

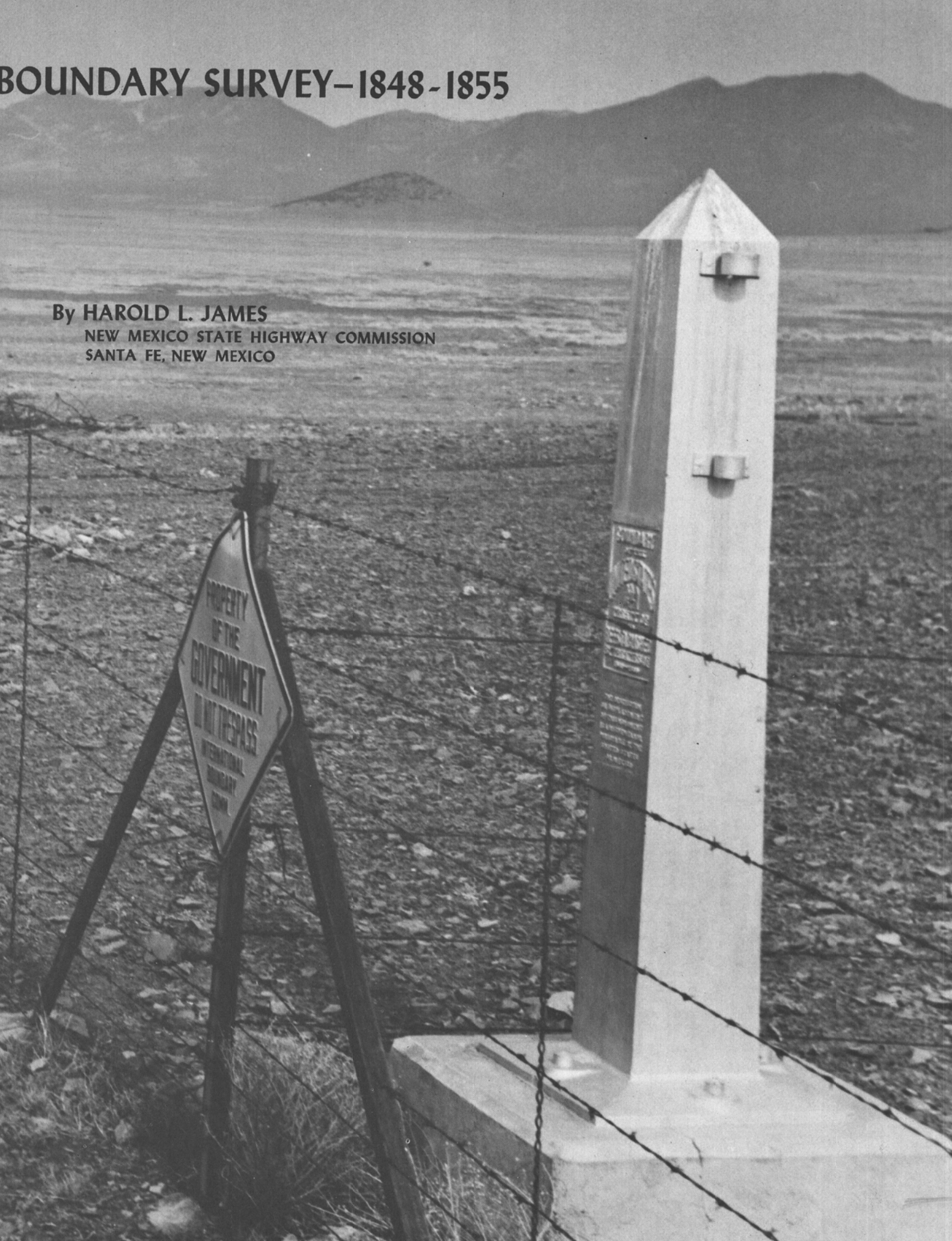
HISTORY OF THE UNITED STATES-MEXICAN



**Monument No. 69 on the international boundary south
of Cloverdale. Hidalgo County, New Mexico**

BOUNDARY SURVEY—1848-1855

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ABSTRACT

In 1850 President Tyler named John Russell Bartlett, a New England intellectual, as Chief Commissioner to run the southern boundary of the United States following the Mexican War. To determine these limits of national sovereignty, one of the greatest geodetic tasks of all time was initiated. The 2,000 mile line was described as a non-civilized wilderness with hot barren stretches, rocky cacti-studded slopes, and pinon-pocked mesas.

By the terms of the Treaty of Guadalupe Hidalgo in 1848, the boundary line was to commence in the Gulf of Mexico and follow the Rio Grande up to a point 8 miles north of El Paso, where it strikes the southern boundary of New Mexico, then westward to the first branch of the Gila River. The formulators of the treaty accepted as reference to the southern boundary of New Mexico a crude map drawn by J. Disturnell of New York City.

When Bartlett arrived in El Paso and met with his Mexican counterpart, General Pedro Garcia Conde, two serious errors were discovered in the Disturnell Map. First, the location of El Paso was found to be 40 miles north of its true astronomical position. Also, the map erroneously placed the position of the Rio Grande over 130 miles to the east. General Conde moved that the map, regardless of its errors, should become the true governing document. Bartlett felt that the advantage lay with Mexico and favored a settlement to resolve the complication. The diplomatic willingness of the two commissioners resulted in a compromise whereby Bartlett yielded 40 miles of territory to the north, with Conde in turn consenting to a 137-mile extension of the line to the west. Bartlett was severely criticized for the compromise, particularly by his chief surveyor, Andrew B. Gray. This outward show of defiance led to dissension within the commission and prompted a series of quarrels and petty jealousies among its members.

In early 1853, with the election of Franklin Pierce as President, Bartlett was informed that his compromise was rejected by Washington Democrats. He was recalled from the field and ordered to appear before a special Senate Committee to explain why he had inexcusably given away to Mexico a stretch of land, roughly 40 by 175 miles, that was the only southern corridor for a transcontinental rail route to the Pacific. In the midst of charges of incompetence, Bartlett was dismissed from public service with instructions to turn over all his records to his successor, Robert Blair Campbell.

To correct the Conde Compromise, President Pierce named James Gadsden as Minister to Mexico with specific orders to negotiate a land purchase that would dissolve the boundary dispute, and at the same time provide the United States with a rail route to California. When the Gadsden Treaty Purchase was ratified on April 25, 1854, the Bartlett-Conde Compromise became a dead letter. The treaty finally brought to an end the diplomatic tensions between the two countries. Soon after, Major William H. Emory of the Topographical Corps, assumed the leadership of the boundary survey. The Gadsden line was run, marked, and finally completed on October 15, 1855.

RESUMEN

El Presidente Tyler nombró en 1850 a John Russell Bartlett, intelectual de Nueva Inglaterra, Delegado en Jefe para llevar a cabo el levantamiento del límite sur de los Estados Unidos, inmediatamente después de la Guerra Mexicana. Para determinar estos límites de soberanía nacional, se inició una de las más grandes labores geodésicas de todos los tiempos. La línea de 2,000 millas fue descrita como incivilizada, con tramos áridos sin vegetación, rocosa y con pendientes y mesetas pobladas de cactus y piñones.

Según lo establecido en el Tratado de Guadalupe Hidalgo en 1848, la línea de límite debía empezar en el Golfo de México y seguir al Río Grande, 8 millas al norte de El Paso en donde colindaría con el límite sur de Nuevo México, de ahí hacia el oeste hasta el primer afluente del Río Gila. Los autores del Tratado aceptaron como referencia para el límite sur de México un mapa rudimentario elaborado por J. Disturnell de la ciudad de Nueva York.

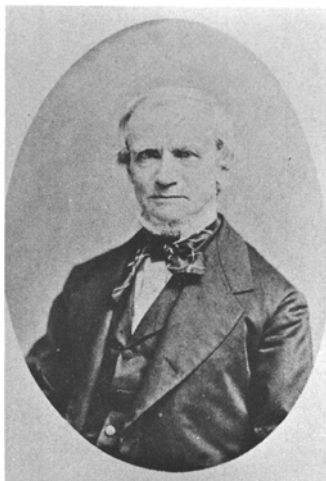
Cuando Bartlett llegó al Paso y se entrevistó con el contraparte mexicano, Gral. Pedro Garcia Conde, se encontraron dos graves errores en el mapa de Disturnell. El primero fue la localización de El Paso a 40 millas al norte de su verdadera posición astronómica, y el segundo la errónea posición del Río Grande a 130 millas hacia el oriente. El Gral. Conde, sin hacer caso de estos errores, propuso que éste fuera el verdadero documento gobernante. Bartlett consideraba que la ventaja estaba del lado mexicano, pero accedió a un arreglo para evitar complicaciones.

La buena intención de los diplomáticos resultó en un compromiso de acuerdo con el cual Bartlett cedía 40 millas de territorio hacia el norte y Conde, a su vez, consentía una extensión de la línea de 137 millas hacia el oeste. Bartlett fue severamente criticado por ese convenio, particularmente por su topógrafo en jefe Andrew B. Gray. Este desacuerdo causó la desunión de los miembros de la Comisión, entre los que se suscitaron reyertas y envidias.

A principios de 1853, con la elección de Franklin Pierce como Presidente, Bartlett fue informado que su convenio había sido rechazado por los demócratas de Washington y fue llamado del campo para que se presentara ante un Comité Especial del Senado para aclarar por qué había cedido a México, inexcusablemente, una faja de tierra de aproximadamente 40 por 175 millas, la cual constituía el único paso sur para una ruta de línea férrea transcontinental hacia el Pacífico. Bartlett fue dado de baja del servicio público por los cargos que se le hicieron de incompetencia, ordenándosele que entregara la documentación a su sucesor Robert Blair Campbell.

Para corregir el arreglo de Conde, el Presidente Pierce nombró a James Gadsden como Ministro Plenipotenciario en Mexico, con órdenes específicas de negociar la compra del territorio, lo cual terminaría con las discusiones surgidas y al mismo tiempo proporcionaría a los Estados Unidos una ruta ferrea a California. Cuando el Tratado Gadsden fue ratificado en abril 25 de 1854, el compromiso Bartlett-Conde quedó nulificado. Este nuevo Tratado terminó con las desavenencias diplomáticas surgidas entre los dos países.

Posteriormente, el Mayor William H. Emory, del cuerpo de topógrafos asumió la Dirección del levantamiento de la zona limitrofe. La Línea de Gadsden fue trazada, marcada en el terreno y finalmente terminada el 15 de octubre de 1855.



John Russell Bartlett

On the morning of April 19, 1851, John Russell Bartlett, the newly appointed U.S. Boundary Commissioner from Providence, Rhode Island, rode north from the town called El Paso along the eastern banks of the Rio Grande. His destination, the tiny Mexican village of Dona Ana, 48 miles upstream. His goal, to establish an "initial point" for a survey that would mark a line to separate the territory of Mexico from that acquired by the United States as a result of its war with Mexico. It was a country that "showed its teeth"—a non-civilized wilderness, described as the thorny and angular landscapes of southern New Mexico and Northern Chihuahua—hot barren stretches, rocky cacti-studded slopes, and pinon-pocked mesas. To an intellectual from lush New England it must have seemed an unbelievable land.

The Mexican War had created the necessity for a border. The treaty of Guadalupe Hidalgo, which terminated that war on February 2, 1848, states in Article V:

"THE BOUNDARY LINE BETWEEN THE TWO REPUBLICS SHALL COMMENCE IN THE GULF OF MEXICO, THREE LEAGUES FROM LAND, OPPOSITE THE MOUTH OF THE RIO GRANDE, OTHERWISE CALLED RIO BRAVO DEL NORTE, OR OPPOSITE THE MOUTH OF ITS DEEPEST BRANCH, IF IT SHOULD HAVE MORE THAN ONE BRANCH EMPTYING DIRECTLY INTO THE SEA; FROM THENCE UP THE MIDDLE OF THAT RIVER, FOLLOWING THE DEEPEST CHANNEL, WHERE IT HAS MORE THAN ONE, TO THE POINT WHERE IT STRIKES THE SOUTHERN BOUNDARY OF NEW MEXICO; THENCE, WESTWARDLY, ALONG THE WHOLE SOUTHERN BOUNDARY OF NEW MEXICO (WHICH RUNS NORTH OF THE TOWN CALLED PASO) TO ITS WESTERN TERMINATION; THENCE NORTHWARD ALONG THE WESTERN LINE OF NEW MEXICO, UNTIL IT INTERSECTS THE FIRST BRANCH

OF THE RIVER GILA; (OR IF IT SHOULD NOT INTERSECT ANY BRANCH OF THAT RIVER, THEN TO A POINT ON THE SAID LINE NEAREST TO SUCH BRANCH, AND THENCE IN A DIRECT LINE TO THE SAME;) THENCE DOWN THE MIDDLE OF SAID BRANCH AND OF THE SAID RIVER, UNTIL IT EMPTIES INTO THE RIO COLORADO; THENCE ACROSS THE RIO COLORADO, FOLLOWING THE DIVISION LINE BETWEEN UPPER AND LOWER CALIFORNIA, TO THE PACIFIC OCEAN."

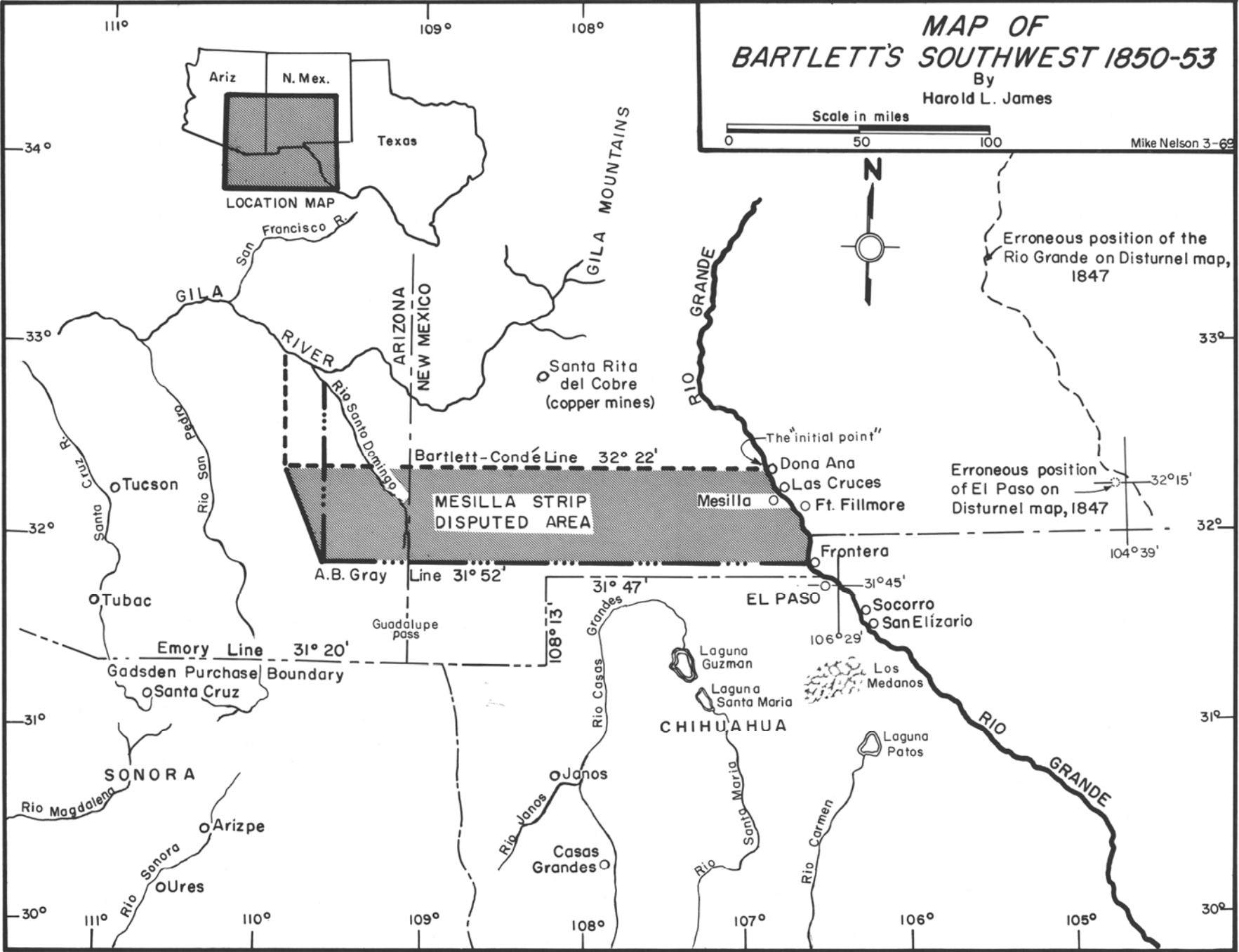
To determine these limits of national sovereignty, one of the greatest geodetic tasks of all time was initiated. The 2,000 mile line would have to be drawn from astronomical observations. Chains would have to be laid end to end for long distances. The accurate recordings of barometers would be necessary. Topography would have to be plotted daily in hot tents under poor lighting. Drafting conditions would be unbearable at times, and delicate survey instruments, jostled in wagons from one location to another, would require constant calibration, cleaning, and repairing. Indeed an arduous assignment, not to mention the unknown attitude of the Apache and Gila River Indian tribes.

The treaty further stipulated that the two governments would each appoint a commissioner and a surveyor, whose conclusions would be binding and final. The position of commissioner would thus hold immense, unprecedented authority, requiring the knowledge and leadership of a Kearny and the frontier skills of a Kit Carson. In December 1848, President Polk named Arkansas Congressman Ambrose Sevier to head the Commission, but within the month, even before Senate confirmation, Sevier died.

The next appointee was John B. Weller, another politician from Ohio. Weller was actually the first to take up the job on January 16, 1849. Named to assist him as surveyor



Pedro Garcia Conde





John B. Weller

was Andrew B. Gray, along with military topographic corpsmen Major William H. Emory and Lt. Amid. W. Whipple to act as astronomers. The survey party assembled in San Diego in July and met with their Mexican counterparts, General Pedro Garcia Conde and his surveyor, Jose Salazar Ylarregui. Despite bickering, poor food, and financial problems, which seemed to plague the American camp, the westernmost portion of the line was fixed and run from the coast eastward to the mouth of the Gila River where it unites with the Colorado.

Weller's field problems soon attracted Washington gossip that he was squandering public monies. Without benefit of an investigation Weller was suddenly dismissed in December 1849 by Interior Secretary Ewing, an old political rival from Ohio. Major Emory was named temporary head of the survey.

The next commissioner chosen was perhaps the best qualified American available in terms of experience, skill, and leadership—John Charles Fremont. He was appointed and accepted, but before he ever took to the field he was elected the first Senator from the new state of California, a position far more prestigious than that of U.S. Boundary Commissioner.

So in early 1850, two years after the Treaty of Guadalupe Hidalgo, the position of the U.S. Boundary Commissioner was still not filled. The first appointee had died, the second was discredited, and the third had resigned. A different kind of man now moved into the spotlight—John Russell Bartlett, neither a politician nor a frontiersman, but a man who had distinguished himself as an artist, writer, historian, and ethnologist. He was a thin, vigorous individual of 45 years who had specialized in the fields of literature, antiquities, and philology. His publications and scholarly activities had earned him an honorary Master of Arts from Brown University in 1848. He had a working knowledge of several languages, including both written and spoken Spanish. This latter talent was to prove a powerful asset in consideration for the vacant commission post. Through his Whig contacts in Washington, he was offered the job. He accepted, according to his own statements, because he had led a rather sedentary life and felt he wanted to travel for a change. "To be thrown among the wild tribes of the in-

terior," as he remarked, "was enough to raise the temperature of any ethnologist" (Hine, 1968, p. 8).

President Tyler, with Senate approval, made the appointment official on June 15, 1850. Some reorganization of the project was obviously necessary. Emory had asked to be relieved of all duties connected with the Commission and this request was granted. A. B. Gray still retained the position of Chief Surveyor. Colonel John McClellan was named Chief Astronomer, replacing Emory, with Whipple to act as his assistant.

Meanwhile, the Mexican staff, composed mainly of disciplined geologists and engineers of the Mexican National Military College, called for a recess. This seemed appropriate, considering the unstable conditions resulting from Weller's dismissal and the fact that the work had been completed on the west portion of the line. The two governments agreed to meet in the middle of the line at El Paso on the first Monday of November to undertake the Rio Grande-Gila tie.

After nearly three months of preparation, the chartered 500-ton sidewheeler, Galveston, moved out of New York Harbor on the late afternoon tide of August 3, 1850. Bound for Matagorda Bay on the Texas gulf, she carried 160 tons of freight and 105 new appointees to the Commission.

From 283 applicants the final roster comprised engineers, assistant surveyors, topographers, carpenters, blacksmiths, wheelwrights, wagonmasters, teamsters, harnessmakers, shoemakers, tailors, butchers, cooks, laborers, and servants. Scientific appointees included a botanist and a scientist-friend named Thomas Hopkins Webb, who became Bartlett's traveling companion, confidant, and secretary of the Commission. Geological duties, mainly that of sample collecting, went to a man named Theodore F. Moss. Two artists listed as draftsmen—Henry C. Pratt from Boston and Augustus de Vandricourt, a French-born lithographer from New York—were named to sketch the activities of the Commission and the landscapes of the Southwest. A military escort of 85 men of the Third Infantry under the command of Lt. Colonel Louis S. Craig completed the Boundary Commission roster. Bartlett wrote:

"The most disagreeable duties I ever had to perform were the appointments to the Commission. Nearly all the applicants were strangers to me, and too many were urged on me by their Congressional friends merely to get them away from Washington" (Hine, 1968, p. 13).

On August 31 they disembarked at Indianola. After several days at the port, during which time they were wined and dined by the local citizenry, they were ushered on their 800-mile way, via San Antonio to El Paso. The first days of the trek inland were pleasant. The coastal plain made a good road over level prairies covered with luxuriant grasses. Great flocks of quail fluttered from the wagon fronts and innumerable herds of deer grazed near the bayous and lagoons, providing the evening encampments with fine sides of venison. The thermometer hovered over 100 de-

grees, but near Victoria, groves of sycamores and pecans shaded the caravan. Broad streams, overhung with festoons of moss, made for excellent rifle fishing. West of San Antonio the land changed. The covers of grass withdrew to expose rocky ridges of limestone. Cascading streams became dry arroyo beds. The road became choked with dust, and temperatures rose ever higher.

Beyond Fredericksburg, Bartlett's family of strangers became acquainted. The rigors of overland travel began to account for dissension and disorder among the rank and file. First, there was the case of U. B. Wakeman, a drover, who was shot and killed by a Capt. Dobbins over a card game. Following that, public relations hit a low point when a teamster named Green shot and killed a Mexican landowner over the rights of woodcutting. Bartlett handled this by paying the grieving family \$100 for their troubles. Another incident involved a laborer named Turner who fatally stabbed a butcher named Tennant. As each day passed, it became evident that a goodly number of the appointees were incompetent. Insubordination ran high, and resignations were frequent. Tempers were constantly on edge. Complaints about food and quarrels over pay led to dismissals right and left. Far more disruptive, however, were the growing conflicts among the leaders. Because of his drinking habits, McClellan became a "pain" to his associates. Finally, a petty argument over the inventory of some missing artists' supplies, involving Vandricourt and McClellan, led to the Chief Astronomer's dismissal. McClellan returned to Washington where he filed charges against Bartlett. These allegations were later dropped, but McClellan's raving did much to discredit the Commissioner later.

Through it all, Bartlett remained immune to the internal disorders. He kept to himself, passing the days of travel in his rockaway coach. His curiosity and enthusiasm for the adventure never seemed to dim. With his pad always be

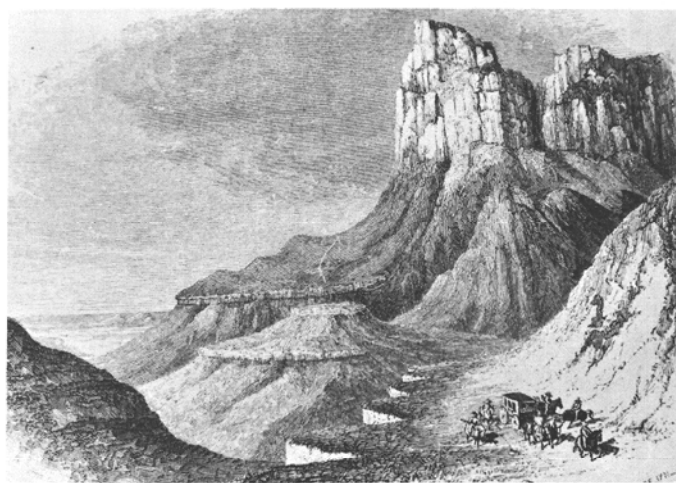
side him, he engaged in rapid lap-sketching of such unusual scenes as the castellated spur of the Guadalupe Mountains.

Finally, nearly ten weeks from Indianola, they sighted the bright, fall-colored cottonwoods of the Rio Grande. Arriving on the 13th of November, ten days after the agreed "first Monday," Bartlett found that General Conde was still en route near Chihuahua City, some 250 miles to the south, and consequently would not arrive for another two weeks.

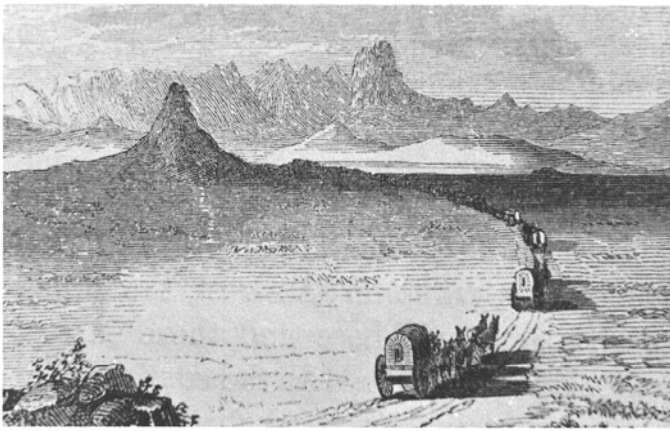
On December 2, the first joint commission meeting was held. Commissioner Conde referred to Bartlett as "un bello sujeto" (a fine fellow), whereas, Bartlett found the Mexicans "gentlemen of education." A smooth working relationship was thus established, although no work could begin. The Chief Surveyor, A. B. Gray, was still in Washington recovering from an attack of smallpox.

The New Year of 1851 saw the Commission in a lethargic state. The men were scattered in separate camps up and down the river at Frontera, Socorro, and San Elizario. One wait succeeded another, and excuses followed excuses. Letters requiring the urgent attendance of Gray went unanswered. In all, five months would elapse before any real progress was made. Bartlett busied himself with excursions and explorations into the desert. A great deal of time was spent relaxing with his oils and brushes, and it was probably during this interim period that his artistic skills reached a high level of proficiency.

There were also hours of gaiety to look forward to. Bartlett's host in El Paso was James Magoffin, who prided himself on elaborate, festive dinners and late-hour balls. There were also periods of tragedy. Captain Dobbins, of the Dobbins-Wakeman affair, committed suicide shortly after having been cleared by an El Paso court of the killing. Then there was the fandango murder of young Edward Clarke, son of the Senator from Rhode Island who was instrumental in getting Bartlett his appointment. The knifing took place



November 10, 1850—"Five or six miles over a hilly through very hard road, brought us to the base of the mountain. Winding and turning in every direction, we followed the intricacies of the Guadalupe for at least six hours. Whenever the prospect opened before us, there stood the majestic bluff in all its grandeur, solitary, and alone." (Bartlett, Personal Narrative, I, p. 120)



April 29, 1851—"The road was hard and smooth as a turnpike. To the south, at some fifty or sixty miles distant, rose a high mountain. The intervening plain presented the most beautiful mirage I ever witnessed. It seemed like the surface of a broad lake, the mountain peaks standing detached, like so many islands rising from the bed of its placid waters." (Bartlett, *Personal Narrative*, I, p. 218).

at Socorro, ten miles below El Paso. The guilty were quickly apprehended and brought to trial. All were connected with the Commission: William Craig, a cook; John Wade, a teamster; and Alex Young and Marcus Butler, both laborers. They all received the sentence of death for the brutal stabbing and were hanged from a tree in the Socorro plaza two days later.

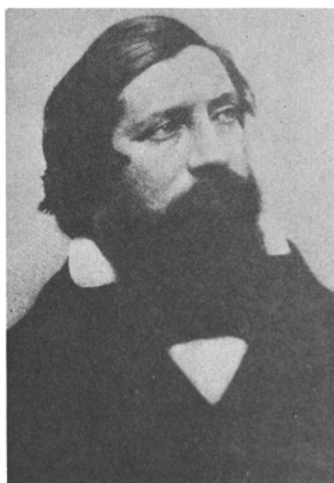
Throughout the long winter, despite these distractions, some work was accomplished. Biweekly meetings of the two commissions were held religiously to iron out minor interpretations of the treaty. In March, Washington notified the Commissioner that the cost of his inactivity was \$110 a day and rising. Therefore, Bartlett decided, even in the absence of Gray, that at least a start should be attempted in establishing an "initial point" for the southern boundary of New Mexico.

Now the real problem of the Commission was to begin. The matter of the natural line separating New Mexico from Chihuahua. If Bartlett thought he had had troubles before, they were certainly to be dwarfed by what lay ahead. The drafters of the treaty, in reference to the southern boundary, accepted as authority J. Disturnell's map of the United States, published by a New York firm in 1847. As drawn on the treaty map, the southern boundary began at a point on the west bank of the river, seven minutes of latitude or eight miles north of El Paso, and ran westward for three degrees of longitude or 175.28 miles, before turning north to strike the Gila. Bartlett and Conde both discovered that two serious errors existed in Disturnell's map. First, it showed El Paso at $32^{\circ} 15'$ north latitude, while the true astronomical position was found to be $31^{\circ} 45'$. Moreover, the map showed the Rio Grande to be situated at $104^{\circ} 39'$ west longitude, while its true position was actually $106^{\circ} 29'$. These errors of half a degree in latitude placed El Paso 40 miles too far north, and the two degrees in longitude moved the Rio Grande over 130 miles to the east. General Conde's position, of course, was that the boundary had to be regulated by the treaty map, regardless of the errors. Bartlett disagreed. After several more weeks

of field work and discussion, both commissioners expressed a willingness to adopt a compromise. To satisfy Conde the "initial point" would be fixed on the west bank at latitude $32^{\circ} 22'$, 48 miles north of El Paso; to please Bartlett, the line running west would adhere to the full three degrees of longitude from the true position of the river.

Bartlett was pleased with the compromise. He felt that Conde would never have agreed to extend the line the allotted three degrees west had he not agreed to the $32^{\circ} 22'$ position. The American Commissioner wrote to the Secretary of Interior, explaining that he had actually gained more territory than he had relinquished. He pointed out that the three degrees west longitude based on the erroneous Disturnell map, gave the United States an additional 137 miles of extended line to the west, while he had given up only 40 miles to the north. Furthermore, he confided that the land below $32^{\circ} 22'$ was of little value, while that land gained by the U.S. would be valuable in copper and perhaps gold and silver. In effect, Bartlett conceded the Mesilla Valley in exchange for the Gila mineral areas. Nothing Bartlett ever did in his entire life was to cause so much trouble and controversy as the Conde Compromise. The "initial point," which he established at latitude $32^{\circ} 22'$, would haunt him until the day he died.

There still remained one problem which threatened to undo the compromise. By the provisions of the treaty, all international transactions were subject to the unanimous approval of both commissions and required the signatures of each commissioner and the surveyors of both governments. But A. B. Gray was still in Washington, detained by illness. The compromise was meaningless until the American surveyor's signature was affixed to it. Therefore, to expedite matters Bartlett appointed Lt. Whipple as Surveyor ad interim, with his subsequent official acts to be binding on Gray. This hasty action only compounded Bartlett's troubles. He knew that treaty surveyors had to be approved by Congress, and he had no real authority to assign the



Andrew B. Gray

office, even temporarily. However, Bartlett felt justified for as he later remarked, "It was then the best season of the year to engage in field work (p. 204).

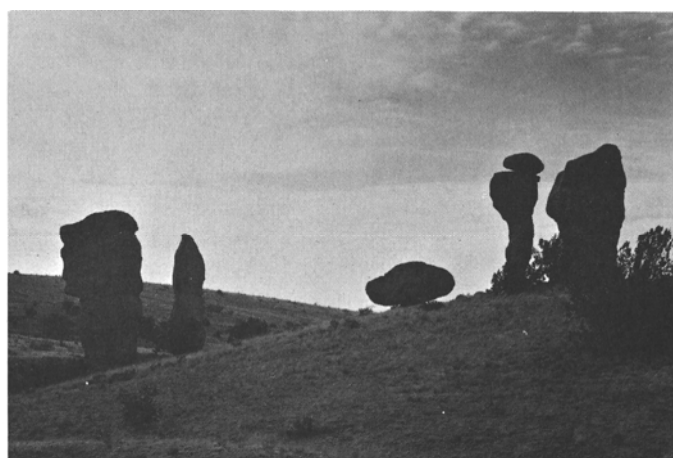
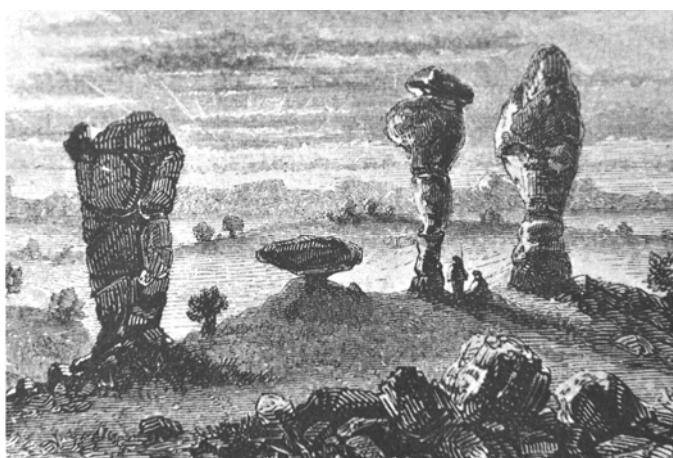
On April 24, 1851, with all of the principals having arrived from El Paso, and Whipple in his new role as U.S. Surveyor, the joint commission held a small ceremony to acknowledge the establishment of the "initial point" of the southern boundary of New Mexico. Across the river from the village of Dona Ana a conical hill marked a conspicuous spot on latitude $32^{\circ} 22'$. Here, a 30 foot rock monument was constructed in which a time capsule of documents was inserted. The ceremony was marked by a few brief words from each commissioner, with some humor manifested over the selection of a sarsaparilla crock as a suitable container for the deposited relics.

With all major problems and questions now seemingly settled and sealed in a sassafras-scented cairn on the banks of the Rio Grande, the commission parties moved out to set up their field headquarters on a preselected site at Santa Rita del Cobre, an abandoned Mexican mining settlement on the southern edge of the Gila Mountains.

At Santa Rita, however, no real work could begin because

Bartlett had overlooked a large supply of valuable survey instruments which had been left in New York. This compelled the joint commission to await the arrival of Gray who was bringing the necessary equipment. To pass the time Bartlett organized an excursion southward into the wilds of Sonora. His only justification for the trip was to study supply routes between the United States and Mexico. On the five-week trip Bartlett's inquisitiveness transformed him into the true geographer. He observed and recorded the plants, animals, and geology of the region he traversed. By evening campfires he relaxed with his brush and pad and recreated the scenes of the day. Traveling to the southwest, the party struck Lt. Phillip St. George Cooke's Mormon wagon road and followed it through the wild and scenic Guadalupe Pass in the southern Peloncillo Mountains. He penetrated as far south as Arizpe on the Rio Sonora before retracing his route to Santa Rita, where he arrived on June 23.

Finally, on July 19, the long-absent surveyor Gray made his appearance at the copper mines. His traveling companion, Lt. Col. Graham, the replacement for the dismissed McClellan, had chosen to rest a couple of weeks in El Paso and didn't show up on the job until August 2. After spending several days going over the proceedings Gray became infuriated, to say the least, at what had transpired in his absence. He was most vehement in denying Whipple's right to act as Surveyor ad interim and Bartlett's authority to make such an appointment. Gray flatly denounced the Bartlett-Conde Compromise, stating that such an arrangement constituted an act whereby Bartlett had set himself up as President and General Conde as the Senate of the United States. He reminded the American Commissioner that the Disturnell map, erroneous or correct, had clearly placed the southern boundary of New Mexico a few miles north of El Paso. Gray contended that longitudes and latitudes should have had nothing to do with the governing of a compromise; that they were just imaginary and un-



May 1, 1851—"Around us stood these singular isolated rocks, some appearing like castles, others like single pedestals and columns. The one resembling a human figure I christened the 'Giant of The Mimbres.'" (Bartlett, Personal Narrative, I, p. 224).

marked lines on the earth's surface. He openly accused Bartlett of impulsively "giving away" to Mexico a choice, and probably the only, corridor for westward expansion of a transcontinental railroad route. Gray proclaimed the "initial point" invalid, refused to endorse the agreement, and advised the immediate suspension of all survey activities. Bartlett, in turn, let fly his anger toward Gray, reminding the surveyor of his subservient position and that all responsibilities and acts, including removal of commission members, were exclusively his right as U.S. Boundary Commissioner. It was now early in August and after three weeks of working together at Santa Rita, the two men had left little room for maneuver.

In the midst of this conflict, Bartlett also became embroiled in a jurisdictional quarrel with Lt. Colonel Graham, the principal astronomer. Graham had sided with Gray against Bartlett, and the Commissioner had taken an immediate dislike to him. Personalities now began to be the primary source of friction. Graham's authority lay in his position as head of the scientific corps of the Commission, which he felt entitled him to complete control and deployment of all survey crews in the field, and the right to sit with the joint commission. Bartlett denied the astronomer this power; Graham demanded that Bartlett call together the entire Commission and publicly announce Graham's title, duties, and responsibilities. Bartlett again refused, and proceeded to torment his subordinate by declining to use Graham's title in the presence of others. This petty act openly down-graded his importance and humiliated the proud and strong-willed soldier. The matter soon approached the ridiculous when Graham refused to issue survey equipment in his charge.

The hot days of August in 1851 must have been agonizing when coupled with all the bickering that was taking place. It is hard to believe that under the circumstances any progress could have been accomplished on the survey, yet despite all the dissension, parties were actually assigned to the field. This was done under protest, however, as all three principals dispatched reports of their sentiments and argu-

ments to the Secretary of the Interior.

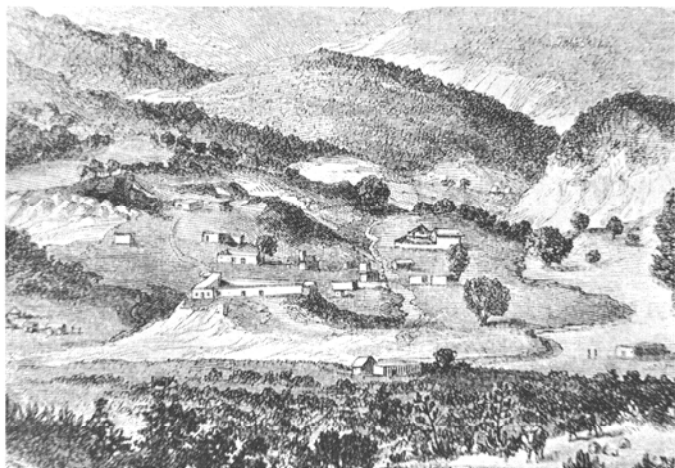
Because of Gray, the survey of the Bartlett-Conde Compromise line was suspended until further word from Washington. The joint commission thereupon decided to concentrate its efforts on the Rio Grande below El Paso, which was assigned to Graham and Ylarregui, and the mouth of

Gila eastward, which was under the direction of Gray and Whipple. Meanwhile, General Conde moved his field headquarters to Santa Cruz in Sonora.

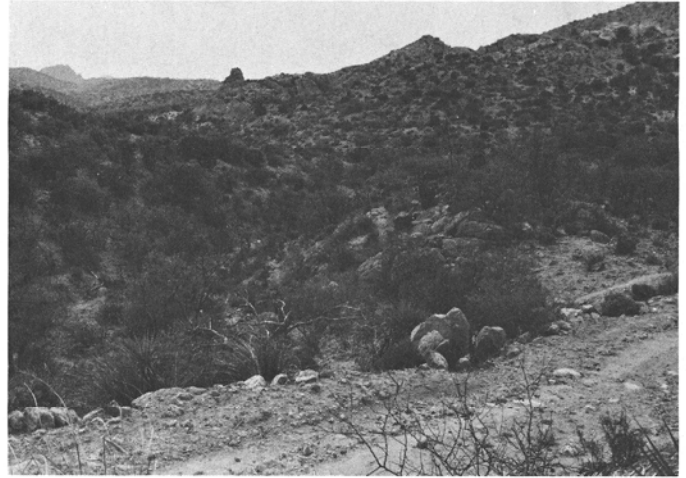
The whole atmosphere of combustibility now lessened as the survey parties went their separate ways. Bartlett, no doubt, was relieved. On August 27, he made arrangements to join Conde and in the process set himself the task of procuring more supplies in Sonora. This would necessitate another excursion into the countryside, to which he was looking forward.

After meeting with Conde on September 6, Bartlett sent word to Gray to continue the survey on the Gila. The Commissioner said he had not been able to obtain the necessary supplies he needed in Santa Cruz and was journeying further south into Sonora. At Ures, on October 13, Bartlett was stricken with typhoid. He became extremely ill, hovering near death on several occasions, but slowly regained his strength and chose to recuperate at the Sonoran capital through November and December. The fever left him weak and despondent, and he became further depressed when he learned that General Conde had been fatally stricken by the same typhoid. The general had been taken ill shortly after Bartlett had visited him in Santa Cruz. When his condition worsened, he was transferred to his home at Krizpe where he died on December 19 (See Appendix).

While Bartlett was holding back death in an adobe hut in Ures, his compromise was approved in Washington. He was not to hear of it, however, until nearly six months later. Secretary of the Interior Stuart in gaining support for Bartlett was highly irritated with Gray's refusal to endorse the "initial point," and was embarrassed by Graham's childish



May 5, 1851—"Santa Rita de Cobre, as the place is called by the Mexicans, was for about forty years an active mining town. The workings were commenced in the year 1804, and providing very profitable, a population of about 600 souls gathered around in the small open space which here exists encircled by lofty mountains." (Bartlett, Personal Narrative, I, p. 227).



August 4, 1852—"We commenced the ascent of Guadalupe Pass immediately after leaving camp. The worst is a chalky hill near the last in the pass. It is exceedingly smooth and steep, with short and very abrupt turns, so as to render it impossible to double a team. A magnificent view of the country is obtained from the summit. On looking back the way we had come, the whole pass with its defiles and mountains, its forests of oaks and pines, its deep gorges and grassy valleys presented a pleasing contrast." (Bartlett, *Personal Narrative*, II, p. 330-31).

conduct. He dismissed them Dorn in an order dated October 31, 1851. In the same directive he named the reliable W. H. Emory to fill both vacancies with specific instructions to sign the official documents and to speed up the prosecution of the survey.

Emory arrived in El Paso on November 25 to assume his combined duties as Surveyor and Chief Astronomer. He found the situation deplorable and he wrote Secretary Stuart that Bartlett was nowhere to be found. Emory was confronted by more than 100 employees on the verge of mutiny because of a shortage in supplies and lack of wages inasmuch as some men had not been paid in over 18 months. The state of affairs in El Paso was one of complete idleness. Emory wrote home,

"O this line Of all the assemblages of folly, ignorance, and hypocrisy I ever saw congregated together under the title of scientific corps, that turned over to me by Col. Graham exceeds. Think of two hundred thousand dollars expended here and nothing to show but this: The determination of one point in latitude, the running of a parallel one degree, and the partial survey of the river 40 miles! This is all. My God what will become of our appropriations if Congress knows of the follies of the Commissioner and his antagonists too" (Hine, 1968, p. 71).

Emory's only hope was in exercising leadership and stimulating activity. He reorganized the survey parties, delegated authority, worked closely with the men, provided encouragement, and gave hope for restitution. He moved the camp out of El Paso to Eagle Pass and vigorously attacked the survey of the central Rio Grande. He reviewed the compromise and concluded that Gray's stand was the correct one, but in accordance with his orders, he signed the appropriate documents in the company of Ylarregui.

By the New Year of 1852, Bartlett was on the move again.

Having fully recovered, he decided that the best way to re-join his men on the Gila would be to get to the west coast of Mexico, seek passage by ship to San Diego, and then go overland to Fort Yuma. He was able to concentrate on his art again, and some of his most charming work was done on the towns through which he now passed—Hermosillo, Mazatlan, Guaymas, and Acapulco.

Gray and Whipple awaited the February 9 docking of Bartlett in San Diego. They had made good progress in surveying the Gila from the tributary of the San Francisco within 60 miles from the junction of the Colorado. They had abandoned their work a month earlier when supplies ran out and to replenish the Gila survey for its summer completion, it was important to clear some Government drafts. For this, a trip north to San Francisco seemed necessary.

Bartlett arrived in San Francisco on February 27 in company with Webb, Thurber, and Whipple. With the negotiations for the Federal drafts out of the way, the foursome struck out on the "tourist trail." They made themselves available as guests of local historical societies, toured installations, sailed the harbors, visited with friends, and gaily tramped the fertile Napa Valley. Bartlett sketched whenever possible. The cool, well-watered, springtime country of northern California was a far cry from the hot adobe confines of Ures. Their grand adventure was highlighted by excursions to the redwood forests, the quicksilver mines near New Almaden, and the geyser country along the Pluton River.

With all the attractions absorbed, they sailed south and after a two-day stopover in Los Angeles, they arrived back in San Diego on April 24. Bartlett's first news was the support of his compromise and the subsequent firing of Gray and Graham. Delighted with these events, he undertook the

complete dismissal of Gray's Gila crew, and handed over the responsibility to Whipple and his party.

May 26 found the western unit of the U.S. Boundary Commission headed toward Fort Yuma. After nine months of absenteeism, Bartlett was back on the job. Their route lay to the northeast in a swing around the Cajon Range. They passed the site of Kearny's San Pasqual victory in 1846, and paused for repairs at the Santa Isabel Indian Mission. Completing their gentle arc to the southeast they found they had to chisel their way through the rugged canyons of the Vallecitos. At Sackett's Well, as they made their exit along the eastern front of the mountains, occurred one of the saddest incidents of the expedition. Colonel Craig, the popular escort officer, while trying to persuade two Fort Yuma deserters to surrender, was shot and killed. Bartlett had hoped to carry the body to Fort Yuma for a military burial, but the intense heat and the four-day trip made it impossible. Instead, the deceased was given a desert funeral at the next camp at Alamo Mucho.

While Whipple completed the remaining 60 miles of survey east of Fort Yuma, Bartlett visited the local Pima and Maricopa Indian tribes. Of the latter, he remarked: "In physique the women were finely formed. The erect posture required for carrying jars on the head tends greatly to develop the chest and beautify the form. The men, however, are lean and lank." (p. 224) . Before turning south for Tucson he inspected the Casa Grande ruins. His three-hour investigation was frustrating, as the midsummer sun registered 119°. Bartlett made detailed studies and measurements of the architecture. His drawings were the first attempts at documenting this important archaeological site. The party arrived in Tucson on July 16 and after minor wagon repairs, they pushed on south along the picturesque Santa Cruz Valley to Tubac and beyond to Tumacacori

Author's Note: Sackett's Well is located two miles north of Plaster City, California. Alamo Mucho was a favorite campsite near present day Holtville, California. Fort Craig, south of Socorro, New Mexico, was named for the gallant officer. where Father Kino's cathedral of

conversion stood in desolation. On August 3 and 4 they found themselves in the familiar confines of Guadalupe Pass for the second time, but instead of turning northward to Santa Rita, they turned to the southeast on an old trade route that led to Janos and the Casas Grandes of Chihuahua. Bartlett had heard of the ruins while in El Paso, and being this close he was determined to visit them. He was fascinated by the extent of the rubble and as he delved into the mysteries of the heaps, his expedition journal ceased to be a journal, and became instead a detailed scientific essay on southwestern archaeology. Though more recent investigations have proved him mistaken on some interpretations, the greater part of his deductions were remarkably accurate. His account stands as the most complete of the earlier descriptions of the ruins.

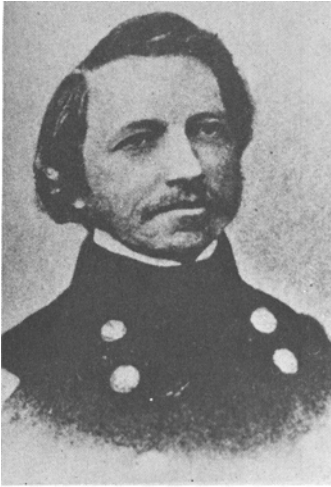
Bartlett took reluctant leave of Casas Grande on August 10 and headed for El Paso. En route east he crossed the Rio Santa Maria, trudged through the dreaded Los Medanos (the sand hills) and refreshed himself at the life-saving spring at Samalayuca. Turning north, he found more barren stretches, and on August 17, 1852, Bartlett's frontier cavalcade entered the pass city, nearly one year to the day after he had set out from Santa Rita to pay his respects to General Conde at Santa Cruz.

Bartlett laid over in El Paso for seven weeks. He was anxious to join Emory, some 400 miles downstream, but one item needed to be completed—the survey of the unfinished portion of 32° 22' from near the copper mines west to the Gila. He could not head south without making his position as strong as possible for maintaining the compromise.

The business of the Commission became somewhat strained during this interim period when rumors began circulating that Washington Democrats were dissatisfied with the Conde Compromise. Labels of incompetency began to fall on Bartlett and it became increasingly difficult to cash Federal drafts in El Paso for supplies. These minor rumblings didn't seem to disturb the Commissioner to any great degree, but he was becoming restless. There were still



August 7, 1852—"It is so rare an event for trains or travelers to enter Janos from the west, that our approach created quite a sensation among its quiet people. We stopped in the main street as we passed along, and were at once accosted by some Americans, who advised us to encamp near the river on the opposite side of town; which we did, and found good grass near." (Bartlett, Personal Narrative, II, p. 339).



Amid W. Whipple

places to see and things to do before leaving New Mexico. He had heard of a recently developed silver mine in the Organ Mountains east of Las Cruces and thought it worthy of scientific investigation for his journal. Other reasons were advanced for the trip, including the need to check on military escort priorities and to pay his respects to the commander of a newly constructed fort in the area called Fillmore.

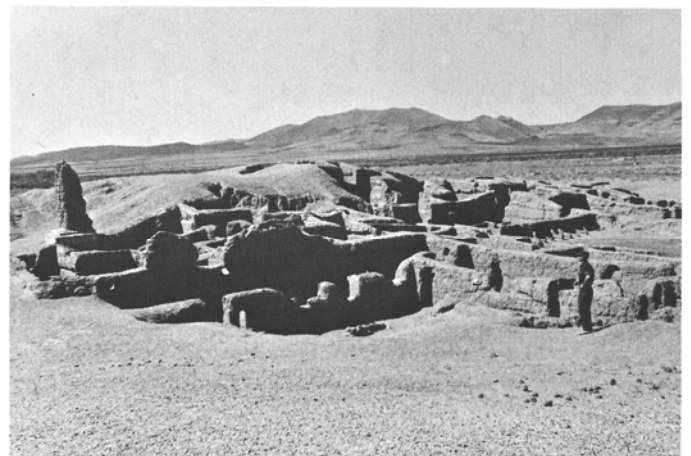
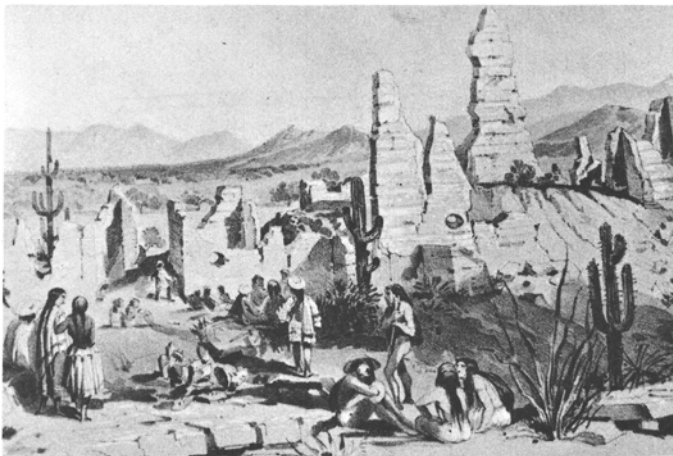
Back in El Paso on October 8, Bartlett attended a farewell party hosted by Magoffin—a cold collation with wine. The next day, from their staging area at San Elizario, the survey party crossed the river and began their last excursion south to rejoin Emory. The most direct route would have been a retracing of the San Antonio road which Bartlett had followed two years earlier, but to take a direct line would have been out of character for the Commissioner. His idea of the shortest distance between two points always seemed to turn out somewhat circuitous. There was no reason to change now; besides there was still a part of northeastern

Chihuahua and the states of Durango, Coahuila and Nuevo Leon which he had not seen. His excuse for the Mexico swing was to avoid the bleak and barren plains east of the Rio Grande where Indian raids were reportedly on the increase. Ten days out, however, this justification was shattered when the party was attacked by screaming Apaches just south of the Rio Carmen. The charging horsemen hit the caravan at mid-flank, splitting it for a time. The melee was confusing but short-lived, resulting in more yelling, running around, and aimless firing than anything else. The teamsters were credited with curbing the panic by holding their mules from a stampede, while returning the fire at the same time. Two men, one Mexican herdsman and an Indian, died in the brazen attack.

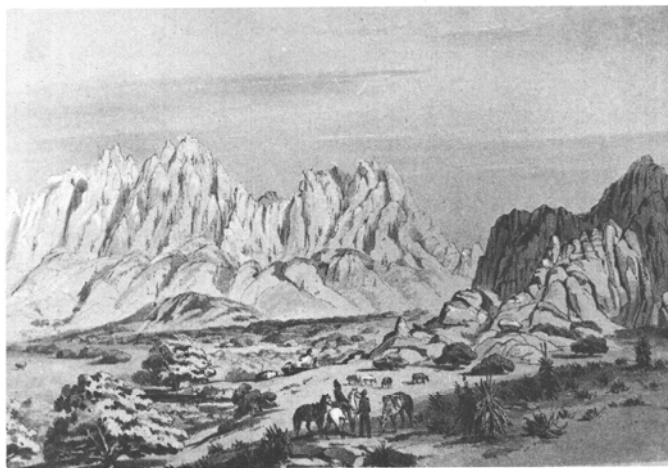
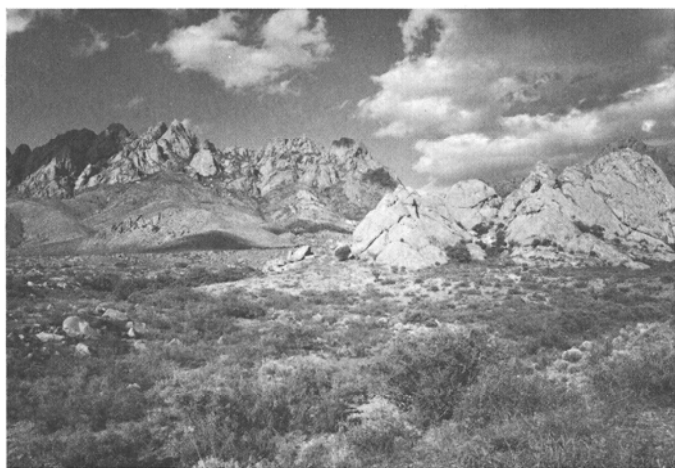
Bartlett arrived in Chihuahua City on October 22. He remarked on its broad clean streets and handsome well-built homes, adding that,

"the approach presented a beautiful appearance, surrounded on three sides by picturesque mountains with bold rocky sides. The city lies in a basin formed by these mountains, and is encompassed with fine large cottonwoods, from which the towers and dome of its cathedral, and the spires of the lesser churches stand out in bold relief against the adjacent hills. To the right and left along the stream which waters it lie many large haciendas deeply buried in groves of luxuriant trees, presenting altogether the most charming landscape we had yet seen in Mexico" (p. 421-22).

Bartlett enjoyed his stay in Chihuahua City. Being inclined toward the manners and attributes of the wealthy, he found among its citizens women and men of riches, caste, and true Castilian blood. General Angel Trias, prominent past Governor of Chihuahua, honored Bartlett and his group by hosting a lavish dinner-ball. It was a gay evening



August 9, 1852—"The ruins of Casas Grandes, or Great Houses, face the cardinal points, and consist of fallen and erect walls, the latter varying in height from five to thirty feet, and often projecting above the heaps of others which have fallen or crumbled away. From a close examination of the building, or buildings, I came to the conclusion that the outer portions were the lowest, and not above one story in height, while the central ones were from three to six stories." (Bartlett, Personal Narrative, II, p. 350).



September 30, 1852—"The Sierra de los Organos, or Organ Mountains, are so named from their pinnacled summits and sides, which resemble the pipes of an organ. They are a light gray granite, and rise to a height of 3,000 feet above the river. The range runs north and south, and joins the El Paso Mountains, not too far from the town of the same name. From the place where we halted and lunched, I took a sketch of these mountains and of the defile through which I had passed." (Bartlett, *Personal Narrative*, II, p. 334).

for all. Patriotic toasts were drunk while musicians alternated interminably between waltzes and polkas without showing the slightest fatigue. The Mexican women in attendance added elegance, beauty, and natural grace to the affair. One of the customs of the ladies, however, seemed to dampen Bartlett's enthusiasm, when, between dances, the Chihuahua belles lit their cigarritos.

Bartlett left Chihuahua City on November 1. He proceeded southeasterly to the Rio Conchos, which he followed into the state of Durango, then turned due east to Parras and Saltillo, the capital of Coahuila. Six miles west of Saltillo they paused in their march to visit the battleground of Buena Vista, where General Zachary Taylor defeated Santa Ana in the historic confrontation of February 22-23, 1847. The members of the party strolled the battle lines and collected relics of grape shot, gun flints, and fragments of locks and caps. On the road east to Monterrey the Commissioner received word of the election of Franklin Pierce, a Democrat. The rules of politics being what they were, Bartlett, a Whig appointee, knew that this would probably bring to an end his duties as U.S. Boundary Commissioner.

A marked change could now be observed in Bartlett. After two years of field work, travel, frustration, toil, and discovery, the curiosity and enthusiasm of the Commissioner seemed to dim. His heart was gone from his work. He kept quietly to himself, politely refusing any exploratory side trips through the villages they passed. His journal lost its detail. His sketches and paintings became almost nil. He was tired—tired of mud towns in a desert inferno, tired of the personal vendettas, tired of the hundreds of miles spent on the backs of mules and on the seats of jarring wagons. He was ready to go home; the wanderlust was over.

On December 20, 1852, John Russell Bartlett crossed the Rio Grande for the last time. Christmas was spent at Ringgold Barracks, 135 miles upstream from the river's mouth.

Nowhere in his journal is there any mention or suggestion of

holiday jollity. In acquainting himself with Emory and the work that had been done, it soon became apparent that he was on the same hapless terms with him as he had been earlier with McClellan and Graham. Emory protested Bartlett's every move and it was clear that another personality explosion was at hand. This problem was quickly resolved though, when dispatches from Washington informed Bartlett that appropriations for continuance of the survey could not be expended until the Conde Compromise had been renounced and the international boundary established no farther north than eight miles above El Paso. The restriction of funds was the final blow and left Bartlett no other choice than to disband the Commission and retire from the field. Early in January of 1853 he sailed home from Corpus Christi. The survey had come to a halt—aborted in turmoil.

Bartlett returned to Rhode Island by way of the Mississippi and Ohio rivers as far as Cincinnati, then overland by rail to his native Providence where his wife Eliza and his children waited. He no doubt was happy to be home, but a hostile political atmosphere greeted him. Tirades against him began appearing in New York and Washington papers. Public statements from McClellan and Gray had inflamed opinions against him. He was rapidly becoming a discredited man. In early February, a Senate floor fight erupted over the Conde Compromise and the actual ownership of the 6,000 square miles of territory south of latitude 32° 22' that became known as the "Mesilla Strip." To bring the debate into sharper focus a special Senate Committee was appointed to investigate the Mexican boundary situation and the accusations against Bartlett. The staunch New Englander never lagged in rising to his own defense, and boldly presented himself to the interrogation.

The emotional atmosphere of the hearings was intense.

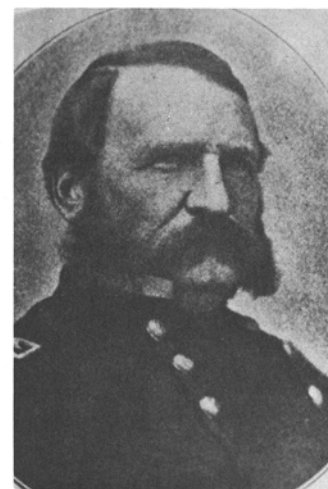
John Weller, the first Commissioner and now Senator from California, was named to head the investigation. Weller, being one of the more severe critics of the activities of the survey, hit hard with charges of mismanagement of government money, mishandling of supplies, incompetence, and insufficient attention to duty as evidenced by the unauthorized excursions to Acapulco and San Francisco. Bartlett's rebuttals and explanations were sufficient, but he could not erase the real underlying issue—that a New England Whig had inexcusably given away a stretch of land roughly 40 by 175 miles; larger than the state of Massachusetts. On this point Bartlett could only answer that he had acted honestly and in good faith but in the midst of charges and countercharges, Bartlett lost. He was dismissed with instructions to turn over all his records to his successor, a retired South Carolina militiaman named Robert Blair Campbell.

After the removal of Bartlett, Congress voted to rescind the appropriation restriction of the funds needed to complete the lower Rio Grande part of the boundary from Laredo to the Gulf. Emory was again named Chief Surveyor and Astronomer in the Campbell organization. A new party returned to the Rio Grande in May of 1853, and with Emory directing the field work and Campbell signing the papers, the job was completed efficiently and rapidly.

In the meantime, President Pierce moved to correct the Conde Compromise by naming James Gadsden, a railroad magnate from South Carolina, as Minister to Mexico. Gadsden's principal duties were to negotiate a land purchase that would resolve the boundary dispute over the "Mesilla Strip," and at the same time provide the United States with a transcontinental rail route to the Pacific.

Gadsden arrived in Mexico City on August 4 and conferred with President Santa Ana and Manuel Diaz de Bonilla, the Mexican Minister of Foreign Relations. Gadsden offered four plans of purchase: (1) \$50,000,000 for the northern parts of Coahuila, Chihuahua, Sonora, and Baja California; (2) \$35,000,000 for the same territory excluding Baja California; (3) \$30,000,000 for territory north of latitude $31^{\circ} 47'$ including Baja California; and (4) \$20,000,000 for the same territory excluding Baja California. The United States' objective, of course, was to gain a port site on the Gulf of California. Mexico rejected all four offers. A disappointed Gadsden then offered a \$10,000,000 alternate which was accepted—to wit: a commencement in the middle of the Rio Grande at $31^{\circ} 47'$ north latitude, to run due west for one hundred miles to longitude $108^{\circ} 13'$, turn due south for 31.5 miles to $31^{\circ} 20'$ north latitude, proceed due west to the point where it intersects longitude 111° , thence in a straight line to a point in the middle of the Colorado River 28 miles below its junction with the Gila River, thence up the middle of the Colorado to said junction. There was no dispute with the line that Weller had run west to the coast; thus the international boundary was set.

The strange modification in the boundary line at longitude $108^{\circ} 13'$ which dropped the line 31.5 miles south, was drawn purposely by Senator James Murray Mason of Vir-



William H. Emory

ginia to insure the inclusion of Cooke's wagon Road through Guadalupe Pass. Senator Mason, a strong expansionist who headed the Senate Foreign Relations Committee, emphasized to Gadsden the necessity of securing this vital pathway, then the only major overland route to California.

Another oddity in the boundary line occurred west of longitude 111° where an oblique tangent was run to strike the Colorado River 28 miles below the Gila confluence. This alignment, which now constitutes the southern border of Arizona, was insisted upon by Mexico to insure a land bridge connecting Baja California with Sonora and the mainland. The United States lost its fight for a port site on the Gulf of California, but gained its rail route across southern New Mexico and Arizona.

When the Gadsden Purchase Treaty was ratified on April 25, 1854, the Bartlett-Conde Compromise became a dead letter. The treaty finally brought an end to the diplomatic tensions between the two countries, but the boundary still had to be surveyed. Since all political questions were now removed, Congress felt there was no need for a civilian figurehead, and subsequently Emory assumed the position of U.S. Commissioner as well as Chief Surveyor. Jose Salazar Ylarregui continued as head of the Mexican Commission, a position he had assumed at Conde's death. He and Emory worked smoothly together and the running and marking of the Gadsden line was completed on October 15, 1855.

It took Major Emory two years to prepare the full report on the Gadsden survey under his direction. His finalized three-volume report contains one of the most complete and detailed works of geodetic assignments ever compiled. He was promoted to Lt. Colonel for his efforts and his attention to duty, as evidenced by the exhaustive report, permanently established his reputation.

In direct contrast, a Senate Publications Committee pigeonholed Bartlett's journal of his accomplishments in the Southwest, and unlike the reports of Emory, Graham, and Gray, it was not printed as a government document. Instead, Bartlett had it published by D. Appleton & Company, a commercial firm, in 1854. The publication, which

bore the lengthy title: "PERSONAL NARRATIVE OF EXPLORATIONS AND INCIDENTS IN TEXAS, NEW MEXICO, CALIFORNIA, SONORA, AND CHIHUAHUA, CONNECTED WITH THE UNITED STATES AND MEXICAN BOUNDARY COMMISSION DURING THE YEARS 1850, 1851, 1852, AND 1853," marked a high point in southwestern literature. In general content it was considerably more successful and popular than any of the other reports. It included prints of Bartlett's landscape oils, water-color scenes, and lap-sketches. The text was exciting, clear and fast-moving. His geographic descriptions were vivid and communicated a sense of beauty and wonderment. The narratives were readable, reliable, and factual, and he inserted profiles of the leading individuals of the region. All of these personal features were lacking in the other reports.

Of all the characters involved in the seven-year struggle to survey the Mexican boundary, John Russell Bartlett endured more than any other man, yet he is rarely mentioned in history books. This distinction fell to William Hemsley Emory. Unquestioned, however, is the fact that at one crucial moment in Bartlett's life, his three years as U.S. Boundary Commissioner, he was unable to cope with the nuances of human relations in a strange land. He was unable to organize and direct men under his command; thus he was a failure as a commissioner. By conservative estimates, he mismanaged close to half a million dollars in the two and one half years he spent in the Southwest, not to mention the ten-million-dollar Gadsden Purchase to cover his greatest blunder. However, time has added to the worth of the man. In return, the country received the PERSONAL NARRATIVE, undoubtedly one of the most expensive guidebooks ever written. The two-volume work has been the source of so many footnotes and references that its value to scientists and historians has become almost classic. In addition, Bartlett's artistic skills won him recognition as one of the best of early American interpreters. He was particularly adept at conveying a sense of tranquility and depicting a scene realistically. After a hundred years, in locating some of the sites of his landscapes, it is amazing to see the exactness of his renderings. Furthermore, his sketch pad served as the first visual aid to introducing the beauties of the little-known Southwest during an important period in American history.

Bartlett's dashing venture into the troubled waters of national politics did not tarnish his reputation in his home state. In 1855 he was elected Secretary of State of Rhode Island, a position to which he was annually re-elected for seventeen years. In 1873 he undertook the assignment of bibliographer for the John Carter Brown Collection of Americana. During the same period he edited and published the ten-volume *Records of The Colony and State of Rhode Island, 1636-1792*. In 1880 he published the *Naval History of Rhode Island*. At the time of his death on May 28, 1886, he was eulogized as a "scholar and a gentleman," a true and just epitaph.

Bartlett's failure should not be borne by him entirely, for it was really a failure of a political system which made it possible for him to involve himself. Although the bound-

ary controversy did not teach any lessons or impart any wisdom, it did lead to the purchase of an extremely valuable strip of territory that has more than paid for itself in subsequent mineral and agricultural resources. Despite the comedy of errors, chaos, and misunderstanding, the Southwest must therefore be grateful.

APPENDIX

Pedro Garcia Conde was born in Arizpe, Sonora, on February 8, 1806. At an early age he was admitted as a cadet at Cerro Gordo Academy (Durango) from which he was graduated with honors in 1821. In 1822 he moved with his family to Mexico City. There he enrolled in the College of Mines. He dedicated himself to the study of science. He excelled at mathematics, chemistry, mineralogy, astronomy, engineering, and architecture. He also maintained his studies in tactics and fortifications at the National Military Academy. Upon graduation in 1828 he was promoted to the rank of Captain of Engineers and transferred to Chihuahua City to head the Department of Statistics. He returned to Mexico City in 1834 as a lieutenant colonel to take a position as geometrician at the Institute of Geography. On June 30, 1838, he was promoted to full Colonel and named director of the National Military Academy. During his leadership at the Academy (1838-1844) he instituted education reforms which enhanced the school's reputation. He introduced descriptive geology, applied mechanics, geodesy, and advanced engineering. In 1844 he was raised to the rank of General and named a Deputy Counselor to the State of Sonora. When the Mexican War broke out, he was rushed to the defense of Chihuahua City where he commanded in the Battle of Sacramento on February 28, 1847. After the Treaty of Guadalupe Hidalgo, he retired from military life. In 1848 he was elected Senator and joined the national government in Queretaro. From this position, he was named to the Commissionership of the Boundary Survey.

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- Reproduction of Bartlett Photographs, Courtesy: Rio Grande Press, Glorieta, New Mexico.
- Editor's Note: Quotations by Bartlett are from the 1965 reprinting of the *Personal Narrative* by Rio Grande Press.