Connor family	1880	Silverside, common carp, surfperch, rockfish
5	Privy 507	Peel family	1870	Silverside, Pacific herring, surf smelt, Pacific tomcod
5	Privy 515	Fegan family	1880	Rockfish
5	Privy 516	Mary Peel	1880	Rockfish
9	Privy 2	Johnson household	1880	Rockfish
9	Well 6	Dent and Hannan families	1895	Rockfish
9	Privy 9	Usher household	1880	Silverside, rockfish
10	Privy 807	Gee family	1869	Silverside, Pacific herring, surfperch, anchovy,* greenling, Pacific tomcod, starry flounder, pile perch, rockfish
10	Privy 808	Schreiner, Johnson, Degnan, and McIntrye families	1880	Silverside, jacksmelt, minnows,* surfperch, rockfish
10	Privy 810	Monahan family and tenants	1880	Surfperch, rockfish
10	Privy 851	Metcalf household	1880	Rockfish
10	Well 853	Baker family	1870	Silverside, jacksmelt, starry flounder, rockfish
10	Privy 857+	Dolan and Michelson families	1880	Silverside, jacksmelt, Pacific herring, surfperch, starry flounder, rockfish
10	Well 866	McDonald and Tobin families	1885	Rockfish
11	Privy 1600+	Donnelly and Beal families	1880	Silverside, Pacific herring, common carp, surfperch, rockfish

\*Suitable as baitfish

fish in the assemblage included Atlantic cod, trout, flatfishes, and salmon. Sacramento perch was available from the lower Sacramento Valley; the cod and mackerel could have been caught in the bay or salted and imported from the East Coast; Pacific herring was available both fresh and preserved. Smelts, surfperch, greenling, Pacific tomcod, starry flounder, pile perch, and rockfish could have been caught in the bay or purchased locally. The anchovy were probably used as baitfish (Schulz 1999; Schulz and Stoyka 2007).

Second only to the Gee family in terms of sheer variety of fish represented was the Dougherty residence in Tar Flat (Privy1333). William Dougherty, an Irish longshoreman, resided at 236 Fremont Street between 1890 and 1892, while several other longshoremen—Peter Hanson, John Lennox, and Joseph Hawkins—shared the residence intermittently during that period. While many of the species were most likely purchased (e.g., flatfishes, trout and salmon, and white sturgeon), the presence of local surfperch, starry flounder, smelts, and rockfish, along with the minnows commonly used as baitfish, suggests fishing by individuals of the household.

In 1868 Robert Taylor lived with his family in the Tar Flat neighborhood (Privy 1301). Employed as a porter for Hayward and Coleman, importers of oils and lamps, he was fairly well off financially. Regardless, household meals were typically of low- to moderate-priced cuts of meat served as soups and stews. Fish remains included the herrings and sardines, Pacific mackerel, trout/salmon, flatfish, and the ever-present cod. Minnows were found along with local fishes—silverside, topsmelt, surfperch, and rockfish—suggesting some recreational fishing by the Taylors.

Near former Mission Bay, Michael Dolan, an Irish shipping clerk, lived with his wife and eight children at 109 Perry Street from 1864 until 1889. In the duplex next door resided Jacob Michelson, a Norwegian sea captain, his wife, and their four children. Deposited around 1880, the privy fills associated with this duplex (857/858) reveal a taste for fish. Available from the bay, the Chinook salmon was an extremely important market fish in 19th-century San Francisco. White sturgeon, native to the bay, were typically purchased rather than caught recreationally. Similarly, rainbow and steelhead trout would have been most likely bought at market, though they were found in local inland waterways. Additional local fish included smelts, rockfish, starry flounder, suckers, and surfperch (Schulz 1999; Schulz and Stoyka 2007).

Shellfish was widely available in the San Francisco Bay. The local native people were prodigious collectors, while more recent immigrants to the Bay Area collected, ate, and otherwise exploited shellfish. Oyster shells were so numerous that a local company used them in manufacturing cement (NOAA Fisheries Southwest Region 2005). Native species included the Pacific oyster, bent-nose clam, and California mussel, while the common littleneck clam frequently came from Tomales Bay, about 40 miles to the northwest. Intruders to the area included the common bay mussel, which hitched a ride aboard European sailing ships, and the soft-shell clam, which was accidentally introduced into the environs when the Eastern oyster was imported in 1870 (Skinner, ed. 1962:95,97,106).

Among the South of Market residents, the bent-nose clam was a favorite, followed by the Eastern oyster, the Pacific littleneck clam (Figure 7.1), the bay mussel, and the Pacific oyster (Table 7.2). Abalone varieties were an infrequent purchase and, as such, were probably more expensive. Three households had a clear preference for shellfish, accounting for more than 60 percent of the total food shellfish refuse from the project. One of the earliest residents, Stephen Baker, a police captain/wharfinger, lived along the shore of Mission Bay at 108 Silver Street (Well 853) with his family between 1861 and 1872. The remains of 244 bent-nose clams, many probably

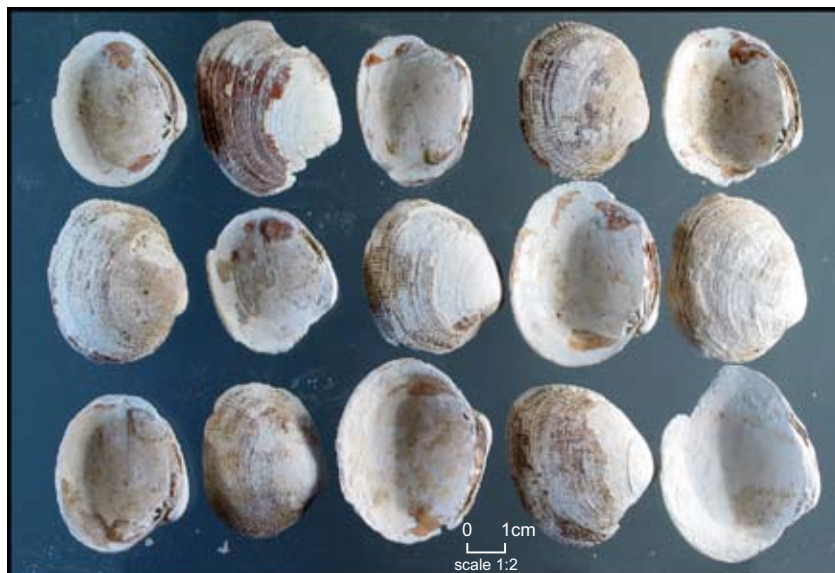


Figure 7.1. Pacific Littleneck Clam. The Peel family, who lived on Rincon Hill at 540 Folsom Street in 1870, preferred this clam above Pacific oyster and Eastern oyster.

dug by Chinese shrimp fisherman in the south bay (Skinner, ed. 1962:106), demonstrate a clear household favorite and were probably purchased at market, as were the 41 Pacific oysters. The remaining 36 Pacific littleneck clams, 2 California mussels, 2 bay mussels, and 2 Eastern oysters may have been scavenged from the nearby mudflat or bought along with the other shellfish.

Along the edge of Rincon Hill (Privy 9), John Usher, a sailmaker, lived with his extended family in 1880. The family consumed a rather large quantity of bay mussels (103), a shellfish popular in Europe but less so here. Other species most likely quarried by the residents themselves include at least 80 bent-nose clams and 4 Pacific littleneck clams. Just down the street and a decade-and-a-half later, James Hannan, an Irish boilermaker, and Theodate Dent, a widow, lived with at least seven additional family members in 1895 (Well 6). Remains of 250 Eastern oysters and only 1 Pacific oyster suggest that the latter was rapidly disappearing from the bay. The oysters—along with 19 bent-nose clams, 10 cockles, 5 Pacific littleneck clams, 3 California mussels, and 2 West Coast bittersweet—suggest both market purchases and local digging for shellfish. Clam-digging would have been lively activity for families, with the added benefit of a group shellfish feed later.

Table 7.2. Food Refuse Shellfish Remains

Block	Feature	Association	Date (ca.)	Total MNI	Common Name
4	Privy 1300	Samuel and Smith families	1885	26	Eastern oyster (21), Pacific oyster (4), Soft-shelled clam (1)
4	Privy 1301	Taylor family	1870	25	California mussel (5), Eastern oyster (2), Pacific oyster (13), Nuttall's cockle (3), Pacific littleneck clam (2)
4	Privy 1303	Thompson family	1880	4	Pacific oyster (1), Pacific littleneck clam (3)
4	Privy 1307	Brown family	1870	7	California mussel (4), Pacific oyster (3)
4	Privy 1311+	Clark family	1870	7	Pacific oyster (1), Pacific littleneck clam (6)
4	Privy 1322	Hurley and Conniff families	1890	25	Bent-nosed clam (12), Pacific oyster (4), Pacific littleneck clam (9)
4	Privy 1326	Amanda Scales and boarders	1875	16	Bent-nosed clam (8), Clam (1), Giant rock scallop (1), Mussel (1), Pacific oyster (3), Pacific littleneck clam (2)
4	Privy 1333	William Dougherty	1890	20	Bent-nosed clam (5), Black abalone (1), California mussel (1), Giant Pacific cockle (1), Pacific oyster (5), Pacific gaper (1), Pacific littleneck clam (3), Pinto abalone (1), Red abalone (2)
5	Privy 505	Mayne household, O'Connor family	1880	38	Bay mussel (1), Bent-nosed clam (1), California mussel (2), Eastern oyster (21), Pacific oyster (1), Pacific littleneck clam (12)
5	Privy 507	Peel family	1870	36	Eastern oyster (1), Pacific oyster (1), Pacific littleneck clam (34)
5	Privy 516	Mary Peel	1880	3	Bent-nosed clam (1), Nuttall's cockle (2)
9	Privy 2	Johnson household	1880	79	Bent-nosed clam (1), California mussel (2), Eastern oyster (1), Pacific oyster (1), Nuttall's cockle (69), Pacific littleneck clam (5)
9	Well 6	Dent and Hannan families	1895	297	Bent-nosed clam (19), California mussel (3), Eastern oyster (250), Pacific oyster (8), Nuttall's cockle (10), Pacific littleneck clam (5), West Coast bittersweet (2)
9	Well 8	Rowe family	1885	9	Eastern oyster (6), Pacific oyster (3)
9	Privy 9	Usher household	1880	195	Bay mussel (103), Bent-nosed clam (80), Pacific oyster (8), Pacific littleneck clam (4)
10	Privy 801	Sheridan family	1885	1	Eastern oyster (1)
10	Privy 807	Gee family	1869	13	Bay mussel (1), Eastern oyster (7), Pacific oyster (3), Pacific littleneck clam (2)
10	Privy 808	Schreiner, Johnson, Degnan, and McIntyre families	1880	13	California mussel (2), Eastern oyster (1), Giant Pacific oyster (1), Pacific oyster (9)

Table 7.2. Food Refuse Shellfish Remains (*continued*)

Block	Feature	Association	Date (ca.)	Total MNI	Common Name
10	Privy 810	Monahan family and tenants	1880	2	Pacific oyster (1), Nuttall's cockle (1)
10	Privy 812	Maloney family; Towne and Hill household	1880	4	Bent-nosed clam (2), Pacific oyster (1), Nuttall's cockle (1)
10	Privy 814	Aaron family	1875	5	Eastern oyster (4), Pacific littleneck clam (1)
10	Privy 849	Strauss household	1870	5	Bent-nosed clam (1), Eastern oyster (4)
10	Privy 851	Metcalf household	1880	18	Eastern oyster (1), Pacific oyster (1), Nuttall's cockle (1), Pacific littleneck clam (15)
10	Well 853	Baker family	1870	327	Bay mussel (2), Bent-nosed clam (244), California mussel (2), Eastern oyster (2), Pacific oyster (41), Pacific littleneck clam (36)
10	Privy 857+	Dolan and Michelson families	1880	16	Bay mussel (3), Nuttall's cockle (10), Pacific littleneck clam (2), Red abalone (1)
10	Well 866	McDonald and Tobin families	1885	4	Black abalone (1), Eastern oyster (1), Pacific oyster (1)
11	Privy 1600+	Donnelly and Beal families	1880	46	Bay mussel (7), Bent-nosed clam (4), Black abalone (1), Eastern oyster (6), Pacific oyster (1), Pacific littleneck clam (7), Soft-shelled clam (20)

## CHIHUAHUA AND GUINEA PIG, PRIVY 1333 – 236 FREMONT STREET

Michael Stoyka

Domestic dog remains show up on a regular basis in 19th-century urban privies in the Bay Area cities of San Francisco and Oakland, although not nearly as frequently as cats.<sup>1</sup> During the analysis of the faunal material from Privy 1333, it became apparent that there was a domestic dog with very distinctive features. An indeterminate rodent skull with distinctive characteristics that did not match any of the usual suspects added to the mystery. These specimens were later identified as a Chihuahua with a neonate puppy, and a Guinea pig.

How does an analyst deal with unexpected identifications such as these? Luckily these animals possessed such distinctive, specific, and unmistakable features that their identifications were not difficult. Some other rodent bones and the skeletons from domestic dogs in Bay Area archaeological collections have defied species and breed-specific identification (although efforts to identify the problematic specimens have not been abandoned). Even the best-stocked faunal comparative collections and museums would not have the necessary exotic rodent or breed-specific canine specimens to help identify the archaeological finds.

An important lead for the rodent came from the skeletal collection of the Department of Ornithology and Mammology at the California Academy of Sciences in San Francisco. The maxillary dentition alignment was unlike any of the rodents from California or North America examined there. But the Academy's large collection of exotic species from Galapagos and South America provided the answer. Instead of two parallel sets of teeth, the specimen had a V-shaped alignment that nearly converged at the anterior. The V-shaped dentition is an attribute of South American rodents belonging to the genus *Cavia*.

1. Six dogs were identified from 5 analytic units on the West Approach Project, while 24 dogs from 13 analytic units were identified on the Cypress Freeway Project. By comparison, the remains of 61 cats were recovered from West Approach and 65 cats were collected from Cypress. The Norway rat (*Rattus norvegicus*), Black rat (*Rattus rattus*), and European house mouse (*Mus musculus*) are also frequent contributors to species lists.



Guinea pig maxillary dentition, Privy 1333

The collections examined led to the conclusion that a South American rodent, probably a Guinea pig, was present in the collection from Privy 1333. The other animal was definitely a domestic dog of some type, but which one? The Internet became a valuable tool in this quest. There are several Web sites featuring illustrations of skulls in various views, occasionally with scales (see selected list, below). The fact that both animals had largely intact skulls was a benefit, since post-cranial examples are far harder to come by. The comparison of the digital images to the specimens made identification absolute.

Guinea pigs have a long domestic history. The Incas first began to domesticate Guinea pigs as both ritual entities and as a source of food from around 500 B.C. In Peru, Guinea pigs have a hallowed place in native folklore. Legend holds that Guinea pigs are mystical beings that can heal the sick and assist the dying in the journey from the world of the living to the great beyond. Little is known about how Guinea pigs were first introduced to Europe and North America as domestic pets, but they most likely came during the 16th century. It is said that Queen Elizabeth I of England had a Guinea pig of which she was much enamored, which contributed greatly to the animal's popularity in Europe (Comfy Cavies 2006). In America by mid-century, Guinea pigs, white mice, and fish (usually housed in small globes) had become known as children's pets. These animals were easy to care for and relatively hardy (Grier 2006:24, 39).



Guinea pig cranium, Privy 1333 (left) and guinea pig skull from osteological specimen catalog (right skull photo courtesy of [www.skullsunlimited.com](http://www.skullsunlimited.com))

The Guinea pig specimen identified in the feature was an older individual, based on the fusion of the skull sutures. An indeterminate rodent femur and sacrum, which exhibit porosity and bone-growth pathologies, may also belong to this animal; post-cranial elements were not available for comparison. Guinea pigs have a life expectancy of 4 to 7 years; hence, young children could enjoy their pet's company through much of their childhood. It is likely that these animals were available in San Francisco at an early date, considering the penchant for the maritime industry to bring exotic objects and animals from around the world, and the fact many of the ships that harbored in San Francisco included South America in their voyages.

The Chihuahua is also a breed with Latin American origins, although there is a certain mystery and controversy concerning its roots. The Techichi, companion of the ancient Toltecs, is believed to be the progenitor of the Chihuahua. No records on the Techichi are available prior to the 9th century, but it is probable its ancestors were present prior to the Mayans. Dogs similar to the Chihuahua are found in materials from the pyramids of Cholula in central Mexico, predating 1530, and in the ruins of Chichen Itza on the Yucatan Peninsula. It is theorized that the Chinese crested, brought from Asia to Alaska across the Bering Strait, was responsible for the reduction in the breed's size. The animal's immigration to Europe may be the result of the travels of Christopher Columbus. A letter written by Columbus to the King of Spain makes reference to the tiny dog. The Chihuahua is an older breed by American Kennel Club standards, first registered in 1904 (American Kennel Club 2006).

The neonate dog raises some interesting points for the analyst. The skeletal elements from this animal were too juvenile to make a specific determination. When compared to the mature animal's bones, the morphology of those elements was found to be virtually identical. Through additional research and a side-by-side comparison of the juvenile and mature elements, it appears highly likely that this dog and her pup died during or some time shortly after whelping. The numerous problems and complications associated with breeding Chihuahuas are widely known to breeders. Owners are frequently warned to make sure that the stud is smaller than the bitch in an effort to ensure a smaller-sized puppy and thus an easier passage during birth. Other potential and common complications include too many puppies, retained puppies, one oversized puppy, puppy septicemia, eclampsia, absorption of the litter, and fading puppy syndrome (a condition of unknown cause where strong, healthy puppies stop thriving, fail to gain weight, weaken and die between 1 and 3 weeks old).

The remains of two kittens, a baby chicken and several rabbits were also recovered from the feature. The presence of these animals in addition to the Guinea pig, the Chihuahua, and the newborn puppy further suggests that the residents were involved in raising animals. The individual associated with this feature is William M. Dougherty, a longshoreman from Ireland. In city directories and voter registration records from the period, he is listed as residing at the same address with two men from Nova Scotia, a longshoreman and an engineer. In 1892 Dougherty is listed as selling liquors from the address, perhaps in a small saloon off his residence. Unfortunately there is



Chihuahua skull from Privy 1333 (left), and chihuahua skull from an osteological specimen catalog (right skull photo courtesy of [www.skullsunlimited.com](http://www.skullsunlimited.com))

only sporadic mention of William and his situation. A large quantity and variety of child-related artifacts were recovered from the feature. Some of the child-related artifacts include 3 pairs of shoes sized appropriately for a child, 21 marbles (clay, glass, and stone), 8 porcelain dolls, a ferrous toy

gun, and numerous items from tea sets. A family's involvement in raising animals may have been quite different from that of a group of single male tenants. It was common to expose children during this time period to animals to help socialize them and instill responsibility.

Some selected Web sites for use in identifying skulls of domestic pets:

<http://www.bonerroom.com/casts/bclonedog.html>;

[http://www.Guineapigsclub.com/gp\\_site/ill.asp](http://www.Guineapigsclub.com/gp_site/ill.asp);

<http://www.skullsite.co.uk/Dog/dog.htm>;

<http://www.skullsunlimited.com/canidae.htm>;

<http://www.skullsunlimited.com/Guinea-pig-skull.html>;

[http://www.takingthelead.co.uk/3/Anatomy/dog\\_skulls.htm](http://www.takingthelead.co.uk/3/Anatomy/dog_skulls.htm).

## HUNTING FOR GAME, BIG AND SMALL

For millennia, the Bay Area has been a haven for game and wild fowl. An early visitor commented that ducks were “plentiful and fat and of so many varieties: mallard, canvasback, wigeon, and teal” (Davis 1967:56). Geese, quail, deer, elk, and rabbit were abundant, and all contributed to the diet of local residents.



Figure 7.2. A pepperbox gun from the West Approach Project (Privy 9). It was probably brought to California by John Usher when he moved here from Maryland. The Robbins and Lawrence Co. of Windsor, Vermont, manufactured the gun in the early 1850s. Though this gun was designed for personal defense, some of the ammunition in the West Approach collections indicate the presence of other firearms suitable for hunting.

unidentified goose and duck, representing 31 pounds of meat, were recovered from Privy 1333 (Table 7.4). Faunal remains representing an additional 10 pounds of blacktail jackrabbit and cottontail rabbit were also recovered. While none of the faunal elements showed evidence of hunting, the presence of shot and shell casings in the feature suggest that the residents may have been exploiting the local terrain, though they would have had to travel a fair distance to get to suitable hunting grounds. Two large hunting knives were excavated from features on Block 4 (Privy 1300) and Block 10 (Privy 806). Privy 806 contained the remains of only a single blacktail jackrabbit, but Privy 1300 had more than 19 pounds of game meat and 32 pounds of wild fowl. Wolf Samuel, a Jewish tailor, and Leonard Smith, an engineer, lived at 416 Folsom Street (1300) with their families in 1885. In addition to a Bowie knife, the residents threw out more than 20 shell casings and a single fishhook.

Even clearer evidence of hunting was found in Privy 1316 in the Tar Flat neighborhood. Thomas McEvoy lived there with his family in 1870, when the privy was filled. Though no hunting paraphernalia was recovered from this feature, it contained at least one blacktail jackrabbit with an impact fracture and an American wigeon that had signs of a healed pellet shot. Whether shot by Thomas or bought directly from a hunter, it is clear that hunted, in addition to farm-raised, animals contributed to the McEvoy's diet. At the other end of the spectrum was George Donnelly, an Irish blacksmith, who lived at 207 Perry Street with his wife and seven children in 1880. In the duplex next door, at 209 Perry Street, lived William Beal, a gold miner, his wife, and their five children. While very little game or fowl is represented in their combined privy (1600, 1601), it appears that the inhabitants may have enjoyed hunting based on the wide range of shot and shell casings recovered.

Many features from the West Bay Approach project contained ammunition and/or firearms (Table 7.3). While the pistols (Figure 7.2) were most likely used for protection rather than hunting, several features had ammunition appropriate for fowl and game. BB shot would have been suitable for geese (4 and 5 shot for turkey, 9 shot for quail, and number 3 buckshot for ducks), while larger bullets might have been used for rabbits and deer. For the enterprising hunter, the nearby marshes would have been a fertile hunting ground.

Members of the Dougherty household enjoyed wild fowl almost as much as they did their fish. Bones from greater white-fronted goose, mallard duck, northern pintail, American wigeon, greater scaup, green-winged teal, and

Table 7.3. Shooting, Hunting, and Fishing Artifacts

Block	Feature	Association	Date (ca.)	MNI	Description
4	Privy 1300	Samuel and Smith families	1885	22	.22 shell casing (14), .32 shell casing (4), .38 shell casing (1), shell casing (3)
				1	Fish hook
				1	Bowie knife
4	Privy 1301	Taylor family	1870	1	.44 slug
4	Privy 1318	Murphy family	1880	2	.22 shell casing (1), shell casing (1)
4	Privy 1333	William Dougherty	1890	5	#1 buckshot (1), .22 shell casing (3), .51 shell casing (1)
				1	Revolver
5	Privy 507	Peel family	1870	5	#9 shot (1), .44 slug (1), 5/4 shot (3)
				1	Pistol
9	Privy 2	Johnson household	1880	1	.40 shell casing
9	Well 6	Dent and Hannan families	1895	1	.22 shell casing
				1	Gunflint
9	Well 8	Rowe family	1885	2	.44 shell casing (1), .56 slug (1)
9	Privy 9	Usher household	1880	5	.44 slug (1), 5/4 shot (1), BB shot (2), shell casing (1)
				1	Pepperbox gun
10	Privy 806	McIver and Martin families	1880	21	.22 shell casing (16), 5/4 shot (1), shell casing (1), shotgun shell (3)
				1	Target bottle
				1	Knife
10	Privy 807	Gee family	1869	1	.32 shell casing (1), shell casing (1)
10	Privy 808	Schreiner, Johnson, Degnan, and McIntyre families	1880	1	.22 shell casing
10	Privy 849	Strauss household	1870	1	.32 shell casing
10	Well 853	Baker family	1870	3	Shell casing
10	Privy 857+	Dolan and Michelson families	1880	3	.38 shell casing
10	Well 866	McDonald and Tobin families	1885	3	.32 shell casing (1), .38 shell casing (2)
11	Privy 1600+	Donnelly and Beal families	1880	9	#3 buckshot (1), BB shot (1), 5/4 shot (3), .22 shell casing (1), .38 shell casing (1), .44 slug (1), shell casing (1)

Table 7.4. Game Meat

Block	Feature	Association	Date (ca.)	MINI	Meat Wt.	Description
4	Privy 1300	Samuel and Smith families	1885	7	19.0 lbs.	Blacktail jackrabbit, Cottontail rabbit
				12	32.0 lbs.	Greater white-fronted goose, Mallard duck, Green-winged teal, California quail, goose, duck
4	Privy 1301	Taylor family	1870	1	2.0 lbs.	Cottontail rabbit
				6	13.0 lbs.	Canada goose, Mallard duck, American wigeon, scoter, duck
4	Privy 1303	Thompson family	1880	1	2.0 lbs.	Cottontail rabbit
				4	8.5 lbs.	Goose, duck
4	Privy 1305	Fuchs and Cadigan families	1880	1	2.0 lbs.	Cottontail rabbit
				1	0.5 lbs.	California quail
4	Privy 1307	Brown family	1870	1	3.0 lbs.	Blacktail jackrabbit
				4	4.5 lbs.	Duck
				1	NA	Turtle
4	Privy 1310	McSheffrey household	1870	1	0.5 lbs.	California quail
4	Privy 1311+	Clark family	1870	2	5.5 lbs	Large duck/small goose, duck
4	Privy 1316	McEvoy family	1870	3	9.0 lbs.	Blacktail jackrabbit
				2	6.5 lbs.	American wigeon, goose
4	Privy 1318	Murphy family	1880	1	2.0 lbs.	Cottontail rabbit
				7	17.0 lbs.	Mallard duck, Northern pintail, goose, large duck/small goose, duck
4	Privy 1322	Hurley and Conniff families	1890	1	NA	Elk (possible)
				1	3.0 lbs.	Blacktail jackrabbit
				3	4.5 lbs.	Mallard duck, duck
4	Privy 1326	Amanda Scales and boarders	1875	5	11.0 lbs.	Blacktail jackrabbit, Cottontail rabbit
				14	19.5 lbs.	American wigeon, duck, Green-winged teal, California quail, goose
4	Privy 1333	William Dougherty	1890	4	10.0 lbs.	Blacktail jackrabbit, Cottontail rabbit
				15	31.0 lbs.	Greater white-fronted goose, Mallard duck, Northern pintail, American wigeon, Greater scaup, Green-winged teal, goose, duck

Table 7.4. Game Meat (*continued*)

Block	Feature	Association	Date (ca.)	MNI	Meat Wt.	Description
5	Privy 505	Mayne household, O'Connor family	1880	2	NA	Horse, Blacktail deer
				3	8.0 lbs.	Blacktail jackrabbit, Cottontail rabbit
				14	31.5 lbs.	Canada goose, Emperor goose, Greater white-fronted goose, Northern pintail, American wigeon, Mallard duck, California quail
5	Privy 507	Peel family	1870	1	2.0 lbs.	Cottontail rabbit
				8	8.5 lbs.	Northern pintail, Green-winged teal, Bufflehead, California quail, Mountain quail
5	Privy 515	Fegan family	1880	1	2.0 lbs.	Rabbit
				1	5.0 lbs.	Goose
9	Privy 2	Johnson household	1880	1	3.0 lbs.	Blacktail jackrabbit
9	Well 6	Dent and Hannan families	1895	3	7.0 lbs.	Blacktail jackrabbit, Cottontail rabbit
				9	18.0 lbs.	Canada goose, Northern pintail, Mallard duck, American wigeon, Northern shoveler, Green-winged teal, Black scoter, Surf scoter
9	Well 8	Rowe family	1885	2	4.0 lbs.	Cottontail rabbit
9	Privy 9	Usher household	1880	1	2.0 lbs.	Cottontail rabbit
				15	41.0 lbs.	Greater white-fronted goose, Canada goose, Snow goose, Northern pintail, Green-winged teal, Canvasback, White-winged scoter, goose, duck
10	Privy 801	Sheridan family	1885	3	8.0 lbs.	Blacktail jackrabbit, Cottontail rabbit
				3	8.0 lbs.	Mallard duck, goose, duck
10	Privy 806	McIver and Martin families	1880	1	3.0 lbs.	Blacktail jackrabbit
10	Privy 807	Gee family	1869	2	6.0 lbs.	Blacktail jackrabbit
				27	86.5 lbs.	Canada goose, Mallard duck, California quail, goose, duck
10	Privy 808	Schreiner, Johnson, Degnan, and McIntyre families	1880	16	48.0 lbs.	Blacktail jackrabbit
				24	28.5 lbs.	Canada goose, Mallard duck, American wigeon, Green-winged teal, California quail

Table 7.4. Game Meat (*continued*)

Block	Feature	Association	Date (ca.)	MNI	Meat Wt.	Description
10	Privy 810	Monahan family and tenants	1880	5	10.0 lbs.	Cottontail rabbit
				4	11.0 lbs.	Domestic goose, Northern pintail, American wigeon, duck
				1	NA	Turtle
10	Privy 814	Aaron family	1875	1	3.0 lbs.	Blacktail jackrabbit
				2	3.5 lbs.	Duck
10	Privy 851	Metcalf household	1880	2	3.0 lbs.	Duck
10	Well 853	Baker family	1870	1	2.0 lbs.	Cottontail rabbit
				27	41.5 lbs	Canada goose, Greater white-fronted goose, American wigeon, Northern pintail, Mallard duck, Surf scoter, California quail
10	Privy 857+	Dolan and Michelson families	1880	1	2.0 lbs.	Cottontail rabbit
				8	16.5 lbs.	Canada goose, Greater white-fronted goose, Mallard duck, American wigeon, California quail
10	Well 866	McDonald and Tobin families	1885	1	3.0 lbs.	Blacktail jackrabbit
11	1600+	Donnelly and Beal families	1880	1	9.5 lbs.	Brants goose, American wigeon, goose
				1	2.0 lbs.	Rabbit
				1	1.0 lb.	Duck

## RABBITS

Michael Stoyka

Rabbit remains are common in collections from both the Cypress Freeway Replacement Project and San Francisco West Approach. The introduction date for domestic rabbits into this country is unclear, but “English Rabbits” were kept as pets from the beginning of the 18th century (Grier 2006). By the mid-19th-century chickens, pigeons, and rabbits were being included in the standard list of “pet stock”; they were being bred for looks and were sometimes shown competitively by both adults and children. An 1874 catalog from a pet store in Philadelphia lists seven different breeds of rabbits for sale, including Lop Eared, Himalayan, Angora, Silver Grey, Belgian hare, and the Common English.

The presence of rabbits among the remains at archaeological sites is not always the result of their charms as pets. Rabbits are a common and favored food animal by some ethnic groups and were readily available in meat markets. In San Francisco, hares were selling for as little as 20 to 25 cents in November 1885 and September to October of 1886, then rising to as much as 75 cents to \$1.00 each in February of 1886. Rabbits were sold by the pair in a price range that fluctuated far less—between 25 and 50 cents.

Local native rabbits, like the Black-tailed jackrabbit (*Lepus californicus*), the Desert cottontail (*Sylvilagus auduboni*) or Brush rabbit (*Sylvilagus bachmani*), could also be obtained by hunting. The number of rabbits fluctuates due to environmental factors, disease, and predators. The population of wild rabbits does not appear to have suffered from 19th-century exploitation. An account from 1896 puts the rabbit population into perspective as the agricultural boom in California was developing. In this article the rabbit is described as an “agricultural menace locally”; efforts to eliminate them recounted, “from 10–20,000 hares were killed in a single day during a rabbit drive in the San Joaquin Valley” (Orr 1940:34; Palmer 1896).

Many of the breeds eaten in the Bay Area were domestic varieties, raised in Sonoma, Marin, Napa, Alameda, and San Mateo counties (*San Francisco Morning Call* 9 April 1876:8). By the 1890s, raising rabbits for pet stock, food, or fur, was being promoted as a good income producer

(Grier 2006:212). An 1876 *San Francisco Morning Call* article “What We Live On” contends that, although many rabbits were readily available and abundant in markets, “the poor rarely bought them”; instead “they chiefly go to French and German restaurants, and to well-to-do private families” (*SF Morning Call* 9 April 1876:8). A menu from the Palace Bakery and Restaurant in San Francisco lists “Stewed hare a l’Anglaise” for 10 cents, under their listing for Entrees (California Bureau of Labor Statistics 1885–86).

Other sources paint a more favorable view of rabbit as popular food in 19th-century America. Most contemporary cookbooks of any repute or popularity had at least one recipe for rabbit or hare and usually had several options for the game meat. In the 1868 *Handbook of Practical Cookery, for Ladies and Professional Cooks*, by Pierre Blot (a celebrity chef in New York City), recipes for *Hare in Civet, roasted, and baked*, are included. Instructions are also given in the selection of a fresh hare in the market, along with a very interesting piece of general information. Chef Blot states,

No hares have yet been found in the United States, except for California. The reported hare of the Western prairies is, as far as known, a species of rabbit. That found in the Eastern markets comes from Canada and Europe. The Canadian hare is very inferior in quality [1868:280].

It seems that as well as being abundant the Black-tailed jackrabbit was held in fairly high regard by the culinary establishment.

The archaeological faunal materials do not suggest that only well-to-do families and restaurants served rabbit with any frequency in the United States. The data show that families of a wide range of cultures, ethnicities, and economic classes representing a cross section of the community were eating rabbit meat. The sample includes people of 11 nationalities from West Approach and 7 from Cypress. The presence of rabbits was not restricted to any economic class, ethnicity, or immigration or residential status. Thirty-two



*Lepus innominate* (hare hipbone), Well 6. Note knife marks on left.

percent (31 features) of collections from Oakland and 71 percent (30 features) from San Francisco contain rabbit bone.

Religion does not appear to have played a role in the consumption of rabbit either. One feature from the Cypress Project and three from the West Approach Project had Jewish associations. There

#### Features with Known Associations Containing Rabbit Remains (by Occupation)

	Cypress	%	West Approach	%
<b>P+</b>	1 of 1	100.0	2 of 2	100.0
<b>P</b>	4 of 4	100.0	10 of 11	90.9
<b>S</b>	10 of 10	100.0	10 of 15	66.7
<b>SS</b>	3 of 3	100.0	10 of 10	100.0
<b>U</b>	2 of 2	100.0	6 of 7	85.7
<b>W</b>	1 of 1	100.0	1 of 3	33.3

P+ = Wealthy Professional, P = Professional, S = Skilled, SS = Semi-skilled, U = Unskilled, W = Widow

#### Features with Known Associations Containing Rabbit Remains (by Nativity)

	Cypress	%	West Approach	%
<b>A</b>	7 of 8	87.5	7 of 7	100.0
<b>AA</b>	4 of 4	100.0	–	–
<b>I</b>	8 of 8	100.0	20 of 24	83.3

A = American, AA = African American, I = Immigrant.

were rabbit remains found in every analytic unit with a Jewish association except for Privy 1409 from the Cypress Block 2 (Praetzellis, ed. 2001). Three of the four features had pork, and two of four had shellfish. Rabbit, pork, and shellfish are excluded by Jewish dietary laws.

The listed resident of the property at 416 Folsom Street where Privy 1300 was located was Wolf Samuel, who lived there with his wife Minnie and their children. Mr. Samuel, a tailor, was a Jew from Poland. The significant presence of pork and rabbits, and the likelihood of hunting due to a wealth of artifacts related to that activity from this feature, would suggest that they were not eating in a manner consistent with a traditional Jewish household. Interestingly enough, a similar case emerged from the Cypress Freeway Project where at 712 Fifth Street, Samuel Jacobs, a Jewish fruit peddler resided. The presence of shellfish and pork in the faunal collection indicates that he too was ignoring religious strictures.

Another interesting point of similarity in the two cities' collections lies in the rate of butcher marks. San Francisco rabbit bones bear some evidence of butchering (knife scores, impact fractures, and cut to breaks) 27 percent of the time, while the same factor occurs in 36 percent of the bones from West Oakland. These numbers suggest a similarity and consistency in preparation and consumption styles.

Four families resided in two households at 120 Silver Street near former Mission Bay in 1880. The Schreiners, Johnsons, Degnans, and McIntyres all contributed to the refuse accumulated in Privy 808. The families ate an eclectic and expensive assortment of meat and fish, some purchased and some acquired by hand. At least 16 blacktail jackrabbits (18 pounds) are represented in the faunal remains. Two mallard duck elements show evidence of shotgun-pellet damage, while the remaining fowl—Canada goose, American wigeon, green-winged teal, and California quail—do not. Ten robins and a single coronet fish, found only in South and Central American and the Asian Pacific, round out the collection. Only a single .22 shell casing was recovered, yet it is obvious that some of the food set on the table was hunted locally.

In 1880 Henry Mayne, a ship's carpenter, his wife, and four lodgers lived in a duplex at 546 Folsom Street (Privy 505) with Thomas O'Connor, a Canadian sawyer, and his wife. Like others living south of Market Street, the residents here consumed rabbits, ducks, wigeon, quail, and geese. However, this was the only household to contain elements of black-tailed deer or clearly butchered horse. Three separate goose varieties are noted as well: Canada goose, Emperor goose, and greater white-fronted goose. None show evidence of pellet damage and no hunting-related artifacts were found in the feature, suggesting that most, if not all, was purchased at market.

Rabbit, duck, and goose were part of the diet of many South of Market residents. All of these, as well as other wild game, would have been available at the local market or straight from the hunter himself. Undoubtedly, some residents contributed their own bounty to the table.

## BACKYARD BARNYARDS

Not all meat was procured at market or caught in the wild; some was raised and butchered at home. Fruits and vegetables were grown in the backyard or in flowerpots on the steps, while berries would have been collected from bushes growing in alleys and along fences.

Commercial chicken and turkey production in California did not get underway until the 1880s; until then, domestic poultry was in short supply and consequently more costly. It was not until shortly after the turn of the century that domestic poultry and wild game birds were economically competitive. With the decline in wild fowl populations in the 20th century, the tables were turned and game birds became increasingly expensive (Simons 1980).

Several South of Market families appear to have raised chickens on their small plots of land (Table 7.5). In addition to meat, chickens provided eggs and, upon death, feathers for pillows and other items requiring padding. Setting up and maintaining chicken coops could be as simple or elaborate as desired, though cleanliness was critical as chicks are susceptible to disease and parasites. Poultry feeders and waterers could be purchased ready-made or fabricated with materials available to any household.

More so than other neighborhoods, many residential deposits from Tar Flat—especially Baldwin Court—included the remains of juvenile and baby chickens, suggesting home poultry production. Around 1870 the Clark and McShaffrey families were neighbors, living at 7 and 9 Baldwin Court (1310, 1311+), respectively. Sharing a lot line, the families may well have conversed about the care and feeding of their chicks. A little further down the street, the Murphy and Thompson families, at 11 and 21 Baldwin Court (1318, 1303), were raising chickens by 1880;

**Table 7.5. Raising Chickens and Home Butchering**

Block	Feature	Association	Date (ca.)	Raising Chickens	Home Butchering	% Low-cost meat
4	Privy 1303	Thompson family	1880	X		33.6
4	Privy 1305	Fuchs and Cadigan families	1880		X	34.5
4	Privy 1310	McSheffrey household	1875	X		29.5
4	Privy 1311+	Clark family	1870	X		32.3
4	Privy 1318	Murphy family	1880	X		27.5
4	Privy 1333	William Dougherty	1890	X		35.2
9	Privy 9	Usher household	1880	X		25.8
10	Privy 808	Schreiner, Johnson, Degnan, and McIntyre families	1880	X		22.9
10	Privy 857+	Dolan and Michelson families	1880	X		31.4

while as late as 1890, the Dougherty family, who lived around the corner at 236 Fremont Street, were also rearing chicks (1333).

Home butchering may have also been a cost-saving measure. By purchasing a side or quarter of beef to be brought home and cut up, butcher costs would be eliminated. One West Approach feature, Privy 1305, contained faunal remains indicative of home butchering (Table 7.5). Residing at 13 Baldwin Court in 1880 were Martin Fuchs, a German carpenter, his wife, and their three children, along with William Cadigan, an Irish laborer, his wife, and their five children. The families ate inexpensive to moderate-priced cuts of meat, with many stews and soups. The remains of a forequarter of a veal cow show evidence of home butchering. Lending further support to home butchering by this household are an amateurishly reduced beef thoracic vertebra and a nearly complete left half of a pig skull and right mandible that reconstruct at butcher marks made primarily with axe/cleaver.



Figure 7.3. Stoneware crock and lids, recovered from Well 6. The lid at bottom was manufactured by the Pacific Pottery Company, later N. Clark & Company, of Sacramento sometime between 1857 and 1888 (Praetzell et al. 1983:62–65).

A single feature, Privy 505 on Block 5, contained faunal remains that may be indicative of an inexperienced butcher or a butcher in training. The butchering pattern was predominantly the standard Euroamerican model: halves (or the butcher-reduced quarters) of a carcass cut down to steaks, roasts, and soup bones wherever appropriate. While at least 19 elements had amateurish, sloppy or excessive butchering, the lack of butcher-cut refits of the faunal elements indicates butchering off-site.

All but a few features show evidence of food preservation: seeds, canning jars, crocks (Figure 7.3) and lids, jelly jars, and other food-storage containers (Table 7.6). The seasonal preservation of food allowed for year-round enjoyment of various fruits and vegetables whose availability as fresh food was often very brief. Typically done on a small household scale,

Table 7.6. Floral Remains and Food-storage Containers

Block	Feature	Association	Date (ca.)	Floral Remains	Canning Jar	Crock/ Lid	Jelly Jar	Bottle/ Jug
4	Privy 1300	Samuel and Smith families	1885	Apricot/peach, cherry, coconut, grape, melon/squash	1	6		
4	Privy 1301	Taylor family	1870		1	5		2
4	Privy 1303	Thompson family	1880	Peach			2	
4	Privy 1305	Fuchs and Cadigan families	1880	Peach	1	2		1
4	Privy 1307	Brown family	1870	Peach		2		
4	Privy 1311+	Clark family	1870	Peach				
4	Privy 1316	McEvoy family	1870	Grape, peach				
4	Privy 1318	Murphy family	1880	Peach	2	2	1	
4	Privy 1326	Amanda Scales and boarders	1875			3	1	
4	Privy 1333	William Dougherty	1890		2	3		
5	Privy 505	Mayne household, O'Connor family	1880	Coffee	1			
5	Privy 507	Peel family	1870	Apricot/peach, berry, grape, melon/squash, peach			1	
5	Privy 515	Fegan family	1880		1			
5	Privy 516	Mary Peel	1880		1		2	
9	Privy 2	Johnson household	1880	Apricot/plum, berry, cherry, coconut, grape, peach		1	1	
9	Well 6	Dent and Hannan families	1895	Apricot/peach, cherry, coffee, grape, melon/squash, peach, peanut, walnut		7		
9	Well 8	Rowe family	1885	Apricot/plum, coconut, peach, pumpkin		5		
9	Privy 9	Usher household	1880	Almond, apricot/peach, berry, Brazil nut, cherry, coconut, coffee, grape, hazelnut, melon/squash, peach, peanut, pepper, walnut		5		
10	Privy 801	Sheridan family	1885	Berry, coffee, grape, peach	2	1	1	
10	Privy 806	McIver and Martin families	1880	Apricot/peach, cherry, coffee, grape, peach	3	4	2	
10	Privy 807	Gee family	1869	Apricot/peach, peach		4		

Table 7.6. Floral Remains and Food-storage Containers (*continued*)

Block	Feature	Association	Date (ca.)	Floral Remains	Canning Jar	Crock/ Lid	Jelly Jar	Bottle/ Jug
10	Privy 808	Schreiner, Johnson, Degnan, McIntyre families	1880	Apricot/peach, berry, chestnut, grape, pumpkin	3	1		
10	Privy 810	Monahan family and tenants	1880			3		1
10	Privy 812	Maloney family; Hill and Towne household	1880	Apricot/peach, peach, peanut	1	2	1	
10	Privy 813	Moynihan family and tenants	1880	Peach		1		
10	Privy 814	Aaron family	1875	Berry, cherry, peach				
10	Privy 849	Strauss household	1870	Grape, peach				
10	Privy 851	Metcalf household	1880	Peach	1	2		
10	Well 853	Baker family	1870	Peach, pumpkin			2	
10	Privy 857+	Dolan and Michelson families	1880	Berry, grape, peach		1		
10	Well 866	McDonald and Tobin families	1880	Cherry	1	4	1	
11	Privy 1600+	Donnelly and Beal families	1880	Almond, apricot/peach, Brazil nut, cherry, coconut, grape, hazelnut, melon/squash, peach, peanut, walnut	1	4	1	

homemakers could put-up an abundance of jellies, jams, pickles, vegetables, and the like in a relatively short period of time. Usually stored in dark, cool spaces or in a pantry, canned goods would be edible months and sometimes years later. Not only was canning an economic choice, it was also a personal preference enjoyed by wealthy and poor alike.

Much of the produce represented in the West Approach floral remains—such as apricots, peaches, cherries, and berries—would have been available from both the market and backyard. Likewise pumpkins, squash, and melons could have been as easily grown, space allowing, as bought.

The McIver and Martin families (Privy 806) had more food-storage-related items than other West Approach families—3 canning jars, 4 crocks/lids, and 2 jelly jars (Figure 7.4). Along with an assortment of apricot, peach, cherry, and grape seeds, these attest to home food preservation. The Taylor family in the Tar Flat neighborhood (Privy 1301) also had an assortment of food-storage items. Floral remains show that Wolf Samuel, Leonard Smith, and their families enjoyed apricots and peaches, cherries, grapes, melons, squash, and even coconuts. While only a single canning jar was recovered from their deposit (Privy 1300), at least 6 crocks—a vessel type often used for pickling—were found. It is likely that some of the squash were pickled and stored.



Figure 7.4. Food storage items from Privy 806. Included are 3 aqua-glass canning jars and a large (2-gallon) stoneware crock, about 11 inches in diameter and 7-1/2 inches tall.

## WORKING AND RELAXING AT HOME

Many South of Market residents either worked at home or brought work home with them. Several needleworkers (see Psota, Chapter 5) lived in the project area: Wolf Samuel, a tailor in the Tar Flat neighborhood; Mary Shore and Ida Briggs Shore, dressmakers near Rincon Hill; and Mary and Carrie McIver, seamstresses in the Mission Bay neighborhood. All of these individuals worked out of their home, while still others were employed in local clothing shops.

Tools recovered from deposits suggest other residents may have worked out of the house as well (Table 7.7). George Donnelly, an Irish blacksmith, lived in the duplex at 207 Perry Street with his wife and family in 1880. Next door at 209 Perry Street resided William Beal, a gold miner, and his family. At least 14 tools were recovered from the deposit associated with the two families (Privy 1600+). A wrought-iron swage—a tool used in shaping metalwork—and part of another wrought-iron tool would have been tools of the trade for Mr. Donnelly. Additional tools included various handles, rulers, a triangular file, and a hatchet, all of which may have been used by either the blacksmith or the miner.

Members of the Usher household on Block 9 appear to have engaged in some sort of woodworking endeavor. John Usher, a sailmaker from Maryland, was unemployed for several months in 1880, around the time the collection was deposited. That same year the city directory listed him as a conductor on a nearby railroad. Among the artifacts recovered from Privy 9 were a common jack plane, a folding ruler, a wood chisel, a tack hammer, a screwdriver, several wooden handles, and a large quantity of wood shavings. It appears that John was a jack-of-all-trades and supplemented the family's income by using his woodworking skills.

At least one South of Market resident, William Dougherty, operated a saloon out of the back of his residence. William was an Irish longshoreman who lived at 236 Fremont Street (Privy 1333) in Tar Flat between 1890 and 1892. Several additional tenants, also longshoremen, briefly resided at this address in the early 1890s. By 1892 the city directory listed Dougherty as “liquors, 236 Fremont,” with no residential listing, though it is likely he remained living at this address. Artifacts recovered from the deposit include relatively equal amounts of ale/beer, wine/champagne, and other alcoholic-beverage containers, more than three dozen stemware/tumbler glasses, and a variety of snuff bottles, smoking pipes, and spittoons, all of which would have been used in a saloon. The faunal remains, primarily moderate- to low-priced soup and stew cuts, represented more than 2,500 pounds of meat, a significant quantity for just a few men. William may have been serving simple meals along with liquor as a way to further augment his income.

In addition to home businesses, of course, these tools may also reflect home-maintenance activities or remodeling efforts. The unconventional materials used in the construction of stone-lined Privy 1326 (see sidebar), for example, suggest that the owner himself undertook the design and construction of this feature—perhaps the efforts of an amateur rather than commercial work. Work around the home, while an undesirable chore for many, would have been an entertaining hobby for some, and any number of the tools listed in Table 7.7 could have resulted from this pastime.

Between their more mundane activities residents of the South of Market found time to play games, collect novelties, engage in crafts, and otherwise relax in late-19th-century San Francisco. Many families decorated their homes with items collected from outings near and far (Table 7.8).

*continues on page 291*

Table 7.7. Tools

Block	Feature	Association	Date (ca.)	MNI	Description
4	Privy 1300	Samuel and Smith families	1885	10	Auger/drill bit, axe, file/rasp (3), hose, saw blade, scissors, triangular file, whetstone
4	Privy 1301	Taylor family	1870	1	Hose
4	Privy 1304	Unidentified	1895	6	Folding ruler, file/rasp (2), hose, wrench
4	Privy 1305	Fuchs and Cadigan families	1880	3	Folding ruler, hatchet, whetstone
4	Privy 1307	Brown family	1870	1	Wood chisel
4	Privy 1316	McEvoy family	1870	2	Spade, triangular file
4	Privy 1318	Murphy family	1880	3	Auger?, possible auger handle, hose
4	Privy 1326	Amanda Scales and boarders	1875	1	Hatchet
4	Privy 1333	William Dougherty	1890	3	Axe, folding ruler, hatchet
5	Privy 505	Mayne household, O'Connor family	1880	2	Folding ruler, handle
5	Privy 515	Fegan family	1880	1	Whetstone
5	Privy 516	Mary Peel	1880	1	Folding ruler
9	Well 6	Dent and Hannan families	1895	7	Ash shovel, folding ruler, hose (2), riveting hammer, square shovel, wrench/vise clamp
9	Well 8	Rowe family	1885	2	Hose, needle-nose pliers
9	Privy 9	Usher household	1880	8	Folding ruler, common jack plane, tool handle, hose, flathead screwdriver, sieve, tack hammer, wood chisel
10	Privy 806	McIver and Martin families	1880	2	Folding ruler, chisel/plane blade
10	Privy 807	Gee family	1869	3	Hose
10	Privy 808	Schreiner, Johnson, Degnan, and McIntyre families	1880	4	Axe, folding ruler, hose, triangular file
10	Privy 812	Maloney family; Hill and Towne household	1880	4	Handle, hatchet, mallet, sprinkler
10	Privy 851	Metcalf household	1880	3	Pipe wrench, triangular file, wrench
10	Well 853	Baker family	1870	3	Ash shovel, chisel/file, hammer
10	Privy 857+	Dolan and Michelson families	1880	3	Folding ruler, hose, ice pick handle?
10	Well 866	McDonald and Tobin families	1885	7	Hose, pry bar, triangular file (5)
11	Privy 1600+	Donnelly and Beal families	1880	14	Box chisel/nail puller?, brace handle, brush, folding ruler (2), handle (3), hatchet, hose, ruler, saw, swage, triangular file

## A STONE-LINED PRIVY

*Michael D. Meyer*

Throughout California, privies, outhouses, and cesspits from the mid- to late 19th century are typically constructed with wood linings. Using this material for lining—even the use of privies themselves—made financial sense. For the homeowner, a privy was a minimal investment for a necessary facility. Wood was plentiful, relatively light and easy to haul, and both the vault and the privy itself required little skill to construct. For municipalities, sewer systems were an expensive investment. While city water systems were a primary need, the construction of sanitary sewers often lagged decades behind. In some cases, building municipal water supplies may have even delayed sewer construction, since privies were more likely to contaminate an adjacent well than piped water (Frost 1991:149–150). In Sacramento, there was a transition to brick-lined septic tanks prior to the connection to city sewer. In places such as New York’s Five Points, privies were constructed from a variety of materials, including stone, brick, and wood (Yamin 2000).

In San Francisco a single privy vault has been found with a stone base: Privy 1326 located behind 240 Fremont Street in the Tar Flat neighborhood. The granite base consisted of a floor and a short, mortared “wall” of several thin slabs and more substantial pieces from 6 × 8 inches up to 10 × 14 inches. The granite base rose 18 inches above the floor of the 3-foot-square chamber. A wood lining sat atop the stone and was over 3 feet deep. Most of the granite was placed on edge. About 10 percent of the stone was dressed—a piece of dressed stone refit with another from an upper fill layer outside the privy. While granite does not occur naturally near Block 4, in 1861 Charles B. Grant’s granite yard was around the corner at 411 Folsom. He lived on the same block as his business, at 324 Fremont. The irregular pieces and the broken pieces of dressed stone were probably scraps from Grant’s yard.

The purpose of the stone lining was likely to prevent over-digging by the night-soil man,

who emptied the privy chamber when necessary. The privy’s location may have warranted extra effort to ensure its longevity: the convenience of its proximity to the house or the limited space in the yard for a replacement privy may have influenced the method of construction. The additional expense to upgrade the privy is consistent with the house construction. Like the privy, the house itself was unique for Block 4. It was a story taller than any other residence on the block. It also sat back further from the street and had a bay window.

The original owner likely speculated that the nicer homes of Rincon Hill would extend downslope across Folsom Street. Instead, industry crept up the hill and the house at 240 Fremont became an anomaly. It was first surrounded in the rear by the diminutive worker’s cottages on Baldwin Court, and later removed to make way for an expanding foundry.



The granite base of Privy 1326, shown here with the upper wood lining of the vault removed, was unique. The stone base would have prevented over-digging by the night-soil man when he mucked out once or twice a year.

Table 7.8. Collectibles and Decorative Furnishings by Feature

Block	Feature	Association	Date (ca.)	Category	MNI	Description
4	Privy 1300	Samuel and Smith families	1885	Collecting Furnishings	8	Coral (4), Native American bowl, quartz crystal, shell (2; 2 species) Figurine (3), mirror (3)
4	Privy 1301	Taylor family	1870	Collecting Furnishings	9	Coral (5), shell (4; 4 species) Beaded lampshade, figurine, mirror (2), pressed-glass shoe, vase/spill vase (2)
4	Privy 1303	Thompson family	1880	Collecting	3	Figurine, mirror, vase/spill vase
4	Privy 1304	Unidentified	1895	Collecting Furnishings	1	Shell Vase/spill vase
4	Privy 1305	Fuchs and Cadigan families	1880	Furnishings	3	Figurine, mirror
4	Privy 1307	Brown family	1870	Collecting Furnishings	1	Shell
4	Privy 1310	McSheffrey household	1875	Furnishings	2	Mirror, vase/spill vase
4	Privy 1311+	Clark family	1870	Furnishings	3	Mirror, photograph/picture, vase/spill vase
4	Privy 1316	McEvoy family	1870	Collecting Furnishings	1	Volcanic tuff
4	Privy 1318	Murphy family	1880	Furnishings	3	Mirror (2), vase/spill vase
4	Privy 1322	Hurley and Conniff families	1890	Collecting	1	Mirror (4), photograph/picture (3), vase/spill vase (4) Copper-alloy lump
4	Privy 1326	Amanda Scales and boarders	1875	Collecting Furnishings	4	Coral, shell (3; 2 species)
4	Privy 1333	William Dougherty	1890	Collecting Furnishings	5	Figurine/vase, mirror (2), vase/spill vase (2) Shell (8; 6 species)
5	Privy 505	Mayne household, O'Connor family	1880	Collecting Furnishings	9	Figurine (2), photograph/picture, hollow (2), mirror (3), vase/spill vase Coral, shell (2; 2 species) Mirror

Table 7.8. Collectibles and Decorative Furnishings by Feature (*continued*)

Block	Feature	Association	Date (ca.)	Category	MNI	Description
5	Privy 507	Peel family	1870	Collecting	4	Coral, quartz crystal, shell (2; 2 species)
				Furnishings	8	Flower/fruit Stand, hyacinth vase (2), ceramic box lid, mirror (3), vase/spill vase
5	Privy 515	Fegan family	1880	Furnishings	1	Photograph/picture
5	Privy 516	Mary Peel	1880	Collecting	1	Shell
				Furnishings	2	Mirror, vase/spill vase
9	Privy 2	Johnson household	1880	Collecting	11	Coral (5), garnet crystal, shell (5; 3 species)
				Furnishings	6	Figurine (3), mirror, vase/spill vase (2)
9	Well 6	Dent and Hannan families	1895	Collecting	47	Coral (15), quartz crystal, obsidian biface, shell (28; 15 species), soapstone, tubular-shaped crystal
				Furnishings	7	Figurine, figurine/vase, novelty dish, mirror (2), photograph/picture (2)
9	Well 8	Rowe family	1885	Collecting	2	Coral, shell
				Furnishings	4	Bud vase, figurine, mirror (2)
9	Privy 9	Usher household	1880	Collecting	39	Coral (2), shell (37; 15 species)
				Furnishings	2	Figurine
10	Privy 801+	Sheridan family	1880	Collecting	13	Shell (2; 2 species)
				Furnishings	1	Figurine, mirror (2), vase/spill vase (3)
10	Privy 806	McIver and Martin families	1880	Collecting	1	Dover flint
				Furnishings	14	Figurine (3), figurine/vase, Jacob's ladder, beaded lampshade, ceramic box lid, mirror (2), photograph/picture, vase/spill vase (4)
10	Privy 807	Gee family	1869	Collecting	8	Coral (3), shell (5; 3 species)
				Furnishings	7	Dish, figurine, mirror (2), novelty dish, photograph/picture, plaque
10	Privy 808	Schreiner, Johnson, Degnan, McIntyre families	1880	Collecting	8	Coral, shell (7; 5 species)
				Furnishings	19	Figurine, beaded lampshade, mirror, photograph/picture (4), vase/spill vase (12)
10	Privy 810	Monahan family and tenants	1880	Furnishings	5	Figurine, mirror, photograph/picture, vase/spill vase (2)

Table 7.8. Collectibles and Decorative Furnishings by Feature (*continued*)

Block	Feature	Association	Date (ca.)	Category	MNI	Description
10	Privy 812	Maloney family; Hill and Towne household	1880	Collecting	1	Obsidian flake
				Furnishings	5	Figurine (2), beaded lampshade, mirror (2)
10	Privy 813	Moynihan family and tenants	1880	Furnishings	5	Figurine (2), mirror, photograph/picture (2)
10	Privy 814	Aaron family	1875	Furnishings	1	Vase/spill vase
10	Privy 849	Strauss household	1870	Collecting	3	Shell (3; 2 species)
				Furnishings	3	Jacob's ladder, mirror, vase/spill vase
10	Privy 851	Metcalf household	1870	Collecting	3	Coral
				Furnishings	4	Figurine (3), figurine/vase
10	Well 853	Baker family	1872	Collecting	24	Petrified wood, shell (22; 10 species), water-worn ceramic
				Furnishings	6	Bud vase, Jacob's ladder, mirror, vase/spill vase (3)
10	Privy 857+	Dolan and Michelson families	1880	Collecting	29	Coral, shell (28; 10 species)
				Furnishings	6	Display knife, figurine, Jacob's ladder, beaded lampshade, mirror, vase/spill vase
10	Well 866	McDonald and Tobin families	1884	Collecting	4	Quartz crystal, shell (3; 2 species)
				Furnishings	8	Figurine (3), pressed-glass hat, mirror (2), vase/spill vase (2)
11	Privy 1600+	Donnelly and Beal families	1880	Collecting	20	Coral, shell (19; 7 species)
				Furnishings	13	Pressed-glass basket, figurine (2), figurine/vase, hollow, Jacob's ladder, mirror (2), photograph/picture (3), vase/spill vase (2)

## JACOB'S LADDER

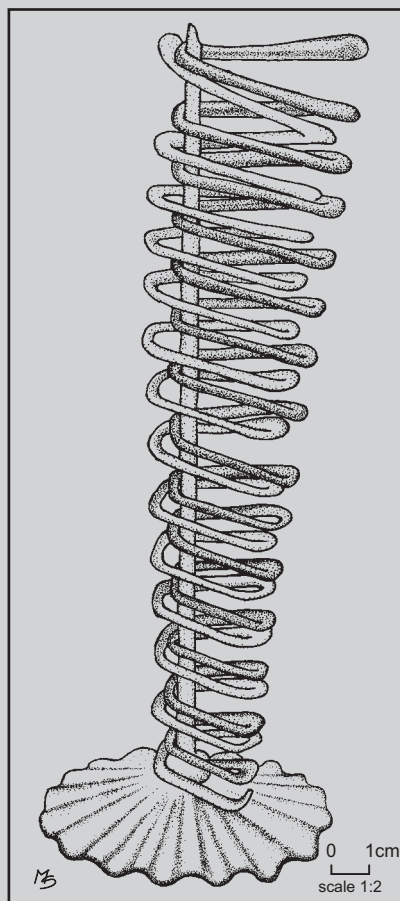
Erica S. Gibson

Glass whimsies, novelties, end-of-day items, or friggers (as they were called in Great Britain) were glass oddities made by individual glassmakers during their spare time or at the end of the day. As a demonstration of a glassmaker's skill, these handmade items were typically meant to be given to family and friends, though they could be sold as well. Limited by only the glassmaker's imagination and expertise, whimsies took almost any shape possible; blown hats and shoes, swans, pigs, sailing ships, Jacob's ladders, canes, chains, pens, rolling pins, bells, and stocking darners, to name but a few.

While some of these handmade items required a fair degree of skill (e.g., sailing ships and chains), the delicate and fragile spirals of the Jacob's ladder (see illustration) were deceptively easy to make. The glassmaker would pull a thread of molten glass and spirally wrap it around a glassmaker's tool, the pincers. Once the glass cooled, the pincer prongs were opened and the ladder was released (Hajdamach 1991). When placed on its pedestal, shaped like a wine glass stem and foot, the ladder could be pressed down slightly and then released so that it would spring up and down—the thinner the coils, the longer the ladder would bounce.

During the second half of the 19th century, the larger glass factories began to realize the commercial potential of these whimsical items and began making novelties and tourist souvenirs to be displayed at exhibition and to be sold. These objects included covered glass dishes in various shapes, pressed-glass hats (see photo inset) and shoes, novelty glass containers for candy, and pressed-glass vases and toothpick holders in the shapes of baskets, umbrellas, houses, cannons, and animals.

In the early days of San Francisco, when there were no local glassworks, bottles were a scarce and costly commodity. Typically, bottles were brought in from the East Coast around the notorious Strait of Magellan at the southern end of South America. It was not unusual to lose as much as half a shipment to breakage (Hinson 1995). Seeing a need, in the late 1850s Francis Cutting and his partner set up one of the first glassworks, Baker and Cutting. This endeavor was short-lived,



however, and San Francisco continued without a true glasshouse until 1863, when the Pacific Coast Glass Works began production.

In 1865 Carlton Newman of Pittsburgh, Pennsylvania, and Patrick Brannan, a glass blower from Pacific Glass Works, founded the San Francisco Flint Glass Works. The single-furnace factory was located on Townsend Street between Third and Fourth streets. Destroyed by fire in 1868, the plant was rebuilt as the San Francisco Glass Works adjacent to the old factory on Fourth Street between Townsend and King streets. This newer plant began production in 1870 after a two-year hiatus. In 1876 San Francisco Glass Works purchased Pacific Glass Works and consolidated into a single company. By 1883 the new, larger company—in desperate need of additional space—had purchased land at Seventh and Townsend streets and built a new factory (McGuire 1983). Both of these plants were located



This decorative blue pressed-glass hat was recovered from the McDonald and Tobin family's deposit (Well 866). This ornamental novelty item may have been used as a toothpick or match holder or simply placed in a window to catch the sun.

a short walk from West Approach Project Blocks 10 and 11, just two blocks north.

At least five different Jacob's ladders and one pressed-glass hat were recovered from West Approach features, one from Block 11 and the remainder from Block 10. Deposited between 1872 and 1884, the features are associated with a diverse group of residents, none of whom worked at the glassworks: a Scottish stevedore, an English merchant, a wharfinger, an Irish shipping clerk, a Norwegian sea captain, a German butcher, an Irish blacksmith, a Scottish gold miner, and an Irish laborer. The whimsical novelties would have been a decorative addition to any parlor and were probably received as gifts or purchased from neighbors who worked in the factories.

The collection requiring the greatest investment of time and money is no doubt that of amateur taxidermist Jonathon Peel (Privy 507), who lived at the edge of Rincon Hill (see Stoyka, this chapter). By far the most frequently collected item, however, was shell followed closely by coral. John Usher and his family on Block 9 (Privy 9) kept an eclectic assortment of shell, with exotics including Black-lipped pearl oyster, Burnt dove, Coquina, Little Arabian cowry, Money cowry, Spiny cup-and-saucer slipper, and Spiny slipper. These shellfish were not locally available and had ranges that included the Indo-Pacific, New York to Florida, northern Mexico, southern California to Chile, and western Central Mexico. John worked as a sailmaker and probably spent much time at sea. Other households had equally impressive quantities of shell, but no other household had this variety of non-native shellfish. Crystals of various types were recovered from several deposits. Whether garnet, quartz, or simply oddly shaped, they would have added a touch of sparkle to interior decor. Like people today, 19th-century residents liked to pick up and keep Native American artifacts and other rarities. A single obsidian biface fragment along with two crystals and a piece of soapstone were recovered from the Dent and Hannan household on Block 9 (Well 6) and a Native American earthenware bowl, possibly a tourist item from the Southwest, was found in Privy 1300, associated with the Samuel and Smith families. Other unusual items included volcanic tuff from Privy 1316, associated with the McEvoy family, and petrified wood from Well 853, associated with the Baker family.

In addition to collectable items, every West Approach residence had some sort of decorative household furnishing, even if only a mirror. Photographs and hanging pictures were also popular. Decorative spill vases would have been used to hold long matches or paper rolled to form the long slender rolls, called spills, used to light lamps. Other vases, including bud vases and hyacinth vases, would have brought a bit of floral color and possibly aroma into the house. Figurines of porcelain and other fabric, and pressed glass pieces formed in the shape of shoes, hats, and the like, would have been placed on shelves for display. Beaded lampshades, blown-glass novelties like Jacob's ladders (see sidebar), and various kinds of bric-a-brac (Figure 7.5) would have helped to achieve the desired look of decorative abundance that characterized 19th-century parlors.

*continues on page 297*

**TAXIDERMY – BLOCK 5, PRIVY 507***Michael Stoyka*

Taxidermy dates at least as far back as dynastic Egypt. Animal skins have been treated and preserved by different cultures for a multitude of reasons, from creating hunting trophies to preserving animals or humans for the after-life. West African gorilla skins were brought back to Carthage as early as 5 B.C., and fantastic stuffed-animal “scenes” were being produced in Europe through the 17th and 18th centuries. It was not until the 19th century that the practice of taxidermy reached the level of an art, both in terms of refinement of technique and in its recognition as a worthy pursuit by both the scientific community and the general public. This time period constitutes the birth of the “modern” era of stuffing animals.

In nothing has the growing taste for natural history so much manifested itself, as in the prevalent fashion of placing glass cases of beautiful birds and splendid insects on the mantelpiece or the side table. The attention of the most indolent is attracted, the curiosity of the inquisitive awakened [Allen 1994].

Victorian sensibilities and aesthetic took the preparation and display of preserved animals to a new level. There was a new interest in the study and taming of the natural world. The collecting of shells, fossils, minerals, and taxidermy specimens became a culturally approved form of recreation (Logan 2001:144). Numerous publications were produced on the execution of these activities in both the United States and Britain, and on the methods of displaying and organizing the bounty that resulted. Examples are Daniel Beard’s (1882) *The American Boy’s Handy Book: Turn of the Century Classic of Crafts and Activities*; Montagu Browne’s (1884) *Practical Taxidermy*; and A. Hyatt Verrill’s (1913) *Harper’s Book for Young Naturalists*. While these pursuits involved the study of natural history and the exercise of a rational (masculine) skill (Grier 1997:99), they were also being touted as hobbies for young ladies that carried a high level of cultural prestige (Logan 2001:147). The average set of tools and equipment to indulge in this activity would cost about \$5.00 and were available at dealers and purveyors of taxidermy supplies (Verrill 1913:32); taxidermists Ferdinand

Gruber at 626 California and E.F. Lorquin at 522 Pine were listed in the 1869 San Francisco city directory.

There were many ways to acquire animal mounts without actually having to do the task oneself. Many larger pet stores in major American cities performed taxidermy by request (as a memorial for pets) or stuffed and sold birds that had died in the store (Grier 2006:242). Instructions were given on the acquisition of carcasses.

Many of your bird specimens will no doubt be obtained from hunters and friends who shoot them while hunting, while many birds of prey may be secured from farmers, who, as a rule, kill every hawk or owl they see within gunshot, and are very willing to turn them over to boys who want them [Verrill 1913:52].

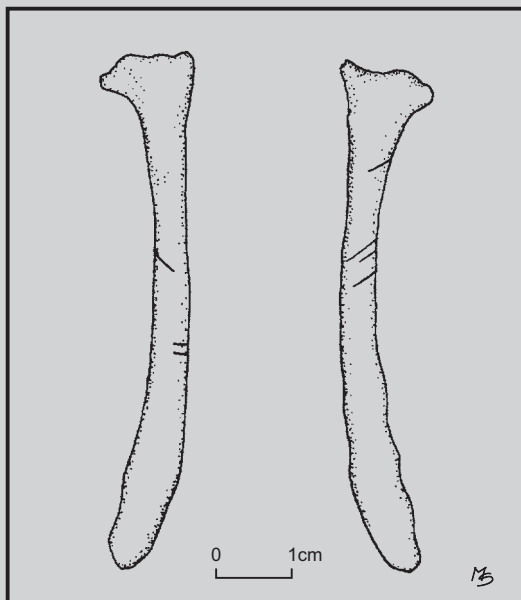
An individual who wanted to dispatch the animal himself, baited traps with a dead bird or mouse to catch owls and hawks, while blue jays, blackbirds, and doves were caught in box traps (Verrill 1913:53).

Privy 507, located at 540 Folsom Street at the edge of Rincon Hill, provided surprising faunal evidence of taxidermy. The myriad datable items from this feature place the TPQ in the early to mid-1870s and associate the property with Jonathon Peel, Sr., who owned three San Francisco lots, including this one where he and his wife resided from 1856 to their deaths in 1871 and 1878, respectively. The 1860 population census lists Peel as a 45-year-old brewer living with his wife. At that time their net worth was listed at about \$2,000 in real estate and personal property. A decade later the census listed Peel as a real-estate agent and retired merchant with a net worth of \$30,000 in real estate, and \$20,000 in personal property (U.S. Census 1860, 1870), showing he had done quite well for himself. Mr. Peel had a prominent uncle in England: Sir Robert Peel was British Prime Minister from 1834 to 1835, and 1841 to 1846 (Sherman 1898). By all accounts, Mr. Peel had the opportunity to become familiar with the height of Victorian material culture and décor on both sides of the Atlantic.

One of the striking aspects of this collection is its diverse avifauna, one of the most diverse avian lists of all the features analyzed from Oakland and San Francisco. Many non-traditional birds were consumed as food items in California's 19th century, and many popular cookbooks from the period have recipes for the preparation of songbirds. Including domestics, 35 individual birds from 23 species are represented (see table). Combined, the avian elements identified account for 47.6 percent of the total NISP. Additionally, 11 more general bird categories were used for some specimens; these groupings include indeterminate elements likely from already identified species, as well as elements that defied specific identification and may represent additional unusual species.

The presence of an extensive number of game birds may indicate hunting for sport or for holiday meals, though some of these animals would have been easily available in local markets. None of the avian elements studied bore any marks that could have been created by firearms. A pistol and 5 lead-shot pellets are the only artifacts of this nature recovered from this feature. The lead-shot have measurements of 1/16 inch and 1/8 inch, consistent with use in a shotgun shell.

With the birds removed that are more likely candidates as food items—such as chickens, turkeys, ducks, quail, and doves/pigeons—there remains a list of 20 very diverse birds.



A mated pair of scapulae from a Rhinoceros auklet (*Cerorhinca monocerata*) with cut marks from a knife.



A contemporary photo of a pet Lilac-crowned parrot. The remains of one found in Privy 507, bore evidence of preparation for taxidermy. The bird may have been a deceased pet, or could have been prepared for display after its demise at a pet store. (Image – Wikipedia 2007)

Butchering evidence consistent with technical steps in taxidermy helped identify the reason for these birds' presence. Elements from Barn owl, European starling, Western meadowlark, Long-billed dowitcher, Greater roadrunner, Common snipe, Rhinoceros auklet, warbler, and the Lilac-crowned parrot all have butchered marks. Additionally, the butchered elements from several birds that could not be readily identified after exhaustive attempts at the California Academy of Sciences Ornithology Department suggest the presence of more exotic species.

The Lilac-crowned parrot is a rare occurrence. The presence of a cut to break on the coracoid of the parrot suggests that the animal was not simply a pet. This bird is a native to Mexico and is only rarely observed nesting in the San Gabriel Mountains of southern California, according to contemporary ornithological sources. Store-bought parrots from this period were expensive (Grier 2006:50). An author on a book about pets noted that, "from the number of these birds that find their way into the hands of a taxidermist, we may be sure that a good percent of them do not live the allotted years of Parrot-life" (Earl 1894:101). All the other birds can be found seasonally or year round in the San Francisco Bay

**Privy 507 – BIRDS REPRESENTED IN FAUNAL REMAINS**  
**540 Folsom Street (West Approach Block 5)**  
**Jonathan Peel Sr. Family**

Common Name	Scientific Name	NISP	MNI*	MW (lbs.)	Evidence of Taxidermy	Possible Taxidermy
<b>BIRDS</b>						
<b>Domestic Poultry</b>						
chicken	<i>Gallus gallus</i>	77	7	14		
turkey	<i>Meleagris gallopavo</i>	3	1	15		
chicken-like (prob. baby chickens)	Galliformes	6	4			
<b>Game Birds</b>						
Northern pintail	<i>Anas acuta</i>	5	2	4		
Green-winged teal	<i>Anas crecca</i>	3	2	2		
Bufflehead	<i>Bucephala albeola</i>	2	1	1		
California quail	<i>Callipepla californicus</i>	5	1	0.5		
Mountain quail	<i>Oreortyx pictus</i>	15	2	1		X
Rock dove (Domestic pigeon)	<i>Columba livea</i>	6	2			X
Band-tailed pigeon	<i>Columba fasciata</i>	7	2			X
<b>Incidental Birds</b>						
Rhinoceros auklet	<i>Cerorhinca monocerata</i>	9	1		X	
Stellers' jay	<i>Cyanocitta stelleri</i>	5	3			
Greater roadrunner	<i>Geococcyx californianus</i>	28	4		X	
Marbled godwit	<i>Limosa fedoa</i>	2	1			
European starling	<i>Sturnus vulgaris</i>	13	2		X	
Western meadowlark	<i>Sturnella neglecta</i>	15	2		X	
Northern mockingbird	<i>Mimus polyglottos</i>	5	1			
Common snipe	<i>Gallinago gallinago</i>	31	3		X	
Greater yellowlegs	<i>Tringa melanoleuca</i>	1	1			
Virginia rail	<i>Rallus limicola</i>	3	1			
Barn owl	<i>Tyto alba</i>	8	1		X	
Long-billed dowitcher	<i>Limnodromus scolopaceus</i>	10	2		X	
Dowitcher	<i>Limnodromus (griseus or scolopaceus)</i>	3	1			
<b>Exotic Birds</b>						
Lilac-Crowned parrot	<i>Amazona finschi</i>	4	1		X	
<b>Indeterminate Birds</b>						
large duck	<i>Anas sp.</i>	1				
small duck	<i>Anas sp.</i>	3				
grouse	Phasianidae	3	1			
pigeons and doves	Columbidae	2			X	
magpie	<i>Pica sp.</i>	23	2			
warbler	<i>Dendroica sp.</i>	14	3		X	
size of California towhee	Passeriformes	8	1		X	
size of Common yellowthroat	Passeriformes	4	1		X	
size of starling	Passeriformes	1			X	
indeterminate bird	Aves	111			X	
<b>TOTAL BIRDS</b>		<b>436</b>	<b>56</b>	<b>37.5</b>		

\*Categories without MNI's are elements that are likely already counted in other more specific ID's.



These humerae are broken in a way that is common to specimen preparation for taxidermy. Clockwise from top left: Barn owl (*Tyto alba*), Western meadowlark (*Stenella neglecta*), Greater roadrunner (*Geococcyx californianus*), and Common snipe (*Gallinago gallinago*). [not to scale]

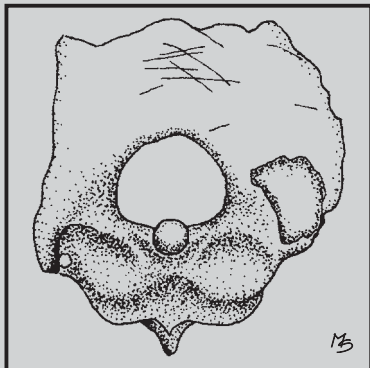
Area. The mountain quail can be found in the coastal range north of the Bay Area, as well as in the mountains of Santa Cruz. The roadrunners, though infrequent today, were abundant in the East Bay hills and the North Bay.

The butchering evidence is quite compelling. A total of 80 cuts were observed on the above-mentioned species that include knife scores, cuts, cut-to-breaks, and impact fractures. The most common of these cuts are those that effect the dividing of the humerus. Eighty-one percent of all the cuts identified on these animals were in this location. A description of one of the early-stage steps in preparing a specimen states, “hold the left-hand wing with the left hand, and with the fingers of the right hand break or disjoint the bone of the wing as close to the body as possible, *i.e.*, across the ‘humerus’” (Browne 1884:94). The same text also says, “Large birds may have their wings broken at the humerae by striking them with a stick or hammer” (Browne 1884:94), resulting in an impact fracture.

The impact fracture of a tibiotarsus from a Long-billed dowitcher has technical support as

well. This element is frequently cut or broken to allow for the skinning of the legs. Instructions can be found for “pushing the skin of the leg up so you can cut the bone with scissors” (Browne 1884:105), and “(in practice, it will be found that retaining the full length of this bone—the tibia—is not desirable for subsequent operations; it may therefore be advantageously shortened by one-half)” (Browne 1884:100–101).

The butcher marks on the occipital portion of a barn owl’s skull are also indicative of taxidermy. During the skinning process, it is necessary to make cuts in and around the skull to successfully claim that portion of the carcass for later mounting. In fact only a small portion of the skull is ultimately retained for the final specimen, and a successful mount can be accomplished without these elements altogether (Browne 1884:112). Butchering marks on a skull could reflect an attempt to remove the brain from the animal. Instructions are given to “sever the skull from the neck at the occipital to expose the brain for removal without cutting too much off at the base of the cranium, the shape of which is wanted for subsequent operations” (Browne 1884:97).



This barn owl (*Tyto alba*) skull exhibits cut marks on its occipital portion that are consistent with preparation for taxidermy (scale 1:1)

Another interesting comment on the procedure relates to birds such as ducks, woodpeckers, and raptors that have heads so large that the skull cannot be turned through the neck.

In such cases skin to the base of the skull. Cut off the neck, and turn skin back into place. Make an incision through the skin along the back of neck from base of skull for an inch or two down the neck, and turn the skull through this opening [Verrill 1913:46].

Additionally, one indeterminate distal humerus with an impact fracture has a perforation through which a piece of corroded metal wire protrudes. The use of wire is a common convention in positioning the bird for perching or the desired attitude of the wings. Stated quite simply, “In setting up a bird we require the use of wires” (Browne 1884:106). A breakdown of the appropriate gauge of wire for various species follows: 26–28 for hummingbirds, 24 for small warblers finches and canaries, 21 for small birds including the hawfinch, 19 for thrushes and starlings, 19 for landrails and pigeons, 13 for parrots and owls, and finally 12 will do for larger hawks (Browne 1884:106). The technical procedure for wiring a bird is well documented in taxidermy manuals. In most cases, where the wings are being held in place, a wire is inserted down the length of the broken humerus.

Some examples of an additional category of artifacts found in Privy 507 may have a connection with preparing and mounting birds. Dozens of straight pins were found from several fill contexts



This humerus from an undetermined bird displays a wire protruding from its distal end. Wire was frequently used in taxidermy to form and hold the wings' position for display.

within the privy. Pins and needles are nearly always associated with the activity of sewing, but are also tools in taxidermy preparation. The pins can be used to hold a skin down or away from the site of active cutting while de-fleshing the subject. Straight pins were also used to hold key elements of the bird—such as the head, tail, and wings—in place to secure the ultimate position of the animal (Verrill 1913:43, Figures 25–29).



This Elephant seal (*Mirounga angustirostris*) canine tooth probably represents a collected item or “pocket piece.”

Additional “Victorian naturalist” items from Privy 507 include a single left canine tooth from an Elephant seal (*Mirounga angustirostris*). The Elephant seal canine is unusual and appears to be a collected item, or “souvenir.” The surface of the tooth exhibits some wear and polish, as if it might have been handled frequently—perhaps kept in a pocket. A quartz crystal, non-native seashells, coral, and other collected or decorative items contributed to the ambiance of the interior of this residence.

Playing the harmonica was a pleasant pastime for several families. Harmonica slats were recovered from the Donnelly household (Privy 1600+), the McIver household (Privy 806), the Dent/Hannan household (Well 6), and the Murphy family (Privy 1318). In addition to the harmonica, the Samuel and Smith families (Privy 1300) also enjoyed playing the piano, as evidenced by the recovered piano-wire tightener and piano hammer. Near Rincon Hill, the Usher household (Privy 9) enjoyed the most varied musical entertainment. The recovery of mouthpieces for either a flute or piccolo and a small horn instrument (perhaps trumpet or trombone) and a probable guitar peg suggest that the family may have made music together.



Figure 7.5. This delicate, carved-cork basket was recovered from the Usher household on Block 9. Small enough to have been used in a doll house, this basket may well have decorated a small nook on a shelf.

## REUSE, REPAIR, OR DISCARD?

Not all artifacts were simply discarded; some were reused, others were repaired, and still more traded or bartered away. Clothing provides the most ready examples of reuse and repair. Occasionally garments were carefully taken apart and refashioned into more up-to-date styles, or they were sized down for smaller individuals (see Psota, Chapter 5), while scraps of fabric have been used for bundle ties, doll clothes, or dishrags. Often garments and footwear were repaired for continued use.

Other than clothing, only one artifact—a chamberpot—from the project area demonstrated clear evidence of repair. The Donnelly and Beal families lived on Block 11 in 1880. Between the two families there were 12 children ranging in age from 1 to 12. With so many children, it is not surprising that they endeavored to mend a hole in the base of a small chamber pot with a hard white substance (Figure 7.6). The otherwise intact vessel was discarded with other items when the families moved away around 1880.

Clear evidence of reuse is often difficult to detect. For example, a red earthenware bean pot, filled with a black tar-like substance, was recovered from Privy 807. At some point during the Gee family's tenure at 123 Perry Street, remodeling or some sort of construction was taking place on the lot. The lidded pot may have been used to hold adhesive materials during this phase and later tossed out.



Figure 7.6. The only example of a repaired ceramic item from the West Approach Project, this children's chamber pot was recovered from the Donnelly and Beal privy deposit (Privy 1600+) on Block 11.

## PRINTER'S TYPE – A NARRATIVE

Erica S. Gibson



Typeface plate for a book cover (Well 853) with a close-up of the finished product, the *San Francisco Business Directory and Mercantile Guide 1864–65*

Stephen Baker<sup>1</sup> had had a good day. His new job as a police captain took him to City Hall every day now—no longer did he have to walk a beat. At lunchtime he had gone out and spent some time perusing the book and print shops along Sansome Street in the commercial area of town. There were a number of such establishments and he had quite an enjoyable stroll.

Just last week he had met a couple of his neighbors, both printers. Alexander Crabb lived just down the street at 122 Silver and Bill Taylor on Perry Street, the block behind.<sup>2</sup> Stephen had been fascinated to learn how the printing plates were made. Apparently the process was based on the use of a Galvanic or voltaic cell. The idea seemed simple enough; placing two different metals in an acidic solution created an electric current, where one metal became the anode (positive charge) and the other metal the cathode (negative charge). When current was supplied to the cell, the cathode became the part to be plated and the anode supplied the plating metal.

The actual procedure was far more cumbersome. A wax mold was made of the composed

type and the mold was covered with a thin metallic coating, often black lead or graphite. The mold was placed in a tank along with a metal plate and filled with an acidic solution of copper sulphate and sulphuric acid. Once current was applied, a hard metal shell formed over the mold. To make the printing plate, the shell was cooled; the wax mold discarded, and melted lead poured into the metal shell. The plate was then attached to wood for printing (Green 2006).

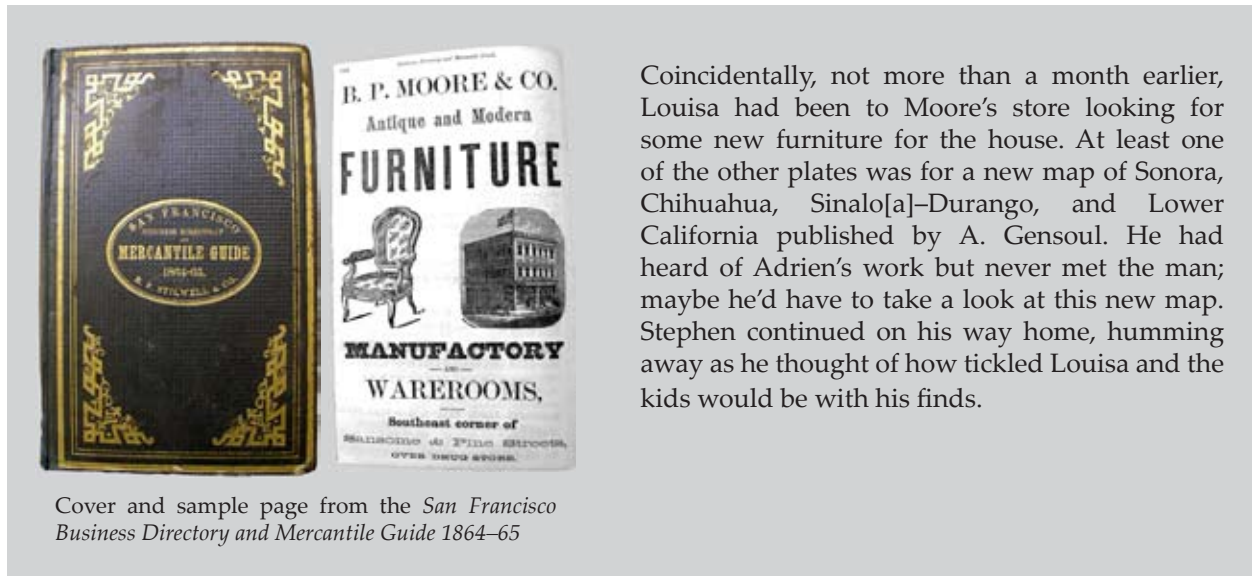
Alexander and Bill had been working on single-run production items, most notably the *San Francisco Business Directory and Mercantile Guide for 1864–1865*, published by B.F. Stilwell & Co. (see photo inset) Rather than melt down the old plate, they had kept several, along with miscellaneous pieces of individual type and punctuation.<sup>3</sup> Stephen was not sure what they planned to do with them but thought they would be fun for the kids—Jennie, George, and William—to play with, or maybe they could be melted down for another use. He might even persuade his wife, Louisa, that they could be shined up and put on display in the parlor. The men were happy to share.

This evening on his way home, Stephen had run into Alexander and Bill and they gave him a nice assortment. Among the stash were advertising plates for the Pacific Hardware Agency, at the corner of Sansome and Pine streets, and for B.P. Moore & Company at the same intersection.

1. Information on Stephen Baker and his family comes from U.S. Census (1860, 1870, 1880), Tap Record (1861), City Directories (1861–63, 1864–67, 1869, 1871); Voter Register (1866, 1867). This information is presented on the Documentary Research Table in the Block Technical Report (BTR) for Block 10.

2. Residence and profession information on Alexander Crabb and William Taylor comes from the Voter Register (1867).

3. Printer's type plates were recovered from Well 853. They are pictured and described under that feature in the Block 10 Block Technical Report.



Cover and sample page from the *San Francisco Business Directory and Mercantile Guide 1864–65*

Coincidentally, not more than a month earlier, Louisa had been to Moore’s store looking for some new furniture for the house. At least one of the other plates was for a new map of Sonora, Chihuahua, Sinaloa–Durango, and Lower California published by A. Gensoul. He had heard of Adrien’s work but never met the man; maybe he’d have to take a look at this new map. Stephen continued on his way home, humming away as he thought of how tickled Louisa and the kids would be with his finds.

Chinese brown-glazed stoneware vessels, typically used to package and ship Chinese foods and liquors, were not likely purchased for their contents by non-Chinese. In households lacking Chinese servants, the presence of these containers most likely represent reuse. Barrel jars—typically used to hold sheet sugar, rice, or whole soybeans—were recovered from West Approach features associated with the Taylor family (Privy 1301), the Metcalf family (Privy 851), and the Donnelly and Beal families (Privy 1600+). These large jars would have been suitable for storage of a multitude of items for these Euroamerican households. Smaller Chinese brown-glazed stoneware vessels and lids, most used for foodstuff storage, were recovered from across the project area and could have been reused in similar ways (Table 7.9). Like the possible southwestern pottery mentioned above, these unique items would have added an exotic touch to room decor.

Scrap materials might have been sold to the local junk dealer or store. As late as 1927, James Roxburgh recalled “the youngsters of that time, who used to gather scrap iron, bottles, rags, and old bones to sell, so they could go to Morosco’s [theater] on Sunday” (1927b:15). Likewise, households often purchased goods for their homes from these same junk dealers. John and Margaret Brown and 7 of their 10 children lived at 13 Baldwin Court during the 1860s and early 1870s. Their eldest son, James, worked at a junk store and undoubtedly brought items from there for use at home.

Like the San Franciscans of today, 19th-century South of Market residents were a resourceful lot. Whether they caught their dinner, raised their chickens, grew their vegetables, canned their fruit, mended their clothes, or otherwise furnished and decorated their homes, they had a hand in adapting their surroundings to improve their lot.

Table 7.9. Chinese Brown-glazed Stoneware

Block	Feature	Association	Date (ca.)	Barrel Jar	Hollow Jar	Large Storage Vessel	Lid	Small Storage Vessel Lid	Wide Mouth Jar	Wide Mouth/ Spouted Jar
4	Privy 1300	Samuel and Smith families	1885		2					
4	Privy 1301	Taylor family	1870	1						
4	Privy 1333	William Dougherty	1890							1
5	Privy 505	Mayne household, O'Connor family	1880			1				
9	Well 6	Dent and Hannan families	1895				1			
9	Privy 9	Usher household	1880				1	1		
10	Privy 806	McIver and Martin families	1880				1			
10	Privy 808	Schreiner, Johnson, Degnan, and McIntyre families	1880						1	
10	Privy 810	Monahan family and tenants	1880							1
10	Privy 851	Metcalf household	1880	1						
10	Well 853	Baker family	1870			1				
10	Privy 857+	Dolan and Michelson families	1880		1					
10	Well 866	McDonald and Tobin families	1885		1		2			
11	Privy 1600+	Donnelly and Beal families	1880	1	1					

## WELL MECHANISMS

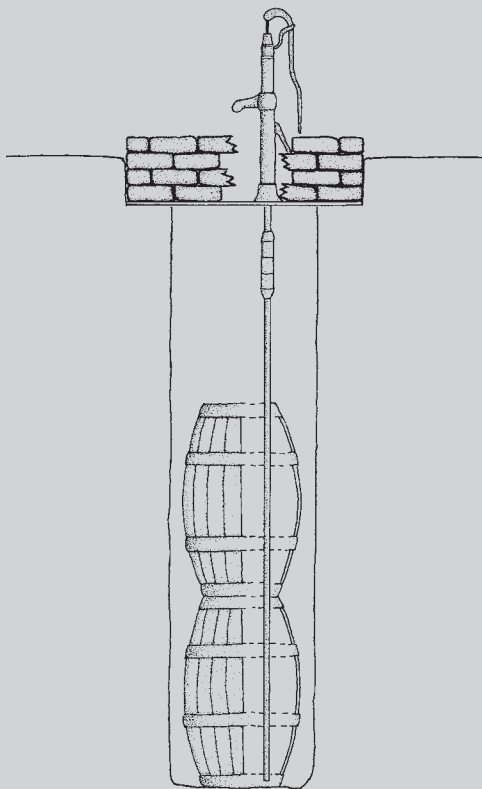
*Michael D. Meyer*

Two wells encountered during the West Approach Project contained remnants of their water-retrieval mechanisms. Well 6 on Block 9, constructed around the early 1860s, had a 1-inch-diameter pipe standing vertically from the bottom of the well. Water was drawn from the well using a pump, probably operated by hand, as the available space would not have allowed a windmill. Well 6 was also interesting for its construction. It was wood-lined. While there were no lining remnants in the upper portions of the feature, the bottom was lined with two stacked wooden barrels (see illustration), whose wooden hoops were held in place with cut nails. The barrels were each just over 3 feet in diameter and about 4 feet tall. Numerous bricks found in the upper fills may have come from the headwall to prevent

people, pests, and detritus from falling into the water supply.

Well 866 on Block 10, was built around the late 1850s. It contained a post, pulley, and chain, such as are used for drawing water by hand (see photo). These pieces are part of a chain-pump that drew water up within a 2-inch-diameter pipe. The disk-chain, or button-chain, consists of a chain with a metal flange and leather gasket at 15-inch intervals. Presumably a crank mechanism was used to pull the continuous loop of chain through the pipe, where the gaskets prevented water from dropping back into the bottom of the well. A spout or drain at the top of the pipe would have directed water into a catch basin or vessel at the surface as the chain continued its loop to draw more water.

The pipe found in Well 6, presumably attached to a hand pump, is interesting for having been found in a hand-dug well, since the pipe would have fit in a bored well of significantly smaller diameter. The pipe and pump may have been a later conversion from a hand-drawn bucket and pulley system. Both the pump and the chain system in Well 866 were commercially produced equipment for the age-old task of hauling water. As the city matured and municipal infrastructure—such as water systems—was expanded, there was a decreasing need for household wells. In the 1861 city directory, there were two listings for well diggers. In 1869 there were none.



A schematic diagram of the Well 6 pump mechanism based on the archaeological evidence. The well was actually over 20 feet deep with two stacked barrels lining the bottom, and a lead pipe to draw water. (illustration by M. Stoyka)



This post, pulley, and chain were discarded into Well 866 when it was abandoned (Block 10).

