

New Mexico Geological Society

Downloaded from: <https://nmgs.nmt.edu/publications/guidebooks/5>



Adventures and exploits of Pecos Pioneers

Maurice G. Fulton

1954, pp. 170-184. <https://doi.org/10.56577/FFC-5.170>

in:

Southeastern New Mexico, Stipp, T. F.; [ed.], New Mexico Geological Society 5th Annual Fall Field Conference Guidebook, 209 p. <https://doi.org/10.56577/FFC-5>

This is one of many related papers that were included in the 1954 NMGS Fall Field Conference Guidebook.

Annual NMGS Fall Field Conference Guidebooks

Every fall since 1950, the New Mexico Geological Society (NMGS) has held an annual [Fall Field Conference](#) that explores some region of New Mexico (or surrounding states). Always well attended, these conferences provide a guidebook to participants. Besides detailed road logs, the guidebooks contain many well written, edited, and peer-reviewed geoscience papers. These books have set the national standard for geologic guidebooks and are an essential geologic reference for anyone working in or around New Mexico.

Free Downloads

NMGS has decided to make peer-reviewed papers from our Fall Field Conference guidebooks available for free download. This is in keeping with our mission of promoting interest, research, and cooperation regarding geology in New Mexico. However, guidebook sales represent a significant proportion of our operating budget. Therefore, only *research papers* are available for download. *Road logs*, *mini-papers*, and other selected content are available only in print for recent guidebooks.

Copyright Information

Publications of the New Mexico Geological Society, printed and electronic, are protected by the copyright laws of the United States. No material from the NMGS website, or printed and electronic publications, may be reprinted or redistributed without NMGS permission. Contact us for permission to reprint portions of any of our publications.

One printed copy of any materials from the NMGS website or our print and electronic publications may be made for individual use without our permission. Teachers and students may make unlimited copies for educational use. Any other use of these materials requires explicit permission.

This page is intentionally left blank to maintain order of facing pages.

8. TALMAGE, S.B. and WOOTTON, T.P.
The non-metallic mineral resources of New Mexico and their economic features. N. Mex. Bur. Mines and Min. Res., Bull. 12, 1937.
9. UNITED STATES BUREAU OF MINES.
Minerals Yearbook, 1950.
10. WELLS, E.H. and WOOTTON, T.P.
Gold mining and gold deposits in New Mexico (revised). N. Mex. Bur. Mines and Min. Res., Circular No. 5, 1940.

ADVENTURES AND EXPLOITS OF PECOS PIONEERS

by
Maurice G. Fulton
Research Specialist, Chaves County
Historical Society

Various tribes of Indians, chiefly Apaches and Comanches, held undisturbed possession of southern New Mexico from time immemorial. The sixteenth century Spanish explorers showed little interest in the land along the Pecos hemmed in by the dreaded Staked Plains on the east, and on the west by mountains, the sections of which were named White, Sacramento, Hueco, and Guadalupe. Coronado's party crossed and re-crossed the Pecos in their search for fabulous Quivira. Some forty years later the colonizer, Espejo, made a return journey to the province of New Biskay by descending the Pecos some 150 leagues until he reached the Rio Grande near its junction with the Conchos. Progressing at the leisurely rate of 15 miles a day from 5th of July to 15th of August, his party gathered a few details about the tributary streams and the general aspect of the country. The Indians luckily were friendly, but exceedingly plentiful at places. The Spaniards diverging up one of the larger affluents (probably the Hondo) found it practically one continuous settlement of Indians for several miles.

The seventeenth and eighteenth centuries are practically blank so far as the Pecos country is concerned. It continued to be a haunt of wandering tribes. Mexican buffalo hunters and traders with the Comanches beat a roadway from the northern settlements in New Mexico out into the Staked Plains and across them into San Antonio. When the Americans appeared sporadically in the 19th century, they also ignored the Pecos country.

The record shows but one expedition in search of buffalo or beaver. In 1832 a party of about 80, comprising both Mexicans and Americans assembled at Taos and started for the plains and water courses of Texas. They went down the Pecos to Anton Chico and Bosque Redondo (Ft. Sumner), but became so torn by dissension that the expedition was wrecked. A segment however, survived in which was the redoubtable mountain man, Bill Williams. This smaller party went eastward by Portales and Lubbock (to use the modern names) and on across Texas. Some of them persisted until they reached Ft. Smith, almost three months from the date of setting out. One of this group, Albert Pike, a young man from Massachusetts, estimated that they had traveled 1,400 miles, 650 miles of which were accomplished by walking.

No sooner did the United States acquire this vast tract we know as the Spanish Southwest than it commenced an extensive program for qualifying it for American settlement. Army officers and engineers busily explored for better or shorter routes or eligible sites for military posts, as well to impress the Indians with the power of the federal government. The outcome was material additions to knowledge about portions of the country - hitherto a varitable terra-incognito. Mountain canyons, desert lands, rivers, and minor water-courses, practicable and impracticable, were accurately mapped and described in voluminous reports.

In 1849, shortly after the conclusion of the Mexican War, government attention was given to southern New Mexico. One of the accepted routes to California was via Santa Fe, and then turning down the Rio Grande some 150 miles, to proceed through Arizona by a much used Spanish trail. Captain Randolph B. Marcy who was well fitted by experience in explorations in Texas and Utah Territory was appointed leader of the expedition. In carrying out this assignment, Captain Marcy was directed not only to "ascertain and establish the best route from Ft. Smith to New Mexico and California," but also to find if possible a cut-off that might reduce the journey, especially "from some point on the Del Norte about 180 or 200 miles below Santa Fe". After a month's rest in Santa Fe, Marcy decided to attempt an alternate route for the return. When he sought the services of a special guide familiar with the country infested with Apaches and other hostile tribes, he found but few Mexicans who knew anything about the country and they declined to serve as guides and return home alone through the Indian country. Finally he found at San Miguel the old Comanche named Manuel, "Who was born and raised directly in the country over which we

desired to pass and was perfectly familiar with almost every stream and water hole upon the prairies”.

The starting point was Dona Ana, the county seat of the county with the same name. As this will serve as a typical village of the Mexicans in the Rio Grande Valley, its description is worth giving: “On the 29th of August, 1849, we reached Dona Ana, a town upon the east bank of the Rio Grande, sixty miles above El Paso, of 300 inhabitants, principally Mexicans, who raise corn, wheat, onions, beans, and grapes, and depend for subsistence almost entirely upon cultivation of the soil. They are obliged here, as in all places in New Mexico, to irrigate, as without this the soil would produce nothing. The only available land is therefore in the valley, where water can be carried in canals or ditches from the river.

“This is a new town, settled by men from El Paso some 10 years since, and until it was garrisoned by a part of a company of U. S. troops, was frequently visited by those brigands of the mountains, “the Apaches”, who were in the habit of coming down from their mountain retreats, stampeding and driving off cattle and horses, and before the Mexicans were aware of their proximity, were out of reach again in the mountains.

These Indians are perfectly lawless, savage, and brave, and having been allowed to roam the country at will and commit depredations upon the Mexicans for so long a time, it will require a very severe lesson to teach them we are masters in New Mexico. Being a numerous tribe, and commanded as they are by an ambitious chieftain by the name of Gomez, who has received a Spanish education in Mexico, and being mainly dependent upon plunder for a subsistence, I am of the opinion that they are destined to give us much annoyance and trouble before they are subdued.

The expedition that moved out from this forlorn village was impressive. The military escort consisted of three lieutenants and 75 non-coms and privates. The wagon train consisted of 18 wagons, a six-pounder cannon, and a traveling forge, each drawn by six mules. Since the program called for a reconnaissance to determine the feasibility of a road for wagons, there was no array of experts capable of special studies. The equipment was simple, only a viameter and compass, by which to determine the distances and courses.

The Organ mountains were crossed via the San Augustin pass, and camp the first night was at the spring at the base of the range. The next days progress carried the party to the Soledad Spring.

The Sacramento mountains are in sight tonight, and the two ranges “Organ” and “Sacramento” run nearly parallel from north to south and from 30 to 40 miles apart. The intervening valley is flat and sandy, and has no water upon it. As we had to cross this valley, we provided ourselves with a supply of water for the use of the men, and on the morning of the 3rd of September left camp, and following the Salt road for about 4 miles, struck in a direct line for the “Waco Mountains”, which can be seen from our last camp, and where we were told by the guide we should find water. As the road was somewhat sandy and we had to make a new track, our progress was necessarily slow. After traveling 18 miles we halted at 6:00 o'clock in the evening, giving the men time to sleep and the animals to graze and rest when we were again in motion and reached the Waco mountains at 2:00 P. M. on the 4th of September, making the entire distance from the Soledad Spring to this place 37 1/10 miles. We found a great abundance of good water in an immense tank up a ravine in the South Mountain. This is a huge deep basin, scooped out of the solid rock with great symmetry and regularity, and of sufficient capacity to contain several hundred gallons of water. We also found sufficient water for our animals in the ravine. The road passes between the two mountains, which approach within a few rods of each other, leaving a level pass bordered by immense ledges of rocks, standing out in bold relief directly over the road. The rocks composing the mountains are large masses of dark gray sandstone, thrown up in the utmost disorder and confusion and having numerous holes and caverns, which have often served the Apache as hiding places.

We remained at this place, on the 5th and on the morning of the 6th, having made an early start, crossed a plain in an easterly direction toward the south base of the “Cierro Alto” which is about 1,500 feet high and can be seen for many miles around. Here we entered a canyon, which brought us by a very easy and gradual slope, of about three miles, to a high level mesa or plain. From this point we could see the Sierra del Alamo, in a direction north 75° east, and to this our road led us over a firm prairie a distance of 22 1/4 miles. The Sierra del Alamo is a mountain of gray sandstone, mixed with flint rock, about 1,000 feet high, and stands out alone upon the flat prairie. On the north side, about 300 yards from the road, is a spring near three cotton wood trees, with an Indian trail leading to it. The spot cannot be mistaken, as there are no cotton wood trees

anywhere else in the vicinity.

Our road today, with the exception of one place in the canyon, was capital, passing over a prairie perfectly hard and smooth. Along the whole course of the journey from Dona Ana here, there has been a most luxuriant growth of grama grass of several different kinds, and we found sufficient fuel for camping purposes at all places.

We passed around the north base of "Cierra" (the morning of the 7th of September), when we came in sight of the rugged top of the Cornudas" in a direction North 72° E.; from here our road was over the gravelly mesa, and perfectly good for 8 3/4 miles, which brought us to the "Cornudas" . . . This is another of those immense piles of rocks, which, rising up almost perpendicularly to the height of 500 feet out of the level gravelly plain and utterly denuded of vegetation, presents a most strange and picturesque appearance, very different from any scenery we meet with in the settled parts of the United States. Upon the east end of the "Cornudas" there is an arched entrance into a large cavern which is lighted from above, and in this we found a well fifteen feet deep, filled to the top with beautifully pure water; besides this we found water sufficient for our animals in tanks on the west side of the hill.

Our guide informed us that this is a favorite place of resort for the Apaches, who come here when the traveller is seen approaching, hide themselves in the caverns of the mountains, and rob them of their horses, and cautioned us to be upon our guard on our arrival, as they might be in the midst of our animals before aware of their presence; we have however seen none of them.

The geologic formation of this mountain is different from any we have cased before, being a coarse granite or dark gneiss with a small proportion of feldspar, and the mica predominating. All the other rocks we have seen before between this place and the mountains at Santa Fe have been secondary.

Our road today (September 8) led us around the east end of the Cornudas to the north end where we turned almost due east and traveled towards the southern peak of a high range of mountains called the "Sierra Guadalupe". For the first five miles we passed directly at the foot of a low range of hills running northeast and southwest, after leaving

which we struck out upon the high prairie and found the road most excellent the entire distance to the Ojo del Cuerdo or Crow Spring. The spring is upon the open plain, and contains a large supply of water at all seasons; and although it is sulphurous, yet animals are very fond of it, and we found it to answer, in the absence of better, for drinking and cooking.

Our course on the morning of the 9th after leaving the Ojo del Cuerdo was north 49° east, bearing directly for the point of the Guadalupe, until we arrived nearly opposite to it on the west side; we then continued past it, gradually turning to the left around the hills at the base, until we reached a rocky ravine which led directly up to the foot of the towering cliff of the peak. We encamped near the head of the ravine, where there is a spring about 200 yards north of the road, and good grass. Animals must be driven up the ravine to the water, as the wagons cannot pass further than the turn of the road. We had a good road today with the exception of four miles of sand and made 23 1/20 miles.

The Guadalupe range of mountains terminates at this place in an immense perpendicular bluff of light-colored sandstone, which rises to the enormous height of nearly 2,000 feet, and runs off towards the northeast towards the Pecos. On the south of the peak there is a range of bluffs about 200 feet high, running from north to south across our course, and over which we have to pass. At about 10 or 12 miles south of herethis bluff appears to terminate, but as we can pass up without difficulty at this place, we shall not go out of our course to avoid it. We remained in camp today (September 19) until about 3:00 P.M., when getting our wagon train up the hill we found ourselves upon a very high rolling table land, which our guide says descends from here to the Pecos river. As we have been continually ascending from the Rio Grande to this point, we are therefore now upon the summit level of the two streams. As it rained most of the afternoon, we made only a short march of 4 miles, passing in a northeast direction around under the mountains and encamped in a ravine which runs down through a large grove of pine timber from a gap in the Guadalupe mountains, there is a fine spring 300 yards to the west of the road, which affords an abundant supply of water. The mountains are covered on the eastern side with groves of large pine trees; and as this is the only

kind of timber fit for building in the country, it may some day be useful. We have also a species of cedar with the bark resembling that of the oak, and very different from any we have ever seen before.

There are many varieties of the cactus and palmettos about the mountain, which constitutes almost the only vegetable food the Apaches and southern Comanches get for a great portion of the year. They prepare it by boiling until it is soft, then mash it into a paste, and I am told that in this form it makes a very palatable nutritious food.

The Guadalupe is the last of the mountains between the Rio Grande and the Pecos. It appears there are three distinct ranges traversing the country east of El Paso in a north and south direction; the first the Organs range, 20 miles east of the Rio Grande; thirty miles from this the Sacramento, the continuation of which, about fifty miles north of Dona Ana, is called the "Sierra Blanco" and has perpetual snow upon its summit; from thence it extends on to near Santa Fe. The third is the range of the Guadalupe, fifty miles east of the second.

As our animals were somewhat jaded from the long marches we have made, and as we had a long journey before us, I remained in our camp of last night until after dinner on the 11th to give them rest, when we moved forward over a good road to Independence Spring, 5 miles.

Here we found two large springs of pure cold water, which boiled up from the ground and run off in a stream about the size of a barrel, with a great supply of oak wood and grama grass near, rendering it a most desirable place for encamping. The country from the base of the mountains to this place is rolling, and the soil good.

As it rained nearly all day today, the 12th of September, we did not move.

On the 13th we started forward again, and traveled over a hard rolling prairie, passing many round symmetrical mounds on each side of the road, until we reached the Ojo San Martin at the head of the Delaware creek, the distance traveled being $15 \frac{3}{10}$ miles.

We saw a fresh Apache trail crossing our road today, and as they are probably hovering about for no good purpose. I shall see that our animals are guarded with great care. Our custom has been to

herd them during the day in the immediate vicinity of the camp; at night the mules are driven into a "corral" formed with the wagons arranged in a circle, and the horses picketed together near the tents of the men, with sentinels walking among them continually. In this way I think we shall baffle Messieurs "Los Apaches", notwithstanding they have the reputation of being the most expert and boldest horse thieves in the West. They have often had the impertinence to enter the Mexican towns in open daylight, drive off animals, and take women and children prisoners, before the faces of soldiers stationed there; indeed they are as inveterate freebooters as can be found on earth.

Five years after the Marcy expedition, the Pecos country had another inspection under army auspices. The increasing migration from the Mississippi Valley California-wards demanded a railroad. The responsive Congress financed five preliminary surveys for an advantageous route. To Captain John Pope went the task of making the survey of the route known as the southern or lower route, his assignment being from Red River to Rio Grande. This party was composed of 75 persons, 8 wagons of 8 mules each, with an extra team of 6 mules, 16 beeves, and 70 head of sheep. The escort included 25 of army rank and file, with others as teamsters or herders. The "office force" was headed by Captain Pope of the Topographical Engineers, with 8 associates, military and civil. As this expedition followed the Marcy route, its diary need not be used to present again the features of the features of the land. Pope's expedition met no serious experiences with Indians or anything else. Its progress was impeded by hunting strayed mules and water and repairing broken down wagons so that they were from February 12 to March 8 in covering the miles between the San Augustin Pass and the mouth of the Delaware.

The table of contents of Capt. Pope's report exhibits clearly his intention to make a series of studies.

- I. Methods of Procuring Data.
- II. General Description of the Country.
- III. Of the Indian Tribes.
- IV. Military Character of the Route.
- V. Agriculture and Natural Resources.
- VI. Of Boring or Digging for Water on the Llano Estacado.
- VII. Construction of a Railroad and its Estimated Cost.
- VIII. General summary, business of the Road, etc.

The appendix, almost as large as the report itself

contains tables of latitudes and longitudes, magnetic variation, altitudes above sea level, and astronomical observations, and of course meteorological observations, together with special reports from professional scientists on the botany and geology and kindred matters. These men took their tasks seriously; hence this report stands as a good epitome of the possibilities of the area.

Captain Pope's report made a good case for the lower route, and in all likelihood it would have gained the Pacific railroad had it not been for the Civil War. The great obstacle, lack of water, might be overcome by a chain of artesian wells. Congress took up this idea and made liberal appropriations for trying out the idea. Captain Pope stuck to his idea for two or three other expeditions, maintaining a large camp on the Pecos at what became known as Pope's Crossing. The site of the well drilling was some 12 miles farther east, at a point marked on the maps as Pope's Wells. Water was found at a depth of 676 feet which rose to within 110 feet of the surface. The Captain held staunchly to the opinion that he could get water to overflow at the surface by further effort. The War Department however decided otherwise and directed him to abandon the Pecos Venture.

His report contained another suggestion, which though made sense, was never tried. It was that the government concentrate on one transcontinental route, and give it adequate military protection through a series of military posts. If the lower route were selected he thought that the mouth of Delaware Creek would be the ideal place for a fort, which would hold the fretful Apache in awe to better advantage than the forts along the Rio Grande and those in Texas. When the emergency came as it did in 1855 and a fort was established east of the Rio Grande, the selection location chosen was on the Rio Bonito in the northern extremity of the White Mountains.

In 1855 the Army assigned to New Mexico was kept busy with Indian disturbances. The Apaches were particularly exasperating, carrying their marauding up as close to Santa Fe as Galisteo and the ranches in the vicinity of Anton Chico. Lieutenant Sturgis of the 1st Dragoons trailed the raiders of the Galisteo ranch, who had killed one man, wounded another, stripped a dozen women and ran off a dozen mules. Lieutenant Sturgis promptly started pursuit, and after traveling 160 miles in 2 days and 3 hours, overtook and attacked the Apaches about 40 miles north of the Capitans. Out of the party of nine Indians three were left dead on the

field; four others badly wounded. Of Lieutenant Sturgis' party, three soldiers were wounded, one of whom afterward died and one of the citizens in the party received an arrow wound. The stolen stock was recovered.

In the raid upon the ranch on the upper Pecos, the Indians seemed to add insult to injury. At any rate there was a concerted effort to give them a lesson they would not forget. Captain R. S. Ewell was directed to take from the Las Lunas camp a force of 85 men and follow the trail of the Indians down the Pecos. The general belief was that they would make for their haunt in Dog Canyon on the east side of the Sacramentos. They would likely make for its protection by the back way up the Penasco. Captain Ewell was to be joined by a force of 805 from Fort Fillmore under Captain Stanton. Evidently the army meant business and the outcome was a decisive defeat for the Indians in what is called the Penasco fight of February 18, 1855. To escape the aridity of an army report, we may get an impression of this fight from the diary of Sergeant James Bennett, recently published under the title "Forts and Forays". From his unstudied account, we may realize the hardships and privations of an enlisted man in the dead of winter in the mountain section.

January 1, 1855 - Traveled 20 miles yesterday along the Rio Pecos, which is a deep muddy stream with very high banks. Today went 22 more miles and camped in a beautiful walnut grove. Such trees grow only in the richest soils. This is a very fine country with the streams lined with walnut groves. Passed at least 6,000 sheep.

January 4, 1855 - Down the river all day yesterday. Found it increasing in size. No more timber to be seen. Today left Rio Pecos and went towards the Sierra Blanca range. At dark, struck Rio Ruidoso, a very pretty mountain stream, emptying into the Rio Pecos. The banks are covered with walnut trees, grapevines, etc.

January 7, 1855 - Up the Ruidoso past three days. Once thought we espied an Indian running in the bushes. Found nothing. Met Captain Stanton with 150 men from Ft. Fillmore. Encamped.

January 9, 1855 - Left the river, crossed a spur of the mountains. Camped at a Spring last night. Found two beef cattle lost by Indians. Woke up this morning. Found the wind had blown away my hat. Looked an hour; found it in a crevice of rock 1/4

mile from camp. Horses frightened during the night. Suppose it was Indians.

January 10, 1855 – Rio Penasco. Camped under a ledge of rocks forming an excellent barricade. Rested ourselves and our horses.

January 11, 1855 – Moved up the river and into the mountains. Very little grass here, so on account of our horses and mules we rested today. Camped in a ravine. High rocks are upon both sides. 11:00 o'clock at night a dozen rifles cracked and a score of arrows came flying into our camp. The dry grass was set on fire around us. Our horses stampeded, running in all directions. With a great deal of trouble, we got them together. Remained quiet until morning.

January 19 – On the mountain in front of us at daybreak appeared about 100 warriors. They were dancing around a fire, "halloing" and seeming to be daring us one. We saddled our horses, took no breakfast, mounted in pursuit. The main body of troops moved up the stream and small parties of Dragoons kept charging after parties of Indians. A running fight was kept up until 4:00 o'clock when we encamped.

Captain Stanton with 12 men rushed up a deep ravine. The Indians in ambush fired upon him. He fell, a ball having passed through his forehead. One private soldier also was killed. The party turned to retreat. The horse of one man fell wounded. The Indians gathered around him and filled the rider's body with arrows. Those in camp heard the firing, ran to the rescue, met the Indians, had a hard fight of 20 minutes, when the red men fled. We picked up the dead and brought them into camp. Two ponies came running into camp. They were covered with blood, showing that their Indian riders had fallen.

At night outposts were established 1/4 mile in each direction from camp. The dead bodies were buried and fires built over the graves to obliterate all marks of the burial place. I was just far enough from camp to hear the spade and pickaxe as they struck stones. The night was as dark as "Egypt". I was lying alone upon a blanket, waiting and watching anxiously, the approach of the foe. I heard the noise of something coming very stealthily through the bushes. The dry leaves rattled. My nerves were at their utmost tension, when I was pleased to discover the intruder to be a large white mountain wolf, easily

frightened off. No Indians were to be seen in the morning.

January 21 – Went up the river. Camped last night at the head. Animals are dying fast, 8 to 12 per day. No one of our number has ever traveled this country before. It is nothing but snow and ice. We traveled less than 4 miles before we camped again.

January 23 – Turned back yesterday. Saw 4 Indians in the distance but they soon disappeared. In crossing a stream we lost nearly all of our packs of provisions. Those who couldn't ride became bare-footed, and to make matters worse the road was strewn with sharp fragments of rock. The Indians have been burning the grass upon our route.

Came to where we buried Captain Stanton and the two men. Found the bodies torn from the grave; their blankets stolen, bodies half-eaten by wolves; their eyes picked out by the ravens and turkey-buzzards. Revolting sight. We built a large pile of pine wood; put on bodies; burned the flesh, took the bones away.

January 26 – Down the river (Rio Penasco) losing animals fast. The Apache Indians tried to burn us out of camp last night. Saved ourselves by burning a circle around the camp. Rio Ruidoso again, where we parted company with Company B 1st Dragoons, the Infantry, etc.

We went down the Rio Bonita or Pretty River. As the name signifies, it is a beautiful stream.

January 29 – By a small lake, traveling on foot, horses are scarcely able to walk alone. We are to remain here at Patos, a fine spring in the middle of a Juniper grove. 16 horses and 7 mules died on the road today. Here are some old ruins, pieces of pottery, stones for grinding corn, and old burying ground, etc. We have sent for provisions and forage for our horses.

February 2 – No mistake about it – we are living on a light diet. Killed our last beef; flour is gone, we have no shoes. It is hard fare. We have decided to call this Camp Starvation.

February 8 – Crossed the mountains barefoot over sharp rocks and ice. There is nothing to ride. Crossed the Rio Grande and came to Las Lunas, where we are all glad to be once more in our quarters,

cleaning up and getting new clothing.

February 10 – Started with the remains of Captain Stanton to go to Fort Fillmore.

Alarmed by the disaster on the Penasco, the Mescaleros through their chief Palanquito, sued for peace. They promised that they would raid no more upon the Mexicans but would stay peacefully upon a reservation. In order to get their good will, Governor Meriwether designated as their domain the entire Penasco Valley, a strip 27 miles wide extending from the Sacramento mountains to the Pecos River. The Apaches to a considerable number began to settle in the valley, but as a good many seemed inclined to the old mode of living, the army lost no time in establishing a new post more eastward than this along the Rio Grande. When Sergeant Bennett revisited the Bonita in March, 1855, he wrote in his diary:

March 19 – Came upon the Rio Ruidoso and followed it down to the junction of the Rio Bonito, which we followed upstream for 20 miles. Arrived at an encampment of United States soldiers, 300 men under the command of Lieutenant Dixon S. Miles. They are here for the purpose of building a fort to be called Fort Stanton in commemoration of the the Captain who was killed three months ago. General John Garland selected the site for the fort today. The Officers all got drunk.

Six months later Bennett noted rapid progress in construction of the fort.

August 13 – Arrived at Fort Stanton via Manzano, Gallina Spring and Patos. The fort is now going up fast. Quarters are already built for 8 officers, 1 company of men, a guard-house, the commissary and quartermaster's store rooms, etc. Soldiers are all at work.

II

We have found that the mountain first to come into general attention was land along the border. The

demand for a road across the nation was checkmated by the Civil War; interest shifted towards the northern-most mountains. Mexican infiltration had already begun even in the fifties. The establishment of Fort Stanton had much to do with bringing the White Mountains under settlement, with a few Americans interspersed. As Captain Pope had pointed out, military posts encouraged settlers both by added security from Indians and by affording a market for produce. This theory was well exemplified by the town of Lincoln.

Either shortly before or after 1855-56 (the date of founding Fort Stanton), a company of Mexicans from Socorro County came across the Oscuras and over into the Bonito Valley, where they made a small settlement with the elaborate name La Placita del Rio Bonito, shortened to La Placita or Bonito Plaza. The leader was one of the two brothers Trujillo; his fellow settlers bore surnames like Miranda, Salazar, Chaves, Gonsales, Sanches, Baldoferdo, Gomez. With them however were three Americans, Reese, Hughes, and Beckwith who incurred attention from the military map-makers. None of these maps indicate a settlement; one shows three farms in the 15 mile stretch between Fort Stanton and the Junction (modern Hondo); one of the names is indecipherable, but the other two are clearly Beckwith and Reese . . . This mingling of the two elements, Mexican and American, was from the first a distinctive element in Southeast New Mexico. In the 1880's the balance was even between the races, while in Dona Ana it was 4 to 1 in favor of the Mexicans. Tradition has it that some of this group ventured down the Hondo and formed a settlement about 15 miles from present Roswell. This is generally spoken of as Missouri Plaza but probably bore a Spanish name, like San Jose. The word Missouri was used by the Mexicans, so averred J. Francisco Chaves in the 1890's because several of the Mexicans had distinguished themselves as travellers by freighting to and from Kansas City. This colony on the Bonito was prolific, and in the course of a few years the Ruidoso valley had two settlements, San Patricio and La Hunta at the junction of the Ruidoso, and Bonito forming the Hondo. Along the Hondo were ranches with occasional settlements like Bokia and Redepente, which early became extinct from diminished water supply owing to enlarged irrigation along the upper Hondo.

Mingled with the Mexican pioneers were some of the American breed who set the pace in American ways. A.M. Clenny had a store at the Junction; John Newcomb was a large rancher on the Ruidoso; and Joe Storms was a farmer on the Hondo. Prosperity came easy in those

days. The government was willing to pay high prices for supplies for Fort Stanton and the Indians. Corn sold at times at \$2.50 a bushel; Joe Storms is said to have made a record sale in 1866 by selling to the Fort 1,000 fanegas of corn at \$10 a fanega, in American money \$4 a bushel.

After the end of the Civil War, Fort Stanton underwent costly repairs and enlargement, these activities bringing in workmen and laborers. It was also the mustering out point for soldiers, many of whom, seeing the possibilities of the country, became residents. Two ex-officers, Major Lawrence G. Murphy and Col. Emil Frits were acute enough in business to become partners in charge of the post traders store. They soon became the "mercantile aristocrats" of the entire section; their books showing patronage even as far down as the Pecos where the Beckwith Ranch and Chisum's South Spring River Ranch.

In 1869 La Placita had been made their County Seat, and shortly afterwards had been named plain Lincoln. In 1873-74, Murphy & Fitz lost the post traders store and moved to Lincoln, putting up the two story adobe building now known as the Courthouse. Thus Lincoln became the economic capital as well as the political and judicial. The firm, L. G. Murphy & Co., were virtually despots for the whole area, the only competitor being the Chisum brothers on the Pecos, with an extensive range well cattled.

American settlers were steadily increasing, particularly in ranches in the Ruidoso valley. Richard Brewer, the Coes, Frank and his cousin, George, Charlie Bowdre, J. G. Scurlock, and others were permanent settlers in distinction from numbers of transients who became hirelings ready for any sort of job with pay by the day.

Typical of American development was the Casey ranch on the Hondo. Robert Casey came from Texas and settled on the Hondo in or about 1868. On a previous trip with cattle, he had discovered the wide valley of the Hondo above present day Picacho. With the proceeds of the cattle venture, he had bought the improvements on this tract from a Frenchman named Chene, who had put up a grist mill. Casey's Mill was 25 or 30 miles from the nearest settlement. South of the ranch were the Guadalupe, still the favorite haunt of the Apaches. Casey was an ex-soldier who had much experience in Indian scouts, and knew what to do both during and after a raid. On the journey to New Mexico, the Indians attacked him as he came up the Pecos and carried off most of his cattle. He reached Missouri Plaza and then

followed the road up the Hondo until he reached the place he had bought. Through his several activities, farming, cattle raising, and milling, he attained prosperity and influence in County affairs. He was shot on the street in Lincoln just after the close of a Democratic convention by a disgruntled employee in a dispute about wages. As Casey had opposed the dominant political group, some hazard the surmise that this employee had been engaged to involve Casey in a quarrel and then shoot him. William Wilson was convicted of murder; his execution gave Lincoln County its first legal hanging. The ranch is still owned by the third generation of Caseys. The mill, a long time landmark, is gone, but the fields show the application of modern principles of soil and water conservation.

In the eighteen eighties, the mountainous section attained a mining episode of consequence. "Mineral wealth" had been suspected; unmethodical prospecting had been on for years. In 1878 a vagrant prospector from Missouri discovered gold in a gulch, a minor mountain which is now called Baxter's Mountain. In the next year or two, other strikes added to the excitement and the town of White Oaks came into being, its population rising quickly to 1,000 and later to 2,000 or over. More significant than size was the quality of the population. Taking the lead in community tone were new arrivals from Ohio, Missouri, and Kansas, who amply leavened the lump of lawless and adventurous. The town had of course its saloons and gambling places, but it also could display a Congregational Church, an Academy, and a newspaper. The first justice of the peace was Judge Frank H. Lea, brother of Captain J. C. Lea who had taken charge of the two-house settlement on the Hondo known as Roswell. These Lea's rank among the lawbringers of the Pecos Country.

The situation might be accented by quoting from Charles Metcalfe's recollections furnished the Lincoln Leader in later years.

The state coach which brought me down unloaded us at Whiteman's corral on June 11, 1880. The next morning our party started out for Tortolita Canyon, lured by the "rich strikes", which are always in the next camp. John George and Joe Stoneking were camped not far from us, and our nearest neighbors were occupying the old sheep ranch at the mouth of the canyon. They were a select party engaged in various occupations, principally horse stealing. The most prominent member of the crowd was "Billy the Kid" while O'Folliard and Rudabaugh, Wilson, and nearly a dozen others were lesser lights, but none

the less adept at borrowing horses. I am quite glad I saw the Homestake mines in their infancy; that I saw the first coal prospect, a hole not knee deep; that I set the first stick of type ever at county of Lincoln in the Office of the Golden Era.

Following the ranges southward, we pass from the White Mountains to the Sacramentos. The settlements sprang up at the mouths of the canyons, from which issued the streams. Dog Canyon, the Apache stronghold, became part of Oliver Lee's first ranch, his brand being the Circle Cross. El Alamo Canyon furnished in later years the water supply of Alamogordo. The stream called Agua del Nostra Sonora de La Luz, shortened generally to La Luz, was the occasion of later settlement, largely Mexican. Tradition has it that much earlier Mexicans or Spaniards had made a settlement there — perhaps established a mission. The old maps after the American occupation show a Presidio, which implies a military post at some time.

At the mouth of the fourth of these canyons, the stream Rio Tularosa determined the settlement known as Tularosa, which had important relation to the settlement of the Sacramento mountains sector. The first wave of settlers came from Dona Ana county in 1862 because of a flood in the Rio Grande which had destroyed their property. Already established near the head spring was an American sawmill, which seems to have been in operation during the 50's when lumber was in demand for Fort Bliss. The mill passed through several ownerships; at about the close of the Civil War, it became the property of Dr. J. H. Blazer, who managed to keep friendly with the Indians. When the reservation was set aside in 1873, New Mexico law provided that the rights of bona fide settlers should be protected against the Indians and other persons. In this way the Blazer ranch and mill were private property, although inside the reservation. Recently however, the property and its water rights have been sold to the reservation.

In the town of Tularosa there were two large stores, those of Pat Coghlin and of Goldenberg Bros. Coghlin also operated an extensive ranch in the Three Rivers country. Business was good in Tularosa because of its location in the going and coming between the Pecos country and the Rio Grande towns like Mesilla and Las Cruces. It had the advantage of being a crossroads where a traveller might take either of two routes. If he wished to reach Lincoln and Fort Stanton, he would go up the Tularosa and through the Indian

reservation and then down the Ruidoso. If the traveller wished to go across the Sacramentos and down into the Penasco country, he would use one of the canyons on the east slope of the mountains. Tularosa was a way station on cattle drives into Arizona and beyond. If once they started from the vicinity of Roswell, it would follow the Hondo and Ruidoso; cross the Divide in the Mescalero reservation, then descend into the Tularosa basin, pausing at Tularosa to recruit supplies, especially water, for the 60 mile *jornado* around the White Sands. If a herd came up to Seven Rivers, it would be brought up through the Penasco valley to the crest of the mountains and then down one of the less precipitous canyons.

Along the Tularosa between the town and the head of the river in the Indian reservation, several Americans had ranches. There was a good deal of friction over water rights between the three claimants, Indians, Mexicans, and Americans, to the water. A particularly noted ditch fight occurred in 1873, which involved the appearance on the scene of soldiers from Fort Stanton on the side of the Americans. The grand jury at Mesilla censured the interference of Capt. McKibben as "unwarranted and tyrannical conduct, which caused the murder of citizens."

On the east side of the Sacramentos, the Penasco valley was of cardinal importance. It had been appropriated to the Indians, as we have seen, in the fifties, but the Indians after the Civil War were willing to accept the smaller reservation on the Tularosa. Though they were not unanimous about the change, they were largely eliminated from ownership of the fertile valley. At once there was a rush of American settlers willing to incur, if need be, the Indians' disfavor.

An idea of the experience of settling on the Penasco may be had from the account of Mr. Ralph Bates, which was told Mr. Fred Briffin of Elk P. O. for a newspaper write up in 1937.

"When we came to the country there were two Penasco settlements: Upper and Lower Penasco. The settlers living on the Penasco were: Bob Dixon (below Walnut Grove), Buck Powell, "Widow" Copeland (Her husband John was living in the Hondo,) Jim Walters, John Preston (half brother of Buck Powell) Bill Henton, George and Walker Paul, and Tom Tillotson. We settled just west of Tillotson (who was a bachelor then, with Widow Kepler and her sons farming his place).

At the sinks of the upper Penasco were: Jimmy and Albert Warren and their father (Miles Bros. bought out the Warrens and established the J MIL ranch), Robert McGee, Al Coe, Grandpa Mahill, John James (who killed Sutton and Nixon), Grandpa Curtis, and Old Man White, father-in-law of Curtis.

During the round-up in '83, many stray men came from other communities to get their strays and drive them back to their home range. Among the Seven Rivers men who came that year were Corn, Fanning, Nelson, Woods and Burdette. Sub-chief Three-Finger Charlie and his band of Mescaleros had come down from the reservation to gather mescal and were camped in front of our house. Three-Fingered Charlie carried a written permission from the Indian Agent saying that he was in the custody and under the protection of Billy Mathews until he returned to the reservation.

The Seven Rivers men were sore at the Apaches because of Indian depredations a short time before. The cow men formed a skirmish line and prepared to attack the Indians, who retreated to the top of a knoll just west of where Elk school house is now. Billy talked the men out of attacking, and if he hadn't interfered there would surely have been a fight.

In the fall of '85, James F. Hinkle came into the country to help organize the Penasco Cattle Company and establish the C A Bar Outfit. I helped trail a C A Bar herd to Las Vegas in the fall of '88. Buck Powell was trail boss; Jim Smith was cook, Joe Smith was cook, Joe Medina was horse wrangler, and the punchers were myself, Lai Berry, Will Smith, Henry van Bosse, George Reeves, Will Taylor and another whose name I cannot recall.

When asked the most striking change that had come in the 56 years he had lived on the Penasco, he replied, "Good roads and rapid transportation. I came here driving a team of steers; now I drive to Roswell in about two hours, loaf around town until late in the afternoon and drive home and turn on the radio and listen to voices in Washington, Denver, Dallas, Los Angeles."

The Guadalupes, in the earlier times, were the disreputables among the mountains. They did not attract either Mexican or American settlers. Not so the Apaches. They continued in undisturbed possession of the rug-

ged canyons and caves. From their resorts the Apaches descended viciously upon the settlers in southwest Texas. Soldiers from the military posts along the Rio Grande would pursue them to the entrances of their strongholds. In the resulting fights, the Indians sometimes carried off the honors; at other times, the soldiers had the best of the fight.

Mexican settlers filtered in, mostly from the Rio Grande valley, either from the Mesilla Valley or the towns below Paso del Norte. The Salt Lakes were used freely by the Mexicans; it was a natural next step to make rancherias on the fringes of the Guadalupe, where they might find level country with good grazing conditions.

The American element held the Guadalupes in disdain, allowing them to become scantily inhabited by strange characters, the flotsam and jetsam of the frontier,—men, and sometimes women, on the dodge, hunters for hidden treasure or lost mines, or those wanting to escape the trammels of society by living the hermits life. As Jack Thorp remarks in "Partners of the Wind", "Probably more stage coaches carrying shipments of gold and ambulances carrying payroll money were held up between the point of the Guadalupes and Red Bluff on the Pecos River than in any area of similar size in the United States". Treasure hunters have been diligent in the Guadalupes and occasionally had returns for their searching. The Sublett gold is fabled to have come from the Guadalupes, but the source of the nuggets old Ben Sublett carried with him to El Paso in a rickety buckboard remains undiscovered.

III

The Pecos Valley divides naturally into highland and lowlands. The river itself is bounded on the east by the bluffs of the Staked Plains; on the west by the mountains. The valley was covered with an abundance of grama grass, and was watered by almost a dozen tributaries of the Pecos, all of which flowed from the west. As Mr. S.L. Roberts says in his article "Fifty Eventful years" printed in a Carlsbad newspaper, "The country was truly a 'cow man's paradise' except that the Indians made some trouble, and feuds like the Lincoln County War and lesser affairs, with and without honor, made living somewhat difficult at times."

After the close of the Civil War, the cattlemen of Texas appeared in the Pecos Valley en route generally to the market at some army post or Indian

reservation. This was the inducement that led John S. Chisum and his brother Pitser to bring their herds. When Fort Sumner closed down, the Chisums decided to settle at Bosque Grande and acquired that camp from James Patterson, the first settler there. In 1874, Chisum had another transaction with Patterson by which he purchased for \$2500 paid in cattle the property on South Spring River, previously Hudson's ranch.

The Hondo was always popular with American settlers. The Mexicans extended their settlements as far as Missouri Plaza. Sam Lloyd had a ranch between the Plaza and South Spring, as well as a store at the crossing on the Pecos north of Roswell named Lloyd's Crossing. Six miles from Chisum's South Spring ranch was that of Van C. Smith and his partner Aaron Willborn. Smith had arrived in 1869 or 70, with elaborate ideas for his ranch. He bought a one-room adobe and enlarged it by three more; he then built another house of about the same dimensions. The first house became a store; the second, living quarters for the owners and a lodging house for wayfarers. Smith and Willborn also put up corrals and outbuildings. Irrigation ditches brought water from North Spring River. Smith and Willborn prospered by taking from the passing herds stock in payment for supplies. Smith however grew restless and deserted the ranch for the pleasures of Santa Fe. Willborn also let things slide. The property eventually passed into the hands of Marion Turner and John Jones, both prominent in Lincoln County troubles on the Murphy side. In 1878 the property passed on to Captain J. C. Lea, who came to New Mexico from Missouri. Captain Lea continued the store and started a sheep ranch. He soon changed to cattle raising, but not doing well with the Lea Land and Cattle Company, he turned town builder and started Roswell.

Chisum in the meanwhile sold out his cattle to Hunter & Evans in 1875, and planned to develop his extensive place into a farm, large enough to be called a plantation. The Lincoln County turmoils caused him to move his cattle to a location on the Canadian River, but when peace and quiet began to reign, he returned.

Ninety miles down the Pecos where the Seven Rivers unite and for a few miles continue as one river, there was another assemblage of ranches, in number larger than those on the Hondo. The early ones were those of R.M. Gilbert, Garland, Reed Brothers, and H.M. Beckwith and Sons. Within a radius of 40 miles southward were other ranches owned by "small cattlemen", - really cow camps. Paxton & Pierce's was one

of the more prominent, but ominous so far as Chisum's interests were concerned was the Murphy-Dolan cow camp in charge of W.S. Morton, a desperate character, and having on the payroll four outstanding members of the cattle-stealing fraternity, "Captain" Jesse Evans and his lieutenants three, Frank Baker, Tom Hill, and George Davis. The inference of course is that the Chisum herds ranging almost to the Texas line would be prey to their maraudings. Insight into the situation came to Governor Lew Wallace from William Bonney (or Billy the Kid) in a communication, the last page only being preserved in the Wallace papers. This piece of writing indicates not only the young man's literacy but his alertness to the noisome situation in the vicinity of Seven Rivers.

On the Pecos, all that I can remember are the so-called Dolan outfit. Cris Moten, I believe his name is, drove a herd of 80 head in December '77 in company with Frank Wheeler, Frank Baker (deceased), Jesse Evans, George Davis alias Tom Jones, Tom Hill, his name in Texas being Tom Chilson, also deceased. They drove the cattle to the Indian reservation and sold them to John Riley and J.J. Dolan, and this cattle were turned in for beef to the Indians.

The Beckwith family made their boasts that they came to Seven Rivers a little over four years ago with one milch cow borrowed from John Chisum. They had when I was there in '77 one thousand six hundred head of cattle. Robert Beckwith was killed at the time McSween's house was burned. Charles (Kruling), Robert Olinger, and Wallace Olinger are of the same gang. The Beckwith family were tending to their own business when this war started but G.W. Peppin told them that this was John Chisum's war and so they took a hand, thinking they would lose their cattle in case that he (Chisum) won the fight.

Paxton and Pierce are still below, forty miles from Seven Rivers. There are four of them Paxton, Pierce, Jim Ramer, and Buck Powell.

Those named in the above were residents, more or less. The Jesse Evans crew however represented a vagrant class ready to steal cattle or to commit murder. The Lincoln County troubles attracted a large number of this class, whose presence was evident at Seven Rivers. That section afforded first rate hideaways for their activities. In Governor Wallace's clean-up in 1879, his instructions to the military detachments put

particular emphasis upon the extirpation of these congregating places.

I cannot hope to get them all on account of the nature of the country, which for brigandage is better even than northern Italy. If however I should be fortunate enough to get all the list, it would be no more than taking the leaves of the evil of cattle stealing. To dig up the roots it will be necessary to crush a number of cattle camps—such as Slaughter's, Beckwith's Shed's and thoroughly cleanse the region about Seven Rivers. These are the places from which the thieves and murders issue to do their work, and when the work is done they return for rest, safety, and to unload their plunder of whatever kind.

The military were useful in suppressing lawlessness, but as Governor Wallace and citizens like Capt. Lea and John Chisum realized, the better solution was an awakened public opinion insistent on better law enforcement. The Governor highly approved the selection of Pat Garrett for sheriff of Lincoln County. As M.A. Upson wrote in 1892, in a series of articles "Roswell; Past, Present, and Future":

Capt. P.F. Garrett, who was called here from Fort Sumner during the Lincoln county war by the then Sheriff(Kimbrell) to assist in the suppression of thieves, murderers, and "rustlers" generally, and was afterwards elected sheriff, most effectively eliminated the objectionable element. His summary measures restored peace and quiet to the Valley. He killed Billy "the Kid" as he could not arrest him, and arrested, killed, or drove from the Territory some scores of marauders. He settled five miles east of Roswell, where he accumulated by entry and purchase, some 1,500 acres of land and established one of the best ranches in the county. He was a most public-spirited citizen. To his exertions and influence must be attributed some of our most important improvements. The Pecos Irrigation and Improvement Company owes its origin to him. He was the ruling genius of the organization, and a very important factor in its success.

With the plague of lawlessness removed, the towns along the Pecos awaited the solving of other problems incident to their increased welfare. The large cattle companies made their appearance under a general boom in cattle. This brought into the Seven Rivers section in 1881 the Eddy brothers, representing the Eddy-Bissell Cattle Company of Colorado which used the VVN

brand. They acquired land in the vicinity of Loving's Bend, 15 miles south of Seven Rivers.

The arrival of Charles D. Eddy, the head of the cattle company was a notable event. Mr. S.I. Roberts description of him follows:

Charles B. Eddy was a restless, pushing personality and considerable of a promoter, and his mind was capable of taking in many things at the same time besides the basic one of stock. The cattle business was prosperous, and Mr. Eddy, with his associates, conceived the idea of harnessing the Pecos River and using the water for irrigation of the fertile lands new embraced in the "Carlsbad Project". Thus far raising food stuff for cattle and fruit were distinctly crude and limited undertakings, but they pointed the way with a clear vision to what was finally to come to pass from the mesquite and catclaw of the primitive range country.

In 1887 the Pecos Valley Land and Ditch Company was organized, the incorporators being Charles B. Eddy and his brother John Arthur Eddy, with others like Joseph S. Stevens, Elmer R. Williams and Arthur A. Mermod, all capitalists, and several Easterners. Early in 1888 a diversion dam was placed across the river near the site of the present Avalon Dam. A few years later, the fertile mind of Eddy conceived the idea of a town to supplant Seven Rivers, the old supply depot of the trail days. In 1889, the Pecos Valley Town Company was organized by Joseph C. Lea (of Roswell) Charles B. Eddy (of Seven Rivers) Arthur A. Mermod (of St. Louis) Patrick F. Garrett (of Roswell). A town site was laid out, streets and parks plotted, trees planted, buildings started, and the town of Eddy(now Carlsbad) came into being. Strong new blood came in shortly, in Charles B. Greene of Santa Fe. The New Mexican had heard of the development along the Pecos and sent Greene on a tour of the valley. He grew enthusiastic and asked for an interest, promising to get more capital. This promise he fulfilled, for largely through his efforts the interest was secured of such men as J.J. Hagerman, R.W. Tansill, Joseph S. Stevens, William F. Dominice, C.L. Otis, and others, all of whom stood high in the financial and business world. All this was before the day of government reclamation projects, and may rightfully claim to be the first large irrigation venture in the United States.

In the eighties, Roswell rendered its contribution to the problem of water. The cattle trails which had

brought the town into being took newer directions leaving the Pecos Valley "out of it".

As early as 1877 (so writes M.A. Upson) a few immigrants had found their way to this agricultural El Dorado and commenced the settlements of the Farms, as the area east of Roswell was named. W. H.H. Miller was one of the first to locate. A.K. Dale, A.B. Liles, W.M. Crow, M.V. Corn, Wm. Holliman, James Hampton and others soon followed.

Only a limited portion of the vast surrounding acreage could be advanced from mere grazing land into agricultural use. An area about the size of Maryland (under one computation 6,749,485 acres) would become open to homesteading provided some addition to the surface waters could be found. In the fall of 1888, the first dirt was moved in the Northern Canal of the Pecos Irrigation and Improvement Co. at Garrett's ranch, five miles east of Roswell. As M.A. Upson put it in 1892, this work had been steadily progressing until then it was completed as far as Rio Feliz and would supply water to irrigate 200,000 acres of land.

In 1890 the agricultural prospects were greatly brightened by discovery of artesian water almost purely by chance. Mr. Nathan Jaffa was the unwitting means to this end. When he first came in the 80's, he had much trouble about drinking water. The surface wells were inclined to be brackish and rain water was scarce. Finally in 1890 he determined to go deeper than had been customary and engaged William Hale, the owner of the first well drilling machine in the country, to do the work. At the depth of 250 feet, the drill went into hard limestone and water "as pure as ever gladdened the throat of man", as the newspaper put it. It went on to say "the little frontier town went wild and such water meant more to the people than a streak of placer dirt."

Having made conquest of two drawbacks to development, namely lawlessness and lack of water, the Pecos Country was ready to face a third, increase in transportation facilities. Sheep and cattle had posed no special problem for they could reach market under their own power, but products of fields and orchards insistently demanded railroads. The Santa Fe had progressed into the Rio Grande Valley, thus enabling Roswell to obtain its supplies by freighting from Las Vegas, 200 miles away. Eddy was receiving supplies by freighting from Pecos City on the Texas and Pacific, also 200 miles distant.

C. B. Eddy, perceiving the need, started a railroad from Pecos City. This was completed with the assistance of James J. Hagerman to the town of Eddy in 1891. It was later built through to Roswell and ultimately to Amarillo, where it connected with the Santa Fe. As Mr. S.I. Roberts describes it in his "Fifty Eventful years' article,

The pioneer railroad was built by the same men who owned the Irrigation and Development Company. It was necessarily a crude affair perhaps, though it solved the problem of bringing in building material and supplies of all sorts. Some smart Aleck and would-be funny fellow named it "The Pea Vine Railway", using the initials P.V. Ry. as the basis of the witticism. Mr. J.J. Hagerman was president and general manager and took an active part in the transition into a developing country.

Here the story of early days in the Pecos Valley must be approximately closed with the epochal year 1890. The spirit of early settlers was epitomized by one of them, M.A. Upson, in the *Roswell Record*.

The struggles of farmers and citizens to secure foothold and subsistence as a strain upon their energy, persistence, and patience. No market for their products of their farms, they were forced to subsist upon those products, and citizens were obliged to take such products in payment for their labors, yet all were imbued with the conviction that they had found a climate and soil which perseverance would render remunerative — they persisted, and the result has realized their most sanguine hopes. They were forced to use the most crude implements — they lacked work-stock and all modern machinery — but the will, the nerve of the strong hope sustained them: and their reward is that they challenge the Territory today, 1892, to compete with them in the production of grasses, fruits, roots, or any class of products adapted to our climate. Look at the scores of private irrigating ditches which rib the environs of Roswell. Most of them were excavated by these pioneers with the help of a few plow-horses and cattle, and with shovels and hoes in the hands of brave men who refused to accept conquest, when it was but a matter of manual labor, courage and nerve.

In this review of the earlier stage of the Pecos country, the manifest purpose has been to exhibit the people behind the achievements. One by one they came, built homes, took up the tasks of life uncomplainingly, in

many cases with true heroism. In every day and hour each was a maker of history. Not one thought this was the fact, but the total of the daily toil, the struggles, hopes and accomplishments, of them and their neighbors, make a page of true history for their time and place.

In some ways the story is grim and forbidding. As Hon. L.O. (Lew) Fullen, observant and eloquent lawyer, pointed out in his address at the old timers reunion in 1908, "You cannot separate good and evil, without

destroying the great whole; and if you could, you would shatter the old adage that out of great evil much good can come. The graves of men who gave their lives to make possible this day, dot the surface of our earth. Some died battling for the right; others because they battled against the right, order and law. Yet from all this has come a great land, a great people, a great hope; and no man no matter how keen or prophetic his vision, can pierce the veil draping the future years, and say how great the possibilities and things that are still to come will be."

SELECTED BIBLIOGRAPHY

(Guadalupe Mountains & Delaware Basin Region)

- Adams, John Emery, "Oil Pool of Open Reservoir Type," *Bull. Am. Assoc. Petroleum Geologists*, Vol. 20, No. 6 (June, 1936), pp. 780-796.
- Adams, John Emery, "Upper Permian Ochoa Series of Delaware Basin, West Texas and Southeastern New Mexico," *Bull. Am. Assoc. Petroleum Geologists*, Vol. 28, No. 11 (November, 1944), pp. 1596-1625.
- Adams, John Emery and Frenzel, Hugh N., "Capitan Barrier Reef, Texas and New Mexico," *Jour. of Geol.*, Vol. 58, No. 4 (July, 1950), pp. 289-312.
- Bates, Robert L., "The Oil and Gas Resources of New Mexico," *New Mexico Bureau of Mines and Mineral Resources Bull. No. 18, Second Edition, Socorro, New Mexico, 1942.*
- King, P.B., "Geology of the Southern Guadalupe Mountains, Texas," *U.S. Geol. Survey Prof. Paper 215, 1948.*
- King, Philip B., "Geology of the Southern Guadalupe Mountains, Hudspeth and Culberson Counties, Texas," *U.S. Geol. Survey Oil and Gas Investigations Preliminary Map 18, 1944.*
- King, Robert E., "Resume of Geology of the South Permian Basin, Texas and New Mexico," *Bull. Geol. Society of Amer.*, Vol. 53, No. 4 (April, 1942), pp 539-560.
- King, Robert E., "Stratigraphy and Oil-Producing Zones of the Pre-San Andres Formations of Southeastern New Mexico," *New Mexico Bureau of Mines and Mineral Resources, Bull. No. 23, 1945.*
- Kroenlein, George A., "Salt, Potash, and Anhydrite in Castile Formation of Southeast New Mexico," *Bull. Am. Assoc. Petroleum Geologists*, Vol. 23, No. 11 (November, 1939), pp. 1682-1693.
- Lahee, F.H., "Bioherm and Biostrome," *Bull. Am. Assoc. Petroleum Geologists*, Vol. 16, No. 5 (May, 1932), p.484.

- Lang, Walter B., "The Permian Formations of the Pecos Valley of New Mexico and Texas," *Bull. Am. Assoc. Petroleum Geologists*, Vol. 21, No. 7 (July, 1937), pp. 833-898.
- Link, Theodore A., "Theory of Transgressive and Regressive Reef (Bioherm) Development and Origin of Oil," *Bull. Am. Assoc. Petroleum Geologists*, Vol. 34, No. 2 (February, 1950), pp. 263-295.
- Lloyd, E. Russell, "Capitan Limestone and Associated Formations of New Mexico and Texas," *Bull. Am. Assoc. Petroleum Geologists*, Vol. 13, No. 6 (June, 1929), pp. 645-658.
- Lloyd, E. Russell, "Pre-San Andres Stratigraphy and Oil Producing Zones in Southeastern New Mexico," *New Mexico Bureau of Mines and Mineral Resources, Bull. No. 29, Socorro, New Mexico, 1949.*
- Maley, V.C., "Humble Deep Test, Apache Mountains, Culberson County, Texas," *Bull. Am. Assoc. Petroleum Geologists*, Vol. 29, No. 3 (March, 1945), pp. 280-281.
- Maley, V.C. and Huffington, Roy M., "Cenozoic Fill and Evaporite Solution in the Delaware Basin, Texas and New Mexico," *Bull. Geol. Society of Amer.*, Vol. 64, No. 5 (May, 1953), pp. 539-546.
- Newell, Norman D., et al, "The Permian Reef Complex of the Guadalupe Mountains Region, Texas and New Mexico," *W.H. Freeman and Co., San Francisco, 1953.*
- Roswell Geological Society, "Permian Stratigraphy of the Capitan Reef Area of the Southern Guadalupe Mountains, New Mexico," *Guidebook for Field Trip No. 4, May 18 and 19, 1951.*
- Skinner, John W., "Correlation of Permian of West Texas and Southeast New Mexico," *Bull. Am. Assoc. Petroleum Geologists*, Vol. 30, No. 11 (November, 1946), pp. 1857-1874.
- Stead, Frederick L., "Delaware Basin May be Next Major Oil Province," *World Oil, West Texas-New Mexico Issue*, Vol. 137, No. 5 (October, 1953) pp. 142-152.
- West Texas Geological Society, "Guadalupe Mountains of New Mexico-Texas," *Guidebook for Spring Field Trip, May 30-31, 1947.*
- West Texas Geological Society, "The Permian Rocks of the Trans-Pecos Region," *Guidebook for Field Trip No. 4, November 6-9, 1949.*
- West Texas Geological Society, "Sierra Diablo, Guadalupe, and Hueco Areas of Trans-Pecos Texas," *Guidebook for 1953 Fall Field Trip, November 6-7, 1953.*