

NEVADA HISTORICAL SOCIETY QUARTERLY



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NEVADA HISTORICAL SOCIETY QUARTERLY

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James Mooney and Wovoka: An Ethnologist's Visit with the Ghost Dance Prophet

L. G. MOSES

BY LATE NOVEMBER, 1890, the newspaper and magazine press in the United States were reporting a great religious excitement among western Indian tribes, most notably the Sioux in the Dakotas. Stories about the imminent uprising of crazed "redskins" filled columns of newsprint. Plains and Great Basin Indians were dancing a "ghost dance" given to them by a mysterious prophet who lived somewhere in the Rocky Mountain West. Half the army of the nation was arrayed against the Sioux.

In addition to his other assignments, James Mooney had been asked by John Wesley Powell, his superior at the Smithsonian Institution Bureau of American Ethnology, to examine the effects of the Ghost Dance religion on the tribes of Indian Territory. Mooney had wanted to visit the region during the winter of 1890-1891 to compare the remnant band of Cherokees from the Great Smoky Mountains of North Carolina to the large group in Indian Territory, separated as they were by over 1000 miles and a generation since removal. Powell had also asked the ethnologist to investigate the Kiowas. Ever interested in philology as the first step in classification of Native Americans, the explorer of the Colorado River wanted Mooney to gather information about the linguistic affinities of the Kiowas, regarded by many ethnologists as the most "primitive" of plains Indians.¹ If Mooney were seized with excitement at the prospect of visiting the peoples of Indian Territory, that excitement must have increased as he read about the Ghost Dance.

On the morning of December 22, 1890, Mooney boarded a west-bound train that would, for the first time in his career, carry him beyond the Mississippi, near the hundredth meridian, where the "wild tribes" lived.²

¹ Mooney to Henry W. Henshaw, June 18, 1890. Records of the Bureau of American Ethnology, Letters Received, Selected Correspondence File, Box 14, Smithsonian Institution National Anthropological Archives, National Museum of Natural History, Smithsonian Institution, Washington, D.C. Cited as BAE Records, LR, Box —, SNAA. The "American" was attached to the title of the Bureau of Ethnology in 1894.

² *Twelfth Annual Report of the Bureau of Ethnology* (Washington: Government Printing Office, 1894), pp. xxx-xxxi. Annual reports of the ethnological bureau are hereafter cited in the fashion, BAE, *12th Annual Report* (1894). The date in parentheses indicates year of actual publication rather than year of the report. The BAE was notoriously tardy in the publication of its annual reports.



James Mooney, circa 1910. Smithsonian Institution National Anthropological Archives.

Government sponsored comprehensive programs for assimilation of Native Americans were of recent origin. By 1890 Indians had been conquered militarily and retained small hope of ever challenging the white man's government. Consigned to reservations, Indians could achieve citizenship only if they abandoned their tribes, accepted an allotment of land, and exchanged their hunting rifles and skinning knives for plows. Plains warriors who in years past had followed the great bison herds now queued up at their

agencies on issue day to receive their families' food and supplies. It was hoped that individual freeholds would provide Indians with a means of livelihood, future independence, and a respect for private property. The 160 acre allotment became the assimilationists' solution to the "Indian Problem," despite the fact that many southwestern Indians had been farmers and herders for generations. Such a limited acreage, even where available, might work to their disadvantage in the arid regions. The mercurial largesse of the federal government became even more unpredictable as each tribe, through persuasion or force, surrendered its "surplus land." Treaty provisions were often ignored in the rush of legislation effecting Indians which passed Congress after the adoption of the Dawes Land in Severalty Bill in 1887.

It was the preceding quarter century of broken treaties, encroachment on tribal lands, and assimilationist programs of the Bureau of Indian Affairs and Christian reformers that helped to produce one of the greatest social and religious movements among Indians during the nineteenth century. The Ghost Dance religion came at a time when many western and plains Indians were in a demoralized state. The religion promised a return of halcyon days, and a future unencumbered by an Anglo-American civilization. This the ethnologist James Mooney would find when he arrived in Indian Territory. There he would begin his research into the religion—research that led him eventually to Wovoka.

The Ghost Dance religion of the Paiute prophet Wovoka, or Jack Wilson as he was known to non-Indians, blew as a warm wind out of the parched landscape of western Nevada, heating the imaginations of Indians with anticipation of their redemption. A time would come, Wovoka told them, when all Indians living and dead would be reunited in aboriginal splendor on a remade earth. Indians would be free forever from destitution, disease, death, and non-Indians. To hasten the transformation, the faithful were instructed to perform certain rituals, the most spectacular and ubiquitous of which was a circular dance, known by various names but renowned as the "ghost dance." In their exhaustion from performing the dance, and in their wild longing after validation of the prophet's vision, the ghost dancers would collapse and "die." After returning to consciousness, they would tell about their meetings with loved ones long dead, harbingers from a subliminal world of things to come.³

Nebulous rumors of the existence of a new prophet reached the office of the Commissioner of Indian Affairs in June, 1890. The commissioner and members of his staff remained unconcerned until late in the summer when the Sioux seized upon the religion. By the early fall ghost dances were in

³ The standard reference for the Ghost Dance is the classic, contemporary account of James Mooney, "The Ghost Dance Religion and Sioux Outbreak of 1890," in BAE, *14th Annual Report* (1896), Part 2. Cited as Mooney, *Ghost Dance Religion*. See especially pp. 746-802.

full performance at a number of widely scattered reservations in the trans-Mississippi West. The Sioux version of the Ghost Dance, however, was particularly militant. Sioux apostles of Wovoka preached a variety of the doctrine in opposition to the prophet's counsel that peacefulness should reign as the directing principle among the faithful. As the atmosphere at the Sioux reservations grew increasingly tense into the late fall, the Bureau of Indian Affairs sought first to contain the perceived rebellion in the Dakotas and only afterward to isolate the person responsible for the excitement.⁴ Once order was restored among the Sioux by mid-January, 1891, and when it appeared unlikely to leaders in the Indian service that the regrettable incidents at Pine Ridge and Standing Rock reservations would be repeated elsewhere, it no longer seemed important to locate the leader and originator of the Ghost Dance religion. The mendacity of the prophet, so Thomas Jefferson Morgan, Commissioner of Indian Affairs, believed, should have been made manifest to the ghost dancers by the death of Sitting Bull and the tragic affair at Wounded Knee Creek, South Dakota.

Despite the fear and trepidation created by the Ghost Dance among members of the Indian service, the Bureau of Indian Affairs never sent a representative to confer with Wovoka, or to learn from the prophet himself about his mission to America's natives. The first governmental agent to visit Wovoka was Arthur Chapman, army scout and interpreter, under orders from General John Gibbon, commander of the Military Department of the Pacific. Chapman spent a few days with Wovoka the first week of December, 1890. His report went first to General Gibbon, and afterward it climbed a ladder of endorsements all the way to the Secretary of War.⁵ The report dispelled much of the confusion that surrounded the sources and tenets of the religion. Remarkably, however, it was never included in the special file kept at the Indian Office on the Ghost Dance.⁶ A more complete account of the prophet had to await the publication of James Mooney's history of the religion. Mooney's meeting with Wovoka took place a year after Chapman's. It is a story as fascinating as any other in the pageant of the Ghost Dance of 1890.

James Mooney (1861–1921) was a member of the first generation of government ethnologists. He was born in Richmond, Indiana, February 10,

⁴ Robert M. Utley, *Last Days of the Sioux Nation* (New Haven: Yale University Press, 1963), is still the best source on the Sioux Ghost Dance.

⁵ See Chapman to Gibbon, Dec. 6, 1890, in "Report of the Secretary of War," *Executive Documents of the House of Representatives*, 52nd congress, 1st session, Executive Document 1, Part 2 (Washington: Government Printing Office, 1892), pp. 191–194. Cited as Sec. of War, *Annual Report*, 1890–91.

⁶ See "Special Case 188: Ghost Dance, 1890–1898," Records of the Bureau of Indian Affairs, Record Group 75, National Archives, Washington, D.C. Cited as SC 188, RG 75, NA.

1861, the only son of Irish immigrant parents. He received his education in Richmond public schools. For a year after his graduation from Richmond High School in May, 1878, he taught school. Rather than surrender his life to endless drill, chalk dust, and farmers' children, he hankered after a more venturesome career in the newspaper business. He became a typesetter and later advanced to the editorial office of the Richmond *Palladium*.⁷

His fascination with the American Indian began when he was still a child. He started collecting notes on Indians of the Americas with the intention of producing a map that located all tribes, their ranges, and important ethnological sites. His familiarity with Richmond members of the Society of Friends and their work in Indian education in North Carolina brought the Eastern Cherokee tribe to his attention. He planned to visit the western region of that state to begin a study of the Mountain Cherokees but realized that, without extensive financial resources to draw on, the task would prove beyond his means. In 1882 he tried to win appointment to the ethnological bureau of the Smithsonian Institution. He did not receive employment until 1885, after he had visited Washington, D.C., and displayed samples of his work to John Wesley Powell, the bureau's director. He joined the Bureau of Ethnology six years after its founding. Within two years of his appointment as government ethnologist, he escaped the confines of philological research in the capital archives and began field research. He became one of the premier field investigators for the Bureau of Ethnology.⁸ It was his research into the Cherokees and Kiowas that sent him to Indian Territory in late 1890, and into an examination of the Ghost Dance religion, the history of which would preoccupy his attention for several years thereafter.

Mooney departed Washington the day before Big Foot's band of Miniconjou ghost dancers from Cheyenne River reservation, South Dakota, escaped their military escort and fled toward Pine Ridge agency. The ethnologist was still en route to the territory on the morning of December 29 when Sioux and soldiers clashed at Wounded Knee Creek on the Pine Ridge reservation. A fight started between Miniconjous and troopers of the Seventh Cavalry as the Indians were undergoing a search for weapons. Soon all were engaged in a fierce battle at close quarters that ended with over 200 dead and wounded. By the time Mooney reached the Cheyenne and Arapaho agency at Darlington, Indian Territory, Sioux ghost dancers, and those other Indians who had fled Pine Ridge in fear after the battle, were camped within range of the field guns that ringed the agency compound. General Nelson A. Miles, commanding the Military Division of the Missouri, took the Sioux surrender on January 15, 1891.

⁷ James Mooney Vertical File, BAE Records, SNAA.

⁸ Ibid.

Bloodshed at Wounded Knee followed by the parade of military power at Pine Ridge agency that culminated in a grand review of troops on January 21 served grim notice to all Indians that the United States government refused to countenance any threat to the process of assimilation.⁹ Leaders at the Bureau of Indian Affairs had long before decreed that their wards were to become citizen farmers in the fashion of other Americans. The Ghost Dance religion had challenged, if only for a time, the tidiness of the process. For the Sioux who watched the military parade in silence, faith in the prophet ceased to inspire armed resistance to the forces of civilization. But for many other Indians, and especially for those living in Indian Territory, the religion still offered hope.

From Darlington on January 19 Mooney wrote, "Indians are dancing the ghost dance day & night. . . ." ¹⁰ He attended Cheyenne and Arapaho performances for the next week. "I am so far in with the medicine men," he boasted to a fellow ethnologist at the bureau, "that they have invited me to take part in the dance although they order any other white man away from the grounds. . . . The Caddos, Kiowas, Comanches [around Anadarko agency] to who I go from here are all dancing." ¹¹ For the next month and a half, Mooney traveled between the two reservations, where he participated in ghost dances, collected specimens of clothing and crafts used in the ritual for the National Museum, and interviewed leaders of the religion.

Toward the end of February, 1891, Mooney received hints about the identity and location of the Ghost Dance prophet. Apiaton (sometimes spelled Apiatom), or Wooden Lance, a Kiowa, had just returned to the Kiowa and Comanche reservation after a visit to the "Indian Messiah." The agent, Charles E. Adams, with the assistance of Lieutenant Hugh L. Scott at Fort Sill, called a council at Anadarko agency and invited the attendance of Cheyennes and Arapahos from their reservation north of the Washita River. ¹² With Mooney present, the tribes gathered to hear Apiaton's story of his search for the messiah. The trail had led him first to Pine Ridge and thence to Wind River reservation, Wyoming. From the home of the Shoshonis and northern Arapahos he moved on to Fort Hall, Idaho. Again he learned, this time from Bannocks and Shoshonis, that he must travel farther. After stopping at Pyramid Lake reservation, he arrived at last in Mason Valley near the Walker River reserve, where the prophet told him his search was ended.

Wovoka had told others before Apiaton about his ministry. The prophet

⁹ Utey, *Last Days of the Sioux Nation*, pp. 269-270.

¹⁰ Mooney to Henshaw, Jan. 17, 1891, BAE Records, LR, Box 14, SNAA.

¹¹ Mooney to Henshaw, Jan. 27, 1891, *ibid.*

¹² Mooney, *Ghost Dance Religion*, pp. 900, 909, 911, 913.

had given the delegates a dance, but they had gotten things twisted after leaving him. The Sioux more than other tribes had wandered from the charted path and a great many of them had been killed as a consequence. The violence and bloodshed distressed the prophet. Wovoka recommended that the Kiowa delegate return to his tribe and tell his people to stop the dance.¹³ Disheartened by his discovery, Apiaton left Nevada and hurried home convinced, as Mooney wrote later, "that there was no god in Israel."¹⁴

Apiaton's recounting of his meeting with Wovoka had an effect. Devotion to the religion decreased at both the Kiowa and Comanche, and the Cheyenne, Arapaho and Caddo reservations.

Mooney left Anadarko agency to continue his work on the Cherokees. By mid-April, 1891, he was back in the capital. In short order, however, he was ordered to return to the territory, this time to prepare an exhibit on the Kiowas for the forthcoming Columbian Exposition in Chicago scheduled for the following year (later postponed until 1893). He stayed in Kiowa camps in the Wichita Mountains from May until late July. He returned to Washington in early August, relieved to be free from his role as collector of curiosities for the celebration of the quartocentennial of Columbus, or the "Italian dreamer" as the ethnologist called him. Mooney arranged and wrote descriptive labels for the Kiowa collection stored in the basement of the National Museum and then to his delight, resumed work on the Ghost Dance. From August through October, in preparation for another trip to western tribes, this time to the northern plains, he visited the Bureau of Indian Affairs and War Department to research documents about the late "Messiah Craze."¹⁵

It was about this time that the ethnologist decided to find the prophet for himself. Confusion about the source of the religion permeated the writings of persons at the Indian bureau. Through his participation in the council at Anadarko the previous winter and his subsequent conversations with a number of delegates who visited Wovoka, Mooney knew that he would need to travel to Nevada during his planned research trip. He wrote to C. C. Warner, superintendent of the Nevada agencies. Warner had been appointed to his post at Pyramid Lake reservation at the height of the Ghost Dance in December, 1890. Warner, a Republican, had replaced S. S. Sears, an appointee from the previous Cleveland administration. Warner answered Mooney's inquiry with a derisive tone. He had never seen Jack Wilson or Wovoka, he told the ethnologist:

¹³ Scott to Post Adjutant, Fort Sill, Feb. 22, 1891, SC 188, RG. 75, NA.

¹⁴ Mooney, *Ghost Dance Religion*, p. 913.

¹⁵ Mooney to Charles Adams, April 3, 1891, Kiowa Employees File, Indian Archives Division, Oklahoma Historical Society, Oklahoma City; Mooney to Henshaw, March 6, 1891, BAE Records, LR, Box 14, SNAA; and BAE, *13th Annual Report* (1896), p. xxxix.

I am pursuing the course with him of non-attention or a silent ignoring. He seems to think, so I hear, that I will arrest him should he come within my reach. I would give him no such notoriety. . . . There are neither ghost songs, dances nor ceremonials among them about my agencies. Would not be allowed. I think they died out with "Sitting Bull."¹⁶

Mooney suspected otherwise. Unable to get any assistance from the man close to the source of the Ghost Dance, the ethnologist determined to follow his own devices. The trail to the messiah, never well traveled by members of the Indian service, was still warm.

Mooney left Washington about the middle of November, 1891, and after stopping in Nebraska long enough to learn that the Omahas and Winnebagos had little to do with the religion, he moved on to South Dakota.¹⁷ At Pine Ridge reservation he rode out to the battlefield at Wounded Knee where he saw the mass grave of the dead from Big Foot's band. The survivors had fenced the perimeter of the trench, and smeared the posts with paint made from the sacred clay of western Nevada given to Sioux delegates by Wovoka. Mooney was touched by the pathetic scene. The grave had been marked so that those recently dead might be among the first at the Indian resurrection.¹⁸

Research among the Sioux confirmed for Mooney the tragic implications of the Ghost Dance. It was a religion of a beaten people. Seeing and speaking with the prophet would help determine whether the tragedy had been a consequence of the revelation itself or, as so often happened, had been produced by misunderstanding among the faithful, as well as between the faithful and unbelievers.

After arriving at the Pyramid Lake reservation, he learned that Wovoka's uncle, Charly Sheep, lived near the Walker River agency. Mooney spent a lonely Christmas at a hotel across from the Reno railroad station. His thoughts that day were turned toward a different, a newer messiah. After the holiday he moved south and found the prophet's uncle at Walker River reservation.¹⁹ By showing Charly photographs of a number of the ethnologist's Arapaho and Cheyenne friends from Indian Territory, Mooney overcame much of the Indian's initial suspicion. Many Indian delegates from the East had recently descended on Wovoka's home in Mason Valley. As Charly indicated, Wovoka found the visits increasingly annoying, particularly after the government branded the religion dangerous and inimical to

¹⁶ Mooney, *Ghost Dance Religion*, p. 767n.

¹⁷ BAE, *13th Annual Report* (1896), p. xxxix; and Pine Ridge Agency, Guest Register, 1884-1894, Book 1, Archives 165, Box 516183, RG 75, Federal Archives and Records Center, Kansas City, Missouri.

¹⁸ Mooney, *Ghost Dance Religion*, p. 769.

¹⁹ Mooney to Captain John Gregory Bourke, Dec. 25, 1891, John Gregory Bourke Papers, Series I, Box 1, Folder 15, Nebraska State Historical Society, Lincoln.

order and progress. Mooney told Charly that, as an ethnologist, it was his job to study Indians. He wished to bring no harm to the prophet.²⁰

Mooney spent a week with Charly Sheep, discussing various aspects of Paiute culture. "When the ice was well thawed, I cautiously approached the subject of ghost songs and dance. . . . I then told Charly that . . . I was anxious to see the messiah and get from him some medicine-paint to bring back to his friends among the eastern tribes." The Indian agreed to take Mooney to his nephew's home.

The two rode the Carson and Colorado Railroad from Schurz twenty miles northwest to Wabuska where they left the train and travelled overland southeast for twelve miles, until they reached Mason Valley. There they met F. A. Dyer, who kept a store at Yerington. Dyer, well acquainted with Wovoka and fluent in the Paiute language, offered his assistance to the ethnologist. Mooney hired a team and driver and moved on up the valley. It was New Year's Day (a Friday), 1892, and a deep snow covered the ground, the result of Wovoka's command of the elements, Charly Sheep assured the group. "It is hard to imagine anything more monotonously unattractive than a sage prairie under ordinary circumstances unless it be the same prairie when covered by a heavy fall of snow," Mooney wrote. He found it difficult to determine whether mounds he saw in the distance were snow-draped sage brush or Paiute wickiups. The party passed a dance ground that, though deserted, offered visible proof of frequent use. So much for Agent Warner's contrary assertion, Mooney thought.

After going several miles Mooney observed a solitary figure on a nearby ridge. On drawing closer, he noticed that it was a man with a gun propped over one shoulder.

Dyer looked a moment and then exclaimed "I believe that's Jack now!" The Indian thought so, too, and pulling up our horses he shouted some words in Paiute language. The man replied, and sure enough it was the messiah, hunting jack rabbits. At his uncle's call he soon came over.

As Wovoka approached the group, Mooney saw that he was a young man about thirty-five and nearly six feet tall—considerably taller than the ethnologist, who stood only five feet four inches. The Indian was dressed in "white man's" clothes, including a rather large, broad-brimmed white felt hat. Wovoka clasped Mooney's hand with "a strong, hearty grasp" and asked what he wanted. Charly Sheep translated Mooney's interest, adding that the small stranger knew some of the prophet's Indian friends in the East. Wovoka said that he was hunting now, but if Mooney would come to his camp this evening, he would tell the ethnologist sent by "Washington" about

²⁰ The following account, unless otherwise indicated, is taken from chapter nine, "Wovoka the Messiah," in Mooney, *Ghost Dance Religion*, pp. 767–776.

his sacred mission to the tribes. With another handshake all around Wovoka moved off.

It was late afternoon. Mooney and his party drove on to the nearest ranch where they awaited nightfall. After supper they started in what they thought was the direction of the Paiute camp. They had been traveling for an hour, with nothing to be seen in any direction but snow covered bushes, when Charly Sheep, the guide of the expedition, announced that he was thoroughly lost. "To be lost on a sage plain on a freezing night in January is not a pleasant experience. There was no road, and no house but the one we had left some miles behind, and it would be almost impossible to find our way back to that through the darkness."

Except for a lantern they carried in the wagon, there was no other light except the winking of a few stars in the cloud-broken sky. To add to the uncertainty, cattle trails, which seemed to be "Indian trails," cut in every direction "and kept us doubling and circling to no purpose, while in the . . . gloom every large clump of sage brush took on the appearance of a wikiup, only to disappoint us on a nearer approach." After vainly following a dozen false trails, and hearing no answers to their frequent shouts for assistance, they decided to leave Charly, the oldest in the party, with the wagon, while Mooney, Dyer and the teamster fanned out from the central point. When each had gone far enough to determine that he was on a wrong trail, the wagon was brought up and the process repeated. This went on for some time until, from the darkness, the driver's shouts brought the group together. He had heard noises in the distance, and as each man strained to listen and searched the blackness for some sign of life, a shower of sparks from a camp-fire disclosed the existence of the Paiute camp. They leaped to the wagon and with considerable jostling drove directly to the circle of huts.

Wovoka courteously bid the visitors enter his wikiup. He inquired more precisely about the purpose of the ethnologist's visit. Charly Sheep's translation, Mooney explained, "stretched out to preposterous length, owing to a peculiar conversational method of the Paiute." Each statement by the older man was repeated at its close, word for word, by Wovoka, with the same monotonous inflection. This done, the first speaker signified by a grunt of approval that it had been correctly repeated, and then began the next statement. The first time Mooney heard two Paiutes conversing in this fashion at Pyramid Lake, he thought that they were reciting some sort of litany and "it required several such experiences and some degree of patience to become used to it." Finally the prophet signified his understanding, and then in answer to Mooney's questions, he gave an account of his life and the tenets of the Ghost Dance religion.

Wovoka told Mooney about his vision of a restored Indian world. The prophet had a vision during an eclipse of the sun in January, 1889. As

Mooney later learned from a rancher who frequently employed Wovoka, the Indian had been sick with a severe fever of unknown origin. In his delirium, he traveled to heaven where God showed him members of his tribe, all happy and young, engaged in old sports and occupations. God then commanded that Wovoka return to earth and inform all Indians that they must be good and love one another and that they must put away all the practices that savored of war. If the Indians followed the precepts and performed the God-given dance at regular intervals for five days, they would secure their own happiness and hasten the end of the world. Paiute apostles carried the doctrine to other Nevada tribes. Within the year delegates from distant plains tribes began arriving in Mason Valley eager to meet their deliverer.

Wovoka repudiated any idea of hostility toward non-Indians, asserting that his religion advocated universal peace. He disavowed responsibility for the ghost shirt which had formed so important a part of the dance costume among the Sioux and which supposedly made the wearer inviolable.²¹ Mooney recorded his impression of the conversation:

I knew that he was holding something in reserve, as no Indian would unbosom himself on religious matters to a white man with whom he had not had a long and intimate acquaintance. Especially was this true in view of the war-like turn affairs had taken across the mountains. Consequently I accepted his statements with several grains of salt, but on the whole he seemed to be honest in his belief and his supernatural claims, although, like others of the priestly function, he occasionally resorts to cheap trickery to keep up the impression as to his miraculous powers.

In subsequent interviews Wovoka added little to the story of his vision and doctrine but showed great interest in Mooney's friendship with the Cheyennes and Arapahos.

Because Mooney had been honest with him, Wovoka allowed the ethnologist to take his picture, something that had never been done before. He would only charge the white man two dollars and fifty cents for the privilege. "I was prepared for this," Mooney explained, "and refused to pay him such charges, but agreed to give him my regular price per day for his services as informant and to send him a copy of the picture when finished." The prophet agreed. Mooney also acquired a number of souvenirs to take back to the Indians at Darlington. "With mutual expressions of good will we parted, his uncle going back to the reservation, while I took the train for

²¹ Wovoka repudiated responsibility for the ghost shirt in his interview with Arthur Chapman in early December, 1890, weeks before the clash at Wounded Knee. See, Sec. of War, *Annual Report*, 1890-91, p. 192. Paul Bailey, Wovoka's biographer, goes into detail on the ghost shirt and uses as his source the E. A. Dyer manuscript of the Nevada Historical Society. See, Paul Bailey, *Wovoka the Indian Messiah* (Los Angeles: Westernlore Press, 1957), pp. 120-124.

Indian Territory." Mooney had seen the Indian messiah. Other than a few minor errors or omissions, he had the whole story.²² Other investigators, with the exception of Arthur Chapman, had been within easy distance of the prophet but had failed, either out of disinterest or inattention, to make the acquaintance of Wovoka and learn about his religion.²³

News that Mooney had returned after a visit to the prophet caused great excitement among the Cheyennes and Arapahos. Indians gathered around the ethnologist "eager to hear all the details of my visit . . . and to get my own impressions of the man. In comparing notes with some of the recent delegates I discovered something of Wovoka's hypnotic methods, and incidentally learned how much a miracle depends on the mental receptivity of the observer."²⁴ He sensed that a number of delegates had been prepared to believe all that Wovoka had told them.

Mooney established enough trust between himself and the delegates to be shown written statements which Wovoka had given the Indians during their last visits to him the previous August. One of the Cheyennes, Black Short Nose, asked that Mooney take the letters to Washington, "to convince the white people that there was nothing bad or hostile in the new religion."²⁵ The ethnologist agreed to the suggestion.

²² As the anthropologist Anthony F. C. Wallace writes in his abridgment of *Ghost Dance Religion*, Mooney "mistakes, for instance, the farmer of Wovoka . . . for another man who actually launched the earlier Ghost Dance of 1870. And he grossly underestimates not only the importance of the 1870 Ghost Dance . . . but also the significance of beliefs concerning the return of the dead, traditionally so important among the Paviotso and their northern neighbors." Although a "thorough understanding of the Ghost Dance as a cultural phenomenon requires consultation of later works as well as Mooney's . . .," Wallace adds "it is remarkable indeed, that so early a student was able to accomplish so much under extraordinary difficulties." James Mooney, *The Ghost Dance Religion*, edited and abridged with an introduction by Anthony F. C. Wallace (Chicago: University of Chicago Press, 1965), p. viii. For biographies of the prophet that contain either first-hand accounts or additional research that goes beyond Mooney, consult Grace Dangberg, "Wovoka," *Nevada Historical Society Quarterly*, XI, No. 2 (Summer, 1968), pp. 5-53; and Bailey, *Wovoka the Indian Messiah*.

²³ For example, Daniel Dorchester, Methodist minister and United States Superintendent of Indian Education, had been assigned by Commissioner Morgan in the spring of 1891 to investigate the Ghost Dance. His report, which appears in the commissioner's 1891 *Annual Report*, showed confusion about the source of the religion. Dorchester, however, had been present for a few days at Walker River reservation in June, 1890, at the very time that Acting Commissioner Robert V. Belt sent out circulars to agents asking them for information about the Ghost Dance. A number of visiting delegations of plains Indians were then present at Walker River. See James O. Gregory to S. S. Sears, June 26, 1890, Records of the Walker River reservation, Letters Sent, Box 314, RG 75, Federal Archives and Records Center, San Bruno, California.

Mooney had met with Gregory during his visit in late December, 1891. Gregory had been replaced the previous summer as farmer-in-charge at Walker River by Nelson Hammond, a Republican. Gregory told Mooney that Wovoka had asked him to write to President Benjamin Harrison asking that he recognize the prophet as a leader of all Indians. The letter, as Mooney correctly notes, was never forwarded. Mooney, *Ghost Dance Religion*, p. 773. See also, Edward C. Johnson, *Walker River Paiutes: A Tribal History* (Salt Lake City: University of Utah Printing Service, 1975), p. 48.

²⁴ Mooney, *Ghost Dance Religion*, p. 775.

²⁵ *Ibid.*, p. 776.

True to his word after reaching Washington in early February, Mooney prepared copies of the "messiah letters" for the Bureau of Indian Affairs. "It will be noted," he informed Commissioner Morgan, "that no date is fixed for the change and that [Wovoka] counsels peace with the whites."²⁶ Since Wounded Knee there had been little trouble at reservations, and the commissioner paid scant attention to Mooney's points. Morgan found other matters more pressing. Since the Ghost Dance no longer threatened disruption of his stewardship over the dependent tribes, the commissioner could carry on with his program for bringing the Indians of the United States into full participation as productive citizens.

Although distracted by other bureau matters, Mooney intermittently continued his research into the Ghost Dance for another two years. It was not until December, 1893, that he began to concentrate on the completion of his manuscript. He spent the next seven months writing, editing and arranging copy for the book.²⁷ The completed work went to the government printers in the summer of 1894, but owing to a backlog of other manuscripts it was not published until 1896.

When his book on the Ghost Dance appeared in print, it secured Mooney's reputation as an ethnologist of the first order. So praiseworthy did Dr. Washington Matthews, a fellow ethnologist as well as an army physician, find it that Mooney felt compelled to demur, if only a little disingenuously. Matthews had written in the *Journal of American Folklore* that

it is customary for a reviewer . . . to find some fault with the book, if for no other purpose than to show his own superior knowledge. We have read this ponderous tome through, with care, in the hope that we might find some noteworthy blemish; but we are forced to admit that we have failed in our praiseworthy effort.²⁸

Matthews sent a copy of the review to the ethnologist while it was still in galleys. Mooney replied that he could suggest no change "in your review of the Ghost Dance, excepting perhaps in the last paragraph. I am not infallible or omniscient & every field trip serves [sic] only to convince me more than before that at the best a whiteman can only hope to gather scraps around the edge of his Indian subject."²⁹

Some of the Smithsonian ethnologists (and many anthropologists in more recent times) agreed that Mooney was fallible. His attempt to compare the Ghost Dance religion and other messianic cults troubled individuals

²⁶ Mooney to Commissioner of Indian Affairs, Feb. 20, 1892, Records of the Commissioner of Indian Affairs, LR, RG 75, NA.

²⁷ BAE, *15th Annual Report* (1897), pp. xliii, xlvii, lii.

²⁸ Washington Matthews, "Review of the Ghost Dance Religion," *Journal of American Folklore*, X, No. 38 (Summer, 1897), p. 249.

²⁹ Mooney to Matthews, July 4, 1897, Washington Matthews Papers, Box 1, Wheelwright Museum, Santa Fe, New Mexico.

at the Bureau of Ethnology the most. Although often a stickler for detail in his research, Mooney's own writing at times went beyond the prescribed borders of his discipline, and moved from particularism to the universal. He had tried such comparisons before when he described similarities between Irish and Native American mythology. But the extent of his comparisons of the Ghost Dance with other religions was truly grand.

Mooney began the work with a quotation from Thomas Moore, an Irish poet and songwriter, whose lyrics the ethnologist had learned as a child: "There are hours long departed which memory brings / Like blossoms of Eden to twine round the heart[.]" "As with men," Mooney continued into metaphor, "so is it with nations."

The lost paradise is the world's dreamland of youth. What tribe or people has not had its golden age, before Pandora's box was loosed, when women were nymphs and dryads and men were gods and heroes? And when the race lies crushed and groaning beneath an alien yoke, how natural is the dream of a redeemer . . . who shall return from exile or awake from some long sleep to drive out the usurper and win back for his people what they have lost. The hope becomes a faith and the faith becomes the creed of priests and prophets, until the hero is a god and the dream a religion. . . . The doctrine of the Hindu avatar, the Hebrew messiah, the Christian millennium, and . . . the Indian Ghost dance are essentially the same, and . . . have their origin in a hope and longing common to all humanity.³⁰

In subsequent chapters, Mooney described the Ghost Dance in careful, elaborate detail, and most of his research has withstood the assaults of scholar-critics. Yet beyond his careful analytical reconstruction of the religion in most of its forms, Mooney tried to demonstrate convincingly that, though aboriginal, the religion still spoke to the wild longing common to the human heart. In chapter sixteen, entitled "Parallels in Other Systems," he returned to his universalist theme. It proved to be the most controversial section of the work then and since. In introducing his comparisons he wrote:

The remote in time or distance is always strange. The familiar present is always natural and a matter of course. Beyond the narrow range of our horizon imagination creates a new world, but as we advance in any direction, or as we go back over forgotten paths, we find ever a continuity and a succession. The human race is one in thought and action. The systems of our highest modern civilizations have their counterparts among all the nations, and their chain of parallels stretches backward link by link until we find their origin and interpretation in the customs and rites of our own barbarian ancestors, or our still existing aboriginal tribes. There is nothing new under the sun.³¹

The last statement, a paraphrase from *Ecclesiastes*, was the most perplexing

³⁰ Mooney, *Ghost Dance Religion*, p. 657.

³¹ *Ibid.*, p. 928.

of the book. Perhaps Mooney's lyricism overwhelmed the more prosaic concerns of objective science. But there is another explanation.

Mooney attempted to suggest that Wovoka's religion, described by the Commissioner of Indian Affairs as heathenish and barbarous, was no more fantastic in its precepts than were the more tradition-bound religions of the larger American society; that one's skepticism concerning prophets diminished in direct proportion to the number of years that separated the faithful from the revelation. To liken the Ghost Dance religion of Wovoka to that of Mohammad, Flagellants, Fifth Monarchy Men, or Millerites, was not to scoff at individual differences, but to stress that element common to the experience—a profound difference. Later anthropologists would label such phenomena “crisis cults” or “revitalization movements.”³²

Wovoka's religion had for a time generated interest in the dominant society because it had challenged that very domination. But if the Ghost Dance were simply a religion of the materially and culturally deprived, what possible purpose was served by such an extensive study? In choosing to compare Wovoka's religion to other religions, Mooney wrote as an historian who, stepping back from his notes of incidents and anecdotes, sees themes that transcend denomination or particular philosophy, tribe or nation. More orthodox ethnologists might criticize his bending of methods, but Mooney on occasion stressed that his motives for writing about the Ghost Dance were purely scientific. He desired only to chronicle the evidence. Other agencies were doubtless better equipped, he believed, to protect Indians or to foster sympathy for them.

Although Mooney denied a role as Indian apologist, as if sympathy or humanity were somehow beyond the prerequisites of a scientist, he nevertheless wrote with a sense of compassion, in an almost lyrical style. Universality is a recurring theme. Mooney's mistake may have been in his phrasing: “There is nothing new under the sun.” Perhaps he would have been more successful had he emphasized, as did Willa Cather, that there are only two or three human stories, and they go on repeating themselves as fiercely as if they had never happened before.

For a time many American Indians were fiercely devoted to the religion of Wovoka. Mooney wrote about the Ghost Dance with such detail and precision as to suggest that it had never happened before. He had the sense to realize, however, that what separated the Ghost Dance from the more conventional varieties of religion was not so much the difference in ritual and belief as it was the absence of authority conferred upon it by the number of

³² Anthony F. C. Wallace excluded chapter sixteen from his edition, thus disturbing the provenance of the original work. For ancillary studies in both anthropology and history that either challenge Mooney's thesis, or expand the theme of the Ghost Dance, see the bibliography in Wallace, ed., *Ghost Dance Religion*, pp. viii-x.

believers. Indians, as whites, often believed in the truth of the revealed word. Missionaries, Indian service employees, philanthropists, and ethnologists of Mooney's generation might view the religion as a strange belief of an often quaint, and sometime dangerous race, all the while clinging to their own theologies, which still held that the world would end in a day of divine judgment.

In many ways, Mooney's history of the Ghost Dance religion has proven to be his greatest work. It was the first accurate history of the religion. It has served generations of historians and anthropologists as the fountainhead of research about the Ghost Dance of 1890 and its prophet. Its publication gave Mooney a new sense of authority and acceptance among both his fellow workers at the Smithsonian, and a growing community of scholars interested in American Indians. Mooney's book also gave to Wovoka a larger audience, one which stretched beyond Native Americans, the American continent, and his own generation. Although faith in Wovoka waned relatively early in his life (he lived until September, 1932) interest in Wovoka remained. It continues to this day.

The California-Nevada Boundary: The History of a Conflict.

Part I

JAMES W. HULSE

IN 1977, THE STATE OF CALIFORNIA filed suit against the state of Nevada over the location of the boundary between the two jurisdictions north of Lake Tahoe. By this action, California's attorneys reopened an historical question that has caused problems for well over a century; and they called attention to the fact that since 1872 Nevadans and Californians had been observing a boundary line that was not directly correct in terms of the laws of the two states.

The Congress, in admitting California to the Union in 1850, recognized as the eastern boundary of that state the description proposed by the constitutional convention that met in Monterey in 1849. It was defined as the 120th meridian west of Greenwich from the point of its intersection with the 42nd parallel, southward to the point at which the 120th meridian intersects the 39th parallel, thence southeasterly to the point at which the 35th parallel intersects the Colorado River, and thence southward along the center of the river to the Mexican border. But when Nevada Territory was organized in 1861, the Congress provided that "the dividing ridge separating the waters of the Carson Valley from those that flow into the Pacific" should define its western boundary between the 41st and 37th parallels. This provision would have reduced the size of California significantly, had it not been qualified by another section which provided that Nevada Territory would not have jurisdiction over the land then lying within California until that state should have assented to the transfer.

California's legislature did not assent to the change of its boundary, but many of the earlier settlers along the eastern slope of the Sierra Nevada regarded themselves as Nevadans, and partial surveys in the 1860-1862 period did not settle the question of jurisdiction. One dispute nearly led to bloodshed in the Honey Lake region in the so-called Sagebrush War of 1863. As a result of this episode, the Governor and Legislature of California and the

Acting Governor of Nevada Territory arranged for a boundary survey later that year. This led to the so-called Houghton-Ives survey, conducted under the auspices of the Surveyor General of California and a Commissioner appointed by the Acting Governor of Nevada Territory. This survey was subsequently ratified by the state legislatures of California and of Nevada in 1864 and 1865, respectively. It was incomplete, however, on the oblique boundary, as it extended only about 100 miles from Lake Tahoe toward the point where the Colorado River was intersected by the 35th parallel.

In 1864, Congress passed an enabling act authorizing the people of Nevada Territory to draft a constitution preliminary to admission to the Union, and the Act specified the western boundary of Nevada between the 39th and 42nd parallels as being the 43rd meridian west of Washington. Later in the year, Nevada was admitted to the Union on this basis, but the Nevada Constitution contained a provision that would have permitted the incorporation of such additional area as California might relinquish. The effect of the enabling act was to continue the overlap between California and Nevada, because the 43rd meridian west of Washington is shown by survey maps to be approximately two and three-quarters miles west of the 120th meridian west of Greenwich at those parallels. Since the northern terminus of the oblique boundary would have been moved westward if this change had been adopted, a strip of land from the Oregon border to the Colorado River would have been taken from California and added to Nevada.

Although the Houghton-Ives line, on which the two states had agreed in 1864-65, had apparently settled the problem between the two states, it was questioned in 1871 by the U.S. General Land Office because it appeared to be too far east, and Congress appropriated funds for another survey in 1872. In this instance, the General Land Office entered into a contract with Alexey Von Schmidt, directing him to begin his survey at a point at the northeastern corner of California established in 1868 by Daniel Major and to proceed southward. Von Schmidt, who was actively engaged at the time in trying to promote the transfer of Lake Tahoe water into the Central Valley of California and to San Francisco, departed significantly from the instructions he had received from the General Land Office. He ran a new line which was slightly less than a mile east of the Houghton-Ives line between the 42nd and 39th parallels, and he ran a new oblique line the entire distance from Lake Tahoe to the Colorado River. After some delay, he was paid by the General Land Office, but his survey was not adopted by the legislatures of Nevada or California. It is obvious from documented correspondence between Von Schmidt and the General Land Office that he departed significantly from his instructions in making his survey.

At the request of California, the U.S. Coast and Geodetic Survey made another survey of the oblique line in the 1890s and it revealed a number of discrepancies in the Von Schmidt line. Nevada and California legislatures adopted this U.S.C.G.S. line, but they continued to use, contrary to their own statutes, the Von Schmidt line north of the lake. It was these ambiguities that caused California in 1977 to file suit to win recognition for the northern Von Schmidt line as the official boundary. The purpose of this paper is to describe the events that led to this ambiguous situation.

I. California Efforts to Define a Boundary, 1849–1860

The problem of the eastern boundary of California began at the Constitutional Convention held in Monterey in 1849, the year of the gold rush and the year Californians drafted a Constitution and sent it to Washington. There was considerable controversy in the Monterey Convention concerning the definition of the eastern boundary; some participants suggested a line as far east as the 116th meridian, and others advocated a jurisdiction extending only to the crest of the Sierra Nevada.¹ The Constitution as adopted contained the following language relative to the eastern boundary:

The Boundary of the State of California shall be as follows:

Commencing at the point of intersection of 42nd degree of north latitude with the 120th degree of longitude west from Greenwich, and running south on the line of said 120th degree of west longitude until it intersects the 39th degree of north latitude; thence running in a straight line in a south easterly direction to the River Colorado, at a point where it intersects with the 35th degree of north latitude; thence down the middle of the channel of said river to the boundary line between the United States and Mexico. . . .²

The Act of Congress which admitted California to the Union, approved on September 9, 1850, accepted the Constitution but did not make explicit reference to the boundary.³

The Senate Committee which reported out the Bill for California statehood obviously considered the problem of California's size and its eastern boundary. Henry Clay, Senator from Kentucky and one of the architects of the Compromise of 1850 of which California statehood was a part, authored a report to the Senate submitted on May 8, 1850 which endorsed the boundary provisions as submitted by the Monterey convention:

¹ J. Ross Browne, *Report of the Debates in the Convention of California on the Formation of the State Constitution in September and October, 1849*. (Washington: John T. Towers, 1850), Appendix XIX–XX. A useful summary is available in Benjamin E. Thomas, "The California-Nevada Boundary," *Annals of the Academy of American Geographers*, XLIII, (March, 1952).

² Browne, *Report of the Debates*, op. cit., Appendix p. XI.

³ U.S. Statutes at Large, IX, pp. 452–453.

In regard to the proposed boundaries of California, the committee would have been glad if there existed more full and accurate geographical knowledge of the territory which those boundaries include. There is reason to believe that, large as they are, they embrace no very disproportionate quantity of land adapted to cultivation. And it is known that they contain extensive ranges of mountains, deserts of sand, and much unproductive soil. It might have been, perhaps, better to have assigned to California a more limited front on the Pacific; but even if there had been reserved on the shore of that ocean a portion of the boundary which it presents for any other State or States, it is not very certain that an accessible interior of sufficient extent could have been given to them to render an approach to the ocean through their own limits of any very great importance.

A majority of the committee think that there are many and urgent concurring considerations in favor of admitting California with the proposed boundaries, and of securing to her at this time the benefits of a State government. If, hereafter, upon an increase of her population, a more thorough exploration of her territory, and an ascertainment of the relations which may arise between the people occupying its various parts, it should be conducive to their convenience and happiness to form a new State out of California, we have every reason to believe, from past experience, that the question of its admission will be fairly considered and justly decided.⁴

This language suggests an understanding on the part of the key Senate committee which endorsed statehood for California that the boundaries of the state might be adjusted in the future to meet a changing political or demographic situation. On the same day that California was admitted to the Union, the Territory of Utah was created by another Act, with a common boundary to California between the 37th and 42nd parallels.⁵ The Congress clearly had information that it had included within California parts of some valleys on the eastern watershed of the Sierra Nevada.

Less than three weeks after the admission of California to the Union, the Congress enacted a law requiring that "hereafter the meridian of the observatory at Washington shall be adopted and used as the American meridian for all astronomical purposes, and that the meridian of Greenwich shall be adopted for all nautical purposes."⁶ The Washington meridian was 77° 03' 06."119 west of Greenwich,⁷ and the fact that it fell near but not on one of the degree meridians west of Greenwich was to be a source of trouble. It was the practice of Congress for many years thereafter to designate the

⁴ Report: (To Accompany bills S. No. 225 and S. No. 226.) Rep. Com. No. 123, 31st Cong. 1st Session. Senate, p. 3.

⁵ U.S. Statutes at Large, IX, p. 453.

⁶ U.S. Statutes at Large, IX, p. 515. Approved September 28, 1850. For a discussion of the rationale, see "American Prime Meridian," a report by F. P. Stanton, House of Representatives, 31st Congress, 1st Session, Rep. No. 286, dated May 2, 1850. This report shows that Congress was aware that the Washington meridian was 77°4' west of Greenwich.

⁷ Joseph Hyde Pratt (U.S. Geological Survey), "American Prime Meridians," *The Geographical Review* (April 1942), p. 236.

boundary lines of newly former territories and states according to the Washington prime meridian.

In addition, during the same session that California statehood was being acted upon in Congress, the first settlement was established in the Carson Valley, in the extreme western portion of Utah Territory. The first temporary settlement located there in 1850 and the permanent settlement in the same area in 1851 were quite near the "elbow" in the California boundary where the oblique part of the line meets the 39th parallel, although the first settlers were uncertain of the location of that point. The initial settlers had arrived from Salt Lake City and were eager to remain within the jurisdiction of Utah Territory. Their settlement was known as "Mormon Station," and it later became the seat of a county government of Utah Territory. Also during the same session, the first discovery of gold in the region occurred a few miles east on a tributary of the Carson River.⁸ A question arose almost immediately whether the Mormon settlers and the gold-seekers who entered the region were within the jurisdiction of California or of Utah Territory.

The first serious effort to resolve this question was made by Surveyor General William Eddy of California, who reported on his efforts late in 1852. He made observations in Placerville, which he knew to be at least sixty miles from Mormon Station, over a period of four days, and concluded that Placerville was about forty-six miles from the angle in the boundary between California and Utah. "I was reluctantly forced to the conclusion that the (Carson) valley was from twelve to fifteen miles out of the State," he wrote.⁹

There were various attempts by the California legislatures in the 1850s to extend the state's jurisdiction eastward, some of them in response to residents of Western Utah Territory who preferred to be governed from California. None of these seems relevant to the subsequent decisions or controversies on the boundary.

The next attempt to establish part of the boundary between California and Utah Territory occurred in 1855, when S. H. Marlette, the Surveyor General of California, engaged George H. Goddard, a civil engineer, to make a survey for a road over the mountains and also to make such observations as were necessary to establish the boundary in the vicinity of Carson Valley. Marlette's instructions to Goddard said:

At or near Carson Valley you will determine, astronomically, with some pre-

⁸ A summary of these events may be found in Russell R. Elliott, *History of Nevada* (Lincoln: University of Nebraska Press, 1973), pp. 49-52.

⁹ California Senate Journal, 4th Session, Doc. 3, 14, as quoted in Beulah Hershisier, "The Adjustment of the Boundaries of Nevada," in *First Biennial Report of the Nevada Historical Society, 1907-1908* (Carson City: State Printing Office, 1909), p. 122.

cision, the position of the eastern boundary of the State; and I would suggest that such portion of the State line as shall fall in Carson Valley, or so much of it as you may deem necessary, be measured and defined with tolerable accuracy, in order that it may be used as a primary base for the determination, trigonometrically, of the position of such points as it may be found necessary to determine for the purpose of connecting our surveys and explorations, and for fixing the eastern terminus of the road.¹⁰

Goddard had an altitude and azimuth instrument, a theodolite, two chronometers, two barometers, thermometers, a sextant, compasses and other equipment; his party had a telegraph available at Placerville to check its chronometers and local time with San Francisco. He was obviously more adequately supplied with surveying instruments than any others who had previously tried to plan a road or to designate the boundary. He also had cooperation from Orson Hyde, U.S. Probate Judge of Carson County, Utah Territory, who was eager to have the line established to be certain of the extent of his jurisdiction.

Early in his surveying and making of astronomical observations east of Placerville, Goddard reached the conclusion that the angle of the state boundary must be within Lake Tahoe.¹¹ He made a series of observations of the satellites of Jupiter from various camps near Lake Bigler (Tahoe) in mid-September, which he said enabled him to ascertain time and to determine the meridian of his camps with reasonable accuracy. This confirmed his earlier conclusion that the 120th meridian ran through the lake, and he designated the point at which the diagonal line toward the Colorado River and the 35th parallel left the vicinity of the lake.¹²

The Goddard survey, although it was the most thorough reliable examination of the boundary problem yet to be performed, had no status in law. It told the residents of Carson Valley approximately where the two governmental jurisdictions met near Lake Tahoe and in Carson Valley, but it was not adopted by the legislatures of either California or Utah Territory. Soon after he had learned that most of Carson Valley lay within Utah Territory, Judge Orson Hyde arranged to hold court and to conduct an election there in the name of Utah. But the survey did not resolve the long-term problem that arose as more of the mountain and valley areas on the eastern slope of the Sierra Nevada were occupied during the westward movement. Forty-

¹⁰ Annual Report of the Surveyor-General of the State of California. Appendix. California Assembly, 1856. Appendix No. 5, p. 91.

¹¹ Ibid., p. 104. Francois D. Uzes, *Chaining the Land: A History of Surveying in California* (Sacramento: Landmark Enterprises, 1977), p. 73, concluded that Goddard was apparently among the first to make this determination.

¹² Annual Report of the Surveyor General of the State of California . . . 1856, *op. cit.*, pp. 112-115.

five years after he had made his survey, Goddard was still active, and he corresponded with men responsible for later surveys.¹³

Two surveys—or perhaps a single survey to which two names have been attached—were presumably attempted in the 1860–1861 period. One was attributed to Horace P. Higley, the Surveyor General of California, who was directed by the California legislature to survey the boundary between the 42nd parallel and the Mt. Diablo Base Line.¹⁴ Higley appears to have run the boundary line from the south shore of Lake Tahoe from Goddard's line into Carson Valley and northward from the Lake for a distance of approximately thirty-five miles, but he did not have access to the astronomical instruments he wanted from the United States, and he apparently suspended his work when he learned that the federal government had appointed a surveyor to run the line.¹⁵

II. Federal and Territorial Activity, 1861–1862

The federal action which apparently caused Surveyor General Higley to suspend his work was an Act of Congress approved by President James Buchanan on May 26, 1860. This law authorized the President to appoint a commissioner or commissioners to meet with their counterparts from California to establish the eastern boundary of the state. The statute specified the 120th meridian west of Greenwich between the 42nd and the 39th parallels as part of that line, as the California Constitution had done. The Congress provided a \$55,000 appropriation to accomplish the work.¹⁶ President Buchanan appointed Sylvester Mowry to conduct the survey, and instructions were sent to him in August, 1860. Mowry was told to begin his survey at the southern end of the oblique boundary and to proceed northeasterly, since it was assumed that the weather would permit more surveying in the south during the fall and winter months. However, the instructions gave a higher priority to the survey of the 120th meridian:

In view of the limited appropriation it is my desire that your whole energies shall be directed to the completion of so much of the one hundred and twentieth meridian, as the law requires to be surveyed and marked as being the most im-

¹³ Goddard survived to criticize one of the major reports in the history of surveying the California-Nevada border, C. H. Sinclair, "Oblique Boundary Line Between California and Nevada," Appendix No. 3. *Report of the Superintendent of the Coast and Geodetic Survey*, showing the progress of the work from July 1, 1899, to June 30, 1900. 56th Congress. 2d Session. Senate Document No. 68. (Washington: Government Printing Office, 1901). Reference to two letters may be seen in footnote 21.

¹⁴ Statutes of California, 1860, Chapter CCXXII, pp. 184–185.

¹⁵ Uzes, *Chaining the Land*, pp. 73–74.

¹⁶ U.S. Statutes at Large, XII, pp. 22, 110. The authorization Act was approved May 26, 1860 and the appropriation Act was approved June 25, 1860.

portant portion of the Eastern Boundary of California to be established, and after its completion you may proceed to the survey and demarcation of the remaining portion of the boundary.¹⁷

Mowry, however, did not get to the survey of the 120th meridian because he spent money advanced to him in a manner unacceptable to Washington and his services were terminated. Officers in Washington charged that he had squandered funds, and he was dismissed on May 15, 1861.¹⁸

In the meantime, the Congress had passed another law which confused the issue. The Act to create the Territory of Nevada from the western portion of the Territory of Utah, tentatively extended the jurisdiction of the new Territory westward to the crest of the Sierra Nevada by defining the boundary of Nevada in this manner:

. . . beginning at the point of intersection of the forty-second degree of north latitude with the thirty-ninth degree of longitude west from Washington; thence, running south on the line of said thirty-ninth degree of west longitude, until it intersects the northern boundary line of the Territory of New Mexico; thence due west to the dividing ridge separating the waters of Carson Valley from those that flow into the Pacific; thence on said dividing ridge northwardly to the forty-first degree of north latitude; thence due north to the southern boundary line of the State of Oregon; thence due east to the place of beginning. . . . Provided, that so much of the Territory within the present limits of the State of California shall not be included within this Territory until the State of California shall assent to the same by an act irrevocable without the consent of the United States. . . .¹⁹

This statute, specifying the watershed ridge of the Sierra Nevada as boundary, would appear to have made Mowry's instructions inappropriate, even if he had not been suspended. Although he had failed to do much significant work on the boundary line by the time the Territory of Nevada was created, there was a long-range result from the observations made by one member of his party. An assistant assigned to Mowry from the U.S. Army Topographical Corps of Engineers, Lt. Joseph C. Ives, an astronomer and surveyor, had in 1858 located the point at which the 35th parallel crossed the Colorado River.²⁰ Lt. Ives made the essential astronomical observations

¹⁷ J. Thompson, Secretary, Department of Interior, to Sylvester Mowry, August 17, 1860, General Land Office Correspondence. California's Exhibit No. 22.

¹⁸ Report of the Commissioner of the General Land Office, November 30, 1861, in *Messages and Documents of the Interior Department*, U.S. Serial Set 1117, 37th Congress, 2d Session, pp. 490-491. Correspondence from the Department of Interior to Mowry is included in the California Exhibits, Nos. 22-25.

¹⁹ U.S. Statutes at Large, XII, pp. 209-210. Approved March 2, 1861.

²⁰ The maps of Lt. Ives may be found in *Report upon the Colorado River of the West*, explored in 1857 and 1858 by Lieutenant Joseph C. Ives . . . 36th Congress, 1st Session, House of Representatives, Ex. Doc. No. 90. (Washington: Government Printing Office, 1861.) See pp. 70-71 for Ives' reference and drawing of the point at which the 35th parallel intersects the Colorado River.

in 1861 to establish the latitude and longitude of the oblique boundary line near the southern end of Lake Tahoe. J. M. Edmunds, Commissioner of the General Land Office, indicated that even after Mowry had been discharged, Lt. Ives had continued to work and had reported in a letter dated August 2, 1861, that he had:

... proceeded, by astronomical observations at San Francisco, and the use of the telegraph, in connexion with the commissioner appointed by the State of California, to fix the northern initial point in the Washoe region, and that he was about to proceed to Lake Bigler to fix the initial point there. On the 30th of August the astronomer acknowledged from Lake Bigler the reception of a letter from the Secretary of the Interior relieving him from duty, and reported that the field astronomical duty was completed, and that "it only remains, after the computations are made, to run the line, which any surveyor can readily accomplish."²¹

Lt. Ives turned over his field notes, maps, reports, and computations of astronomical observations to the United States Surveyor General's office—presumably in San Francisco—on September 11, 1861.²² The later disposition of these supplementary documents is uncertain. It appears that they were in the possession of the California Surveyor General J. F. Houghton about two years later in connection with a subsequent survey. They were not, however, found by Sinclair at the turn of the century.²³ Nevada was part of the California District of the U.S. Surveyor General's office from the middle of 1862 until 1864, when it was attached to the Colorado office. In 1865, Nevada was once again attached to the California surveying district.²⁴

At approximately the same time as Lt. Ives was completing his work, a Surveyor General's office was being established for Nevada Territory under

²¹ Report of the Commissioner of the General Land Office, November 30, 1861, op. cit., pp. 490–491. See also Sinclair, *Oblique Boundary*, pp. 266, 267. California's Exhibit No. 19 appears to be a statement of G. H. Goddard, the surveyor of the 1855 boundary in the vicinity of Carson Valley, commenting on the Sinclair Report of 1900 on the oblique boundary. To Goddard is attributed the statement, "In 1861 when Lieut. Ives left his work on the Bigler Camp, he stated his longitude agreed so nearly with mine and that as I had better instruments than his, he adopted my longitude as correct. This was published at the time in the Sacramento Union, and nothing was said of a telegraphic longitude." The source of this document is not known. California Exhibit No. 58 is a letter from Goddard to Sinclair, dated May 4, 1893, and California Exhibit No. 59 is a letter, Goddard to Sinclair, dated July 10, 1902, referring to his early survey. These appear to be from the Davidson Papers in the Bancroft Library.

It is of parenthetical interest that the California State Geologist, Josiah D. Whitney, spent a day with Lt. Ives near Lake Tahoe while the latter was determining the point of the intersection of the 120th meridian and the 39th parallel. See Edwin Tenney Brewster, *Life and Letters of Josiah Dwight Whitney* (Boston, New York: Houghton Mifflin, 1909), p. 204.

²² Report of the Commissioner of the General Land Office, October 3, 1865, p. 14, in the Report of the Secretary of the Interior. House Ex. Documents, U.S. Serial Set No. 1248. 39th Congress. 1st Session, July 4, 1865–July 28, 1866.

²³ Sinclair, *Oblique Boundary*, p. 267.

²⁴ Report of the Commissioner of the General Land Office, October 3, 1865, p. 14, op. cit. It is possible that the work of Lt. Ives could still be found in the San Bruno or Denver archives, if they are thought to be sufficiently important to warrant further search.

the direction of John North, who was later to become prominent in local politics. North was the first of the federal officers to arrive and take up his duties, reaching Carson City on June 22, 1861. North's letters to various offices in Washington and elsewhere have been preserved and provide a useful narrative reflecting some of the aspects of official surveying in the early 1860s.²⁵ One of North's first acts was to engage Butler Ives, whom he says was known to the Commissioner of the General Land Office in Washington, to extend the surveys of the First and Second Standard parallels from California into Nevada and to establish a "guide meridian."²⁶ In a subsequent report, North sent a contract to Washington for Ives and said that no one except Ives and his assistant understood the use of the solar compass. Butler Ives apparently ran several of the California standard parallels into Nevada Territory late in 1861 and established a Carson River Guide Meridian.²⁷ He was one of the foremost land surveyors in the Far West. He had been engaged previously as a Deputy U.S. Surveyor in Oregon Territory as early as 1854, and he later became one of the chief surveying engineers for the Central Pacific Railroad when it was building its line from California to Promontory, Utah, in the later 1860s. There has been a tendency for some historical writers to confuse Butler Ives with Joseph C. Ives. There is no evidence to suggest that the two men were related or that they had contact as surveyors.

During the period when North was engaging the services of Butler Ives on behalf of the federal government, the chief clerk in North's office was a civil engineer who subsequently became one of California's prominent railroad men, John F. Kidder. There are several references in the historical literature to a survey made north of Lake Tahoe by Kidder in 1861, but no details of this work have been found. Kidder presumably surveyed a line from the lake northward into Honey Lake Valley; in any case in November, 1861, the Nevada Territorial Legislature appropriated \$550 to compensate him for the work.²⁸ When F. W. Edmonds, an assistant in the U.S. Coast and Geodetic Survey, made a search for records of the history of the boundary in the 1890s, he found three maps in the Surveyor General's office in Sacramento marked "Higley's East Boundary Survey," which he presumed to be the work of Kidder in 1861.²⁹

²⁵ Letters from June, 1860 through July, 1861 are available on microfilm cataloged at the University of Nevada, Reno as "Surveyor General's Letter Book. Vol. I," July 1861-Dec. 1869.

²⁶ "Surveyor General's Letter Book, Vol. I," Letter of June 22, 1861, pp. 1-5.

²⁷ Ibid., letters of July 17 and August 14, 1861, pp. 13-14, 21.

²⁸ *Laws of the Territory of Nevada* (1861), (San Francisco: Valentine and Co., 1862), Chapter XLIII, p. 132.

²⁹ Sinclair, *Oblique Boundary*, pp. 273-274. Beulah Hershiser, in her study "The Adjustment of the Boundaries of Nevada," *First Biennial Report of the Nevada Historical Society, 1907-1908* (Carson City: State Printing Office, 1909), p. 130, concluded that Kidder was surveying the summit boundary.

While Kidder was chief clerk and Butler Ives the leading contract surveyor in Nevada Territory in 1861–62, the two men became well acquainted. According to a letter written in August 11, 1862 after the Surveyor General's office in Carson City was closed, they decided to travel together to the Esmeralda District about 100 miles southeast of the Territorial capital, where a new mining region had been opened.³⁰ One of their reasons was to survey some "coal fields" they had heard about. The two men learned there was no money to pay for their work and they found confusion in Aurora, the leading mining town, about whether it was in Nevada or California. Ives said he had been offered a contract by the Territorial legislature during the previous spring to survey the line southeast from Lake Bigler to determine whether Aurora was in Nevada or California, but he had declined because he would have had to take his pay in Territorial scrip which was worth only fifty-cents on the dollar.³¹ He was persuaded, however, to make some surveys to locate the boundary in the vicinity of Aurora. His letter also indicated that he expected "to see the Surveyor General of California up here shortly and will then learn whether there will be any surveying in this territory or not." It is clear that Nevada Governor James W. Nye was aware of the surveying that Ives did.

The evidence suggests, then, that Kidder had done some work on the boundary north of Lake Tahoe before mid-year of 1862 and that Ives, possibly in conjunction with Kidder, had done some of the surveying of the line in the vicinity of Aurora in July and August of the same year. This work did not have the endorsement of California or of the United States, however.³²

Governor James W. Nye of Nevada Territory, who had tried unsuccessfully as early as March of 1862 to persuade California to yield the land east of the Sierra crest to his jurisdiction, advised the Territorial legislature on November 13, 1862 that action should be taken to resolve the boundary

³⁰ The following narrative is taken from a letter which Butler Ives wrote to his brother William from Carson City. The letter is dated August 11, 1862, and is in the Nevada State Historical Society Manuscript File, Butler Ives, 1030.

³¹ The Nevada legislature had appropriated \$1,000 for the survey with the apparently contradictory provisions that the line should "between the state of California and the territory to Nevada, (be) surveyed and established, from Lake Bigler to below, or south of Esmeralda, at as early a day as practicable." Although this was approved on November 29, 1861, there was another clause providing that the money could not be expended before May 1, 1862, and then not at all if California had already made the survey. See *Laws of the Territory of Nevada . . .* 1861. (San Francisco: Valentine and Co. 1862), Chapter LXVII, p. 269. Ives had good reason to be skeptical about whether he would be adequately paid for his work for Nevada Territory. Ives's letter of August 11, 1862 contradicts the findings of E. D. Kelley, Surveyor General and State Land Register of Nevada, to the effect that nothing was done on the boundary before 1863. This was reported to Sinclair and he repeated it in his *Oblique Boundary*, op. cit., p. 267.

³² Myron Angel, *History of Nevada*, (Oakland: Thompson and West, 1881), p. 100, also makes reference to the Aurora survey. Another letter in the Nevada State Archives from Butler Ives to "Brother William" offers parenthetically the information: "I had connected the public surveys with the point on Lake Bigler last fall. I had run a standard parallel out halfway to Aurora." The context suggests that he was writing in 1862 and referring to the fall of 1861.

question.³³ Governor Leland Stanford of California had requested that no steps be taken by Nevada to organize county governments in the disputed Aurora region or in the Honey Lake Valley until a survey could be made.

The Nevada legislature, however, was not willing to wait for a survey, and it provoked a political crisis by trying to exercise jurisdiction in the Honey Lake Valley. By an Act approved on December 19, 1862, the legislature provided for a special term of the Nevada District Court in Roop County, which included—by Nevada's calculations—Susanville. Early in 1863, authorities from both Roop County, Nevada Territory, and Plumas County, California tried to enforce the law. Injunctions were issued by the courts of both jurisdictions, defied by the rival factions, and the result was the so-called "Roop County War" or "Sagebrush War." Armed bands for each side exchanged gunfire and two or three men were injured. The episode was taken seriously enough in Sacramento and Carson City to occasion intervention by the governments and a new, formal boundary survey.³⁴

III. *The Houghton-Ives Survey of 1863*

At the time of the Sagebrush War, Leland Stanford was Governor of California and Orion Clemens, the Territorial Secretary of Nevada, was serving as Acting Governor in the absence of Governor James Nye. Soon after the Roop County crisis, Stanford appointed a Judge Robert Robinson of Sacramento to confer with Clemens in the hope that an agreement could be reached on both the Honey Lake and Esmeralda district boundaries. After it became clear that California would not concede the summit boundary, Robinson and Clemens reached an understanding, which Clemens described as follows to the next session of the Territorial legislature of Nevada:

First—That the Governor of the Territory will appoint a commissioner to meet a commissioner appointed by the State of California, to run and permanently establish the boundary line between the State of California and the Territory of Nevada, during the present year, 1863.

The second clause, providing that the line should be temporarily regarded as running north through the eastern end of Honey Lake, was proposed by Judge Robinson, and was agreed to by myself on condition that the line south of Lake Bigler, as run by Kidder and Ives, in 1862, placing Aurora within this Territory

³³ Governor Nye's report to the Territorial Legislature of Nevada, November 13, 1862. Nevada Archives. A map which illustrates the uncertainties about the California-Nevada border in this period is *DeGroot's Map of Nevada Territory*, exhibiting a portion of Southern Oregon & Eastern California . . . published by Warren Holt, San Francisco, Calif. Registered with the District Court, 1862. Published 1863. It shows Aurora situated astride the state line.

³⁴ What appears to be an original copy of the peace agreement between the belligerent factions in the "Sagebrush War" has been found in Verdi, Nevada. It is dated February 16, 1863. On the "War," see Fariss & Smith, *History of Plumas, Lassen and Sierra Counties, California: 1882*. (Reproduction, Berkeley: Howell North, 1971), pp. 358-362, or Angel, *History of Nevada*, pp. 100-101. There are also accounts of this "war" written in recent years.

should be regarded temporarily as the true line, and jurisdiction be accordingly so assumed by Nevada Territory. To this Judge Robinson did not feel authorized to consent, and the writing was left without signatures, upon a verbal understanding that if approved by the Governor of California, the duplicate should be signed by the Governor of that State, and of Nevada Territory, and exchanged.³⁵

Governor Stanford did not agree to this condition, and as the California legislature was then in session, he referred the question to that body, which enacted a law, (approved April 27, 1863), which authorized and empowered the state's Surveyor General:

... to define and establish the entire eastern boundary of the State by running, measuring, and marking a transit line between the point of intersection of the thirty-ninth degree of north latitude with the one hundred and twentieth degree of longitude west from Greenwich, near Lake Bigler, and the point where the thirty-fifth parallel of north latitude crosses the Colorado River, as said points were established by Lieutenant Ives, Chief Astronomer of the United States Boundary Commission, appointed for that purpose, and by running and marking in the same manner all that part of the said boundary lying between the first named point, near Lake Bigler, and due north from said point to the southern boundary of Oregon...

The act called upon the Surveyor General to establish and mark first the part of the line north of the 39th parallel and it also specified that:

... such line, or any part of such line, when run and marked as provided in this Act, shall thereafter be regarded and confirmed the legally established eastern boundary line of the State of California, and the record of such boundary line, as established by the Surveyor-General, shall be recognized and admitted in all the Courts of this State as conclusive evidence that such line is the true eastern Boundary of this State.³⁶

Four days later, California Surveyor General Houghton engaged the services of Kidder to organize and equip a surveying party, ordering him to report for duty at Lake Tahoe on May 20, if possible. Kidder assembled a crew of twelve men and a pack-train of twenty-five animals and met Houghton at Lake Tahoe on May 22. Houghton initially assumed responsibility for running the oblique boundary southward, and he assigned Kidder primary responsibility for surveying the line northward.³⁷

³⁵ The original report of Clemens is in the Nevada State Archives, and a printed copy may be found in Angel, *History of Nevada*, pp. 101-102.

³⁶ Statutes of California, Chapter CCCCII, pp. 617-618. Approved April 27, 1863.

³⁷ Report. Eastern Boundary Survey. *Annual Report of the Surveyor-General of California for the Year 1863*. Appendix to the Journals of the Senate and Assembly, 15th Session, pp. 35-46. This is the report of Surveyor General Houghton. Also included is Kidder's report, entitled "Report of Engineer in Charge of Party," pp. 49-53, and "From the Descriptive Notes of the Survey, Northern Line," pp. 54-62. This document is hereafter cited as Houghton's *Report*.

The Nevada legislature was not in session when California's lawmaking body acted, but Acting Governor Clemens believed the situation to be serious enough to warrant immediate action. On May 16, he appointed Butler Ives as commissioner on behalf of the Territory, with a pledge that he would seek a \$3,000 appropriation from the next Territorial legislature to compensate him. Ives was required by the agreement to prepare three copies of maps and field notes to be filed with the Secretary of the Territory within sixty days of the completion of the survey and to submit a report to the next legislature.³⁸ He was issued arms for protection while surveying in a region occupied by Indians and he was required to post a bond for satisfactory performance of his work.

The first assignment undertaken by Houghton, Kidder, Butler Ives and their colleagues was to locate the observatory established by Lt. Ives near the south end of Lake Tahoe in 1861. This report made by Butler Ives to the Nevada legislature on the survey contains a succinct description of how this was done:

Preliminary to commencing the survey, Mr. Houghton had procured from the Hon. E.F. Beale, United States Surveyor General for California, the observations and computations for latitude by Lieutenant Ives, at his observatory near the south end of Lake Bigler, giving the latitude of that point as 38°, 56', 47" 52 north; his observations for longitude were not found, but Mr. John F. Kidder, former Chief Clerk in the Surveyor General's office for Nevada Territory, when about to define the boundary line in reference to Honey Lake valley in 1861, applied to Lieutenant Ives, then making observations for the latitude and longitude in Honey Lake valley, for the longitude of his observatory, and on the 11th day of September, 1861 received a telegraphic dispatch from him, giving the approximate longitude of his observatory as seven hours, fifty-nine minutes, and fifty-three seconds west of Greenwich, which reduced to degrees makes this point, the position of which is plainly marked, in longitude 119°, 58', 15", west of Greenwich.³⁹

Kidder and his associates then made the necessary observations and calculations from Lt. Ives' observatory in order to locate the boundary at the north end of Lake Tahoe, a process that required several days because of the fact that the vertical and oblique boundary lines met in the lake and

³⁸ Agreement Between Orion Clemens . . . and Butler Ives, May 16, 1863, Nevada Historical Society manuscript collection. This Agreement is also in the National Archives, Washington, D.C., and a certified copy has been obtained by the Nevada Attorney General.

³⁹ Report of Butler Ives, Commissioner of the Boundary Survey between Nevada Territory and California, 1863. (Carson City: Israel Crawford, 1864), pp. 1-2. Essentially the same information is included in Houghton's *Report*, pp. 36-37. Some thirty years later, in a letter to Professor George Davidson of the U.S. Coast and Geodetic Survey, Kidder reaffirmed that the party had relied upon observations made by Lt. Ives. This letter, dated May 20, 1893, is California Exhibit No. 60. Kidder was then under the impression that an error of about a quarter of a mile had subsequently been found to exist in the longitude of San Francisco, and that the eastern boundary line of California had been changed accordingly.

because of the rugged nature of the terrain. Houghton was present when the location of the boundary was determined at the north end of the lake, and he accompanied Kidder's party for about three miles as it surveyed northward from that point.⁴⁰

The documentation on the Houghton-Ives survey between the north end of Lake Tahoe and the Oregon boundary indicates that the party proceeded systematically to fulfill its assignment. The survey northward began on June 6, reaching the Truckee River about fourteen miles north of the lake on June 14, measuring and marking the line. By June 18, the survey had reached the Henness Pass Road, at a point about six miles further north. In other words, it required about twelve days to survey the first twenty miles of the line. Thereafter, the party moved more rapidly as it left the most rugged and heavily-forested area and passed through Long Valley and Honey Lake Valley. In the latter area, the surveyors encountered Indians who appeared to be hostile, so they moved more quickly. They ceased the chaining operation and resorted to daily observations of Polaris for latitude. After passing through Painter Valley and the three alkali lakes in Surprise Valley, they reached the northeastern corner of California, at the 42nd parallel about July 7 and built a monument. It had taken about thirty-one days to survey the approximately 192 miles, and about half the distance had been chained. The men then returned southward and arrived in the vicinity of Lake Tahoe on July 24.⁴¹

When the survey of the oblique boundary was being run southeasterly in the autumn of 1863, Houghton accompanied Kidder and his associates beyond Aurora and then returned to duties in Sacramento. In October, the surveying party encountered threatening Indians and a severe snowstorm, and they suspended operations for the winter. When Houghton made his report to the legislature, he indicated that work remained to be completed between the White Mountains and the Colorado River.⁴²

Most of the cost of the Houghton-Ives survey was borne by the State of California. Butler Ives was eventually compensated by the Nevada legislature in the amount of \$3,000, as Acting Governor Clemens promised.⁴³

In 1864, the California legislature recognized the work that had been done under Houghton's direction both north and southeasterly from Lake Tahoe. A statute approved on April 4, 1864 said in Section 1:

⁴⁰ Kidder, "Report" in the *Houghton's Report*, pp. 49-50.

⁴¹ Report of Butler Ives, op. cit., p. 4; Kidder, "Report," in *Houghton's Report*, p. 52. The map of Butler Ives is available in the Nevada State Archives and at the Nevada Historical Society.

⁴² *Houghton's Report*, pp. 38-41. There is additional confirmation of the presence of Houghton and Kidder in the field at the beginning of the oblique survey in the diary of Amos Bowman, a young man who subsequently attended the Nevada Constitutional Convention. The diary is in private hands, but a copy is on file at the Carson Valley Historical Society.

⁴³ *Laws of the Territory of Nevada* (1864), Chapter XCVI, p. 130.

All that portion of the line dividing the State of California from the Territory of Nevada, as run and marked by the Surveyor-General of the State of California, in accordance with and by authority of an Act entitled an Act to provide for surveying and establishing the eastern boundary of the State of California, approved April twenty-seventh, eighteen hundred and sixty-three, commencing at the southern boundary of the state of Oregon, and terminating at a point near the White Mountains, south of the Town of Aurora, is hereby declared, as far as the same extends, to be the legal boundary line of the State of California, and shall be so considered by all the Courts of this State.⁴⁴

Nevada had been admitted to the Union as a state by the time its legislature got around to confirming the Houghton-Ives survey, and it did so in one of the first statutes enacted after statehood had been achieved. The Nevada statute, approved February 7, 1865, made reference to the appropriate California statute in Section 1:

That the eastern boundary of the State of California, as surveyed and established under the provisions of an Act of the Legislature of that State, entitled "An Act to provide for surveying and establishing the eastern boundary of the State of California," approved April twenty-seventh, one thousand eight hundred and sixty-three, be, and the same is hereby, confirmed and established as the Western boundary of the State of Nevada.⁴⁵

The law also made provision for the completion of the survey that had been suspended in 1863 on the southern portion of the oblique boundary.

Although it would appear from this historical sequence that California and Nevada had resolved their differences by agreeing to make a joint survey and by legalizing that survey in their separate legislatures, Congress in the meantime had introduced another ambiguity. In the Enabling Act which authorized the citizens of Nevada Territory to draft a Constitution as a preliminary to statehood, it inserted yet another definition of the western boundary of the proposed state:

Commencing at a point formed by the intersection of the thirty-eighth degree of longitude west from Washington with the thirty-seventh degree of north latitude; thence due west along said thirty-seventh degree of north latitude to the eastern boundary line of the state of California; thence in a northwesterly direction along said eastern boundary line of the State of California to the forty-third degree of longitude west from Washington; *thence north along said forty-third degree of west longitude and said eastern boundary line of the State of California to the forty-second degree of north latitude*; thence due east along said forty-second degree of north latitude to a point formed by its intersection with the

⁴⁴ *Statutes of California* (1864), Chapter CCCCLV, p. 506.

⁴⁵ *Statutes of Nevada*, (1865), Chapter XXXI, pp. 133-134. See also Chapter CXXI, p. 379, which amends this Act.

aforesaid thirty-eighth degree of longitude west from Washington; thence due south down said thirty-eighth degree of west longitude to the place of beginning.⁴⁶

This statute clearly designates the eastern boundary of California in the northern region as being identical with the 43rd degree of longitude west of Washington, and not the 120th meridian west of Greenwich. There was no immediate trouble over this difference in longitudes, however, as the boundary line had apparently been located to the satisfaction of both the states, as indicated by the approval of the Houghton-Ives survey by the two legislatures.

The General Land Office in Washington initially appears to have acknowledged the Houghton-Ives line. The 1865 Report of the Commissioner took note of the fact that the 1860-61 Federal survey had done little more than to establish the end points of the oblique boundary on the Colorado River and at Lake Bigler, and it added:

The prosecution of the survey of the California eastern boundary was thus interrupted after determining and establishing the intersection of the 35° of north latitude with the Colorado river and the 39th of north latitude with the 120° of longitude west from Greenwich, and nothing has since been done in the matter. In the mean time a joint commission on the part of the State of California under legislative authority of 1863, and on the part of the Territory of Nevada, proceeded to the survey and demarkation of the boundary from the initial point in Lake Bigler to the northern limits of the State of California by actual admeasurement and by daily observations for latitude, terminating the line a few miles to the north of Crane lake, on the forty-second parallel of north latitude, and perpetuating the intersection of that parallel with the 120° of longitude west from Greenwich by a stone monument. From the report of the Nevada commissioner, made to the legislature in 1863, it further appears that the commission continued the survey of the boundary southeasterly from Bigler lake for 102 miles, reaching the 38° north latitude within one mile. This part of the line is not regarded as correct, the same not having been prolonged to the monument established on the Colorado river, and will not be held correct until the error of the intersection with the initial point shall have been corrected back to Lake Bigler.⁴⁷

It appears from these statements that the Commissioner viewed the northern part of the boundary line survey of 1863 as establishing a correct line.

In 1865, the Governor of Nevada appointed a James S. Lawson to extend the Houghton-Ives oblique line to the southeast, and he engaged the services of William McBride, a surveyor who had been in the Houghton-Ives party of 1863. This survey continued the 1863 survey approximately

⁴⁶ U.S. Statutes at Large, XIII, p. 30, Approved March 21, 1864. The italics have been added.

⁴⁷ Report of the Commissioner of The General Land Office . . . 1865, op. cit., p. 14.

seventy-three miles at a cost of \$3,450.⁴⁸ It seems to have had no bearing, however, on subsequent surveys, as it did not complete the oblique line and it was not recognized by statute.

IV. Major's Survey and Doubts about the Houghton-Ives Line, 1867-1871

Although the acceptance of the 1863 survey by both California and Nevada and the implied acquiescence of the General Land Office would appear to have settled the boundary north of Lake Tahoe, there were other unresolved problems that caused the General Land Office to modify its decision a few years later.

One difficulty arose due to the surveying of the California-Oregon boundary. As the result of an Act approved March 2, 1867 providing for the surveying and marking of the 42nd parallel between California and Oregon, a contract was let to Daniel G. Major, who eventually compiled one of the most extensive records of boundary surveying in the American West. Major had held the title of U.S. Astronomer and Examiner of Surveys since 1858 and he had previously surveyed part of the boundary of the Texas Panhandle and of the 46th parallel between Oregon and Washington Territory.⁴⁹ He had also made the cost estimate on which the \$5,500 appropriation for the 1860 survey had been based.

The fact that Major was held in high regard by the General Land Office may be seen in a letter written by the Commissioner of that office to the Secretary of the Interior, recommending him above other contenders for the contract:

Mr. Major as an Astronomer is known to this office. Under his contract in 1863 he established the boundary on the 46th parallel of north latitude between Oregon and Washington Territory to the entire satisfaction of this office.

Mr. Major's capacity and faithfulness were displayed under the small appropriation of \$4,500 in the service he rendered to the government by the survey of the boundary reflecting credit on this Astronomer and conferring solid benefit on the people of the State of Oregon and Washington Territory whose respective jurisdictions were perpetuated in a conspicuous and enduring manner. It is believed that his scientific attainments, if called into requisition in the service contemplated, would subserve the best interests of the public.

The proper time for the field operations having arrived contracts will be en-

⁴⁸ See the Statutes cited in Footnote 45. See also Sinclair, *Oblique Boundary* . . . , p. 270.

⁴⁹ The contract between the General Land Office and Major is discussed in the article by Francis S. Landrum, "A Major Monument: Oregon-California Boundary," *Oregon Historical Quarterly*, LXXII, (March, 1971), pp. 18-21. The basic original source upon which Landrum relied and which has been used for this account, is Daniel G. Major, "Astronomical Observations, Reductions, and Field Notes of the Survey of the California and Oregon Boundary Line -1868 and 1869," Old Case "F" File, No. 8, Records of the General Land Office, RG 49, National Archives, Washington, D.C. An official summary of the work of Major can be found in the "Report of the Commissioner of the General Land Office," *Report of the Secretary of the Interior*, 1870, (41st Congress, 3d Session, Ex. Doc. 1 Part 4), Vol. I. (Washington: Government Printing Office, 1870), pp. 33-36.

tered into as soon as the Departmental Directions are communicated to this office in regard to the person or persons whom you may please to indicate for this survey of the boundaries involving astronomical determination of the longitudes and latitudes.

In this connection it is scarcely necessary to suggest that the work should be intrusted only to persons such as those now applying of unquestionable reputation for scientific attainments and experience in the determination of astronomical positions so that the boundaries to be established may be satisfactory and beyond cavil in the future in regard to the correctness of demarkation of the several jurisdictions.⁵⁰

The contract between Major and the Commissioner of the General Land Office, executed on October 1, 1867, covered work that he was undertaking on the eastern border of Oregon as well as the California-Oregon boundary. It required him to

... establish by astronomical observations the 42° parallel of North Latitude at the point of intersection with the 120th meridian West from Greenwich and survey and mark the parallel West to the Pacific Ocean. . . .

The contract also contained a provision requiring Major to pay the Government twice the amount of the contract (or \$45,600) in the event of his failure to meet the terms of the agreement, and should any corrections for error have been found necessary by the Government, Major would have been obligated to bear the cost.⁵¹

Major was engaged in ascertaining the initial point boundary for nearly two months—from early July to early September, 1868. He took great care to establish the initial point—the intersection of the 42nd parallel and the 120th meridian. In his final report he indicated:

The Instruments used on this survey were very carefully examined before leaving San Francisco and were put in complete order by Messrs. Smaltz and Sack. They were then very carefully packed and conveyed to Camp Bidwell in a light spring wagon that I had built expressly for this purpose. The great precautions taken in their transportation were rewarded by finding them all in excellent order at the end of my long journey. . . .⁵²

Major had a Cistern barometer, an astronomical transit, a Zenith telescope, a Gambey sextant, a box chronometer, a pocket chronometer, two watches, thermometers, a field transit, and other standard surveying equipment.

At Camp Bidwell, Major and his crew of eighteen established a temporary observatory and took observations through a period extending into

⁵⁰ Jos. S. Wilson to O. H. Browning, May 31, 1867. Letters Sent Jan. 5, 1864 to Jan. 8, 1869, Vol. I, Departmental Letter Record, Division "E". National Archives, RG 49 Washington, D.C., pp. 294-295.

⁵¹ "Contract and Bond. Gen'l Land Office. October 1, 1867. Jos. S. Wilson, Commissioner. Dan'l G. Major, Astronomer & Surveyor. \$22,800 Surveying Liability."

⁵² Major, "Astronomical Observations . . ." op. cit., p. 4.

three lunations. More than 3,000 astronomical, magnetic and barometric observations were made, from which Major deduced the latitude, longitude, magnetic declination, and altitude of the Camp. He then calculated and measured the distance from Camp Bidwell to the intersection of the 120th meridian and the 42nd parallel—the starting point of this survey. He found this latter point to be five miles east and nine miles, fifty-five chains north of the Camp.⁵³

Major next proceeded to survey the line westward to the Pacific Ocean, establishing five astronomical stations in the process. He completed his final report on June 16, 1870 and filed his notes with the General Land Office. The report was accepted on the following day and a summary was published by the Secretary of the Interior with this concluding paragraph:

The boundary line terminates at the coast line of the Pacific 212½ miles from the initial point, and about one-third of a mile south of the Winchuck River. The field-notes of the survey of the boundary show that throughout the whole distance it is most durably marked by substantial stone monuments, with inscriptions giving the latitude, longitude, and distance, erected at the exact termination of each mile, where possible. It is also extensively blazed through the timber, and perpetuated by over a thousand bearings of prominent landmarks, designed permanently to indicate the common boundary between the States of California and Oregon.⁵⁴

Evidence about whether Major connected his survey with that of Houghton and Ives is sketchy, but it is clear that shortly after Major's field notes reached Washington in 1870, a map was prepared showing that a discrepancy existed between the northeastern corner of California as established by Major and that designated by Houghton and Ives. This map was prepared by L. Boss, and it is the basis for the following statement in the report of the Commissioner of the General Land Office for 1871:

In 1863, under the joint supervision of California and Nevada, the line was extended north from Lake Bigler to its intersection with the forty-second parallel of north latitude. The subsequent operations of Mr. Major, who surveyed the northern boundary of the State of California in 1868, raise serious doubts as to the accuracy of this line.

The public surveys which have reached Camp Bidwell, the site of Mr. Major's observatory, afford a reasonably accurate means of comparing the one hundred and twentieth meridian as actually marked under the joint action of California and Nevada, with Mr. Major's determination of the same. The line as actually surveyed is thus found to be about two miles and thirty chains east of the point where the same falls by the computations of Mr. Major.⁵⁵

⁵³ *Ibid.*, p. 2.

⁵⁴ "Report of the Commissioner of the General Land Office," in the *Report of the Secretary of the Interior* . . . 1870, op. cit., p. 33.

⁵⁵ *Report of the Secretary of the Interior* . . . 1871, 42d Congress, 2d Session, Ex. Doc. 1,

The Commissioner therefore concluded that because of the discrepancy and since the 1863 survey had never been recognized by Congress, it was "deemed of the highest importance that a new determination of the point of intersection of the one hundred twentieth meridian with the thirty-ninth parallel, and a resurvey of the boundary to its intersection with the forty-second parallel of north latitude, be ordered by Congress." The report also suggested completion of the survey of the oblique boundary, because of Butler Ives' statement that it had not been continued to the Colorado River.⁵⁶ Congress appropriated \$41,250 in an Act approved June 10, 1872.⁵⁷ This was the amount recommended by the General Land Office.

Later, Major did additional surveying of the 42nd parallel that is relevant to the present study. In 1871, he was engaged to examine the work of a surveyor who had presumably established the northeastern corner of Nevada, and on September 2, 1872, he contracted to establish the northern boundary of Nevada along the 42nd parallel.⁵⁸

A brief digression to consider Major's assignment at the northeastern corner of Nevada and the northwestern corner of Utah Territory is appropriate, because it provides a comparison with procedures that were later used on the California-Nevada border. The eastern boundary of Nevada had been surveyed in 1870 under a contract with Isaac E. James (sometimes referred to as J. E. James), whose responsibility had been to locate the 37th meridian west of Washington on the Central Pacific Railroad, which had previously been fixed by telegraph, and to extend the line northward to the 42nd parallel and southward to the Colorado River.⁵⁹ Subsequently, because it appeared that James might have departed from his instructions, Congress authorized the Commissioner of the General Land Office to approve his survey, "notwithstanding any departure from instructions which, in the opinion of said commissioner, does not materially impair the accuracy of the work."⁶⁰ This suggests that a special statute was thought to be appropriate to approve a boundary survey when there had been substantial departure from the instructions of the Land Office by the surveyor.

Subsequently, a discrepancy was found, and the General Land Office engaged Major to destroy certain of James' monuments. Instructions issued on June 19, 1871, required him "to obliterate monuments executed by the

Part 5 (Washington: Government Printing Office, 1871), p. 53. The map is labelled "Diagram showing the Discrepancy between the position of the 120th Meridian West of Greenwich as determined by Daniel G. Major in August, 1868 and the California State Line as surveyed in 1863 under the direction of State Sur. Gen. of Cal. and Butler Ives, Com. for Nevada." The map was obtained from the National Archives.

⁵⁶ *Ibid.*, p. 54.

⁵⁷ U.S. Statutes at Large, XVII, Chapter 415, p. 358.

⁵⁸ *Report of the Secretary of the Interior* . . . 1874, 43d Congress, 2d Session House of Representatives, Ex. Doc. 1, Part 5, p. 13.

⁵⁹ *Report of the Secretary of the Interior* . . . 1871, op. cit., pp. 49-51.

⁶⁰ U.S. Statutes at Large, XVII, Ch. XXI, p. 10 approved April 20, 1871.

surveyor of the eastern boundary of Nevada, as well as resetting mile-posts." On the recommendation of the General Land Office, Congress appropriated \$200 to pay Major for this work.⁶¹ In this instance, the General Land Office had ordered and had obtained an appropriation for the destruction of an erroneous corner. It is worthy of note that no such action was taken relative to Major's corner at the 42nd parallel and the 120th meridian.

There were other surveys in the interim years which sought to identify the boundary, including those of Lt. Col. Robert Williamson and of Clarence King. Williamson was known for his direction of the Pacific Railroad Survey of the 40th parallel between the 100th and 120th meridians.

Lt. Col. Williamson did extensive topographical work in 1867 or earlier, for in that year a large map was published of California, Nevada, Oregon, and part of Idaho with a scale of 12 miles to one inch. The map has a notation saying "Time employed, 130 working days." An examination of the prominent points on the line—such as the so-called Boundary point at the north end of Lake Tahoe, Crystal Peak near Verdi, and Aurora—indicates that Williamson was recognizing the Houghton-Ives line.⁶² He apparently knew also of Lt. Ives' point on the southeast shore of the Lake.

Williamson was assigned to the Headquarters of the Military District of the Pacific during this period, and he conducted a number of surveys for roads. Later he was made responsible for examining the work on the Central Pacific Railroad as it was nearing completion. It is presumed that during one of these assignments he established a marker on the California-Nevada border.⁶³ According to a report of the California Surveyor-General published

⁶¹ See the map dated July 14, 1871, designated as "Diagram illustrating the Examination of the Eastern Boundary of Nevada, by D.G. Major," showing a discrepancy between the 42nd parallel as established by James and that of Major.

Willis Drummond requested the deficiency appropriation in December, 1872. See the request to Congress entitled "Deficiency-Surveying Service." Letter from the Acting Secretary of the Interior . . . , *Report of the Secretary of the Interior* . . . 1873, 42nd Congress, 3d Session, House of Representatives. Ex. Doc. No. 29, p. 527. The \$200 for Major's work was appropriated in U.S. Statutes at Large, XVII, Ch. 228, p. 537, approved March 3, 1873. "Field Notes of the Northern Boundary of Nevada" dated Nov. 20, 1873. The attached statement of Willis Drummond, Commissioner of the General Land Office, approving the Notes on December 9, 1873, assumes that Major was closing the gap between the 37th meridian west of Washington and the 120th meridian west of Greenwich.

⁶² Williamson's map is identified as "*Essayons*." *Topographical Map of California, Nevada, Oregon, and part of Idaho*. Prepared from Field Surveys and other Reliable Data, Under the Direction of Bvt. Lt. Col. R.S. Williamson, Corps of Engineers, U.S.A. Drawn by W.B. Hyde, 1867. Carl I. Wheat, *Mapping the Transmississippi, From the Civil War to the Geological Survey* (San Francisco: The Institute of Historical Cartography, 1963), Vol. Five, pp. 171-177 comments on this and other maps of Williamson. Williamson's map shows Aurora well within Nevada, consistent with the findings of Houghton-Ives.

⁶³ Correspondence concerning Lt. Col. Williamson's work for the Headquarters of the Military Division of the Pacific is in the National Archives, Record Group 77, Records of the Office of the Chief of Engineers.

in 1890, Williamson set a monument "supposed to be on the State Boundary," near Verdi about 1868.⁶⁴

Clarence King did most of his field work in the late 1860s under the authorization of an Act of Congress approved March 2, 1867, which called for a survey of the railroad route or routes between the Rocky Mountains and the Sierra Nevada. This was the well-known survey of the 40th parallel. At some point between 1867 and 1870, King designated a point near the Truckee River which he believed to be on the 120th meridian, and he furnished data for an elaborate map which purported to show the meridian in relation to several significant landmarks.⁶⁵ It is not obvious, however, that King made any special attempt to survey the line.

Discrepancy between the boundary as indicated by King and his predecessors was confirmed in the summer of 1872 when George Davidson, an officer of the U.S. Coast Survey, was in the Sierra Nevada to test the effectiveness of certain instruments at high elevations. Congress had appropriated \$2,000 in 1872 for astronomical observations at the highest points on the line of the Pacific Railroad. Davidson made extensive observations at and near Verdi which helped to establish the location of the 120th meridian. He also had the assistance of the telegraph to obtain precise readings of time from San Francisco. Davidson wrote from Summit, California (obviously Donner Summit), on August 6, 1872:

From a rapid field computation (without personal equation) I find the old monument of the boundary come out 4036 feet too far West and the Clarence King recent determination 10342 feet too far East.

As Congress has appropriated money for the running of the East boundary of this state; as the contract has already been let; and as this determination will be asked for as the Standard line, I ask that you will have the office computations of all this work completed as early as practicable. All that I yet need to send in is a new determination of personal equation which will be done in a fortnight.⁶⁶

* * *

(Part II of "The California-Nevada Boundary" will appear in the Fall, 1980 issue of the Quarterly.)

⁶⁴ *Report of the Surveyor General of the State of California*, From August 1, 1888, to August 1, 1890, (Sacramento: Supt. State Printing, 1890), p. 14.

⁶⁵ King's maps were published in an oversize volume, each map measuring approximately 27 x 41 inches. The map showing the 120th meridian is in Clarence King, *Geological and Topographical Atlas accompanying the Report of the Geological Exploration of the Fortieth Parallel*. 1876. (Julius Bien, Leth., 1876). Map V represents the Nevada Basin.

⁶⁶ George Davidson to Professor Benjamin Peirce, superintendent of the U.S. Coast Survey, Cambridge, Mass. August 6, 1872, National Archives, Record Group 23, U.S. Coast and Geodetic Survey, Series 22, Superintendent's File, George Davidson Volume, 1866-75. The procedures used by George Davidson near Verdi are described in his report dated October 7, 1872, published as Appendix No. 9 to the "Report of the Superintendent of the U.S. Coast Survey, Vol. XII, House Ex. Doc. No. 240, 42d Cong. 3d Sess. (Washington: Government Printing Office.)

By the Seats of their Pants: Aviation's Beginnings in Nevada

PHILLIP I. EARL

ALTHOUGH WILBUR AND ORVILLE WRIGHT are given credit for the first successful experiments in powered flight, those who later took up flying for prizes, money or the sheer joy of the experience should also be considered the real pioneers of American aviation. Appearing throughout the country at carnivals, county fairs and amusement parks, they popularized flying, contributed to the technological development of aircraft, and campaigned for improved airfields and ground facilities in the years prior to World War I. These young men also pioneered in the art of close-formation flying, aerobatic techniques and inflight refueling, all of which had later military application.¹

The success of the Wrights and their improbable-looking contraption at Kitty Hawk that chill December morning in 1903 did not create a great deal of public excitement, and another five years were to elapse before flying began to receive the recognition it deserved. The awarding of the Scientific American Trophy to Glenn Curtiss on July 4, 1908 for the first official flight of one kilometer was widely publicized, but it was Wilbur Wright's appearance in France that fall which brought respectability to aviation. On December 31, he flew 127.5 kilometers in two hours and twenty minutes, a world distance and duration record, and was awarded the Michelin Trophy, the aviation world's highest honor. Wilbur Wright, Curtiss and a number of other American flyers took part in the Rheims International Flying Meet in France in August, 1909 and on October 4, Wilbur was paid the staggering sum of \$15,000 for a half-hour, forty-mile flight up the Hudson River during New York's Hudson-Fulton Celebration. Some three weeks later, Wilbur and Orville formed the Wright Company to protect and market their patent rights and sell aircraft. In March, 1910 they established a flight school in Montgomery, Alabama to train pilots for the exhibition planes being built

¹ Among the best of the more recent works on this phase of aviation history are Sherwood Harris, *The First to Fly: Aviation's Pioneer Days* (New York: Simon and Schuster, 1970), Don Dwiggins, *The Air Devils* (New York: J.B. Lippincott Co., 1966) and Robert C. Mikesch and Claudia M. Oakes, *Exhibition Flight* (Washington, D.C.: Smithsonian Institution Press, 1973).

at their factory in Dayton, Ohio. That summer, the Wrights formed an exhibition team. Glenn Curtiss was also in the exhibition business by that time and other fledgling aviators hoping to cash in on the increasing popularity of flying were soon in the field.²

The Wrights' initial flights were made at or near sea level, as were those of other early aviators who believed that their craft could not operate at more rarefied altitudes, and the early exhibition teams thus turned down engagements in the Intermountain West. Consequently, it was not until the summer of 1910 that a flight was conducted in Nevada.³

In January, 1910, the editor of the *Reno Evening Gazette* tried to arrange for an appearance in Reno by Glenn Curtiss and his team, but the famed flyer was booked solid and could not make an additional commitment. Several Reno businessmen had shown interest in the project at that time, as had their counterparts in Carson City; and the possibility of sponsoring an aviation feature as a part of the capital's Independence Day celebration came up at a meeting held at the Arlington Hotel on April 28. In the course of the discussion, someone brought up the fact that an aviation meet was being planned in San Jose, California at that time, and it was suggested that someone be sent to look into the possibility of bringing an aviator to town. Henry A. Lemmon, the local manager of the Truckee River General Electric Company, volunteered to make the trip at his own expense and he subsequently made a tentative agreement with the agent for a French aviator to appear.⁴

In Carson City Lemmon met with the Executive Committee of the Sagebrush Carnival, as the Independence Day celebration had come to be called, and a proposed contract was drawn up. In the meantime, two Reno saloonkeepers, Charles A. Stout of the Louvre and Harry Heidtmann of Beckers's Saloon, had been trying to promote an aerial exhibition for their own city, and had contacted Frank J. Lyons of Alameda, California, an exhibition flyer of some local fame who sometimes acted as an agent for others. Lyons arrived in Reno a few days after Henry Lemmon's return from San Jose, but his terms for arranging a series of flights were beyond the means of Stout and Heidtmann. He knew of the tentative arrangements made for Carson City by Lemmon, but asked the saloonkeepers to assist him in making some contacts there anyway. On May 23, Lyons made his pitch at a

² Harris, Chaps. I-VII; cf. Lloyd Morris and Kendall Smith, *Ceiling Unlimited: The Story of American Aviation from Kitty Hawk to Supersonics* (New York: The Macmillan Co., 1953), 63-126.

³ Mikesch and Oakes, pp. 3-5; Hazel Hohn, "Nevada's First Airplane Flight," *The Nevada*, XIII, No. 5 (February 3, 1974), 31.

⁴ *Reno Evening Gazette*, January 24, 1910, 1:2-4; January 25, 1910, 5:5-7; January 26, 1910, 2:3; *Carson City Daily Appeal*, April 29, 1910, 1:-2; May 3, 1910, 1:6; May 5, 1910, 1:1-3; May 11, 1910, 1:3-4; May 13, 1910, 1:3-4; May 18, 1910, 1:1-3.

meeting of the Sagebrush Carnival Executive Committee and a proposed contract was drawn up and signed. The agreement stipulated that either Lyons himself or another aviator satisfactory to the committee would make the flights.⁵

As word of the celebration spread throughout the state, a fundraising campaign among Carson City businessmen was initiated and \$2,280 was pledged by the end of the month. Subsequent inquiries from various outlying areas prompted the formation of a Transportation Committee to look into discount fares on various state railways for those interested in coming.⁶

Within two weeks of the signing of the contract in Carson City, Frank Lyons made tentative arrangements with a Bay Area flyer, Ivy Baldwin, to make the flights. A famed balloonist and parachutist, Baldwin had been flying for two years and was just beginning to make a name for himself as an exhibition performer. His agreement with Lyons created something of a stir in Bay Area aviation circles, and a number of his colleagues familiar with the problems of flying at high altitudes were making plans to be on hand for his performances.⁷

Shortly after he signed the contract, Baldwin set his mechanics to disassembling his Curtiss-Paulhan biplane and crating it up for shipment to Carson City. He made plans to leave San Francisco on June 14 since he anticipated altitude problems in Carson City and wanted to have time to work them out prior to his scheduled appearance at the Sagebrush Carnival.⁸

Wilson Brougher, the Chairman of the Executive Committee, had been notified of Baldwin's schedule and had made arrangements to lay out a flying strip at the Raycraft Ranch just north of Carson City, but he and other committee members soon had other matters on their minds. On the morning of June 15, Governor James N. Gilette of California ordered his Attorney General to put a stop to further plans for staging a heavyweight championship boxing match in San Francisco between Jack Johnson and Jim Jeffries. As word of this development flashed across the nation, promoter Tex Rickard was besieged with offers of money and fight facilities from several dozen cities. The possibilities also interested Brougher and he called a special meeting of the Executive Committee that afternoon. Some \$6,000 was

⁵ *Carson City Daily Appeal*, May 20, 1910, 1:1-2; May 24, 1910, 1:3, 5; *Reno Evening Gazette*, May 24, 1910, 2:1; May 27, 1910, 2:1-2.

⁶ *Carson City Daily Appeal*, May 28, 1910, 4:1-3; June 3, 1910, 1:1; June 9, 1910, 1:1-2; *Carson City News*, June 3, 1910, 1:1-3.

⁷ *Carson City Daily Appeal*, June 10, 1910, 1:1-2; *Carson City News*, June 10, 1910, 1:2. Background information on Ivy Baldwin has been furnished to the writer by G. M. "Casey" Cameron of the Colorado Aviation Historical Society and Dr. H. Lee Schamehorn, University of Colorado, Boulder, Colorado.

⁸ *Carson City News*, June 10, 1910, 1:2; *Carson City Daily Appeal*, June 10, 1910, 1:1-2; June 17, 1910, 1:5-6.



Ivy Baldwin. Courtesy of Mrs. Ila Baldwin Newman, and of G. M. Cameron of the Colorado Aviation Historical Society.

pledged and a wire went off to Rickard that evening, but the famed promoter had already decided upon Reno as an alternate site and he dispatched an associate, W. L. McCarney, to the riverside city the next day. McCarney

worked out an agreement within a few hours and Brougher was so informed that night.⁹

Baldwin and his three mechanics had arrived in Reno a few hours before McCarney and had caught the evening train south to Carson City where they were met by Brougher and several other committee members. The flat-car carrying the crated-up biplane was switched to a siding for the night and the crates were hauled out to the ranch the next morning. As the mechanics began to lay out their tools and make preparations to assemble the aircraft, Baldwin and several committee members visited Valley Park, the proposed site of his Independence Day flights. He pointed out a few small mounds and rough spots which the city crews had missed, but declared himself to be generally satisfied with the field. The remaining biplane parts arrived by rail later that afternoon and the mechanics set about their work.¹⁰

Reno's good fortune in getting the Johnson-Jeffries fight caused some consternation in the ranks of the backers of the Sagebrush Carnival since the fight was scheduled for the same day as Baldwin's flights, July 4. Several businessmen wanted to postpone the flights until July 5, but the members of the Executive Committee decided to open the carnival a day early, July 2, and hold it through July 5, reasoning that the other carnival features would attract a sizable number of fight fans from Reno on every day other than the day of Baldwin's aerial exhibition.¹¹

The aviator and his mechanics had set up a large tent at the ranch and when a reporter from the *Carson City News* visited the site on the morning of June 18, the wings of the biplane had been stretched on their frames and the motor set in place. In an expansive mood, Baldwin explained that the craft embodied the best features of both the Curtiss and Paulhan designs; the frame and wings were constructed of bamboo, light woods and aluminum, and the wings covered with rubber-coated silk. He also pointed out that the propeller was five feet in length and that the craft sat on a tricycle undercarriage. In response to the reporter's questions, Baldwin demonstrated the manner in which he controlled the biplane and explained some of the problems likely to be encountered in his upcoming flights.¹²

Baldwin had planned to make a trial flight that afternoon, but he came down with food poisoning a few hours after the reporter left and a doctor was called. The illness passed, but the medicine prescribed by the physician

⁹ *San Francisco Chronicle*, June 16, 1910, 1:1-2, 2:3; 3:1, 4 *et passim*; *Carson City Daily Appeal*, June 15, 1910, 1:2; June 16, 1910, 1:3; *Carson City News*, June 16, 1910, 1:5-6; June 17, 1910, 1:1-2; *Nevada State Journal*, June 16, 1910, 1:1-2, 3-4, 2:3, 8:1-3; June 17, 1910, 1:1-2, 3-5.

¹⁰ *Carson City Daily Appeal*, June 17, 1910, 1:5-6; *Carson City News*, June 17, 1910, 1:3-4; June 18, 1910, 1:3.

¹¹ *Carson City Daily Appeal*, June 18, 1910, 2:1-2; June 21, 1910, 4:3-4; June 22, 1910, 1:5-6.

¹² *Carson City News*, June 19, 1910, 1:4-6.

weakened him and he remained in bed the next day. A number of men and boys had begun to drift out to watch the work on the biplane and the *Daily Appeal* of June 20 carried a feature on Baldwin's career as a tightrope walker, parachutist and balloonist and recounted his experiences in the U.S. Army's Balloon Branch of the Signal Corps during the Spanish-American War when he was shot down in Cuba.¹³

Although still feeling the effects of his recent illness, Baldwin fired up his engine on the morning of June 20 and spent the day running the biplane back and forth across the field to test the control cables. Several cables parted and four different propellers were given a trial, but high winds kept him from trying to make his first flight.¹⁴

Wind conditions were no better the next day and more ground tests were conducted. Baldwin had developed a high-test fuel mixture which he hoped would help him overcome the altitude problems he expected, but poor flying weather grounded him until June 23. That morning, he announced that he would make his first trial flight and Brougner and other backers of the carnival were informed, as were a few invited guests. A small crowd assembled at the ranch and the mechanics rolled the biplane to the head of a level stretch of field a few minutes later. Baldwin then came out, took his seat in front of the engine and gave the word to start the engine. As the mechanics held onto the trailing edges of the wings, he depressed the speed clutch and his mechanics began to push the craft down the makeshift runway. As the biplane picked up speed, the mechanics were outdistanced and Baldwin rose into the air within a hundred and fifty feet of his starting point when he threw the front deflector. A cheer went up from the crowd as he angled upward and leveled out at thirty-five feet, but he quickly lost altitude and touched down about a quarter of a mile away. Fearing that something was amiss, the mechanics sprinted out to the downed craft, but their concern was all for naught. The biplane had functioned perfectly, but Baldwin felt that the steering arrangement had not worked quite right and he ordered the wooden steering crook replaced with a metal one.¹⁵

As the mechanics replaced the defective part, Baldwin chatted with the spectators. He was obviously elated with his success and said that he had settled the question of flying at high altitudes once and for all. When the mechanics finished their work, Baldwin tried the steering in a ground test and announced that he intended to make a second flight. Shortly after 6:00 P.M., he took his seat, ordered the engine started and had his mechanics point the craft down the runway. As he gunned the engine, he waved the

¹³ Ibid., June 21, 1910, 1:2; *Carson City Appeal*, June 20, 1910, 1:1-3.

¹⁴ *Carson City News*, June 21, 1910, 1:2, 6; *Carson City Daily Appeal*, June 21, 1910, 1:5-6.

¹⁵ *Carson City News*, June 24, 1910, 1:3-4, 4:1; *Carson City Daily Appeal*, June 23, 1910, 1:1-3.

mechanics away from the wings, depressed the speed clutch and roared down the field at a brisk clip. His earlier flight had shown him that a shorter run would be sufficient and he left the ground after a run of about one hundred feet. Leveling off at an altitude of forty feet, he flew south for half a mile, turned with a sweep of his wings and made for the head of the runway. As he glided in, his left wing dipped and struck a grassy mound, nearly upsetting the biplane, but he maintained control and brought it down immediately. When the mechanics examined the wing, they found the cover ripped and a wooden crossbar broken. Repairs would have taken an hour or more, so Baldwin decided to call it a day and the biplane was wheeled into the tent.¹⁶

Speaking to newsmen a few minutes later, Baldwin said that his anxieties about high altitude flight had now been dispelled and he expressed confidence in his ability to give the people of Carson City a show they would never forget. He also said that he intended to pick out several emergency landing sites around the valley and mark them with white flags to enable him to make longer flights.¹⁷

The mechanics replaced the crossbar and patched the wing within an hour of the accident and Baldwin made a third flight the next morning. Six flights were made on June 25, and he seemed to take a delight in demonstrating his skills for the steadily increasing number of spectators who were coming out from town. Following this series of flights, he decided that a larger and broader propeller would enhance his aerial performances and Frank Lyons and a mechanic, A. E. Edler, were dispatched to San Francisco that evening.¹⁸

Arrangements for other carnival features had been completed by this time and short items on Baldwin's flights were beginning to appear in newspapers throughout northern Nevada. Carnival officials were also placing advertising in the papers, and a group of boosters from Carson City traveled to Reno to promote the celebration. The Nevada State Band accompanied them on the special boosters' train provided by Virginia & Truckee Railroad officials, but the upcoming boxing match was drawing more attention in the press.¹⁹

¹⁶ *Carson City Daily Appeal*, June 23, 1910, 1:1-3; June 24, 1910, 1:3-4; *Carson City News*, June 24, 1910, 1:3-4, 4:1.

¹⁷ *Carson City News*, June 24, 1910, 1:3-4, 4:1.

¹⁸ *Ibid.*, June 24, 1910, 1:3-4, 4:1; June 26, 1910, 1:1; *Carson City Daily Appeal*, June 25, 1910, 1:3-4.

¹⁹ *Carson City Daily Appeal*, June 27, 1910, 1:2; June 28, 1910, 1:4; June 29, 1910, 2:1-2; *Carson City News*, June 28, 1910, 1:5, 4:5; *Daily Territorial Enterprise*, June 15, 1910, 3:2; June 25, 1910, 3:2; June 29, 1910, 2:1, 3:3; June 30, 1910, 1:3-4 et. passim; *Virginia Evening Chronicle*, July 1, 1910, 3:1; July 2, 1910, 1:1-2, 4:2; *Nevada State Journal*, June 24, 1910, 3:6-7; July 1, 1910, 4:3; July 3, 1910, 2:6-7; July 4, 1910, 4:5-6. The best recent study of the

Baldwin's mechanics had torn his engine down the day after Lyons and Edler left for San Francisco, and no more flights took place until June 30. With several dozen spectators present, Baldwin rose to thirty-five feet on his first flight that morning and covered about a thousand feet before banking and returning to the landing field. As he dropped the nose and began to glide in, a sudden gust of wind caught one of the forward elevator planes and forced him sharply toward the turf, but he retained control and made a smooth landing. The mechanics found that one of the planes had been cracked in the mishap, but flying conditions were ideal and after it was replaced Baldwin went up again. Rising into a slight westerly breeze, he circled the field several times before making a perfect landing and taxiing up to the tent shelter where the crowd had gathered.²⁰

Lyons and Edler arrived back in Carson City with the new propeller a few hours after Baldwin's latest flight. In an interview at the railroad depot, Lyons said that his acquaintances in California did not believe that Baldwin had actually flown in Carson City, so he had shown them clippings from the *Appeal* and the *Carson Daily News* which recounted the flights. He also said that several aviation agents and a number of pilots were planning to come to Carson City on July 4. Lyons had also secured a large captive balloon for the Sagebrush Carnival. In response to a question, he explained that the balloon had a capacity of 47,000 cubic feet of gas and a gondola which would lift six passengers at a time.²¹

Although the upcoming fight in Reno was getting more press coverage, Wilson Brougher and his colleagues were confident that the Sagebrush Carnival would draw large crowds. A number of Renoites were planning on coming, and many residents of Genoa, Gardnerville and Minden were making arrangements to reciprocate the support given their own Carson Valley Days earlier in June. Virginia City's miners were to be given a three-day holiday and Virginia & Truckee Railroad officials were scheduling stopovers in Carson City for the special train carrying fight fans to Reno.²²

On July 1, Baldwin and his mechanics wheeled the biplane from the ranch to Valley Park and began to make final preparations for the flights. Arrangements for the parades, drilling contests, races and other sporting events had been completed, and the opening ceremonies were scheduled for

Johnson-Jeffries Fight and the phenomenon of Jack Johnson is Al-Tony Gilmore, *Bad Nigger! The National Impact of Jack Johnson* (Port Washington, N.Y.: Kennikat Press, 1975).

²⁰ *Carson City News*, June 30, 1910, 1:6; *Carson City Daily Appeal*, June 30, 1910, 1:3-4.

²¹ *Carson City News*, July 1, 1910, 1:5-6; *Carson City Daily Appeal*, June 30, 1910, 1:5, 4:4; June 31, 1910, 1:1-2. (There are only thirty days in June, but the *Appeal* had an edition dated June 31.)

²² *Carson City Daily Appeal*, June 30, 1910, 1:5; *Carson City News*, July 3, 1910, 1:2; *Nevada State Journal*, July 1, 1910, 4:3; *Daily Territorial Enterprise*, June 28, 1910, 3:2; *Virginia Evening Chronicle*, July 2, 1910, 4:2-3.

the evening of July 2. The presence of the biplane in town brought out the curious and the skeptical, and many of those who had missed the flights at the ranch expressed the opinion that it would never fly.²³

Large crowds were on hand for the opening ceremonies and the first day of the carnival, but the backers of the festivities were disappointed with the small turnout on July 4. The boxing match in Reno attracted more locals than had been anticipated and few fight fans took advantage of the stopover arranged by railroad officials; but Baldwin's inability to get his biplane off the ground was the capstone of the day. The surface of the track was too rough and he could not get up sufficient speed to lift off. Gusty winds were also a problem, and he spent most of the day roaring up and down the infield as a dozen or so spectators looked on hopefully.²⁴

Baldwin's failure to put on a show overshadowed the many successful and entertaining features of the Sagebrush Carnival, and subsequent press commentary was entirely negative. The editor of the *Record-Courier* of nearby Gardnerville merely noted that "... the air show did not come up to expectations . . .," but the editor of the *Virginia Evening Chronicle* quipped in his column that the ranchers of Carson Valley "... have leased Baldwin's plane to furnish power in the harvesting of the alfalfa crop." He also belatedly suggested that the carnival should have been called off when Reno got the fight. The editor of the *Reno Evening Gazette* was almost apologetic to the people of Carson City, but noted that Reno had had little choice in the matter since the fight was practically thrust upon the community.²⁵

Embarrassed silence marked the editorial reaction of Carson City journalists. William T. King of the *Carson Weekly* ignored the whole celebration and others did little better. On July 7, George N. Montrose of the *Carson City News* noted that the concessionaires who had lined the streets had left, as had Baldwin, his mechanics and the biplane. In another column that day, the writer of a letter to the editor critical of the carnival referred to the biplane as "... the crawling machine which was billed to fly . . ." and suggested that the people had been cheated. The next day, the *Appeal* carried an interview with Henry Lemmon. In answer to charges of "fakery" concerning the flights, he detailed the runway problem at Valley Park and re-

²³ *Carson City News*, July 2, 1910, 1:5-6, 4:2; *Virginia Evening Chronicle*, July 2, 1910, 4:2.

²⁴ *Carson City News*, July 1, 1910, 4:2; July 3, 1910, 1:2, 5; *Carson City Daily Appeal*, July 7, 1910, 2:1-2.

²⁵ *The Record-Courier*, July 8, 1910, 4:1; *Virginia Evening Chronicle*, July 5, 1910, 1:4; July 6, 1910, 1:4, 4:2; July 7, 1910, 3:1; *Daily Territorial Enterprise*, July 6, 1910, 2:2; *Reno Evening Gazette*, July 6, 1910, 2:1-2, 4:1; *Carson City Daily Appeal*, July 7, 1910, 2:1-2. A Carson City writer, Noreen Humphreys, has interviewed several old-timers who were living in Carson City at the time of the Sagebrush Carnival. In a recent conversation with this writer, she claims that they told her they saw Baldwin make several flights on July 4. What they saw, obviously, was one or more of the trial flights made at the Raycraft Ranch prior to the carnival.

counted the difficulties of flight at high altitudes. As something of an afterthought, he said that Ivy Baldwin had not been his choice for the flights, and in addition he suggested the world of aviation perhaps would learn something of value from his experiences in Carson City. To placate those who had expressed a concern with the disposition of the funds raised to finance the aerial exhibition, Lemmon said that Baldwin and his assistants had expended between \$800 and \$1,000, and he claimed they had not been reimbursed for any amount at all, since their contract called for a series of flights on the day specified, July 4.²⁶

Wilson Brougner was having trouble collecting the money promised by the city's merchants and called a meeting for July 6, at which time all bills were to be submitted and all pledges made good. Several merchants did not come through, however, and George Montrose of the *News* declared on July 9 that "... the next carnival will not be held in Carson City." That evening, a dance was held at the carnival pavilion which was to be torn down the next day. In spite of the mixed feelings remaining from the celebration, a good crowd turned out and danced away the night, thus bringing Carson City's 1910 Independence Day observance to an end.²⁷

Among those who had witnessed Ivy Baldwin's flights at the Raycraft Ranch was Charles J. Sadleir, the proprietor of Reno's Overland Hotel and a member of the City Council. Sadleir had been involved in the attempt to bring Glenn Curtiss to Reno, and at the time of Baldwin's flights he was corresponding with Ben Noonan, a Santa Rosa, California exhibition agent, to bring aviators Fred Wiseman and Don C. Prentice to Reno for a series of flights. In October, Noonan came to Reno to pursue the matter and Sadleir returned to Santa Rosa with him on October 21 to take in an aerial exhibition at which Wiseman and Prentice were to appear. Following the air show, Sadleir and Noonan signed a contract to bring Wiseman to Reno.²⁸

A former auto racer, Fred Wiseman had taken up flying in 1909 and had been on the exhibition circuit less than six months.²⁹ His planned appearance in Reno stirred much local interest, however, and considerable planning for the flights was soon underway. Sadleir was making arrangements to exhibit Wiseman's biplane on the plaza in front of the Overland and officials of the Reno Traction Company were planning to put on extra streetcars to handle the large crowds expected for the show. City officials

²⁶ *Carson City News*, July 7, 1910, 1:2, 4; July 8, 1910, 1:5; *Carson City Daily Appeal*, July 8, 1910, 1:3-4.

²⁷ *Carson City Daily Appeal*, July 6, 1910, 1:4, 6; *Carson City News*, July 9, 1910, 1:2, 4:2; July 10, 1910, 1:2.

²⁸ *Nevada State Journal*, October 20, 1910, 1:3-4; *Reno Evening Gazette*, October 21, 1910, 6:3; October 22, 1910, 3:1; October 24, 1910, 5:3.

²⁹ Information on Fred Wiseman provided to the writer by Dominick A. Pisano, Reference Librarian, National Air and Space Museum, Smithsonian Institution, Washington, D.C.

offered the use of the state fairgrounds and a city crew to lay out a runway, and Charles A. "Bert" Lundy, a local auto dealer, was organizing an auto race to be held in conjunction with the flights. Reno motorcyclists were also interested in sponsoring some races and there was talk of a women's auto race as well.³⁰

Meanwhile, Wiseman and his mechanics crated up two biplanes for shipment to Reno and made plans to be in the city on October 30, but problems with rail connections delayed their arrival until November 3. Due to the transportation problems, only one biplane and several crates of spare parts were shipped and Sadleir decided to forego the planned exhibit downtown.³¹

The crated-up biplane was hauled out to the fairgrounds on November 4 and the mechanics began to assemble the craft. Wiseman had intended to keep spectators out until the day of his first flight, but those who showed up were allowed to mill about the infield and watch the mechanics. Bert Lundy and Ernie Mack came out about noon and the crowd repaired to the bleachers as they tore around the track. Three motorcyclists also put in an appearance and staged a few races before Wiseman announced that the biplane was ready for the first ground tests. A camshaft snapped before he could start his first run across the infield, however, and darkness was approaching by the time the mechanics replaced the defective part, so he decided to put off his first flight until the next morning.³²

A large crowd was on hand at the fairgrounds that morning, but further mechanical difficulties grounded the biplane until late afternoon. As the mechanics tinkered with the engine, adjusted the wing struts and tested the control cables, Lundy and Mack again performed for the crowd. The motorcyclists were also out in force, but the spectators became increasingly restless as the day wore on and temperatures climbed into the eighties. Shortly after 4:00 P.M., the mechanics rolled the biplane out of the makeshift hangar which city crews had constructed and pushed it to the head of the runway. Wiseman himself came out a few minutes later. Taking his seat and strapping himself in, he gave the signal to start the engine. As the propeller gained momentum, he adjusted his goggles, leaned forward on the steering column and motioned to his mechanics to give him a shove, but twenty yards into the takeoff the biplane began to shudder violently and he shut

³⁰ *Reno Evening Gazette*, October 24, 1910, 5:3; October 31, 1910, 3:5-7; November 1, 1910, 1:7; *Nevada State Journal*, October 25, 1910, 8:4; October 27, 1910, 8:2; October 28, 1910, 8:3; November 1, 1910, 8:4; November 4, 1910, 2:1.

³¹ *Nevada State Journal*, October 27, 1910, 8:2; October 31, 1910, 6:2; November 1, 1910, 8:4; November 3, 1910, 3:3-6; November 4, 1910, 5:3-4; *Reno Evening Gazette*, November 1, 1910, 1:7; November 4, 1910, 2:1.

³² *Nevada State Journal*, November 5, 1910, 8:1; *Reno Evening Gazette*, November 4, 1910, 2:1; November 5, 1910, 6:2.

off the engine. The mechanics made a few more adjustments, but Wiseman got only three feet off the ground on his second attempt before setting down and coming to a halt at the end of the runway. The sun had begun to set by this time and the crowd was beginning to thin out, but Wiseman decided to try again. He encountered the turf and clods at the end of the runway before he was able to lift off, however, and the biplane was then wheeled into the hangar for the night. Talking to newsmen afterwards, he said that he hadn't yet determined the proper fuel mixture for Reno's altitude. He also complained that the surface of the track was rough and uneven and that the runway was too short.³³

One of the reporters telephoned Mayor Arthur M. Britt a few minutes later and he ordered a city crew out within the hour. Laboring all night, the men lengthened the runway to four hundred yards and carefully smoothed the surface. Free admission cards had been given to those who had bought tickets the previous day and a good crowd was in the bleachers the next morning. Others stood just outside the grounds since the fence had been pulled down to lengthen the runway, and a few spectators took up positions on the hill to the northwest or sat in the trees. Lundy, Mack and the motorcyclists were out again and a three-furlong horserace was run, but the day proved to be one of total frustration for Wiseman. On his first attempted flight early in the afternoon, he failed to attain sufficient speed to lift off and he cut his engine back before he had gone two hundred yards. Roaring down the runway at an even more brisk clip on his second try, he rose effortlessly into the air, but a sudden gust of wind caught the biplane and nearly drove it into the grandstand. Fighting for control, Wiseman made a sweeping right turn and made a perfect landing. The wind had shifted by the time he was ready for a third flight and he started from the north end of the runway. He lifted off smoothly, leveled out at twenty feet, and flew south for a short distance before banking and beginning a left turn. At this point, an elevator cable suddenly snapped, and he came in for a crash landing just short of the inside fence. Wiseman was not injured and the biplane sustained only minor damage, but the crash put an end to any more flights that day.³⁴

Wiseman decided that the size and shape of the propeller was part of his problem and he wired a San Francisco aviation firm for a new one the next morning. On November 9, Wiseman left for San Francisco to look into the matter while his mechanics worked on changing the angles on the elevator planes and rounding off the edges to enable them to better catch

³⁴ Ibid., November 6, 1910, 5:1-4; November 7, 1910, 8:3-4; *Reno Evening Gazette*,

³³ *Nevada State Journal*, November 6, 1910, 5:1-4.

November 7, 1910, 6:5.

the wind. Before he left, Wiseman said that he intended to fly over Reno when the biplane was in proper running order once again, but his assistant, Don Prentice, told newsmen that such a flight was improbable because of the danger of being forced down in an area crowded with homes, buildings and electrical and telephone wires.³⁵

Wiseman had also decided that the runway was too narrow and a city crew began laying off another down the infield during his absence. Following his arrival back to Reno on November 11, he repeated his vow to fly over the city and announced that his next flight would take place two days later. The mechanics installed the new propeller the next day and went over every part of the biplane, but rain squalls and high winds canceled the scheduled flights on November 13. City laborers were again put to work that afternoon and Wiseman conducted more ground tests the next morning. About noon, with a few spectators present, he decided to try the new runway. He rose to about forty feet on his first attempt, and flew south for a quarter of a mile before turning and gliding in for a perfect landing. Pleased with the new runway and encouraged by his craft's performance, he announced that further trial flights would be made the next day and that a public exhibition would take place on November 20.³⁶

On November 15, Wiseman made a perfect flight and the next day he flew successfully on four occasions, rising from fifteen to fifty feet each time. A small number of dogged spectators were present both days and Wiseman allowed several of them to be photographed in the biplane. He also posed for souvenir photos himself and spent some time explaining the function of his new propeller and the problems he was still having in finding the proper fuel mixture.³⁷

More trial flights were scheduled for November 17 and an even larger crowd was in attendance since word of the successful flights the previous day had gotten around. On his first flight that afternoon, Wiseman struck a rut in the infield and got up only twelve feet before coming down. His second flight began most auspiciously. Starting from the north end of the infield, he got up to forty feet before leveling off. Diving to pick up speed, he turned and skimmed the infield before turning once again and rising to the uppermost level of the grandstand. At that point, a gust of wind caught the biplane, causing it to lose altitude suddenly. Wiseman fought for control, but struck an irrigation ditch just south of the fairgrounds as he turned into the wind and attempted an emergency landing. The wheels

³⁵ *Nevada State Journal*, November 8, 1910, 8:2; November 9, 1910, 3:2; November 10, 1910, 8:3; November 11, 1910, 8:5; *Reno Evening Gazette*, November 9, 1910, 4:2; November 11, 1910, 2:1.

³⁶ *Nevada State Journal*, November 8, 1910, 8:2; November 13, 1910, 3:3; *Reno Evening Gazette*, November 14, 1910, 6:3; November 15, 1910, 3:6.

³⁷ *Nevada State Journal*, November 16, 1910, 5:1; *Reno Evening Gazette*, November 15, 1910, 3:6; November 16, 1910, 2:4; November 17, 1910, 1:7, 2:1-2.

and undercarriage collapsed as the biplane touched down and the right wing snapped as it was dashed to the ground. The force of the impact threw Wiseman forward into the wires and stays of his elevators, but he was uninjured. A dozen men ran across the infield, but Wiseman had already extricated himself and was walking away when they got to the crash site.³⁸ His biplane was nearly a complete wreck, usable only for parts. Wiseman and his crew left Reno the next day and the crated biplane was put aboard a freight car for San Francisco on November 19. The team's next exhibition engagement was at Honolulu, and Wiseman expressed the hope that he would do better at sea level.³⁹

Although Ivy Baldwin and Fred Wiseman went on to achieve some fame in aviation history,⁴⁰ the flights they conducted in Nevada in 1910 have



Aviator Fred Wiseman poses in his biplane in Reno, Nevada, November, 1910. Nevada Historical Society.

³⁸ *Nevada State Journal*, November 18, 1910, 1:2, 5:1.

³⁹ *Ibid.*, November 20, 1910, 10:4.

⁴⁰ Ivy Baldwin later became a test pilot for the General Aviation Company of Denver and flew some of the first pontoon-equipped aircraft at Sloan's Lake Colorado in 1913. Fred Wiseman achieved recognition in aviation history as the pilot of the world's first air mail flight, a fourteen-mile journey between Petaluma, California and Santa Rosa on February 17 and 18, 1911. Wiseman's plane was later acquired by the Smithsonian Institution and is presently in storage at the Institution's Silver Hills Facility in Maryland. (See Paul E. Garber, "The Wiseman Airplane and its Significance in the History of the Air Mail," Fred Wiseman Early Bird File, National Air and Space Museum, Smithsonian Institution, Washington D.C.)

gone unnoted. The same is the case with the Nevada phase of the careers of several other famed aviators for whom Baldwin and Wiseman paved the way on this side of the Sierras. All knew of the problems experienced by the two and several of them had their own troubles with the altitude and the tricky air currents of the Great Basin, but they in turn made possible the first flights over the Sierra Nevada in 1919, and the subsequent development of air mail routes across the state, which marked the beginning of commercial aviation in Nevada.⁴¹

⁴¹ The early history of exhibition aviation in Nevada is chronicled in Phillip I. Earl, "Barnstorming," *Nevada Magazine*, XXXVI, No. 1 (Summer, 1976), 30-31. John Cahlan, "The Skies were Conquered," *Nevada Official Centennial Magazine*, 1964, pp. 43-58, 150, briefly summarizes aviation developments in Nevada; and David F. Myrick, "Notes on the History of Commercial Aviation in Nevada," Unpublished Manuscript, Nevada Historical Society, is a useful item for researchers.

Book Reviews

The Saloon on the Rocky Mountain Mining Frontier. By Elliott West. (Lincoln and London: University of Nebraska Press, 1979. xvii + 197 pp., endnotes, photographs, maps, bibliography and index, \$14.50)

"THE SALOON WAS A BREEDING PLACE for trouble and a magnet for mischief. It was also a public space available for common needs, a place where men could meet and sit and laugh, a gathering ground for human contact in a land where men's lives were often solitary and always trying." Professor West (University of Texas, Arlington) feels that there is something unique about saloons along the spine of the Rocky Mountains. Perhaps there is. Tucked away in remote valleys and mountains, the early mining camps could boast few public buildings. No matter how crude, or transient, they had a saloon or two. And saloons in the mining era were rather like real estate companies today: they did not cost much to set up and they returned, when well managed, a tidy profit.

The book is well planned and contains six chapters. Each chapter is devoted to a particular aspect of saloon society. The first, "The Sacramental Glass of Whiskey," introduces us to some interesting rationales for drinking. Some were social (i.e., the Fourth of July), others personal. Certainly the sacrament was administered often simply to relieve boredom. One old time Montana newspaper publisher I know told me that he had as a pup gone to cover a political debate in the Judith Gap area. One party failed to show up because of a blizzard. His opponent borrowed a suit coat from someone in the audience, stuck a pint of whiskey into the inside pocket and debated for two hours with the effigy of his opponent. And he won the election. ("Oh, Father above! In mercy guide and rule our rulers!" prayed the Reverend Tuttle after attending a Democratic rally in Virginia City, Montana, addressed by politicians full of Irish whiskey.) A lot stays the same in politics.

Chapter two deals with saloon architecture. As the physical structure evolved from a crude tent to a Crystal Palace, interior furnishings reflected stability and affluence. Again it appears that every effort was made to endow the successful saloon with an ambience of gentility and ease. That meant western saloon architecture generally aped eastern tastes. One nice devi-

ation was a false-fronted saloon which made it appear that its parishioners were entering a church.

The next couple of chapters deal with the ethnic make-up, personalities and idiosyncrasies of saloon-keepers and their impact upon local society. The author attempts, with fair success, to use census data here. But until the 1880 census, information was hard to come by. What most of us suspected, namely that many of the most successful proprietors were German or Irish, appears to be true. As some readers might guess from experience, a barkeep's personality and willingness to pour that extra dram had a good deal to do with building up and keeping a steady clientele. One thing many of us might not have anticipated is that evidently the saloon, especially in the early stages of a camp's development, was a flophouse, city hall and everything else. Only when stability was achieved did it host fancy dress balls and gala banquets.

Two final chapters deal with profits, merchandising, expansion, and "The Morning After" respectively. As business flourished so did a host of support services like wholesaling. Local breweries were built in a number of places and served good quality beer until prohibition plowed them under. But success brought with it opposition. A number of groups, some familiar, others less so, developed an ideology and crusade against excessive drinking and then against drinking itself. Subsidiary activities associated with saloon life were also attacked. What is interesting here is that while a number of reasonable citizens supported these activities to suppress the saloon, mail order houses advertised a number of patent medicines and drugs which were just as dangerous to private and public health.

Because the book claims the mining frontier as its focus, there are bound to be uneven emphases. It appears that the most useful records deal with Colorado, Leadville especially. Montana receives good coverage as does Arizona. Tables and appendices provide available statistical data.

The author's thesis is straightforward: "In the final analysis, however, the saloon had its greatest impact on the social life of the town. The many saloons that lined the streets were there to give the public what it wanted and seemed to require. Among the materialistic, competitive, mobile gatherings of lonely men from many lands in the early-day camps, there were many who needed alcohol to help them cope with the turn their lives had taken. By supplying it the saloon performed what those on the scene considered to be an important service." I'll drink to that.

PIERCE MULLEN
Montana State University

Deseret's Sons of Toil: A History of the Worker Movements in Territorial Utah, 1852-1896. By J. Kenneth Davies. (Salt Lake City: Olympus Publishing Company, 1977. 264 pp., tables, photographs, and appendices. \$9.95)

DR. DAVIES' STUDY of unionism in Territorial Utah was prompted by his observation that current Mormon Church leaders, both local and regional, as well as most active members "tended to be well-educated, Republican and strongly biased toward white collar occupations, with little membership in labor unions." Conversely, "completely inactive Church members were more likely to be less educated, Democratic, and members of the working class, with substantially more union membership than was true for the leadership and most active members of the Church." He also found that "LDS leaders . . . were generally much more negative towards unions and union activities than the overwhelming majorities of the Judeo-Christian church ministries."

These observations, made during his doctoral studies, led BYU Professor Davies to try to understand why the Latter-day Saints "as a body have developed a philosophy of labor which has strong anti-union overtones," by making a detailed study of the historical roots of such a development. *Deseret's Sons of Toil* is a report of that study, including a background chapter tracing the history of the Mormon Church; a survey of Pioneer Mormon Guilds and Zion's Workmen; two chapters on printer's unions; an interesting account of the Knights of Labor experience in Utah; and a fairly detailed biography of Robert Gibson Sleater, who Davies identifies as "the father of the Utah Labor Movement." Other chapters trace Utah's fledgling labor unions to 1888, followed by a summary of the activities of the Utah Federated Trades and Labor Council to 1896. A final chapter describes the processes of secularization and accomodation, and a sizable appendix contains detailed lists of leaders of Pioneer Mormon Guilds and Utah Labor Unions.

This relatively brief account (approximately 200 pages) of unionism in early Utah is the first published study on the subject, filling an obvious need. It is carefully documented and written with a considerable degree of objectivity. Unfortunately, however, the author has been so concerned with the Mormon-non-Mormon controversy that he has neglected workers in the non-Mormon mining and railroading unions, while stressing the Mormon-dominated typographers organizations.

The book appears to have been written for a Mormon audience since a reader might have difficulty understanding the issues without a working knowledge of Mormon history and attitudes. References to the Godbeite

Movement, unlawful cohabitation, Word of Wisdom problems, and "unique Temple clothing" are examples of terms that may trouble the uninformed. The inclusion of membership lists, workers' songs, and leaders' speeches in the chapters rather than in the appendix, gives the impression of padding the narrative with non-essential details rather than presenting the essence of such documents.

In his final chapter, Professor Davies analyzes the process of secularization and accomodation that was necessary to bring the Mormon community into the mainstream of American socio-economic and political life, and then lists thirteen reasons why unionism was not part of the accomodation. Essentially his answer is that the unions had been led by non-Mormons who were regarded as "the enemy" by the faithful Mormons during the bitter struggles to eliminate Mormon polygamy and theocratic government that characterized Utah's quest for statehood.

It is an answer that might have been assumed, but Professor Davies has provided detailed documentation for such an assumption.

EUGENE E. CAMPBELL
Brigham Young University

John Collier's Crusade for Indian Reform, 1920-1954. By Kenneth R. Philp. (Tucson: The University of Arizona Press, 1977. xvi + 304 pp. Paper, \$6.50)

JOHN COLLIER WAS ONE of the most unique personalities ever involved with Indian affairs. A New York community worker with strong socialistic ideals, Collier became interested in the fate of the American Indian as the result of a chance visit to New Mexico in 1920. He soon emerged as the leading figure in a movement to reform Indian policy that blossomed in the late 1920s. When Franklin Roosevelt became president in 1933 he appointed Collier Commissioner of Indian Affairs. Thus began the so-called Indian New Deal as John Collier attempted to reverse the federal policy of forced assimilation and give dignity to the tribal Indian. Despite active support from Roosevelt's administration, many of the commissioner's reforms proved so controversial that they met sustained opposition from Indian and white alike. As a result the Indian New Deal failed to accomplish its goals or significantly improve the condition of the native peoples. Still, the period of Collier's administration of Indian affairs proved a turning point and set the stage for the rise of the modern Indian movement for self-determination.

Kenneth R. Philp has done an excellent job of documenting Collier's policy and philosophy. This work provides the first full-length study of In-

dian affairs during the Roosevelt era. Using a wealth of documentary sources, including Collier's papers, the author has traced the career of this controversial individual. The first observation that emerges is that Collier was a complex man, often his own worst enemy. He was a visionary idealist who believed that native societies possessed the ability to provide American society with a practical alternative to the evils of industrialization. Such a goal could be achieved only if the Indian societies were preserved. That preservation became Collier's lifetime work. When he became commissioner he attempted to implement a program that permitted the tribes to form their own governments, and that stopped the allotment of Indian lands, encouraged the preservation of arts and crafts, and permitted religious freedom. The Wheeler-Howard Act of 1934, incorporating many of these features, remains a monument to his energy. But Collier's idealism soon got in the way. Many Indians, as well as members of Congress, opposed exercising more self-government. The commissioner refused to listen to their arguments, rejected compromise, and insisted on imposing his ideas. The inconsistency of this policy is emphasized when Philp writes that "despite his harsh criticism of federal paternalism during the twenties, Collier often imposed his personal will and philosophy on the Indian" (p. 240). As a result, he failed to decisively alter the course of Indian affairs.

Philp admires Collier, but he keeps the picture in perspective. Not only does he emphasize the man's philosophical inconsistency, but also he points out the very real opposition to changing the course of federal policy. Collier is treated as a man believing in the myth of the noble savage, hoping to save the American Indian while revitalizing American life. He proved more effective as a critic, especially during the 1920s when he took up the cause of the Pueblo fight for religious and political freedom. Yet when given a chance to put his ideas into effect, Collier could not operate effectively in the political arena. In his later years, his efforts toward aiding and uniting all the natives of the Western Hemisphere proved equally frustrating.

The book has few drawbacks. Well written, it covers Collier's unusual relationship with the Indians in considerable detail. Not only is this the story of a significant personality, but also it provides a valuable discussion of federal Indian policy between 1920 and 1954. One might wish for a bit more analysis of the shortcomings of the Indian New Deal, particularly some additional discussion of such matters as the Navajo Stock Reduction Program. In all, however, this is an important book on twentieth-century Indian policy. It will become the standard work on the Roosevelt period.

ROBERT A. TRENNERT
Arizona State University

America's Frontier Culture: Three Essays. By Ray A. Billington with a foreword by W. Turrentine Jackson. (College Station and London: Texas A&M University Press, 1977. 97 pp. \$5.00)

COMPILED AS PART of the Essays on the American West series sponsored by the Elma Dill Russell Spencer Foundation, this collection of three masterful essays by Ray Allen Billington, in the Turner tradition, analyzes the impact of the frontier environment on the individual in the first essay; on society at the fringes of settlement in the second; and in the final essay, the impact of the frontier image on European civilization is considered. This little gem of a book thus carries the reader in logical progression to a better understanding of the development of a distinctive American society—a society whose early history is romantized and stereotyped in an ongoing mythology.

Acknowledged as the “dean of western historians,” Billington presented the first of these outstanding lectures, “The American Frontiersman,” as his Harmsworth inaugural address. In this study, he used the mountain man of the fur trade era as the prototype of Turner’s reversion to the primitive, and of the effect of the environment in altering lifestyles and mental attitudes. According to Billington, the fur traders of the Rocky Mountain region in the period 1825–45 best epitomized the “destructive impact of the wilderness on inherited traits and institutions.” In a similar manner, the frontier affected other pioneers, creating in the process a distinctive American society.

“The Frontier and American Culture,” Billington’s address to the California Library Association, considers one of Turner’s most paradoxical ideas, specifically how the pioneers could improve civilization in the process of abandoning it. The fact that these settlers established schools, churches, lyceums, and libraries as soon as they could indicated their concern with the civilization from which they had departed. Their choice of literature reflected “a cult of eastern worship,” yet their attempts to recreate “the civilization of old” were doomed to failure due to factors such as isolation, materialism, and pragmatism. The result, according to Billington, was a distinctive new culture based on tradition but transformed by environmental forces. Paradoxically, the necessity for hard work left little time for scholarly pursuits; hence, the frontier provided the genesis for a spirit of anti-intellectualism in America, despite the cultural concerns of many pioneers. A positive result of this phenomenon was a rebellion against romanticism and the substitution of creative realism in literature. Thus the new social attitudes and literary forms represented failure on the part of many pioneers but constituted “the West’s unique contribution to the nation’s burgeoning culture.”

The final address, “Cowboys, Indians, and the Land of Promise,” places the frontier image in world perspective. Presented originally to the Inter-

national Congress of Historical Sciences, Billington maintains that the myth of the American frontier as the last bastion of romance, violence, personal justice, and economic promise—promoted originally by western travelers, journalists, land agents, and railroad magnates—has been perpetuated more recently by the media and in the minds of escapists from reality the world over. The fact that other nationalities are at least partially responsible for the persistence of the western mythology is reflected in the international blue jean craze, the penchant for products with western names, such as Germany's "Rodeo" aftershave and "Lasso" deodorant, and in France, western-style vacations at "Camp Indian." "The vogue of a western cult," Billington maintains, "demonstrates a universal urge to lessen the controls necessary in today's societies."

Of all the views presented, the reviewer finds this essay the most thought-provoking. Although Billington does not suggest that the frontier image was responsible for the social, economic, and political changes that altered old world institutions during the twentieth century, he does conclude that the image "bred discontent" and helped to initiate changes leading to improvement. The relationship of the image of the American frontier with the *Husmand* movement in Denmark, the efforts in Norway and Sweden to reclaim swamplands for the peasants, and the division of the Junker holdings in Prussia, as Billington suggests, deserve further investigation.

This collection, complimented by a fine introduction by W. Turrentine Jackson, makes essential and enjoyable reading for the student of the American frontier or comparative frontiers. Written with clarity, insight, and beautiful style, Billington once again proves that history need not be merely the excavation of dry bones from one historical graveyard to another.

NECAH STEWART FURMAN
University of Texas, El Paso

NHS ACQUISITIONS

Platt Papers

Upon his arrival in Reno in 1922, William Grant Platt (1894–1969) became very active in plant introduction and forestry conservation throughout the Great Basin. He operated a nursery and landscaping business at 2000 E. Fourth Street until World War II. Many examples of ornamental shrubbery and exotic trees introduced by this Nevada horticulturalist still flourish in Reno today.

During the war, Platt served as a chemist at Basic Magnesium in Gabbs, after which he returned to Reno where he worked at United Air Lines, Nevada Air Products, and the University of Nevada, Reno. He retired from the University in 1966 after ten years of service.

This collection contains correspondence, periodical literature, and newspaper and magazine clippings, much of it related to Platt's presidency of the Nevada State Horticultural Association, Nevada State Landscape Association, and the National-State Horticultural Association.

The Society thanks Thomas F. Platt for donating his father's papers to the Society.

Goldfield, Bullfrog, and Rhyolite Stock Certificates

Joseph G. Wheeler of San Jose has recently donated a large number of stock certificates primarily related to the mining booms at Goldfield, Bullfrog, and Rhyolite. Mr. Wheeler's father, besides operating a furniture business and restaurants in Goldfield, dabbled in the market. Although his speculative ventures came to naught, the Society has ultimately benefited by the acquisition of these historically valuable, and many times ornate, mining stock certificates. The Society thanks Mr. Wheeler for this donation.



Two *Sequoia Gigantea* planted by W. G. Platt in 1934 on the corner of Evans and Highland in Reno. Nevada Historical Society.

MUSEUM COLLECTIONS

Over the past year, our museum collection received a number of interesting relics. Among the most valuable of these is a collection of guns and law enforcement paraphernalia donated by Mr. Wilbert McInerney of Bethesda, Maryland in memory of his father, Michael P. McInerney. Michael P. Inerney was born in Virginia City in 1873, but grew up in Butte, Montana where he became a city detective. He held a similar position in Reno and later was the manager of the Golden Hotel in Reno and the Hilltop Hotel in Schurz. In 1914, Senator Key Pittman brought him to Washington, D.C. where he became a member of the capital police force. McInerney later became the chief investigator for the U.S. Veterans Bureau, a position he held at the time of his death in 1941.

The Society received a handmade Victorian quilt donated by Lt. Colonel and Mrs. William Stuart in memory of Mr. and Mrs. Elmer Cobb. Miss Vera W. Wilson of Ogden, Utah donated two books used in the school at Galena in the early 1880s, and Mrs. Marjorie Lionvale donated a set of silverplate and four books. Sergeant Richard A. Iori presented a large framed photograph of the University of Nevada Cadet Corps in 1912. Mrs. Mildred Duncan donated a Victorian walnut spool holder. Parts of a home-made whiskey still were donated by Walt Daniels of Virginia City and Harold Curran of Reno on behalf of Jack Fisher. The parts have been assembled and the still placed on exhibit in our museum. The most recent item donated to the Society is a framed poster of the famous Johnson-Jeffries heavyweight fight which took place in Reno on July 4, 1910. This was donated by Judge Harold O. Taber of Reno.

The staff would like to express its thanks to those donating these valuable items.

NHS NEWS AND DEVELOPMENTS

Townley Resigns

John M. Townley, who had served as the Director of the NHS since 1972, resigned effective March 28, 1980. Mr. Townley announced he will continue to reside in Reno, and will pursue a number of research and writing projects.

NHS Personnel Changes

Governor Robert List appointed Gary K. Roberts as the new Director of the NHS on May 25th. Mr. Roberts, who had been serving as the Interim Director, had previously been Assistant Director and was stationed in Las Vegas. Prior to becoming associated with the NHS in 1975, he was an instructor at the University of Nevada, Las Vegas, for a number of years.

The Society has employed Mr. Eric Moody of Reno to head the project to protect older and deteriorating photographs; this program was funded by the legislature in 1979, and has been a staff undertaking for a number of months. Mr. Moody will be assisted by Mrs. Eslie Cann, who has agreed to return to the Society on a part-time basis, and by Mr. Frank O'Brien, who has been with the NHS for several years as a volunteer.

Sugden Bequest

The Society received the largest bequest in its history, a condominium on Riverside Drive in Reno valued at \$290,000, through a bequest in the will of Mary Etta Sugden, a Reno resident. Further details on this bequest, which more than doubles the size of the Society's endowment, will appear in the next issue of the *Quarterly*.

New Publications from the Nevada Historical Society

NEVADA ARTICLES IN DESERT MAGAZINE, 1937-1977

Marion Ambrose

This publication provides a comprehensive index to the 364 articles dealing with Nevada that appeared in *Desert Magazine* from 1937-1977. The alphabetical listing of articles by author is accompanied by a subject index. An excellent guidebook for those interested in exploring Nevada's historical and scenic areas. \$4 ppd.

TERRITORIAL NEVADA: A GUIDE TO THE RECORDS

Robert Armstrong

This bibliography covers the manuscript and archival sources available in libraries and collections throughout the United States which relate to Nevada's Territorial Period, 1850-1864. Collections are listed by state and library, and many are described in considerable detail. An indispensable research aid for this era, and a must for Western libraries. \$5 ppd.

OVERLAND CHRONICLE: EMIGRANT DIARIES IN WESTERN NEVADA LIBRARIES

Frank J. O'Brien

Emigrant diaries located in five Western Nevada libraries are classified by author and title, and by year of passage. Included also are cross-indexing sections that refer the researcher to emigrant origins, major trails and routes followed, and final destinations. Seven maps are included. \$2.95 ppd.

HISTORIC SITES OF CLARK COUNTY, NEVADA

Dorothy Ritenour and M. Katherine Tipton

This publication contains an alphabetical listing of historic sites in Clark County from the 1850s to 1928, together with locations by section, township and range. There is a listing of all townships within the county and the sites located within each. A valuable guide to the inventory of historic sites located at the NHS Las Vegas office, and an important reference for researchers, governmental agencies, and libraries. \$4.95 ppd.

**Nevada Historical Society
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NEVADA HISTORICAL SOCIETY



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FOUNDED IN 1904, the Nevada Historical Society seeks to advance the study of the heritage of Nevada. The Society publishes scholarly studies, indexes, guidebooks, bibliographies, and the *Nevada Historical Society Quarterly*; it collects manuscripts, rare books, artifacts, and historical photographs and maps, and makes its collections available for research; it maintains a museum at its Reno facility; and it is engaged in the development and publication of educational materials for use in the public schools.