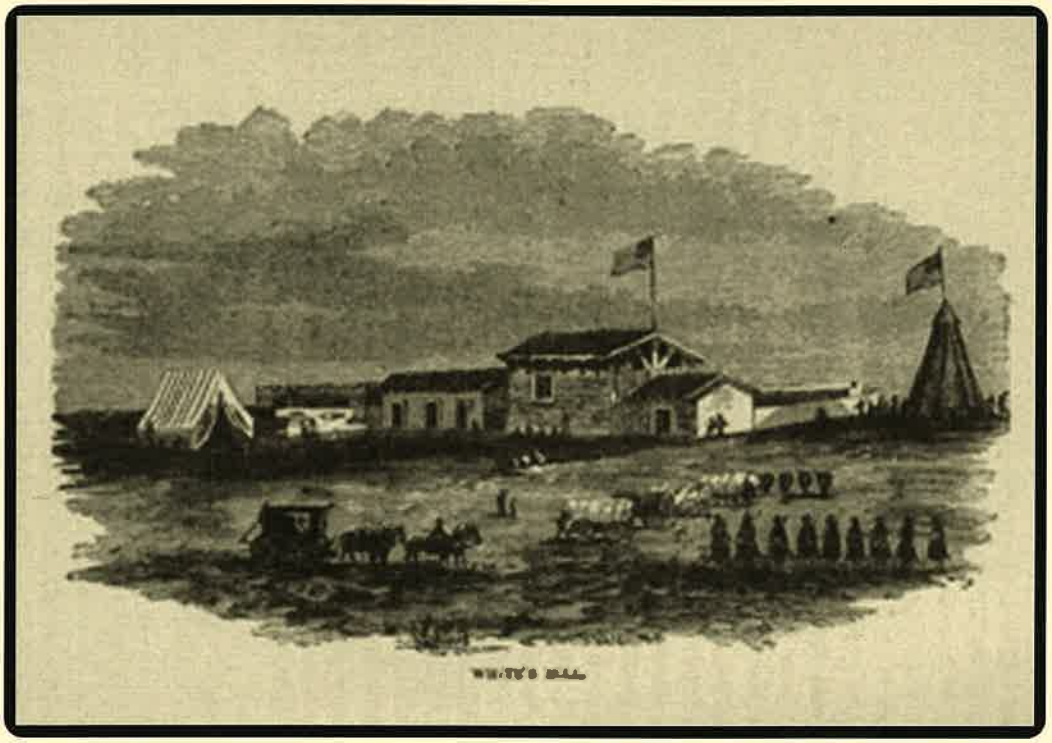
TERRITORIAL TIMES

Prescott Arizona Corral of Westerners International



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Gary Melvin <www/garymelvinart.com> contributed the cartoon on page 10.

John Huff www.johnhuffdesigns designed the front cover.

Cover Photo: Illustration of Ammi White's flourmill at the Pima Villages on Arizona's Gila River in 1864. From Browne, J.R., *Adventures in the Apache Country: A tour through Arizona and Sonora with Notes on the Silver Regions, 1871*. The tents and soldiers in the image are associated with Fort Barrett. The two-story structure in the center is presumed to contain the steam-driven mill.

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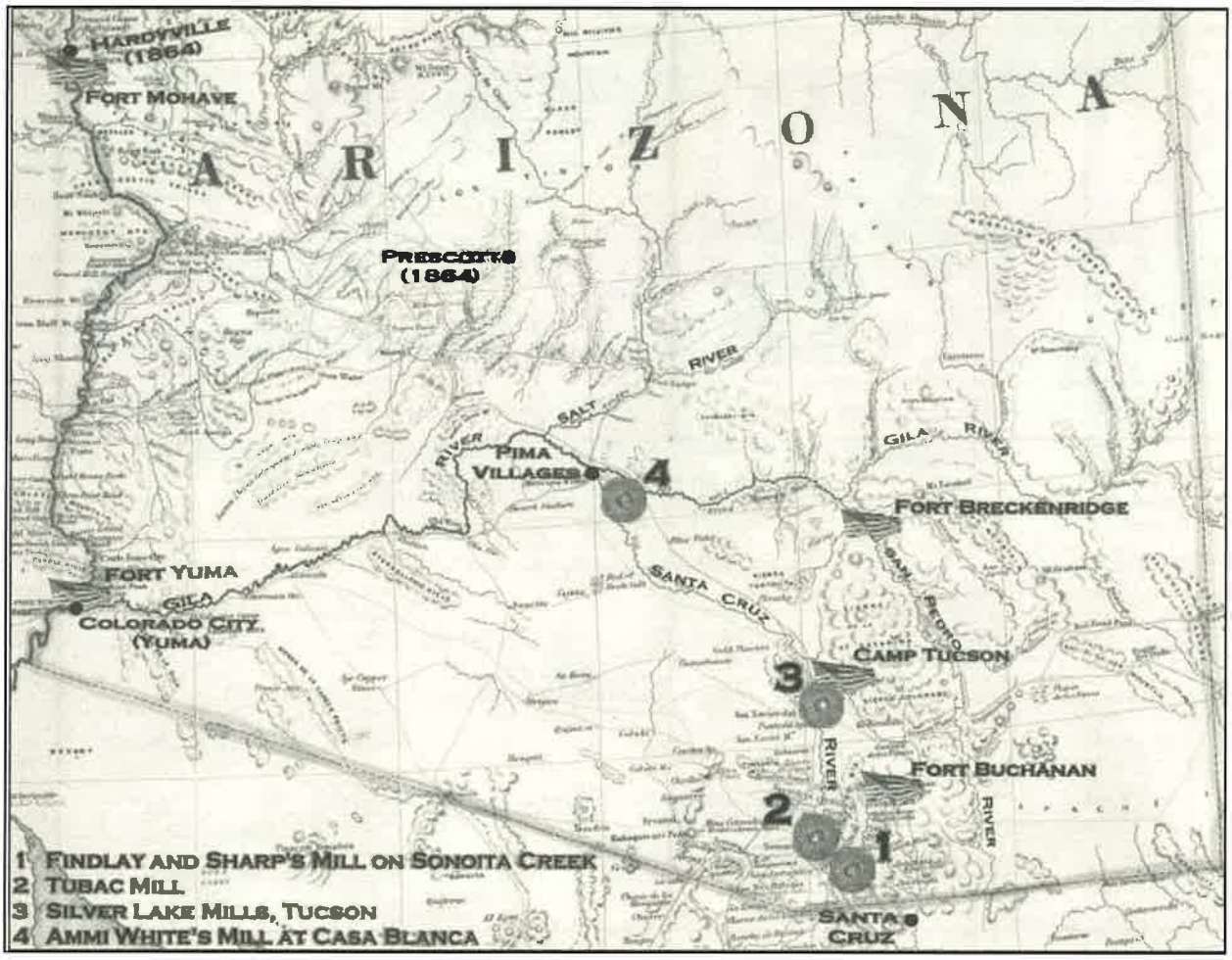

Fig. 1: Arizona Territory's few flour milling facilities just prior to the Civil War.

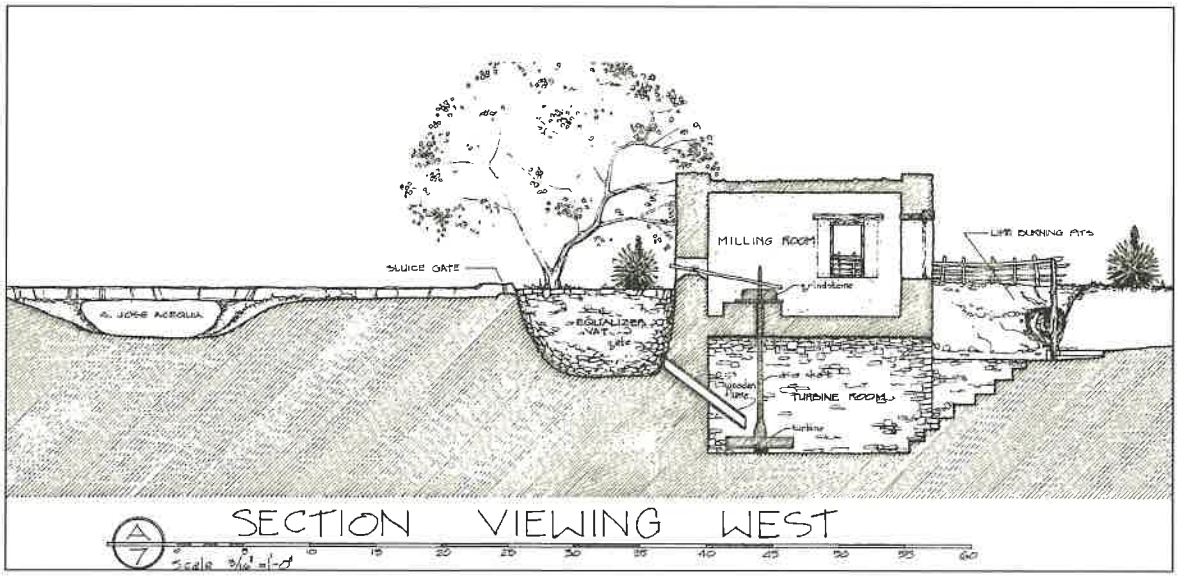

Fig. 2: Spanish era water-powered horizontal grist mill.

FLOUR MILLING IN TERRITORIAL ARIZONA

This article was adapted from a three-volume report prepared by Archaeological Consulting Services, Ltd. for the City of Tempe[1]

By Thomas E. Jones

Flour milling was an essential component of frontier settlement and development in the United States, and Arizona was no exception. In the decade preceding the American Civil War, at least four flourmills were operating in southern Arizona (Figure 1), and by the end of the nineteenth century settlement had spread along all the major river drainages in Arizona Territory.

Many flourmills established in these new settlements were custom mills (commonly referred to as gristmills) that milled farmers' grains for a fee. Others, particularly in the Salt River Valley, were larger merchant mills, which produced and distributed a wide variety of flour products across the territory.

Through the 20th century, established communities in the Salt River Valley and other fertile floodplains throughout Arizona continued to develop and mature in a predominantly agricultural economy. By the mid-twentieth century, however, the bulk of Arizona's territorial flourmills had ceased operations.

Milling methods have evolved significantly since the dawn of the Neolithic period, but the principle is essentially unchanged—that is to say, reduction of the grain kernel is essential for the proper digestion of starch and other nutrients found within. Ground stone—as characterized by crushers, mortars, and metates—is the earliest and most enduring form of grain processing. Here in the Southwest, the metate has been identified in prehistoric sites dating as early as between 7,500 and 4,800 B.C.

Significant improvements of traditional milling methods occurred in the Roman World (circa BC 400–AD300) with the improvements of rotating mills such as hand-driven querns and animal-powered pushing mills, and development of water driven mills. Although ground stone would continue to be used in less developed societies across the world, Western Civilization had entered a new age in regard to large-scale flour milling.

The Water Driven Mill

There are two main classes of water wheel—the horizontal and vertical wheels. The crucial difference between the horizontal and vertical wheel is the mechanism(s) by which the millstones rotate. The horizontal wheel is a direct-drive unit, which means the vertical shaft attached to the wheel is connected to the millstones. Consequently, the stones turn more-or-less simultaneously with the wheel. While this construction limits the capacity of flour, its simplicity and relative low maintenance ensured the horizontal mill was the choice water mill for small rural areas.

The vertical wheel delivered motive power to the stones through a horizontal shaft and gearing mechanism. The topography surrounding the mill and waterway determined what type of vertical wheel was used. Many English colonial mills were likely undershot, requiring little or no fall to turn the wheel; however, millers were quick to learn that overshot wheels were more efficient. With the construction of a wooden flume from the headrace, water could be directed over the wheel, resulting in a controlled flow that significantly increased the efficiency of the mill process. The turbine is a descendant of the horizontal wheel that proved to be as efficient as the vertical wheel. It consists of curved

blades enclosed in a container that directs water flow and pressure directly onto the blades, thereby increasing energy output for more efficient motive power. In the mid-nineteenth century, the turbine was developed as a more efficient replacement of the vertical wheel. A large number of Arizona's territorial water mills made use of the turbine.

Although some water mills took advantage of natural waterways by constructing directly over them, most were strategically located some distance from a natural waterway with channels excavated to divert water to the wheel. In many cases, a wooden flume was installed to convey water from the channel onto the wheel (especially in horizontal mills, where a direct flow onto the wheel was required). Many mills also contained a millpond, which was constructed adjacent to the wheel pit to store water for use in the mill; a sluice gate controlled the flow of water entering and exiting the pond.

The Steam Mill

Steam power was used to drain water from mines throughout Europe since at least the early seventeenth century, but was limited in scope and use. After revolutionary improvements by James Watt, the use of the more efficient steam engine in other industries became widespread. An English mill designed by Watt was completed and operating in 1784 using steam power from his improved engine. During the first decade of the nineteenth century, Oliver Evans made additional improvements to create a more-efficient high-pressure steam engine (his influence and ingenuity in the milling industry was only just beginning to be felt in regard to the automation of the interior components of the flourmill).

In 1809, the Lexington Steam Mill Company completed a flourmill in Kentucky that was powered by Evans' improved steam engine; within months, a steam mill was completed in Pittsburgh. Although water mills would outnumber steam mills through most of the nineteenth century, their numbers increased as the motive power did not require a dependent water source; a steam-powered mill could conceivably be built anywhere within a community.

In Arizona, at least twelve steam-powered mills were constructed between 1865 and 1912. The earliest known steam mill in Arizona was the Pima Steam Flourmill completed by Ammi White at Casa Blanca in 1864. The Pima Steam Flourmill was a significant upgrade of his original flourmill constructed in 1860.

The Spanish Southwest

Spanish military excursions through the unexplored territory of New Spain in the mid-sixteenth century established initial contacts with Native Americans in the region; but strategic occupation of northwestern New Spain (which included all or portions of Mexico, Arizona, California, Colorado, Nevada, New Mexico, Texas, and Utah) wouldn't occur until 1591 with the establishment of a Jesuit Mission in Sinaloa, Mexico. This ambitious strategy was executed with the establishment of missions to serve as administrative, economic, religious and cultural centers. Churches were constructed near existing native villages and designated mission pueblos; districts were established with central missions (*cabaceras*) surrounded by smaller, outlying missions (*visitas*) that were administered by the *cabaceras* missionary.

Gristmills were constructed at a number of missions and private land holdings throughout New Spain to provide flour to the natives and Spanish residents. These mills were typical horizontal mills equipped with a single set of millstones. Acequias (irrigation ditches) conveyed water from the principal waterway to a reservoir adjacent to the mill, where water was directed into a flume to power the horizontal wheel (Figure 2).

It is unclear how many missions, settlements, or private ranches in New Spain were supplied with water-powered mills. Earl Porter is a retired engineer who has thoroughly researched and documented flourmills constructed in New Mexico through the late Hispanic period. Of approximately 450 mills documented in New Mexico, Mr. Porter has identified at least 325 of Spanish origin, all of which use the horizontal wheel. He has also documented the presence of animal pushing mills near Albuquerque and other settlements from 1850 Territorial census records. These mills were undoubtedly in use during the Mexican period, and perhaps even earlier.

Pimería Alta—Land of the Upper Pima: 1687–1848

Between 1687 and 1711, Father Eusibio Kino founded at least eight missions in Pimería Alta—the northern region of Sonora that currently encompasses southern Arizona and northern Sonora. Despite the early achievements of Father Kino, no new missions were established in Pimería Alta through the course of the eighteenth century. The Franciscans were able to maintain and expand some of the missions, such as San Xavier and Tumacácori; however, intensive settlement and industry in the region were not undertaken.

Unlike its neighbor New Mexico, which had a Spanish population greater than 25,000 by the end of the eighteenth century, Pimería Alta's regional population was sparse as a result of poor economic and cultural conditions. Consequently, there is no evidence to suggest the presence of a Spanish horizontal water mill in the region Alta. It is quite probable that cattle or burro mills were used in missions throughout Pimería Alta (Figure 3).

Figure 3: Typical Burro-Powered Flourmill

Consultation with Jeremy Moss—Resource Manager and Archaeologist at Tumacácori National Historical Park near Tubac has confirmed that Tumacácori and San Agustín were equipped with large millstones operated by a burro, horse, or multiple persons. At Tumacácori, two millstones were recovered in the course of archaeological excavations in 1964 (Figure 4). This room was constructed sometime after 1774, when the Franciscans had re-established the mission. A mill was also identified in the walled garden of San Agustín, though no other data is available. Missionaries in these remote areas also may have relied on native peoples to grind flour from corn or wheat with the traditional metate.

The fragile welfare of missions and native villages of Pimería Alta were compounded after 1821 when Mexico won its independence from Spain, with many of the Sonoran missions becoming severely depleted. The isolated settlements of Tubac and Tucson continued to rely on the burro mill, as had the Spanish Missions in Tumacácori and San Agustín. Brevet Second Lieutenant Cave Johnson Couts, was en route to California with the First and Second U.S. Dragoons after the Mexican War in 1848. He reported the following in his journal:[2]

> . . . [E]very house in Tucson is furnished with a Baro [Burro] flourmill and kept going

incessantly, probably grind a half bushel of wheat in 24 hours [approximately 30 pounds]. They are made of two large and rough stones, about the usual size; the under one fastened upon a pillar about two feet high, and of the same diameter as the stone, the upper one is placed on this and kept in its place by a wooden spindle which passes through its center and the hole serves as a hopper, taking about a handful of wheat at a time.

Figure 4: Primitive Grinding Stones

Indeed, the closest water-powered gristmill structures of any significance were Spanish horizontal mills located beyond the boundaries of what would become the Arizona Territory; namely Santa Cruz (Mexico), Santa Fe and El Paso. W.H.H. Davis summarized one such mill while passing through Santa Fe in 1857:[3]

> In my rambles around the village I came across an old-fashioned Spanish gristmill, the first one of the kind I had seen in the country, which was something of a curiosity in a small way. The building was not more than ten or twelve feet square, with one run of stone, turned by a small tub-wheel by the water from a neighboring *acequia*. The upper stone was made in the form of a basin, with a rim around it some four inches wide, and fits down over the lower stone, made fast to the floor, and is about eighteen inches high. The grain is mashed by the revolution of the upper stone, and the meal falls down into a box built around the lower one. The hopper was made of bull-hide, and fastened to the beams overhead. The old miller was hard at work in his little mill, and I have no doubt he considered his simple apparatus the perfection of machinery.

Arizona's Pioneer Flourmills (1856–1865)

In the short period of American settlement before the Civil War, many emigrants traveled through the southern Arizona Territory. Early secondary accounts of conditions in Arizona between 1848 and 1861 reveal the great expense and difficulty in obtaining necessary supplies and goods from peripheral localities. It was in this early period of territorial development that at least four water-powered flourmills were operating along Sonoita Creek, as well as Tubac, Tucson, and Pima Villages (on the Gila River). These pioneer mills were constructed in locations that offered the potential for settlement and industrialization in the new territory—all of them in the recently (1856) acquired Gadsden Purchase. Unfortunately, however, the Civil War and subsequent abandonment of strategic military forts left Arizona's settlements, ranches, and mines unprotected. Consequently, only two of these mills—the Silver Lake Mill in Tucson and Ammi White's flourmill at Pima Villages—survived the chaos and turmoil of the American Civil War.

Findlay and Sharp's Mill on Sonoita Creek

A flourmill was located on the property of Findlay's Ranch on Sonoita Creek (Tucson) and jointly owned by Findlay and Sharp. The

Weekly Arizonian newspaper announced construction of the mill in March 1859:

> A mill for grinding wheat and corn will soon be erected at Tubac on the Santa Cruz River. Also a mill of the same description on the Sonoita, near Findlay's Ranche. It is expected that with both these attributes of civilization in full operation breadstuffs will not be quite so high at present. Flour ought to be afforded at six cents per pound, and corn meal at four cents, instead of the high rates now charged.

Apparently there were delays in commencing operations of the flourmill. A June 16 update on the mill declared that the mill was "nearly ready for raising." Presumably, this was in reference to the conveyance of water from Sonoita Creek; the same update noted that if the water did not fail, it would be a substantial property. Unfortunately, no further information has been identified in relation to operation and eventual closing of the mill. Considering that the entire area was largely deserted after commencement of the Civil War, it is reasonable to presume that the mill was abandoned and possibly destroyed in this turbulent period.

Tubac Flourmill

Other than the *Weekly Arizonian's* announcement of its construction (as mentioned above), archival data has offered very little information on the Tubac water mill. H.F. Dobyns mentions only that the flourmill appeared to have taken water from the old Spanish-period irrigation ditch.[4] The mill was constructed at the height of extensive mining in and near the Santa Cruz valley. Archival records indicate the Tubac Mill was built and operated by the Sonora Exploring and Mining Company to provide affordable flour and meal to workers and their families. The Tubac Flourmill was apparently in operation between approximately late 1859 and 1861; it is unknown if the mill was operating prior to the mill on Sonoita Creek; what is known, however, is that both mills were early casualties of the Civil War.

My field visit to the site of the Tubac Flourmill in 2007 revealed surface remnants of the old Spanish ditch, a portion of which near the mill is lined with stone. A 15-ft wide stone-lined millpond was also apparent immediately adjacent to the cobble and mortar structural foundation and wheel pit. From these observations, the Tubac Flourmill was likely a horizontal mill; the wheel pit appeared to be too small for a vertical wheel.

The Silver Lake Mills near Tucson

In 1856, two brothers, William M. and Alfred M. Rowlett, arrived in Tucson from the East Coast and were granted permission to construct a dam on the Santa Cruz River to create an artificial lake to provide power for a flourmill. They promptly began construction of the dam just south of Tucson and by late 1859, advertised the opening of their Silver Lake mill.

After only one year, the brothers sold their property and water rights in 1860 for $5,500 to Mr. William S. Grant, a merchant who had contracts with local military establishments, as well as Fort Fillmore in New Mexico. Grant promptly renovated the flourmill and began construction of another mill immediately adjacent to the original. The total cost of the new mill was $18,000, more than three times the amount paid for the original mill and water rights. The newly constructed mill produced an hourly capacity of 10 bushels (600 pounds) and was cited as running constantly. However, considering that Tucson, Sonoita Creek, and Tubac were effectively isolated, sparsely settled communities, it is unlikely the Silver Lake mills would have run constantly (at least prior to circa 1880).

Unfortunately for Mr. Grant, the Civil War brought an end to a promising milling venture in Tucson. In July 1861, retreating Union

troops set fire to the mills and all his merchant property in Tucson. Grant sold what remained of his Tucson properties (including the mills and equipment) to Mr. G.M. Jones, who returned to Tucson and invested in the reconstruction of the second water mill (sources after this time refer only to a single mill operating at Silver Lake). For a brief time (1862–1864), Union troops seized the Silver Lake Mill for military rations and they apparently sold flour to the community at much higher rates. Cosulich reports that James Lee and W.F. Scott finally took control of the Silver Lake mills in 1864.[5] For several years, the partners ran the mill, even after construction of their more efficient steam mill, the Eagle Flourmill, within the town limits of Tucson in 1870. Given the absence of a definitive date, it can only be assumed the Silver Lake Mill was abandoned sometime before, or around, 1900.

Since Grant constructed an entirely new mill adjacent to the original, it would appear the Rowlett Brothers originally constructed a simple horizontal mill that could not be substantially expanded and improved upon. The cost of Grant's new flourmill, and the fact that he hired a miller from San Francisco to equip the new flourmill suggests it was a more complex mill run by a vertical wheel or possibly a turbine. This mill was likely a two-story mill equipped with multiple runs of stone, as well as other milling equipment (bolter, smutter, or rolling screen).

White's Flourmill at the Pima Villages

Ammi White established a flourmill near the Casa Blanca stage station along the Butterfield Trail in 1860 with his partner E.S. Noyes. Initially arriving at the Pima Villages as a merchant, he has also been described in the literature as a Federal Indian agent chosen to oversee the interests of the Pima and Maricopa tribes, although the position was never officially confirmed.

It is unclear when the gristmill began operating; the earliest reference to the mill was apparently late 1861, when White was advertising a daily capacity of 2,000 lbs. (approximately 10 barrels). The flour produced by White was sold to the local Native Americans, agents of the Overland Mail Company, travelers along the road, and residents of southern Arizona, including Tucson. He also sold wheat in bulk to William Grant, owner of the Silver Lake mills.

Because of the Pima Villages' strategic location along the Butterfield Trail the Casa Blanca mill is mentioned prominently in the literature highlighting the events of the Civil War in Arizona. In March 1862, Captain Hunter and a detachment of Confederates arrived unexpectedly at the Pima Villages, confiscating stores and supplies for redistribution among the local natives. Jack Swilling, with a small party of men, escorted several prisoners, including Ammi White (an ardent Union supporter) to Mesilla. Ammi White was released as a Prisoner of War only after the Union's California Column had acquired control of New Mexico in the final months of 1862 (Arizona was officially designated a Territory of the United States of America on February 24, 1863).

Union troops established Fort Barrett on the property once occupied by White and Noyes shortly before his return in late 1862; as a result, the mill and associated outbuildings were enclosed within the fort. An inventory of buildings ordered by the Union commanders describe the original mill as a single-story building with no indication of a millrace, suggesting it was powered by steam or animal.

Ammi White began producing flour again with the help of the U.S. Army and also began major renovation to his mill; by the summer of 1864, the mill had been completely renovated and was known as the Pima Steam Flourmill. The Pima Steam Flourmill continued to operate as a small-scale merchant mill

serving peoples of southern Arizona, although settlers in small communities north of the Gila River at times conducted business with White's mill since it was then the northernmost flour milling operation in the Arizona Territory. (Ed: See Territorial Times Vol. 5, No. 2, *An 1865 Trip to Ammi White's Flour Mill.*) The Pima Steam Flourmill was sold to W. Bichard & Co. sometime between 1865 and 1867, after which it operated a short time before Gila River floods destroyed it in late 1868.

The distinction of Arizona's first territorial flourmill belongs to either the Tubac company mill, or Findlay and Sharp's mill on Sonoita Creek (the Silver Lake gristmill in Tucson was completed and operating several months later). A number of writers have recognized other flourmills as Arizona's first without mention of their true pioneer predecessors. Farish asserts that Solomon Warner built the first mill in Tucson.[6] However, Warner's Tucson flourmill was actually built between 1874 and 1875—at least 15 years after the aforementioned flourmills and five years after completion of his close competitor, James Lee's Eagle Steam Flourmill. The Bichard Brothers' mill in Adamsville has also been claimed as the first mill in the territory.

Post-War Milling in Arizona: 1865–1900

Agricultural development in the pre-Civil-War Era had initially converged around Tucson, Tubac, and Yuma (a.k.a. Colorado City and Arizona City). By the end of the Civil War in 1865, settlement gradually spread along all parts of the major rivers in Arizona Territory. The 1865 *Hartley's Map of Arizona* (Figure 1) provides a visual display of new settlements like Hardyville and Prescott, as well as a number of small ranches and homesteads. By 1870, concentrated settlement had resulted in at least 34 communities in four counties. In this new era of settlement, flourmills appeared in regions with intense agriculture: along the Gila River (Adamsville and Florence); the Hassayampa and Agua Fria rivers (Walnut Grove and the Agua Fria valley near Prescott); the Santa Cruz River (Tucson); and the Salt River (Phoenix and Tempe). Mormon settlement in northern and southeastern Arizona after 1873 prompted community and agricultural development along the Little Colorado River and its tributaries (Brigham City, Joseph City, St Johns, and Springerville), within the Gila Valley (Safford, Thatcher, Solomonsville), and on the Salt River (Lehi and Mesa). Custom mills were initially constructed to supply the needs of families and small communities. In time, some custom mills would become small-scale merchant mills as their customer base increased.

Most of the region's grain production was centered in the Salt River Valley. The desert lands of the Salt River Valley were first irrigated by Euro-Americans in 1868 from the Swilling Ditch. Within only a few years, at least six major canals had been excavated in the vicinity of Phoenix with an estimated 8,000 acres of land under cultivation. Hamilton summarized it thus:[7]

> Maricopa County manufactures nearly three fourths of all the flour produced in the Territory. It has four flourmills in active operation: one at Phoenix [Phoenix Flouring Mills], one three miles east of Phoenix [Salt River Flouring Mill], one on the Grand Canal [Grand Canal Flourmills], and one at Tempe [Hayden Flourmill]. All these mills are supplied with the best machinery and the latest improvements, and turn out a quality of flour preferred by some to the best California.

Archival research has identified at least 44 flourmills established in Arizona Territory between 1865 and 1912 (the Flagstaff mill appears to have been constructed after statehood, around 1920). While every effort was made to identify as many flourmills as possi-

ble, this inventory is not exhaustive; the data collected on Arizona's flourmills as part of this study provides a foundation for further research and documentation. An inventory table summarizing the known flourmills will be available for download on the Prescott Corral website, www.prescottcorral.com.

Arizona's Flour Milling Industry Declines

The number of flourmills declined sharply by the turn of the twentieth century, reflecting the overall national industrial pattern that was influenced by efficiency of new milling technologies. Many of Arizona's mills established after the Civil War were likely custom mills that provided flour for local farmers and settlers. It appears that many of these custom mills operated for a short period of time until mercantile businesses had been established to provide affordable flour from larger merchant mills in the territory. Flourmills established in Mormon communities operated as cooperative enterprises, several of which survived into the early decades of the twentieth century. The bulk of flourmills that operated into the twentieth century were merchant mills (small-scale and large enterprises). Reflecting national trends in the flour milling industry, these merchant mills managed to compete in the twentieth century only by converting to new milling technologies. Even so, before the end of the 1960s, the Hayden Flourmill was the only operating merchant mill in Arizona, distributing its well-known brands of flour throughout the state.

The Hayden Flourmill ceased operations in 1998, after more than 120 years of operation, but the Hayden Mill name lives on. Recently, a Phoenix entrepreneur purchased the rights to the Hayden Flourmill name and the best known of its brand names, *Arizona Rose*. They currently are producing flour from heirloom Arizona wheat on an imported electric stone mill located in downtown Phoenix at Pane Bianco.[8]

Illustration Credits

Figure 1: Portion of Hartley's 1865 Map of Arizona showing locations of water mills operating between 1859 and 1865 (supplemental text and graphics by author).

Figure 2.: West-facing sectional view of the Mission San José gristmill. This sectional drawing shows the typical components of a Spanish Mill, including the reservoir, wooden flume, horizontal wheel, vertical shaft, and millstones.

Figure 3: Mexican burro-powered flourmill. Photograph by William Dinwiddie November 8, 1894 (Special Collections: CP-SPC 58-3 Arizona State University, Hayden Library Arizona Collection).

Figure 4: Mortars, a metate fragment and two millstones (molinas) collected during archaeological investigations at Tumacácori National Park. Photograph courtesy of Tumacácori National Park, National Park Service.

ENDNOTES

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[1] Vargas, V.D., et al., *Hayden Flourmill: Landscape, Economy, and Community Diversity in Tempe, Arizona*. Vol. 1: Introduction, Historical Research, and Historic Architecture. Cultural Resources Report No. 143. 2008, Tempe: Archaeological Consulting Services.

[2] Cosulich, B., *Tucson*. 1953, Tucson: Arizona Silhouettes.

[3] Davis, W.H.H. *El Gringo; or New Mexico and her People. Harper and Brothers, New York*, 1857.

[4] Dobyns, H.F., *Tubac Through Four Centuries: An Historical Resume and Analysis. Prepared for the Arizona State Parks Board*, in *Manuscript on file, Arizona Collections, Arizona State University*. 1959: Tempe.

[5] Cosulich, B., *Tucson*. 1953.

[6] Farish, T.E., *History of Arizona,* 1918, San Francisco: Filmer Brothers Electrotype Company.

[7] Hamilton, P., *Resources of Arizona*. 1881, Prescott: Legislative Assembly of the Territory of Arizona.

[8] *Arizona Republic*, Sunday, July 22, 2012.

MAJOR VEIL'S HOG RANCH: A bright idea gone wrong

By Charles Veil

Editors Note: In the early days of the Phoenix settlement, Civil War veteran Charles Veil's land holdings were extensive, covering more than 1,100 acres. The bulk of the land was located along Van Buren between 24th and 40th Streets in present day Phoenix. But if he was land rich he was at times dollar poor. This is his story of one attempt he made to improve his family's cash flow.

Along in the latter [18]80s when I had plenty of land, and not much of anything else, and was living up on the big ranch I had bought off Jack Swilling, which afterwards was known as Major Veil's Hog Ranch, I got to studying up some plan to "raise the wind" again. Everything had gone wrong for some reason or other and I was at my wits end to know what to get at when I happened to think of the hog business I had been in before, and the more I thought of it the better it appeared.

I had plenty of alfalfa, which hogs thrive and get fat on, besides I had a big stock of wheat that wasn't worth the threshing at the time, the supply and demand making the price very low. Whenever we had more wheat or barley—which were the grain crops—than were required for home consumption, the surplus was of absolutely no value and that was the condition that year.

So I got to talking to my wife about the matter and she too fell in with the idea. "But how will you get the money to buy the hogs?" was her query. "Oh, well," I said, "you sign a note with me in the morning and I'll raise the money." So to town I started next morning and going down I passed by a rancher who had twenty-seven big black sows all coming in shortly and struck a bargain with him for the lot, to be delivered at once, and then went on to town to raise the money.

When I was coming home I passed the rancher with the sows on their way up, where in due course they arrived. I told him to drive them on to what we call the corral, that is, the stockyard, in which I had my big stack of unthreshed wheat. As I had a large pond or artificial lake of water adjoining, I thought that, with the wheat and water and shade trees growing around, it would make a fine place for my "piggies," and so it did.

The old sows took to the wheat stack at once and, after they had a feed and drink and wallowed in the pond, they appeared perfectly satisfied and at home. The rancher assured me that I need not worry myself about their leaving. He knew and he was right. I paid him and everybody appeared satisfied, hogs and all.

In a short time thereafter, in going to look at my hogs, I discovered one of the sows had pigs—ten of the nicest, plump, little all-black piggies. I at once began to calculate the value of my increase. In a short time they all had pigs. Averaging ten to the sow, I had 270 pigs for a starter. As I had paid $10 per head for the sows, I estimated my pigs when grown would be worth the same, so I thought I was on the right road again and that pigs would bring me out.

Almost before I was aware of it, my sows came in with another batch of pigs, averaging about the same number. Not only

that, but also my little sow pigs began to get pigs. By that time, as they were all black, the ranch began to get black with hogs and pigs.

In the meantime, they were getting away with my wheat stack and alfalfa. After they had cleaned up one alfalfa field, they cleaned up another. By that time the wheat stack was gone and the hogs began to get hungry. I had taken the precaution to put what we call hog-tight barbed wire fencing around my alfalfa patches to confine them to that, but a hungry old sow is hard to confine. The first thing I was aware of, an old sow had found a way into an adjoining barley field and about the next thing I knew the whole batch was harvesting the barley.

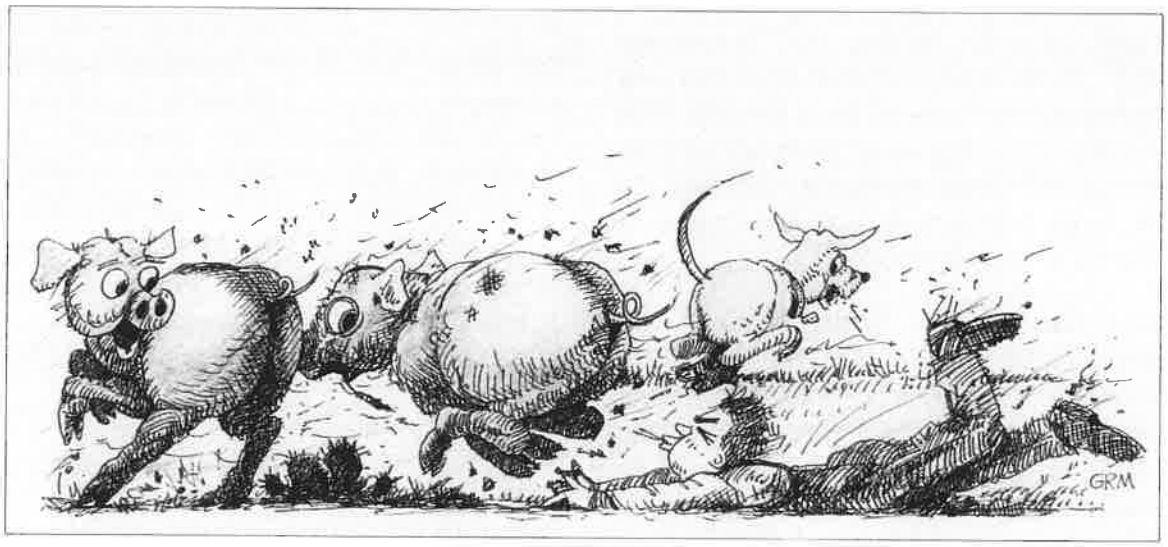
When that was cleaned up, they took to the next field, which was wheat, and that went the same way. After they had cleaned up and harvested all the grain (and the piglets were still coming), I began to think it was about time to begin selling some of my stock, but nobody wanted to buy.

I had an orchard and vineyard loaded with fruit, enclosed I supposed with a hog-tight fence, but one day an old sow found a way in. The others no sooner saw her than all began to march around the fence, looking for the place she got in. They found it and almost as quick as I can tell it, the orchard was black with hogs. The first thing they did was to follow up each row of grapevines—the grapes were just about ripening-and clean up all the grapes.

Then they took to the peach trees. First they ate all they could reach. Then an old sow would stand up on her hind feet, her forefeet up in the branches, reaching for all she could get and the pigs eating the peaches off the limbs she would be bending down with her weight.

I had six dogs, but the infernal hogs had gotten so hungry and saucy that, instead of the dogs running off the hogs, the hogs ran off the dogs. In fact, the hogs had got them so demoralized that the dogs wouldn't leave the house.

My wife had a hobby of raising chickens, ducks and turkeys. In doing so she had little coops for the young chicks etc., and the first thing we knew, the old sows were eating them as fast as they came out of



the coop. They were so smart they would stand around the corner of the coop and as a young chick made its appearance, would make one "snap" and down went the chick. After they had eaten everything I had on my ranch, they struck out for my neighbors and the first thing I was aware of one of my neighbors boys would be over to say there were a lot of my hogs over in their field and that "dad" said I must come and get them, so I would send a boy or man over to drive them home.

That boy had hardly gone before another would come from the other side of my ranch saying, "Dad says there are a lot of your hogs over in our sorghum and if you don't come and get them, he'll shoot them." "All right," said I to that one, "tell him to shoot," as the hogs by that time were getting me demoralized (as well as the dogs). I made up my mind that as they had eaten up everything I had (and were still coming), I must get rid of them. Why, it got so desperate that we could hardly keep them out of the house. The stock had gotten so much the start of me by that time that I couldn't think of fattening and butchering them. In fact that was not my original intention. My idea was to raise or grow them and then sell them to the butchers, but everybody else had gotten hogs by that time and the market was supplied and no demand.

Judge Hayden had a mill up at Tempe, some six miles above me. I thought I might persuade him to buy some hogs. I met him about that time and proposed to sell him my stock. "Why," said he, "you've got a pretty big stock. What do you ask for them?" Make your own price," said I, "only I want to sell the lot. "Well," said he, "I'll give you a dollar a head." "Alright," was my answer, "come and get them." I think if he had said fifty cents apiece I would have taken it.

Next day he sent down a lot of men and boys and they commenced rounding and gathering them up. The judge wanted to know how many there were or how we could count them. As I had no place big enough to run them into, I told him to drive them home, where he had several big yards and he could count them there and I would take his word for it. He was to pay the money to a Mr. Goldman in Phoenix, from whom I had borrowed the money to buy them.

Several days afterward I was in town and Goldman inquired if I had sold my hogs, saying Judge Hayden had left $1,350 for my account, so I suppose he had that many hogs. I don't know that I ever was as much relieved as I was when I saw the band, about a mile in length and all black, winding its way up the road and away from Major Veil's Hog Ranch.

In the lot were two litters of seventeen that had, as is often the case, taken to roaming or associating by themselves. After they had got about a mile from home, they suddenly made up their mind to stay with me and made a break from the herd and started back for home. The judge said, "Let them go, we've got enough." Several days afterward, when I saw him and informed him of the fact, he said he had enough and more, too. It took so much to feed those hogs he didn't know what to do. At any rate he wouldn't have the balance.

I had by that time fully made up my mind to go out of the hog business and meeting a friend of mine, I said, "Mr. Shaw, I've got a few hogs left. Don't you want them?" When he asked the price, I told him I would make him a present of them. He said that was very kind and would send his boys up for them the next day, and so he did, but the hogs had made up

their mind that they had been born and raised there and there they would remain. After running themselves almost to death, the boys had to give up the job and let them stay.

Next day Mr. Shaw came up himself with the boys, dogs, and other help, but after they had run themselves down, they too gave up the job, so I had seventeen hogs left in my hands and they were annoying me, too. They got so wild, they would keep under cover during the day and only come out at night, when they damaged my fields.

About that time some Mexicans who had been in my employ came to the ranch. Knowing that I was going out of the hog business came to the Ranch and wanted to know what I would charge them for a hog. I told them to go out and help themselves to whatever they wanted, which pleased them very much. They thanked me very kindly in Spanish and said I was a very good "Patron" and so they started off to get their hog. They had the same experience that Shaw had had, however. Finally one of them came to the house and said the hogs were very wild. Wouldn't I shoot one for them? Yes, I said, and told them to drive them out from cover. Meanwhile, I picked up my army rifle and a handful of cartridges and started down for the point I knew they would break from.

While the Mexicans were beating down along the corral where the hogs were under cover, I took my station. I had barely gotten there when I saw one come out of the brush, stop a moment on seeing me, and then start to run across the fields toward other cover. As he got about opposite me, I let drive and knocked him over like a jackrabbit. I hardly had time to put in a cartridge when another put in an appearance, and went through the same performance. As he got about opposite me, down he went, like his predecessor.

In that way the band ran across the field and, as they did, I knocked down five, all the cartridges I had. The Mexicans, who now had plenty of fresh pork, were delighted, and I was rid of five anyway. That about ended the hog business, but there is a little sequel to the story that I now must tell.

About that time, a branch railroad was being built from Phoenix to the Southern Pacific Railroad. The line of the road ran along my property line for one and a half miles. Everybody was granting or giving the right-of-way free of cost, but when they came to me, finding they wanted to run on my side of the line, taking sixty-six feet off me, and nothing off my adjoining neighbors, I refused to grant the way.

I said if they wanted me to give half, or thirty-three feet, I would do so, but if they wanted me to give all, I wanted $100 an acre for whatever land they took. They refused to do so and went to court to have appraisers appointed, which I knew they could do.

The appraisers awarded me $650 which I agreed to accept, but before this was paid, the graders, a large gang of men and teams, probably a hundred all told, reached my lines. I had notified them not to come on my land without my permission, but as soon as the award was made, the man in charge of the teams and men started to come onto my land and go to work grading. He, in fact, had gotten there before I saw them. As soon as I did, I started for the gang with a rifle to enforce my orders, if necessary. As the dogs generally followed me wherever I went—the hogs were now off the ranch

(*Hog Ranch* continues on page 26)

Horse-Powering the 19th Century Farm

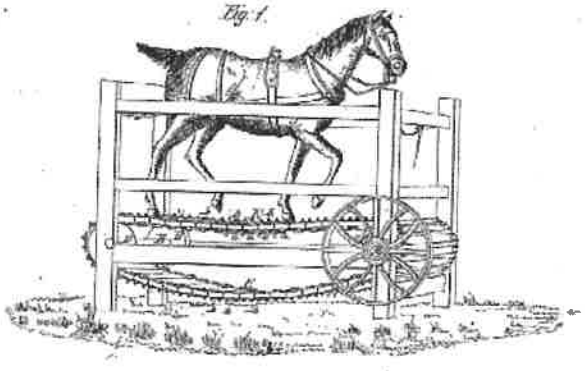
A Dog-Powered Butter Churn?

By Russ Sherwin

If you visit even a medium sized farm nowadays, you will find great green, blue, red, orange or yellow machines rolling across hundreds of acres of perfectly groomed and level farmland, planting, harvesting, bailing, threshing, packaging and delivering all manner of farm goods. They are fully enclosed and air conditioned, they follow paths determined by GPS, they are self-propelled by enormous diesel engines, they are equipped with stereo, am-fm receivers, radio communications, refrigerators for cold drinks and plush leather seats.

It was not always so easy.

Heavy work on the 19th Century farm made extensive use of animals, primarily horses. Hitch ol' Nellie to the plow, point her southwest; turn around at the fence and go back the other way. Repeat all day long and for days and days to come. Hitch ol' Nellie to a wagon to transport goods or people from one place to another. Ride Nellie to round up cattle, to hunt for game, or take the kids to school. Oxen or mules could do much of the same work.



Patent Drawing for a Horse Powered Treadmill

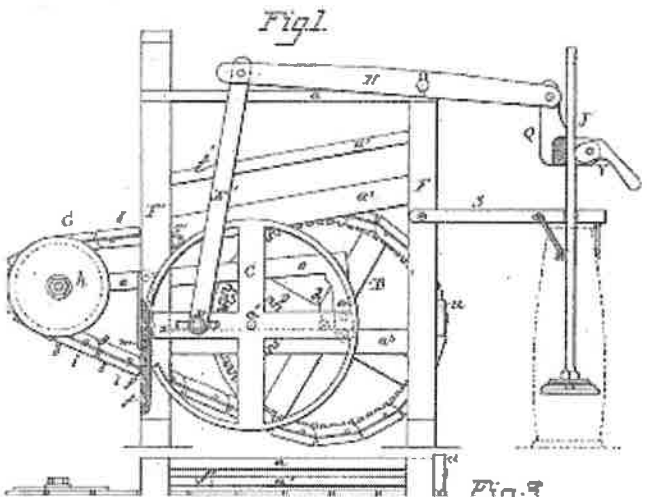
Hundreds of machines were developed, some by farmers themselves, to plow, plant, harvest, winnow, stack, store or move stuff, all pushed, pulled or dragged by animals. No mystery to any of this, but these are all linear motions; something moves from point A to point B by means of an animal.

A variation on this is the hay stacking operation. A team of horses draws a rake to gather hay and push it onto the tines of a hay stacking lift. The lift is powered by a horse or team of horses that pull a cable that raises the hay to the top of the stack and drops it. The horse(s) and their driver spend all day marching 50 feet or so along a prescribed path to lift the haystacker, then backing along the same path to lower it. The same kind of motion has been used for centuries in all countries to lift water in buckets for irrigation or to hoist things from one level to another. Linear motion, but restricted and repetitive.

In the latter half of the nineteenth century, because of advances in crop processing machinery, a need developed for stationary rotary power. Think of a threshing machine of early vintage; it needed a power source with a pulley and a belt to drive it. Well, from about the mid-1800s there were steam powered tractors that could pull things (sorry, Nellie) and also furnish belt-driven stationary power, but these were expensive, required copious amounts of water and a source of fuel like coal, oil or wood, and were not readily avail-

able to the small, generally isolated farmer in the West.

The best power source the small farmer had, or could readily obtain, was horses. If he didn't have his own, he could borrow or rent some for a short period of time. A horse just requires a little water and some hay for fuel



Patent Drawing for Dog-Powered Butter Churn

and he's good to go. And it's generally scalable: Need more power? Get more horses. The problem is, how do you turn a walking horse into a rotating shaft?

One early solution was a treadmill; another was a sweep with one or more animals marching around in a circle. Power could be taken from these to drive other machinery, and a common name for all types, whether treadmill or sweep was "horse-power."

The animal treadmill for generating rotary power has two basic forms: One is shown on page xx, an 1834 patent drawing in which the moving platform is horizontal and the power is derived by the "draft" or pulling power of the horse. The second form inclines the platform such that the horse is always walking "uphill." This utilizes both the pulling power and the weight of the horse and increases efficiency.

Treadmills were designed for a wide variety of animals besides horses and mules, including dogs, sheep and goats. These small treadmills provided both rotary and reciprocating power to operate light machines like butter churns, grind stones, fanning mills, corn shellers, and later, cream separators. The few surviving dog treadmills have become popular attractions at engine and farm shows across the country. And the dogs seem to love running the mills, much as a hamster in an exercise wheel.

Although simple, and compact and practical for small jobs requiring small amounts of power, treadmills were not easily scalable. Practical limitations constrained the designs to two horses at most.

With ever increasing demands for power, a new machine came in the latter part of the 19th century in the form of the multi-horse sweep, a merry-go-round device that would, theoretically, accept as many horses as you had room to harness to the wheel. There were, of course, practical limitations to this.

They go by various names, and there were dozens of manufacturers each with variations on the theme, but one common term for the sweep or merry-go-round type of machine was, uniquely enough, a 'horse-power.' It was also called a 'sweep-power', or simply a 'power'. Wylie Sherwin, about 16 or 17 at the time, (around 1912) describes one such machine in his Journal:

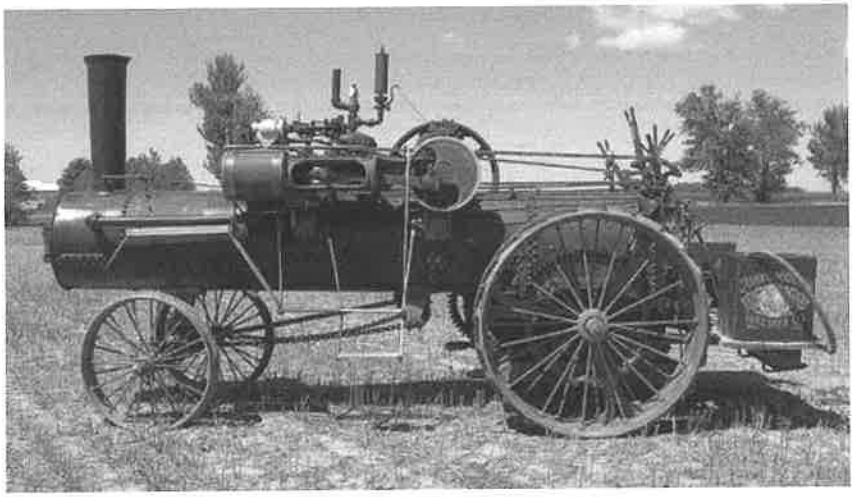
It is a merry-go-round with real live horses, but they don't gallop, they plod around the ring. [There are] eight teams, sixteen horses, each team hitched to a pole called a sweep and their lead rope tied to the sweep in front of them. In the center there was a huge, horizontal log wheel called a bull wheel. This

wheel was about six feet across. Then there was a pinion wheel of perhaps ten inches in diameter and a tumbling rod, which ran along the ground and over which the horses had to step. In the center there was a platform over the bull wheel and here the driver stood and cracked a long whip over the horses' backs.

This was the power we used for threshing. It was always my ambition to get to drive the "horse-power," but I never got to, for this job was usually given to one of the older men who were less able to do the hard work and considered better with horses. This was an excellent place to break young horses. Once they were hitched in and tied to the sweep in front, they had to cooperate sooner or later. There was nothing they could do. They couldn't stop for they were pulled from in front, and pushed from behind. They couldn't run away without taking fifteen other horses with them and then no place but around the ring. However, I have seen it happen that the whole sixteen got excited and ran away at once. And that is a mess, for there is seldom any way to stop them until one horse stumbles over the tumbling rod and then there is a big pileup and considerable damage to be repaired.

To expand a bit, the large horizontal wheel that the horses turn drives the small vertical wheel as a gear. The 'tumbling rod' is the output shaft from the pinion gear that is the power take off point from the machine, used to drive whatever machinery you need to drive. It extends out beyond the circle in which the horses walk, so the horses had to step over this rod each time they came around. The power take off pulley on the end of the tumbling rod would turn about 7 or 8 times faster than the horses are turning the large wheel. Other versions produced higher RPM by means of more elaborate gearing.

The horse-power machine was a relatively short lived phenomenon due in part to the increasing power demands of the rapidly developing farm implement industry. After all, even a 12-horse horse-power can develop at most, well, 12 horsepower. And, a circular horse-power is a fixed source of power; what was increasingly needed was a mobile power source. Steam tractors, huge, heavy, wheezing, clanking monstrosities became the power source of choice before they themselves were replaced by petroleum based internal combustion tractors.



Steam-Powered Tractor

Wylie Sherwin recounts in his Journal their transition to steam power on the farm on Crooked Creek, Bighorn Canyon, Wyoming:

And I remember the first steam machine we had there. Jim Legg bought one. It wasn't new, but it was quite a thing out there and it replaced an outfit [the horse-power] that was probably the last of its kind to be used in this part of the country. The first time the steam rig was used on our place, we had an acci-

dent and some thought I was lucky not to have been killed or badly hurt, and I guess I was.

We were threshing in the yard close to the house, for we wanted the straw to cover a new shed we had built. The machine was in place and steam was up ready to go, but there were one or two men who hadn't showed up yet, so we were waiting. I was to drive the grain wagon and I had the team and wagon backed up to the grain spout at the machine. I was driving "Barney and Chub", a team of bay geldings. There were well broke but nervous about the steam engine. It was early morning and very cold and everyone had gone to the kitchen to keep warm until the work started. That is everyone except Jim's dad who was tending the engine.

I had wrapped the lines around the brake lever and I was standing by the kitchen door watching my team, for I knew they were on edge. Then things happened. The men showed up, and Mr. Legg, Sam, anxious to use the whistle, pulled the cord to signal "all ready." I happened to be where I could see Sam as well as the team and the instant he raised his hand I knew what was going to happen and I started for the team. No race-horses ever got off to a faster or more perfect break than that team, but I was in time to grab Barney by the bit and away we went.

Directly in front was an icehouse built of large logs. This was built in a bank several feet high so that the front was perhaps eight feet high and the back corner about five feet above ground. We were headed to just shave the side of this building with me between the horses and the house. I didn't have time to think, so I guess you just call it instinct that causes one to do the right thing in a case like that. Or else some higher power than our own takes over.

I couldn't have turned loose without being hurled into the corner of the icehouse, and probably struck by the wagon. There wasn't room for me between the horse and the logs, so with one hand on Barney's neck and one on his [harness], I vaulted to his back and just in time. The right front wheel, my side of the wagon, missed the first corner of the ice-house, scrubbed along the logs and caught on a log end at the back. This threw the wagon tongue with great violence against Barney's legs and at the same time brought us all to a sudden and violent stop. Barney was thrown flat with Chub on top and I went sailing through the air. That was the first time Barney [had ever been] ridden! I don't think he ever remembered it though – it was too short a ride!

Just what is a "horsepower" anyway?

We all understand that our car's engine is rated in horsepower, but few of us understand just what that means or how it came to be termed that. It has something to do with horses, probably, but what?

At some time in the past, farmers found that a treadmill could be used to capture animal power as a source of "brake" horsepower for stationary machines. The unit of measurement of force of strength necessary to operate these new stationary machines became known as "horsepower" based on the average pulling power of an average draft horse.

Typically, the average draft horse was considered as having the "tractive" power to pull 1/8 of its weight for 20 miles traveling at 2.5 miles per hour. (Ronald Stokes Barlow, *300 Years of Farm Implements* [Krause Pub.: Iola, Wisc., 2003] p. 24.)

Thus, a typical 1,500 pound draft horse could develop 33,000 foot pounds per minute which became defined as one horsepower (hp.).

Gail Gardner on the Evils of Prohibition

By Gail I. Gardner

The late Gail Gardner was a founding member and early Sheriff of the Prescott Corral of Westerners International. He is fondly remembered for his amusing, but often pointed comments on public affairs of the times. The following is extracted from a talk he gave to the Prescott Corral in 1968. Russ Sherwin prepared the transcript from an audiotape of the event.

Now one thing that a lot of people don't realize today is that Arizona went dry before the National prohibition with an Initiative Petition, which of course amended our State Constitution. An Initiative Petition was voted in 1914 . . . which made Arizona go dry.

Well now that early Constitutional Amendment for Arizona had a loophole in it: While it was illegal to ship any whiskey commercially or any liquor of any kind commercially into the state, you could ship in liquor for what they called "personal use." So I'll tell you, that didn't last very long because the dear people got together and they initiated another petition . . . [T]hat made it illegal to own liquor of any kind.

Then came the National Prohibition. That was the Eighteenth Amendment. The famous Eighteenth Amendment. It was referred to the states in 1917, and was ratified by the 36 states in January 16, 1919, and was effective January 16, 1920. And then the Volstead Act, that was the act of congress that was to enforce the Eighteenth Amendment, was passed in October 1919. But President Woodrow Wilson vetoed it and they passed it over his veto.

This Volstead was a congressman from Minnesota. Quite an old timer. He was born in 1860 and died in 1947. He didn't die near soon enough. The Volstead Act was written by a Mr. Wheeler who was president of the Anti-Saloon League. The Volstead Act dried up all the states.

I think, commenting briefly on that, there were a lot of states that [already] had prohibition fairly effective [but not too stringent]. There was Kansas, and Oklahoma, certain counties in Texas, New Jersey and San Francisco, California. How foolish it seemed to me, to have passed a National Prohibition Act for states like New York and some of those. What we had was working pretty well. Of course, there'd be bootlegging into Kansas and there'd be bootlegging into Oklahoma. But it was a local problem and could be handled. When they clamped down on the whole nation, you had an unpopular law which was absolutely unenforceable.

The social significance and other significance is that this was the first time—up till then our country was fairly law abiding. We kept the laws; we observed the laws pretty close. But here was this unpopular law that everybody commenced to break. Well now, that morally is a bad, bad thing. Because you bring in disrespect for the law. Of course, that was before these modern punks were born, but the effect may have come along through their fathers and mothers that permissive disrespect for law which is a bad, bad thing. And I lay a lot of that on the prohibition.

Now here's another social part of this prohibition business: When I was quite young, college days and so on, why young ladies did not drink. They simply did not drink. At a wedding or somewhere they might take a glass of Champagne, but at a party, why you'd never see a lady belt down a highball. She might have a glass of wine at dinner, but she didn't do any heavy or serious drinking at all. But

when Prohibition came along and they opened up the speakeasies why women were freely admitted. Incidentally, right here in Prescott, women were run out of the saloons way back in the early 1900s. Women weren't allowed in the saloons.

So the speakeasies started, and the gangsters and the hijackers. One thing that started there with the speakeasies were barstools. Now in the early days in the bars in Prescott they didn't have any barstools. You could sit down at a card table if you were playin' a little poker and they'd bring you a drink there, but you did your drinking standing up. And if you couldn't, you fell down, there was an obliging little booster who'd put you out in the gutter and you could finish your siesta out there.

But I think barstools and women in the bars and in the saloons—now they call them "Cocktail Lounges." I regret the passing of that good old resounding word, "Saloon." I think that just sounds fine. And I love to get into a nice cool, dark saloon on a hot afternoon. That was the beginning of the barstools and the beginning of the ladies in the bar. It began with prohibition. See, I lay everything on prohibition.

After the California personal use commenced to dry up, why we commenced to have local bootleggers makin' moonshine. Well that first moonshine they made was simply awful! You couldn't imagine anything worse. Well now there was a local sheet metal worker here. He cashed in on this deal by making some "preserving kettles" out of copper. (Laughter)

Well, these "preserving kettles" had a tight lid that fastened with real tight lugs, and on the top it had a threaded ell and arrangement to let the steam out when you were "preserving" something. Well, all you had to do is go up to Sam Hill's and buy a few copper fittings and a few feet of copper tube and screw the things together and you were in business with a still.

Now these country moonshiners—'course liquor is made of grain and sugar—well, any rancher could buy a lot of grain and sugar if that was part of his business. And some of the ranchers would make liquor out of honey. I never fancied the honey whiskey very much. It was not too good. But there was one moonshiner that made his whiskey out of honey. He had an airtight scheme. He'd finish up a few gallon jugs of moonshine, he'd set each one down in the middle of a beehive. Well, that kept the Pro-his (pronounced pro-highs) away because they didn't go around his place looking for moonshine in any beehive.

Another was a well-known moonshiner, and the road into his place crossed a sand wash. Well, where did he bury his moonshine? He dug a hole right in the middle of the road, right in the middle of that sand wash and buried his whiskey right in the road where everybody came in. And they never did catch him at it!

There were other businesses that came into view. Oh, it was not altogether bad. There were some businessmen really improved and made good money out of prohibition selling the sugar and the grain and what not. I know the man that I worked for for a time brought in a carload of charred kegs. White oak kegs, charred inside. Five, ten and fifteen gallon. A full carload of 'em, and we sold 'em out in a month. (Laughter) See, you bought your moonshine whiskey, that white mule—it was pure white—and you put it in the charred keg for a few weeks and that was supposed to color it and supposed to age it. It depended on how long you left it for it got aged! Anyway, it was in the keg.

Now there are various ways—whether it's a myth or not, but I know in distilleries they turn the barrels every so often, and some of the best whiskey was supposed to be shipped around the horn in sailing vessels, so the constant motion would bring the whiskey into contact with the charred inside of the keg. So

some of the people I knew had some interesting ideas. One of my neighbors hung a little keg up in the top of a big juniper tree so the wind would blow and that would keep that keg in motion all the time. Another one had a sheep outfit. When he'd come on a sheep drive from the valley coming up to the mountains why he'd pack a couple kegs on a burro. That'd rattle 'em up alright! Burro goin' over this mountain country with a charred keg would sure keep that whiskey stirred up. And those that were real brave, or real reckless, I don't know which, would put a keg of that stuff in the back of the car. Well that wasn't very smart because if they ever caught you with it they'd confiscate car and all and that'd be the end of it. I did know a few that did that but not too many.

Then there was another thing. Oh, a bad thing that came out in prohibition. You could buy these cans of malt syrup. Budweiser put 'em out. Other brewing people too. And that malt syrup said on it it was for baking because malt and hops are for baking. It was for making home brew beer. And that home brew beer, all you needed was a great big five gallon crock and you put this malt syrup and water and sugar in that and I don't know what all, but anyway you let that ferment a while and finally you bottled it and put more sugar in the bottles.

Well that stuff tasted like the bottom of a birdcage. It was just simply awful! (Laughter) everybody thought that the more alcohol you had in this—'course everybody was lookin' for kicks out of the alcohol. I'm thankful that today our drinking is much more civilized.

When you went to bottle that stuff, a little too much sugar in it and you'd open a bottle, well you'd better open it in the kitchen in a dishpan and turn it spout down, because if you opened it up why your beer would be on the kitchen ceiling. Oh, how the wives did love that! Homebrew beer all over the kitchen ceiling. So you could turn it in the dishpan and open it, and catch the whole thing in the dishpan, and then pour it out of the dishpan into a glass, and if you were brave enough, you could drink it!

Now, this early whiskey, as I said, was terrible. Oh, it just tasted awful. Friend of mine gave some of it to a yardman and he asked the yard man the next day, "How was that whiskey?"

"Oh, it was just right. Just right!"

"Well, what do you mean, just right?"

"Well, I'll tell you, boss. If it was any better you wouldn't have give it to me, and if it was any worse I couldn't have drank it!" (Laughter)

And that was so bad that in the early '20s that we gave advice to our sons and our young men to beware of bad liquor. That was the only warning we ever gave 'em. Times change. Times change so much. Now we give advice to our daughters, hopefully, that the only effective oral contraceptive is "NO!"

Now, as I said, in my early youth, women just plain did not drink. And at mixed parties—I might have a party maybe at my house—well up in my bedroom I might have a little bottle of liquor for the boys to come up and have a snort if they wished. But the ladies DID. NOT. DRINK. Prohibition and those speakeasies and this smart idea of breaking the law or doing something that was a little off-color, why it began the mixed parties about the women and men drinking together. Well, that wasn't so good. And also we got so the young men—the roaring '20s were really the roaring '20s, there was no doubt about that. You would take a young lady on a date and to quote that offbeat poet, Ogden Nash—when you have a date and you want to break the ice, someone that you didn't know very well—Ogden Nash says, "Candy is dandy but liquor is quicker."

Well that was very true, because maybe you'd get a pint bottle, stick it on your hip, and take the young lady for a drive out in the pines or wherever, and a few belts out of that white mule bottle chased by a sniff or two of ginger ale, and her knees and her morals became slightly relaxed. (Laughter) It is sad to relate that many of these parties in the roaring '20s—incidentally, that ginger ale—I can't look a bottle of ginger ale in the face today!

Well, some of those early parties, I regret to say, that these parties would be started and all the host or hostess did was get a gallon of moonshine and a case of ginger ale and let nature take its course. In fact, some of the parties, all they did was choose up sides and get drunk.

I went to a Veterans of Foreign Wars Convention—in fact, it was 1926 when the Smokis went back to Philadelphia, and the only thing you heard—you see, the veterans of World War I, when they came home, prohibition had been foisted upon them while most of them were in France, and hey didn't like it one bit. In France they had all the beautiful vino and the cognac they could drink, and when they got home to find the country dry except for this poisonous moonshine, they resented it very, very much. And this convention in Philadelphia, all you heard was these veterans going up and down the street, flourishing bottles of moonshine and yelling to get the Eighteenth Amendment repealed.

At this point Gail told of his one venture into back-country distilling.

[We] made some whiskey but we didn't make it to sell, we made it to drink.

I don't condone our actions a bit! Not a whit! We broke the law, we knew we were breaking the law, and it was wrong. It was very wrong and we shouldn't have done it. But there was that feeling all over the country, universally. You'd be surprised how universal it was. No, you wouldn't be surprised. Lots of you remember how universal it was, that it was a law that you didn't regard and you didn't respect. Once again I say that Prohibition was the first thing that brought disrespect for our laws of this nation.

Now then, finally, the Eighteenth Amendment was repealed. And it was the only time in our history that any Constitutional Amendment has been repealed, but it was repealed. And that really is a tribute to the wonderful work, the wonderful document of our constitution. If we put something in it, amend it, and it doesn't work out, we can amend it again and take it out. That's what happened in Prohibition.

But now this repeal of the Eighteenth Amendment, that was duck soup for the Internal Revenue Service. What did they do? Alright, they slapped a tax of ten dollars and a half on every gallon of whiskey. Now, ten dollars and a half, you figure that down to a quart, oh, I think it's about two-sixty-two and a half cents, something like that, so when I go up here and buy us a quart of whiskey, two dollars and sixty-two and a half cents go to the Internal Revenue Service. Which is all right. If you're going to drink whiskey you'd just as well pay a tax on it. Don't make any difference. We'd like whiskey without payin' tax on it, but now we're perfectly willing to pay the tax on it.

Now then, let's see. We might review the lessons of the evening. (Laughter) I acknowledge the evils of liquor. Nobody denies that. If a person uses liquor with intemperance, why he's in trouble and it's a bad, bad thing and a bad influence. None of us deny that. But our prohibition era was far, far worse. There's no doubt about it in my mind that it was far worse. And the poorest liquor that you can buy today in any bar is better than the best moonshine that anybody of us ever made.

John Gosper, Arizona's Would-be Governor

By Jay W. Eby

John Jay Gosper is described by historian J. S. Goff as "one of the most colorful and flamboyant of the territorial officials" of Arizona.[1] As Territorial Secretary during the Hoyt and Freemont administrations he was also a very frustrated official because of the two governors' frequent and protracted absences.

During those absences Gosper was acting governor and it was he, not the absent governor, who welcomed President Rutherford B. Hayes on his official visit to Arizona in 1880, boarding the President's train at Maricopa. In an official report that he was required to submit to the Secretary of the Interior, Gosper suggested that Fremont either be required to return to Arizona or resign as governor.

Gosper added to his efforts to be named Arizona's governor in a letter he wrote to President James A. Garfield on March 17, 1881. It suggested that he be appointed governor in place of the often-absent Freemont. Gosper complained he was performing the responsibilities of Governor Fremont more than half the time because the governor was gone from Arizona so much. Aware of President Garfield's record as a volunteer Union War Veteran who rose to the rank of major general, he added the information, "I was a volunteer in the Union Service, and left a sacrifice upon the battlefield, my left leg, and am now using a wooden one as a substitute."

At a later point, Gosper wrote to President Chester A. Arthur requesting the governor's position, complaining that "he had been Secretary for nearly five years, during which time he was acting governor three-fourths of the time."[2]

John Jay Gosper

That John Gosper very much wanted the position was highly evident, but it was not to be. When the time came to replace Fremont, President Arthur picked Frederick A. Tritle instead. Gosper would only have the consolation prize of the "Acting Governor'" title between Fremont's resignation and the arrival four months later of the new territorial officers, including a new Territorial Secretary.

Gosper's Early Years

John Jay Gosper was born on April 8, 1841, Knox County, Ohio, to Nathan P. Gosper and Adelia E. Freer.[3] In 1841 the family moved to a farm near Geneva, Kane County, Illinois where his father died in 1850 leaving Sarah and five children. Each of the children was apprenticed to families in the community. John at age 11 was apprenticed to a farmer who mistreated him. John ran away but the sheriff brought him back. He was supposed to work for the farmer until he was eighteen but left early to join the Union Army.

He enlisted in the 8th Illinois Cavalry in the fall of 1861, fought in 30 battles for the Union and

was commissioned as Quartermaster for the 26th Colored Infantry Volunteers organized in Chicago. He was involved in the battle of Petersburg and at the siege of Richmond lost his left leg. He is often referred to as Colonel Gosper which may have been his rank as an officer in the Grand Army of the Republic.

For two years he was the elected tax collector for Geneva Township in Kane County, Illinois, where he operated the Dean and Gosper Dry Goods Store which employed his wife, mother, brother and sister. John at 25 married his nurse Waitie E. Polley Graham who was 36 years old. She was a widow with a 12-year-old son.

In 1869 they moved west to Lincoln, Nebraska. John served two years on the City council, and was elected as a Republican to be Secretary of State for the State of Nebraska. One of the new counties of Nebraska was named in his honor. He evidently was involved in a railroad land transaction that did not work out and in a nursery business that the grasshoppers devastated. John left Nebraska to look for greener pastures but Waitie and her son chose to stay in Lincoln. A later Lincoln newspaper stated that John had left Nebraska somewhat embarrassed but had returned to settle accounts.

Appointment as Territorial Secretary

He believed those greener pastures were to be found further west. In 1876 Gosper visited Arizona, and when the post of Territorial Secretary became vacant the following year he asked for the appointment, and in April 1877, President Hayes granted that wish. Gosper arrived in Yuma in May and took the oath of office on May 24 before traveling to Tucson—only to be on the road again as the Capitol was moving back to Prescott. It was the 1879 legislative session that he first served and there were good and bad press reports of his service. This same legislative session granted one of the infamous legislative divorces to Gosper from his wife Waitie.

In Arizona the new territorial secretary, was a busy man with a wide variety of outside interests. He sold windmills, drilled wells, published a newspaper, was a director of a bank and an insurance company, raised horses and cattle, bought, developed and sold mines and mills, operated stables and a livery, and contracted for mail delivery from Brigham City (near present day Winslow) to Prescott. Each of these enterprises was in partnership with other men. There is no way to know how much real money John had in any of them.

While in Prescott Sec. Gosper had a ranch on the Upper Verde River where he raised registered horses. This was in partnership with John E. Anderson who was his assistant in the secretary's office and also a deputy US Martial for C.P. Dake. They also sold windmills, and dug wells together with a man named Lount. With the help of Charles W. Beach, editor of the *Weekly Arizona Miner*, he and Charles E. McClintock, formerly a clerk in the Secretary's office, started the first Phoenix newspaper, *The Salt River Herald*, in 1878.

With A. M. Smith he operated mills and mines, and bought and sold them. He and Smith purchased the Tiger Stables and Livery on Goose Flat in Prescott. He was a director of the Bank of Arizona with Sol. Lewis upon its organization in 1878. An article in the New York Times of April 16, 1885, reports that J. J. Gosper of Arizona is one of the board members attending a meeting of the Mutual Reserve Fund Life Association that day in New York City. The Secretary also collected ore samples for display at the World Fair in Paris. Even if these were not enough activities, the Hon. Secretary also was involved in the introduction of the fish that was to feed the whole Territory and the rest of the world—the carp from China. A few descendents of those fish are still to be found in Arizona rivers.

Although both Gosper and Editor Beach were Republicans and worked together on several issues there was a falling out and Beach

joined a campaign to discredit the Hon. Secretary. It is not clear when or exactly why they split, but it may have stemmed from a disagreement over paper and ink supplies for *The Salt River Herald.*

Charges and Countercharges

Then Beach accuses Gosper of doubling the amount of his expenses and doubling the number of printed copies of the records that he distributed, even though it was Beach that contracted for the printing.

Gosper defended himself against Beach by suggesting the editor had a shady past. He wrote a letter to President Arthur accusing Beach of having been arrested for attacking a woman by hitting her with a chair, of having a gambling problem, and of being the father of an illegitimate child.

A Cowboy Ruckus in Tombstone

However, Gosper's big error in the eyes of the Arizona press was during the "Cowboy" ruckus in Tombstone involving the Earp and Clanton factions. Secretary Gosper and the US Martial, Crawley P. Dake, went to Tombstone together in January 1881, evidently to assess the lawlessness in the southern part of Arizona Territory. He then wrote a letter that got the attention of the President, describing the difficulties in southern Arizona.

Marshal Dake had requested funds from US Attorney General Wayne McVeagh to help track down the bad guys and upon refusal had borrowed money from the Wells Fargo Co. The more resourceful Secretary Gosper arranged for and authorized the Territorial Militia, and the Phoenix Rangers commanded by Major Charles Henry Veil and Lieutenant William Owen 'Buckey' O'Neill.[4] (The current Secretary of State Ken Bennett states that these commissions stamped with the Great Seal of the Territory of Arizona were the first documents to use the newly authorized Seal.) He acquired 300 sharps carbines and 20,000 cartridges that were shipped from the Fort Union Arsenal. Later he requested funds to reimburse Marshal Dake to repay his loan. This also became fodder for the press. This whole mess of finances for the U. S. Marshal's office and C. P. Dake's involvement in quelling the lawlessness in southern Arizona Territory could make a whole book.

There must have been some discussion of organizing local militia units to quell the lawlessness before Gov. Fremont resigned since the governor had requested of the War Department that they transfer his son Lieutenant Francis Fremont to Tucson to organize such units. That did not happen. Unfortunately for the next governor, Tritle, he asked for permission. There was great delay of action. The original request was for the use of Federal troops which never happened. The difficulty here, and on many occasions before, was the Posse Comitatus Act which since Reconstruction prohibited the use of Federal troops in civilian law enforcement.

In various lists of Territorial Governors John J. Gosper is listed as either as acting governor or omitted. Fremont wrote his letter of resignation dated October 11, 1881, offering to resign November first and, according to the *Weekly Arizona Miner* of January 20, 1882, Gosper's appointment as secretary expired in October. Tritle was confirmed as governor and H. M. Van Arman as Secretary on March 8, 1882. In the interim there was a gap of four months when Gosper served as the acting governor but the authorization is unknown.

A Second Marriage

On January 26, 1881, John Jay Gosper was married to Sarah Louisa Watson. She was in Prescott, Arizona Territory by September 1880 for she is with those who are called together to organize the First Congregational Society of Prescott at the T. W. Otis home on Pleasant Street. Sarah and John are listed separately in the 1880 census for Prescott. She operated, as she advertised, a "first class millinery shop" in Prescott.

When Fredrick A. Tritle became territorial governor John was replaced as secretary and the Gospers moved to California. In a letter Mary Hazeltine reports meeting Gosper in San Francisco and observes that he has left Sarah "on a small chicken farm to starve." This is in quotations in her letter so was probably a phrase used at the time to indicate that she had been abandoned with less than adequate means. Mrs. Hazeltine also says that Sarah served in a San Francisco restaurant for a time and then returned to Prescott where she assumed her maiden name.[5]

Still Seeking Public Office

Although Gosper later asserts that he is not an office seeker he returned to Arizona in 1879 and is at the Republican convention where he is not successful in obtaining the nomination to be the Delegate to Congress. And again in 1887 and 1892 he is involved but he evidently has lost his local support.

At some time in 1885 John moved his business to Los Angeles where he opened a mining and real estate office. "Here, as it has been elsewhere, his neighbors and friends have singled him out to hold places of trust and responsibility. He has been selected as a delegate to nearly every city, county and state convention of his party held since he became a citizen of California. Because of his personal popularity and readiness of speech he is always in much demand in conventions to make nominating speeches. At the invitation of the State Central Committee he became one of the regular State speakers during the Harrison campaign. Recently he was elected a member of the Public School Board of his city, which he is now filling. Few men there are of his age who have occupied so many places of public trust and responsibility, yet he is not an office seeker. Recognizing his force and integrity of character, coupled with his push and public spirit, we predict for this self-made man a future far more prominent and useful than has been his past."[6] He died without funds in the county hospital on May 14, 1913.

Final Remembrances

John Jay Gosper's passing was not without notice. From the *Mohave County Miner* April 19, 1913: "He was always a warm friend of Arizona and did much to create sentiment in favor among California representatives during the fight in congress for the admission of the territory as a state. The action of our legislature in providing means for the burial of the deceased is most commendable."

From the New York Times, May 16, 1913, Dateline Los Angeles May 15: "Refusing all offers of aid from friends, Col. John J. Gosper, former Governor of Arizona and patriot of national fame, died yesterday in poverty at the county hospital. Once affluent, Col. Gosper was almost penniless at the time of his death. He said he would rather die than be the object of charity . . . Through unfortunate mining investments he lost his money, and for several years lived in a little room at Third and Main Streets."

"John was buried in Evergreen Cemetery, the oldest existing cemetery within the city limits of L.A. He had no children. He dabbled in mining interests, because his wife wrote to the U.S. Pension Office on stationary headed with 'J.J. Gosper, Mining and Real Estate.' Sad to say, he died in poverty, and the Governor of Arizona sent his widow $200 for burial expenses!"[7]

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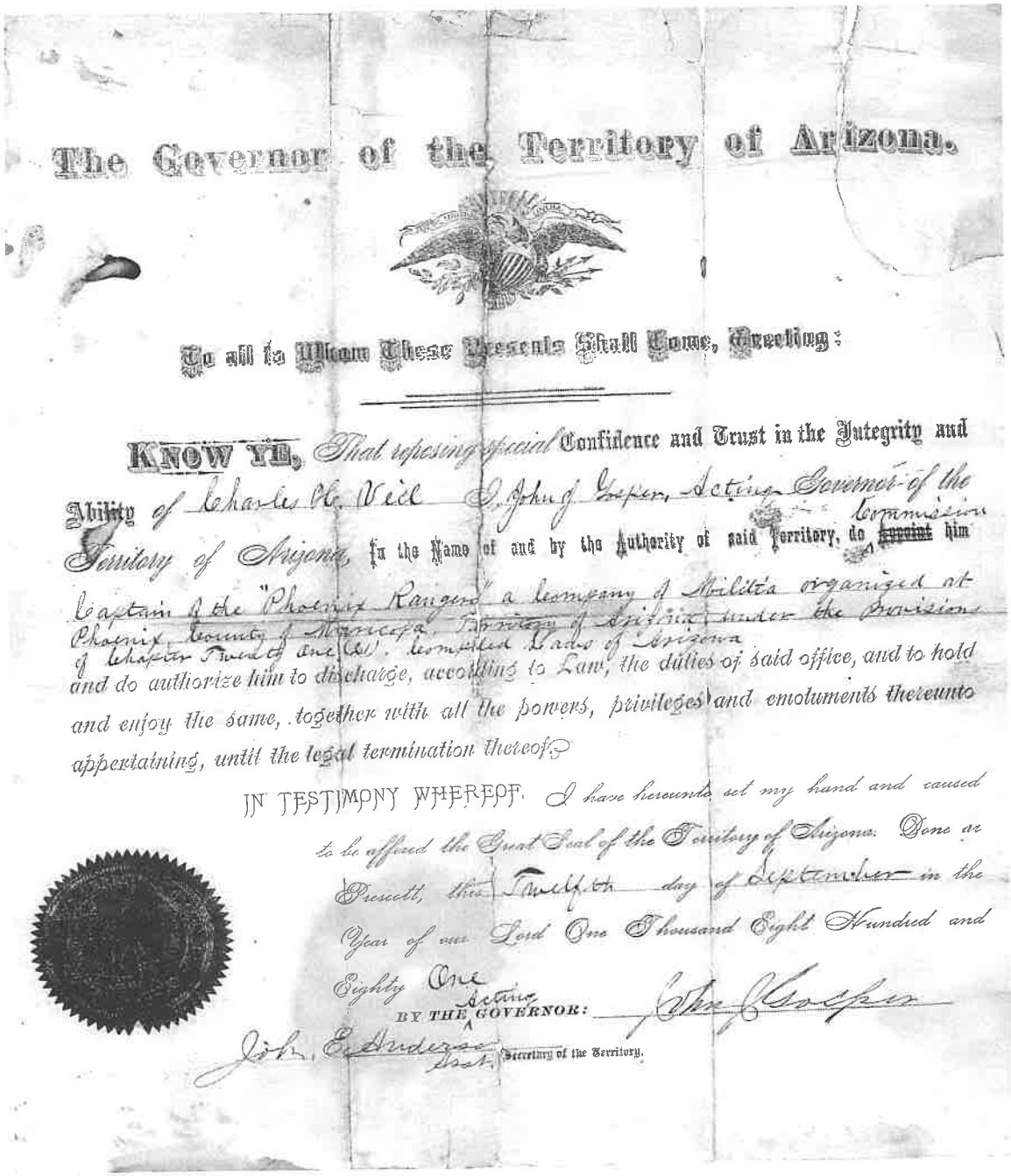
[1] Goff, John S., Arizona Territorial Officials
[2] Wagoner, Arizona Territory 1863-1912, page 182
[3] Personal communication with Linda Smetzer and the Gosper family.
[4] Veil, Fred; personal interview and documents
[5] Archives, Sharlot Hall Museum
[6] Biographies, Los Angeles County
[7] Kidd, Laurinda; rootsweb.ancestry.com



The Governor of the Territory of Arizona.

To all to Whom These Presents Shall Come, Greeting:

KNOW YE, That reposing special Confidence and Trust in the Integrity and Ability of Charles H. Veil I, John J. Gosper, Acting Governor of the Territory of Arizona, in the Name of and by the Authority of said Territory, do ~~appoint~~ commission him Captain of the "Phoenix Rangers" a company of Militia organized at Phoenix, County of Maricopa, Territory of Arizona under the provisions of Chapter Twenty one (21), Compiled Laws of Arizona and do authorize him to discharge, according to Law, the duties of said office, and to hold and enjoy the same, together with all the powers, privileges and emoluments thereunto appertaining, until the legal termination thereof.

IN TESTIMONY WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the Territory of Arizona. Done at Prescott, this Twelfth day of September in the Year of our Lord One Thousand Eight Hundred and Eighty One

BY THE GOVERNOR: Acting John J. Gosper

John E. Anderson Secretary of the Territory.

Photocopy of one of the many official documents signed as "Acting Governor" by Arizona Territorial Secretary John J. Gosper during the absences from the territory of the appointed governors in the years from 1877-82.

Arizona Territory's First Boy Scout Troop

The Boy Scouts of America organization was incorporated in February 1910 and by September of that year Arizona Territory had its first Scout Troop. Troop 1 was formed in Prescott and exists to this day.

This 1916 photograph shows Troop 1 formed up in front of the sponsoring First Congregational Church. From left are Morris Wing Payne (scoutmaster), F. Crosby Paine, Lincoln Buckley Young, Paul Dahlke, Moses Bonsall Hazeltine, George Allen, Ralph Wellard, Gene Wellard, Harry Fox Southworth, George S. Ruffner, Charles Soder (Suder?), and Harold Lester Poe.

HOG RANCH

Continued from page 12

and it was safe for them to leave the house again—they followed along, six all told.

As it happened the Mexicans for whom I had shot the hogs were employed with that railroad gang. Knowing there had been some dispute between the railroad company and me, and seeing me with the gun and the dogs, and probably thinking I might use the gun, they got demoralized. The Mexicans began shouting, "Run, boys, run, he shoots like hell. He shot five hogs, poof, poof, poof." They jumped onto the scraper mule teams and started to run, which demoralized the whole gang, and so I cleared the ground.

I was determined to—and did—hold the ground until the $650 was paid into court. If I had allowed them to go ahead, I would probably be lawing them yet, but I held them to the strict letter of the law and made them settle.

ABOUT US

The award-winning Prescott Corral (www.prescottcorral.org) was founded in 1962 as an affiliate of Westerners International (www.westerners-international.org), an organization dedicated to the preservation of the real history of the American West.

The Prescott Corral has a well-earned reputation for excellence in preserving Western history through its monthly dinner meetings, the annual History Symposium it co-sponsors with the Sharlot Hall Museum, and its contributions to other area historical preservation groups.

ABOUT OUR CONTRIBUTORS

Thomas Jones was the Historical Archaeologist, Historian, and Historic Artifact Analyst on the multidisciplinary Hayden Flour Mill project. He assisted in supervision of the archaeological field crew, conducted extensive archival research, and wrote the majority of the historic context for the property. Mr. Jones currently serves on the Phoenix Historic Preservation Commission and the State Historic Preservation Office Advisory Committee for Historic Archaeology.

Brevet Major Charles H. Veil had a colorful career in the Civil War, as an Indian fighter in the southwest, and as an early settler in the Salt River Valley.

Gail I. Gardner was the chief subject of the December 2011 issue of Territorial Times (Vol. 4, No. 1) and we had his observations on the evils of Prohibition left over from then. It was too good to waste.

Russ Sherwin has a singular view of changing farm practices in the early 20th Century, a journal from his father. The elder Sherwin, Wylie Grant Sherwin was a cowboy and ranch hand in the Bighorn Wyoming area as a teenager at that time.

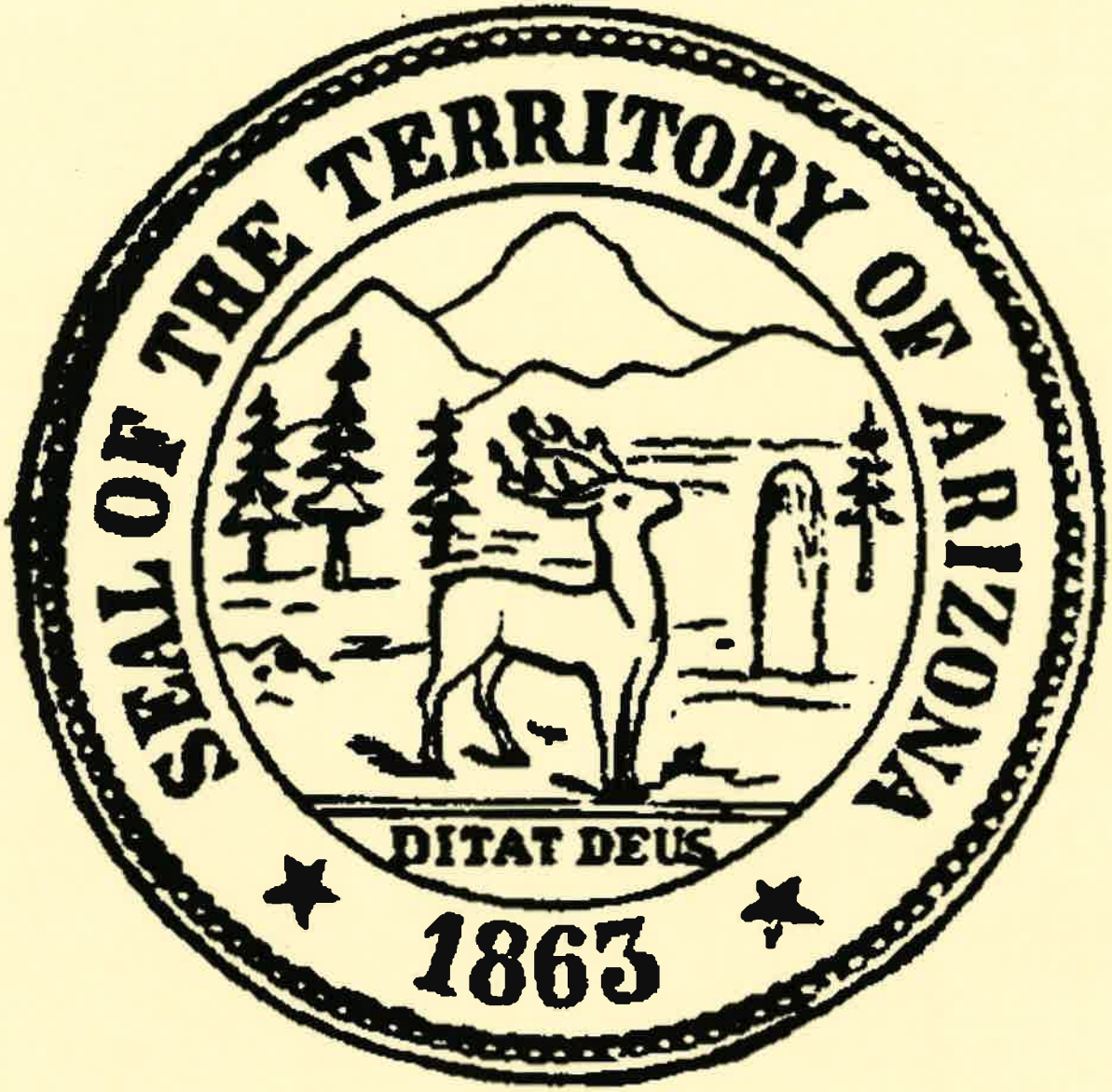
Jay W. Eby is a retired US Forest Service District Ranger and a long-time student of Arizona's involvement in the Spanish-American War. He was instrumental in the founding of "Troop 1/A of the Arizona Rough Riders" a ceremonial and re-enactment unit that is dedicated to the historically accurate portrayal of the life and times of the original Arizona Rough Riders.

ABOUT THE BACK COVER: Arizona Territory's Second Official Seal

One of the actions taken by Arizona's First Territorial Legislature was to design a replacement territorial seal to be affixed to official documents. (See *Territorial Times*, Volume 1, Number 1, page 26 to see the original design.)

Despite plans for a new seal, Arizona continued to use variations of the original. Secretary (and later Governor) McCormick took advantage of a provision of the act that allowed him to use the earlier seal in his official duties "until the seal authorized in this act is prepared." It was not prepared until 1879, 15 years after the act that authorized.

The first known use of the legislatively approved seal was by Territorial Secretary John Gosper to certify the acts of the tenth legislative assembly on March 3, 1879,


SEAL OF THE TERRITORY OF ARIZONA
DITAT DEUS
1863